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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 Congress Street, Suite 1100
BOSTON, MA 02114-2023

**CERTIFIED MAIL - RETURN RECEIPT REQUESTED**

AUG 31 2005

Scott Alfonse, Director
City of New Bedford
Department of Environmental Stewardship
133 William Street
New Bedford, Massachusetts 02740

Re: Approval for Risk-Based PCB Cleanup and Disposal under 40 CFR §761.61(c)

Dear Mr. Alfonse:

This is in response to the City of New Bedford (the City) application for approval of a risk-based plan to address PCB-contaminated materials at the property known as the McCoy Field, located on Hathaway Boulevard, New Bedford, Massachusetts (the Site).[1] The Site contains PCB-contaminated materials that exceed allowable PCB levels under the federal PCB regulations at 40 CFR §761.61.

The City has proposed to construct a school on the Site and has submitted a proposed cleanup plan that includes the following major activities:

- Removal and off-site disposal of PCB-contaminated soils with PCBs greater than or equal to 100 parts per million ($\geq$ 100 ppm) in the excavation areas;
- Installation of at least two (2) feet of clean granular/soil cover in paved areas and at least three (3) feet of clean soil cover in landscaped areas;
- Installation of at least two (2) feet of clean material, a passive vapor ventilation system and solid vapor barrier in the building footprint;
- Establishment of institutional controls and deed restrictions, including recording an Activity and Use Limitation to restrict exposure to soil and disturbance of soil at the Site; and
- Establishment of a long-term monitoring plan for groundwater and indoor air quality, and a maintenance and monitoring plan for the surface covers (caps), including the building floor.

SDMS DocID 489597

[1] Information was submitted on behalf of the City of New Bedford by BETA Group to support a risk-based cleanup and disposal approach for PCB remediation waste under 40 CFR §761.61(c). Attachment 2 provides a list of supporting information for this request. These submissions will be referred to as the "Application."

EPA published notice soliciting comment on the *draft* approval in the *New Bedford Standard Times* on June 14, 2005 and held an informational meeting on June 22, 2005. EPA received two sets of written comments on the technical remedial design and risk assessment methodology. These comments and EPA's responses are included as Attachment 3.

In the attached Approval Conditions, Attachment 1, EPA has added conditions for characterization and remediation of the New Bedford High School, potentially affected nearby private properties and athletic fields, and the existing Keith Middle School. (The wetlands adjacent to the Site will be cleaned up under a separate approval.) In consideration of the public comments received, EPA is requiring that sediments and vent gases be monitored under the long-term monitoring and maintenance implementation plan (MMIP).

As you are aware, the City commenced erection of the structural steel for the new school prior to the issuance of this Approval. In response to EPA concerns, the City wrote on June 14, 2005, to state that the construction work would not disturb PCB contaminated soils nor compromise the City's ability to comply with the conditions of the final Approval. At that time, EPA informed the City that any construction prior to issuance of an approval would be at the City's own risk. Note that Approval Condition 9 requires the City to notify EPA in writing of the scheduled date of commencement of on-site activities at least three business days before conducting any work under this Approval. As provided in Condition 10 of the Approval, the issuance of the Approval does not affect EPA's authority to take enforcement or regulatory action for any violations of the federal PCB regulations. Therefore, EPA continues to reserve its authority to take enforcement action for violating Condition 9 should we find that the City did not meet its commitments in the June 14, 2005 letter.

EPA has determined that the City's proposed plan is acceptable and that there will be no unreasonable risk to public health or the environment when the remediation and subsequent monitoring and maintenance are conducted in accordance with the Application and this Approval. Therefore, the City may proceed with this project, subject to the conditions of Attachment 1.

Should you have any questions on this matter, please contact Kimberly Tisa at (617) 918-1527.

Sincerely,

Robert W. Varney
Regional Administrator

Attachment 1, Approval Conditions
Attachment 2, Administrative Record
Attachment 3, EPA Response to Comments

cc: G. Martin, MADEP
A. Hanscom, BETA

**ATTACHMENT 1: PCB CLEANUP AND DISPOSAL APPROVAL CONDITIONS**
**MCCOY FIELD, HATHAWAY BOULEVARD**
**NEW BEDFORD, MASSACHUSETTS**

## GENERAL CONDITIONS

1. This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. §2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to *PCB remediation waste* identified in the Application, specifically the PCB waste located at McCoy Field (the Site).

    a. This Approval does not address PCB contaminated sediments in the wetlands adjacent to the Site. A separate TSCA approval is required for the wetlands cleanup plan. The City of New Bedford (City) submitted a wetlands cleanup plan to EPA on June 21, 2005. This cleanup plan is currently under review by EPA.

    b. This Approval requires an assessment of potential PCB contamination at the New Bedford High School property. The City shall conduct an assessment of potential PCB contamination both indoors and outdoors and shall submit a cleanup plan for EPA review and approval. In the alternative, the City shall submit documentation that cleanup of this property is not required under TSCA and the federal PCB regulations at 40 CFR Part 761. The City shall submit the required documentation by June 2006. This does not preclude the applicability of regulatory requirements under the Massachusetts Contingency Plan.

    c. This Approval requires an assessment of potential PCB contamination on nearby private properties, at the existing Keith Middle School, and at the associated school athletic fields. The City shall conduct an assessment of the City-owned properties and the nearby privately-owned properties (if authorized by the private property owners.) If PCB contamination is identified, the City shall submit a cleanup plan for EPA review and approval. In the alternative, the City shall submit documentation that cleanup of these properties is not regulated under TSCA and the federal PCB regulations at 40 CFR Part 761. The City shall submit the required documentation by June 2006. This does not preclude the applicability of regulatory requirements under the Massachusetts Contingency Plan.

2. The City shall conduct on-site activities in accordance with the conditions of this Approval and the Application.

3. This Approval shall be revoked if the EPA does not receive written notification from the City of its acceptance of the conditions of this Approval within ten (10) business days of receipt.

4. In the event that the activities described in the Application differ from the conditions specified in this Approval, the conditions of this Approval shall govern.

5. The terms and abbreviations used herein shall have the meanings as defined in 40 CFR §761.3 unless otherwise defined within this Approval.

6. The City must comply with all applicable federal, state and local regulations in the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items and decontamination wastes generated under this Approval. In the event of a new spill during response actions, the City shall contact EPA within twenty-four (24) hours for direction on sampling and cleanup requirements.

7. The City is responsible for the actions of all officers, employees, agents, contractors, subcontractors, and others who are involved in activities conducted under this Approval. If at any time the City has or receives information indicating that the City or any other person has failed, or may have failed, to comply with any provision of this Approval, it must report the information to EPA in writing within twenty-four (24) hours of having or receiving the information.

8. This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by the City are authorized to conduct the activities set forth in the Application. The City is responsible for ensuring that the City's selected transporters and disposal facilities are authorized to conduct these activities in accordance with all applicable federal, state and local statutes and regulations.

9. The City shall notify EPA in writing of the scheduled date of commencement of on-site activities at least three (3) business days prior to conducting any work under this Approval.

10. This Approval does not waive or compromise EPA's enforcement and regulatory authority, nor release the City from any other applicable requirements of federal, state or local law, including those affecting any other contaminants.

## USE CONDITIONS AND DEED RESTRICTION

11. Within the paved areas of the Site, the City shall not include the thickness of the final asphalt pavement coat as part of or to satisfy the minimum 2-foot clean cover requirement.

12. Within sixty (60) days of completing the activities described in the Application and in the Approval, the City shall submit for EPA's review and approval, an Activity and Use Limitation (AUL, i.e., a deed restriction) for the Site. The AUL shall include: a description of the extent and levels of contamination at the Site following remediation; a description of the actions taken at the Site; a description of the use restrictions for the

Site; and the long-term monitoring and maintenance requirements on the Site. Within sixty (60) days of EPA's acceptance of the AUL, the City shall record the AUL in the Registry of Deeds. A copy of this Approval shall be attached to the AUL. Within fifteen (15) business days of the recording, the City shall submit to EPA a copy of the AUL, with a certification(s) by an authorizing official that the City has recorded the AUL and Approval as required above.

13. Any modification(s) in the plan, specifications, or information submitted by the City, contained in the Application, and forming the basis upon which this Approval has been issued, must receive prior written approval from the EPA. The City shall inform the EPA of any modification, in writing, at least ten (10) days prior to such change. No action may be taken to implement any such modification unless the EPA has approved of the modification, in writing. The EPA may request additional information in order to determine whether to approve the modification.

    If such modification involves a change in the use of the Site which results in exposures not considered in the Application, the EPA may revoke, suspend, and/or modify this Approval upon finding that this risk-based cleanup and disposal action may pose an unreasonable risk of injury to health or the environment due to the change in use. EPA may take similar action if the EPA does not receive requested information from the City needed to make a determination regarding potential risk.

## SALE, LEASE OR TRANSFER OF SITE

14. The City shall notify the EPA of the sale, lease or transfer of any portion of the Site, in writing, no later than thirty (30) days prior to such action. This notification shall include the name, address, and telephone number of the new owner(s). In the event that the City sells, leases or transfers any portion of the Site, the City shall continue to be bound by all the terms and conditions of this Approval, unless EPA allocates some or all of this Approval's responsibilities to the new owner through the issuance of a new approval. The procedures for the issuance of a new approval ("re-issued approval") are as follows:

    a. The new owner(s), lessee or transfer entity must request, in writing, that the EPA issue a new approval to the new owner(s), lessee or transfer entity which transfers some or all responsibilities to comply with the terms and conditions of this Approval to that entity or entities; and,

    b. The EPA reviews the request, and determines whether to issue a new approval; and,

c. The new owner(s), lessee or transfer entity provides written notification to the EPA of its acceptance of and intention to comply with the terms and conditions of the re-issued approval. The re-issued approval may be withdrawn if the EPA does not receive written notification from the new owner(s), lessee or transfer entity of its acceptance of, and intention to comply with, the terms and conditions of the re-issued approval within thirty (30) days of the date of the re-issued approval. Under such circumstances, all terms and conditions of this Approval will continue to be binding on the City.

d. In the event that the sale, lease or transfer of the Site will involve or result in a change in the use of the Site, EPA may revoke, suspend, and/or modify this Approval or the re-issued approval if it finds, due to the change in use, that this risk-based cleanup and disposal action will not be protective of health or the environment. The new owner shall record any amendment to the AUL, resulting from any approved modification(s), within sixty (60) days of such change(s).

15. In any sale, lease or transfer of the Site, the City shall retain sufficient access rights to enable it to continue to meet its obligations under this Approval for groundwater, vent gas, wetland sediment, and indoor air monitoring and for maintenance of the caps, except as provided above.

## INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

16. The City shall allow any authorized representative of the Administrator of the EPA to inspect the Site and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by the City to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.

17. Within sixty (60) days of receipt of this Approval, the City shall submit for EPA's review and approval, a detailed long-term monitoring and maintenance implementation plan (MMIP) for the caps and for groundwater, wetland sediment, vent gas, and indoor air quality monitoring. At a minimum, this MMIP shall include: a description of the activities that will be conducted, including cap inspection criteria, frequency, and routine maintenance activities; groundwater, vent gas, wetland sediment, and indoor air quality monitoring locations; sampling protocols, sampling frequency, and analytical criteria; and reporting requirements.

    The MMIP shall include a communications component which details how the maintenance and monitoring results will be communicated to the Site users, including teachers, parents, students, other on-site workers, and interested stakeholders. The MMIP also shall include a worker training component for maintenance or landscaping workers or for any person that will be conducting work that could impact the Site caps, including

pavement, landscaping areas, and building floors/foundations. The worker training plan must include a requirement for ongoing training and written certification of such training.

The City shall incorporate any changes to the MMIP required by EPA. Activities required under the MMIP shall be conducted until such time that EPA and the Massachusetts Department of Environmental Protection (MADEP) determine, in writing, that such activities are no longer necessary.

18. Any departure from the conditions of this Approval without prior, written authorization from the EPA may result in the revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

19. Any misrepresentation or omission of any material fact in the Application or in any future records or reports may result in the EPA's revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

20. Approval for these activities may be revoked, modified or otherwise altered: if EPA finds a violation of the conditions of this Approval or of 40 CFR Part 761, including EPA's PCB Spill Cleanup Policy, or other applicable rules and regulations; if EPA finds that these activities present an unreasonable risk to public health or the environment; if EPA finds that there is migration of PCBs from the Site; or if EPA finds that changes are necessary to comply with new rules, standards, or guidance for such approvals. The City may apply for appropriate modifications in the event new rules, standards, or guidance come into effect.

## RECORDKEEPING AND REPORTING CONDITIONS

21. The City shall prepare and maintain all records and documents required by 40 CFR Part 761, including, but not limited to, the records required by Subparts J and K. The City shall maintain a written record of the cleanup and the analytical sampling for activities conducted under this Approval, at City Hall and at the Site. All records shall be made available for inspection by authorized representatives of the EPA, until such time as EPA approves in writing a request for an alternative disposition of such records.

22. The City shall submit a Final Completion and Inspection Report (Report) to the EPA within 120 days of completion of the activities described under this Approval. At a minimum, this Report shall include: a discussion of the project activities; characterization and confirmation sampling analytical results; copies of the accompanying analytical chains of custody; field and laboratory quality control/quality assurance checks; an estimate of the quantity of PCBs removed and disposed of off-site; copies of manifests; copies of certificates of disposal or similar certifications issued by the disposer, if applicable; and any additional report required under the Massachusetts Contingency Plan,

including the As-Built Construction Report. The Report shall also include a Completion Statement signed and sealed by a registered Licensed Site Professional or Professional Engineer in the Commonwealth of Massachusetts verifying that the activities have been implemented in accordance with this Approval and the Application.

23. As required under Condition 17 of this Approval, the City shall submit the results of the long-term monitoring and maintenance activities to EPA and MADEP as specified in the final MMIP to be approved by EPA and MADEP.

24. Required submittals shall be mailed to:

    Kimberly N. Tisa, PCB Coordinator
    United States Environmental Protection Agency
    1 Congress Street, Suite 1100 - CPT
    Boston, Massachusetts 02114-2023
    Telephone: (617) 918-1527
    Facsimile: (617) 918-0527

25. No record, report or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under EPA audit, self disclosure or penalty policies.

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End of Attachment 1

# ATTACHMENT 2: ADMINISTRATIVE RECORD

## A. APPLICATION DOCUMENTS

- *Alan Hanscom (BETA) to Kimberly Tisa (EPA) May 26, 2005 letter responding to VERSAR May 19, 2005 risk assessment comments*
- *William D. Sweet (ATSDR) to Kimberly Tisa (EPA), Health Consultation on McCoy Field Site, post remediation and after building construction. May 25, 2005.*
- *Alan Hanscom (BETA) to Kimberly Tisa (EPA) May 24, 2005 letter clarifying comments contained in May 18, 2005 letter*
- *Alan Hanscom (BETA) to Kimberly Tisa (EPA) letter responding to EPA Supplemental Comments on Risk-Based Application, May 18, 2005 and attached Risk-Based Cleanup Request, Rev. 2, May 18, 2005*
- *May 19, 2005 Versar Comments on Risk-Based Cleanup Request Risk Assessment Calculations*
- *Alan Hanscom (BETA) to Kimberly Tisa (EPA), Transmittal of Summary of Supplemental EPA Review Comments on Risk-Based Cleanup Application, via e-mail May 16, 2005*
- *Alan Hanscom (BETA) to Kimberly Tisa (EPA), Transmittal of Summary of EPA Review Comments on Risk-Based Cleanup Application, via e-mail May 12, 2005*
- *Letter from Scott Alfonse (City of New Bedford) to Kimberly Tisa (EPA), May 10, 2005*
- *Alan Hanscom (BETA) to Kimberly Tisa (EPA), Transmittal of Written Certification for Risk-Based Cleanup Request, Rev. 1, via e-mail May 9, 2005*
- *Memorandum from Cyndee Fuller (ESS) to Al Hanscom (BETA), Revision of Risk-based Air Concentrations for PCBs and comparison with MADEP air guidance, May 9, 2005*
- *Risk Based Cleanup Request, School Site at McCoy Field, New Bedford, Massachusetts, Revision 1, May 3, 2005, Volumes I and II*
- *Alan Hanscom (BETA) to Kimberly Tisa (EPA) letter dated April 29, 2005 responding to EPA April 5, 2005 memo on technical design of engineered cap*
- *Alan Hanscom (BETA) to Kimberly Tisa (EPA) letter dated May 2, 2005, responding to EPA April 19, 2005 comments on Risk-Based Cleanup Request, Rev. 0, March 21, 2005*

- *Alan Hanscom (BETA) to Kimberly Tisa (EPA) letter dated May 2, 2005, responding to Versar April 14, 2005 comments on Risk-Based Cleanup Request, Rev. 0, March 21, 2005*

- *Kimberly Tisa (EPA) to Scott Alfonse (City of New Bedford) letter dated April 19, 2005 transmitting comments on Risk-Based Cleanup Request, March 21, 2005*

- *Yoon-Jean Choi (EPA) to Kim Tisa (EPA), Comments on Proposed Engineered Cap, April 5, 2005*

- *Robert W. Varney (EPA) to Mayor Frederick M. Kalisz, Jr. (City of New Bedford) regarding cleanup application for the Keith Middle School Project, March 30, 2005*

- *Scott Alfonse (City of New Bedford) to Kimberly Tisa (EPA), Risk-Based Cleanup Request, Rev. 0, March 21, 2005*

## B. ADDITIONAL DOCUMENTS

- *Kim Tisa (EPA) to McCoy Field File, Technical Support Document – McCoy Field Risk-Based Approval, August 22, 2005*

- *Matthew J. Thomas, Esq.,(City of New Bedford) to Douglas Gutro (EPA), June 14, 2005, letter regarding erection of structural steel*

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End of Attachment 2

**ATTACHMENT 3. EPA RESPONSE TO COMMENTS**

# McCOY FIELD, HATHAWAY BOULEVARD
# NEW BEDFORD, MASSACHUSETTS

## I EPA's Revisions to the Draft Approval

In addition to minor editorial changes, the following revisions have been made to the *draft* risk-based PCB cleanup and disposal approval (*draft* approval):

1. The Risk-Based PCB Cleanup and Disposal Approval (Approval) under 40 CFR §761.61(c) requires submittal of a long term monitoring and maintenance implementation plan (MMIP) for the Site. The *draft* approval required that the MMIP include the surfaces caps, groundwater and indoor air. In the final Approval, EPA is requiring that vent gases and wetland sediments be included in the MMIP.

2. A requirement for development of a worker training component and a communications component in the MMIP has been added in the Approval conditions. The communications component shall detail how the maintenance and monitoring results will be communicated to the Site users, including teachers, parents, students, other on-site workers, and interested stakeholders. The worker training component shall apply to workers performing routine site activities such as landscapers, focusing on preventing accidental releases of contaminated soil as a result of improper disturbance of physical controls (e.g. caps). The worker training plan must include a requirement for ongoing training and written certification of such training.

3. A requirement for assessment of potential PCB contamination at the existing Keith Middle School and the nearby athletic fields has been incorporated in the Approval. If PCBs are found, the City shall submit a cleanup plan for EPA review and approval. In the alternative, the City shall submit documentation that cleanup of the properties is not required under TSCA and the federal PCB regulations at 40 CFR Part 761.

## II Responsive Summary to Comments Received

The following summarizes EPA's response to written comments received on the *draft* approval. One set of written comments was received during the formal comment period on the *draft* approval from June 14 to July 15, 2005, which focused specifically on the technical aspects of the cleanup plan and the risk assessment methodology. Two written comments were received requesting an extension of the comment period. In order to provide additional public review time, the comment period was extended an additional two week period (until July 29, 2005). One set of written technical comments was received during this period.

In the following, EPA has organized the comments by subject matter and has provided a summary of relevant comments with our responses.

## 1. Adequacy of the Regulatory Process and Scope of Approval

***COMMENT 1***

The public review and comment period should be extended because the repository was incomplete and the public did not have full access to all the information.

***EPA Response:***

Since March 2005, McCoy Field documents submitted to EPA by the City have been placed in the McCoy Field repository at the New Bedford Free Public Library. EPA became aware that some of documents had been separated, and several citizens indicated during the Public Involvement Plan (PIP) meetings, and during the June 22, 2005 EPA Public Informational Meeting, that the PCB cleanup plan was unclear and incomplete.

EPA has always believed that the complete documents relevant to the PCB cleanup at the McCoy Field Site should be readily available for public review. Accordingly, in addition to the paper repository, EPA posted all relevant documents on its website on June 29, 2005 and notified all PIP members via US mail. EPA also extended the public review and comment period an additional two weeks until July 29, 2005 to allow the public a full 30 day review and comment period. In addition, the New Bedford Free Public Library implemented a formal process for tracking of all McCoy Field documents to ensure that the site file was complete at all times.

EPA has determined that an adequate public notice and comment process was provided, even though not required by the TSCA statute.

***COMMENT 2***

EPA departments identified deficiencies in the City's cleanup request, including lack of justification on transport, risk calculations and capping details.

***EPA Response:***

The commenter is correct that EPA staff, who reviewed the initial March 2005 PCB Risk-Based Cleanup Plan submitted by the City, identified deficiencies in the plan. All comments identified by the EPA reviewers were subsequently corrected and/or addressed in additional submittals and/or in the City's responses to EPA comments. These documents are part of the Administrative Record, are in the paper repository, and are on EPA's website.

***COMMENT 3***

The Notice of Activity and Use Limitation provided in the Risk-Based Cleanup Plan pertains to the entire property, including the wetlands. The wetlands are not addressed in the Risk-Based Cleanup Plan and should be.

***EPA Response***:

The Notice of Activity and Use Limitation (AUL) provided in the Risk-Based Application is draft only and has not been finalized. An executed AUL will be required upon completion of activities at the McCoy Field Site, including the wetlands. EPA has received the City's proposed risk-based cleanup plan to address PCB contaminated wetland sediments. This proposal includes excavation and off-site disposal of PCB-contaminated sediments with greater than 1 part per million PCBs, which is supported by an ecological risk assessment. While this plan is still under review, an AUL would not be required on the wetlands either under the federal PCB regulations or under the Massachusetts MCP, because the proposed cleanup will meet the standards. The wetlands remediation will be addressed through a separate TSCA approval as specified in the TSCA Approval for McCoy Field.

***COMMENT 4***

Submitted narratives are inconsistent with drawing and plans for depth of fill.

***EPA Response:***

The inconsistencies between the narrative and drawings/plans were addressed in the document *Alan Hanscom (BETA) to Kimberly Tisa (EPA) letter responding to EPA Supplemental Comments on Risk-Based Application, May 18, 2005 and attached Risk-Based Cleanup Request, Rev. 2, May 18, 2005.*

## 2. What Are the Appropriate Regulatory Standards

***COMMENT 1***

Incorrect cleanup standards are being applied to the Site and the S-1 cleanup standard of < 2 ppm should apply to this Site.

***EPA Response:***

The Risk-Based Cleanup Request for McCoy Field was submitted in accordance with the Toxic Substances Control Act (TSCA) and the federal PCB Regulations at 40 CFR §761.61(c). The comment refers to the requirements under the Massachusetts

Contingency Plan (MCP). Under the MCP, soils are categorized as S-1, S-2, or S-3 soils based on the human exposure potential. The McCoy Field Site surface soils (0-3 feet) are classified as S-1 category soils, since the S-1 category soils are associated with the highest potential for exposure. Under the MCP, the PCB cleanup standard for a S-1 category soil is 2 ppm. However, the MCP provides for an alternative to meeting prescribed cleanup standards if exposure is eliminated through establishment of an Activity and Use Limitation. The City's proposed cleanup for the Site will include the establishment of an AUL which is consistent with the allowances under the MCP. As a result, the S-1 category will apply to only the clean imported soil (fill) for the caps. The potential for any exposure to the deeper impacted soils (Category S-2 and S-3) will be eliminated by the clean soil cap, and/or pavement and AUL.

***COMMENT 2***

The 50 ppm limit for non-liquid PCB levels is not applicable and the 2 ppm limit for liquid PCB concentrations should be applied to this site.

***EPA Response:***

The commenter states that the 2 ppm limit for liquid PCB concentrations should apply to this site. The commenter provides no reference for this limit. EPA assumes that the 2 ppm limit refers to EPA's PCB decontamination standard for organic liquids and non-aqueous inorganic liquids at 40 CFR §761.79(b). This specific section is not applicable to the Site. As stated in the following applicability excerpt: "This section (i.e., §761.79) establishes decontamination standards and procedures for removing PCBs, which are regulated for disposal, from water, organic liquids, non-porous surfaces (including scrap metal from disassembled electrical equipment), concrete, and non-porous surfaces covered with a porous surface, such as paint or coating on metal…" Therefore, the 2 ppm decontamination standard cited is not applicable for cleanup of PCB-contaminated soils. The cleanup for McCoy Field is being addressed under the Risk-Based Cleanup and Disposal Option for PCB Remediation Waste at 40 CFR 761.61(c). Under this option, there are no specified cleanup standards. Rather, the cleanup is based on a risk assessment.

***COMMENT 3***

The proposed PCB remediation plan is inconsistent with the requirements under the MCP, and the capping plan fails to address S-1 standards for containment of contaminated soils.

***EPA Response***:

Given the contaminants identified at the McCoy Field Site, cleanup is regulated under both the federal PCB Regulations at 40 CFR Part 761 and the Massachusetts Contingency Plan. EPA has worked closely with the Massachusetts Department of Environmental

Protection (MADEP) on review of the cleanup proposed at the Site. The MCP and the regulations established therein provide for the establishment of Activity and Use Limitations (AULs) in lieu of meeting prescribed cleanup standards. As stated previously, the S-1 category soils will apply to only the clean imported soil (fill) for the caps. An AUL would prevent direct exposure to site contaminants, which is consistent with the proposal for McCoy Field. As such, EPA believes that the proposed cleanup is consistent with the MCP regulations.

***COMMENT 4***

Under TSCA, the EPA has in the past closed university buildings where PCB soil concentrations were greater than 10 ppm.

***EPA Response:***

The commenter states that under TSCA, EPA has closed university buildings in Massachusetts where soil concentrations exceeded 10 ppm PCBs. The commenter provides no reference material. EPA is unaware of any applicable precedents involving university buildings. Cleanup and disposal of PCBs at the McCoy Field Site are being conducted under the Risk-Based Cleanup and Disposal Option at 40 CFR §761.61(c). There are no prescribed cleanup standards under this option. Rather, cleanup requirements are determined based on Site contaminants and concentrations, exposure and resulting risk assessment.

***COMMENT 5***

Brownfield standards should not be applied to hazardous waste sites containing PCBs as per federal law. Brownfields standards are inadequate to protect the public health and safety of New Bedford neighborhoods from contamination at McCoy Field.

***EPA Response***:

The Brownfields regulations contain no prescribed PCB cleanup standards. PCBs are regulated for cleanup and disposal under the federal TSCA PCB regulations. Superfund is also mandated to address PCB contamination, but applies the requirements of the TSCA PCB Regulations in developing a cleanup plan for a PCB-contaminated Site.

***COMMENT 6***

S-1 standards for PCBs require active venting and EPA standards for school construction near PCB sites indicate active venting.

***EPA Response:***

The S-1 soil category standards relate to requirements under the MCP. Based on discussions with the MA Department of Environmental Protection, there is no such requirement (active venting) under the S-1 standard. The commenter refers to, but provides no citation for, an EPA standard for active venting for school construction. EPA has determined that the proposed passive venting system is adequate to protect public health based on the site-specific contaminants.

***COMMENT 7***

Safe enough is not good enough. Unless soil levels through the Site to all depths are removed to levels less than 1ppm, there is no environmental documentation or public health standards support for the City's plan.

***EPA Response*:**

EPA's regulations under the Risk-Based Cleanup and Disposal Option allow cleanup and reuse of a contaminated site if a finding can be made that the contamination remaining at the site presents no unreasonable risk to human health or the environment. There are no prescribed cleanup standards since the risk to site users is determined based on a risk assessment, which considers things such as the physical and chemical properties of the site-specific contaminants, exposure frequency, exposure routes, and exposure intakes. Based on this assessment, the excess cancer risk estimated for students exposed to volatilized PCBs in indoor air was $7 \times 10^{-10}$, which is well below EPA's $1 \times 10^{-6}$ acceptable cancer risk level. (This acceptable risk is the de minimis standard for insignificant risk most often used in federal environmental statutes, regulations, and policies.) This estimated risk was conservatively determined without consideration of the vapor barrier or venting. Thus, EPA has made a finding that contamination at the Site will present no unreasonable risk to human health if the caps, passive ventilation, and solid vapor barriers are installed.

## 3. Adequacy of Site Characterization

***COMMENT 1***

According to the City of New Bedford, the PCB contamination has not been fully delineated.

***EPA Response:***

EPA has determined that the PCB contamination at the McCoy Field Site has been adequately characterized.

The comment specifically refers to statements made by the City of New Bedford during Public Involvement Plan (PIP) meetings and activities conducted by the City. According to the City of New Bedford, the comment was taken out of context. Discussions at the subject PIP Meetings were related to further delineation of the nature and extent of contamination off the McCoy Field Site. All contamination at McCoy Field has been defined in accordance with MCP requirements and the EPA-approved Work Plan. Plans are underway for supplemental delineation of the off-site contamination, consistent with MCP and TSCA regulations.

***COMMENT 2***

PCB contamination on the entire site, including the wetlands should be addressed.

***EPA Response:***

The City of New Bedford has submitted a PCB cleanup plan for the wetlands adjacent to McCoy Field. The proposed plan and related documents are available on EPA's website at *www.epa.gov/ne/mccoyfield*. These documents are currently under review by EPA and EPA has made no final determination on the adequacy of the City's proposed plan. Any decisions related to the wetlands cleanup plan will be documented in a separate TSCA approval and posted on EPA's website.

***COMMENT 3***

The McCoy Field draft approval cannot be complete without remediation of areas adjacent to the Site, namely the wetlands and New Bedford High School.

***EPA Response:***

The City has submitted a wetlands remediation plan to EPA. This plan is currently under review. The Approval requires the City to submit a characterization and cleanup plan for New Bedford High School as well as for the other properties, including nearby privately-owned properties and athletic fields, and the existing Keith Middle School, unless the City can submit documentation to EPA confirming that the PCBs are not regulated under TSCA and the federal PCB regulations. Even if the PCB contamination at the High School is not regulated under TSCA, the assessment and cleanup is required by the MADEP under the MCP.

## 4. Adequacy of Risk Assessment

***COMMENT 1***

The use of averaging or eliminating high concentrations of PCBs (46,500 ppm) to determine the overall PCB concentration was inappropriate for this site and for protecting public health and safety.

***EPA Response:***

The City's risk evaluation followed acceptable EPA methodologies and guidelines. The 46,500 ppm PCB sample was not included in the risk analysis estimating exposure to PCBs that are volatilized from soil because that soil was excavated and removed from the Site, as was all soil in the excavated areas with PCBs concentrations of ≥ 100 ppm. Soils samples were not composited or averaged. The maximum PCB concentration from soil remaining at the site, 94.5 ppm, was used for calculating the volatilized PCB concentration in indoor air (see May 26, 2005, memorandum from BETA Group, Inc. to Ms. Kimberly Tisa, EPA). The use of the maximum concentration of 94.5 ppm is conservative, as the estimated average PCB concentration for the remaining soils is 10.5 ppm and the 97.5 percent upper confidence limit on the mean (based on the statistical evaluation that EPA guidance typically recommends using) is 13.4 ppm. Also, the risk analysis did not include or consider the protection provided by the vapor barrier or venting. Thus, it was concluded that the PCBs soil concentrations would not present a risk to human health at the McCoy Field site.

***COMMENT 2***

Numerous studies show exposure to PCBs cause elevated PCB blood levels and these studies advocate lowering the PCB cleanup level to < 1 ppm.

***EPA Response:***

The commenter provided no citations, specific results, nor validation of the studies. EPA assumes that the studies referenced by the commenter, are based on direct exposure to PCBs. The remedy proposed for McCoy Field includes isolation of PCB-contaminated soil using clean soil and pavement, and placement of passive ventilation and a solid vapor barrier beneath the building footprint. With these controls properly put in place, and properly maintained and monitored, there should be no potential for PCB exposure to persons at the Site.

Under the PCB Regulations at 40 CFR Part 761, EPA has established a PCB cleanup standard of < 1 ppm for soils without any physical controls or site use restrictions. As previously discussed, this is not the case with McCoy Field. The City is conducting

cleanup of PCBs under the Risk-Based Cleanup and Disposal Option which allows PCBs at > 1 ppm to remain in place if there is no unreasonable risk to public health.

***COMMENT 3***

PCB concentrations at up to 46,000 ppm have been found at the Site. A PCB concentration of 0.5 ppm versus 46,000 ppm represents a risk factor of 1 out of 100,000, which is greater than EPA's accepted risk factor of one in 10 million.

***EPA Response:***

The commenter has incorrectly identified ratios of PCB concentrations as risk factors. The 1 in 100,000 risk factor apparently is calculated by dividing 0.5 ppm by 46,000 ppm, then this value is compared to the EPA risk factor of 1 in 10 million or $1 \times 10^{-7}$. Risk factors are not determined by direct comparison to PCB concentrations. Rather, the risk factors are developed from the accepted hazards of PCBs as determined by the scientific community combined with an exposure assessment, which considers among other things, the PCB concentrations at the site, the exposure frequency, the amount of contamination intake, and the route of exposure (e.g. dermal, ingestion, inhalation). The risk assessment conducted and submitted by the City of New Bedford followed federally accepted guidelines and methodologies. As a point of clarification, EPA's acceptable risk level is 1 in 1 million or $1 \times 10^{-6}$. This acceptable risk is the de minimis standard for insignificant risk most often used in federal environmental statutes, regulations, and policies.

***COMMENT 4***

The PCB cleanup standard for the Site should be 0.5 ppm rather than 2 ppm since the daily dose is based on an adult's weight rather than a child's weight and since a 10% daily exposure rate is assumed.

***EPA Response:***

The commenter uses the terms daily dose and exposure limit interchangeably, and incorrectly, with PCB concentration. In the comment, the 2 ppm PCB soil limit is being equated, incorrectly, to a daily dose and a daily exposure rate. Thus, per the commenter, for 24 hours (i.e., 1 day), the daily limit is 2 ppm and 25% of this, 6 hours, would be equal to the 0.5 ppm concentration referenced in the comment. However, these values are incorrect for this risk assessment. The daily dose and daily exposure rate are factors that were considered as part of the overall human health risk assessment, submitted by the City and reviewed by EPA. Neither the MCP nor EPA's risk assessment guidance identifies the referenced 10% daily exposure rate, and therefore EPA does not consider the reference valid.

As a point of clarification, in the human health risk assessment conducted for the Site, an adult weight rather than child weight was used in the assessment since the adult and child inhalation rate to body weight ratios were similar. In order to confirm that this comparison was reasonable, EPA also calculated the exposure using a child weight rather than adult weight. The exposure calculation was based on conservative assumptions such as using the maximum PCB soil concentration of 94.5 ppm to determine the PCB indoor air concentration, and assuming that the students would be exposed for 8 hours a day for 250 days per year. Also, the risk assessment did not include or consider the protection provided by the vapor barrier or venting. The cancer risk estimated for students exposed to volatilized PCBs in indoor air was $7 \times 10^{-10}$ (see May 19, 2005, memorandum from Diane Sinkowski, Versar, to Laura Casey, EPA), well below the $1 \times 10^{-6}$ acceptable cancer risk level. Thus, it was concluded that the PCBs soil concentrations would not present a risk to human health at the McCoy Field site.

***COMMENT 5***

PCBs have been found in surface soils (6 out of 150 samples) at the New Bedford High School where 4 feet of clean fill was placed. A risk factor of 6/150 or 4% is too high for school children.

***EPA Response:***

With respect to the "risk factor" of 6/150 or 4%, the commenter uses this term incorrectly. The correct terminology would be "frequency of detection", not "risk factor". As previously stated, risk factors are determined based on exposure assessments, which would include but not be limited to, the concentration of site contaminants, the frequency of a person's exposure to PCBs, and how the person is exposed. The Approval requires the City to characterize PCB contamination at the High School and to submit a cleanup plan to EPA, if required under TSCA.

## 5. Adequacy of Remediation and Engineering Controls

***COMMENT 1***

The remedial design does not address stormwater runoff and erosion potential from the Site to the adjacent wetlands.

***EPA Response:***

A Storm Water Pollution Prevention Plan (SWPPP) dated September 2004 was submitted to EPA and the contractor is required to follow the procedures identified in the SWPPP during the project. EPA is unaware of any current erosion from the site into the wetlands. A July 13, 2005 Field Inspection Report by the City of New Bedford Conservation Commission did not identify any erosion issues and found that the erosion control measures were in place and functional, thus providing protection to the wetlands from contamination on McCoy Field.

***COMMENT 2***

The cleanup plan does not address horizontal transport factors, pollution movement into the wetlands, and exposure in landscaped areas.

***EPA Response:***

Based on the comment, EPA assumes that the commenter is specifically referencing the potential for migration into the wetlands from the McCoy Field Site. The City submitted a plan to address PCB contamination to the wetlands adjacent to McCoy Field in June 2005. EPA is currently reviewing the proposed plan and has made no determination on its adequacy. However, based on the data provided, the PCB contamination appears to be in surficial (less than one foot deep) sediments/soils located at the toe of the McCoy Field embankments. The data indicate that PCBs from the fill material located at the Site and in the embankments migrated to these low lying areas via wind erosion and storm water runoff. This is further supported by the groundwater sampling and native material sampling conducted at McCoy Field in which no PCB contamination was found. The capping plan for McCoy Field requires at least 2-feet of clean materials at the site surface. These capping materials must be maintained in accordance with the Activity and Use Limitation for the Site. Accordingly, surface runoff will not be a migration pathway for PCB-contaminated soils. Similarly, the capping materials will preclude the potential for entrainment of contaminated soil particulates to be released into the air and redeposited into the wetlands.

While it is not very likely that the wetlands will be impacted in the future from PCB contamination at McCoy Field, as an extra measure of precaution, EPA will require ongoing groundwater monitoring and wetland sediment monitoring. Should this monitoring indicate that there are new impacts resulting in unreasonable risk to the wetlands from McCoy Field, EPA will require the City to implement measures to mitigate the migration per the conditions of the Approval.

***COMMENT 3***

PCBs left in place continue to contribute to environmental contamination and public health dangers. There will be vertical and horizontal movement of PCBs due to groundwater and stormwater influences, soil settling, and subsurface drainage influences.

***EPA Response:***

EPA agrees that uncontrolled PCB contaminated sites have the potential for contributing to environmental contamination. However, given the chemical and physical properties of PCBs, the measures that will be employed at the McCoy Field site, including surface caps and activity and use limitations, will reduce to acceptable levels or eliminate the potential for release of PCB contamination from the Site.

EPA's analysis shows that the primary PCB of concern at the McCoy Field site is Aroclor 1254, a highly chlorinated PCB. In general, more highly chlorinated PCBs will have a lower tendency to leach and therefore are more likely to remain adsorbed to soil. These facts are supported by the high octanol to water coefficient (average $K_{ow}$ is $1 \times 10^6$) and low water solubility (0.012 mg/L) consistent with accepted scientific literature, as well as the results of the soil/gas vapor and groundwater testing at the Site.

With respect to groundwater and stormwater infiltration, the majority of stormwater from the site will be collected through the on-site stormwater collection system. Stormwater from roof runoff will be collected through roof drains and discharged to the wetlands. While there will be areas of the site where water can freely infiltrate site soils (e.g. the landscaped areas), it is highly unlikely that this will be sufficient to completely saturate the clean fill at the site and create a water/air pathway for PCB evaporation. To date, PCB contamination has not been found in the native materials located beneath the PCB-contaminated material nor have PCBs been detected in the groundwater.

***COMMENT 4***

PCB-contaminated soils can migrate upwards as is evidenced by the PCBs which have been found in surface soils at New Bedford High School.

***EPA Response:***

The commenter provides no technical justification or reference to support that PCB-contaminated soils are upwardly mobile but refers to PCB concentrations found at New Bedford High School.

The New Bedford High School was constructed in the early 1970's and EPA is unaware of any controls or requirements which were put in place regarding landscaping, excavating, or maintenance. Based on information provided by BETA Group, the LSP of record for the High School, during the numerous soil borings conducted on the High

School property, the contaminated burn debris was not covered with 4 feet of clean material in any locations.

***COMMENT 5***

The proposed capping plan is one that is common for commercial structures with low-level contaminants. PCBs are not considered low-level by many state public health boards until under a 2 mg/l threshold and the capping plan uses a 50 mg/l limit instead. The capping plan, which is used for commercial development, should not be used for a public school.

***EPA Response*:**

To address this comment, EPA assumes that the commenter has confused the concentration unit cited in the comment and meant to refer to threshold limits of 2 mg/Kg and 50 mg/Kg. The mg/Kg unit (which is equivalent to ppm) would be the correct unit for PCB concentrations in soil.

The commenter states that the capping plan uses the 50 mg/Kg limit rather than the 2 mg/Kg limit. With respect to the 2 mg/Kg, the PCB regulations under TSCA have no such soil standard, even though the MCP does reference this standard for its Category S-1 soils.

However, the commenter is incorrect in stating that the capping plan uses the 50 mg/Kg standard. The cleanup plan references the 50 mg/Kg PCB limit under the federal TSCA PCB regulations as one of the criteria which establish the applicability of TSCA for cleanup and disposal of PCB-contaminated soils at a Site. However, if the source of the PCB contamination was greater than or equal to 50 mg/Kg, and if the contamination occurred after 1979, materials that are contaminated at less than 50 mg/Kg are also regulated for cleanup and disposal. Given that PCBs at 50 mg/Kg or greater are present at the Site, and the fact that PCB-contaminated materials were spread across the Site in the 1990's, cleanup and disposal of the PCB-contaminated soils at McCoy Field are regulated under TSCA.

The PCB regulations provide 2 options for cleanup and disposal. The City of New Bedford opted to address the PCB contamination at the site under the Risk-Based Cleanup and Disposal option at 40 CFR 761.61(c). The 50 mg/Kg standard is not specified under the risk-based cleanup and disposal option. Rather, this option requires that the site owner (the City) provide justification to support its proposed plan by showing that there will be no unreasonable risk to site users. The City provided a human health risk assessment to support its proposed plan.

***COMMENT 6***

Geotextile provides no barrier to the upward movement of an average [PCB] molecule of 6 microns.

***EPA Response:***

The commenter states that the geotextile will not impede the movement of an average [PCB] molecule of 6 microns. While no reference was provided to support the 6 micron reference, the commenter is correct that the proposed geotextile is not a barrier to PCBs. Rather the geotextile serves to separate the contaminated soil from the clean soil. The use of the geotextile is reasonable given that PCBs adsorb to soil and therefore the issue is not with the size of the PCB molecule, but rather with the size of the soil particulates to which the PCBs are adsorbed. The fabric itself will restrict any significant upward migration of soil, and the overlying backfill material is largely granular (stone) and not subject to the capillary action that occurs in finer grained soil. Further, the weight of the clean soil above the contaminated soil further reduces the very unlikely upward migration of PCB-contaminated soil particulates.

***COMMENT 7***

Frost-heaving will facilitate upward migration of PCBs. The geotextile layer is prone to tears and stretching and will create more passage of contaminated soils toward the surface.

***EPA Response:***

As previously stated, the geotextile was not meant to act as a PCB barrier, but will serve to separate the contaminated soil from the clean soil. The geotextile is permeable allowing for the free passage of water. If the geotextile were impermeable, pockets of water could collect and intermittently freeze during the winter months, which would increase the potential for breakage to and/or stress on the geotextile and potentially compromise its effectiveness. Therefore, the overall cap design is less prone to breakage and frost due to the permeability and the relatively deep ground water table. Given that the geotextile will be placed across and atop a relatively even and homogeneous material, EPA does not anticipate any significant stress on the fabric, which will limit the potential for tearing or puncturing to the fabric.

***COMMENT 8***

The warning barrier and the geotextile separation material are not hazardous waste mitigation materials and therefore provide no additional protection to public health or safety.

***EPA Response:***

As previously discussed, the geotextile separation material was not intended to be a PCB barrier nor a hazardous waste mitigation system, but to physically separate the clean fill material from the PCB-contaminated materials. Likewise, the warning barrier was put in place as an additional visual aid for maintenance workers as a preventative measure to avoid breakage of the geotextile liner during landscaping or other maintenance activities. In the landscaped areas, clean material is beneath the warning barrier that overlays the geotextile. Therefore, in the event the warning barrier is breached, the material directly beneath is clean material.

***COMMENT 9***

The sample of the warning barrier presented at the informational meeting was fragile and it tore.

***EPA Response:***

EPA discussed this comment with the City and its consultant, BETA Group, who indicated that there was no breakage of the warning barrier at any time during the meeting. In fact, the warning barrier material is a plastic material, is not fragile, and is not readily prone to tearing.

***COMMENT 10***

No hazardous waste liners are proposed. The "sealed" geotextile liner cannot withstand temperature changes, frost action, penetration, or pollutant transport. The coated fabric is standard woven geotextile with a 10 micron thin coating of plastic to seal the material. The geotextile has a short life expectancy and cannot withstand a standard puncture test.

***EPA Response:***

The commenter appears to be referring to the coated separation fabric (Mirafi MCP-1212) which is being used temporarily to reduce the potential exposure to workers at the Site during construction activities. The cap design for the building footprint does not depend on the coated separation fabric. The actual cap in the building footprint consists of a geotextile barrier fabric installed over the contaminated material, then six to eight inches of clean granular material, then an adherence geotextile fabric, a gas vapor barrier, and the building foundation. This cap will be completed with a passive venting system.

***COMMENT 11***

PCB contaminated soils with concentrations up to 46,000 ppm were found at the Site. Three feet of fill does not stop a super concentration of PCBs.

***EPA Response:***

Sample # NSP-4 contained 46,500 ppm PCB, which was the highest concentration of PCBs found at the Site. This sample was collected from a stockpile located at the north end of the Site, which was approximately 1-foot high. Based on EPA's review of the analytical data, soils located in this stockpile and in piles in close proximity to this pile were not comparable in PCB concentration with soils collected from the remainder of the Site. The soils associated with these higher PCB concentrations were removed from the Site as were all soils in the excavation areas with PCBs at $\geq$ 100 ppm.

***COMMENT 12***

The pavement is inadequate and should not be counted as part of the clean fill layer.

***EPA Response:***

The final 1.5" asphalt coat will not be included as part of the 2-foot clean cover. This has been incorporated into the Approval language.

***COMMENT 13***

The pavement is not impermeable and will not last 40 to 50 years.

***EPA Response:***

With respect to the longevity of the pavement itself, EPA agrees that asphalt pavement will crack and will require periodic maintenance. Accordingly, the Long-Term Cap Monitoring and Maintenance Plan will require inspections and maintenance of all pavement and sidewalks to preserve the integrity of each barrier. EPA will require that inspections and any required corrective action be documented.

***COMMENT 14***

There is no historic justification to cap hazardous waste materials with asphalt pavement in the hazardous waste industry.

***EPA Response:***

In general, EPA agrees with the commenter's statement that asphalt is not used for capping hazardous waste [landfills]. However, hazardous waste landfills generally contain a variety of different types of contaminants at high concentrations. Capping of hazardous waste landfills requires a system which can address a large array of contaminants having different chemical properties. At McCoy Field, the contaminants of concern include PCBs, semi-volatile organics, and metals. These compounds do not readily leach, migrate, or volatilize. Thus, the capping measures proposed for McCoy Field are appropriate for these types of compounds.

***COMMENT 15***

The pavement will facilitate the upward migration of PCB-contaminated soils due to the affinity of PCBs to oil-based materials.

***EPA Response:***

With respect to the potential for the asphalt to facilitate upward transport of PCBs, the pavement will be underlain with a minimum of 2-feet of clean material. As there will be no direct contact of the asphalt with PCB-contaminated soil, EPA can find no evidence to support the claim that the pavement will in any way facilitate the transport of PCB-contaminated soils to the surface.

***COMMENT 16***

Proposed reduction of clean fill in parking areas from 24" to 15" is depending on paving to seal contaminants and is inadequate. Stones should not be considered part of the clean materials deterrent since the void space and porosity will aid moisture penetration which will result in increased "volubility" and vapor release potentials.

***EPA Response:***

As previously indicated, the Approval requires that the 1.5" final pavement coat not be counted toward meeting the 2-foot clean cover requirement. The granular material (stone) beneath the pavement is functional and will help support the integrity of the pavement. Additionally, granular materials (e.g. stones) help reduce capillary action.

***COMMENT 17***

Past events demonstrate that the City of New Bedford will not be able to carry out the requirements under the long-term monitoring and maintenance plan. PCB-contaminated

stockpiled soils have been left uncovered and uncontrolled, uncovered and contaminated trucks have left the site, and the site has been left unsecured. The City has demonstrated its unreliability in following acceptable hazardous material handling practices and mitigation.

***EPA Response:***

The long-term monitoring and maintenance activities include reporting requirements. EPA has the regulatory authority to oversee the City's compliance with the Approval, is committed to do so, and will take appropriate enforcement action against the City where necessary to protect public health and the environment. In addition, the Massachusetts Department of Environmental Protection has its own enforcement capabilities to ensure that the City carries out its responsibilities.

With respect to the purported events alluded to by the commenter, these were identified and discussed at several PIP meetings. The following explanation has been provided by the City of New Bedford:

> The only time stockpiled PCB-contaminated soils were left uncovered was when the piles were being accessed by trained workers. During this time, dust monitoring was conducted in accordance with applicable sections of the EPA approved Work Plan and the SOP included as Work Plan Attachment U. Appropriate dust suppression measures were implemented as necessary to keep the dust level below the risk-based threshold action level.
>
> All trucks transporting PCB-contaminated soils were properly covered and washed down prior to leaving the Site.
>
> All contaminated soil removed from the Site was disposed of at an appropriately licensed disposal facility in accordance with the EPA-approved Work Plan.
>
> The sources of all materials used as clean backfill were inspected and/or tested prior to transporting the materials to the Site.

***COMMENT 18***

Presence of other compounds such as barium and arsenic require a cover and capping plan akin to a hazardous waste landfill.

***EPA Response:***

The concentrations of barium and arsenic found at the site were similar to concentrations one would expect to find in urban fill, not in a hazardous waste landfill. However, given the chemical properties of these contaminants, specifically the low volatility and solubility, the capping that is proposed for the site, and the long-term monitoring/maintenance that is required under the Approval, will protect future site users from these site contaminants.

***COMMENT 19***

The capping plan does not address the lead contamination at the school.

***EPA Response:***

All site contaminants in the soil, including lead, have been addressed. Lead has similar chemical properties to barium and arsenic. As such, the capping that is proposed for the site, and the long-term monitoring/maintenance that is required under the Approval, will protect future site users from lead as well.

***COMMENT 20***

No documentation as to "cleanliness" of fill proposed was proposed.

***EPA Response:***

The specifications for the clean fill were provided in the City's cleanup request. These specifications require that all fill material brought to the site be tested to ensure that it meets regulatory definitions of "clean". In the PCB Regulations, EPA defines "clean" material to contain less than 1 ppm PCBs. Therefore, any fill materials brought to the Site must contain less than 1 ppm PCBs.

***COMMENT 21***

Only utility corridors have had complete removal of contaminated fill. Other areas, including travel paths, wetlands, play yards, etc. warrant complete removal of contaminants.

***EPA Response:***

For clarification, no play yards are proposed in the plan nor do any of the drawings or diagrams show such reuse activities. Further, the Activity and Use Limitation which will be placed on the site, will exclude this type of use. With respect to other areas on the site,

the exposure assessment concludes that there will be no unreasonable risk to site users following implementation of the caps, and provided there is long-term monitoring and maintenance of said caps. The Approval requires that the City submit monitoring and maintenance plans for caps, groundwater, sediment, vent gases, and the adjacent wetlands sediment to ensure the long-term integrity of these controls.

***COMMENT 22***

The venting system is passive and is not positioned to prevent gas venting from re-entering the building through HVAC intakes, windows, or roof access points. An active venting system should be standard for a site with elevated levels of pollutants.

***EPA Response:***

Given the chemical and physical properties of PCBs, EPA does not believe active venting is necessary. As discussed during the PIP meetings, PCBs have very low volatility and have not been detected in the soil/gas testing. Thus PCBs are not expected to be detected in any appreciable concentration in the venting system. Given this, it is very unlikely that PCBs beneath the school footprint would be detected in the indoor air even if the vapor barrier and venting system were not installed. However, the City proposed the installation of the vapor system as a conservative measure.

As a further safeguard, per *Alan Hanscom (BETA) to Kimberly Tisa (EPA) letter responding to EPA Supplemental Comments on Risk-Based Application, May 18, 2005,* the subslab vents will be located at least 20 feet away from the nearest HVAC unit, making entrance through the HVAC units as well as other access points most unlikely. However, should EPA find that the venting system is insufficient and/or creating indoor air concerns, EPA will require the City to conduct additional measures to correct the problem, such as adding carbon to the outlet of the vent stacks or requiring that the passive venting system be modified to an active venting system.

***COMMENT 23***

The plan indicates that PCBs are of low "volubility." However, EPA representatives have indicated that PCBs in the harbor are "voluble" under the right conditions and no information is provided on Keith to determine if the school site meets those conditions.

***EPA Response:***

EPA assumes that the commenter is referring to solubility and volatility. It is generally agreed in the scientific community that PCBs adsorb strongly to soil. Per the site characterization data, the primary PCB of concern at the McCoy Field Site is Aroclor 1254. In general, the more highly chlorinated PCBs, such as Aroclor 1254, will have a lower tendency to leach and therefore are more likely to remain adsorbed to soil. These

facts are supported by both the high octanol to water coefficient (average $K_{ow}$ is $1 \times 10^6$) and low water solubility (0.012 mg/L) as well as the results of the soil/gas vapor testing at the site.

A recent publication "*Dioxin and Dioxin-Like Compounds in the Food Study: Strategies to Reduce Exposure,"* published by National Academies Press, 2003, presented a discussion of the environmental mobility of dioxin-like compounds (DLCs), including dioxin-like PCBs. The following are excerpts from this publication:

> "Once below the soil surface, soil-bound DLCs do not appear to move up or down via volatilization without a carrier; this is particularly true for the tetra- and higher chlorinated DLCs. The presence of a solvent such as oil may facilitate the diffusive movement of DLCs through soil."
>
> "In soils, DLCs bind strongly to organic matter with the result that degradation below the soil surface is virtually nonexistent."

Field conditions which would contribute to or facilitate transport of PCBs are not present at McCoy Field. These conditions would include factors such as the presence of other contaminants in which PCBs are soluble (e.g. oils and organic solvents); presence of colloidal particles; or where there is direct evaporation of water in contact with PCB-contaminated materials. The latter is the case with New Bedford Harbor where there are high concentrations of PCBs in the sediments. As the water evaporates it can facilitate partitioning of PCBs into the water column. In general, the partitioning tendency will be greatest with the least chlorinated congeners (mono to tri- chlorinated congeners). Arochlor 1254 has, on average, less than 1% of these congeners.

Given the chemical and physical properties of PCBs, the measures that will be employed at the McCoy Field site, including clean surface caps and activity and use limitations, should reduce to insignificant levels and/or eliminate the potential for release of PCB contamination from the Site. This will be confirmed by the monitoring of groundwater and indoor air.

***COMMENT 24***

The vapor issue, venting issue and "volubility" issue should be settled before reuse of the site as a school.

***EPA Response:***

EPA believes these issues have been satisfactorily addressed. As previously discussed, EPA's Approval will be amended to require additional measures should it be determined that an unreasonable risk develops in the future as shown by the environmental and indoor air monitoring.

***COMMENT 25***

The plan indicates that maintenance personnel need awareness training and information on use limitations created by the PCB contamination. Awareness training does not train maintenance workers to be LSPs and only LSPs should be in control of risk management and oversight.

***EPA Response:***

As part of the long-term monitoring and maintenance plan, EPA is requiring that a worker training plan be developed. The intent of this training is not to train workers on how to deal with or handle contaminated material nor to become LSPs. Any work occurring beneath any cap and into contaminated materials must be done by a trained professional and not by school personnel. This will also be required under the AUL. The training for everyday on-site workers, (e.g. maintenance staff, landscapers) will serve to acquaint workers with where the contamination is, what activities are allowed and not allowed, what to be aware of in performing their activities, etc., with the intent that the PCBs left on-site are not accidentally disturbed. The City will be required to certify that all workers have taken the training. EPA will require that new workers take the training and that "refreshers" are provided on an annual basis.

***COMMENT 26***

The McCoy Field draft approval cannot be complete without an effective, detailed monitoring and maintenance plan from the City of New Bedford.

***EPA Response:***

EPA agrees. The Approval requires that the City of New Bedford submit a detailed monitoring and maintenance plan for the Site, including the surface caps, indoor air, vent gases, groundwater, and wetland sediments. In addition, the Approval requires that the City submit a communication plan and a worker training plan for EPA review and approval.

**BETA Group, Inc.**
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May 26, 2005

Ms. Kimberly Tisa
EPA New England, Region 1
1 Congress Street
Suite 1100 (CPT)
Boston, MA 02114-2023

Re: McCoy Field Site
225 Hathaway Boulevard
New Bedford, MA 02740

Dear Ms. Tisa:

This letter addresses review comments presented in the Versar, Inc. Memorandum dated May 19, 2005 from Diane Sinkowski to Laura Casey. This Memorandum was forwarded to BETA Group in an e-mail from you on May 20, 2005. The review comments are related to the revised risk assessment calculations provided in the two memoranda submitted to EPA Region 1 regarding the new Keith Middle School Site at the above-referenced location: Alan D. Hanscom, BETA Group, Inc. to Kimberly Tisa, EPA, Region 1 (May 2, 2005) and Cyndee Fuller, ESS Group, Inc., to Al Hanscom, BETA Group, "Revision of Risk-based Air Concentrations for PCBs and comparison with MADEP air guidance" (May 9, 2005). The purpose of this letter is to respond to Ms. Sinkowski's comments, with focus on the adequacy of the human health risk assessment calculations for the new Keith Middle School Site.

**Memorandum dated May 2, 2005**

**Comment Related to Calculation of PCB Exposure Point Concentrations**

The *Cleanup Request* originally presented PCB concentrations both in soil removed from the Site and soil remaining on Site, primarily because Site sample data had not been segregated into "remaining" and "removed." Table A-1 (attached) presents total PCB data for the 1057 samples representing soil/fill remaining on the Site. As the table shows, the maximum detected concentration of total PCBs is 94.5 mg/kg; the arithmetic mean concentration is 10.5 mg/kg and the 97.5$^{th}$ percentile upper confidence limit calculated by ProUCL is 13.4 mg/kg.

**Comment Related to Calculation of Air Dust Concentration Based on a Target Non-Carcinogenic Risk**

Calculations are provided in Table A-2 (attached) using a 70-year averaging time for the cancer endpoint and 1-year averaging time for the non-cancer endpoint. The resultant

target air concentrations, 66,000 $\mu g/m^3$ and 1,300 $\mu g/m^3$, are higher (less protective) than the screening level used to evaluate air measurements (400 $\mu g/m^3$) using the MADEP approach. The concentration applied (46.6 mg/kg) was the 95$^{th}$ percentile upper confidence limit of the mean concentration in the clean corridor known at that time (~May 2004). This concentration is retained in this example for consistency.

**Comment Related to Total Suspended Particulates versus Respirable Particulates or $PM_{10}$**

Since clean corridor work is completed and measurements of air particles were consistently below the conservative action level of 400 $\mu g/m^3$, estimation of PCB exposures using measured air particle data was not included as part of the Risk-based Closure Request.

**Comment Related to Table 3-1 Calculation of Indoor Inhalation of PCBs Volatilized from Soil**

The recalculation performed by Versar omitted the exposure duration value of 8 hours per day. Using the UR of 0.1 $(mg/m^3)^{-1}$, the cancer risk is $8x10^{-9}$ (i.e., eight times higher than calculated above).

**Comment Related to Table 3-5, Summary of Site Input Variables**

The planned structure is being built on pilings, with several engineered features between the impacted soil and the foundation base. Use of an areal crack fraction value of 0.00038 $cm^2/cm^2$ for a slab-on-grade structure is likely an overestimate, but increases the risk slightly from $8x10^{-9}$ to $1x10^{-8}$. Please note that page 39 of the U.S. EPA guidance has a typographic error when citing an areal crack fraction of 0.0038 $cm^2/cm^2$; the value should be 0.00038 $cm^2/cm^2$ (refer to Table 9 of the same document).

**<u>Memorandum dated May 9, 2005</u>**

**Comment Related to Selection of Hazard Index to Determine a Non-Carcinogenic Action Level**

The MCP uses a hazard index of 0.2 for chemical-specific Method 1 standards to partially account for cumulative risk not addressed by chemical-specific criteria. A target hazard index of 1 will result in a higher (less stringent) action level.

We trust that our responses adequately address the questions and concerns raised during Versar's and EPA's review of the aforementioned memoranda; however, we will be available to address any further questions or concerns that may arise.

Please call either of the undersigned with any questions related to the contents of this letter or any further concerns that may arise.

Very truly yours,

**BETA GROUP, INC.**

Alan D. Hanscom, P.E., LSP
Associate

**ESS GROUP, INC.**

Cynthia Fuller
Health Risk Assessor

Cc: Gerard Martin, MADEP
Scott Alfonse, City of New Bedford
Jacqueline Coucci, City of New Bedford
William DoCarmo, City Project Manager
Larry Oliveira, School Department
Evan Warner, Mount Vernon Group Architects
Jackie Huggins, BETA

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| A1-0.5-3' | 0.5-3 | 10/12/04 | 20.2 | |
| A13-0.5-3.6' | 0.5-3.6 | 10/12/04 | 3.65 | |
| A14-0.5-4.7' | 0.5-4.7 | 10/12/04 | 12.6 | |
| A18-0.5-3.6' | 0.5-3.6 | 10/12/04 | 23.2 | |
| A19-0.5-3.5' | 0.5-3.5 | 10/12/04 | 40.7 | |
| A2-0.5-1.9' | 0.5-1.9 | 10/12/04 | 1.92 | U |
| A20-0.5-2.75' | 0.5-2.75 | 10/12/04 | 22.3 | |
| A21-2.6-3.6' | 0.5-2.6 | 12/03/04 | 6.95 | |
| A22-0.5-2.5' | 0.5-2.5 | 10/12/04 | 1.72 | U |
| A23-0.5-2.5' | 0.5-2.5 | 10/12/04 | 1.82 | |
| A24-0.5-2.6' | 0.5-2.6 | 10/12/04 | 3.56 | |
| A25-0.5-2.1' | 0.5-2.1 | 10/12/04 | 9.8 | |
| A26-0.5-1.5 | 0.5-1.5 | 10/14/04 | 40.5 | |
| A27-0.5-1.2 | 0.5-1.2 | 10/14/04 | 4.55 | |
| A43-0.5-1.2 | 0.5-1.2 | 10/14/04 | 1.16 | U |
| A44-0.5-1.7 | 0.5-1.7 | 10/14/04 | 1.11 | U |
| A45-0.5-2.5 | 0.5-2.5 | 10/14/04 | 1.13 | U |
| A46-0.5-2.1 | 0.5-2.1 | 10/14/04 | 1.08 | U |
| A50-0.5-2.7 | 0.5-2.7 | 10/14/04 | 1.13 | U |
| A52-0-3.5 | 0-3.5 | 11/11/04 | 1.15 | U |
| A53-0-3 | 0-3 | 11/11/04 | 1.09 | U |
| A54-0-2.5 | 0-2.5 | 11/11/04 | 1.18 | U |
| A55-0-1 | 0-1 | 11/11/04 | 1.1 | U |
| A57-0-2 | 0-2 | 11/04/04 | 1.025 | U |
| A58-0-2 | 0-2 | 11/04/04 | 1 | U |
| A59.5-1-3' | 1-3 | 11/04/04 | 1.05 | U |
| A59-0-1.5 | 0-1.5 | 11/04/04 | 1.1 | U |
| A5-A-2.5-3.5' | 2.5-3.5 | 12/03/04 | 64.1 | |
| A5-A-3.5-4.5' | 3.5-4.5 | 12/03/04 | 3.87 | |
| A5-C-2.5-3.5' | 2.5-3.5 | 12/03/04 | 2.23 | |
| A5-C-3.5-4.5' | 3.5-4.5 | 12/03/04 | 7.23 | |
| A5-H-4.5-5.5' | 4.5-5.5 | 12/28/04 | 55 | |
| A5-I-2.5-3.5' | 2.5-3.5 | 12/28/04 | 1.16 | U |
| A5-I-3.5-4.5' | 3.5-4.5 | 12/28/04 | 74.1 | |
| A5-J-3.5-4.5' | 3.5-4.5 | 01/11/05 | 8.55 | |
| A5-K-3.5-4.5' | 3.5-4.5 | 01/11/05 | 18.1 | |
| A5-L-3.5-4.5' | 3.5-4.5 | 01/11/05 | 55.1 | |
| A6-0.5-1.75' | 0.5-1.75 | 10/12/04 | 1.96 | U |
| A60-1-3.5 | 1-3.5 | 11/04/04 | 2.75 | |
| A7-0.5-1.6 | 0.5-1.6 | 10/12/04 | 1.96 | U |
| A8-0.5-1.6' | 0.5-1.6 | 10/12/04 | 4.43 | |
| A9-0.5-1.6' | 0.5-1.6 | 10/12/04 | 1.87 | U |
| B1-0.5-1.1' | 0.5-1.1 | 10/12/04 | 1.81 | U |
| B19-0.5-2.4' | 0.5-2.4 | 10/12/04 | 1.85 | U |
| B23-0.5-0.7' | 0.5-0.7 | 10/12/04 | 9.42 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| B24-0.5-1.2' | 0.5-1.2 | 10/12/04 | 1.79 | U |
| B25-0.5-2.1' | 0.5-1.2 | 10/12/04 | 9.32 | |
| B26-0.5-1.9 | 0.5-1.9 | 10/14/04 | 44.8 | |
| B26-0.5-1.9 Mix | 0.5-1.9 | 10/14/04 | 26.4 | |
| B26-0.5-2.0 | 0.5-2.0 | 12/03/04 | 9.39 | |
| B28-0.5-1.2 | 0.5-1.2 | 10/14/04 | 14.05 | U |
| B32-0.5-0.7 | 0.5-0.7 | 10/14/04 | 1.35 | |
| B37-0.5-0.9 | 0.5-0.9 | 10/14/04 | 1.08 | U |
| B38-0.5-0.7 | 0.5-0.7 | 10/14/04 | 1.01 | U |
| B41-0.5-0.8 | 0.5-0.8 | 10/14/04 | 1.03 | U |
| B42-0.5-1.6 | 0.5-1.6 | 10/14/04 | 1.06 | U |
| B43-0.5-1.75 | 0.5-1.75 | 10/14/04 | 2.13 | |
| B44-0.5-2.4 | 0.5-2.4 | 10/14/04 | 1.04 | U |
| B46-0.5-1.0 | 0.5-1 | 10/14/04 | 1.08 | U |
| B53-0-2 | 0-2 | 11/11/04 | 1.11 | |
| B54-0-1 | 0-1 | 11/11/04 | 1.13 | U |
| B59.5-0.5-2 | 0.5-2 | 11/04/04 | 2.95 | |
| B60-1-3.5 | 1-3.5 | 11/04/04 | 1.15 | U |
| B8-0.5-0.6' | 0.5-0.6 | 10/12/04 | 6.19 | |
| B9-0.5-0.7 | 0.5-0.7 | 10/12/04 | 9.03 | |
| BS-100-1-4' | 1-4 | 11/03/04 | 6.19 | |
| BS-101-1-3.75' | 1-3.75 | 11/03/04 | 3.65 | |
| BS-102-1-2' | 1-2 | 11/03/04 | 1.92 | U |
| BS-103-1-2.75' | 1-2.75 | 11/03/04 | 1.94 | U |
| BS-104-1-4' | 1-4 | 11/03/04 | 2.08 | U |
| BS-105-1-1.5' | 1-1.5 | 11/03/04 | 1.89 | U |
| BS-106-1-4' | 1-4 | 11/03/04 | 2.18 | |
| BS-107-1-3.25' | 1-3.25 | 11/03/04 | 40 | |
| BS-108-1-1.75' | 1-1.75 | 11/03/04 | 3.44 | |
| BS-109-1-3.75' | 1-3.75 | 11/03/04 | 8.52 | |
| BS-110-1-3.75' | 1-3.75 | 11/03/04 | 18.1 | |
| BS-111-1-4.5' | 1-4.5 | 11/03/04 | 8.62 | |
| BS-112-1-4' | 1-4 | 11/03/04 | 48 | |
| BS-112-4-7' | 4-7 | 11/03/04 | 5.96 | |
| BS-113-1-4' | 1-4 | 11/03/04 | 1.94 | U |
| BS-113-4-7' | 4-7 | 11/03/04 | 6.67 | |
| BS-114-1-5' | 1-5 | 11/03/04 | 2.53 | |
| BS-115-1-2' | 1-2 | 11/03/04 | 1.89 | U |
| BS-116-1-2' | 1-2 | 11/03/04 | 1.89 | U |
| BS-117-1-2' | 1-2 | 11/03/04 | 1.85 | U |
| BS-118-1-1.75' | 1-1.75 | 11/03/04 | 1.85 | U |
| BS-69-1.5-2.5' | 1.5-2.5 | 12/02/04 | 14.2 | |
| BS-69-B-1-2' | 1-2 | 11/17/04 | 2.28 | |
| BS-69-C-1-2' | 1-2 | 11/17/04 | 7.7 | |
| BS-93-1-2' | 1-2 | 11/03/04 | 2 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| BS-94-1-4.5' | 1-4.5 | 11/03/04 | 2.7 | |
| BS-95-1-2' | 1-2 | 11/03/04 | 1.89 | U |
| BS-96-1-6' | 1-6 | 11/03/04 | 1.89 | U |
| BS-97-1-5.25' | 1-5.25 | 11/03/04 | 2.49 | U |
| BS-98-1-5' | 1-5 | 11/03/04 | 5.45 | |
| BS-99-1-4.25' | 1-4.25 | 11/03/04 | 20.1 | |
| C1-0.5-0.6' | 0.5-0.6 | 10/12/04 | 4.56 | |
| C18-0.5-2.25' | 0.5-2.25 | 10/12/04 | 1.81 | U |
| C19-0.5-1.3' | 0.5-1.3 | 10/12/04 | 1.87 | U |
| C26-0.5-1.0 | 0.5-1 | 10/14/04 | 2.16 | |
| C5-0.5-0.6' | 0.5-0.6 | 10/12/04 | 13.3 | |
| C50-0.5-1.7 | 0.5-1.7 | 10/14/04 | 1.03 | U |
| C53-0-1.5 | 0-1.5 | 11/11/04 | 1.06 | U |
| C59.5-0.5-2 | 0.5-2 | 11/04/04 | 1.3 | |
| C6-0.5-1 | 0.5-1 | 10/12/04 | 14.5 | |
| C60-1-3.5 | 1-3.5 | 11/04/04 | 1.172 | U |
| C7-0.5-1 | 0.5-1 | 10/12/04 | 15.5 | |
| C8-0.5-1.25' | 0.5-1.25 | 10/12/04 | 9.34 | |
| C9-0.5-1.7' | 0.5-1.7 | 10/12/04 | 13.5 | |
| Comp DB 12, 18, 24-1-4' | 1-4 | 08/04/04 | 10.6 | |
| Comp DB 3&4-1-4' | 1-4 | 08/03/04 | 7.85 | |
| Comp DB 30, 36, 42-1-4' | 1-4 | 08/04/04 | 11.7 | |
| D1-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1.34 | |
| D10-0.5-2.2 | 0.5-2.2 | 12/28/04 | 11.7 | |
| D18-0.5-1.1 | 0.5-1.1 | 10/12/04 | 5.29 | |
| D46-0.5-0.7 | 0.5-0.7 | 10/14/04 | 1.15 | U |
| D5-0.5-0.8 | 0.5-0.8 | 12/28/04 | 8.22 | |
| D53-0-2 | 0-2 | 11/11/04 | 1.1 | U |
| D59.5-0-2 | 0-2 | 11/04/04 | 35.435 | |
| D6-0.5-1.1 | 0.5-1.1 | 12/28/04 | 5.47 | |
| D60-0-1.5 | 0-1.5 | 11/04/04 | 8.86 | |
| D7-0.5-1.15 | 0.5-1.15 | 12/28/04 | 10.7 | |
| D8-0.5-1.45 | 0.5-1.45 | 12/28/04 | 7.74 | |
| D9-0.5-1.9 | 0.5-1.9 | 12/28/04 | 6.05 | |
| DB 1-1-4' | 1-4 | 08/03/04 | 6.63 | |
| DB 3-1-4' | 1-4 | 08/03/04 | 10.4 | |
| DB 4-1-4' | 1-4 | 08/03/04 | 4.62 | |
| DB 6-1-4' | 1-4 | 08/03/04 | 2.5 | |
| DB 7-1-4' | 1-4 | 08/03/04 | 8.84 | |
| DB 8-1-3' | 1-3 | 08/03/04 | 8.18 | |
| DB 8-3-6' | 3-6 | 08/03/04 | 7.49 | |
| DB 8-6-9' | 6-9 | 08/03/04 | 1.2 | U |
| DB12-1-4' | 1-4 | 08/04/04 | 23.9 | |
| DB13-1-4' | 1-4 | 08/03/04 | 4.62 | |
| DB14-1-3' | 1-3 | 08/03/04 | 21.1 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| DB14-3-6' | 3-6 | 08/03/04 | 7.82 | |
| DB14-6-9' | 6-9 | 08/03/04 | 1.19 | |
| DB14-Comp | 1-9 | 08/03/04 | 9.08 | |
| DB18-1-4' | 1-4 | 08/04/04 | 19.5 | |
| DB19-1-4' | 1-4 | 08/03/04 | 7.83 | |
| DB20-1-3' | 1-3 | 08/03/04 | 4.9 | |
| DB20-3-6' | 3-6 | 08/03/04 | 38.1 | |
| DB20-6-9' | 6-9 | 08/03/04 | 2.49 | |
| DB20-Comp | 1-9 | 08/03/04 | 3.16 | |
| DB24-1-4' | 1-4 | 08/04/04 | 23.5 | |
| DB25-1-4' | 1-4 | 08/03/04 | 10.9 | |
| DB26-B-1-3' | 1-3 | 09/09/04 | 19.2 | U |
| DB26-B-3-6' | 3-6 | 09/09/04 | 21.6 | U |
| DB26-C-1-3' | 1-3 | 09/09/04 | 18.7 | U |
| DB26-C-3-6' | 3-6 | 09/09/04 | 24.2 | U |
| DB26-C-6-9' | 6-9 | 09/09/04 | 22.2 | U |
| DB26-D-1-3' | 1-3 | 09/09/04 | 20.1 | |
| DB26-D-3-6' | 3-6 | 09/09/04 | 23.1 | U |
| DB26-D-6-9' | 6-9 | 09/09/04 | 20.8 | U |
| DB26-F-3-6' | 3-6 | 09/22/04 | 4.13 | |
| DB26-F-6-13' | 6-13 | 09/22/04 | 7.81 | |
| DB26-G-3-6' | 3-6 | 09/22/04 | 5.41 | |
| DB26-G-6-12.5' | 6-12.5 | 09/22/04 | 2.41 | |
| DB26-H-3-6' | 3-6 | 09/22/04 | 8.16 | |
| DB26-H-6-11' | 6-11 | 09/22/04 | 11.2 | |
| DB30-1-4' | 1-4 | 08/04/04 | 9.45 | |
| DB31-1-4' | 1-4 | 08/03/04 | 7.01 | |
| DB32-B-1-3' | 1-3 | 09/09/04 | 18.9 | U |
| DB32-B-3-6' | 3-6 | 09/09/04 | 24.2 | U |
| DB32-C-1-3' | 1-3 | 09/09/04 | 19.6 | U |
| DB32-C-3-6' | 3-6 | 09/09/04 | 24.8 | |
| DB32-D-1-3' | 1-3 | 09/09/04 | 19.4 | U |
| DB32-D-3-6' | 3-6 | 09/09/04 | 23.1 | U |
| DB36-1-4' | 1-4 | 08/04/04 | 5.86 | |
| DB37-1-4' | 1-4 | 08/03/04 | 32.1 | |
| DB38-1-3' | 1-3 | 08/03/04 | 2.46 | |
| DB38-3-6' | 3-6 | 08/03/04 | 26.5 | |
| DB38-6-9' | 6-9 | 08/03/04 | 5.25 | |
| DB42-1-4' | 1-4 | 08/04/04 | 7.91 | |
| DB43-1-4' | 1-4 | 08/03/04 | 36.7 | |
| DB44-1-3' | 1-3 | 08/03/04 | 1.46 | |
| DB44-3-6' | 3-6 | 08/03/04 | 38.2 | |
| DB44-6-9' | 6-9 | 08/03/04 | 29 | |
| DB48-1-4' | 1-4 | 09/08/04 | 24.9 | |
| DB49-1-4' | 1-4 | 08/03/04 | 7.23 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| DB50-1-3' | 1-3 | 08/03/04 | 22.8 | |
| DB50-3-6' | 3-6 | 08/03/04 | 1.91 | |
| DB50-6-9' | 6-9 | 08/03/04 | 4.15 | |
| DB50-Comp | 1-9 | 08/03/04 | 5.9 | |
| DB51-1-3' | 1-3 | 08/03/04 | 3.5 | |
| DB51-3-6' | 3-6 | 08/03/04 | 3.75 | |
| DB51-6-9' | 6-9 | 08/03/04 | 8.91 | |
| DB52-1-4' | 1-4 | 09/08/04 | 7.56 | |
| DB52-4-7' | 4-7 | 09/08/04 | 23.4 | |
| DB52-7-10.5' | 7-10.5 | 09/08/04 | 24.2 | U |
| DB52-A-1-3' | 1-3 | 09/14/04 | 19.4 | U |
| DB52-A-3-6' | 3-6 | 09/14/04 | 21.6 | U |
| DB52-A-6-10' | 6-10 | 09/14/04 | 21.6 | U |
| DB52-B-1-3' | 1-3 | 09/14/04 | 18.5 | U |
| DB52-B-3-6' | 3-6 | 09/14/04 | 32.5 | |
| DB52-B-6-10' | 6-10 | 09/14/04 | 21.4 | U |
| DB52-C-1-3' | 1-3 | 09/14/04 | 20.1 | U |
| DB52-C-3-6' | 3-6 | 09/14/04 | 20.3 | U |
| DB52-C-6-9.5' | 6-9.5 | 09/14/04 | 24.2 | U |
| DB52-D-1-3' | 1-3 | 09/14/04 | 18.7 | U |
| DB52-D-3-6' | 3-6 | 09/14/04 | 21.6 | U |
| DB52-D-6-9.5' | 6-9.5 | 09/14/04 | 23.5 | U |
| DB54-1-4' | 1-4 | 09/08/04 | 34.2 | |
| DB55-1-4' | 1-4 | 08/03/04 | 6.96 | |
| DB56-1-4' | 1-4 | 08/03/04 | 2.94 | |
| DB57-1-4' | 1-4 | 08/03/04 | 7.86 | |
| DB58-1-4' | 1-4 | 09/08/04 | 15.4 | |
| DB59 C-1-3 | 1-3 | 09/20/04 | 22.9 | |
| DB59 C-3-6 | 3-6 | 09/20/04 | 8.63 | |
| DB59 C-6-10 | 6-10 | 09/20/04 | 22.2 | |
| DB5-A-1-3' | 1-3 | 09/14/04 | 18.9 | U |
| DB5-C-1-3' | 1-3 | 09/14/04 | 19.4 | U |
| DB5-D-1-3' | 1-3 | 09/14/04 | 19.6 | U |
| DB5-D-3-6' | 3-6 | 09/14/04 | 22.2 | U |
| DB5-D-6-11.5' | 6-11.5 | 09/14/04 | 12.9 | |
| DB5-E-10-12' | 10-12 | 09/29/04 | 1.34 | U |
| DB5-E-1-3' | 1-3 | 09/29/04 | 5.61 | |
| DB5-E-3-6' | 3-6 | 09/29/04 | 5.92 | |
| DB5-E-6-10' | 6-10 | 09/29/04 | 1.35 | U |
| DB5-F-10-11.5' | 10-11.5 | 09/29/04 | 1.82 | |
| DB5-F-1-3' | 1-3 | 09/29/04 | 11.3 | |
| DB5-F-3-6' | 3-6 | 09/29/04 | 49.1 | |
| DB5-F-6-10' | 6-10 | 09/29/04 | 1.6 | U |
| DB5-G-1-3' | 1-3 | 09/30/04 | 4.1 | |
| DB5-G-6-10.5 | 6-10.5 | 09/30/04 | 1.5 | U |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| DB5-K-10-12' | 10-12 | 09/30/04 | 2.08 | U |
| DB5-K-1-3' | 1-3 | 09/30/04 | 13.6 | |
| DB5-K-3-6' | 3-6 | 09/30/04 | 5.42 | |
| DB5-K-6-10' | 6-10 | 09/30/04 | 27.6 | |
| DB5-L-10-11.5' | 10-11.5 | 09/30/04 | 1.47 | U |
| DB5-L-1-3' | 1-3 | 09/30/04 | 7.74 | |
| DB5-L-3-6' | 3-6 | 09/30/04 | 8.44 | |
| DB5-L-6-10' | 6-10 | 09/30/04 | 7.24 | |
| DB5-M-10-12' | 10-12 | 09/29/04 | 1.52 | |
| DB5-M-1-3' | 1-3 | 09/29/04 | 8.47 | |
| DB5-M-3-6' | 3-6 | 09/29/04 | 70.6 | |
| DB5-M-6-10' | 6-10 | 09/29/04 | 38.6 | |
| DB60-1-4' | 1-4 | 09/08/04 | 28.5 | |
| DB8-Comp | 1-9 | 08/03/04 | 4.25 | |
| DL18-1-3' | 1-3 | 08/11/04 | 5.1 | |
| DL18-3-6' | 3-6 | 08/11/04 | 3.33 | |
| DL19-1-3' | 1-3 | 08/11/04 | 4 | |
| DL19-3-6' | 3-6 | 08/11/04 | 8.4 | |
| DL20-1-3' | 1-3 | 08/11/04 | 21 | |
| DL20-3-6' | 3-6 | 08/11/04 | 5.825 | |
| DL22-1-3' | 1-3 | 08/11/04 | 26 | |
| DL22-3-6' | 3-6 | 08/11/04 | 1.28 | U |
| DL35-1-4' | 1-4 | 08/11/04 | 33.8 | |
| DL36-1-4' | 1-4 | 08/11/04 | 8.6 | |
| DL36-4-8' | 4-8 | 08/11/04 | 4.65 | |
| DL36-4-8' | 4-8 | 08/11/04 | 13.8 | |
| DL85-1-3' | 1-3 | 08/26/04 | 18.3 | U |
| DL85-3-6' | 3-6 | 08/26/04 | 19.6 | U |
| DL85-6-9' | 6-9 | 08/26/04 | 21.4 | U |
| DL92-A-1-4' | 1-4 | 10/22/04 | 12.1 | |
| DL92-A-4-8' | 4-8 | 10/22/04 | 7.02 | |
| DL92-A-8-9.5' | 8-9.5 | 10/22/04 | 4.36 | |
| DL92-C-1-4' | 1-4 | 10/22/04 | 94.5 | |
| DL92-C-4-8' | 4-8 | 10/22/04 | 3.26 | |
| DL92-C-8-9.75' | 8-9.75 | 10/22/04 | 1.77 | U |
| E1-0.5-0.8 | 0.5-0.8 | 12/28/04 | 1.07 | |
| E10-0.5-1.9 | 0.5-1.9 | 12/28/04 | 9.9 | |
| E13-0.5-2.4 | 0.5-2.4 | 12/28/04 | 6.7 | |
| E14-0.5-1.25 | 0.5-1.25 | 10/14/04 | 5.97 | |
| E15-0.5-2.5 | 0.5-2.5 | 10/14/04 | 2.8 | |
| E47-0.5-0.6 | 0.5-0.6 | 10/14/04 | 1.08 | U |
| E5-0.5-0.85 | 0.5-0.85 | 12/28/04 | 14.4 | |
| E53-0-1 | 0-1 | 11/11/04 | 1.12 | U |
| E59.5-0-2 | 0-2 | 11/04/04 | 16.8 | |
| E6-0.5-0.9 | 0.5-0.9 | 12/28/04 | 14.3 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| E7-0.5-1.2 | 0.5-1.2 | 12/28/04 | 8.49 | |
| E8-0.5-1.25 | 0.5-1.25 | 12/28/04 | 3.85 | |
| E9-0.5-1.5 | 0.5-1.5 | 12/28/04 | 6.2 | |
| F13-0.5-1.4 | 0.5-1.4 | 12/28/04 | 1.11 | U |
| F14-0.5-1.5 | 0.5-1.5 | 10/14/04 | 8.25 | |
| F15-0.5-1 | 0.5-1 | 10/14/04 | 5.64 | |
| F50-0.5-1.5 | 0.5-1.5 | 10/14/04 | 1.01 | U |
| F51-0-2 | 0-2 | 11/04/04 | 1.1 | U |
| F59.5-0-2 | 0-2 | 11/04/04 | 21.8 | |
| F60-0.25-2 | 0.25-2 | 11/04/04 | 45.5 | |
| G13-0.5-1.2 | 0.5-1.2 | 12/28/04 | 1.08 | U |
| G14-0.5-1.5 | 0.5-1.5 | 10/14/04 | 5.83 | |
| G18-0.5-1.2 | 0.5-1.2 | 10/14/04 | 1.11 | U |
| G50-0.5-1.6 | 0.5-1.6 | 10/14/04 | 1.09 | U |
| G51-0-1 | 0-1 | 11/04/04 | 1.1 | U |
| G52-0-1 | 0-1 | 11/11/04 | 1.11 | |
| G53-0-1 | 0-1 | 11/11/04 | 1.1 | U |
| G54-0-1 | 0-1 | 11/11/04 | 4.39 | |
| G59.5-0-3.25' | 0-3.25 | 11/04/04 | 2.4 | |
| G59-0-2' | 0-2 | 11/04/04 | 3.25 | |
| G60-0.5-3 | 0.5-3 | 11/04/04 | 1.25 | U |
| GB3-A-3-6' | 3-6 | 09/22/04 | 1.09 | U |
| GB3-B-1-3' | 1-3 | 09/22/04 | 4.08 | |
| GB3-B-3-6' | 3-6 | 09/22/04 | 1.06 | U |
| GB3-C-3-5' | 3-5 | 09/22/04 | 1.26 | U |
| GB3-D-1-3' | 1-3 | 09/22/04 | 10.1 | |
| GB3-D-3-6' | 3-6 | 09/22/04 | 63.6 | |
| GB3-E-6-7' | 6-7 | 11/02/04 | 1.83 | U |
| GB3-F-6-7' | 6-7 | 11/02/04 | 1.89 | U |
| GB3-G-6-7' | 6-7 | 11/02/04 | 1.87 | U |
| GB3-H-6-7' | 6-7 | 11/02/04 | 13.1 | |
| GB56-1-2.5' | 1-2.5 | 08/04/04 | 1.18 | |
| GB58-1-2.5' | 1-2.5 | 08/04/04 | 0.95 | U |
| GB59-1-2.5' | 1-2.5 | 08/04/04 | 1.02 | U |
| GB60-1-2.5' | 1-2.5 | 08/04/04 | 2.44 | |
| GB61-1-2.5' | 1-2.5 | 08/04/04 | 1.61 | U |
| GB62-1-2.5 | 1-2.5 | 08/04/04 | 2.61 | |
| GB63-1-2.5' | 1-2.5 | 08/04/04 | 6.7 | |
| GB64-1-2.5' | 1-2.5 | 08/04/04 | 2.14 | |
| GB65-1-2' | 1-2 | 08/26/04 | 1.89 | U |
| GB66-1-2' | 1-2 | 08/04/04 | 0.841 | U |
| GB67-1-2' | 1-2 | 08/04/04 | 0.99 | U |
| GB68-1-2.5' | 1-2.5 | 08/04/04 | 1.05 | U |
| GB69-1-2.5' | 1-2.5 | 08/04/04 | 1.07 | U |
| GB70-1-2.5' | 1-2.5 | 08/04/04 | 1.08 | U |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| GB71-1-2.5' | 1-2.5 | 08/04/04 | 5.89 | |
| GB72-1-2.5' | 1-2.5 | 08/04/04 | 7.02 | |
| GB73-1-2.5' | 1-2.5 | 08/04/04 | 9.31 | |
| GB74-1-2.5' | 1-2.5 | 08/04/04 | 1 | U |
| GB75-1-3' | 1-3 | 08/04/04 | 3.31 | |
| GB76-1-3.5' | 1-3.5 | 12/02/04 | 1.75 | |
| GB77-1-3' | 1-3 | 08/04/04 | 1 | U |
| GB78-1-2.5' | 1-2.5 | 08/04/04 | 1 | U |
| GB79-1-2.5' | 1-2.5 | 08/04/04 | 1.08 | U |
| GB80-1-2.5' | 1-2.5 | 08/04/04 | 2.28 | |
| GB81-1-2.5' | 1-2.5 | 08/04/04 | 1.06 | U |
| GB82-1-3' | 1-3 | 08/04/04 | 0.94 | U |
| H1-0.5-0.65 | 0.5-0.65 | 12/28/04 | 7.58 | |
| H13-0.5-0.9 | 0.5-0.9 | 12/28/04 | 3.83 | |
| H14-0.5-1.25 | 0.5-1.25 | 10/14/04 | 6.38 | |
| H15-0.5-1.3 | 0.5-1.3 | 10/14/04 | 5.87 | |
| H21-0.5-1.2 | 0.5-1.2 | 10/14/04 | 1.1 | U |
| H22-0.5-1.3 | 0.5-1.3 | 10/14/04 | 1.07 | U |
| H26-0.5-1 | 0.5-1 | 10/14/04 | 5.21 | |
| H50-0.5-1.25 | 0.5-1.25 | 10/14/04 | 1.1 | U |
| H51-0-1.5 | 0-1.5 | 11/04/04 | 1.09 | U |
| H52-0-1 | 0-1 | 11/11/04 | 18.8 | |
| H54-0-3 | 0-3 | 11/11/04 | 4.17 | |
| H55-0-3 | 0-3 | 11/11/04 | 1.2 | U |
| H56-0-2 | 0-2 | 11/04/04 | 1.06 | U |
| H57-0-2 | 0-2 | 11/04/04 | 1.1 | U |
| H58-0-3 | 0-3 | 11/04/04 | 1.08 | U |
| H59.5-0-2 | 0-2 | 11/04/04 | 8.9 | |
| H59-0-2.5 | 0-2.5 | 11/04/04 | 1.125 | U |
| H60-0-2.5 | 0-2.5 | 11/04/04 | 47.7 | |
| HG56.75-0-1.5 | 0-1.5 | 11/04/04 | 1.1 | U |
| I1-0.5-0.7 | 0.5-0.7 | 12/28/04 | 1.13 | U |
| I13-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1.08 | U |
| I14-0.5-1.25 | 0.5-1.25 | 12/28/04 | 4.2 | |
| I26-0.5-1.1 | 0.5-1.1 | 10/14/04 | 2.63 | |
| I50-0.5-1 | 0.5-1 | 10/14/04 | 1.09 | U |
| I51-0-1.75 | 0-1.75 | 11/04/04 | 1.1 | U |
| I52-0-1.75 | 0-1.75 | 11/11/04 | 1.09 | U |
| I56-0-1' | 0-1 | 02/16/05 | 2.15 | |
| I56-1-3' | 1-3 | 02/16/05 | 0.108 | U |
| I57-0-1' | 0-1 | 02/16/05 | 1.725 | |
| I57-1-3' | 1-3 | 02/16/05 | 0.106 | U |
| I58-0-1' | 0-1 | 02/16/05 | 0.42 | |
| I58-1-3' | 1-3 | 02/16/05 | 0.103 | U |
| I59-0-1' | 0-1 | 02/16/05 | 32.6 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| I59-1-3' | 1-3 | 02/16/05 | 0.105 | U |
| I60-0-1' | 0-1 | 02/16/05 | 9.45 | |
| I60-1-3' | 1-3 | 02/16/05 | 0.102 | U |
| J1-0.5-0.7 | 0.5-0.7 | 12/28/04 | 4.39 | |
| J21-0.5-1 | 0.5-1 | 10/14/04 | 1.04 | U |
| J26-0.5-1 | 0.5-1 | 10/14/04 | 1.07 | U |
| J50-0.5-0.7 | 0.5-0.7 | 10/14/04 | 1.09 | U |
| J51-0-1 | 0-1 | 11/04/04 | 1.1 | U |
| J52-0-0.75 | 0-0.75 | 11/11/04 | 1.13 | U |
| J58-0-1' | 0-1 | 02/16/05 | 0.76 | |
| J58-1-3' | 1-3 | 02/16/05 | 0.11 | U |
| J59-0-1' | 0-1 | 02/16/05 | 49 | |
| J59-1-3' | 1-3 | 02/16/05 | 0.49 | |
| J60-0-1' | 0-1 | 02/16/05 | 2.36 | |
| J60-1-3' | 1-3 | 02/16/05 | 0.55 | |
| K1-0.5-0.7 | 0.5-0.7 | 12/28/04 | 11.9 | |
| K10-0.5-1.1 | 0.5-1.1 | 12/28/04 | 3.53 | |
| K12-0.5-1.2 | 0.5-1.2 | 12/28/04 | 6.01 | |
| K13-0.5-1.7 | 0.5-1.7 | 12/28/04 | 1.03 | U |
| K14-0.5-1.15 | 0.5-1.15 | 12/28/04 | 13.8 | |
| K51-0-0.75 | 0-0.75 | 11/04/04 | 1.125 | U |
| K60-0-1' | 0-1 | 02/16/05 | 0.137 | U |
| K60-1-3' | 1-3 | 02/16/05 | 0.109 | U |
| K8-0.5-0.55 | 0.5-0.65 | 12/28/04 | 1.09 | U |
| K9-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1.07 | U |
| L1-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1.09 | |
| L10-0.5-1.1 | 0.5-1.1 | 12/28/04 | 7.17 | |
| L10-1-3' | 1-3 | 08/17/04 | 1.08 | |
| L10-6-9' | 6-9 | 08/17/04 | 23.5 | |
| L10-A-3-6' | 3-6 | 12/03/04 | 10 | |
| L10-B-3-6' | 3-6 | 12/03/04 | 9.53 | |
| L10-C-3-6' | 3-6 | 12/03/04 | 3.52 | |
| L10-D-3-6' | 3-6 | 12/03/04 | 73.5 | |
| L11-1-3' | 1-3 | 08/17/04 | 13.1 | |
| L11-3-6' | 3-6 | 08/17/04 | 2.22 | |
| L1-1-4' | 1-4 | 08/17/04 | 3.64 | |
| L11-A-6-10' | 6-10 | 12/03/04 | 3.45 | |
| L11-B-6-11' | 6-11 | 12/02/04 | 11.7 | |
| L11-C-6-10' | 6-10 | 12/03/04 | 1.16 | U |
| L11-D-6-9.5' | 6-9.5 | 12/02/04 | 10.2 | |
| L12-0.5-1 | 0.5-1 | 12/28/04 | 1.12 | U |
| L12-1-4' | 1-4 | 08/17/04 | 54.5 | |
| L12-4-7' | 4-7 | 08/17/04 | 3.63 | |
| L12-7-10' | 7-10 | 08/17/04 | 21.7 | |
| L13-0.5-1.5 | 0.5-1.5 | 12/28/04 | 5.02 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| L13-1-4' | 1-4 | 08/17/04 | 2.35 | |
| L13-4-8' | 4-8 | 08/17/04 | 0.0344 | U |
| L13-8-12' | 8-12 | 08/17/04 | 0.0362 | U |
| L14-0.5-1.75 | 0.5-1.75 | 12/28/04 | 4.21 | |
| L14-1-4' | 1-4 | 08/17/04 | 0.0379 | U |
| L14-4-8' | 4-8 | 08/17/04 | 0.0948 | |
| L1-4-7' | 4-7 | 08/17/04 | 2.92 | |
| L14-8-12' | 8-12 | 08/17/04 | 0.0355 | U |
| L15-1-4' | 1-4 | 08/17/04 | 0.0362 | U |
| L15-4-8' | 4-8 | 08/17/04 | 1.1 | |
| L15-8-12' | 8-12 | 08/17/04 | 0.492 | |
| L16-1-4' | 1-4 | 08/17/04 | 2.12 | |
| L16-4-8' | 4-8 | 08/17/04 | 4.37 | |
| L1-7-11' | 7-11 | 08/17/04 | 2.1 | |
| L17-1-4' | 1-4 | 08/19/04 | 0.374 | U |
| L17-4-7' | 4-7 | 08/19/04 | 0.49 | U |
| L17-7-10' | 7-10 | 08/19/04 | 0.383 | U |
| L18-0-4' | 0-4 | 12/03/04 | 1.18 | U |
| L18-4-5' | 4-5 | 12/03/04 | 1.21 | |
| L19-1-4' | 1-4 | 08/19/04 | 0.379 | U |
| L19-4-7' | 4-7 | 08/19/04 | 3.12 | |
| L19-7-11' | 7-11 | 08/19/04 | 3.26 | |
| L20-1-4' | 1-4 | 08/19/04 | 2.3 | |
| L20-4-7' | 4-7 | 08/19/04 | 5.53 | |
| L20-7-11' | 7-11 | 08/19/04 | 1.97 | |
| L21-1-4' | 1-4 | 08/19/04 | 2.82 | |
| L21-4-7' | 4-7 | 08/19/04 | 1.9 | |
| L21-7-10.5' | 7-10.5 | 08/19/04 | 1.42 | |
| L22-1-4' | 1-4 | 08/19/04 | 0.792 | |
| L22-4-7' | 4-7 | 08/19/04 | 5.16 | |
| L22-7-11.5' | 7-11.5 | 08/19/04 | 2.52 | |
| L23-1-4' | 1-4 | 08/19/04 | 2.01 | |
| L23-4-8' | 4-8 | 08/19/04 | 22.2 | |
| L23-8-12' | 8-12 | 08/19/04 | 1.22 | |
| L24-1-4' | 1-4 | 08/19/04 | 4.47 | |
| L24-4-7' | 4-7 | 08/19/04 | 3.78 | |
| L24-7-9' | 7-9 | 08/19/04 | 21.4 | |
| L25-4-7' | 4-7 | 08/19/04 | 19.9 | |
| L25-7-10' | 7-10 | 08/19/04 | 3.49 | |
| L26-1-4' | 1-4 | 08/19/04 | 10.6 | |
| L26-4-8' | 4-8 | 08/19/04 | 9.15 | |
| L26-8-12' | 8-12 | 08/19/04 | 6.21 | |
| L27-1-4' | 1-4 | 08/19/04 | 5.65 | |
| L27-4-8.5' | 4-8.5 | 08/19/04 | 26.3 | |
| L28-1-3' | 1-3 | 08/19/04 | 0.358 | U |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| L28-3-6' | 3-6 | 08/19/04 | 40.2 | |
| L28-6-9.5' | 6-9.5 | 08/19/04 | 11.7 | |
| L29-1-4' | 1-4 | 08/19/04 | 43.6 | |
| L29-4-8' | 4-8 | 08/19/04 | 1.46 | |
| L29-8-11' | 8-11 | 08/19/04 | 49 | |
| L30-1-4' | 1-4 | 08/19/04 | 34.9 | |
| L30-4-8' | 4-8 | 08/19/04 | 4.46 | |
| L30-8-11' | 8-11 | 08/19/04 | 0.469 | U |
| L31-1-4' | 1-4 | 08/19/04 | 7.3 | |
| L31-4-8' | 4-8 | 08/19/04 | 48.9 | |
| L31-8-12' | 8-12 | 08/19/04 | 20.7 | |
| L4-1-4' | 1-4 | 08/17/04 | 0.287 | |
| L4-4-8' | 4-8 | 08/17/04 | 26.2 | |
| L4-8-12' | 8-12 | 08/17/04 | 0.0924 | |
| L5-1-4' | 1-4 | 08/17/04 | 1.58 | |
| L5-4-7' | 4-7 | 08/17/04 | 12.5 | |
| L5-7-10' | 7-10 | 08/17/04 | 0.552 | |
| L60-0-1' | 0-1 | 02/16/05 | 0.118 | U |
| L60-1-3' | 1-3 | 02/16/05 | 0.112 | U |
| L6-1-4' | 1-4 | 11/17/04 | 35.8 | |
| L6-8-9.5' | 8-9.5 | 11/17/04 | 10.5 | |
| L7-1-4' | 1-4 | 11/17/04 | 7.01 | |
| L7-4-8' | 4-8 | 11/17/04 | 2.31 | U |
| L7-8-9' | 8-9 | 11/17/04 | 2.36 | |
| L8-1-3' | 1-3 | 08/17/04 | 3.81 | |
| L8-3-6' | 3-6 | 08/17/04 | 13.5 | |
| L8-6-9' | 6-9 | 08/17/04 | 0.961 | |
| L9-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1.12 | U |
| L9-1-4' | 1-4 | 08/17/04 | 1.67 | |
| L9-4-7' | 4-7 | 08/17/04 | 1.24 | |
| L9-7-10' | 7-10 | 08/17/04 | 3.32 | |
| M12-0.5-0.8 | 0.5-0.8 | 12/28/04 | 1.11 | U |
| M14-0.5-1.25 | 0.5-1.25 | 12/28/04 | 8.35 | |
| M53-0-2 | 0-2 | 11/11/04 | 4.26 | |
| March HB-1 | -- | 03/22/05 | 0.104 | U |
| March HB-2 | -- | 03/22/05 | 0.11 | U |
| N1-0.5-1.2 | 0.5-1.2 | 12/28/04 | 5.02 | |
| N12-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1.12 | U |
| N13-0.5-1.5 | 0.5-1.5 | 12/28/04 | 3.26 | |
| N14-0.5-1 | 0.5-1 | 12/28/04 | 11.2 | |
| N15-0.5-1 | 0.5-1 | 12/28/04 | 1.17 | U |
| N2-0.5-1.4 | 0.5-1.4 | 12/28/04 | 4.94 | |
| N3-0.5-1.3 | 0.5-1.3 | 12/28/04 | 4.91 | |
| N4-0.5-0.75 | 0.5-0.75 | 12/28/04 | 3.25 | |
| N42-0.5-1.7 | 0.5-1.7 | 10/14/04 | 21.7 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| N43-0.5-0.7 | 0.5-0.7 | 10/14/04 | 1.74 | |
| N53-0-2.5 | 0-2.5 | 11/11/04 | 6.37 | |
| North SP-1 | -- | 09/23/04 | 0.81 | U |
| North SP-2 | -- | 09/23/04 | 0.89 | U |
| North SP-3 | -- | 09/23/04 | 29.1 | |
| North SP-6 | -- | 09/23/04 | 2.04 | |
| North SP-7 | -- | 10/29/04 | 34.7 | |
| North SP-9 | -- | 10/29/04 | 5.84 | |
| NSP-4-A-2-3' | 2-3 | 01/11/05 | 35.1 | |
| NSP-4-B-1-2' | 1-2 | 12/09/04 | 11.5 | |
| NSP-4-C-1-2' | 1-2 | 12/09/04 | 3.45 | |
| NSP-4-D-0-1' | 01- | 12/09/04 | 13.2 | |
| NSP-4-D-1-2' | 1-2 | 12/09/04 | 38.3 | |
| NSP-4-E-0-1' | 0-1 | 12/09/04 | 78.9 | |
| NSP-4-F-0-1' | 0-1 | 12/09/04 | 24.7 | |
| NSP-4-H-2-3' | 2-3 | 01/11/05 | 10.8 | |
| NSP-4-I-0-1' | 0-1 | 01/11/05 | 8.35 | |
| NSP-4-I-1-2' | 1-2 | 01/11/05 | 72.8 | |
| NSP-5-1-2' | 1-2 | 12/09/04 | 33.6 | |
| NSP-5-A-0-1' | 0-1 | 12/09/04 | 21.8 | |
| NSP-5-B-0-1' | 0-1 | 12/09/04 | 70.4 | |
| NSP-5-D-0-1' | 0-1 | 12/09/04 | 4.05 | |
| NSP-5-F-1-2' | 1-2 | 12/09/04 | 40.3 | |
| NSP-5-G-0-1' | 0-1 | 12/09/04 | 4.06 | |
| NSP-5-G-1-2' | 1-2 | 12/09/04 | 7.23 | |
| NSP-5-I-0-1' | 0-1 | 01/19/05 | 8.93 | |
| NSP-5-J-0-1' | 0-1 | 01/19/05 | 18.4 | |
| NSP-6-0-1' | 0-1 | 12/09/04 | 2.23 | |
| NSP-8-A-0-1' | 0-1 | 12/09/04 | 1.16 | U |
| NSP-8-A-0-1' | 0-1 | 11/11/04 | 74.76 | |
| NSP-8-A-1-2' | 1-2 | 11/11/04 | 1.17 | U |
| NSP-8-A-2-3' | 2-3 | 11/11/04 | 1.15 | U |
| NSP-8-B-1-2' | 1-2 | 11/11/04 | 3.28 | |
| NSP-8-B-2-3' | 2-3 | 11/11/04 | 1.06 | U |
| NSP-8-B-3-4' | 3-4 | 11/11/04 | 13.4 | |
| NSP-8-B-4-5' | 4-5 | 11/11/04 | 1.11 | U |
| NSP-8-C-4-5' | 4-5 | 11/11/04 | 62.1 | |
| NSP-8-E-1-2' | 1-2 | 12/09/04 | 4.4 | |
| NSP-8-E-2-3' | 2-3 | 12/09/04 | 7.19 | |
| NSP-8-E-3-4' | 3-4 | 12/09/04 | 1.16 | U |
| NSP-8-F-2-3' | | 01/11/05 | 1.92 | |
| NSP-8-G-0-1' | 0-1 | 12/09/04 | 78.5 | |
| NSP-8-G-1-2' | 1-2 | 12/09/04 | 1.24 | U |
| NSP-8-G-2-3' | 2-3 | 12/09/04 | 1.19 | U |
| NSP-8-G-3-4' | 3-4 | 12/09/04 | 1.14 | U |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| NSP-8-I-1-2' | 1-2 | 12/09/04 | 2.11 | |
| NSP-8-I-2-3' | 2-3 | 12/09/04 | 1.32 | U |
| NSP-8-I-3-4' | 3-4 | 12/09/04 | 1.32 | U |
| NSP-8-K-1-2' | 1-2 | 01/11/05 | 3.18 | |
| NSP-8-M-0-1' | 0-1 | 01/26/05 | 0.13 | U |
| O13-0.5-1.1 | 0.5-1.1 | 12/28/04 | 11.1 | |
| O14-0.5-1 | 0.5-1 | 12/28/04 | 2.29 | U |
| O15-0.5-1.75 | 0.5-1.75 | 12/28/04 | 14.8 | |
| O42-0.5-1.6 | 0.5-1.6 | 10/14/04 | 13 | |
| O43-0.5-0.6 | 0.5-0.6 | 10/14/04 | 1.07 | U |
| O53-0-3.5 | 0-3.5 | 11/11/04 | 4.3 | |
| P11-0.5-0.9 | 0.5-0.9 | 12/28/04 | 11.8 | |
| P13-0.5-1.0 | 0.5-1.0 | 12/28/04 | 17.9 | |
| P14-0.5-1.35 | 0.5-1.35 | 12/28/04 | 8.82 | |
| P15-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1.16 | U |
| P25-0.5-1.75 | 0.5-1.75 | 10/14/04 | 3.04 | |
| P26-0.5-1.6 | 0.5-1.6 | 10/14/04 | 8.28 | |
| P27-0.5-1.5 | 0.5-1.5 | 10/14/04 | 1.73 | |
| P28-0.5-1.2 | 0.5-1.2 | 10/14/04 | 3.46 | |
| P29-0.5-0.7 | 0.5-0.7 | 10/14/04 | 9.18 | |
| P31-0.5-1 | 0.5-1 | 10/14/04 | 1.08 | U |
| P50-0.5-1.2 | 0.5-1.2 | 10/14/04 | 8.54 | |
| P53-0-3.5 | 0-3.5 | 11/11/04 | 3.15 | |
| PC100-A-1-3' | 1-3 | 11/17/04 | 2.74 | |
| PC100-B-1-3' | 1-3 | 11/17/04 | 6.81 | |
| PC100-C-1-3' | 1-3 | 11/17/04 | 1.87 | U |
| PC1012-7-10' | 7-10 | 09/14/04 | 50.7 | |
| PC1012-A-4-7' | 4-7 | 09/14/04 | 22.3 | |
| PC1012-B-7-8' | 7-8 | 09/14/04 | 11.2 | |
| PC1012-C-4-7' | 4-7 | 09/14/04 | 4.57 | |
| PC1012-C-7-11' | 7-11 | 09/14/04 | 6.22 | |
| PC1012-D-7-10' | 7-10 | 09/14/04 | 21.2 | |
| PC1012-E-4-7' | 4-7 | 10/15/04 | 13.8 | |
| PC1012-E-7-10' | 7-10 | 10/15/04 | 2.7 | U |
| PC1012-F-1-4' | 1-4 | 10/15/04 | 5.87 | |
| PC1012-F-4-7' | 4-7 | 10/15/04 | 7.39 | |
| PC1012-F-7-10' | 7-10 | 10/15/04 | 3.16 | U |
| PC1012-G-4-7' | 4-7 | 10/15/04 | 12.1 | |
| PC1012-G-7-10.5' | 7-10.5 | 10/15/04 | 2.25 | U |
| PC1012-H-1-4' | 1-4 | 10/15/04 | 3.76 | |
| PC1012-H-4-7' | 4-7 | 10/15/04 | 12.9 | |
| PC1012-H-7-10' | 7-10 | 10/15/04 | 1.89 | |
| PC1012-I-1-4' | 1-4 | 10/15/04 | 2.07 | |
| PC1012-I-4-7' | 4-7 | 10/15/04 | 1.49 | U |
| PC1012-I-7-10' | 7-10 | 10/15/04 | 2.19 | U |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| PC1012-J-4-7' | 4-7' | 10/16/04 | 33.5 | |
| PC1012-J-7-10' | 7-10' | 10/17/04 | 2.69 | |
| PC1012-K-4-7' | 4-7 | 10/15/04 | 62.9 | |
| PC1012-K-7-10' | 7-10 | 10/15/04 | 2.54 | U |
| PC1012-L-1-4' | 1-4 | 11/03/04 | 4.01 | |
| PC1012-M-1-4' | 1-4 | 11/03/04 | 5.71 | |
| PC1012-N-1-4' | 1-4 | 10/28/04 | 8.91 | |
| PC1012-O-1-4' | 1-4 | 10/28/04 | 11.1 | |
| PC1030-1-3' | 1-3 | 07/21/04 | 3.62 | |
| PC1031-1-3' | 1-3 | 07/21/04 | 2.44 | |
| PC1032-1-3' | 1-3 | 07/21/04 | 5.84 | |
| PC1033-1-3.5' | 1-3.5 | 07/21/04 | 7.37 | |
| PC1034-1-3' | 1-3 | 07/21/04 | 5.05 | |
| PC1035-1-3' | 1-3 | 07/21/04 | 11.6 | |
| PC1036-1-3' | 1-3 | 07/21/04 | 7.4 | |
| PC1037-1-3' | 1-3 | 07/21/04 | 5.98 | |
| PC1038-1-3' | 1-3 | 07/21/04 | 1.5 | |
| PC1039-1-3.5' | 1-3.5 | 07/21/04 | 2.19 | |
| PC1040-1-3.5 | 1-3.5 | 07/21/04 | 16.8 | |
| PC1042-1-3' | 1-3 | 07/21/04 | 1.17 | U |
| PC1043-1-3' | 1-3 | 07/21/04 | 6.4 | |
| PC1044-1-3' | 1-3 | 07/21/04 | 4.5 | |
| PC1044-3-6.5' | 3-6.5 | 07/21/04 | 2.29 | |
| PC1045-1-4' | 1-4 | 10/28/04 | 32.9 | |
| PC1045-4-8' | 4-8 | 10/28/04 | 1.26 | U |
| PC1045-8-10' | 8-10 | 10/28/04 | 2.12 | U |
| PC1046-1-3' | 1-3 | 07/21/04 | 20.9 | |
| PC1046-3-6' | 3-6 | 07/21/04 | 1.32 | |
| PC1046-6-9' | 6-9 | 11/17/04 | 2.31 | U |
| PC1047-1-3' | 1-3 | 07/22/04 | 14.5 | |
| PC1047-3-6' | 3-6 | 07/22/04 | 46.2 | |
| PC1047-6-9' | 6-9 | 11/17/04 | 2.76 | |
| PC1048-1-3' | 1-3 | 07/22/04 | 2.92 | |
| PC1049-1-3' | 1-3 | 07/22/04 | 5.27 | |
| PC1050-1-4' | 1-4 | 11/17/04 | 2.06 | U |
| PC1050-4-7' | 4-7 | 11/17/04 | 3.27 | U |
| PC1051-1-4' | 1-4 | 11/17/04 | 4.62 | |
| PC1051-4-7' | 4-7 | 11/17/04 | 16 | |
| PC1052-1-3' | 1-3 | 11/17/04 | 2.08 | U |
| PC1052-3-6' | 3-6 | 11/17/04 | 2.19 | U |
| PC1052-6-9.5' | 6-9.5 | 11/17/04 | 2.31 | U |
| PC122-A-3-6' | 3-6 | 09/09/04 | 20.3 | U |
| PC122-B-1-3' | 1-3 | 09/09/04 | 18.5 | U |
| PC122-B-3-6' | 3-6 | 09/09/04 | 39.7 | |
| PC122-B-6-9' | 6-9 | 09/09/04 | 58.5 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| PC122-C-6-9' | 6-9 | 09/09/04 | 65.8 | |
| PC122-D-1-3' | 1-3 | 09/09/04 | 19.6 | U |
| PC122-D-6-9' | 6-9 | 09/09/04 | 83.8 | |
| PC122-E-3-6' | 3-6 | 09/09/04 | 67.7 | |
| PC122-E-6-9' | 6-9 | 09/09/04 | 20.8 | U |
| PC122-F-1-3' | 1-3 | 09/09/04 | 19.2 | U |
| PC122-F-3-6' | 3-6 | 09/09/04 | 19.2 | U |
| PC122-F-6-9' | 6-9 | 09/09/04 | 19.2 | U |
| PC122-H-6-8.5' | 6-8.5 | 09/09/04 | 22.3 | |
| PC122-I-6-10.5' | 6-10.5 | 10/15/04 | 36 | |
| PC122-J-3-6' | 3-6 | 10/15/04 | 49.8 | |
| PC122-J-6-10.75' | 6-10.75 | 10/15/04 | 7.9 | |
| PC122-K-3-6' | 3-6 | 10/15/04 | 17.3 | |
| PC122-K-6-6.25' | 6-6.25 | 10/15/04 | 32.2 | |
| PC122-L-1-3' | 1-3 | 10/15/04 | 9.46 | |
| PC122-L-6-10.75' | 6-10.75 | 10/15/04 | 66.8 | |
| PC122-M-1-3' | 1-3 | 10/15/04 | 5.32 | |
| PC122-M-6-10.5' | 6-10.5 | 10/15/04 | 7.99 | |
| PC122-N-3-6' | 3-6 | 10/28/04 | 10.7 | |
| PC122-O-1-3' | 1-3 | 10/28/04 | 4.43 | |
| PC122-O-6-9.5' | 6-9.5 | 10/28/04 | 3.77 | |
| PC122-P-3-6' | 3-6 | 10/28/04 | 68.2 | |
| PC122-Q-3-6' | 3-6 | 10/28/04 | 25.1 | |
| PC122-R-3-6' | 3-6 | 10/28/04 | 89.4 | |
| PC122-T-3-6' | 3-6 | 10/28/04 | 5.09 | |
| PC122-U-3-6' | 3-6 | 11/02/04 | 60.3 | |
| PC122-V-1-3' | 1-3 | 11/02/04 | 14.3 | |
| PC122-V-6-10' | 6-10 | 11/02/04 | 6.79 | |
| PC122-W-3-6' | 3-6 | 11/02/04 | 21.4 | |
| PC122-X-3-6' | 3-6 | 12/02/04 | 11.1 | |
| PC122-Y-3-6' | 3-6 | 12/02/04 | 23.1 | |
| PC122-Z-3-6' | 3-6 | 12/02/04 | 1.96 | |
| PC164-B-1-3' | 1-3 | 10/28/04 | 12.2 | |
| PC164-B-3-6.5' | 3-6.5 | 10/28/04 | 2.65 | |
| PC164-E-1-3' | 1-3 | 12/02/04 | 11.2 | |
| PC164-F-1-3' | 1-3 | 12/02/04 | 11.2 | |
| PC190-6.5-10' | 6.5-10 | 09/22/04 | 4.19 | |
| PC190-A-1-3' | 1-3 | 09/22/04 | 4.59 | |
| PC190-A-3-6.5' | 3-6.5 | 09/22/04 | 44.3 | |
| PC190-A-6.5-10' | 6.5-10 | 09/22/04 | 2.7 | |
| PC190-B-1-3' | 1-3 | 09/22/04 | 46.1 | |
| PC190-B-3-6.5' | 3-6.5 | 09/22/04 | 9.58 | |
| PC190-B-6.5-10' | 6.5-10 | 09/22/04 | 20.8 | |
| PC190-C-1-3' | 1-3 | 09/23/04 | 4.48 | |
| PC190-C-3-6.5' | 3-6.5 | 09/23/04 | 2.78 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| PC190-C-6.5-12' | 6.5-12 | 09/23/04 | 27.4 | |
| PC190-D-1-3' | 1-3 | 09/22/04 | 1.18 | U |
| PC190-D-3-6.5' | 3-6.5 | 09/22/04 | 28.5 | |
| PC190-D-6.5-10.5' | 6.5-10.5 | 09/22/04 | 1.38 | U |
| PC191-3-6' | 3-6 | 09/23/04 | 11 | |
| PC191-6-10' | 6-10 | 09/23/04 | 12.1 | |
| PC191-A-3-6' | 3-6 | 09/23/04 | 94 | |
| PC191-B-1-3' | 1-3 | 09/23/04 | 3.8 | |
| PC191-B-3-6' | 3-6 | 09/23/04 | 10.4 | |
| PC191-C-1-3' | 1-3 | 09/23/04 | 9.38 | |
| PC191-C-3-6' | 3-6 | 09/23/04 | 31.1 | |
| PC191-D-1-3' | 1-3 | 09/23/04 | 2.86 | |
| PC191-E-1-3' | 1-3 | 10/15/04 | 2.02 | |
| PC191-E-3-6' | 3-6 | 10/15/04 | 42.1 | |
| PC191-F-1-3' | 1-3 | 10/20/04 | 5.35 | |
| PC191-F-3-6' | 3-6 | 10/20/04 | 16.7 | |
| PC191-F-6-10.5' | 6-10.5 | 10/20/04 | 26 | |
| PC191-G-3-6' | 3-6 | 10/15/04 | 57.5 | |
| PC191-G-6-9' | 6-9 | 10/15/04 | 29 | |
| PC191-H-1-3' | 1-3 | 10/20/04 | 15.1 | |
| PC191-H-3-6' | 3-6 | 10/20/04 | 19.1 | |
| PC191-H-6-10.5' | 6-10.5 | 10/20/04 | 3.99 | |
| PC191-I-1-3' | 1-3 | 10/15/04 | 7.38 | |
| PC191-I-1-3' | 1-3 | 10/20/04 | 7.4 | |
| PC191-I-3-6' | 3-6 | 10/15/04 | 6.8 | |
| PC191-I-3-6' | 3-6 | 10/20/04 | 67.9 | |
| PC191-I-6-10.75' | 6-10.75 | 10/15/04 | 2.91 | |
| PC191-I-6-10.75' | 6-10.75 | 10/20/04 | 7.8 | |
| PC191-J-1-3' | 1-3 | 10/20/04 | 4.2 | |
| PC191-J-6-10.5' | 6-10.5 | 10/20/04 | 27.6 | |
| PC191-K-3-6' | 3-6 | 11/11/04 | 31.4 | |
| PC191-L-3-6' | 3-6 | 11/11/04 | 55.7 | |
| PC192-1-3' | 1-3 | 07/21/04 | 9.22 | |
| PC192-3-6.5' | 3-6.5 | 11/17/04 | 2.28 | U |
| PC193-1-3' | 1-3 | 07/21/04 | 5.36 | |
| PC193-3-6.5' | 3-6.5 | 07/21/04 | 2.85 | |
| PC194-1-3' | 1-3 | 07/21/04 | 3.04 | |
| PC194-1-3' | 1-3 | 08/25/04 | 8.92 | |
| PC195-1-3' | 1-3 | 08/25/04 | 2.48 | |
| PC195-3-6' | 3-6 | 08/25/04 | 2.35 | U |
| PC196-1-3' | 1-3 | 07/21/04 | 5.61 | |
| PC196-3-6.5' | 3-6.5 | 07/21/04 | 10.7 | |
| PC198-1-3' | 1-3 | 07/21/04 | 7.58 | |
| PC198-6.5-10' | 6.5-10 | 09/24/04 | 4.26 | |
| PC198-A-1-3' | 1-3 | 09/24/04 | 4.19 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) |
|---|---|---|---|
| PC198-A-3-6.5' | 3-6.5 | 09/24/04 | 13.52 |
| PC198-A-6.5-9' | 6.5-9 | 09/24/04 | 1.64 |
| PC198-B-1-3' | 1-3 | 09/24/04 | 11.2 |
| PC198-B-3-6.5' | 3-6.5 | 09/24/04 | 8.54 |
| PC198-B-6.5-9' | 6.5-9 | 09/24/04 | 3.75 |
| PC198-C-1-3' | 1-3 | 09/24/04 | 4.43 |
| PC198-C-3-6.5' | 3-6.5 | 09/24/04 | 17.7 |
| PC198-C-6.5-11' | 6.5-11 | 09/24/04 | 12.3 |
| PC198-D-1-3' | 1-3 | 09/24/04 | 9.16 |
| PC198-D-3-6.5' | 3-6.5 | 09/24/04 | 22.6 |
| PC198-D-6.5-8.5' | 6.5-8.5 | 09/24/04 | 6.43 |
| PC199-1-4' | 1-4 | 07/21/04 | 15.9 |
| PC199-4-7' | 4-7 | 07/21/04 | 27 |
| PC200-1-4' | 1-4 | 07/21/04 | 8.33 |
| PC200-4-7' | 4-7 | 07/21/04 | 3.08 |
| PC201-1-4' | 1-4 | 07/21/04 | 8.08 |
| PC201-4-7' | 4-7 | 07/21/04 | 9.65 |
| PC202-1-4' | 1-4 | 07/21/04 | 2.06 |
| PC202-4-7' | 4-7 | 07/21/04 | 3.34 |
| PC203-1-4' | 1-4 | 07/21/04 | 3.29 |
| PC203-4-7' | 4-7 | 07/21/04 | 8.74 |
| PC204-1-4' | 1-4 | 07/22/04 | 3.68 |
| PC204-4-7' | 4-7 | 07/22/04 | 9.81 |
| PC205-1-3' | 1-3 | 07/22/04 | 2.97 |
| PC205-3-6.5' | 3-6.5 | 07/22/04 | 3.82 |
| PC206-1-3' | 1-3 | 07/22/04 | 2.3 |
| PC206-A-3-6.5' | 3-6.5 | 12/02/04 | 14.7 |
| PC206-B-3-6.5' | 3-6.5 | 12/02/04 | 12.2 |
| PC207-1-3' | 1-3 | 07/22/04 | 13 |
| PC207-3-6.5' | 3-6.5 | 07/22/04 | 3.51 |
| PC208-1-4' | 1-4 | 07/22/04 | 39.4 |
| PC208-4-7 | 4-7 | 07/22/04 | 7.21 |
| PC209-1-3' | 1-3 | 07/22/04 | 9.6 |
| PC209-3-6.5' | 3-6.5 | 07/22/04 | 11.7 |
| PC210-1-3' | 1-3 | 07/22/04 | 2.26 |
| PC210-3-6' | 3-6 | 07/22/04 | 4.57 |
| PC210-6-9' | 6-9 | 11/17/04 | 2.65 |
| PC211-1-3.5' | 1-3.5 | 07/22/04 | 3 |
| PC212-1-3.5' | 1-3.5 | 07/22/04 | 19.2 |
| PC214-1-3.5' | 1-3.5 | 07/22/04 | 9.96 |
| PC215-1-3' | 1-3 | 07/22/04 | 3.34 |
| PC216-1-3' | 1-3 | 07/22/04 | 24.1 |
| PC217-1-3.5' | 1-3.5 | 07/22/04 | 4.9 |
| PC218-1-3' | 1-3 | 07/22/04 | 4.15 |
| PC218-3-6.5 | 3-6.5 | 07/22/04 | 8.87 |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| PC219-1-4' | 1-4 | 07/22/04 | 2.02 | |
| PC219-4-7' | 4-7 | 07/22/04 | 5.5 | |
| PC220-1-3' | 1-3 | 07/22/04 | 1.6 | |
| PC220-3-6.5' | 3-6.5 | 07/22/04 | 2.66 | |
| PC221-1-3' | 1-3 | 07/22/04 | 8.57 | |
| PC221-3-6.5' | 3-6.5 | 07/22/04 | 11.3 | |
| PC222-1-3.5' | 1-3.5 | 07/22/04 | 8.87 | |
| PC223-1-3.5' | 1-3.5 | 07/22/04 | 17.6 | |
| PC225-3.5-6 | 3.5-6 | 09/23/04 | 5.79 | |
| PC225-6-11 | 6-11 | 09/23/04 | 5.08 | |
| PC225-A 3.5-6 | 3.5-6 | 09/23/04 | 5.23 | |
| PC225-A-1-3.5 | 1-3.5 | 09/23/04 | 1.58 | |
| PC225-B-1-3.5 | 1-3.5 | 09/23/04 | 1.33 | |
| PC225-B-3.5-6 | 3.5-6 | 09/23/04 | 3.35 | |
| PC225-C-1-3.5 | 1-3.5 | 09/23/04 | 7.19 | |
| PC225-C-3.5-6 | 3.5-6 | 09/23/04 | 11.8 | |
| PC225-D-1-3.5 | 1-3.5 | 09/23/04 | 6.16 | |
| PC225-D-3.5-6 | 3.5-6 | 09/23/04 | 28.1 | |
| PC226-1-3' | 1-3' | 07/22/04 | 12.7 | |
| PC227-1-3' | 1-3 | 07/22/04 | 3.28 | |
| PC227-3-6.5' | 3-6.5 | 07/22/04 | 4.13 | |
| PC228-1-3.5' | 1-3.5 | 07/22/04 | 5.068 | |
| PC229-1-4' | 1-4 | 07/22/04 | 5.95 | |
| PC229-4-7' | 4-7 | 07/22/04 | 1.51 | U |
| PC230-1-4' | 1-4 | 07/22/04 | 4.66 | |
| PC230-4-7' | 4-7 | 07/22/04 | 15.7 | |
| PC231-1-3' | 1-3 | 07/22/04 | 6 | |
| PC231-3-6.5' | 3-6.5 | 07/22/04 | 3.23 | |
| PC237-1-4' | 1-4 | 07/22/04 | 1.58 | U |
| PC237-4-7' | 4-7 | 07/22/04 | 14.8 | |
| PC238-1-3' | 1-3 | 08/26/04 | 16.2 | |
| PC238-3-6.5' | 3-6.5 | 08/26/04 | 8.08 | |
| PC239-1-3' | 1-3 | 07/22/04 | 1.09 | U |
| PC239-3-6.5' | 3-6.5 | 07/22/04 | 1.12 | U |
| PC240-1-3' | 1-3 | 07/22/04 | 6.08 | |
| PC240-3-6.5' | 3-6.5 | 07/22/04 | 11.3 | |
| PC241-1-3' | 1-3 | 07/29/04 | 4.11 | |
| PC241-3-6.5' | 3-6.5 | 07/29/04 | 5.75 | |
| PC242-1-3' | 1-3 | 07/29/04 | 13.3 | |
| PC243-1-3' | 1-3 | 07/29/04 | 4.78 | |
| PC244-1-3' | 1-3 | 07/29/04 | 11.9 | |
| PC246-1-3' | 1-3 | 07/29/04 | 1.07 | U |
| PC247-1-3' | 1-3 | 07/29/04 | 0.91 | U |
| PC248-1-3' | 1-3 | 07/29/04 | 3.54 | |
| PC249-1-4' | 1-4 | 07/29/04 | 22.7 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| PC249-4-7' | 4-7 | 07/29/04 | 14.9 | |
| PC250-1-4' | 1-4 | 07/29/04 | 23 | |
| PC250-4-7' | 4-7 | 07/29/04 | 13.2 | |
| PC251-1-3' | 1-3 | 07/29/04 | 2.87 | |
| PC251-3-6' | 3-6 | 07/29/04 | 8.7 | |
| PC252-1-3' | 1-3 | 07/29/04 | 2.09 | |
| PC252-3-6' | 3-6 | 07/29/04 | 1.29 | |
| PC253-1-3' | 1-3 | 07/29/04 | 1.09 | U |
| PC253-3-6.5' | 3-6.5 | 07/29/04 | 4.47 | |
| PC254-1-3' | 1-3 | 07/29/04 | 1.12 | U |
| PC254-3-6.5' | 3-6.5 | 07/29/04 | 7.75 | |
| PC255-1-4' | 1-4 | 07/29/04 | 9.43 | |
| PC255-4-7' | 4-7 | 07/29/04 | 1.35 | U |
| PC256-1-4' | 1-4 | 07/29/04 | 1.08 | U |
| PC256-4-7' | 4-7 | 07/29/04 | 6.98 | |
| PC257-1-4' | 1-4 | 07/29/04 | 1.08 | U |
| PC257-4-7' | 4-7 | 07/29/04 | 2.05 | |
| PC258-1-4' | 1-4 | 07/29/04 | 1.8 | |
| PC258-4-7' | 4-7 | 07/29/04 | 1.98 | |
| PC259-1-4' | 1-4 | 07/29/04 | 1.05 | U |
| PC259-A-4-7' | 4-7 | 11/17/04 | 3.34 | |
| PC259-B-4-7' | 4-7 | 11/17/04 | 5.28 | |
| PC260-1-4' | 1-4 | 07/29/04 | 1.14 | U |
| PC260-A-4-7' | 4-7 | 11/17/04 | 5.28 | |
| PC260-B-4-7' | 4-7 | 11/17/04 | 13 | |
| PC261-1-3' | 1-3 | 07/29/04 | 1.08 | U |
| PC261-3-6.5' | 3-6.5 | 07/29/04 | 2.73 | |
| PC262-1-3' | 1-3 | 07/29/04 | 11.5 | |
| PC262-3-6.5' | 3-6.5 | 07/29/04 | 6.46 | |
| PC263-1-4' | 1-4 | 07/29/04 | 1.18 | U |
| PC263-4-7' | 4-7 | 07/29/04 | 6.64 | |
| PC264-1-4' | 1-4 | 07/29/04 | 1.41 | U |
| PC264-4-7' | 4-7 | 07/29/04 | 4.01 | |
| PC265-1-4' | 1-4 | 07/29/04 | 1.16 | |
| PC265-4-7' | 4-7 | 07/29/04 | 27.7 | |
| PC266-1-4' | 1-4 | 07/29/04 | 1.11 | U |
| PC266-4-7' | 4-7 | 07/29/04 | 19.4 | |
| PC267-1-4' | 1-4 | 07/29/04 | 3.72 | |
| PC267-4-7' | 4-7 | 07/29/04 | 12 | |
| PC268-1-4' | 1-4 | 07/29/04 | 3.13 | |
| PC268-4-7' | 4-7 | 07/29/04 | 11.7 | |
| PC269-1-4' | 1-4 | 07/29/04 | 1.94 | |
| PC269-4-7' | 4-7 | 07/29/04 | 6.58 | |
| PC270-1-4' | 1-4 | 07/29/04 | 19 | |
| PC270-4-7' | 4-7 | 07/29/04 | 4.23 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| PC271-1-4' | 1-4 | 07/29/04 | 1.88 | |
| PC271-4-7' | 4-7 | 07/29/04 | 2 | |
| PC272-3-6.5' | 3-6.5 | 07/29/04 | 11.5 | |
| PC272-A-1-3' | 1-3 | 11/17/04 | 1.83 | U |
| PC272-B-1-3' | 1-3 | 11/17/04 | 1.83 | U |
| PC272-C-1-3' | 1-3 | 11/17/04 | 1.79 | U |
| PC273-1-3' | 1-3 | 07/29/04 | 11.2 | |
| PC273-3-6.5' | 3-6.5 | 07/29/04 | 9.67 | |
| PC2-A-3-4.75' | 3-4.75 | 10/15/04 | 1.45 | U |
| PC2-B-3-6' | 3-6 | 10/15/04 | 1.79 | U |
| PC2-C-3-6' | 3-6 | 10/15/04 | 1.72 | U |
| PC2-D-1-3' | 1-3 | 10/15/04 | 40.9 | |
| PC2-D-3-6' | 3-6 | 10/15/04 | 3.95 | |
| PC60 J-3-6 | 3-6 | 09/20/04 | 3.92 | |
| PC60 J-6-11 | 6-11 | 09/20/04 | 4.75 | |
| PC60 K-3-6 | 3-6 | 09/20/04 | 3.16 | |
| PC60 K-6-11 | 6-11 | 09/20/04 | 11.6 | |
| PC60 L-3-6 | 3-6 | 09/20/04 | 13.1 | |
| PC60 L-6-11 | 6-11 | 09/20/04 | 23.6 | |
| PC60 M-3-6 | 3-6 | 09/20/04 | 10.7 | |
| PC60 M-6-11 | 6-11 | 09/20/04 | 23 | |
| PC60-6-11' | 6-11 | 09/20/04 | 33 | |
| PC60-A-6-8' | 6-8 | 09/14/04 | 25.4 | |
| PC60-B-1-3' | 1-3 | 09/14/04 | 20.1 | |
| PC60-B-3-6' | 3-6 | 09/14/04 | 19.4 | U |
| PC60-B-6-11' | 6-11 | 09/14/04 | 20.3 | U |
| PC60-C-3-6' | 3-6 | 09/14/04 | 20.1 | U |
| PC60-C-6-10' | 6-10 | 09/14/04 | 20.8 | U |
| PC60-D-1-3' | 1-3 | 09/14/04 | 19.4 | U |
| PC60-D-3-6' | 3-6 | 09/14/04 | 10.6 | |
| PC60-D-6-10' | 6-10 | 09/14/04 | 19.8 | U |
| PC60-F-1-3' | 1-3 | 09/09/04 | 31.4 | |
| PC60-F-3-6' | 3-6 | 09/09/04 | 17.2 | |
| PC60-G-6-11' | 6-11 | 09/20/04 | 3.42 | |
| PC60-H-3-6' | 3-6 | 09/20/04 | 4.62 | |
| PC60-H-6-11' | 6-11 | 09/20/04 | 1.47 | U |
| PC60-I-6-11 | 6-11 | 09/20/04 | 1.47 | U |
| PC89-A-1-3' | 1-3 | 11/17/04 | 6.02 | |
| PC89-B-1-3' | 1-3 | 11/17/04 | 1.85 | U |
| PC89-C-1-3' | 1-3 | 11/17/04 | 2.16 | |
| Q10-FILL-2-4' | 2-4 | 02/23/04 | 3.3 | |
| Q11-FILL-7-9' | 7-9 | 02/23/04 | 4.18 | |
| Q13-B of Q13-A&B | 1-3/3-5 | 04/06/04 | 7.37 | |
| Q13-FILL-6-8' | 6-8 | 02/23/04 | 6.59 | |
| Q14-B of Q14-A&B | 1-3/5-7 | 04/06/04 | 9.62 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) |
|---|---|---|---|
| Q15-B of Q15-A&B | 1-3/3-5 | 04/06/04 | 8.77 |
| Q15-FILL-5-7' | 5-7 | 02/24/04 | 18.7 |
| Q16-B of Q16-A&B | 3-5/5-6 | 04/05/04 | 12.3 |
| Q17-E-1-2' | 1-2 | 05/25/04 | 4.49 |
| Q17-E-2-4' | 2-4 | 05/25/04 | 1.11 |
| Q17-E-4-6' | 4-6 | 05/25/04 | 3.98 |
| Q17-F-1-2' | 1-2 | 05/25/04 | 8.68 |
| Q17-F-2-4' | 2-4 | 05/25/04 | 2.84 |
| Q17-F-4-6' | 4-6 | 05/25/04 | 2.21 |
| Q17-G-2-4' | 2-4 | 05/25/04 | 5.9 |
| Q17-G-4-6' | 4-6 | 05/25/04 | 9.01 |
| Q17-H-1-2' | 1-2 | 05/25/04 | 45.7 |
| Q17-H-2-4' | 2-4 | 05/25/04 | 6.03 |
| Q17-H-4-6' | 4-6 | 05/25/04 | 2.76 |
| Q17-I-1-2' | 1-2 | 05/25/04 | 5.95 |
| Q17-I-4-6' | 4-6 | 05/25/04 | 1.28 |
| Q17-J-2-4' | 2-4 | 05/25/04 | 8.91 |
| Q17-K-1-2' | 1-2 | 05/25/04 | 12.6 |
| Q17-K-2-4' | 2-4 | 05/25/04 | 3.89 |
| Q17-K-4-6' | 4-6 | 05/25/04 | 1.61 |
| Q17-L-1-2' | 1-2 | 05/25/04 | 28.2 |
| Q17-L-2-4 | 2-4 | 05/25/04 | 5.6 |
| Q17-L-4-5' | 4-5 | 05/25/04 | 27.1 |
| Q17-M-2-4' | 2-4 | 05/25/04 | 4.78 |
| Q17-M-4-6' | 4-6 | 05/25/04 | 5.8 |
| Q17-N-1-2' | 1-2 | 05/25/04 | 12.4 |
| Q17-N-2-4' | 2-4 | 05/25/04 | 63.2 |
| Q17-N-4-5' | 4-5 | 05/25/04 | 42.7 |
| Q17-O-1-2' | 1-2 | 05/25/04 | 25.5 |
| Q17-P-1-2' | 1-2 | 05/25/04 | 11.7 |
| Q17-R-1-2' | 1-2 | 05/25/04 | 16.3 |
| Q17-S-1-2' | 1-2 | 05/25/04 | 21.5 |
| Q18-E-3-5.5' | 3-5.5 | 05/24/04 | 9.6 |
| Q18-F-3-6' | 3-6 | 05/24/04 | 21.5 |
| Q18-FILL-4-6' | 4-6 | 02/24/04 | 10.6 |
| Q18-G-3-5.5' | 3-5.5 | 05/24/04 | 34.2 |
| Q18-H-1-3' | 1-3 | 05/24/04 | 30.8 |
| Q18-H-3-5.5' | 3-5.5 | 05/24/04 | 7.51 |
| Q18-I-1-3' | 1-3 | 05/24/04 | 85.7 |
| Q18-I-3-6' | 3-6 | 05/24/04 | 7.86 |
| Q18-J-1-3' | 1-3 | 05/24/04 | 27.9 |
| Q18-J-3-6' | 3-6 | 05/24/04 | 7.52 |
| Q18-K-1-3' | 1-3 | 05/24/04 | 38.2 |
| Q18-L-1-3' | 1-3 | 05/24/04 | 4.11 |
| Q18-M-1-3' | 1-3 | 05/24/04 | 13.9 |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) |
|---|---|---|---|
| Q18-N-1-3' | 1-3 | 05/24/04 | 16.2 |
| Q18-Q1-3' | 1-3 | 05/24/04 | 8.76 |
| Q18-R-1-3' | 1-3 | 05/24/04 | 12.5 |
| Q1-B of Q1-A&B | 5-7/7-9 | 04/06/04 | 21.3 |
| Q20-B of Q20-A&B | 3-5/4-5 | 04/05/04 | 4.24 |
| Q20-FILL-1-3' | 1-3 | 02/24/04 | 24.9 |
| Q21-A&B | 7-8/1-3 | 04/05/04 | 15.8 |
| Q22-B of Q22-A&B | 1-3/3-5 | 04/05/04 | 44.1 |
| Q23-B of Q23-A&B | 1-3/5-7 | 04/05/04 | 12.8 |
| Q23-FILL-9-11' | 9-11 | 02/24/04 | 53.1 |
| Q24-A&B | 3-5/7-9 | 04/05/04 | 9.48 |
| Q25-B of Q25-A&B | 8-9/5-7 | 04/05/04 | 6.14 |
| Q25-E-1-4' | 1-4 | 05/24/04 | 39.839 |
| Q25-E-4-8' | 4-8 | 05/24/04 | 6.842 |
| Q25-E-8-9.5' | 8-9.5 | 05/24/04 | 11.045 |
| Q25-F-1-4' | 1-4 | 05/24/04 | 18.893 |
| Q25-F-4-8' | 4-8 | 05/24/04 | 4.89 |
| Q25-F-8-9.5' | 8-9.5 | 05/24/04 | 7.751 |
| Q25-G-1-4' | 1-4 | 05/24/04 | 4.795 |
| Q25-G-4-8' | 4-8 | 05/24/04 | 13.785 |
| Q25-G-8-9.5' | 8-9.5 | 05/24/04 | 2.792 |
| Q25-H-4-8' | 4-8 | 05/24/04 | 9.494 |
| Q25-H-8-9' | 8-9 | 05/24/04 | 11.385 |
| Q25-I-1-4' | 1-4 | 05/24/04 | 35.106 |
| Q25-I-4-8' | 4-8 | 05/24/04 | 9.832 |
| Q25-I-8-9' | 8-9 | 05/24/04 | 14.557 |
| Q25-K-1-4' | 1-4 | 05/24/04 | 3.25 |
| Q25-L-1-4' | 1-4 | 05/24/04 | 13.9 |
| Q26-A&B | 5-7/1-3 | 04/05/04 | 41.2 |
| Q26-E-1-4' | 1-4 | 06/30/04 | 10.7 |
| Q27-A&B | 1-3/7-9 | 04/05/04 | 12.3 |
| Q28-A&B | 5-7/7-11 | 04/05/04 | 3.09 |
| Q28-FILL-3-5' | 3-5 | 02/24/04 | 42.1 |
| Q29-A&B | 1-3/7-9 | 04/05/04 | 5 |
| Q29-FILL-5-7' | 5-7 | 02/24/04 | 16.7 |
| Q31-FILL-7-9' | 7-9 | 02/24/04 | 5.3 |
| Q32-FILL-3-4.5' | 3-4.5 | 02/24/04 | 51.8 |
| Q33-B&C | 1-3/9-11 | 04/05/04 | 8.19 |
| Q33-FILL-5-7' | 5-7 | 02/24/04 | 57.9 |
| Q34-A of Q34-B&C | 9-11/1-3 | 04/05/04 | 37.5 |
| Q34-FILL-6-8' | 6-8 | 02/24/04 | 6.6 |
| Q35-B&C | 5-7/10-5-12.5 | 04/05/04 | 22.8 |
| Q35-FILL-8-10' | 8-10 | 02/24/04 | 47.4 |
| Q36-B-2-4' | 2-4 | 03/29/04 | 9.43 |
| Q36-C-1-3' | 1-3 | 04/05/04 | 4.77 |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| Q36-FILL-7-10' | 7-10 | 02/24/04 | 6.58 | |
| Q37-B of Q37-A,B&C | 1-3/4-6/3-5 | 04/05/04 | 6.9 | |
| Q37-FILL-3-5' | 3-5 | 02/24/04 | 4.9 | |
| Q38-A&B | 5-7/1-3 | 04/05/04 | 14.8 | |
| Q39-A&B | 1-3/2.5-4.5 | 04/05/04 | 2.15 | U |
| Q39-FILL-5-7' | 5-7 | 02/24/04 | 1.64 | |
| Q3-A&B | 1-3/5-7 | 04/06/04 | 11.7 | |
| Q43-C-4-6' | 4-6 | 06/30/04 | 2.38 | |
| Q43-C-6-9' | 6-9 | 06/30/04 | 2.47 | |
| Q4-B of Q4-A&B | 5-7/1-3 | 04/06/04 | 6.04 | |
| Q53-Landscape-0-4 | 0-4 | 11/11/04 | 1.94 | |
| Q54-1-4' | 1-4 | 06/14/04 | 2.64 | |
| Q54-4-7' | 4-7 | 06/14/04 | 1.64 | |
| Q54-7-11' | 7-11 | 06/14/04 | 1.45 | |
| Q54-OS-11-12' | 11-12 | 06/14/04 | 0.1 | U |
| Q55-1-4' | 1-4 | 06/14/04 | 1.56 | |
| Q55-4-8' | 4-8 | 06/14/04 | 3.71 | |
| Q55-8-11' | 8-11 | 06/30/04 | 2.06 | |
| Q56-4-8' | 4-8 | 06/17/04 | 2.84 | |
| Q56-8-12' | 8-12 | 06/17/04 | 1.61 | |
| Q57-1-4' | 1-4 | 06/17/04 | 4.41 | |
| Q57-4-7' | 4-7 | 06/17/04 | 4.28 | |
| Q57-7-10' | 7-10 | 06/17/04 | 2.69 | |
| Q57-OS-10.5-12' | 10.5-12 | 06/17/04 | 0.442 | U |
| Q58-1-4' | 1-4 | 06/17/04 | 5.61 | |
| Q58-4-7' | 4-7 | 06/17/04 | 4.03 | |
| Q58-7-11' | 7-11 | 06/17/04 | 2.04 | |
| Q59-1-3' | 1-3 | 06/17/04 | 22.3 | |
| Q59-3-6' | 3-6 | 06/17/04 | 2.81 | |
| Q59-6-9' | 6-9 | 06/17/04 | 1.84 | |
| Q59-OS-9.5-12' | 9.5-12 | 06/17/04 | 0.851 | |
| Q5-A&B | 1-3/3-5 | 04/06/04 | 9.2 | |
| Q61-1-4' | 1-4 | 06/17/04 | 14.9 | |
| Q61-4-7' | 4-7 | 06/17/04 | 3.36 | |
| Q61-7-11' | 7-11 | 06/17/04 | 3.89 | |
| Q62-1-4' | 1-4 | 06/17/04 | 62.3 | |
| Q62-4-7' | 4-7 | 06/17/04 | 2.83 | |
| Q62-7-11.5' | 7-11.5 | 06/17/04 | 2.66 | |
| Q62-A-1-4' | 1-4 | 09/22/04 | 55.18 | |
| Q62-A-4-7' | 4-7 | 09/22/04 | 2.4 | |
| Q62-B-1-4' | 1-4 | 09/22/04 | 5.8 | |
| Q62-B-4-7' | 4-7 | 09/22/04 | 4 | |
| Q62-C-1-4' | 1-4 | 09/24/04 | 2.05 | |
| Q62-C-4-7' | 4-7 | 09/24/04 | 2.06 | |
| Q6-C of Q6-B&C | 1-3/5-7 | 04/06/04 | 8.01 | |

**TABLE A-1**
**Remaining Soil Concentrations of**
**Polychlorinated Biphenyls (PCBs)**
**Former McCoy Field Site**
**New Bedford, Massachusetts**

| Sample Identification | Sample Depth (ft) | Collection Date | Total PCBs (mg/kg) | |
|---|---|---|---|---|
| Q70-J-1-4' | 1-4 | 09/08/04 | 2.64 | U |
| Q70-J-4-7' | 4-7 | 09/08/04 | 23.1 | U |
| Q70-K-1-4' | 1-4 | 09/08/04 | 23.8 | U |
| Q70-K-4-7' | 4-7 | 09/08/04 | 22.5 | U |
| Q7-B of Q7-A&B | 1-3/5-7 | 04/06/04 | 3.28 | |
| Q7-FILL-3-5' | 3-5 | 02/23/04 | 5.78 | |
| Q8-B of Q8-A&B | 5-7/3-5 | 04/06/04 | 11.5 | |
| Q9-FILL-5-7' | 5-7 | 02/23/04 | 26.4 | |
| Sidewalk-1-1.25-2' | 1.25-2 | 10/28/04 | 0.11 | U |
| Sidewalk-2-1.5-2' | 1.5-2 | 10/29/04 | 0.1 | U |
| Sidewalk-3-1-2' | 1-2 | 10/29/04 | 0.11 | U |
| Sidewalk-4-0.25-2' | 0.25-2 | 10/29/04 | 0.1 | U |
| Sidewalk-5-0.5-2' | 0.5-2 | 10/29/04 | 0.12 | U |
| Sidewalk-6-0.5-2' | 0.5-2 | 10/29/04 | 0.11 | U |
| W31-1-4' | 1-4 | 07/07/04 | 8 | |
| W31-4-8' | 4-8 | 07/07/04 | 6.29 | |
| W32-1-4' | 1-4 | 07/07/04 | 26.6 | |
| W32-4-7.5' | 4-7.5 | 07/07/04 | 2.04 | |
| W33-1-4' | 1-4 | 07/07/04 | 23 | |
| W33-4-6.5' | 4-6.5 | 07/07/04 | 7.84 | |
| W8-U-3-5' | 3-5 | 09/24/04 | 2.07 | |
| W8-U-5-7' | 5-7 | 09/24/04 | 1.89 | |
| Number of Samples | | | 1,057 | |
| Number of Detections | | | 790 | |
| Percentage Detected | | | 75% | |
| Minimum Concentration Detected | | | 0.0924 | |
| Maximum Concentration Detected | | | 94.5 | |
| Arithmetic Mean Concentration [1] | | | 10.5 | |
| Upper Confidence Limit (UCL) of Mean Concentration [2] | | | 13.4 | |

U = Undetected at quantitation limit presented.
1. Non-detections included at one-half quantitation limit.
2. 97.5% UCL [Chebyshev (Mean, Sd)], calculated by ProUCL (U.S. EPA 2004).

**TABLE A-2**
**CALCULATION OF ALTERNATE AIR DUST CONCENTRATION**
**Former McCoy Field**
**New Bedford, Massachusetts**

For carcinogens:

$$SSL = \frac{TR \cdot AT \cdot CF}{UR \cdot EF \cdot ED \cdot \frac{1}{PEF}}$$

Eq 4-3: U.S. EPA (2002). *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites*. OSWER 9355.4-24.

For non-carcinogens:

$$SSL = \frac{THI \cdot AT \cdot CF}{EF \cdot ED \cdot \frac{1}{PEF} \cdot \frac{1}{RfC}}$$

Eq 4-4: U.S. EPA (2002). *Supplemental Guidance for Developing Soil Screening Levels*

Rearranging, substituting $C_{soil}$ for SSL, adding exposure time (ET), and calculating for PEF:

For carcinogens:

$$PEF = \frac{C_{SOIL} \cdot UR \cdot ET \cdot EF \cdot ED}{TR \cdot AT \cdot CF}$$

For non-carcinogens:

$$PEF = \frac{C_{SOIL} \cdot ET \cdot EF \cdot ED}{THI \cdot AT \cdot RfC \cdot CF}$$

Where:
- SSL = Soil screening level (mg/kg)
- PEF = Particle emission factor ($m^3$/kg)
- $C_{soil}$ = Soil concentration (mg/kg)
- TR = Target excess lifetime cancer risk (unitless)
- THI = Target Hazard Index (unitless)
- AT = Averaging time (yr)
- CF = Unit conversion factor (hr/yr)
- UR = Unit risk value [$(mg/m^3)^{-1}$]
- RfC = Inhalation reference concentration ($mg/m^3$) [converted from RfD of 0.00002 mg/kg-dy, assuming 70 kg body weight and 20 $m^3$ inhalation rate) (0.00002 X 70/20 = 0.00007 $mg/m^3$)].
- ET = Exposure time (hr/dy)
- EF = Exposure frequency (dy/yr)
- ED = Exposure duration (yr)

and: $C_{air}$ = 1/(PEF) x CF1

where:
- $C_{air}$ = Air particle concentration ($mg/m^3$)
- CF1 = Unit conversion factor (mg/kg)

Carcinogenic endpoint

| $C_{soil}$ (mg/kg) | UR [$(mg/m^3)^{-1}$] | ET (hr/dy) | EF (dy/yr) | ED (yr) | TR (unitless) | AT (yr) | CF (hr/yr) | PEF ($m^3$/kg) | CF1 (mg/kg) | $C_{air}$ ($mg/m^3$) |
|---|---|---|---|---|---|---|---|---|---|---|
| 46.6 | 0.1 | 8 | 250 | 1 | 1.00E-06 | 70 | 8,760 | 1.52E+04 | 1.00E+06 | 66 |

Non-carcinogenic endpoint

| $C_{soil}$ (mg/kg) | ET (hr/dy) | EF (dy/yr) | ED (yr) | THI (unitless) | AT (yr) | RfC ($mg/m^3$) | CF (hr/yr) | PEF ($m^3$/kg) | CF1 (mg/kg) | $C_{air}$ ($mg/m^3$) |
|---|---|---|---|---|---|---|---|---|---|---|
| 46.6 | 8 | 250 | 1 | 0.2 | 1 | 0.00007 | 8,760 | 7.60E+05 | 1.00E+06 | 1.3 |

ATSDR Record of Activity

UID #: N/A __Date: 25 May 2005 Time: 14:00
Site Name: McCoy Field School
City: New Bedford County: Bristol State: MA
CERCLIS # Cost Recovery # 1#MA Region: 1

Site Status:

Activities: Data Reviewed, Written Response

Requestor and Affiliation: Kimberly Tisa, PCB Coordinator, Office of Ecosystem Protection, US EPA-NE

Address: 1 Congress St Ste 1100 (CPT)

City: Boston State: MA Zip Code: 02114

Contacts and Affiliation

(ATSDR) William D. Sweet

Program Areas: Health Consultation

Narrative Summary**:** In a letter dated 10 May 2005, EPA-NE requested that ATSDR review the proposed cleanup plan for issues related to public health during occupancy of this building, a middle school. Issues of worker and public protection during construction were only briefly mentioned, and ATSDR assumes that another document covers these issues. The document reviewed was *Risk-Based Cleanup Request, Revision I, Volume I, School Site at McCoy Field, New Bedford, Massachusetts.* Volume II, consisting of drawings and figures to support Volume I, was also used in this review.

Action Required/Conclusions/Recommendations/Info Provided:
Presently, the site consists of fill material composed of relocated dump-and-burn residue from before the early 1970s and polychlorinated biphenyls (PCBs) contaminated debris. A middle school is to be built on the site. To date, utility corridors have been or will be constructed with clean fill material with a warning barrier between clean and contaminated fill.

Environmental Data: Arsenic and barium maximum concentrations exceeded the Massachusetts MCP Method 1 S-3 soil standards but their average concentrations did not. The arithmetic average and maximum concentrations of lead exceeded the Method 1 S-3 soil standard. Numerous semi-volatile organic compounds were detected, most of

them petroleum-related or phthalate esters. Six polycyclic aromatic hydrocarbons (PAHs) exceeded their respective Method 1 S-3 soil standards. Polychlorinated biphenyls were detected in roughly ¾ of the samples, typically reported as Arochlor 1254. The arithmetic mean of detections (non-detects ignored) of 77 mg/kg was skewed high by the anomalous maximum of 46,500 mg/kg. The median concentration was 8 mg/kg. Chlorinated dibenzo-p-dioxins and –furans, primarily hepta- and octa-substituted, were found but the total toxicity equivalent was below the MCP upper concentration limit. Eleven of 12 volatile organic compounds (VOCs) were petroleum-related, and all individual compounds were below their respective Method 1 S-3 soil standards.

Public Health Implications: For the building footprint, pile caps will be constructed and PCB-contaminated waste will be installed to 6 inches below the top of the pile cap, geotextile installed, and clean granular fill placed to the top of the cap. This work will be conducted by hazardous waste operations-trained workers. On top of this layer, grade beams will be installed by non-hazardous waste operations-trained workers. Properly trained workers will then add PCB-contaminated waste to 2 feet below the base of the building slab. Building up from this surface to the bottom of the structural slab will be geotextile, 6-8 inches of clean granular fill, geotextile, a gas venting system, compacted fill, a 2 inch mud-slab, rigid insulation, a protection board, geotextile, a gas and vapor membrane, and geotextile. Drawings of construction at junctions between elements and penetrations indicate care to maintain barrier integrity. On page 18, the venting system is stated to be passive, but on Figure 4, Typical 5, the venting system is stated to be reduced pressure, which implies an active system. This discordance should be resolved in the next version. This venting system will empty to the roof. Placement of HVAC air intakes and these vents should be carefully considered to prevent exhaust from the vents entering the building air. ATSDR notes that building air intakes should be placed well above ground level to minimize risk from accidental, prank, or criminal or terrorist releases of hazardous substances in the vicinity. Subject to the above considerations, ATSDR believes the proposal is protective of public health of adult and child occupants of the school.

In landscaped areas, separation geotextile will be placed atop the contaminated fill, then a 1 foot layer of clean granular material, a warning barrier, an additional 2 feet of granular material, and a minimum of 18 inches of loam. ATSDR considers this adequately protective of the public health of student, teacher, and other school workers.

In paved areas, the contaminated fill will be covered by separation geotextile, 15 inches of granular material, 6 inches of crushed stone, and 3 or more inches of paving. ATSDR considers this adequately protective of the public health student, teacher, and other school workers.

An Activity and Use Limitation will be placed on the property to protect from penetration of the contaminated material without proper legal oversight. ATSDR considers this adequate protection of public health for sizable projects. Page 5 states that awareness training of maintenance personnel will be conducted by the architectural and

engineering firm. However, ATSDR is concerned about continued training, to protect workers from the contaminated soil during minor work such as replacement of plantings. ATSDR suggests that the school administration writes and implements periodic, e.g., annual, training of maintenance staff in these use limitations on the property.

Attachment F is an Environmental Monitoring Plan for indoor air and groundwater.

Indoor air is to be sampled two weeks before the start of the school year, in August, a time of maximal temperatures and likely lower than normal air exchanges, and during the December school vacation, a time of lower than normal air exchanges, heating system in use, and frozen ground surface perhaps increasing infiltration of soil vapors into the building. VOCs by EPA Method TO-14A and PCBs by NIOSH method 5503 are proposed for measurement. The VOC and PCB samples will be compared to at least one outdoor air sample – "typically at a roof top location." Chemicals of Concern (COCs) on site include metals which are not volatile; PAHs and PCBs which are of low volatility; and low part per billion concentrations of volatile petroleum hydrocarbons. It is not clear to ATSDR from this document why PCBs are to be sampled, and PAHs, of similar volatility and perhaps more precisely defined adverse health effects, are not. The rationale for this decision should perhaps be presented. ATSDR suggests consideration of the addition of a monitoring plan for the SVOCs. No criteria for termination of the sampling are presented, so it must be assumed that sampling is to continue for the life of the building. ATSDR suggests consideration of establishing criteria for discontinuation or change in frequency of sampling.

The VOCs

Because VOCs were not found at concentrations of concern in the soil gas within the contaminated layer, the rationale for their measurement must be found elsewhere: it is not part of the purview of this document. VOCs are a large class of chemicals, many of which are in common use, e.g., dry erase markers, cleaning products, artist materials, and building material and maintenance products. Therefore, it should be expected that VOCs will be found indoors in every sampling round. Because of their ubiquity, routine determination of VOCs in indoor air of schools and many other types of buildings is not typical. ATSDR suggests consideration of the implications. If VOCs are not associated with the contaminated soils of this site but sampling is necessary to protect human health, why aren't all schools – and all public buildings for that matter – routinely sampled?

Indoor air sampling for VOCs will be compared to Massachusetts Department of Environmental Protection's Threshold Effects Exposure Limits (TELs) and Allowable Ambient Limits (AALs). The TELs are for 24-hour exposures, and the AALs are for annual average exposures. If the sample results exceed one of these values, or exceeds the outdoor concentration by 50%, then another sample will be taken. If the additional sample confirms the concentration are above the TELs/AAL or 50% above outdoor air, then a corrective action plan will be submitted to school officials, the MA DEP, and the EPA within 30 days. ATSDR considers this protocol to be protective of public health.

Indoor air sampling for PCBs will be compared to the excess lifetime cancer risk of 1 x $10^{-6}$ value of 0.12 µg/$m^3$. Any detection above that value will prompt additional sampling, and if the additional sample confirms the elevated PCB concentration, then a corrective action plan will be submitted to school officials, the MA DEP, and the EPA within 30 days. ATSDR considers this protocol to be protective of public health.

Lead
Lead was identified as a contaminant of concern for this site. The greatest concern for lead is based on its effects on the nervous system, particularly in young children. ATSDR is concerned that there is no strategy to ensure that lead from the site has not migrated into the school building during construction. ATSDR suggests consideration of sampling for lead in dust before the school is occupied, to assure that contaminated soil has not entered the building during construction. ATSDR considers the planned barriers between contaminated soils and exposure points to be protective of public health.

ATSDR considers the groundwater monitoring plan adequately protective of public health.

Conclusion(s):

Subject to the suggestions stated above, ATSDR considers this plan to protect public health from the contaminants on-site.

Recommendations:

1. ATSDR suggests consideration of sampling for PAHs in air, along with PCBs.
2. ATSDR suggests consideration of the possible ramifications of sampling the air for VOCs.
3. ATSDR recommends consideration of criteria for reducing or terminating the air sampling protocol, on the basis of a period of detections below the applicable standard.
4. ATSDR recommends a written plan for the permanent, regular training of the building and grounds staff in the provisions of the Notice of Activity and Use. For a specific provision, ATSDR recommends linking Attachments A and E. Specifically, link maintenance of paving, Attachment A, Notice of Activity and Use Limitation, 1. vii and Attachment A, Exhibit A, page 2, item (vii) with Attachment F, Long-Term Cap Monitoring Plan, page 2, A so that repair of pavement also looks for ultimate causes. Specifically, during pavement repair workers should look for subsidence of the contaminated or overlying clean fill that could disrupt the integrity of the barriers.

Public Health Action Plan:

The Public Health Action Plan for the McCoy Field School site contains a description of actions completed, and to be taken by ATSDR and EPA. The purpose of the Public

Health Action Plan is to ensure that this Health Consultation not only identifies public health hazards, but also provides a plan of action to mitigate and prevent adverse human health effects resulting from exposure to hazardous substances in the environment. The public health actions completed, and planned are as follows:

**Actions Completed:**

- Soil and soil gas samples were collected and analyzed.
- Architectural plans were drawn to eliminate a completed pathway from contaminated soil to building occupants.

**Actions Planned:**

- EPA will consider these issues in its comments to the document.

References:


1. Risk-Based Cleanup Request, Revision I, Volume I, School Site at McCoy Field, New Bedford, Massachusetts, 3 May 2005, BETA Group, Inc.
2. Risk-Based Cleanup Request, Revision I, Volume II, School Site at McCoy Field, New Bedford, Massachusetts, 3 May 2005, BETA Group, Inc.



Preparers of Report: William D. Sweet, Ph.D., DABT and Gary D. Perlman, MPH, RS, EMT-B, Lt. Commander, U.S. Public Health Service


ATSDR Concurrence:

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Agency for Toxic Substances and Disease Registry

Signature:_____ Date:_____

Tina Forrester, Ph.D.
Director
Division of Regional Operations
Agency for Toxic Substances and Disease Registry

Signature:_____ Date:_____

**BETA Group, Inc.**
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May 24, 2005

Ms. Kimberly Tisa
EPA New England, Region 1
1 Congress Street
Suite 1100 (CPT)
Boston, MA 02114-2023

Re: McCoy Field Site
225 Hathaway Boulevard
New Bedford, MA 02740

Dear Ms. Tisa:

This letter addresses your email message from earlier today regarding our May 18th response to supplemental review comments discussed during the telephone conference on May 11, 2005 with you, Yoon-Jean Choi, Jackie Huggins and me, as well as the comments you and I discussed on May 12, 2005. The comments and responses are as follows:

- **Response to EPA Comment #7; last bullet. The response is incomplete.**

  The last sentence, in its entirety, should read as follows:

  The "Action Level" represents 20% of the maximum acceptable concentration of 0.3 $\mu g/m^3$, using a unit risk factor of 0.1 mg/m3 obtained from the U.S. EPA Integrated Risk Information Systems (IRIS) file for "polychlorinated biphenyls", at the following location:

  (http://cfpub.gov/iris/quickview.cfm/substance_nmbr=0294).

- **Response to EPA Comment #9: In addition to the proximity of the vent stacks to the HVAC units, EPA also questioned the height. That is, what is the stack height in relation to the HVAC units?**

  The height of the vents will be a minimum of 18 inches and not more than 24 inches.

  The HVAC units will vary in height from 4'-7" up to 6'-0". To reiterate part of our prior response, a minimum 20-foot horizontal distance will exist between the vent and HVAC units.

Please call either Jackie Huggins or me with any questions related to the above responses, or any further comments that may arise.

Very truly yours,
**BETA GROUP, INC.**

Alan D. Hanscom, P.E., LSP
Associate

Cc: Gerard Martin, MADEP
Scott Alfonse, City of New Bedford
Jacqueline Coucci, City of New Bedford
William DoCarmo, City Project Manager
Larry Oliveira, School Department
Evan Warner, MVG
Jackie Huggins, BETA

May 18, 2005

Ms. Kimberly Tisa
EPA New England, Region 1
1 Congress Street
Suite 1100 (CPT)
Boston, MA 02114-2023

Re: McCoy Field Site
225 Hathaway Boulevard
New Bedford, MA 02740

Dear Ms. Tisa:

This letter addresses supplemental review comments discussed during the telephone conference on May 11, 2005 with you, Yoon-Jean Choi, Jackie Huggins and me, as well as the comments you and I discussed on May 12, 2005. The supplemental review comments are related to the Risk-Based Cleanup Request, Rev. 1, dated May 3, 2005, for the new Keith Middle School Site at the referenced location, submitted by BETA Group, Inc. on behalf of the City of New Bedford.

**EPA Comment #1 – Related to terminology of "Engineer" vs. "Architect".**

This response supersedes and replaces responses to General Comment # 3 and Specific Comment # 5 (1) in BETA's response letter to Mr. Choi's April 5, 2005 Memorandum. Engineers from BETA Group, Inc. are responsible for directing "excavation, removal, segregation, handling, temporary stockpiling, loading, transportation, and offsite management of the fill layer and unsuitable subgrade soils". Specifically, Alan D. Hanscom and Robert W. Kelly are in responsible charge of site activities dealing with contaminated soil management activities.

**EPA Comment #2 – Related to density testing.**

With respect to Risk-Based Cleanup Request Attachment G, Specification 02200, Earthwork, 3.04 Fills, Backfills and Compaction, sand cone density tests have been performed in accordance with ASTM D1556-00 *Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method*.

For each day of utility trench installation, a field engineer from Miller Engineering generally performed one test per lift per day. For example, if 40 feet of trench was excavated and only 4 lifts were installed, then 4 tests were performed. The frequency of the tests was increased if variability of the backfill materials (percentage gravel, moisture levels) was noted from one load to another. If the granular backfill was fairly consistent for a particular day across all lifts, then the test frequency might have been decreased slightly.

Documentation of the sand cone density tests is provided on a CD-ROM included in Attachment I of Risk-Based Cleanup Request Revision 2.

**<u>EPA Comment #3</u> – Related to documentation of compliance with Contract Specifications.**

Documentation (test records) that contract document specifications have been met to date is included in Attachment I of Risk-Based Cleanup Request Revision 2.

Please note that compaction requirements have been closely monitored in subgrade preparations for utility lines and within paved areas, but not in the landscaped areas. Extensive in-situ test results for subgrade areas under utility lines are contained on a CD included in Attachment I; gradation curves for materials furnished to the site are also included.

Placement of compacted granular materials under the current contract will include in-situ density testing with a nuclear density meter. As provided in the geotechnical recommendations by Miller Engineering, testing will be performed in accordance with the following guidelines:

- **ASTM C136 Gradation Test -** Recommended frequency = 1 test per material source and 1 per material change
- **ASTM D-1557 Proctor -** Recommended frequency = 1 test per material source and 1 per material change
- **ASTM D-2992 Field Density Test -** Recommended frequency with Nuclear density gauge = 1 per lift/ per 2500 sq. ft.

Engineers from Miller Engineering will be responsible for coordinating and reviewing the results of in-situ testing of subgrades prior to paving.

**<u>EPA Comment #4</u> – Related to gas vapor barrier 60 dry mils vs. 80 mil strip at joints.**

Risk-Based Cleanup Request Section 3.3.1 (Building Footprint) has been revised to clarify that the thickness of the spray-on gas vapor barrier will be <u>60 mils</u>. The 80 dry mil thickness refers to a strip applied to the edge of grade beams and pile caps to help effect a vapor tight seal. The gas vapor barrier (60 dry mil) will then completely cover the joint. Reference is made to Figure 4 of the RBCR Revision 2 discussed below.

**<u>EPA Comment #5</u> – Related to Figure 4 - Gas Vapor Barrier & Venting Plan Details.**

The following revisions have been made to Figure 4:

- The geotextile protection course will overlap the gas vapor barrier (60 dry mil) applied over the grade beam/pile cap.
- Labeling deficiencies have been corrected (i.e. In Details 2 and 3, geotextile has been labeled and arrow from compacted fill label is pointing to the right place).

The revised Figure 4 is included in Risk-Based Cleanup Request Revision 2:

**<u>EPA Comment #6</u> – Related to data sheet for LBI Technologies Ultrashield G-1000.**

The technical data sheet for LBI Technologies Ultrashield G-1000 is included in Attachment B of Risk-Based Cleanup Request Revision 2.

**<u>EPA Comment #7</u> – Related to consistency between text, figures, and attachments.**

The response letters, text of Risk-Based Cleanup Request, the attachments, and figures have been revised to achieve consistency with respect to the following:

- Root removal is limited to one foot below ground surface.
  - Risk-Based Cleanup Request Attachment E, Long-Term Cap Monitoring Plan, has been revised to limit excavation and/or removal of existing root systems to one foot below grade.
  - The DRAFT Activity and Use Limitation, Attachment A, has also been changed to limit excavation and/or removal of existing root systems to one foot below grade.
- Landscape and Asphalt Cap Construction.
  - Risk-Based Cleanup Request Section 1.4 has been revised to eliminate reference to warning barrier beneath paved areas.
  - Risk-Based Cleanup Request Figures 4, 5, and 6 have been revised to make the details consistent with the text.
- Exposure risk calculations for PCBs in indoor air.
  - Risk-Based Cleanup Request Section 2.2.3 Soil Gas has been revised to incorporate language from the response letter, dated May 2, 2005, to EPA's comments on the human health risk assessment.
  - Exposure risk calculations, presented in Tables 3.1 through 3.3, have been added to Risk-Based Cleanup Request Revision 2.
- Amended action level of 0.06 $\mu g/m^3$ for PCBs in indoor air.
  - Risk-Based Cleanup Request Attachment F Environmental Monitoring Plan has been revised to reference this amended action level. The "Action Level" represents 20% of the maximum acceptable concentration of 0.3 $\mu g/m^3$, as determined in accordance with

**<u>EPA Comment #8</u> – Related to Risk Assessment Memo dated May 9, 2005 - Attachment A.**

The Memo dated May 9, 2005 refers to "Attachment A", which is actually "Appendix A", which was provided with the original submittal.

**<u>EPA Comment #9</u> - Related to vent stack locations with respect to HVAC units.**

Figure 4 has been revised to indicate locations of vent stacks with respect to HVAC units. The nearest HVAC unit to any of the subslab vents is at least 20 feet away.

**<u>EPA Comment #10</u> - Related to analyses for asbestos.**

No overt signs of asbestos containing materials (ACM) were detected in any of the test borings, nor were suspect ACM observed during excavation activities.

**<u>EPA Comment #11</u> - Related to empty folder in Risk-Based Cleanup Request Rev. 1 Attachment D.**

The two CDs of laboratory analytical reports provided herein are to be inserted in the pockets provided in Risk-Based Cleanup Request Revision 1 Attachment D.

We believe that our responses adequately address the questions and concerns raised during EPA's supplemental review of the Risk-Based Cleanup Request Revision 1; however, please call either Jackie Huggins or me with any questions related to the contents of this letter or any further concerns that may arise.

Very truly yours,

**BETA GROUP, INC.**

Alan D. Hanscom, P.E., LSP
Associate

Cc: Gerard Martin, MADEP
Scott Alfonse, City of New Bedford
Jacqueline Coucci, City of New Bedford
William DoCarmo, City Project Manager
Larry Oliveira, School Department
Evan Warner, Mount Vernon Group Architects
Jackie Huggins, BETA

# Risk-Based Cleanup Request

**Revision 2**

**School Site at McCoy Field**
**New Bedford, Massachusetts**
**RTN 4-15685**

**May 18, 2005**

Prepared for:

City of New Bedford, Massachusetts

Prepared by:

BETA Group, Inc.
Engineers • Scientists • Planners
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**ATTACHMENTS**

A Draft Notice of Activity and Use Limitation Revision 1
B Keith Middle School - Phase II Project Manual
Specification 02200 – Earthwork (separation fabric, coated separation fabric)
Keith Middle School - Phase III Project Manual
Specification 07133 – Gas Vapor Barrier (vapor barrier, adherence geotextile)
Shop Drawings and Data Sheets
Separation Fabric Technical Data Sheet – Mirafi 600X
Coated Separation Fabric Shop Drawing – Mirafi MCF-1212
Adherence Geotextile Technical Data Sheet – Mirafi 1100N
Warning Barrier Shop Drawing – LW1100 Dig Barrier
Protection Course Geotextile – Liquid Boot Ultrashield G-1000
C Tabulated PCB Analytical Results
D Laboratory Analytical Reports (provided on CD-ROM)
L0211201 Backup
E Long-term Cap Monitoring Plan Revision 1
F Environmental Monitoring Plan Revision 1
G Keith Middle School - Phase III Project Manual
Specification 02200 - Earthwork (backfill materials)
Keith Middle School - Phase III Project Manual
Phase II Specification 02900 – Lawns
H Storm Water Pollution Prevention Plan
I Documentation of Compliance with Contract Specifications
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4 Gas Vapor Barrier & Venting Plan Details (Phase III Contract Documents A9.5)
5 Paved Area Cross-Sections (Phase III Contract Documents L6)
6 Landscaped Area Cross-Sections (Phase III Contract Documents L9)
7 Distribution of PCB Concentrations
8 Hay Bales and Silt Fence (Phase III Contract Drawing EX.1)
9 Geovent - PVC Vent and PVC Header Pipe Connection

# 1.0 EXECUTIVE SUMMARY

## 1.1 Purpose of Submission

This document constitutes a Risk-Based Cleanup Request under 40 CFR 761.61(c) for polychlorinated biphenyl (PCB) remediation waste within the portion of the McCoy Field Site (the "Site") hereinafter referred to as the School Site. The School Site is bounded by a security fence, as shown in Figure 2, and encompasses landscaped areas, paved areas, and areas within the building footprint. The "Site Wetlands", also illustrated on Figure 2, will be addressed in a separate risk-based cleanup request.

The School Site is the construction site for the New Keith Middle School, and therefore will be considered a high occupancy area. If a self-implementing cleanup were to be conducted under §761.61(a)(4)(i)(A), a cleanup level for bulk PCB remediation waste of ≤1 ppm would be required without further conditions; waste at concentrations >1 ppm and ≤10 ppm would be allowed to remain in areas covered with a cap meeting the requirements of paragraphs (a)(7) and (a)(8). Since engineered controls and an Activity and Use Limitation (AUL), will be implemented to limit exposure, this Risk-Based Cleanup Request is being submitted with the goal of allowing PCB remediation waste to remain at the School Site. Consistent with Massachusetts Contingency Plan requirements, all soil containing PCB concentrations ≥100 ppm encountered during excavation activities has been delineated, excavated, and managed off-Site.

## 1.2 Site Background

The property formerly known as McCoy Field (the Site), previously a recreational field occupied by three soccer fields, is the construction site for the New Keith Middle School. The Site is bounded by Hathaway Boulevard to the east, Durfee Street to the north, Summit Street to the west, and Ruggles Street to the south (Figure 2). Much of the material underlying the former soccer fields is relocated fill material from the current high school location (east of the Site, across Hathaway Boulevard), where historic dumping and burning activities were reportedly performed prior to construction of the high school in the early 1970s. In or around 1994, the PCB-contaminated debris was spread across the Site and graded for the purposes of athletic field construction. The waste was covered with a sand/gravel leveling course and topsoil prior to construction of the soccer fields. The maximum depth of waste at the Site is 14 feet. As a result, the following distinct horizons are present at the Site:

- Topsoil;
- Sand/gravel layer;
- Fill material;
- Native organic silt; and,
- Native glacial till.

Embankments mark the edge of the fill placement along the northern and western boundaries of the filled area. These embankments lead down to deciduous wood swamp wetland areas where fill material was not historically placed. However, constituents from the fill material have migrated to the wetland area from environmental processes such as

wind erosion and surface water runoff. A separate risk-based cleanup request will be submitted for the "Site Wetlands".

### 1.3 Cleanup Plan

In order to limit potential exposure associated with future School Site activities, the accessibility of all PCB remediation waste at the School Site will be limited by means of being located:

1) Under the building footprint, two feet beneath the gas vapor barrier and venting system;
2) Beneath three feet of clean fill in landscaped (unpaved) areas; or
3) Beneath a minimum of two feet of clean granular fill in paved areas.

Clean corridors have been or will be established for all Site utilities to facilitate worker safety during installation and future maintenance.

An Activity and Use Limitation (AUL) will be placed on the School Site because the Method 3 Risk Characterization performed pursuant to the Massachusetts Contingency Plan (310 CMR 40.0990) relies on limited exposure potential to achieve a level of No Significant Risk. The AUL will require maintenance of three feet of clean soil in landscaped areas and two feet of granular materials in paved areas. Excavation will be limited to within clean corridors, unless otherwise approved by a Massachusetts Licensed Site Professional (LSP), and shall be performed by only authorized personnel. A Draft AUL is included as Attachment A.

At the request of EPA, a warning barrier has been placed at all landscaped areas of the School Site, not including paved areas or the building footprint.

### 1.4 Human Health Risk Characterization

Human receptors anticipated to be present at the future Keith Middle School include the following:

- Students
- School employees
- Visitors
- Municipal employees (such as persons from public works, the water department, etc.)

The exposure management barriers and activity and use limitation (AUL) to be established at the school will prevent students, school employees, and visitors from contacting underlying fill material and will also prohibit soil disturbance activities by municipal workers or similar groups without the explicit involvement of a Massachusetts Licensed Site Professional (LSP). Therefore, the exposure pathway to students, school employees, visitors, or municipal workers to fill underlying exposure management barriers is incomplete.

Intrusion into fill material underneath the exposure management barriers could only result from unintended and/or unauthorized breaching of the exposure management barriers. To contact in-place fill material, a person would need to:

- Penetrate the building foundation;
- Dig through three feet of clean material in landscaped areas (including the warning barrier); or
- Dig through paving and a minimum of two feet of granular materials.

It is considered highly unlikely that such activities would be performed by Site personnel. Awareness training of maintenance staff will be provided by BETA.

# 2.0 SITE BACKGROUND

## 2.1 Site History and Setting

BETA Group, Inc. (BETA) has been retained by the City of New Bedford School Department to provide licensed site professional services related to the development of the New Keith Middle School at the location of the current McCoy Field (the "Site"). McCoy Field consists of approximately seven acres of land on the west side of Hathaway Boulevard, opposite New Bedford High School. Polychlorinated biphenyl (PCB)-contaminated burn debris from a former City burn dump was placed at the Site in the late 1960s/early 1970s. In or around 1994, PCB-contaminated debris was spread across the Site and graded for the purposes of athletic field construction.

Pre-construction investigations of McCoy Field revealed the presence of Reportable Concentrations (RCs) of several contaminants in soil, including lead, barium, PCBs and other semivolatile organic compounds (SVOCs). Initial subsurface investigations conducted in April 2000 by Miller Engineering & Testing, Inc. (Miller) identified four distinct horizons in soil in the playing field: surface soil, a gravel layer, fill (ash & C&D wastes), and native soil. For the purpose of characterizing the soil for disposal, BETA grouped the gravel layer with the fill layer, and separated the native soil into the organic silt layer and the glacial till layer. Previous sampling efforts established that the surface soil is suitable for on-site reuse; therefore, no samples were collected from the surface soil layer.

PCB analytical results from samples collected in March 2004 identified PCB concentrations at ≥50 ppm at the Site. Based on these results and past Site activities, PCB-contaminated materials meet the definition of a *PCB remediation waste*, as defined under federal PCB regulations at 40 CFR 761.3. *PCB remediation waste* is regulated under the Toxic Substances Control Act (TSCA) and the PCB regulations at 40 CFR Part 761. The PCB regulations require disposal of *PCB remediation waste* at ≥50 ppm in a TSCA-permitted disposal facility or a RCRA hazardous waste landfill; *PCB remediation waste* at <50 ppm may be disposed of in a state-approved non-hazardous waste landfill.

In accordance with a Consent Agreement and Final Order (CAFO) between EPA and the City of New Bedford (the City), the City has conducted sampling and removed the PCB-impacted soil located in the proposed utility corridors and in the vicinity of the proposed building pile caps and grade beams at the Site. The CAFO also required development of a Work Plan that details the work. Revision 2 of the EPA Work Plan was appended to the CAFO executed by the EPA on May 21, 2004.

Since the original CAFO addressed only soil located in the utility corridors and in the vicinity of the proposed building pile caps and grade beams at the Site, the CAFO was amended on October 25, 2004 to encompass sampling and removal to be addressed under Revision 3 of the EPA Work Plan. The scope of work at the Site was expanded by Revision 3 of the EPA Work Plan, submitted on November 5, 2004, to include sampling and removal of PCB-impacted soil for installation of the elevator shaft, acid neutralization tanks, AST foundation, light stanchions, detention basins, drain lines, water line, landscaped areas, wetlands, and the neighboring properties in the vicinity of Durfee Street and Nemasket Street.

As part of the school construction project, an initial site preparation contract (Phase I) was prepared and awarded for construction of clean corridors, installation of subsurface utilities, and stabilization of the embankment along the northern and western perimeter of the existing soccer fields. Phase I Work was observed by BETA staff from approximately May 6, 2004 through November 16, 2004. Work to be completed under the Phase II contract includes excavation and management of soil in the location of proposed utility corridors, building pile caps and grade beams, AST foundation, light stanchions, detention basins, drain lines, water line, and landscaped areas. All necessary off-site management options are provided for under Phase I and Phase II construction contracts. In accordance with the provisions of the EPA Work Plan, BETA conducted extensive in-situ sampling from February 2004 through February 2005 to characterize soil and assess off-site management options. Phase I activities are complete and Phase II activities are in the final stages of completion.

BETA Group, Inc. has consulted with EPA and DEP concerning the submittal of this Risk-Based Cleanup Request for the School Site separate from a request for the cleanup of the Site Wetlands. The intent in submitting a separate request for the School Site is to help expedite approval for this portion of the Site, so as not to delay construction of the New Keith Middle School.

### 2.2 Nature of Contamination

Activities conducted to date under the EPA Work Plan (last revised November 5, 2004) include sampling and removal of PCB-impacted soil for installation of clean utility corridors, building pile caps and grade beams, elevator shafts, acid neutralization tanks, AST foundation, light stanchions, detention basins, drain lines, water line, landscaped areas, and for stabilization of the embankments abutting the Site Wetlands. Sample locations are shown on Figures 1.1 through 1.6. Tabulated PCB analytical results are included as Attachment C. For each area of the School Site (i.e. Landscaped Area, Pile Caps, Grade Beams, etc.) the samples are divided into the following categories:

- Characterization samples – these samples were collected to characterize soil to be excavated for off-site disposal. Characterization samples are representative of soil that was disposed off-site.
- Delineation samples – these samples were collected either to narrow down the limits of PCB remediation waste > 50 ppm in order to limit disposal cost or to determine the extent of soil requiring removal due to exceedance of an Upper Concentration Limit. Delineation samples are representative of soil that was disposed off-site.
- Confirmation/Remaining samples – these samples are representative of soil remaining at the Site beneath the engineered barriers discussed in Section 3.3. Confirmation/Remaining samples fall into the following categories:
    1. Samples collected as delineation samples which marked the edge of a delineation;
    2. Samples collected as characterization samples for material that did not end up requiring excavation;
    3. Samples collected as characterization samples for material that was excavated and then used as backfill either in the building footprint or in light stanchion excavations.

Laboratory analytical results are provided on CD-ROM as Attachment D.

### 2.2.1 Soil/Fill

Pre-construction investigations at the Site identified the presence of constituents in fill material at concentrations above Massachusetts Department of Environmental Protection (MADEP) Reportable Concentrations (RCs).

Based on investigations conducted in the fill area of the Site between 2000 and the present, constituents present in soil/fill material that will remain on-Site underneath exposure management barriers include PCBs, lead, barium, and several semi-volatile organic compounds. A complete list of all contaminants of concern is included in Table 1.

Volatile organic compounds (VOCs) were detected in soil/fill material infrequently and at low concentrations. Of the twelve VOCs detected, eleven are petroleum-related compounds. Maximum detected concentrations of all individual VOCs, as well as the combined concentration of C9-C10 aromatic compounds, are below their applicable MCP Method 1 S-3 soil standards (i.e., S-3/GW-2 and/or S-3/GW-3).

Numerous semi-volatile organic compounds (SVOCs) were detected; the majority (18) are either polycyclic aromatic hydrocarbons (PAHs) or phthalic acid esters.[1] Six PAHs were detected at maximum and/or arithmetic mean concentrations above their applicable Method 1 S-3 soil standards. Several additional SVOCs were detected in soil/fill, but were detected infrequently (in 1% or less of samples) and at concentrations below their applicable Method 1 S-3 soil standard or U.S. EPA Region 9 preliminary remedial goal (PRG) for industrial soil. Benzidine was detected once, at a concentration above its U.S. EPA Region 9 PRG for industrial soil.

Polychlorinated biphenyls (PCBs) were detected in about 77% of the soil samples analyzed. PCBs were typically reported as Aroclor-1254; in about one percent of the samples, PCBs were reported as Aroclor-1248 and in less than 1% of samples as Aroclor-1260, -1262, or -1268. Total PCB concentrations ranged from less than detectable to a maximum of 46,500 mg/kg. The arithmetic mean of the detections (i.e., not including the non-detected results) was 77.12 mg/kg; however, this concentration is skewed by the anomalously high maximum value. The median concentration is 8.09 mg/kg and the geometric mean concentration is 9.03 mg/kg. Figure 7 presents a distribution histogram of log-normalized PCB detections; the apparent normal distribution of the log-normalized data suggest that the data follow a log-normal distribution and that the geometric mean may be more representative of the central tendency of the data. The 90th percentile concentration of the PCB detection data set is 51.2 mg/kg.

Eight RCRA metals were detected in Site soil/fill material: arsenic (95% of samples); barium (100%); cadmium (89%), total chromium (100%), lead

(~100%), mercury (89%), selenium (3%), and silver (37%). Maximum detected concentrations of cadmium, total chromium, mercury, selenium, and silver were below their respective Method 1 S-3 soil standards. While maximum detected concentrations of arsenic and barium exceeded their respective Method 1 S-3 soil standards, their arithmetic mean concentrations were below their respective Method 1 S-3 soil standards. Both the maximum detected and arithmetic mean concentrations of lead exceeded its Method 1 S-3 soil standard.

The attached Table 3 summarizes analytical data for chlorinated dibenzo-p-dioxins and dibenzofurans (CDDs/CDFs) for soil/fill samples collected from the McCoy Field Site. Eight samples, including two duplicates, were collected. A variety of CDDs/CDFs were detected; the highest concentrations were hepta- and octa-substituted dioxins and furans.

Each reported sample concentration of an individual CDD/CDF was converted to a 2,3,7,8-tetrachlorodibenzo-p-dioxin toxicity equivalent (2378-TCDD TEq) using the WHO-98 scheme, as recommended in the draft dioxin reassessment documents (U.S. EPA 2000).[2] 2378-TCDD TEqs for each CDD/CDF in a sample were then summed to derive a total 2378-TCDD TEq for the sample. In the eight samples, total 2378-TCDD TEq concentrations ranged from 11.7 pg/g (parts per trillion) to 54.8 pg/g. All total 2378-TCDD TEqs, while above Method 1 soil standards, were below the MCP upper concentration limit of 200 pg/g.

### 2.2.2 Groundwater

Sampling of temporary observation wells at four locations on the School Site identified only non-detect and trace levels of heavy metals, VOCs, SVOCs, PAHs and EPH compounds. A summary of analytical results is presented in Table 3. Reference is made to Figures 1.1 and 1.2 for locations of the temporary monitoring wells.

No further groundwater sampling has been performed; however, three monitoring wells are proposed in the Draft Environmental Monitoring Plan (Attachment F).

### 2.2.3 Soil Gas

This section summarizes the evaluation of soil gas results from McCoy Field in New Bedford. The soil gas results, summarized in Table 5, were evaluated for the potential to adversely impact indoor air or an overlying building with no vapor barrier due to vapor diffusion into the building. The conclusion of the evaluation is that no significant risk to human health is posed by measured soil gas concentrations.

The evaluation was conducted using a component of the Johnson & Ettinger (1991) model; specifically, through calculating a steady state indoor air attenuation coefficient ($\alpha$), that describes the reduction in concentration when soil gas intrudes and distributes inside of a building. Average detected soil gas concentrations of each constituent (with a few exceptions, noted below) were combined with this attenuation coefficient and with an intake factor describing the intermittent exposure of an on-Site worker (assessed for 8 hours per day, 250 days

per year, 25 years)[3] to derive an indoor air exposure point concentration. The exposure point concentration was then combined with the constituent's appropriate inhalation toxicity value (either a reference concentration for non-carcinogenic constituents or an inhalation unit risk value for carcinogenic constituents) to quantify potential health risks. Constituent-specific non-carcinogenic hazard indices and cancer risks were each summed among all constituents to derive an overall Hazard Index of 0.02 and excess lifetime cancer risk of $6x10^{-7}$. These values are below the maximum acceptable Hazard Index of 1.0 and excess lifetime cancer risk of $1x10^{-5}$ adopted by MADEP. This indicates that inhalation exposure to constituents detected in soil gas will not pose a significant risk to human health. The many conservative approaches applied in the evaluation, as well as the fact that the building will have a vapor barrier, suggest that actual exposures, if any, will be significantly less than those estimated.

Since soil gas was not analyzed for PCBs, a comparable approach was used to estimate indoor air concentrations of PCBs volatilizing from subsurface soil in the school, assuming the absence of a vapor barrier. These exposure and risk calculations are presented on Tables 3-1 through 3-5. The calculations used the same exposure and modeling assumptions applied to the soil gas assessment (where used by the model), and applied the maximum concentration of PCBs detected in soil remaining on the Site (94.5 mg/kg). For an 8-hour-per day, 250-day-per-year, 25-year exposure, a hazard index (HI) of 0.003 and an excess lifetime cancer risk (ELCR) of $1.5x10^{-7}$ were calculated for PCBs alone. When added to the HI and ELCR calculated for soil gas constituents, a total HI of 0.02 and a total ELCR of $7x10^{-7}$ are calculated. These hazard and risk levels are below maximum acceptable levels established by both U.S. EPA and MADEP.

A few constituents detected in soil gas could not be assessed either because of the lack of toxicity values or chemical property data to estimate an attenuation factor. These constituents were: ethanol, propylene, 2-bromopentane, cyclopentanone, limonene, dimethyl disulfide, and trans-decahydronaphthalene. The latter five were each detected in one soil gas sample only; ethanol and propylene were detected more frequently.

Calculations of attenuation coefficients, exposure concentrations, and hazard/risk levels are presented on Tables 5 and 6. All input values are presented and referenced on these tables.

### 2.3 Sampling Procedures

The EPA Work Plan outlines the sampling procedures followed for this Site.

### 2.4 Data Validation and Usability

Samples collected for disposal characterization were routinely analyzed for PCBs, metals, and SVOCs. Originally, the soil was also characterized with respect to parameters such as VOCs, corrosivity, and ignitability; however, it was determined that only PCBs, metals, and SVOCs were significant to disposal considerations. Whenever a metal was detected in excess of 20 times its respective toxicity characteristic level, Toxicity

Characteristic Leaching Procedure (TCLP) analysis was conducted. Lead was the only metal for which TCLP analysis resulted in an exceedance of the regulatory limit. In these instances, the material was stabilized for lead and a confirmatory sample was analyzed prior to excavation and disposal. A small hotspot (9 tons) of fill material contained PAHs at concentrations exceeding Upper Concentration Limits (UCLs). Although the PAH concentrations exceeded UCLs, the concentrations were within the acceptance limits of the non-hazardous waste landfill. Since PCBs presented the most significant disposal considerations, data validation was focused on PCB analytical results.

### 2.4.1 Technical Holding Times

All soil samples were extracted within the 14-day limit, except those samples that were held for analyses, pending receipt of the initial sample results. In some cases (less than 10%), samples analyzed for delineation purposes were extracted over 14 days after sample collection. Given that the primary objective was to characterize soil for disposal purposes at above or below 50 ppm, we do not believe that such holding time exceedances compromise the decisions made regarding off-site soil management.

### 2.4.2 Surrogate Recoveries

Initial problems were encountered with surrogate recoveries for PCB soil results, due to dilutions necessary to detect higher concentrations of PCBs. This issue was addressed with EPA personnel early in the waste characterization process, and the problem was rectified by assessing surrogate recoveries on straight runs, not on the 100X dilutions necessary for some soil samples.

### 2.4.3 Matrix Spike/Matrix Spike Duplicates

Both analytical laboratories used for this project (New England Testing Laboratories, Inc. and Alpha Analytical, Inc.) were provided with matrix spikes and matrix spike duplicates in accordance with the Work Plan. Over the course of the project, we observed significant variations in the analytical results, including respect to relative percent differences up to 300% in some cases. We had several discussions with laboratory personnel, risk assessors, and EPA technical staff to help reconcile higher than expected RPDs and identified the following complicating factors:

- Due to the heterogeneity of the soil samples (i.e. the percentage of glass, organics, and other deleterious materials), securing a representative sample that could be replicated in the laboratory was difficult at best.
- The laboratory reported the detection of (what appeared to be) fragments of capacitor paper that likely contributed to higher than actual PCB concentrations.

Recognizing that there were significant variations in the results and matrix factors beyond our control, we implemented the following conservative approach:

1) Where PCB concentrations exceeding 50 ppm were detected, we directed over-excavation of the area to sample locations (in each direction) where results less than 50 ppm were detected.

2) When the laboratory suspected the presence of non-1254 Aroclor PCBs, we either proceeded with homologue analysis by Method 680 or simply assumed the sample contained a PCB concentration > 50 ppm and disposed of the remediation waste accordingly; and,

3) Where duplicate sample results were available, disposal decisions were based upon the higher detected concentration.

### 2.4.4 Method Blanks

Ottawa sand samples were run through all extraction and clean-up steps to confirm that the analytical instruments were free from contamination. The frequency was one per 20 samples or for each discrete run with the instrument. In virtually all method blanks, results for PCB analysis were non-detect.

# 3.0 CLEANUP PLAN

## 3.1 Schedule

Construction of the pile caps and grade beams is underway. The construction contract has provisions for installation of a permeable soil cap, construction of the building slab (with gas vapor barrier), and installation of granular materials and pavement that will comprise the "exposure management barrier".

Final construction of all components of the exposure management barrier is expected to be completed by August 31, 2006.

## 3.2 Disposal Technology

Fill material requiring excavation, disposal and/or on-site reuse has been handled in accordance with the EPA Work Plan.

## 3.3 Engineered Controls

In areas where fill remains at the School Site, the following engineering controls (exposure management barriers) and institutional controls (Activity and Use Limitation) will be implemented during or subsequent to construction activities:

### 3.3.1 Building Footprint

To protect on-site workers that will work on pile caps and grade beams (within the building footprint), the following provisions have been implemented. Upon completion of a pile cap(s), PCB remediation waste will be placed by appropriately trained workers into the remaining pile cap excavation area to a depth of six inches below the top of the pile cap. A geotextile barrier fabric be installed directly over the waste and then covered with a minimum of six inches of clean granular fill material. Non-OSHA-trained workers will then be permitted to perform grade beam form work.

Upon completion of grade beams, additional PCB remediation waste will be backfilled in the area of the grade beam to a depth of approximately two feet below the bottom of the building slab. A geotextile barrier fabric will be installed directly over the waste material and then six to eight inches of clean granular fill material will be placed on top of the fabric. Next, a geotextile fabric will be placed and a gas vapor barrier and passive venting system will be installed. A total of eight passive vent pipes have been provided for in the Phase III Contract Documents, as indicated on Drawing A9.5 (Figure 4).

The dry thickness of the gas vapor barrier will be 60 dry mils. To effect a vapor tight seal between the grade beams and the adherence geotextile, strips of 80 dry mils of the gas vapor membrane will be applied as shown in Figure 4 Typical 3. The gas vapor barrier (60 dry mils) will then be applied to completely cover the joints. The gas vapor membrane will be applied above the grade beams using a spray-on technology prior to pouring of the concrete slab. Refer to Attachment B for gas vapor barrier technical specifications. Refer to Figures 3.1 and 3.2 for a depiction of the sub slab and slab construction details.

### 3.3.2 Utility Corridors

Clean utility corridors are being created to prevent exposure of future construction or utility workers to fill material remaining at the Site. In these corridors, fill has been removed, properly disposed off-Site in accordance with the EPA Work Plan and applicable state and federal regulations, and replaced with clean granular material. The specification for backfill materials included in the Contract Documents is included as Attachment G.

### 3.3.3 Landscaped Areas

In landscaped areas outside of the new building footprint (see Figure 6):

- Fill material will be removed as necessary to make room for three feet of clean material beneath final grade;
- Separation geotextile will be placed over the remaining fill;
- A 12” +/- layer of granular material will be placed over the separation geotextile;
- Warning barrier will be placed;
- A 2’ +/- layer of granular material will be placed over the warning barrier to create a minimum of 3’ of granular material over the separation fabric; and,
- Landscaping will be established over the granular material.

### 3.3.4 Paved Areas

In developed areas outside of the new building footprint (see Figure 5):

- Fill material will be removed as necessary to make room for 2 feet of clean material beneath the paved surface;
- Separation geotextile will be placed over the remaining fill;
- A minimum of 15 inches of granular material will be placed over the separation geotextile; and
- 6 inches of crushed stone will be placed over the granular material.
- A minimum of 3 inches of pavement will be placed over the crushed stone.

### 3.3.5 Embankment

Embankments (edges of fill material) have been stabilized at a slope of 2:1 to 3:1 with three feet of clean soil overlying in-place contaminated material. The same geotextile fabric and warning barrier described above have been or will be installed at all of the stabilized embankment areas.

### 3.3.6 Long-term Monitoring and Maintenance

A Long-term Cap Monitoring Plan is included as Attachment E. An Environmental Monitoring Plan addressing indoor air and groundwater monitoring is included as Attachment F.

## 3.4 Activity and Use Limitation

An Activity and Use Limitation (AUL) will be placed on the property to require maintenance of the building slab, paved surfaces, and landscaped areas discussed above

and to prevent penetration of these features without the oversight by a Massachusetts Licensed Site Professional (LSP). A Draft AUL is included as Attachment A.

# 4.0 HUMAN HEALTH RISK CHARACTERIZATION

This Section presents a qualitative risk characterization for the School Site and its future use as the New Keith Middle School. The objective of the human health risk characterization is to assess if Site conditions after development pose a potential health risk to humans.

## 4.1 Hazard Identification

### 4.1.1 Constituents of Concern

Constituents of concern (COCs) for the human health risk characterization include the following:

- Acenaphthene
- Acenaphthylene
- Anthracene
- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(g,h,i)perylene
- Benzo(k)fluoranthene
- Chrysene
- Dibenzo(a,h)anthracene
- Dibenzofuran
- Fluoranthene
- Fluorene
- Indeno(1,2,3-cd)pyrene
- 2-Methylnaphthalene
- Naphthalene
- Phenanthrene
- Pyrene
- PCBs (as Aroclor 1254)
- Total petroleum hydrocarbons
- Arsenic
- Barium
- Lead

The rationale for excluding other detected constituents is presented on Table 1.

### 4.1.2 Environmental Fate and Transport Characteristics

The Environmental Monitoring Plan included as Attachment E includes provisions for monitoring transport of COCs by solubilization and volatilization.

**Solubilization**

Table 2 summarizes chemical properties that describe the potential environmental fate and transport of the COCs and ranks them according to tendency to solubilize in water, volatilize, and desorb from soil particles. The majority of the COCs are slightly soluble or not soluble, very slightly volatile or non-volatile, and slightly or hardly mobile or immobile. This indicates that these COCs have a very low migration potential and will be easily contained within the exposure management barriers.

A few COCs are listed as readily soluble (acenaphthylene, 2-methylnaphthalene, and naphthalene), slightly volatile (2-methylnaphthalene, and naphthalene) and moderately mobile (naphthalene). However, these constituents currently meet Method 1 S-3 soil standards; in fact, the maximum detected concentration of these COCs meet their most stringent applicable Method 1 soil standard

(acenaphthylene: 100 mg/kg; 2-methylnaphthalene: 500 mg/kg; naphthalene: 200 mg/kg).

COCs in the fill material are not expected to adversely impact groundwater, and consequently not expected to migrate to the wetlands.

**Volatilization**

As discussed in Section 2.2.3, soil gas results were evaluated for the potential to adversely impact indoor air or an overlying building with no vapor barrier due to vapor diffusion into the building. The conclusion of the evaluation is that no significant risk to human health is posed by measured soil gas concentrations.

The gas vapor barrier to be installed across the entire building footprint will provide further protection against exposure to COCs through volatilization.

**Erosion**

Due to the engineered barriers (soil cap, asphalt cap, building), which will be maintained in accordance with the Activity and Use Limitation, no fill material will be present at the ground surface. Therefore, surface runoff will not be a migration pathway.

Furthermore, the Storm Water Pollution Prevention Plan (Attachment H) incorporates storm water management, stabilization practices, erosion and sediment control, and spill prevention. Hay bales and silt fences are in place, as shown in Figure 5 (detail 1/L6), along the toe of the entire embankment, Hathaway Boulevard, and other resource areas as shown in Figure 8.

Similarly, the engineered barriers will preclude the potential for entrainment of contaminated soil in the air. During construction activities in which contaminated material is exposed to the air, dust monitoring activities are conducted in accordance with the Soil Management and Dust Monitoring Section of the Work Plan as well as Work Plan Attachment O (Proposed Waste and Regulated Soil Removal Plan).

### 4.2 Exposure Assessment

Human receptors potentially present at the future Keith Middle School include the following:

- Students
- School employees
- Visitors
- Municipal employees (such as persons from public works, the water department, etc.)

The exposure management barriers and activity and use limitation (AUL) to be established at the school will prevent students, school employees, and visitors from regularly contacting underlying fill material and will also prohibit soil disturbance

activities by municipal workers or similar groups. Therefore, exposure to students, school employees, visitors, or municipal workers to fill underlying exposure management barriers is incomplete.

Intrusion into fill material underneath the exposure management barriers could only result from unintended breaching of the exposure management barriers or from prohibited activities by unauthorized persons on the Site. To contact in-place fill material, a person would need to dig through the building foundation, three feet of clean material, or paving and two feet of clean material; a gravel layer; and a geotextile fabric layer. This scenario is considered highly unlikely.

**Current Worker Exposure**

ESS Group, Inc. (ESS) revised risk-based air concentrations (RBACs) for PCBs in inhalable particles in air, protective of on-Site construction workers and off-site residents. The approach and assumptions used to derive the RBACs, including all risk calculations are documented in a letter dated May 17, 2004. The conclusion of the assessment is that a concentration of 404 µg inhalable particles per $m^3$ air is protective of both receptor groups and both potential carcinogenic and non-carcinogenic health risks. Soil management and dust monitoring procedures are discussed further in the EPA Work Plan.

To limit the exposure of form workers under the current construction contract, coated geotextile fabric was installed directly over the waste and then covered with a minimum of six inches of clean granular fill material before non-OSHA-trained workers were permitted to perform grade beam form work.

**Future Student-Teacher Exposure**

Future developed portions of the Site, including the new school, and landscaped, parking, and associated open areas, will be managed by engineered barriers and structures and supporting land use restrictions as discussed in Section 3 above. These features will prevent students, school employees, or others from contacting underlying fill material and will prohibit soil disturbance activities. Therefore, exposure to people on future developed portions of the Site will be incomplete and is not assessed quantitatively.

**Future Worker Exposure**

Clean corridors have been established for utility installation and repair. Unless otherwise approved by a Massachusetts LSP, the AUL will limit excavation to within clean corridors to be performed by only authorized personnel.

### 4.3 Risk Characterization

The exposure management barriers to be established at the future Keith Middle School will effectively prevent potential human receptors from contacting COCs present in the in-place fill material. The properties of the COCs indicate that the COCs will be effectively controlled by the exposure management barriers. The AUL will provide a framework for ensuring that the exposure management barriers will be maintained and that persons are responsible for Site management. Based on these factors, future

exposure of people to COCs present in the in-place fill material underneath the exposure management barriers is incomplete, and no health risks are posed.

## 5.0 WRITTEN CERTIFICATION

Pursuant to §761.61(a)(3)(i)(E), Scott Alfonse, as a representative of the City of New Bedford and the party conducting the cleanup, hereby certifies that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file at:

BETA Group, Inc.
315 Norwood Park South
Norwood, MA 02062

And are available for EPA inspection.

City of New Bedford

Director of Environmental Stewardship

5/19/05
Date

## 6.0 REFERENCES

CIS Envirofate Database as referenced in
http://www.dep.state.pa.us/physicalproperties/_cgi-bin/CPP_Search.idc

CRC Handbook of Chemistry and Physics as referenced in
http://www.dep.state.pa.us/physicalproperties/ _cgi-bin/CPP_Search.idc

Groundwater Chemicals Desk Reference as referenced in
http://www.dep.state.pa.us/physicalproperties/ _cgi-bin/CPP_Search.idc

Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup (MA DEP BWSC) (May 1999). Guidance on Implementing Activity and Use Limitations. Interim Final Policy #WSC 99-300.

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MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.
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U.S. EPA (1994). ChemDat8 Users Guide. EPA453/C-94-080B, November.

U.S. EPA (1991). Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors. OSWER Directive 9285.6-03, March.

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[1] Acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, benzo(g,h,i)perylene, chrysene, dibenzo(a,h)anthracene, dibenzofuran, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, naphthalene, phenanthrene, pyrene and the phthalic acid esters butylbenzylphthalate, di-n-butylphthalate, and bis(2-ethylhexyl)phthalate.

[2] The analytical laboratory also converted the reported concentrations to 2378-TCDD TEqs, but used an earlier toxicity equivalency scheme, so reported slightly different numbers.

[3] Conventional exposure parameters for an adult worker (U.S. EPA 1991); who is anticipated to have the longest exposure duration of users of the future building. This will also be protective of exposure of typical students.

**REFER TO LISTED CONSTITUENTS OF CONCERN OUTLINED IN THE TEXT.**

## Table 1

Summary of Detected Constituents in Fill Material

## Table 2

Properties of Constituents of Concern

**TABLE 2 Revision 1**
**PROPERTIES OF CONSTITUENTS OF CONCERN**
**McCoy Field**
**New Bedford, Massachusetts**

| Constituent | Water Solubility (S) (mg/L) | | Relative Solubility[6] | Vapor Pressure (VP) (atm) | | Henry's Law Constant (H) ($cm^3/cm^3$) | | Relative Volatility [7] | Log Organic Carbon/Water Partition Coefficient (Log $K_{oc}$) ($cm^3/g$) | | Relative Mobility [8] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 3.8 | [1] | Moderately soluble | 1.50E-05 | [1] | 4.91E-03 | [1] | very slightly volatile | 3.4 | [1] | slightly mobile |
| Acenaphthylene | 16.1 | [1] | Readily soluble | 4.09E-05 | [1] | 3.39E-03 | [1] | very slightly volatile | 3.4 | [1] | slightly mobile |
| Anthracene | 0.045 | [1] | Not soluble | 7.68E-07 | [1] | 1.60E-03 | [1] | very slightly volatile | 3.9 | [1] | slightly mobile |
| Benzo(a)anthracene | 0.011 | [1] | Not soluble | 5.98E-09 | [1] | 2.34E-04 | [1] | very slightly volatile | 5.0 | [1] | hardly mobile |
| Benzo(a)pyrene | 0.0038 | [1] | Not soluble | 2.10E-10 | [1] | 1.86E-05 | [1] | non-volatile | 5.1 | [1] | immobile |
| Benzo(b)fluoranthene | 0.0015 | [1] | Not soluble | 6.67E-08 | [1] | 6.46E-06 | [9] | non-volatile | 4.9 | [1] | hardly mobile |
| Benzo(g,h,i)perylene | 0.0003 | [1] | Not soluble | 2.22E-10 | [1] | 3.03E-05 | [1] | non-volatile | 5.5 | [1] | immobile |
| Benzo(k)fluoranthene | 0.0008 | [1] | Not soluble | 4.07E-11 | [1] | 6.46E-06 | [1] | non-volatile | 5.1 | [1] | immobile |
| Chrysene | 0.0015 | [1] | Not soluble | 1.06E-09 | [1] | 1.80E-04 | [1] | very slightly volatile | 4.9 | [1] | hardly mobile |
| Dibenzo(a,h)anthracene | 0.0005 | [1] | Not soluble | 1.33E-08 | [1] | 3.07E-06 | [1] | non-volatile | 5.7 | [1] | immobile |
| Dibenzofuran | 6.56 | [2] | Moderately soluble | 3.46E-06 | [3] | 4.50E-03 | [2] | very slightly volatile | 3.9 | [4] | slightly mobile |
| Fluoranthene | 0.26 | [1] | Slightly soluble | 8.61E-08 | [1] | 4.17E-04 | [1] | very slightly volatile | 4.4 | [1] | hardly mobile |
| Fluorene | 1.9 | [1] | Moderately soluble | 7.06E-06 | [1] | 3.19E-03 | [1] | very slightly volatile | 3.6 | [1] | slightly mobile |
| Indeno(1,2,3-cd)pyrene | 0.062 | [1] | Not soluble | 1.00E-09 | [1] | 2.07E-11 | [1] | non-volatile | 5.9 | [1] | immobile |
| 2-Methylnaphthalene | 25 | [1] | Readily soluble | 1.11E-04 | [1] | 2.07E-02 | [1] | slightly volatile | 3.3 | [1] | slightly mobile |
| Naphthalene | 31 | [1] | Readily soluble | 3.63E-04 | [1] | 1.74E-02 | [1] | slightly volatile | 2.9 | [1] | moderately mobile |
| Phenanthrene | 1.1 | [1] | Moderately soluble | 1.12E-06 | [1] | 1.31E-03 | [1] | very slightly volatile | 3.9 | [1] | slightly mobile |
| Pyrene | 0.132 | [1] | Slightly soluble | 1.17E-07 | [1] | 3.71E-04 | [1] | very slightly volatile | 4.4 | [1] | hardly mobile |
| PCBs (as Aroclor 1254) | 0.01 | [5] | Not soluble | 1.16E-07 | [5] | 1.55E-01 | [5] | very slightly volatile | 6.0 | [5] | immobile |
| Total petroleum hydrocarbons | Mixture | | | | | | | | | | |
| Arsenic | NA | | varies | NA | | NA | | non-volatile | NA | | varies |
| Barium | NA | | varies | NA | | NA | | non-volatile | NA | | varies |
| Lead | NA | | varies | NA | | NA | | non-volatile | NA | | varies |

NA = Not applicable or not available.

1. Total Petroleum Hydrocarbon Criteria Working Group (1998). Composition of Petroleum Mixtures. Amherst Scientific Publishing.
2. CRC Handbook of Chemistry and Physics as referenced in http://www.dep.state.pa.us/physicalproperties/_cgi-bin/CPP_Search.idc
3. Groundwater Chemicals Desk Reference as referenced in http://www.dep.state.pa.us/physicalproperties/_cgi-bin/CPP_Search.idc
4. CIS Envirofate Database as referenced in http://www.dep.state.pa.us/physicalproperties/_cgi-bin/CPP_Search.idc
5. U.S. EPA (1998). Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities, Peer Review Draft. EPA-530-D-98-001A, July.
6. Solubility relative ranking [FAO (2000). Assessing Soil Contamination - a Reference Manual.

| Solubility (mg/L at 20 °C) | Classification |
|---|---|
| <0.10 | Not soluble |
| 0.1–1 | Slightly soluble |
| 1–10 | Moderately soluble |
| 10–100 | Readily soluble |
| >100 | Highly soluble |

7. Volatility relative ranking (source)

| VP (atm) | | H ($cm^3/cm^3$) | |
|---|---|---|---|
| < 0.001 | and | < 5E-05 | non-volatile |
| < 0.001 | and | 5E-03 < H < 5E-05 | very slightly volatile |
| < 0.001 | and | 5E-01 < H < 5E-03 | slightly volatile |

8. Mobility relative ranking [FAO (2000). Assessing Soil Contamination - a Reference Manual]

| Log $K_{oc}$ | Classification |
|---|---|
| <1 | Highly mobile |
| 1–2 | Mobile |
| 2–3 | Moderately mobile |
| 3–4 | Slightly mobile |
| 4–5 | Hardly mobile |
| >5 | Immobile |

9. Assumed same as benzo(k)fluoranthene.

## Table 3

Summary of Soil Analyses for Chlorinated Dibenzo-p-dioxins and Dibenzofurans

**TABLE 3**
**SUMMARY OF SOIL ANALYSES FOR**
**CHLORINATED DIBENZO-P-DIOXINS AND DIBENZOFURANS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample ID | 2,3,7,8-TCDD pg/g | | | 1,2,3,7,8-PeCDD pg/g | | | 1,2,3,4,7,8-HxCDD pg/g | | | 1,2,3,6,7,8-HxCDD pg/g | | 1,2,3,7,8,9-HxCDD pg/g | | 1,2,3,4,6,7,8-HpCDD pg/g | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDD $TEF_{DFP}$-$WHO_{98}$ ---> | 1 | | TEQ | 1 | | TEQ | 0.1 | | TEQ | 0.1 | TEQ | 0.1 | TEQ | 0.01 | TEQ |
| Q4-A & B | 0.2 | U | 0.1 | 0.3 | U | 0.15 | 1.4 | J | 0.14 | 6.2 | 0.62 | 5.2 | 0.52 | 117 | 1.17 |
| Q16 A & B | *0.8* | J | 0.8 | 2.2 | J | 2.2 | 3.4 | J | 0.34 | 16.8 | 1.68 | 10.2 | 1.02 | 629 | 6.29 |
| Q24 A & B | 1.4 | J | 1.4 | 3.6 | J | 3.6 | 6.7 | | 0.67 | 44.2 | 4.42 | 23.5 | 2.35 | 1,790 | 17.9 |
| Q37 A, B, &C | *0.68* | J | 0.68 | 2.1 | J | 2.1 | 3.6 | J | 0.36 | 9.3 | 0.93 | 9 | 0.9 | 237 | 2.37 |
| Duplicate 11 | 2.8 | | 2.8 | 6 | | 6 | 5.2 | | 0.52 | 34.1 | 3.41 | 24.1 | 2.41 | 1,310 | 13.1 |
| Duplicate 13 | 0.95 | J | 0.95 | 3.2 | J | 3.2 | 2.6 | J | 0.26 | 9 | 0.9 | 7.9 | 0.79 | 146 | 1.46 |
| Q6-Embankment A & B | 0.66 | J | 0.66 | 2.5 | J | 2.5 | 2.3 | J | 0.23 | 8 | 0.8 | 7 | 0.7 | 129 | 1.29 |
| Q11-Embankment A & | 0.4 | J | 0.4 | 1.8 | J | 1.8 | 2.2 | J | 0.22 | 5.8 | 0.58 | 6 | 0.6 | 106 | 1.06 |
| Arithmetic Mean Concentration [1] | | | 0.97 | | | 2.69 | | | 0.34 | | 1.67 | | 1.16 | | 5.58 |
| Maximum Detected Concentration | | | 2.8 | | | 6 | | | 0.67 | | 4.42 | | 2.41 | | 17.9 |
| Method 1 S-1 Soil standard [2] | | | 4 | | | 4 | | | 4 | | 4 | | 4 | | 4 |
| Method 1 S-2 Soil standard [2] | | | 6 | | | 6 | | | 6 | | 6 | | 6 | | 6 |
| Method 1 S-3 Soil standard [2] | | | 20 | | | 20 | | | 20 | | 20 | | 20 | | 20 |
| Upper Concentration Limit [3] | | | 200 | | | 200 | | | 200 | | 200 | | 200 | | 200 |

pg/g = picrograms per grams (parts per trillion).
U = Undetected at quantitation limit presented.
J = Estimated below calibration range.
C = Value reported from confirmatory analysis.
D = Value reported from dilution analysis.
X = Interference from diphenyl ethers.
TEF = Toxicity equivalency factor.
TEQ = Toxicity equivalents.
TCDD=Tetrachlorodibenzo-p-dioxin.
TCDF = Tetrachlorodibenzofuran.
PeCDD = Pentachlorodibenzo-p-dioxin.
PeCDF = Pentachlorodibenzofuran.
HxCDD = Hexachlorodibenzo-p-dioxin.
HxCDF = Hexachlorodibenzofuran.
HpCDD = Heptachlorodibenzo-p-dioxin.
HpCDF = Heptachlorodibenzofuran.
OCDD = Octachlorodibenzo-p-dioxin.
OCDF = Octachlorodibenzofuran.
Value in italics = Estimated maximum possible concentration (EMPC).
1. Non-detections included at 1/2 quantitation limit.
2. 310 CMR 40.0975(a), (b), (c).
3. 310 CMR 40.0996(7).

**TABLE 3**
**SUMMARY OF SOIL ANALYSES FOR**
**CHLORINATED DIBENZO-P-DIOXINS AND DIBENZOFURANS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample ID | 1,2,3,4,6,7,8,9-OCDD pg/g | | | 2,3,7,8-TCDF pg/g | | | 1,2,3,7,8-PeCDF pg/g | | | 2,3,4,7,8-PeCDF pg/g | | 1,2,3,4,7,8-HxCDF pg/g | | 1,2,3,6,7,8-HxCDF pg/g | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDD $TEF_{DFP}$-$WHO_{98}$ ---> | 0.0001 | | TEQ | 0.1 | | TEQ | 0.05 | | TEQ | 0.5 | TEQ | 0.1 | TEQ | 0.1 | TEQ |
| Q4-A & B | 1,260 | | 0.126 | 8.2 | C | 0.82 | 0.1 | U | 0.0025 | 14.7 | 7.35 | 93.7 | 9.37 | 33.3 | 3.33 |
| Q16 A & B | 4,690 | D | 0.469 | 11.1 | C | 1.11 | 0.1 | U | 0.0025 | 11.5 | 5.75 | 36.5 | 3.65 | 17 | 1.7 |
| Q24 A & B | 12,160 | D | 1.216 | 15.7 | C | 1.57 | 0.1 | U | 0.0025 | 16.3 | 8.15 | 44.2 | 4.42 | 18.9 | 1.89 |
| Q37 A, B, &C | 3,020 | | 0.302 | 5.2 | C | 0.52 | 0.08 | U | 0.002 | 5.6 | 2.8 | 23.7 | 2.37 | 9.9 | 0.99 |
| Duplicate 11 | 10,210 | D | 1.021 | 18.4 | C | 1.84 | 0.2 | U | 0.005 | 19.3 | 9.65 | 51.9 | 5.19 | 22.2 | 2.22 |
| Duplicate 13 | 1,400 | | 0.14 | 13 | C | 1.3 | 0.1 | U | 0.0025 | 17.6 | 8.8 | 34.4 | 3.44 | 16.8 | 1.68 |
| Q6-Embankment A & B | 1,190 | | 0.119 | 11.2 | C | 1.12 | 0.6 | U | 0.015 | 9.9 | 4.95 | 29.6 | 2.96 | 13.5 | 1.35 |
| Q11-Embankment A & | 1,640 | | 0.164 | 5.3 | C | 0.53 | 0.05 | U | 0.00125 | 5.8 | 2.9 | 11.4 | 1.14 | 6.2 | 0.62 |
| Arithmetic Mean Concentration [1] | | | 0.44 | | | 1.10 | | | 0.004 | | 6.29 | | 4.07 | | 1.72 |
| Maximum Detected Concentration | | | 1.22 | | | 1.84 | | | 0.015 | | 9.65 | | 9.37 | | 3.33 |
| Method 1 S-1 Soil standard [2] | | | 4 | | | 4 | | | 4 | | 4 | | 4 | | 4 |
| Method 1 S-2 Soil standard [2] | | | 6 | | | 6 | | | 6 | | 6 | | 6 | | 6 |
| Method 1 S-3 Soil standard [2] | | | 20 | | | 20 | | | 20 | | 20 | | 20 | | 20 |
| Upper Concentration Limit [3] | | | 200 | | | 200 | | | 200 | | 200 | | 200 | | 200 |

pg/g = picrograms per grams (parts per trillion).
U = Undetected at quantitation limit presented.
J = Estimated below calibration range.
C = Value reported from confirmatory analysis.
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HpCDD = Heptachlorodibenzo-p-dioxin.
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OCDD = Octachlorodibenzo-p-dioxin.
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Value in italics = Estimated maximum possible concentration (EMPC).
1. Non-detections included at 1/2 quantitation limit.
2. 310 CMR 40.0975(a), (b), (c).
3. 310 CMR 40.0996(7).

**TABLE 3**
**SUMMARY OF SOIL ANALYSES FOR**
**CHLORINATED DIBENZO-P-DIOXINS AND DIBENZOFURANS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample ID | 2,3,4,6,7,8-HxCDF pg/g | | 1,2,3,7,8,9-HxCDF pg/g | | | 1,2,3,4,6,7,8-HpCDF pg/g | | 1,2,3,4,7,8,9-HpCDF pg/g | | 1,2,3,4,6,7,8,9-OCDF pg/g | | Sample Total TCDD pg/g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDD $TEF_{DFP}$-$WHO_{98}$ ---> | 0.1 | TEQ | 0.1 | | TEQ | 0.01 | TEQ | 0.01 | TEQ | 0.0001 | TEQ | |
| Q4-A & B | 19.1 | 1.91 | *5.8* | X | 0.58 | 76.3 | 0.763 | 27.3 | 0.273 | 156 | 0.0156 | 27.2 |
| Q16 A & B | 16.4 | 1.64 | *7.5* | X | 0.75 | 172 | 1.72 | 12.1 | 0.121 | 276 | 0.0276 | 29.3 |
| Q24 A & B | 20.2 | 2.02 | *8.6* | X | 0.86 | 346 | 3.46 | 20.3 | 0.203 | 1,320 | 0.132 | 54.3 |
| Q37 A, B, &C | 8.4 | 0.84 | *4.2* | XJ | 0.42 | 99.7 | 0.997 | 8.2 | 0.082 | 220 | 0.022 | 16.7 |
| Duplicate 11 | 22.4 | 2.24 | *10.4* | X | 1.04 | 310 | 3.1 | 18.2 | 0.182 | 628 | 0.0628 | 54.8 |
| Duplicate 13 | 20.9 | 2.09 | *10.9* | X | 1.09 | 108 | 1.08 | 8.5 | 0.085 | 128 | 0.0128 | 27.3 |
| Q6-Embankment A & B | 14.8 | 1.48 | *10.1* | X | 1.01 | 88.8 | 0.888 | 6.2 | 0.062 | 100 | 0.01 | 20.1 |
| Q11-Embankment A & | 8.5 | 0.85 | *3.8* | XJ | 0.38 | 45.6 | 0.456 | 3.3 J | 0.033 | 58.4 | 0.00584 | 11.7 |
| Arithmetic Mean Concentration [1] | | 1.63 | | | 0.77 | | 1.56 | | 0.13 | | 0.036 | 30.2 |
| Maximum Detected Concentration | | 2.24 | | | 1.09 | | 3.46 | | 0.27 | | 0.132 | 54.8 |
| Method 1 S-1 Soil standard [2] | | 4 | | | 4 | | 4 | | 4 | | 4 | 4 |
| Method 1 S-2 Soil standard [2] | | 6 | | | 6 | | 6 | | 6 | | 6 | 6 |
| Method 1 S-3 Soil standard [2] | | 20 | | | 20 | | 20 | | 20 | | 20 | 20 |
| Upper Concentration Limit [3] | | 200 | | | 200 | | 200 | | 200 | | 200 | 200 |

pg/g = picrograms per grams (parts per trillion).
U = Undetected at quantitation limit presented.
J = Estimated below calibration range.
C = Value reported from confirmatory analysis.
D = Value reported from dilution analysis.
X = Interference from diphenyl ethers.
TEF = Toxicity equivalency factor.
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TCDD=Tetrachlorodibenzo-p-dioxin.
TCDF = Tetrachlorodibenzofuran.
PeCDD = Pentachlorodibenzo-p-dioxin.
PeCDF = Pentachlorodibenzofuran.
HxCDD = Hexachlorodibenzo-p-dioxin.
HxCDF = Hexachlorodibenzofuran.
HpCDD = Heptachlorodibenzo-p-dioxin.
HpCDF = Heptachlorodibenzofuran.
OCDD = Octachlorodibenzo-p-dioxin.
OCDF = Octachlorodibenzofuran.
Value in italics = Estimated maximum possible concentration (EMPC).

1. Non-detections included at 1/2 quantitation limit.
2. 310 CMR 40.0975(a), (b), (c).
3. 310 CMR 40.0996(7).

## Table 4

Results of Groundwater Analysis
Samples Collected 10-31-02

# McCoy Field
# Results of Groundwater Analysis
# Samples Collected October 31, 2002

| Parameter | Method 1 Groundwater | | Sample Location | | | |
|---|---|---|---|---|---|---|
| | GW-3 | Units | TB/OW-22 | TB/OW-2 | TB/OW-18 | TB/OW-6 |
| **Total Metals** | | | | | | |
| Antimony, Total | 300 | ug/l | ND | ND | ND | ND |
| Arsenic, Total | 400 | ug/l | ND | ND | ND | ND |
| Barium, Total | 30000 | ug/l | 260 | 80 | 140 | 1300 |
| Beryllium, Total | 50 | ug/l | ND | ND | ND | ND |
| Cadmium, Total | 10 | ug/l | ND | ND | ND | ND |
| Chromium, Total | 2000 | ug/l | ND | ND | ND | ND |
| Lead, Total | 30 | ug/l | ND | ND | ND | ND |
| Nickel, Total | 80 | ug/l | ND | ND | ND | ND |
| Selenium, Total | 80 | ug/l | ND | ND | ND | ND |
| Silver, Total | 7 | ug/l | ND | ND | ND | ND |
| Thallium, Total | 400 | ug/l | ND | ND | ND | ND |
| Vanadium, Total | 2000 | ug/l | ND | ND | 10 | ND |
| Zinc, Total | 900 | ug/l | ND | ND | ND | ND |
| **Volatile Organic Compounds (VOCs)-8260** | | | | | | |
| Benzene | 7000 | ug/l | ND | ND | ND | 0.76 |
| Toluene | 50000 | ug/l | 1.7 | 1.8 | 1.4 | 1.9 |
| Ethylbenzene | 4000 | ug/l | ND | ND | ND | ND |
| Vinyl chloride | 40000 | ug/l | ND | ND | ND | ND |
| Methyl tert butyl ether | 50000 | ug/l | 1.1 | ND | ND | ND |
| Total Xylenes | 50000 | ug/l | ND | ND | ND | ND |
| Hexachlorobutadiene | 90 | ug/l | ND | ND | ND | ND |
| Naphthalene | 6000 | ug/l | 2.5 | ND | ND | 6.5 |
| **Semi-Volatile Organic Compounds (SVOCs)-8270** | | | | | | |
| Hexachlorobenzene | 40 | ug/l | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | 8000 | ug/l | ND | ND | ND | ND |
| Hexachlorobutadiene | 90 | ug/l | ND | ND | ND | ND |
| Benzo(a)anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(a)pyrene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(b)fluoranthene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 3000 | ug/l | ND | ND | ND | ND |
| Chrysene | 3000 | ug/l | ND | ND | ND | ND |
| Dibenzo(a,h)anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Indeno(1,2,3-cd)pyrene | 3000 | ug/l | ND | ND | ND | ND |
| Pentachlorophenol | 80 | ug/l | ND | ND | ND | ND |
| **Polycyclic Aromatic Hydrocarbons (PAHs)-8270M** | | | | | | |
| Acenaphthene | 5000 | ug/l | ND | ND | ND | ND |
| Fluoranthene | 200 | ug/l | ND | ND | ND | ND |
| Naphthalene | 6000 | ug/l | ND | ND | ND | 3.6 |
| Benzo(a)anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(a)pyrene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(b)fluoranthene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 3000 | ug/l | ND | ND | ND | ND |
| Chrysene | 3000 | ug/l | ND | ND | ND | ND |
| Acenaphthylene | 3000 | ug/l | ND | ND | ND | ND |
| Anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(ghi)perylene | 3000 | ug/l | ND | ND | ND | ND |

**McCoy Field**
**Results of Groundwater Analysis**
**Samples Collected October 31, 2002**

| Parameter | Method 1 Groundwater | | Sample Location | | | |
|---|---|---|---|---|---|---|
| | GW-3 | Units | TB/OW-22 | TB/OW-2 | TB/OW-18 | TB/OW-6 |
| Fluorene | 3000 | ug/l | ND | ND | ND | ND |
| Phenanthrene | 50 | ug/l | ND | ND | ND | ND |
| Dibenzo(a,h)anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Indeno(1,2,3-cd)Pyrene | 3000 | ug/l | ND | ND | ND | ND |
| Pyrene | 3000 | ug/l | ND | ND | ND | ND |
| 2-Methylnaphthalene | 3000 | ug/l | ND | ND | ND | ND |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | |
| Aroclor 1221 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1232 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1242/1016 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1248 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1254 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1260 | 0.3 | ug/l | ND | ND | ND | ND |
| **Extractable Petroleum Hydrocarbons (EPH)** | | | | | | |
| C9-C18 Aliphatics | 20000 | ug/l | ND | ND | ND | ND |
| C19-C36 Aliphatics | 20000 | ug/l | ND | ND | ND | ND |
| C11-C22 Aromatics, Unadjusted | 30000 | ug/l | ND | ND | ND | ND |

ND-not detected.

# Table 5

Evaluation of Soil Gas Concentrations

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | Conversion Factor[1] | SG-1 | | SG-2 | | SG-3 | | SG-4 | | SG-5 | | SG-6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [(mg/m³)/(ppb$_v$)] | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ |
| Acetone | 2.4 | 4.8 | 11.4 | 5.4 | 12.9 | 15 | 35.7 | 9.6 | 22.8 | 13 | 30.9 | ND | ND |
| Benzene | 3.2 | 0.6 | 2 | 1.6 | 5.1 | 0.9 | 2.7 | ND | ND | ND | ND | 8.5 | 27.1 |
| 1,3-Butadiene | 2.2 | ND | ND | 10 | 22.1 | 9.5 | 21 | ND | ND | 34 | 75.1 | 233 | 515 |
| 2-Butanone (MEK) | 3.0 | ND | ND | 2 | 5.9 | ND | ND | 3 | 8.9 | ND | ND | 88 | 260 |
| Carbon Disulfide | 3.1 | 1.1 | 3.4 | 1.2 | 3.7 | ND | ND | ND | ND | ND | ND | 0.6 | 2.0 |
| Chloromethane | 2.1 | 0.6 | 1.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Cyclohexane | 3.4 | 2.6 | 8.9 | ND | ND | ND | ND | ND | ND | ND | ND | 31 | 107 |
| cis-1,2-Dichloroethene | 4.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 12 | 47.6 |
| trans-1,2-Dichloroethene | 4.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.2 | 8.8 |
| Dichlorodifluoromethane | 5.0 | 0.7 | 3.3 | 0.6 | 3 | ND | ND | ND | ND | ND | ND | 17 | 84.2 |
| Ethanol | 1.9 | ND | ND | 81 | 153 | 144 | 272 | 615 | 1,162 | ND | ND | ND | ND |
| Ethylbenzene | 4.3 | ND | ND | ND | ND | 0.9 | 3.8 | ND | ND | ND | ND | 3.2 | 13.9 |
| 4-Ethyltoluene | 4.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.8 | 3.9 |
| Heptane | 4.1 | 9.6 | 39.4 | 41 | 168 | 86 | 353 | 274 | 1,123 | ND | ND | 13 | 53.3 |
| Hexane | 3.5 | 5.2 | 18.4 | ND | ND | ND | ND | ND | ND | ND | ND | 63 | 222 |
| Methy tert-Butyl Ether | 3.6 | ND | ND | 2.6 | 9.4 | ND | ND | ND | ND | 2.9 | 10.4 | ND | ND |
| 4-Methyl-2-pentanone (MIBK) | 4.1 | ND | ND | 5 | 20.5 | 8.6 | 35.3 | ND | ND | ND | ND | ND | ND |
| Propene | 1.7 | 158 | 272 | 21 | 36.1 | 38 | 65.4 | ND | ND | ND | ND | 1,031 | 1,774 |
| Tetrachloroethene | 6.8 | ND | ND | 0.9 | 6.3 | 9.7 | 65.8 | 3.5 | 23.7 | ND | ND | ND | ND |
| Toluene | 3.8 | 8.8 | 33.2 | 35 | 132 | 83 | 313 | 107 | 403 | ND | ND | 8.1 | 30.5 |
| Trichloroethene | 5.4 | ND | ND | 1.6 | 8.6 | ND | ND | ND | ND | ND | ND | 7.7 | 41.3 |
| 1,2,4-Trimethylbenzene | 4.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.2 | 5.9 |
| Vinyl Chloride | 2.6 | 2.9 | 7.4 | ND | ND | ND | ND | ND | ND | ND | ND | 93 | 238 |
| Xylenes (total) | 4.3 | ND | ND | 1.8 | 7.8 | 3.5 | 15.2 | ND | ND | ND | ND | 11.1 | 48.2 |
| **C5-C8 aliphatic hydrocarbons** | | | | | | | | | | | | | |
| 2-Methyl-1-pentene | 3.4 | ND | ND | 7.2 | 24.8 | 12 | 41.3 | ND | ND | ND | ND | ND | ND |
| Isobutane | 2.4 | 21 | 49.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Pentane | 3.0 | 4.8 | 14.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Methylpentane | 3.5 | 9.9 | 34.9 | ND | ND | 7.9 | 27.8 | 27 | 95.2 | ND | ND | ND | ND |
| 3-Methylpentane | 3.5 | ND | ND | ND | ND | 11 | 38.8 | ND | ND | ND | ND | ND | ND |
| 3,3-Dimethylpentane | 4.1 | 3.5 | 14.3 | 19 | 77.9 | 26 | 106.6 | 82 | 336.1 | ND | ND | ND | ND |
| 2-Methylhexane | 4.1 | 10 | 41.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,3-Dimethylpentane | 4.1 | 12 | 49.2 | 52 | 213.1 | 82 | 336.1 | 264 | 1082.0 | ND | ND | 13 | 53.3 |
| 3-Ethylpentane | 4.1 | ND | ND | 32 | 131.2 | 52 | 213.1 | 163 | 668.1 | ND | ND | ND | ND |
| 2,3,4-Trimethylpentane | 4.7 | 7.9 | 36.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1-Heptene | 4.0 | 5.1 | 20.5 | 21 | 84.3 | 33 | 132.5 | 103 | 413.6 | ND | ND | ND | ND |
| Methylcyclohexane | 4.0 | 22 | 88.4 | 79 | 317.3 | 131 | 526.1 | 407 | 1634.5 | ND | ND | ND | ND |
| 2-Methylheptane | 4.7 | 2.9 | 13.5 | ND | ND | 13 | 60.7 | 36 | 168.1 | ND | ND | ND | ND |
| 2,5-Dimethylhexane | 4.7 | ND | ND | 6.5 | 30.8 | ND | ND | ND | ND | ND | ND | ND | ND |
| 1-Octene | 4.6 | ND | ND | 7.3 | 33.5 | ND | ND | 39 | 178.8 | ND | ND | ND | ND |
| 1,2,4-Trimethylcyclopentane | 4.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 11 | 50.5 |
| 2,4-Dimethylpentane | 4.1 | ND | ND | ND | ND | 36 | 147.5 | ND | ND | ND | ND | ND | ND |
| 4-Methyl-1-hexene | 4.0 | ND | ND | ND | ND | ND | ND | 42 | 168.6 | ND | ND | ND | ND |
| 2,4-Dimethylhexane | 4.7 | ND | ND | ND | ND | ND | ND | 22 | 102.8 | ND | ND | ND | ND |
| 3-Methyl-hexane | 4.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dimethylcyclohexane | 4.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 17 | 78.0 |
| ***TOTAL*** | | | 362.8 | | 912.8 | | 1630.6 | | 4847.8 | | 0.0 | | 181.8 |

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | SG-7 | | SG-8 | | SG-9 | | SG-10 | | Average Detected Concentration (excluding non-detections) |
|---|---|---|---|---|---|---|---|---|---|
| | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $\mu g/m^3$ |
| Acetone | ND | ND | 6.1 | 14.5 | 40 | 95.2 | 3.8 | 9 | 29.1 |
| Benzene | 0.8 | 2.4 | ND | ND | 2.2 | 7 | 0.7 | 2.2 | 6.9 |
| 1,3-Butadiene | 68 | 150 | 3.9 | 8.6 | 36 | 79.6 | 6.0 | 13.3 | 111 |
| 2-Butanone (MEK) | ND | ND | ND | ND | 11 | 32.5 | 1.6 | 4.7 | 62.3 |
| Carbon Disulfide | 1.7 | 5.3 | ND | ND | 5.8 | 18 | ND | ND | 6.5 |
| Chloromethane | ND | ND | 0.7 | 1.4 | 0.7 | 1.5 | 0.7 | 1.4 | 1.4 |
| Cyclohexane | ND | ND | ND | ND | 4.6 | 15.8 | ND | ND | 43.8 |
| cis-1,2-Dichloroethene | 1.4 | 5.6 | ND | ND | 6.9 | 27.4 | ND | ND | 26.9 |
| trans-1,2-Dichloroethene | ND | ND | ND | ND | 0.9 | 3.5 | ND | ND | 6.1 |
| Dichlorodifluoromethane | 0.7 | 3.6 | 0.7 | 3.2 | ND | ND | 0.5 | 2.6 | 16.6 |
| Ethanol | ND | ND | 51 | 96.4 | 114 | 215 | 220 | 416 | 386 |
| Ethylbenzene | 0.7 | 3.0 | ND | ND | 0.9 | 4 | 1.1 | 4.8 | 5.9 |
| 4-Ethyltoluene | ND | ND | ND | ND | ND | ND | ND | ND | 3.9 |
| Heptane | 36 | 148 | 25 | 103 | 71 | 291 | 99.0 | 406 | 298 |
| Hexane | 8.7 | 30.7 | 0.9 | 3.2 | 6.4 | 22.6 | 4.1 | 14.5 | 52 |
| Methy tert-Butyl Ether | ND | ND | ND | ND | 2.1 | 7.6 | ND | ND | 9.1 |
| 4-Methyl-2-pentanone (MIBK) | ND | ND | 3.4 | 13.9 | ND | ND | 12.0 | 49.2 | 29.7 |
| Propene | 296 | 509 | ND | ND | 202 | 348 | ND | ND | 501 |
| Tetrachloroethene | 6.6 | 44.7 | ND | ND | ND | ND | ND | ND | 35.1 |
| Toluene | 42 | 158 | 37 | 139 | 75 | 283 | 123 | 464 | 217 |
| Trichloroethene | 2.1 | 11.3 | ND | ND | 2.0 | 10.7 | ND | ND | 18 |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | 1.2 | 5.9 | ND | ND | 5.9 |
| Vinyl Chloride | 8.6 | 22 | ND | ND | 13.0 | 33.3 | ND | ND | 75.2 |
| Xylenes (total) | 3.2 | 13.9 | 1.5 | 6.5 | 4.0 | 17.4 | 4.7 | 20.4 | 18.5 |
| **C5-C8 aliphatic hydrocarbons** | | | | | | | | | |
| 2-Methyl-1-pentene | ND | ND | ND | ND | 12 | 41.3 | ND | ND | |
| Isobutane | ND | ND | ND | ND | ND | ND | ND | ND | |
| Pentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2-Methylpentane | ND | ND | ND | ND | 13 | 45.8 | ND | ND | |
| 3-Methylpentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 3,3-Dimethylpentane | 14 | 57.4 | 9.5 | 38.9 | ND | ND | ND | ND | |
| 2-Methylhexane | ND | ND | ND | ND | 63 | 258.2 | ND | ND | |
| 2,3-Dimethylpentane | 40 | 163.9 | 30 | 123.0 | 60 | 245.9 | ND | ND | |
| 3-Ethylpentane | 27 | 110.7 | 19 | 77.9 | 41 | 168.0 | ND | ND | |
| 2,3,4-Trimethylpentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 1-Heptene | 17 | 68.3 | 12 | 48.2 | 25 | 100.4 | ND | ND | |
| Methylcyclohexane | 72 | 289.1 | ND | ND | 104 | 417.7 | ND | ND | |
| 2-Methylheptane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2,5-Dimethylhexane | ND | ND | 4.7 | 22.2 | 10 | 47.3 | ND | ND | |
| 1-Octene | 8.2 | 37.6 | ND | ND | 11 | 50.4 | ND | ND | |
| 1,2,4-Trimethylcyclopentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2,4-Dimethylpentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 4-Methyl-1-hexene | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2,4-Dimethylhexane | ND | ND | 14 | 65.4 | ND | ND | ND | ND | |
| 3-Methyl-hexane | ND | ND | 60 | 245.9 | ND | ND | ND | ND | |
| trans-1,2-Dimethylcyclohexane | ND | ND | ND | ND | ND | ND | ND | ND | |
| ***TOTAL*** | | 727.0 | | 621.5 | | 1,375 | | ND | 1,184 |

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | Indoor Air Attenuation Coefficient ($\alpha$)[2] (unitless) | Non-Cancer Intake Factor[4] (unitless) | Non-Cancer Exposure Point Concentration[13] $\mu g/m^3$ | Inhalation Reference Concentration ($mg/m^3$) | Non-Cancer Hazard Index[14] (unitless) | Cancer Intake Factor[5] (unitless) | Cancer Exposure Point Concentration[13] ($\mu g/m^3$) | Cancer Inhalation Unit Risk [$(mg/m^3)^{-1}$] | Excess Lifetime Cancer Risk[15] (unitless) | Background Indoor Air Concentration[3] ($\mu g/m^3$) |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 8.92E-04 | 2.28E-01 | 0.0059 | 3 [7] | 0.000002 | -- | -- | -- | -- | 27 |
| Benzene | 7.67E-04 | 2.28E-01 | 0.0012 | 0.03 [6] | 0.00004 | 8.15E-02 | 0.0004 | 0.0078 [6] | 3E-09 | 21 |
| 1,3-Butadiene | 1.11E-03 | 2.28E-01 | 0.0281 | 0.002 [6] | 0.01 | 8.15E-02 | 0.01 | 0.03 [6] | 3E-07 | 1.5 [10] |
| 2-Butanone (MEK) | 1.35E-04 | 2.28E-01 | 0.0019 | 5 [6] | 0.0000004 | -- | -- | -- | -- | 42 [10] |
| Carbon Disulfide | 8.28E-04 | 2.28E-01 | 0.0012 | 0.7 [6] | 0.000002 | -- | -- | -- | -- | -- |
| Chloromethane | 8.97E-04 | 2.28E-01 | 0.0003 | 0.09 [6] | 0.000003 | -- | -- | -- | -- | 1.5 [10] |
| Cyclohexane | 7.49E-04 | 2.28E-01 | 0.0075 | 6 [6] | 0.000001 | -- | -- | -- | -- | 8.0 |
| cis-1,2-Dichloroethene | 7.01E-04 | 2.28E-01 | 0.0043 | 0.035 [7] | 0.0001 | -- | -- | -- | -- | 4.1 [10] |
| trans-1,2-Dichloroethene | 6.86E-04 | 2.28E-01 | 0.0010 | 0.07 [7] | 0.00001 | -- | -- | -- | -- | -- |
| Dichlorodifluoromethane | 6.64E-04 | 2.28E-01 | 0.0025 | 0.2 [7] | 0.00001 | -- | -- | -- | -- | 1.7 [10] |
| Ethanol | 8.90E-04 | 2.28E-01 | 0.0784 | NA | -- | -- | -- | -- | -- | -- |
| Ethylbenzene | 7.08E-04 | 2.28E-01 | 0.0010 | 1 [6] | 0.000001 | -- | -- | -- | -- | 9.6 |
| 4-Ethyltoluene | 6.11E-04 | 2.28E-01 | 0.0005 | 0.05 [11] | 0.00001 | -- | -- | -- | -- | -- |
| Heptane | 6.60E-04 | 2.28E-01 | 0.0449 | 0.2 [12] | 0.0002 | -- | -- | -- | -- | -- |
| Hexane | 1.05E-03 | 2.28E-01 | 0.0125 | 0.2 [6] | 0.00006 | -- | -- | -- | -- | -- |
| Methy tert-Butyl Ether | 1.64E-04 | 2.28E-01 | 0.0003 | 3 [6] | 0.0000001 | -- | -- | -- | -- | -- |
| 4-Methyl-2-pentanone (MIBK) | 7.08E-04 | 2.28E-01 | 0.0048 | 3 [6] | 0.000002 | -- | -- | -- | -- | -- |
| Propene | 1.19E-03 | 2.28E-01 | 0.1358 | NA | -- | -- | -- | -- | -- | -- |
| Tetrachloroethene | 6.93E-04 | 2.28E-01 | 0.0056 | 0.035 [7] | 0.0002 | 8.15E-02 | 0.002 | 0.0552 [8] | 1E-07 | 11 |
| Toluene | 7.63E-04 | 2.28E-01 | 0.0378 | 0.4 [6] | 0.00009 | -- | -- | -- | -- | 28.6 |
| Trichloroethene | 7.27E-04 | 2.28E-01 | 0.0030 | 0.035 [7] | 0.00009 | 8.15E-02 | 0.001 | 0.11 [7] | 1E-07 | 4.5 |
| 1,2,4-Trimethylbenzene | 6.30E-04 | 2.28E-01 | 0.0008 | 0.006 [7] | 0.0001 | -- | -- | -- | -- | 5.4 |
| Vinyl Chloride | 8.35E-04 | 2.28E-01 | 0.0143 | 0.1 [6] | 0.0001 | 8.15E-02 | 0.005 | 0.0088 [6] | 5E-08 | 0.03 |
| Xylenes (total) | 7.35E-04 | 2.28E-01 | 0.0031 | 0.1 [6] | 0.00003 | -- | -- | -- | -- | 72.4 |
| **C5-C8 aliphatic hydrocarbons** | | | | | | | | | | |
| 2-Methyl-1-pentene | | | | | | | | | | |
| Isobutane | | | | | | | | | | |
| Pentane | | | | | | | | | | |
| 2-Methylpentane | | | | | | | | | | |
| 3-Methylpentane | | | | | | | | | | |
| 3,3-Dimethylpentane | | | | | | | | | | |
| 2-Methylhexane | | | | | | | | | | |
| 2,3-Dimethylpentane | | | | | | | | | | |
| 3-Ethylpentane | | | | | | | | | | |
| 2,3,4-Trimethylpentane | | | | | | | | | | |
| 1-Heptene | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | |
| 2-Methylheptane | | | | | | | | | | |
| 2,5-Dimethylhexane | | | | | | | | | | |
| 1-Octene | | | | | | | | | | |
| 1,2,4-Trimethylcyclopentane | | | | | | | | | | |
| 2,4-Dimethylpentane | | | | | | | | | | |
| 4-Methyl-1-hexene | | | | | | | | | | |
| 2,4-Dimethylhexane | | | | | | | | | | |
| 3-Methyl-hexane | | | | | | | | | | |
| trans-1,2-Dimethylcyclohexane | | | | | | | | | | |
| ***TOTAL*** | 7.32E-04 | 2.28E-01 | 0.1978 | 0.2 [7] | 0.001 | -- | -- | -- | -- | 85 [9] |

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | Conversion Factor[1] | SG-1 | | SG-2 | | SG-3 | | SG-4 | | SG-5 | | SG-6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [(mg/m$^3$)/(ppb$_v$)] | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ |
| **C9-C12 aliphatic hydrocarbons** | | | | | | | | | | | | | |
| Decane | 5.8 | ND | ND | 3.3 | 19.2 | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-Dimethylheptane | 5.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 7.6 | 39.9 |
| 2,6-Dimethylheptane | 5.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 16 | 83.9 |
| 1,2,4-Trimethylcyclohexane | 5.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 19 | 98.1 |
| 1-Methyl-4-(1-methylethyl)cyclohexane | 5.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 22 | 126.2 |
| 1,1,2,3-Tetramethylcyclohexane | 5.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 59 | 340.8 |
| 4-Methyldecane | 6.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 24 | 153.4 |
| 3-Methylnonane | 5.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 3-Ethyl-2-methylheptane | 5.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| ***TOTAL*** | | | ND | | 19.2 | | ND | | ND | | ND | | 842.3 |
| **Miscellaneous** | | | | | | | | | | | | | |
| 2-Bromopentane | 6.2 | ND | ND | 4.5 | 27.8 | ND | ND | ND | ND | ND | ND | ND | ND |
| Cyclopentanone | 3.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Limonene | 5.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dimethyl disulfide | 3.9 | ND | ND | ND | ND | ND | ND | ND | ND | 150 | 578 | ND | ND |
| trans-Decahydronaphthalene | 5.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 16 | 90.5 |
| **OVERALL TOTAL** | | | | | | | | | | | | | |

ppb$_v$ = parts per billion by volume.
µg/m$^3$ = micrograms per cubic meter.
ND = Not detected.
NC = Not calculated.
NA = Not available.
1. NIOSH Pocket Guide to Chemical Hazards or calculated as: [(mg/m$^3$)/(ppm) = MW/24.45].
2. Calculated values; see following spreadsheet.
3. Shah and Singh (1988). Environ. Sci. Technol. Vol. 22, No. 12, 1381-1388.
4. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/25 yr
5. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/70 yr
6. U.S. EPA (2005) IRIS (www.epa.gov/iris).
7. U.S. EPA (2005) Region 9 preliminary remediation goal tables.
8. MADEP (undated) Documentation For the Cancer Inhalation Unit Risk Value for Tetrachloroethylene.
9. MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.
10. Value is 75th %-tile outdoor concentration.
11. Value for C9-C10 aromatic hydrocarbons (R7).
12. No value available;value for hexane applied.
13. (Avg soil gas conc)(atten. coeff.)(intake factor).
14. (Exposure Conc) / (1000)(Reference Conc).
15. (Exposure Conc)(Unit Risk)/(1000).

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | SG-7 | | SG-8 | | SG-9 | | SG-10 | | Average Detected Concentration (excluding non-detections) |
|---|---|---|---|---|---|---|---|---|---|
| | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $\mu g/m^3$ |
| **C9-C12 aliphatic hydrocarbons** | | | | | | | | | |
| Decane | 23 | 133.9 | ND | ND | ND | ND | ND | ND | |
| 2,4-Dimethylheptane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2,6-Dimethylheptane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 1,2,4-Trimethylcyclohexane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 1-Methyl-4-(1-methylethyl)cyclohexane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 1,1,2,3-Tetramethylcyclohexane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 4-Methyldecane | 26 | 166.2 | ND | ND | ND | ND | ND | ND | |
| 3-Methylnonane | 9.4 | 54.6 | ND | ND | ND | ND | ND | ND | |
| 3-Ethyl-2-methylheptane | 9.5 | 55.3 | ND | ND | ND | ND | ND | ND | |
| ***TOTAL*** | | 410.0 | | ND | | ND | | ND | 424 |
| **Miscellaneous** | | | | | | | | | |
| 2-Bromopentane | ND | ND | ND | ND | ND | ND | ND | ND | 28 |
| Cyclopentanone | ND | ND | 4.3 | 14.8 | ND | ND | ND | ND | 15 |
| Limonene | ND | ND | ND | ND | 3.6 | 20.1 | ND | ND | 20 |
| Dimethyl disulfide | ND | ND | ND | ND | ND | ND | ND | ND | 578 |
| trans-Decahydronaphthalene | ND | ND | ND | ND | ND | ND | ND | ND | 90 |
| **OVERALL TOTAL** | | | | | | | | | |

$ppb_v$ = parts per billion by volume.
$\mu g/m^3$ = micrograms per cubic meter.
ND = Not detected.
NC = Not calculated.
NA = Not available.
1. NIOSH Pocket Guide to Chemical Hazards or calculated as: [$(mg/m^3)/(ppm) = MW/24.45$].
2. Calculated values; see following spreadsheet.
3. Shah and Singh (1988). Environ. Sci. Technol. Vol. 22, No. 12, 1381-1388.
4. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/25 yr
5. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/70 yr
6. U.S. EPA (2005) IRIS (www.epa.gov/iris).
7. U.S. EPA (2005) Region 9 preliminary remediation goal tables.
8. MADEP (undated) Documentation For the Cancer Inhalation Unit Risk Value for Tetrachloroethylene.
9. MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.
10. Value is 75th %-tile outdoor concentration.
11. Value for C9-C10 aromatic hydrocarbons (R7).
12. No value available;value for hexane applied.
13. (Avg soil gas conc)(atten. coeff.)(intake factor).
14. (Exposure Conc) / (1000)(Reference Conc).
15. (Exposure Conc)(Unit Risk)/(1000).

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | Indoor Air Attenuation Coefficient ($\alpha$)[2] (unitless) | Non-Cancer Intake Factor[4] (unitless) | Non-Cancer Exposure Point Concentration[13] $\mu g/m^3$ | Inhalation Reference Concentration ($mg/m^3$) | Non-Cancer Hazard Index[14] (unitless) | Cancer Intake Factor[5] (unitless) | Cancer Exposure Point Concentration[13] ($\mu g/m^3$) | Cancer Inhalation Unit Risk [$(mg/m^3)^{-1}$] | Excess Lifetime Cancer Risk[15] (unitless) | Background Indoor Air Concentration[3] ($\mu g/m^3$) |
|---|---|---|---|---|---|---|---|---|---|---|
| **C9-C12 aliphatic hydrocarbons** | | | | | | | | | | |
| Decane | | | | | | | | | | |
| 2,4-Dimethylheptane | | | | | | | | | | |
| 2,6-Dimethylheptane | | | | | | | | | | |
| 1,2,4-Trimethylcyclohexane | | | | | | | | | | |
| 1-Methyl-4-(1-methylethyl)cyclohexane | | | | | | | | | | |
| 1,1,2,3-Tetramethylcyclohexane | | | | | | | | | | |
| 4-Methyldecane | | | | | | | | | | |
| 3-Methylnonane | | | | | | | | | | |
| 3-Ethyl-2-methylheptane | | | | | | | | | | |
| ***TOTAL*** | 6.82E-04 | 2.28E-01 | 0.0660 | 0.2 [7] | 0.0003 | -- | -- | -- | -- | 90 [9] |
| **Miscellaneous** | | | | NA | -- | -- | -- | -- | -- | |
| 2-Bromopentane | NC | | | NA | -- | -- | -- | -- | -- | -- |
| Cyclopentanone | NC | | | NA | -- | -- | -- | -- | -- | -- |
| Limonene | NC | | | NA | -- | -- | -- | -- | -- | -- |
| Dimethyl disulfide | 7.71E-04 | | | NA | -- | -- | -- | -- | -- | -- |
| trans-Decahydronaphthalene | NC | | | NA | -- | -- | -- | -- | -- | -- |
| **OVERALL TOTAL** | | **Hazard Index =** | | | **0.02** | **Cancer Risk =** | | | **6E-07** | |

$ppb_v$ = parts per billion by volume.
$\mu g/m^3$ = micrograms per cubic meter.
ND = Not detected.
NC = Not calculated.
NA = Not available.
1. NIOSH Pocket Guide to Chemical Hazards or calculated as: [$(mg/m^3)/(ppm)$ = MW/24.45].
2. Calculated values; see following spreadsheet.
3. Shah and Singh (1988). Environ. Sci. Technol. Vol. 22, No. 12, 1381-1388.
4. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/25 yr
5. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/70 yr
6. U.S. EPA (2005) IRIS (www.epa.gov/iris).
7. U.S. EPA (2005) Region 9 preliminary remediation goal tables.
8. MADEP (undated) Documentation For the Cancer Inhalation Unit Risk Value for Tetrachloroethylene.
9. MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.
10. Value is 75th %-tile outdoor concentration.
11. Value for C9-C10 aromatic hydrocarbons (R7).
12. No value available;value for hexane applied.
13. (Avg soil gas conc)(atten. coeff.)(intake factor).
14. (Exposure Conc) / (1000)(Reference Conc).
15. (Exposure Conc)(Unit Risk)/(1000).

## Table 6

Calculation of Steady State Indoor Air Attenuation Coefficients

**TABLE 6**
**CALCULATION OF STEADY STATE INDOOR AIR ATTENUATION COEFFICIENTS**
**McCoy Field**
**New Bedford, Massachusetts**

**Main Equation**

Eq 1

$$\alpha = \frac{\left[\frac{D_s^{eff} A_B}{Q_{bldg} L_{SG}}\right] \cdot \mathrm{EXP}\left[\frac{Q_{soil} L_{crack}}{D_{crack}^{eff} A_{crack}}\right]}{\left[\exp\left(\frac{Q_{soil} L_{crack}}{D_{crack}^{eff} A_{crack}}\right) + \left(\frac{D_s^{eff} A_B}{Q_{bldg} L_{SG}}\right) + \left(\frac{D_s^{eff} A_B}{Q_{soil} L_{SG}}\right)\left[\exp\left(\frac{Q_{soil} L_{crack}}{D_{crack}^{eff} A_{crack}}\right) - 1\right]\right]}$$

or:

Eq 2

$$\text{as}\left(\frac{Q_{soil} \cdot L_{crack}}{D_{crack}^{eff} \cdot A_{crack}}\right) \rightarrow \infty, \alpha \rightarrow \left(\frac{\frac{D_s^{eff} \cdot A_B}{Q_{bldg} \cdot L_{SG}}}{\left(\frac{D_s^{eff} \cdot A_B}{Q_{soil} \cdot L_{SG}}\right) + 1}\right)$$

Equation 1 will not compute if this state is reached; Equation 2 must be u

where:

| | |
|---|---|
| $\alpha$ = | Steady state attenuation coefficient (unitless) |
| $D^{eff}_s$ = | Effective diffusivity in vadose zone soils ($cm^2/s$) (Calculated below) |
| $A_B$ = | Area of enclosed space below grade ($cm^2$) |
| $Q_{bldg}$ = | Building ventilation rate ($cm^3/sec$) (calculated below) |
| $L_{SG}$ = | Depth to soil gas source (cm) |
| $Q_{soil}$ = | Flow rate of soil gas into enclosed space ($cm^3/s$) |
| $L_{crack}$ = | Enclosed space foundation thickness (cm) |
| $D^{eff}_{crack}$ = | Effective diffusivity through soil-filled foundation cracks ($cm^2/s$) (Calculated below) |
| $A_{crack}$ = | Area of cracks ($cm^2$) ( = $A_B$ x $\eta$) |

| Constituent | $D^{eff}_S$ ($cm^2/s$) | $A_B$ ($cm^2$) | $Q_{bldg}$ ($cm^3/s$) | $L_{SG}$ (cm) | $Q_{soil}$ ($cm^3/s$) | $L_{crack}$ (cm) | $D^{eff}_{crack}$ ($cm^2/s$) | $A_{crack}$ ($cm^2$) | $\alpha$ (Eq 1) (unitless) |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.25E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.25E-02 | 185 | 8.92E-04 |
| Benzene | 8.88E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.88E-03 | 185 | #NUM! |
| 1,3-Butadiene | 2.51E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 2.51E-02 | 185 | 1.11E-03 |
| 2-Butanone (MEK) | 8.30E-04 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.30E-04 | 185 | #NUM! |
| Carbon Disulfide | 1.05E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.05E-02 | 185 | 8.28E-04 |
| Chloromethane | 1.27E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.27E-02 | 185 | 8.97E-04 |
| Cyclohexane | 8.47E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.47E-03 | 185 | #NUM! |
| cis-1,2-Dichloroethene | 7.43E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.43E-03 | 185 | #NUM! |
| trans-1,2-Dichloroethene | 7.14E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.14E-03 | 185 | #NUM! |
| Dichlorodifluoromethane | 6.71E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 6.71E-03 | 185 | #NUM! |
| Ethanol | 1.25E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.25E-02 | 185 | 8.90E-04 |
| Ethylbenzene | 7.57E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.57E-03 | 185 | #NUM! |
| 4-Ethyltoluene | 5.82E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 5.82E-03 | 185 | #NUM! |
| Heptane | 6.65E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 6.65E-03 | 185 | #NUM! |
| Hexane | 2.02E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 2.02E-02 | 185 | 1.05E-03 |
| Methy tert-Butyl Ether | 1.03E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.03E-03 | 185 | #NUM! |
| 4-Methyl-2-pentanone | 7.58E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.58E-03 | 185 | #NUM! |
| Propene | 3.37E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 3.37E-02 | 185 | 1.19E-03 |
| Tetrachloroethene | 7.27E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.27E-03 | 185 | #NUM! |
| Toluene | 8.78E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.78E-03 | 185 | #NUM! |
| Trichloroethene | 7.98E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.98E-03 | 185 | #NUM! |
| 1,2,4-Trimethylbenzene | 6.12E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 6.12E-03 | 185 | #NUM! |
| Vinyl Chloride | 1.07E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.07E-02 | 185 | 8.35E-04 |
| Xylenes (total) | 8.15E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.15E-03 | 185 | #NUM! |
| C5-C8 aliphatic hydrocarbons | 8.08E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.08E-03 | 185 | #NUM! |
| C9-C12 aliphatic hydrocarbons | 7.07E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.07E-03 | 185 | #NUM! |
| Dimethyl disulfide | 8.99E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.99E-03 | 185 | #NUM! |

**TABLE 6**
**CALCULATION OF STEADY STATE INDOOR AIR ATTENUATION COEFFICIENTS**
**McCoy Field**
**New Bedford, Massachusetts**

$$Q_{bldg} = L_b\ W_b\ H_b\ ER$$

where:

$Q_{bldg}$ = Building ventilation rate ($cm^3/s$)
$L_b$ = Length of building (cm)
$W_b$ = Width of building (cm)
$H_b$ = Height of building (cm)
ER = Air exchange rate ($sec^{-1}$)

| Constituent | $L_b$ (cm) | $W_b$ (cm) | $H_b$ (cm) | ER ($sec^{-1}$) | $Q_{bldg}$ ($cm^3/s$) |
|---|---|---|---|---|---|
| All | 961 | 961 | 488 | 0.000125 | 5.63E+04 |

$$D^{eff}{}_s = D_{air} \cdot \left( \frac{\theta_{as}{}^{3.33}}{\theta_T{}^2} \right) + D_{wat} \cdot \left( \frac{1}{H} \right) \left( \frac{\theta_{ws}{}^{3.33}}{\theta_T{}^2} \right)$$

where:

$D^{eff}{}_s$ = Effective diffusivity through vadose zone soil and soil-fillied foundation cracks ($D^{eff}{}_{crack}$) ($cm^2/s$)
$D_{air}$ = Diffusion coefficient in air ($cm^2/s$)
$D_{wat}$ = Diffusion coefficient in water ($cm^2/s$)
H = Henry's Law Constant ($cm^3/cm^3$)
$\theta_{as}$ = Air content in vadose zone soil ($cm^3/cm^3$)
$\theta_{ws}$ = Water content in vadose zone soil ($cm^3/cm^3$)
$\theta_T$ = Total soil porosity ($cm^3/cm^3$)

**From subsurface (H at 10 °C)**

| Constituent | $D_{air}$ ($cm^2/s$) | $D_{wat}$ ($cm^2/s$) | $\theta_{as}$ ($cm^3/cm^3$) | $\theta_{ws}$ ($cm^3/cm^3$) | $\theta_T$ ($cm^3/cm^3$) | H ($cm^3/cm^3$) | $D^{eff}{}_s/D^{eff}{}_{crack}$ ($cm^2/s$) |
|---|---|---|---|---|---|---|---|
| Acetone | 1.24E-01 | 1.14E-05 | 0.28 | 0.10 | 0.387 | 1.59E-03 | 1.25E-02 |
| Benzene | 8.80E-02 | 9.80E-06 | 0.28 | 0.10 | 0.387 | 2.27E-01 | 8.88E-03 |
| 1,3-Butadiene | 2.49E-01 | 1.08E-05 | 0.28 | 0.10 | 0.387 | 3.01E+00 | 2.51E-02 |
| 2-Butanone (MEK) | 8.08E-03 | 9.80E-06 | 0.28 | 0.10 | 0.387 | 2.29E-03 | 8.30E-04 |
| Carbon Disulfide | 1.04E-01 | 1.00E-05 | 0.28 | 0.10 | 0.387 | 1.24E+00 | 1.05E-02 |
| Chloromethane | 1.26E-01 | 6.50E-06 | 0.28 | 0.10 | 0.387 | 3.61E-01 | 1.27E-02 |
| Cyclohexane | 8.39E-02 | 9.10E-06 | 0.28 | 0.10 | 0.387 | 7.84E+00 | 8.47E-03 |
| cis-1,2-Dichloroethene | 7.36E-02 | 1.13E-05 | 0.28 | 0.10 | 0.387 | 1.67E-01 | 7.43E-03 |
| trans-1,2-Dichloroethene | 7.07E-02 | 1.19E-05 | 0.28 | 0.10 | 0.387 | 3.84E-01 | 7.14E-03 |
| Dichlorodifluoromethane | 6.65E-02 | 9.92E-06 | 0.28 | 0.10 | 0.387 | 1.40E+01 | 6.71E-03 |
| Ethanol | 1.23E-01 | 1.24E-05 | 0.28 | 0.10 | 0.387 | 1.20E-03 | 1.25E-02 |
| Ethylbenzene | 7.50E-02 | 7.80E-06 | 0.28 | 0.10 | 0.387 | 3.22E-01 | 7.57E-03 |
| 4-Ethyltoluene | 5.76E-02 | 7.80E-06 | 0.28 | 0.10 | 0.387 | 2.02E-01 | 5.82E-03 |
| Heptane | 6.59E-02 | 7.59E-06 | 0.28 | 0.10 | 0.387 | 8.41E+01 | 6.65E-03 |
| Hexane | 2.00E-01 | 7.77E-06 | 0.28 | 0.10 | 0.387 | 6.82E+01 | 2.02E-02 |
| Methy tert-Butyl Ether | 1.02E-02 | 1.05E-05 | 0.28 | 0.10 | 0.387 | 2.56E-02 | 1.03E-03 |
| 4-Methyl-2-pentanone | 7.50E-02 | 7.80E-06 | 0.28 | 0.10 | 0.387 | 5.64E-03 | 7.58E-03 |
| Propene | 3.34E-01 | 1.19E-05 | 0.28 | 0.10 | 0.387 | 1.65E+01 | 3.37E-02 |
| Tetrachloroethene | 7.20E-02 | 8.20E-06 | 0.28 | 0.10 | 0.387 | 7.53E-01 | 7.27E-03 |
| Toluene | 8.70E-02 | 8.60E-06 | 0.28 | 0.10 | 0.387 | 2.72E-01 | 8.78E-03 |
| Trichloroethene | 7.90E-02 | 9.10E-06 | 0.28 | 0.10 | 0.387 | 4.20E-01 | 7.98E-03 |
| 1,2,4-Trimethylbenzene | 6.06E-02 | 7.92E-06 | 0.28 | 0.10 | 0.387 | 2.52E-01 | 6.12E-03 |
| Vinyl Chloride | 1.06E-01 | 1.23E-05 | 0.28 | 0.10 | 0.387 | 1.10E+00 | 1.07E-02 |
| Xylenes (total) | 8.07E-02 | 1.00E-05 | 0.28 | 0.10 | 0.387 | 2.12E-01 | 8.15E-03 |
| C5-C8 aliphatic hydrocarbons | 8.00E-02 | 1.00E-05 | 0.28 | 0.10 | 0.387 | 5.40E+01 | 8.08E-03 |
| C9-C12 aliphatic hydrocarbons | 7.00E-02 | 1.00E-05 | 0.28 | 0.10 | 0.387 | 6.50E+01 | 7.07E-03 |
| Dimethyl disulfide | 8.34E-02 | 1.01E-05 | 0.28 | 0.10 | 0.387 | 6.14E-05 | 8.99E-03 |

**TABLE 6**
**CALCULATION OF STEADY STATE INDOOR AIR ATTENUATION COEFFICIENTS**
**McCoy Field**
**New Bedford, Massachusetts**

**Input Variables**

| Variable | Notation | Value | Units | Reference |
|---|---|---|---|---|
| Total soil porosity | $\theta_T$ | 0.387 | $cm^3/cm^3$ | Representative of sandy loam (U.S. EPA 2003) |
| Bulk soil density | $\rho_s$ | 1.62 | $g/cm^3$ | Representative of sandy loam (U.S. EPA 2003) |
| Water content in vadose zone soils | $\theta_{ws}$ | 0.103 | $cm^3/cm^3$ | Representative of sandy loam (U.S. EPA 2003) |
| Air content in vadose zone soils | $\theta_{as}$ | 0.284 | $cm^3/cm^3$ | $\theta_T - \theta_{WS}$. |
| Building air exchange rate | ER | 0.000125 | $s^{-1}$ | MADEP (2004). |
| Enclosed space height | $L_B$, $H_b$ | 488 | cm | MADEP (2004). |
| Foundation thickness | $L_{crack}$ | 15 | cm | MADEP (2004). |
| Areal fraction of cracks in foundatio | $\eta$ | 0.0002 | $cm^2/cm^2$ | U.S. EPA (2003). |
| Building length | $L_b$ | 961 | cm | MADEP (2004). |
| Building width | $W_b$ | 961 | cm | MADEP (2004). |
| Area of building | $A_B$ | 9.24E+05 | $cm^2$ | Equals $L_b$ x $W_b$. |
| Flow rate of soil gas | $Q_{soil}$ | 83.3 | $cm^3/s$ | U.S. EPA (2003). |
| Depth of soil gas measurement | $L_{SG}$ | 91 | cm | 3 feet (below cover) |

U.S. EPA (2003). Users Guide for Evaluating Subsurface Vapor Intrusion Into Buildings. June.
MADEP (2004). Proposed Revised Method 1 Numerical Standards and supporting documentation (September).

| Constituent | Henry's Law Constant H ($cm^3/cm^3$) | | Diffusion Coefficient in Air $D_{air}$ ($cm^2/s$) | | Diffusion Coefficient in Water $D_{wat}$ ($cm^2/s$) | |
|---|---|---|---|---|---|---|
| Acetone | 1.59E-03 | [1] | 1.24E-01 | [1] | 1.14E-05 | [1] |
| Benzene | 2.27E-01 | [1] | 8.80E-02 | [1] | 9.80E-06 | [1] |
| 1,3-Butadiene | 3.01E+00 | [1] | 2.49E-01 | [1] | 1.08E-05 | [1] |
| 2-Butanone (MEK) | 2.29E-03 | [1] | 8.08E-03 | [1] | 9.80E-06 | [1] |
| Carbon Disulfide | 1.24E+00 | [1] | 1.04E-01 | [1] | 1.00E-05 | [1] |
| Chloromethane | 3.61E-01 | [1] | 1.26E-01 | [1] | 6.50E-06 | [1] |
| Cyclohexane | 7.84E+00 | [2] | 8.39E-02 | [2] | 9.10E-06 | [2] |
| cis-1,2-Dichloroethene | 1.67E-01 | [1] | 7.36E-02 | [1] | 1.13E-05 | [1] |
| trans-1,2-Dichloroethene | 3.84E-01 | [1] | 7.07E-02 | [1] | 1.19E-05 | [1] |
| Dichlorodifluoromethane (Freon 12 | 1.40E+01 | [1] | 6.65E-02 | [1] | 9.92E-06 | [1] |
| Ethanol | 1.20E-03 | [3] | 1.23E-01 | [3] | 1.24E-05 | [3] |
| Ethylbenzene | 3.22E-01 | [1] | 7.50E-02 | [1] | 7.80E-06 | [1] |
| 4-Ethyltoluene | 2.02E-01 | [2] | 5.76E-02 | [2] | 7.80E-06 | [3] |
| Heptane | 8.41E+01 | [2] | 6.59E-02 | [2] | 7.59E-06 | [2] |
| Hexane | 6.82E+01 | [1] | 2.00E-01 | [1] | 7.77E-06 | [1] |
| Methy tert-Butyl Ether | 2.56E-02 | [1] | 1.02E-02 | [1] | 1.05E-05 | [1] |
| 4-Methyl-2-pentanone (MIBK) | 5.64E-03 | [1] | 7.50E-02 | [1] | 7.80E-06 | [1] |
| Propene | 1.65E+01 | [3] | 3.34E-01 | [3] | 1.19E-05 | [3] |
| Tetrachloroethene | 7.53E-01 | [1] | 7.20E-02 | [2] | 8.20E-06 | [1] |
| Toluene | 2.72E-01 | [1] | 8.70E-02 | [1] | 8.60E-06 | [1] |
| Trichloroethene | 4.20E-01 | [1] | 7.90E-02 | [1] | 9.10E-06 | [1] |
| 1,2,4-Trimethylbenzene | 2.52E-01 | [1] | 6.06E-02 | [1] | 7.92E-06 | [1] |
| Vinyl Chloride | 1.10E+00 | [1] | 1.06E-01 | [1] | 1.23E-05 | [1] |
| Xylenes (total) | 2.12E-01 | [1] | 8.07E-02 | [2] | 1.00E-05 | [1] |
| C5-C8 aliphatic hydrocarbons | 5.40E+01 | [4] | 8.00E-02 | [4] | 1.00E-05 | [4] |
| C9-C12 aliphatic hydrocarbons | 6.50E+01 | [4] | 7.00E-02 | [4] | 1.00E-05 | [4] |
| Dimethyl disulfide | 6.14E-05 | [3] | 8.34E-02 | [3] | 1.01E-05 | [3] |

1. U.S. EPA (2003). Users Guide for Evaluating Subsurface Vapor Intrusion into Buildings. June
2. TPHCWG (1998). Composition of Petroleum Mixtures. Amherst Scientific Publishing. November.
3. U.S. EPA (1994). ChemDat8 Users Guide. EPA453/C-94-080B, November.
4. MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.

**TABLE 6**
**CALCULATION OF STEADY STATE INDOOR AIR ATTENUATION COEFFICIENTS**
**McCoy Field**
**New Bedford, Massachusetts**

used.

| α (Eq 2) (unitless) |
|---|
| 8.92E-04 |
| 7.67E-04 |
| 1.11E-03 |
| 1.35E-04 |
| 8.28E-04 |
| 8.97E-04 |
| 7.49E-04 |
| 7.01E-04 |
| 6.86E-04 |
| 6.64E-04 |
| 8.90E-04 |
| 7.08E-04 |
| 6.11E-04 |
| 6.60E-04 |
| 1.05E-03 |
| 1.64E-04 |
| 7.08E-04 |
| 1.19E-03 |
| 6.93E-04 |
| 7.63E-04 |
| 7.27E-04 |
| 6.30E-04 |
| 8.35E-04 |
| 7.35E-04 |
| 7.32E-04 |
| 6.82E-04 |
| 7.71E-04 |

# Attachment A

Draft Notice of Activity and Use Limitation (AUL)

DRAFT

Revision: 1
Last Revised: 5-02-05

**Form 1075**

NOTICE OF ACTIVITY AND USE LIMITATION
M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: McCoy Field/Keith Middle School
DEP Release Tracking No.(s): 4-0015824, 4-0015685

This Notice of Activity and Use Limitation ("Notice") is made as of this _____ day of _____, 20___, by the City of New Bedford, 133 William Street, New Bedford, Bristol County, Massachusetts, together with his/her/its/their successors and assigns (collectively "Owner").

W I T N E S S E T H:

WHEREAS, the City of New Bedford, is the owner(s) in fee simple of those certain parcel of land located at 70 Hathaway Boulevard in New Bedford, Bristol County, Massachusetts with the buildings and improvements thereon, pursuant to a deed recorded with the Bristol County Registry of Deeds in Book 849, Page 329 and Book 885, Page 401;

WHEREAS, said parcels of land, which is more particularly bounded and described in Exhibit A, attached hereto and made a part hereof ("Property") is subject to this Notice of Activity and Use Limitation. The Property is shown on a plan recorded in the Bristol County Registry of Deeds in Plan Book _____, Plan _____;

WHEREAS, a portion of the Property ("Portion of the Property") is subject to this Notice of Activity and Use Limitation. The Portion of the Property is more particularly bounded and described in Exhibit A-1, attached hereto and made a part hereof. The Portion of the Property is shown on a plan recorded with the _____ County Registry of Deeds in Plan Book _____, Plan_____, and/or on a sketch plan attached hereto and filed herewith for registration;

WHEREAS, the Portion of the Property comprises part of a disposal site as the result of a release of oil and/or hazardous material. Exhibit B is a sketch plan showing the relationship of the Portion of the Property subject to this Notice of Activity and Use Limitation to the boundaries of said disposal site existing within the limits of the Property and to the extent such boundaries have been established. Exhibit B is attached hereto and made a part hereof; and

WHEREAS, one or more response actions have been selected for the Portion of the Disposal Site in accordance with M.G.L. c. 21E ("Chapter 21E") and the Massachusetts Contingency Plan, 310 CMR 40.0000 ("MCP"). Said response actions are based upon (a) the restriction of human access to and contact with oil and/or hazardous material in soil and/or (b) the restriction of certain activities occurring in, on, through, over or under the Portion of the Property. The basis for such restrictions is set forth in an Activity and Use Limitation Opinion ("AUL Opinion"), dated _____, (which is attached hereto as Exhibit C and made a part hereof);

NOW, THEREFORE, notice is hereby given that the activity and use limitations set forth in said AUL Opinion are as follows:

1. Activities and Uses Consistent with the AUL Opinion. The AUL Opinion provides that a condition of No Significant Risk to health, safety, public welfare or the environment exists for any foreseeable period of time (pursuant to 310 CMR 40.0000) so long as any of the following activities and uses occur on the Portion of the Property:

(i) Use of the Property for a school, including the presence of all existing school buildings and facilities and associated landscaping, parking lots, and sidewalks;

(ii) Occupancy by students, teachers, staff, and visitors for all normally anticipated school-related activities including classroom education, physical education, daily food service; and use of paved areas for parking lots and sidewalks;

(iii) Normally anticipated ancillary school building and Property uses such as public meetings, assemblies, fund raising events, cultural activities, and adult education;

(iv) Maintenance of landscaped areas and lawns, including filling of burrowing animal holes and placement and removal of mulch or other surficial aesthetic enhancement or erosion control materials;

(v) Planting or removal within the landscaped areas of ornamental vegetation such as trees, shrubs, flowers, groundcover, etc. Such ornamental vegetation shall be selected from those species that are known to have shallow root systems that would not be expected under normal conditions to cause roots to penetrate the geotextile fabric barrier located at 3 feet below grade in the landscaped areas. No excavation for planting or removal of vegetation in the landscaped areas shall extend beyond two feet below existing grade;

(vi) Interior or exterior building maintenance that does not impact soil;

(vii) Maintenance, including replacement, of exterior surface materials such as asphalt paving, concrete paving, or sidewalks, such that removal of such surfaces is limited to the material to be replaced and the underlying soil is not significantly disturbed (six inches deep or less below bottom of surface being removed) and where the surface material is immediately repaired or replaced with a comparable barrier;

(viii) Installation of fencing where fence posts are installed in post holes of two feet deep or less;

(xi) Extending concrete or asphalt pavement over current landscaped areas;

(x) Erection or placement of temporary structures or tents that do not require soil excavation. Where stakes are required to stabilize a tent, such stakes shall not be driven more than two feet into the ground;

(xi) Excavation for short-term maintenance or repair of existing subsurface utilities where such excavation is confined to the corridor of clean backfill that has been demarcated by geotextile fabric/orange warning polyethylene sheeting;

(xii) Any other public, commercial, or industrial activities and uses that do not cause and/or result in the direct

contact with, disturbance of, and/or relocation of the contaminated soil, the top of which is currently located at depths of two to four feet below current surface grade;

(xiii) Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare or the environment than the activities and uses set forth in this Paragraph; and

(xiv) Such other activities and uses not identified in Paragraph 2 as being Activities and Uses Inconsistent with the AUL.

2. Activities and Uses Inconsistent with the AUL Opinion. Activities and uses which are inconsistent with the objectives of this Notice of Activity and Use Limitation, and which, if implemented at the Portion of the Property, may result in a significant risk of harm to health, safety, public welfare or the environment or in a substantial hazard, are as follows:

(i) Excavation to a depth greater than three feet in landscaped areas without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(ii) Excavation to a depth greater than two feet beneath paved areas without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(iii) Removal of building floor slab such that soil is exposed or groundwater is allowed to enter building without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(iv) Penetration or breaching of the vapor barrier beneath the building floor without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(v) Any excavation beneath building floors without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(vi) Activities that result, or could result, in compromising the structural integrity of concrete floors, asphalt pavement, or concrete pavement;

(vii) Activities that result, or could result, in the erosion of soil in any unpaved area,

(viii) Removal of any soil from landscaped areas without immediate replacement with clean soil to current surface grade;

(ix) Planting of food crops in site soil for human or animal consumption does not include enclosed planters filled with off-site soil;

(x) Any other public, commercial, or industrial activities or uses that result in the direct contact with, disturbance of, and/or relocation of the contaminated soil, the top of which is currently located at depths of two to four feet below current surface grade; and

(xi) Any other activities or uses that cause or have the potential to cause exposure to contaminated soil beneath the building foundation(s), or beneath clean soil and/or paving in the exterior of the building(s).

3. Obligations and Conditions Set Forth in the AUL Opinion. If applicable, obligations and/or conditions to be undertaken and/or maintained at the Portion of the Property to maintain a condition of No Significant Risk as set forth in the AUL Opinion shall include the following:

(i) Maintain all asphalt pavement, concrete pavement, and sidewalks such that the integrity of each is not compromised;

(ii) Maintain all interior building floors such that the integrity of each is not compromised;

(iii) Perform semi-annual inspections and associated record keeping activities to confirm that the pavement is being properly maintained to prevent exposure;

(iv) Maintain all landscaped areas such that soil erosion is prevented;

(v) A Soil Management Plan must be prepared by an LSP and implemented prior to the commencement of any activity which is likely to disturb contaminated soil the top of which is located at two to four feet below surface grade within the AUL area. The Soil Management Plan should describe appropriate soil excavation, handling, storage, transport, and disposal procedures and include a description of the engineering controls and air monitoring procedures necessary to ensure that workers and receptors in the vicinity are not affected by fugitive dust or particles. On-Site workers must be informed of the requirements of the soil management plan, and the Plan must be available on-site throughout the course of the project;

(vi) A Health and Safety Plan must be prepared by a certified Industrial Hygienist or other qualified individual sufficiently trained in worker health and safety requirements and implemented prior to the commencement of any activity which is likely to disturb contaminated soil the top of which is located at two to four feet below surface grade within the AUL area. The Health and Safety Plan should specify the type of personal protection (i.e., clothing, respirators), engineering controls, and environmental monitoring necessary to prevent worker exposures to contaminated soil through dermal contact, ingestion, and/or inhalation. Workers must be informed of the requirements of the Health and Safety Plan, and the plan must be available on-site throughout the course of the project; and

(vii) The contaminated soil the top of which is located at two to four feet below surface grade within the AUL area must remain at depth and may not be relocated, unless such activity is first appropriately evaluated by an LSP who renders an Opinion that states that such relocation is consistent with maintaining a condition of No Significant Risk.

4. Proposed Changes in Activities and Uses. Any proposed changes in activities and uses at the Portion of the

Property which may result in higher levels of exposure to oil and/or hazardous material than currently exist shall be evaluated by an LSP who shall render an Opinion, in accordance with 310 CMR 40.1080 *et seq*., as to whether the proposed changes will present a significant risk of harm to health, safety, public welfare or the environment. Any and all requirements set forth in the Opinion to meet the objective of this Notice shall be satisfied before any such activity or use is commenced.

5. Violation of a Response Action Outcome. The activities, uses and/or exposures upon which this Notice is based shall not change at any time to cause a significant risk of harm to health, safety, public welfare, or the environment or to create substantial hazards due to exposure to oil and/or hazardous material without the prior evaluation by an LSP in accordance with 310 CMR 40.1080 *et seq*., and without additional response actions, if necessary, to achieve or maintain a condition of No Significant Risk or to eliminate substantial hazards.

If the activities, uses, and/or exposures upon which this Notice is based change without the prior evaluation and additional response actions determined to be necessary by an LSP in accordance with 310 CMR 40.1080 *et seq*., the owner or operator of the Portion of the Property subject to this Notice at the time that the activities, uses and/or exposures change, shall comply with the requirements set forth in 310 CMR 40.0020.

6. Incorporation Into Deeds, Mortgages, Leases, and Instruments of Transfer. This Notice shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer, whereby an interest in and/or a right to use the Property or a portion thereof is conveyed.

Owner hereby authorizes and consents to the filing and recordation and/or registration of this Notice, said Notice to become effective when executed under seal by the undersigned LSP, and recorded and/or registered with the appropriate Registry(ies) of Deeds and/or Land Registration Office(s).

DRAFT

Revision: 1
Last Revised: 5-02-05

WITNESS the execution hereof under seal this _____ day of _____, 20____.

_____
, for the City of New Bedford

COMMONWEALTH OF MASSACHUSETTS

_____, ss _____, 20___

Then personally appeared the above-named _____ and acknowledged the foregoing instrument to be [his][her] free act and deed before me,

Notary Public:
My Commission Expires:

The undersigned LSP hereby certifies that he executed the aforesaid Activity and Use Limitation Opinion attached hereto as Exhibit C and made a part hereof and that in his Opinion this Notice of Activity and Use Limitation is consistent with the terms set forth in said Activity and Use Limitation Opinion.

Date:_____

_____
[Name of LSP]

[LSP SEAL ]

COMMONWEALTH OF MASSACHUSETTS

_____, ss _____, 20__

Then personally appeared the above named _____ and acknowledged the foregoing instrument to be [his][her] free act and deed before me,

Notary Public:
My Commission Expires:

[If recorded land] Upon recording, return to:
Mr. Scott Alfonse
Brownfields Coordinator
City of New Bedford
133 William Street
New Bedford, MA 02740

**SECTION 02200**

**EARTHWORK**

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

A. Bidding requirements, Contract Forms, General and Supplementary Conditions and Division I, General Requirements are hereby made a part of this Section. The Order of Conditions, DEP File No. SE 49-461, No. SE49-475 and all Amendments issued by the New Bedford Conservation Commission, is included in this contract in Section 00200 – Information Available to Bidders.

### 1.02 DESCRIPTION OF WORK

A. ***This project represents the final Phase of a three-phase project. Phase 1 consisted of the excavation and management of regulated soils for the installation of a portion of the project's subsurface utility system. Phase two completed the installation of the subsurface utility system, capping of the regulated soils and the shaping of the subgrades for the Phase III contract as shown on the Plans and specifications.*** The scope of work consists of all materials, equipment, labor and services required for all Earthwork work, including all items incidental thereto, as specified herein and as shown on the Drawings. The following work shall be included:

1. Surplus material shall be removed from the site. No burning on the site shall be permitted.

2. Excavating, filling, trenching and backfilling of all description required for the construction of walls, building structures, utility structures, utilities, pavements, seeded areas and site improvements. Provide all additional fill materials as required and specified herein. Refer to Sections on Heating, Plumbing, Electrical and Structural for other excavation.

3. Pumping and/or bailing necessary to maintain excavated spaces free from water from any source whatsoever.

4. Provide graded materials, as specified, for fills, base courses and backfills as required.

5. Protect all existing utilities, roads, pavements, lawns, planting and other improvements from damage due to construction. Install fencing and safety devices or controls as necessary.

6. Dust control and clean up.

B. The project site is part of a disposal site under the Massachusetts Contingency Plan (MCP) that has received "Special Project" designation by the Department of Environmental Protection. Under recent environmental contracts, near-surface contaminated soil has been removed in the vicinity of the Work, to significantly reduce the potential for exposure of workers to contaminated soil. However, in the event that excavation becomes necessary that could result in worker exposure to "suspect" contaminated subsurface soil, or off-site management of same, the CONTRACTOR must notify the ARCHITECT prior to proceeding with any subsurface excavations.

### 1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Carefully examine all of the Contract Documents for requirements which effect the work of this section.

B. Other specifications sections, which directly relate to the work of this section include, but are not limited to, the following:

1. Section 00200 – Information Available To Bidders
2. Section 02100 - Site Preparation
3. Section 02500 - Paving and Surfacing
4. Section 02665 - Water System
5. Section 02800 - Site Improvements
6. Section 02810 - Irrigation
7. Section 02900 - Lawns and Planting
8. Section 03300 – Cast-In-Place Concrete
9. Section 15300 – Plumbing
10. Section 15400 – Fire Protection
11. Section 16000 - Electrical

1.04 REFERENCE STANDARDS

A. Definitions and Reference Standards:

1. ASTM: Specifications of the American Society for Testing and Materials.

2. AASHTO: American Association of State Highway and Transportation Officials.

3. ACI: American Concrete Institute.

4. Building Code: Commonwealth of Massachusetts State Building Code, latest edition.

5. EPA: Environmental protection Agency.

6. DEP: Department of Environmental Protection.

7. SSHB: Standard Specifications for Highways and Bridges, the Commonwealth of Massachusetts, Mass. Highway Department, latest edition.

1.05 BENCHMARKS AND ENGINEERING

A. Lines and grade work in accordance with Drawings and Specifications shall be laid out by a registered Civil Engineer or Surveyor employed by the Contractor. The Contractor shall establish permanent benchmarks, to which access can easily be had during the progress of the work. The Contractor shall maintain all established bounds and benchmarks and replace, as directed, any that may be disturbed or destroyed. The selection of the registered Civil Engineer or Surveyor shall be subject to the Architect's approval. The General Contractor shall pay all costs of the services of the Civil Engineer or Surveyor.

B. The Contractor shall verify dimensions and elevations on the ground and report any discrepancies immediately to the Architect. Any discrepancies not reported prior to construction shall not be the basis for claims for extra compensation.

C. An As-Built Plan of work completed in the Phase I and II contracts shall be provided to the Contractor in .DWG format.

1.06 SUBSURFACE INFORMATION

A. The Architect shall issue As-Built Drawings indicating the extent of regulated soils that have been removed covered with a geotextile soil separator, warning barrier and brought up to Phase III subgrades with compacted, clean granular fill.

B. The Owner assumes no responsibility for the Contractor's failure to make his own site investigation regarding the character of the soil or subsurface conditions, which may be encountered during the performance of the work. (See Section 00200 – Information Available To Bidders.)

1.07 FINISHED GRADES

A. The words "finished grades" as used herein mean the required final grade elevations indicated on the Drawings. Where not otherwise indicated, areas outside of buildings shall be given uniform slopes between points, for which finished grades are shown, or between such points and existing grade except that vertical curves or roundings shall be provided at abrupt changes in slope.

1.08 GRADES AND ELEVATIONS

A. The Drawings indicate, in general, the alignment and finished grade elevations and sewer, drain, water and underground electric invert grades. The Architect, however, may make such adjustments in grades and alignment as are found necessary in order to avoid interference and to adapt the piping to other special conditions encountered.

1.09 PROTECTION

A. All rules and regulations governing the respective utilities shall be observed in executing all work under this Section. All work shall be executed in such a manner as to prevent any damage to existing buildings, clean corridors, streets, curbs, paving, service utility lines, structures and adjoining property. Monuments and benchmarks shall be carefully maintained and, if disturbed or destroyed, replaced as directed.

B. The Contractor shall furnish all facilities and materials necessary to prevent the earth at the bottom of excavation from becoming frozen or unsuitable to receive footings, foundations or other load bearing units.

C. The Contractor, under this Section, shall provide at his own expense adequate pumping and drainage facades to keep the excavation sufficiently dry as not to affect adversely the quality or time of placement of concrete or other materials to be installed in the excavated areas.

D. The Contractor shall assume full responsibility for damages caused by him or his Subcontractor's equipment and personnel to the existing geotextile soil separator and warning barrier, buildings and grounds as well as adjoining private property.

E. The work of this Section shall be performed in such a manner as to cause no interference with access by the Subcontractors or other Contractors to all portions of the site as is necessary for the normal conduct of their work.

**PART 2 - PRODUCTS**

A. Crushed Stone:

1. Crushed stone to be placed under and around sewer and storm drain pipes as shown on the Drawings and as specified shall be washed graded free of organic materials three-quarter (3/4) inch to one-half (1/2)-inch size. Gradation shall conform to SSHB., Section M2.01.3 as follows:

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 1- inch | | 100% |
| 3/4 inches | 90% | 100% |
| 1/2 inch | 10% | 50% |

| | | |
|---|---|---|
| 3/8 inch | 0% | 20% |
| #4 | 0% | 5% |

2. Crushed stone drive aprons as shown on the Drawings and as specified shall be washed graded free of organic materials two (2) inches to one-half (1/2)-inch size. Gradation shall conform to SSHB., Section M2.01.1 as follows:

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 2 inch | 100% | - |
| 1-1/2 inches | 95% | 50% |
| 1 inch | 35% | 70% |
| 3/4 inch | 0% | 25% |

B. Select Granular Fill: Gravel base as called for on the Drawings, for foundations, bases and miscellaneous site improvements, as specified shall consist of a well graded sand and gravel, free from deleterious matter, loam and clay, meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 8 inches | 100% | |
| 3 inches | 70% | 100% |
| 1/2 inches | 40% | 90% |
| No. 4 | 25% | 80% |
| No. 10 | 15% | 70% |
| No. 40 | 5% | 40% |
| No. 200 | 0% | 12% |

C. Clean Granular Fill: Fill up to subgrade in landscaped areas, shall consist of a well-graded sand and gravel borrow, free from deleterious matter, loam and clay meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 8 inches | 100% | |
| 3 inches | 70% | 100% |
| 1/2 inches | 40% | 100% |
| No. 4 | 25% | 100% |
| No. 10 | 15% | 95% |
| N0. 40 | 10% | 70% |
| No. 200 | 0% | 15% |

D. Bedding Sand: Bedding sand for concrete unit pavers shall be clean, washed natural or manufactured concrete sand meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 3/8 inches | 100% | |
| No. 4 | 95% | 100% |
| No. 8 | 85% | 100% |
| N0. 16 | 50% | 85% |
| No. 30 | 25% | 60% |
| N0. 50 | 10% | 30% |
| No. 100 | 2% | 10% |

E. Joint Sand: Joint sand for concrete unit pavers shall be clean, washed natural or manufactured concrete sand meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| No. 4 | 100% | % |
| No. 8 | 95% | 100% |
| N0. 16 | 70% | 100% |
| No. 30 | 40% | 75% |
| N0. 50 | 10% | 35% |
| No. 100 | 2% | 15% |
| No. 200 | 0% | 10% |

F. Material falling within the above Specifications, encountered during the excavation, shall be stored in segregated stockpiles for reuse. All material shall be tested and subject to approval by the Architect.

G. Sand: Sand for water and gas line pipe bedding shall be, clean masons sand.

## PART 3 – EXECUTION

### 3.01 EXCAVATION

A. General:

1. Excavate all materials to the elevations, dimensions and form as shown on the Drawings and as specified for the construction of building structures, utility structures, utilities, site improvements and other structures necessary for the completion of the building, utilities and site work. All unsuitable materials within the indicated and specified limits shall be excavated and removed. Any quantities involving an extra or other adjustment of the Contract Price shall be subject to measurement verification and approval by the Architect prior to the excavation and removal of such materials. Unsuitable materials shall include the following:

   a. Regulated soils
   b. Pavements, utility structures, building foundations and other man made structures.
   c. Peat, organic silt and other organic materials subject to decomposition, consolidation or decay.
   d. Miscellaneous fill including sand, gravel, cinders, ash, glass, wood, metal and ledge.
   e. Ledge or boulders except as specified for fills herein.

2. **The Architect will provide the Contractor with an as-built drawing showing the extent of regulated soil remediation, location and inverts of all utilities pile locations and elevations installed in the Phase 1 & 2 Contracts.** The Contractor shall obtain, from the proper authorities, locations of all other utilities within the scope of this work so that there will be no damage done to such utilities. Neither the Owner nor the Architect will be responsible for any such damage, and the Contractor shall restore any structure or utility so damaged without additional compensation. Written notifications to the appropriate utility agencies shall be made at least ten (10) days prior to the commencement of any work.

3. Excess Material: Suitable excavated material, which is required for fill, and backfill shall be separately stockpiled as directed by the Architect. All surplus fill other than that required to complete the intent of the Contract shall become the property of the Contractor and shall be disposed of off the property by the General Contractor. All excavated materials, which, in the

opinion of the Architect, are not suitable for, fill or backfill shall be removed and disposed of off the property.

4. Any unsanitary conditions encountered, such as broken sewer mains or uncovered garbage, shall be corrected or removed entirely as directed by the Architect.

B. Excavation for Building Structures:

1. Refer to Structural and Mechanical Drawings and notes thereon which may affect work under this Section.

2. Excavation shall be performed to elevations and dimensions indicated or specified, plus sufficient space to permit erection of forms and shoring, drains, masonry and the inspection of foundations.

3. Bottoms of excavations shall be protected from frost. Foundations, footings or slabs shall not be placed on frozen ground. The Contractor shall shore and brace excavations, protect all slopes and earth banks and provide sheet piling necessary to prevent cave-ins. Shoring and piling shall be removed before backfiliing is completed but not unto permanent supports are in place. Excavation of earth and/or rock beyond indicated or authorized limits shall be refilled with select granular fill compacted to ninety-five (95) percent of the maximum dry density at optimum moisture content as specified herein or concrete as required by the Architect at no additional cost to the Owner.

4. The Contractor shall control the grading around the building so that the ground shall be pitched in order to prevent water from running into the excavated areas of the building or prevent damage to other structures. The Contractor shall furnish all pumping required to keep excavated areas clear of water during construction. Water shall not be conducted onto adjacent property.

5. Excavate to subgrade for concrete slabs, including utility trenches, and footings. Compact subgrade to ninety-five (95) percent of maximum dry density as determined by the Modified Proctor Compaction Test.

6. Make final excavations by hand or using smooth-bladed equipment to avoid disturbance and the formation of ridges, which would be left by a bucket with teeth.

7. Repair or replace geotextile soil separator and warning barrier as required.

8. Prevent water accumulation on bearing surfaces, to reduce the possibility of softening of the subgrade soils.

9. The subgrade soils must be examined in the field by the Architect.

10. The bearing surface should be cleared of all loose and disturbed soil before any footings are placed. Prior to placing forms or reinforcing steel, the cleared area beneath the footings should be compacted with at least four coverage's of a vibratory plate compactor weighing at least 200 pounds imparting at least 5,000 pounds dynamic force.

C. Fill for Site Improvements:

1. Fill to the lines and grades shown on the Drawings and as specified to obtain the subgrades for the following items of work:

   a. Concrete slabs on grade - to twelve (12) inches below underside of slab.
   b. Bituminous concrete road and parking pavement - to twenty-four (24) inches below finished grades.
   c. Concrete paving - to twelve (12) inches below underside of paving.

d. Granite curb - to six (6) inches below and parallel to the underside of curb.
e. Seeded areas - to eighteen (18) inches below finished grade.
f. Shrub bed areas - to twenty-four (24) inches below finished grades.
g. Unspecified improvements - to bottom elevation of item plus ample working space on all sides.

D. Excavation for Utilities and Utility Structures:

1. Excavate to the lines and grades shown on the Drawings and as specified herein to obtain the subgrade for the following items of work:

a. Utility structures - to grades shown on the Drawings. Remove by excavating all unsuitable materials from under drainage structures and backfill with clean granular fill compacted in place to subgrades.
b. Excavation for structures and other accessories shall have twelve (12) inch minimum and twenty-four (24) inch maximum clearance on all sides.
c. All utility lines - to twelve (12) inches below bottom of utility lines or structures.
d. Trench for water pipe shall provide a minimum of five (5) feet of cover above top of pipe.
e. Unless otherwise shown, provide separate trenches for each utility. Lay all piping in open trenches except where tunneling is required. Excavation for structures and other accessories shall have twelve (12) inch minimum and twenty-four (24) inch maximum clearance on all sides.
f. Grade the bottom of trenches evenly to have a constant pitch in the direction of flow and to insure a uniform compacted thickness of selected material as called for.

2. Existing services and utilities encountered shall be immediately repaired, protected and maintained in use until relocation of same has been completed or be cut and capped where directed or be prepared for connections when so required.

## 3.03 PROTECTION SHORING AND DEWATERING

A. Protect open excavations with fencing, warning lights and other suitable safeguards.

B. Shore and brace excavations as required so as to maintain them secure and provide sheet piling to prevent cave-ins. Under Phases 1&2 Regulated soils for have been mitigated by removing the regulated soils and replacing them with clean granular fill so as to provide clean corridors for all below grade improvements. Remove shoring and piling before backfilling is completed and as specified herein.

C. Frost Protection: Make no excavations to the full depth indicated when freezing temperature may be expected unless the footing or slabs can be poured immediately after the excavation has been completed. Protect the bottoms as excavated from frost, if placing of concrete is delayed, with straw, tarpaulins or temporary heat until footings or slabs are poured and backfill is placed.

D. Provide all pumps and pumping facilities, including a well point system as necessary with attendants, to keep all excavations free from water from whatever source at all times, when work is in progress or when necessary for protection and integrity of the work in place. Trenches shall be kept water-free during jointing and for sufficient time thereafter to allow the jointing material to become fully set and completely resistant to water penetration.

E. Maintain ground water in the bearing soil strata at a safe level at all times by methods, which prevent loss of fines or other disturbances to these strata. If the methods employed have not been adequate and the bearing value of the soil has been reduced, remove disturbed soil as directed and replace with compacted graded gravel or concrete at no expense to the Owner.

F. Any ditching required to keep the site free from water during construction is the responsibility of the Contractor and will be repaired, topsoiled and seeded before completion of work.

## 3.04 FILLS. BACKFILLS AND COMPACTION

A. Samples and Testing:

1. All fill material and its placement shall be subject to quality control testing. A qualified laboratory will be selected by the Owner to perform tests on materials. All costs of testing will be paid for by the Owner. Test results and laboratory recommendations shall be available to the Architect.

2. Provide samples of each fill material from the proposed source of supply including on-site sources. Allow sufficient time for testing and evaluation of results before material is needed. Submit samples from alternate source if required.

3. Architect will be sole and final judge of suitability of all material.

4. The laboratory will determine maximum dry density and optimum water content in accordance with ASTM D1557, Method D and the in-place density in accordance with ASTM D1556.

5. Tests of material as delivered may be made from time to time. Materials in question may not be used, pending test results. Tests of compacted materials will be made regularly. Remove rejected materials and replace with new, whether in stockpiles or in place.

6. Cooperate with laboratory in obtaining field samples of in-place materials after compaction. Furnish incidental field labor in connection with these tests.

B. Placing Fills and Compacting

1. Fill material shall be placed in horizontal layers not exceeding six (6) inches under the building and all pavements and nine (9) inch layers in lawn areas. Each layer shall be compacted to the percentage of maximum dry density specified for the particular type of fill and at a water content equal to optimum water content plus or minus two (2) percent. The maximum dry density and optimum water content shall be as specified herein.

2. Areas to be filled or backfilled shall be free of construction debris, refuse, compressible or decayable materials and standing water. Do not place fill when fill materials or layers below it are frozen. Proofroll excavated ground surfaces under the proposed building and paved areas using a vibratory drum compactor or other heavy equipment prior to placing specified base course material.

3. Notify the Architect when excavation is ready for inspection. Filling and backfilling shall not be started until conditions have been approved by the Architect.

4. Before backfilling against walls, the permanent structures must be completed and sufficiently aged to attain strength required to resist backfill pressures without damage. Temporary bracing will not be permitted except by written permission from the Architect. When filling on both sides of a wall or pier, place fill simultaneously on each side. Correct any damage to the structure caused by backfilling operations at no cost to the Owner

5. In confined areas adjacent to footings and foundation walls and in utility trenches beneath floor slab, the fill shall be compacted with hand operated vibration tampers. The maximum lift thickness shall be four (4) inches. The degree of compaction attained shall be equivalent to that attained in the adjacent open areas where heavy rolling equipment is used.

6. After the subgrade under concrete slabs and paved areas has been shaped to line, grade and cross-sections, it shall be rolled with an approved power roller weighing not less than six (6) tons until thoroughly compacted. This operation shall include any reshaping, refilling or wetting

required to obtain proper compaction. Any areas, which subsequently settle, shall be refilled to true subgrade and properly compacted.

7. In freezing weather, a layer of fill shall not be left in an uncompacted state at the close of a day's operations. Prior to terminating operations for the day, the final layer of fill, after compaction, shall be rolled with a smooth-wheeled roller to eliminate ridges of soil left by tractors, trucks and compaction equipment.

C. Placing Select Granular Fills

1. Select granular fills, as specified herein above, shall be provided as follows:

   a. As gravel base course under all pavements unless otherwise called for.
   b. As gravel under and/or around footings curbs as shown on the Drawings or specified unless otherwise called for.

2. Place gravel in six (6) inch maximum layers; fill and compact each layer to ninety-five (95) percent maximum dry density.

D. Placing Clean Granular Fills

1. Clean granular fill material as specified shall be placed under pavements and utilities up to subgrades as specified.

2. Fills shall be placed in layers of a maximum six (6) inch compacted thickness up to subgrade. Compaction shall be to ninety-five (95) percent of maximum dry density as specified.

E. Deficiency of Fill Materials:

1. Provide required additional fill materials as specified if a sufficient quantity of suitable materials is not available from the required excavation on the project site at no additional cost to the Owner. Where water content of the fill must be adjusted to meet this Specification, the fill shall be thoroughly disked to insure uniform distribution of any water added.

F. Fill and Backfill for Utilities:

1. Backfill trenches only after pipe has been inspected, tested and locations of pipes and appurtenances have been recorded. Each pipe section shall be laid on a twelve-(12) inch minimum bed of crushed stone as specified herein above. In addition the water line shall be set in a six-(6) inch bed of sand. Bed shall be shaped by means of hand shovels to give full and continuous support to the lower one-third (1/3) of each pipe. Backfill by hand around pipe, and for a depth of twelve (12) inches above pipe, use sand or crushed stone and tamp firmly in layers not exceeding six (6) inches in thickness. Take care not to disturb the pipe. Compact the remainder of the backfill thoroughly with a rammer of suitable weight or with an approved mechanical tamper to achieve compaction of ninety-five (95) percent as specified.

2. Trenches and utility structures shall be backfilled with greatest care; only the suitable materials taken from the excavation shall be used. Any additional fill materials required for backfilling to subgrades shall be graded fill or ordinary fill as specified. Backfill shall be compacted to ninety-five (95) percent as specified. No mud, frozen earth or stone more than six (6) inches in greatest diameter or other objectionable material shall be used for refilling. Any selected material required for filling, in addition to earth from trench excavation, shall be furnished and placed by the Contractor.

3.05 UTILITY SERVICES LINES

A. Electrical, telephone, cable TV and gas services shall be as specified under other Sections. The excavating, trenching and backfilling for these utilities and other pertinent structures shall be done under this Section.

B. Trenches for utility lines shall be excavated of all peat, silt and other materials, which the Architect deems not stable and backfilled as called for in paragraph 3.04, H to form a stable foundation for laying the utility lines.

3.06 SUBGRADE PREPARATION

A. Bring all areas to required subgrade levels as specified and as determined from the Drawings.

B. Maintain all subgrades for site improvements in satisfactory condition, protected against traffic and properly drained, until the surface improvement is placed. In areas to receive pavement or other surface materials, at top and bottom of embankments, along swales and elsewhere, place sufficient grade stakes to facilitate checking the subgrade levels. Correct all irregularities, compacting thoroughly any fill materials.

C. Check all manhole covers, grates, valve boxes and similar structures for correct elevation and position and make, or have made, any necessary adjustments in such structures.

D. All subgrades must be inspected and approved by the Architect before paving, loaming or other site improvements are made.

3.07 WARNING TAPE OVER BURIED GAS. ELECTRIC. CABLE TV. TELEPHONE

A. Provide and install plastic warning tape over all buried gas, electric and water lines as specified.

B. Warning tape shall be installed according to Manufacturer's recommendations and a minimum of twelve (12) inches below finished grades.

3.08 DUST CONTROL

A. The Contractor shall employ all possible methods and/or materials to prevent the spread of dust. Chemical materials may not be used on subgrades of areas to be seeded or planted.

3.09 CLEAN UP

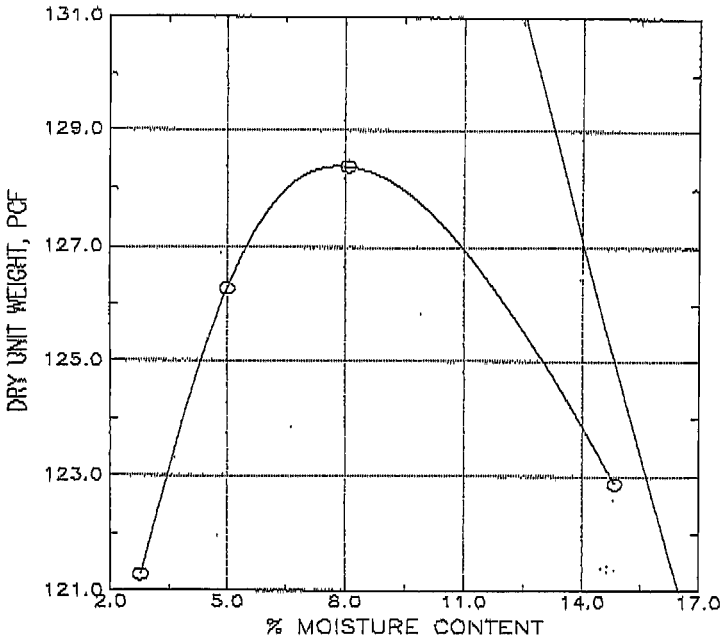
A. The Contractor shall remove all debris, construction equipment and scrap material from all areas within the limit of work prior to inspection for acceptance.

**END OF SECTION**

| MILLER ENGINEERING & TESTING, INC. | Boring No. : N/A<br>Sample No.: L040503<br>Tested by : DM/BM<br>Filename : L040503 | Project: KEITH MIDDLE SCHOOL<br>Project No. : 04.169.NH<br>Location: MIX STOCKPILE # 2<br>Date : Tue Jun 22 2004 |
|---|---|---|

# PROCTOR–GRADATION TEST RESULTS

COMPACTION



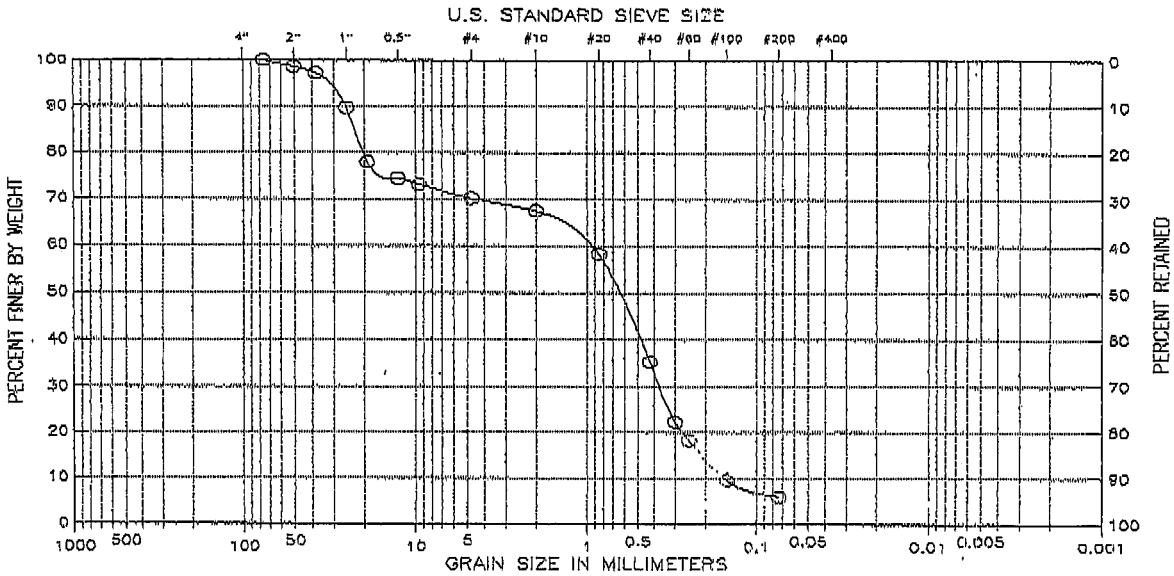

Sample Description :
MIX STOCKPILE # 2

Compaction Test Designation : ASTM D1557–D

Maximum Dry Density : 128.4 PCF

Optimum Moisture Content : 7.9 %

GRAIN SIZE DISTRIBUTION




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

UNIFIED SOIL CLASSIFICATION SYSTEM

Figure 1

Clean Granular Fill

Fri Jun 18 10:33:42 2004



GEOTECHNICAL LABORATORY TEST DATA

Project : KEITH MIDDLE SCHOOL
Project No. : 04.169.NH
Boring No. : N/A
Sample No. : L040503
Location : MIX STOCKPILE # 2
Soil Description : MIX STOCKPILE # 2
Remarks : ASAP

Depth : N/A
Test Date : 6-18-04
Test Method : ASTM

Filename : L040503
Elevation : N/A
Tested by : DM/BM
Checked by : BC

COARSE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (lb) | Cumulative Weight Retained (lb) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| 6" | | | | | 100 | 100 |
| 3" | 3.000 | 76.20 | 11.10 | 11.10 | 100 | |
| 2" | 2.000 | 50.80 | 11.80 | 11.80 | 99 | |
| 1.5" | 1.500 | 38.10 | 11.80 | 12.50 | 97 | |
| 1" | 1.000 | 25.40 | 14.90 | 16.30 | 90 | |
| 0.75" | 0.752 | 19.10 | 17.10 | 22.30 | 78 | |
| 0.5" | 0.500 | 12.70 | 12.60 | 24.00 | 75 | 50 - 85 |
| 0.375" | 0.375 | 9.52 | 11.80 | 24.70 | 73 | |
| #4 | 0.187 | 4.75 | 12.60 | 26.20 | 70 | 40 - 75 |

Total Weight of Sample = 61.7
Tare Weight = 11.1

FINE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (gm) | Cumulative Weight Retained (gm) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| #10 | 0.079 | 2.00 | 13.30 | 13.30 | 68 | |
| #20 | 0.033 | 0.85 | 47.60 | 60.90 | 58 | |
| #40 | 0.017 | 0.43 | 116.60 | 177.50 | 35 | |
| #50 | 0.012 | 0.30 | 65.50 | 243.00 | 22 | 8 - 28 |
| #60 | 0.010 | 0.25 | 20.30 | 263.30 | 18 | |
| #100 | 0.006 | 0.15 | 44.00 | 307.30 | 10 | |
| #200 | 0.003 | 0.07 | 18.50 | 325.80 | 6 | 0 - 8 |
| Pan | | | 30.30 | 356.10 | 0 | |

Total Weight of Sample = 356.1
Tare Weight = 0
Moisture Content = 0

D85 : 22.6736 mm
D60 : 1.0054 mm
D50 : 0.6645 mm
D30 : 0.3695 mm
D15 : 0.2060 mm
D10 : 0.1534 mm

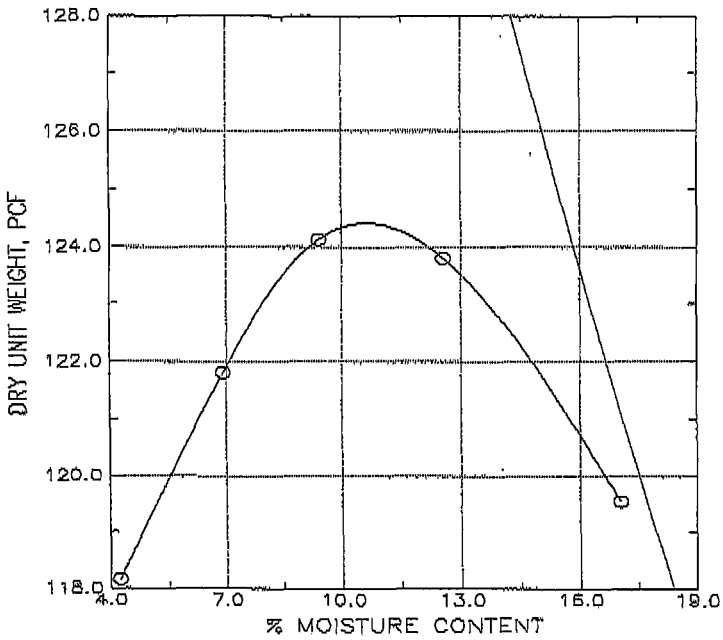
Soil Classification

ASTM Group Symbol : N/A
ASTM Group Name : N/A
AASHTO Group Symbol : A-1-b(0)
AASHTO Group Name : Stone Fragments, Gravel and Sand

| MILLER ENGINEERING & TESTING, INC. | Boring No. : N/A<br>Sample No: L040418B<br>Tested by : DM/BM<br>Filename : L040418B | Project: KEITH MIDDLE SCHOOL<br>Project No. : 04.169.NH<br>Location: KINGSTON PIT MIX 4 TO 1 WITH 3/4 INCH STONE<br>Date : Wed Jun 02 2004 |
|---|---|---|

# PROCTOR–GRADATION TEST RESULTS

COMPACTION




Sample Description :
GRADED FILL

Compaction Test Designation : ASTM D1557–C

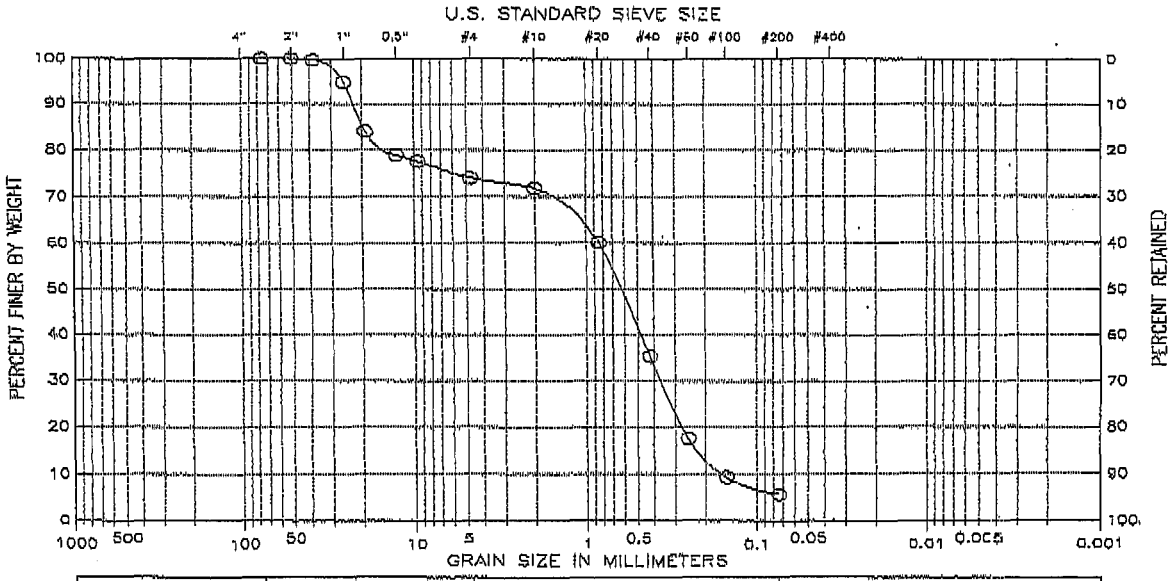
Maximum Dry Density : 124.4 PCF

Optimum Moisture Content : 10.6 %

CORRECTED MAXIMUM DRY DENSITY: 129.2 PCF

CORRECTED OPTIMUM MOISTURE CONTENT: 8.9 %

GRAIN SIZE DISTRIBUTION




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

UNIFIED SOIL CLASSIFICATION SYSTEM

Figure 1

Select Granular Fill

Tue Jun 01 08:37:20 2004



# GEOTECHNICAL LABORATORY TEST DATA

Project : KEITH MIDDLE SCHOOL
Project No. : 04.169.NH
Boring No. : N/A
Sample No. : L040418B
Location : KINGSTON PIT MIX 4 TO 1 WITH 3/4 INCH STONE
Soil Description : GRADED FILL
Remarks : ASAP

Depth : N/A
Test Date : 6-1-04
Test Method : ASTM

Filename : L040418B
Elevation : N/A
Tested by : DM/BM
Checked by : BC

## COARSE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (lb) | Cumulative Weight Retained (lb) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| 6" | | | | | 100 | 100 |
| 3" | 3.000 | 76.20 | 11.90 | 11.90 | 100 | |
| 2" | 2.000 | 50.80 | 11.90 | 11.90 | 100 | |
| 1.5" | 1.500 | 38.10 | 12.10 | 12.10 | 100 | |
| 1" | 1.000 | 25.40 | 15.40 | 15.60 | 95 | |
| 0.75" | 0.752 | 19.10 | 19.50 | 23.20 | 84 | |
| 0.5" | 0.500 | 12.70 | 15.50 | 26.80 | 79 | 50 - 85 |
| 0.375" | 0.375 | 9.52 | 12.90 | 27.80 | 77 | |
| #4 | 0.187 | 4.75 | 14.40 | 30.30 | 74 | 40 - 75 |

Total Weight of Sample = 82.5
Tare Weight = 11.9

## FINE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (gm) | Cumulative Weight Retained (gm) | Percent Finer (%) | | |
|---|---|---|---|---|---|---|---|
| #10 | 0.079 | 2.00 | 10.10 | 10.10 | 72 | | |
| #20 | 0.033 | 0.85 | 54.80 | 64.90 | 60 | | |
| #40 | 0.017 | 0.43 | 115.20 | 180.10 | 35 | 21 | 8 - 28 |
| #60 | 0.010 | 0.25 | 82.50 | 262.60 | 18 | | |
| #100 | 0.006 | 0.15 | 38.90 | 301.50 | 9 | | |
| #200 | 0.003 | 0.07 | 16.80 | 318.30 | 6 | | 0 - 8 |
| Pan | | | 26.00 | 344.30 | 0 | | |

Total Weight of Sample = 344.3
Tare Weight = 0
Moisture Content = 0

D85 : 19.6155 mm
D60 : 0.8500 mm
D50 : 0.6423 mm
D30 : 0.3630 mm
D15 : 0.2140 mm
D10 : 0.1576 mm

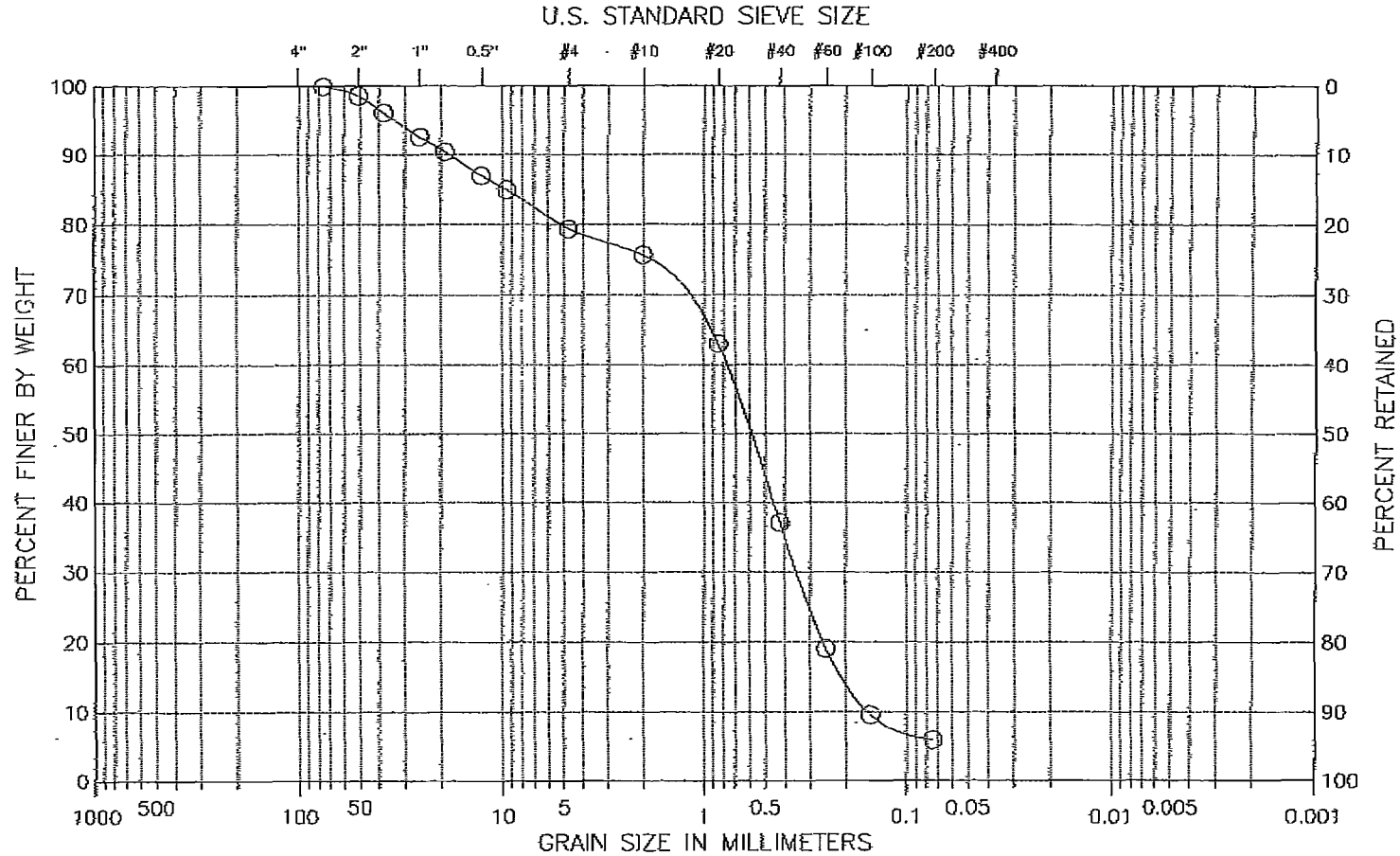
Soil Classification
ASTM Group Symbol : N/A
ASTM Group Name : N/A
AASHTO Group Symbol : A-1-b(0)
AASHTO Group Name : Stone Fragments, Gravel and Sand

# GRAIN SIZE DISTRIBUTION - AGGREGATE GRADING

MILLER ENGINEERING & TESTING, INC.

Boring No. : N/A
Sample No: L040418A
Tested by : DM/BM
Filename : L040418A

Project : KEITH MIDDLE SCHOOL
Project No.: 04.169.NH
Location: KINGSTON PIT SAMPLED FROM ON SITE STOCKPILE
Date : Tue Jun 01 2004




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

Classification :
()
Visual Description :
GRADED FILL

Remarks :
ASAP

Figure 1

# Attachment B

Specification 07133
Gas Vapor Barrier

**SECTION 07133**

**GAS VAPOR BARRIER**

## PART 1 - GENERAL

### 1.01 FILED SUB-BID REQUIREMENTS

A. This Section 07133 – GAS VAPOR BARRIER is part of filed sub-bid for Division 7 – Waterproofing, Damproofing and Caulking. Refer to Section 07100 – Waterproofing, Damproofing, and Caulking.

B. Specific information relating to bidders is set forth in the Contract Documents, under the heading "Instructions To Bidders" and the attention of bidders is directed thereto.

C. The work to be done under this Section is shown on Drawings numbered: EX1, L1.1 & L1.2, L2.1 & L2.2, L3.1 & L3.2, L4.1 & L4.2, L5, L6, L7, L8 & L9, SU1.1 & SU1.2, SU2, CR.1, CR.2, A0.1 thru A0.3, A1.1 thru A1.9, A2.1 thru A2.3, A3.1 thru A3.9, A4.1 thru A4.5, A5.1 thru A5.8, A6.1 thru 6.21, A7.1 thru A7.7, A8.1 thru A8.5, A9.1 & A9.2, A10.1 thru A10.4, A11.1 thru A11.4, A12.1 thru A12.6, A13.1 thru A13.3, K1.1, PL.1 thru PL.3, S0.1 thru S0.4, S1.1 thru S1.13, S2.1 thru S2.3, COMLEG, COM1.1, COM1.2, COM1.3, COM1.4, COM1.5, COM1.6, COM1.7, COM1.8, TC2.01, TC2.02, TC2.03, TC2.04, TC2.05. E0.1, E0.2, E0.3, E0.4, E0.5, E0.6, E0.7, E0.8, E0.9, E1.1, E1.2, E1.3, E1.4, E1.5, E1.6, E1.7, E1.8, E2.1, E2.2, E2.3, E2.4, E2.5, E2.6, E2.7, E2.8, E3.1, E3.2, E3.3, E3.4, E3.5, E3.6, E3.7, E3.8, E3.9, P0.1, P0.2, P0.3, P1.1, P1.2, P1.3, P1.4, P1.5, P1.6, P1.7, P1.8, P1.9, P1.10, P1.11, P1.12, P2.1, FP0.1, FP0.2, FP1.1, FP1.2, FP1.3, FP1.4, FP1.5, FP1.6, FP1.7, FP1.8, M1.1, M1.2, M1.3, M1.4, M1.5, M1.6, M1.7, M1.8, M1.9, M1.10, M2.1, M2.2, M2.3, M2.4, VS-1.

### 1.02 RELATED DOCUMENTS

A. All of the Contract Documents, including General and Supplementary Conditions and Division 1 General Requirements, apply to the work of this section.

### 1.03 DESCRIPTION OF WORK

A. The work of this Section consists of all labor and materials and in performing all operations in gas vapor barrier providing protection from the following gases:

1. Gas vapor barrier providing protection from the following gases:
   Methane
2. Soil vapor extraction piping and pressure relief, collection and venting system (PRCVS).

B. Related work not in this section:
1. Excavation and backfilling.
2. Parge coat on masonry to receive gas vapor barrier membrane.
3. Mortar beds or concrete toppings over gas vapor barrier membranes.
4. Latex waterproofing.
5. Damp-proofing.
6. Flashing and sheet metal.
7. Joint sealers.
8. Soil sterilant.

### 1.04 QUALITY ASSURANCE

A. Gas vapor barrier contractor/applicator shall be trained and approved by gas vapor barrier manufacturer and shall have at least 3 years experience in the work of the type required by this section.

B. A pre-installation conference shall be held prior to application of gas vapor barrier to assure substrate and installation conditions, to include general contractor, applicator, and architect/engineer.

1.05 SUBMITTALS

A. Refer to SECTION 01341 - SUBMITTALS for substitution of equipment and submittal of Shop Drawings. If apparatus or materials are substituted for those specified, and such substitution necessitates changes in or additional connections, accessories, etc. same shall be provided as the responsibility, and at the expense, of this Subcontractor.

B. Fabrication of any material or performing of any work prior to the final approval of the Submittals will be entirely at the risk of the Subcontractor. The Subcontractor is responsible for furnishing and installing materials called for in the Contract Documents, even though these materials may have been omitted from approved Submittals.

C. Product Data: Submit manufacturer's product data and installation instructions for specific application. Include standard details, certified test results, installation instructions, and recommendations for sealing penetrations.

D. Samples: Submit three labeled representative samples of the following for approval, not less than 12 by 12 inches in size:

1. Gas vapor barrier membrane material.
2. Protection Board and/or Protection Mat.
3. Prefabricated Pressure relief, collection & venting system – each component.
4. Geotextiles.

E. Shop Drawings: Submit shop drawings indicating details of construction. Include relationship with adjacent materials, sequence of installation and materials and methods for sealing penetrations. At a minimum shop drawings shall include details of the following connections, as applicable to the project:

1. Grade beams & pile caps.
2. Under slab & walls.
3. Lap joints.
4. Penetrations
5. Layout of PRCVS system and associated details.

1.06 DELIVERY, STORAGE AND HANDLING

Deliver materials to site in original unbroken packages bearing manufacturer's label showing brand, weight, volume, and batch number. Store materials at site in strict compliance with manufacturer's instructions. Do not allow materials to freeze in containers.

1.07 PROJECT CONDITIONS

A. Protect all adjacent areas not to receive gas vapor barrier. Where necessary, apply masking to prevent staining of surfaces to remain exposed wherever membrane abuts to other finish surfaces.

B. Perform work only when existing and forecasted weather conditions are within manufacturer's recommendations for the material and product used.

C. Minimum clearance of required for application of product:
- 90 degree spray wand – 2 feet.
- Conventional spray wand – 4 feet.

D. Ambient temperature shall be within manufacturer's specifications. (Greater than +32°F/+0°C).

E. All plumbing, electrical, mechanical and structural items to be under or passing through the gas vapor barrier shall be positively secured in their proper positions and appropriately protected prior to membrane application.

F. Gas vapor barrier shall be installed before placement of reinforcing steel. When not possible, all exposed reinforcing steel shall be masked by General Contractor prior to membrane application.

G. Expansion joints must be filled with a conventional waterproof expansion joint material.

H. Surface preparation shall be per manufacturer's specification.

1.08 GUARANTEE

A. Guarantee all work under this SECTION free from defects in workmanship and materials for a period of one (1) year from the date of final acceptance of the building, as set forth in the Contract. Replace any such defective work developing during this period, unless such defects are clearly the result of bad usage of equipment by others. Where such defective work results in damage to work of other SECTIONS of the Specifications, restore such work to its original condition by mechanics skilled in the affected trade.

## PART 2 PRODUCTS

2.01 GENERAL

A. All materials and equipment furnished under this SECTION shall be new, unused, first quality of a manufacturer of established reputation. Each valve, fitting, section of pipe, piece of equipment, etc., shall have cast or indelibly stamped thereon the manufacturer's name, pressure rating where applicable, type, etc. Materials shall conform to Massachusetts Code as a minimum requirement.

B. Acceptable Manufacturers

1. This specification is performance based on products as manufactured by LBI Technologies, Inc., Santa Ana, CA (714) 384-0111.

2. Alternate application: A 60 mil. vapor-protective, composite sheet membrane system composed of high-density polyethylene having a sodium-bentonite face with modified overlap area providing for non-reinforced integral seam tape within overlaps.
   a. Tremco "Paramount Paraseal GM"
   b. Poly-Flex

2.02 MATERIALS

A. Fluid applied Liquid Boot gas vapor barrier system; a single course, high build, polymer modified asphaltic emulsion. Water borne and spray applied at ambient temperatures. A minimum thickness of 60 dry mils. Non-toxic and odorless.

B. Gas vapor barrier physical properties:

| GAS VAPOR MEMBRANE | **TEST METHOD** | **VALUE** |
|---|---|---|
| Hydrogen Sulfide Gas Permeability | ASTM D1343 | None Detected |
| Benzene, Toulene, Ethylene, Xylene, Gasoline, Hexane, Perchloroethylene | ASTM D543, D412, D1434 (tested at 20,000 ppm) | Passed in gas permeability and weight change |
| Sodium Sulfate (2% water solution) | ASTM D543, D412, D143 | Passed in gas permeability and weight change |
| Acid Exposure (10% $H_2SO_4$ for 90 days) | ASTM D543 | Less than 1% weight change |
| Radon Permeability | Tested by US Dept. of | Zero permeability to Radon (222Rn) |

| | | |
|---|---|---|
| Bonded Seam Strength Tests | ASTM D6392 | Passed |
| Micro Organism Resistance (Soil Burial) average weight change, average tensile strength change, average tensile stress change, average elongation change, bonded seams, methane permeability | ASTM D4068-88 | Passed |
| Methane Permeability | ASTM 1434-82 | Passed |
| Oil Resistance Test average weight change, average tensile strength change, average tensile stress change, average elongation change, bonded seams, methane permeability | ASTM D543-87 | Passed |
| Heat Aging average tensile strength change, average tensile stress change, average elongation change, bonded seams | ASTM D4068-88 | Passed |
| Dead Load Seam Strength | City of Los Angeles | Passed |
| Environmental Stress-Cracking | ASTM D1693-78 | Passed |
| WATERPROOFING | **TEST METHOD** | VALUE |
| Soil Burial | ASTM E154-88 | Passed |
| Water Penetration Rate | ASTM D2434 | $<7.75 \times 10^{-9}$ cm/sec |
| Water Vapor Permeability | ASTM E96 | 0.24 perms |
| Water Vapor Transmission | ASTM E96 | 0.10 grains/h-ft$^2$ |
| POTABLE WATER | **TEST METHOD** | **VALUE** |
| Toxicity Test | 22 CCR 66696 | Passed. CCR Bioassay—Flathead |
| Potable Water Containment | ANSI/NSF 61 | NSF Certified for tanks >300,000 gallons |

| **GENERAL INFORMATION** | **TEST METHOD** | **VALUE** |
|---|---|---|
| Coefficient of Friction (with geotextile both sides) | ASTM D5321 | 0.72 |
| Cold Bend Test | ASTM D146 | Passed. No cracking at –25°F |
| Freeze-Thaw Resistance (100 Cycles) | ASTM A742 | Meets criteria. No spalling or disbondment |
| Accelerated Weathering and Ultraviolet Exposure | ASTM D822 | No adverse effect after 500 hours |
| Hydrostatic Head Resistance | ASTM D751 | Tested to 138 feet or 60 p.s.i |
| Elongation | ASTM D412 | 1,332% without reinforcement, 90% recovery |
| Elongation with 8oz. non-woven geotextile both sides | ASTM D751 | 100% (same as geotextile tested separately) |
| Tensile Strength | ASTM D412 | 58 p.s.i. without reinforcement |
| Tensile Strength with 8oz. non-woven geotextile both sides | ASTM D751 | 196 p.s.i. (same as geotextile tested separately) |

| | | |
|---|---|---|
| Tensile Bond Strength to Concrete | ASTM D413 | 2,556 lbs/ft$^2$ uplift force |
| Puncture Resistance with 8oz. non-woven geotextile both sides | ASTM D4833 | 286 lbs. (travel of probe = 0.756 inches) (same as geotextile tested separately) |
| Flame Spread | ASTM E108 | Class A with top coat (comparable to UL790) |
| Electric Volume Resistivity | ASTM D257 | 1.91 x $10^{10}$ ohms-cm |

C. Geotextile Fabric: Mirafi 1100N.

D. Non-woven protection course geotextile: LBI Tecnologies Ultrashield G-1000.

E. Protection Board: ¼" dense glass gold.

2.03 PRESSURE RELIEF, COLLECTION AND VENTING SYSTEM (PRCVS)

A. Liquid Boot Geovent: Low profile PRCVS consisting of a 3-dimensional vent core and wrapped with
a non-woven needle punched filter fabric. The trenchless gas collection system shall also include the following accessories for a complete installation.

1. Geovent end outlets.
2. Geovent interior foundation sleeves.
3. Geovent fabric reinforced tape.
4. Solid 4" diameter PVC pipe, sealant & fittings.

## PART 3 - EXECUTION

3.01 EXAMINATION
All surfaces to receive gas vapor barrier shall be inspected and approved by the applicator at least one day prior to commencing work.

3.02 SURFACE PREPARATION
Provide 24 inch minimum clearance out from surfaces to receive the gas vapor barrier. The application surface shall be prepared and provided to the applicator in accordance with manufacturer's specifications listed below:

A. Concrete/Shotcrete/Masonry
Concrete surfaces shall be light broom finish or smoother, free of any dirt, debris, loose material, release agents or curing compounds. Fill all voids more than 1/4 inch deep and 1/4 inch wide. Masonry joints, cold joints, and form joints shall be struck smooth.

All penetrations shall be prepared in accordance with manufacturer's specifications. Provide a 3/4 inch minimum cant of gas vapor barrier, or other suitable material as approved by manufacturer, at all horizontal to vertical transitions and other inside corners of 120° or less. **Allow to cure overnight before the application of gas vapor barrier.**

All cracks or cold joints greater than 1/16 inch must be completely grouted with non-shrink grout as approved by engineer.

Install Hardcast reinforcing tape over all cold joints, cracks and form tie holes (after holes and cracks are grouted).

B. Dirt & Gravel
The sub-grade shall be moisture conditioned and compacted to a minimum relative compaction of 90 percent. The finished surface shall be smooth, uniform, free of debris and standing water. Remove all stones or dirt clods greater than 1/4 inch. (NOTE: Aggregate sub-bases shall be rolled flat). All penetrations shall be prepared in accordance with manufacturer's specifications. All form stakes that penetrate the membrane shall be of rebar which shall be bent over and left in the slab.

Trenches shall be cut oversize to accommodate gas vapor barrier membrane and protection course with perpendicular to sloped sides and maximum obtainable compaction. Adjoining grade shall be finish graded and compacted. Excavated walls shall be vertical or sloped back, free of roots and protruding rocks.

3.03 INSTALLATION

A. Roll out geotextile on protection course over rigid insulation with the heat-rolled side facing up. Overlap seams a minimum of six inches (6"). Lay geotextile tight at all inside corners. Apply a thin (10 mil) tack coat of gas vapor barrier "A" side without catalyst within the seam overlap.

Line trenches with geotextile extending at least six inches (6") onto adjoining sub-grade if slab and footings are to be sprayed separately. Overlap seams a minimum of six inches (6"). Lay geotextile tight at all inside corners. Apply a thin (10 mil) tack coat of gas vapor barrier "A" side without catalyst within the seam overlap.

B. Refer to section 3.03.1, "Sealing Around Penetrations", for procedures to seal around penetrations.

C. Spray apply gas vapor barrier onto geotextile to an 60 mil minimum dry thickness. If a second coat is required, remove any standing water from the membrane before proceeding with the second application.

D. Do not penetrate membrane. Keep membrane free of dirt, debris and traffic until a protective cover is in place. **It is the responsibility of the General Contractor to insure that the membrane and the protection system are not penetrated.**

E. After membrane has cured and checked for proper thickness and flaws, install protection material pursuant to manufacturer's instructions.

**NOTE: All testing or inspection to be performed prior to placing protection course.**

3.03.1 SEALING AROUND PENETRATIONS

A. Clean all penetrations. All metal penetrations shall be sanded clean with emery cloth.

B. Roll out geotextile on protection course over rigid insulation with the heat-rolled side facing up, overlapping seams a minimum of six inches (6"). Cut the geotextile around penetrations so that it lays flat on the protection course. Lay geotextile tight at all inside corners. Apply a thin (10 mil) tack coat of gas vapor barrier "A" side without catalyst within the seam overlap.

C. Spray apply gas vapor barrier to surrounding areas as specified for the particular application to an 60 mil minimum dry thickness. At the base of penetration Install a minimum 3/4 inch thick membrane cant of gas vapor barrier, or other suitable material as

approved by manufacturer. Extend the membrane at 60 mil thickness up the penetration a minimum of three inches (3"). **Allow to cure overnight before proceeding to D.**

D. Spray apply gas vapor barrier membrane at a 60 mil thickness three inches (3") around the base of penetration and up the penetration, completely encapsulating the collar assembly, to a height of one and one half inches (1 1/2") minimum above the membrane as described in 3.03.1 C above.

E. Allow gas vapor barrier to cure completely before proceeding to step "F".

F. Wrap penetration with polypropylene cable tie at a point two inches (2") above the base of the penetration. Tighten the cable tie firmly so as to squeeze, but not cut, the cured membrane collar.

## 3.04 FIELD QUALITY CONTROL

**Applicators should check their own work for coverage, thickness, and all around good workmanship before calling for inspections.**

The membrane must be cured at least overnight before inspecting for dry-thickness, holes, shadow shrinkage, and any other membrane damage. If water testing is to be performed, allow the membrane to cure at least 72 hours prior to the water test.

When thickness or integrity is in question the membrane should be tested in the proper manner as described below. Areas suspected of being too thin to the touch should be measured with the gauges to determine the exact thickness.

A. Membrane may be checked for proper thickness with a blunt-nose depth gauge, taking one reading every 500 square feet. Record the readings. Mark the test area for repair, if necessary.

B. If necessary, test areas are to be patched over with gas vapor barrier to a 60 mils minimum dry thickness, extending a minimum of one inch (1") beyond the test perimeter.

C. Voids left by sampling are to be patched with geotextile overlapping the void by a minimum of two inches (2"). Apply a thin tack coat of LIQUID BOOT® under the geotextile patch. Then spray or trowel apply LIQUID BOOT® to an 60 mils minimum dry thickness, extending at least three inches (3") beyond geotextile patch.

## 3.05 PRESSURE RELIEF, COLLECTION AND VENTING SYSTEM (PRCVS)

A. Roll out Geovent per layout as approved by Architect.

B. Use prefabricated Geovent sleeves where venting is to penetrate interior foundation walls and grade beams.

C. At points of intersection, cut away geotextile to produce rectangular flaps. Interlock exposed dimple board in a Lego-like fashion. Fold flaps of geotextile in a manner so that the dimple board is covered completely. Secure geotextile folds with fiber reinforcing tape so that the geotextile is completely impermeable to sand fill.

D. Use Geovent end outlet to attach to solid 4" diameter PVC pipe at penetration through building foundation. Seal/grout piping at penetrations through foundation using approved methods.

SMOKE TESTING FOR HOLES

A. Holes or other breaches in the membrane can be detected by conducting a smoke test. This involves pumping smoke under the membrane for a specified period of time, under a specified pressure by the Engineer. Smoke testing to take place prior to installation of reinforcing bars for structural slab and upon completion of reinforcing installation.

**END OF SECTION**

# Attachment B

Specifications, Shop
Drawings, and Data Sheets

TC Mirafi _____ *TECHNICAL DATA SHEET*

# Mirafi 600X

Mirafi 600X is composed of high-tenacity polypropylene yarns, which are woven into a stable network such that the yarns retain their relative position. 600X is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

| Mechanical Properties | Test Method | Unit | Minimum Average Roll Value | |
|---|---|---|---|---|
| | | | MD | CD |
| Wide Width Tensile Strength | ASTM D 4595 | kN/m (lbs/in) | 30.6 (175) | 30.6 (175) |
| GrabTensile Strength | ASTM D 4632 | kN (lbs) | 1.40 (315) | 1.40 (315) |
| Grab Tensile Elongation | ASTM D 4632 | % | 15 | 10 |
| Trapezoid Tear Strength | ASTM D 4533 | kN (lbs) | 0.53 (120) | 0.53 (120) |
| Mullen Burst Strength | ASTM D 3786 | kPa (psi) | 4134 (600) | |
| Puncture Strength | ASTM D 4833 | kN (lbs) | 0.53 (120) | |
| Percent Open Area | COE-02215-86 | % | 1 | |
| Apparent Opening Size (AOS) | ASTM D 4751 | mm (U.S. Sieve) | 0.425 (40) | |
| Permittivity | ASTM D 4491 | $sec^{-1}$ | 0.05 | |
| Flow Rate | ASTM D 4491 | $l/min/m^2$ ($gal/min/ft^2$) | 163 (4.0) | |
| UV Resistance (at 500 hours) | ASTM D 4355 | % strength retained | 70 | |

| Physical Properties | Test Method | Unit | Typical Value | |
|---|---|---|---|---|
| Weight | ASTM D 5261 | $g/m^2$ ($oz/yd^2$) | 203 (6.0) | |
| Thickness | ASTM D 5199 | mm (mils) | 0.64 (25) | |
| Roll Dimensions (width x length) | -- | m (ft) | 3.8 x 110 (12.5 x 360) | 5.5 x 76 (18 x 250) |
| Roll Area | -- | $m^2$ ($yd^2$) | 418 (500) | 418 (500) |
| Estimated Roll Weight | -- | kg (lb) | 109 (240) | 109 (240) |

**DISCLAIMER:** TC Mirafi warrants our products to be free from defects in material and workmanship when delivered to TC Mirafi's customers and that our products meet our published specifications. Contact your local TC Mirafi Representative for detailed product specification and warranty information.

600X.DOC
Revision: 2
Date: Jan. 1, 1999

WES CONSTRUCTION CORP.
REVIEWED BY: [illegible]
DATE: 10-08-04

Side Slopes
Side Slopes

TC Mirafi _____ *TECHNICAL DATA SHEET*

# Mirafi MCF-1212

Mirafi MCF-1212 is a composite structure of a woven, polyethylene fabric with polyethylene films laminated to both sides forming a monolithic sheet. MCF-1212 is highly impermeable and is inert to biological degradation and naturally encountered chemicals, alkalis and acids.

| Mechanical Properties | Test Method | Unit | Typical Roll Value |
|---|---|---|---|
| Grab Tensile Strength | ASTM D 4632 | kN (lbs) | 0.89 (200) |
| Grab Tensile Elongation | ASTM D 4632 | % | 15 |
| Trapezoid Tear Strength | ASTM D 4533 | kN (lbs) | 0.22 (50) |
| Mullen Burst Strength | ASTM D 3786 | kPa (psi) | 2960 (430) |
| Puncture Strength | ASTM D 4833 | kN (lbs) | 0.44 (100) |
| Permeability | ASTM D4491 | cm/sec | $< 10^{-4}$ |
| UV Resistance after 500 hours | ASTM D 4355 | % strength retained | > 90 |

| Physical Properties | Test Method | Unit | Typical Value |
|---|---|---|---|
| Mass/Unit Area | ASTM D 5261 | $g/m^2$ ($oz/yd^2$) | 211 (6.2) |
| Thickness | ASTM D 5199 | mm (mils) | 0.508 (20) |
| Roll Dimensions (width x length) | -- | m (ft) | 3.7 x 91.4 (12 x 300) |
| Roll Area | -- | $m^2$ ($yd^2$) | 334.4 (400) |
| Estimated Roll Weight | --- | kg (lbs) | 86 (190) |

**DISCLAIMER:** TC Mirafi warrants our products to be free from defects in material and workmanship when delivered to TC Mirafi's customers and that our products meets our published specifications. Contact your local TC Mirafi Representative for detailed product specification and warranty information.

SHOP DRAWINGS, PRODUCT DATA OR SAMPLES

APPROVAL DOES NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OR OMMISSIONS IN THE SHOP DRAWINGS, PRODUCT DATA OR SAMPLES

☑ APPROVED ☐ DISAPPROVED
☐ APPROVED AS NOTED
☐ REVISE & RESUBMIT

CHECKED BY [signature]
DATE 11/08/04
MORIECE & GARY

MIRAFI®

*TECHNICAL DATA SHEET*

# Mirafi® 1100N

Mirafi® 1100N is a nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. 1100N is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids.

| Mechanical Properties | Test Method | Unit | Minimum Average Roll Value | |
|---|---|---|---|---|
| | | | MD | CD |
| Grab Tensile Strength | ASTM D 4632 | kN (lbs) | 1.11 (250) | 1.11 (250) |
| Grab Tensile Elongation | ASTM D 4632 | % | 50 | 50 |
| Trapezoid Tear Strength | ASTM D 4533 | kN (lbs) | 0.45 (100) | 0.45 (100) |
| Mullen Burst Strength | ASTM D 3786 | kPa (psi) | 3445 (500) | |
| Puncture Strength | ASTM D 4833 | kN (lbs) | 0.69 (155) | |
| Apparent Opening Size (AOS) | ASTM D 4751 | mm (U.S. Sieve) | 0.150 (100) | |
| Permittivity | ASTM D 4491 | $sec^{-1}$ | 1.0 | |
| Permeability | ASTM D 4491 | cm/sec | 0.20 | |
| Flow Rate | ASTM D 4491 | $l/min/m^2$ ($gal/min/ft^2$) | 3056 (75) | |
| UV Resistance (at 500 hours) | ASTM D 4355 | % strength retained | 70 | |

| Physical Properties | Test Method | Unit | Typical Value |
|---|---|---|---|
| Weight | ASTM D 5261 | $g/m^2$ ($oz/yd^2$) | 349 (10.3) |
| Thickness | ASTM D 5199 | mm (mils) | 2.5 (100) |
| Roll Dimensions (width x length) | -- | m (ft) | 4.5 x 91 (15 x 300) |
| Roll Area | -- | $m^2$ ($yd^2$) | 418 (500) |
| Estimated Roll Weight | -- | kg (lb) | 154 (339) |

**Disclaimer:** MIRAFI® Construction Products assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. MIRAFI® disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

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02200-003
Warning Barrier

# Tensar Earth Technologies, Inc.
# Light Weight Dig Barrier
## (LW1100 Dig Barrier)

**General Description and Applications**

The Dig Barrier product from Tensar Earth Technologies, is a cost effective visual dig barrier designed to be placed in excavations above underground utility lines, landfill cover systems, and any other damage sensitive buried structures. The highly visible orange netting serves as a warning to equipment operators when the excavation depth nears a buried structure. Therefore, unnecessary damage may be avoided.

Available in 12-foot wide rolls, Dig Barrier allows cost-effective coverage of large areas such as landfill cap systems. In addition, the product may be ordered in narrow widths (or cut on site) for placement in utility trench applications. The high-strength netting may also serve as a deterrent to burrowing animals and will not impede the flow of water. Tensar Earth Technologies specifically designed this product for cost effective use as a dig barrier.

**Roll Dimensions**

12-ft by 2000-ft

**Weight per Roll**

Roll Weight: Approximately 332-lbs
Weight/Area: 55-gms/m$^2$ nominal

**Color**

Blaze Orange

**Material**

High Strength Polypropylene (PP) Homopolymer
Orange pigment and UV inhibitors
0.5% minimum ash pigment for up to 3-year exposed UV life

**Cell (Aperture) Size**

MD X TD: 1.0 inch X 1.0-inch nominal

**Tensile Strength**

MD X TD: 18 lbs./strand X 18 lbs./strand

**Principal Advantages Over Other Products Used as Dig Barrier**

**Versus Woven Geotextiles –**

- Less expensive
- Will not impeded the free flow of water
- Highly visible orange color versus black

**Versus Safety Fence –**

- Wider roll widths for faster, easier installation
- Stronger not reduces installation damage

**Versus Utility Warning Tape –**

- Pull trench coverage
- Acts as an inexpensive insurance policy (for visual ID) when used with magnetic warning tape

SHOP DRAWING REVIEW
REVIEW IS ONLY FOR GENERAL COMPLIANCE WITH DESIGN CONCEPT
X NO EXCEPTIONS TAKEN
MAKE CORRECTIONS NOTED
AMEND AND RESUBMIT
REJECTED - SEE REMARKS
BETA GROUP, INC.
(Signature) Date 9/16/04
Checked by:

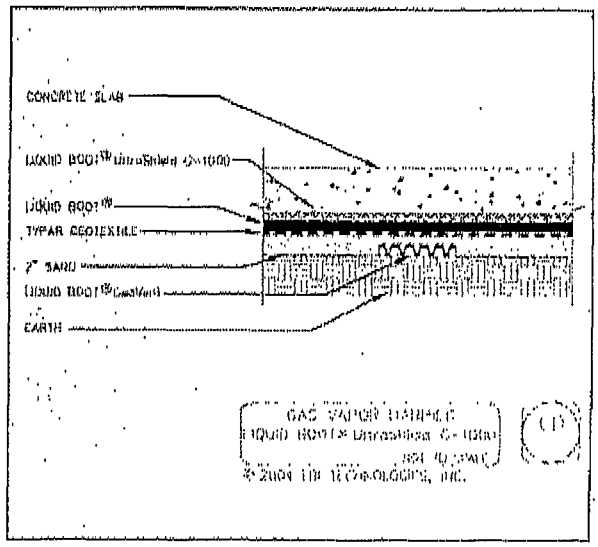
Tensar

Tensar Earth Technologies, Inc.
5883 Glenridge Drive
Atlanta, GA 30328

# LIQUID BOOT® UltraShield G-SERIES

## POLYPROPYLENE FIBER SLAB ADHESION PROTECTION COURSE

The ***LIQUID BOOT®* UltraShield G-1000** protection course is specially designed and required for underslab ***LIQUID BOOT®*** applications where the membrane must remain attached to the underslab of the building despite the possibility of future soil settlement. This is commonly seen in landfill applications.




### *LIQUID BOOT®* UltraShield G-1000

- ***LIQUID BOOT®* UltraShield G-1000** provides maximum protection for the ***LIQUID BOOT®*** membrane and bonds the ***LIQUID BOOT®*** membrane system to the bottom of the building slab.
- Ease of Installation & Labor Saving

***LIQUID BOOT®* UltraShield G-1000** is a non-woven geotextile made up of polypropylene fibers. These fibers are needled to form a stable and durable network such that the fibers retain their relative position. It is non-biodegradable and resistant to most soil chemicals, acids, and alkali with a pH range of 3 to 12. ***LIQUID BOOT®* UltraShield G-1000** is manufactured to meet or exceed the following minimum average roll values:

| PROPERTIES | TEST METHOD | ROLL VALUE ENGLISH | ROLL VALUE METRIC |
|---|---|---|---|
| Weight | ASTM D 5261 | 10 oz/yd$^2$ | 339 g/m$^2$ |
| Tensile Strength | ASTM D 4632 | 250 lbs. | 1.11 kN |
| Tensile Elongation | ASTM D 4632 | 50% | 50% |
| Mullen Burst | ASTM D 3786 | 550 psi | 3790 kPa |
| Puncture Strength | ASTM D 4833 | 165 lbs. | .730kN |
| Trapezoid Tear | ASTM D 4533 | 100 lbs. | .445 kN |
| UV Resistance | ASTM D 4355 | 70% @ 500 hr | 70% @ 500 hr |
| AOS | ASTM D 4751 | 100 US Sieve. | 15mm |
| Permittivity | ASTM D 4491 | 1.2 sec-1 | 1.2 sec-1 |
| Water Flow Rate | ASTM D 449 | 185 gal/min/ft$^2$ | 3460 l/min/ft$^2$ |
| Thickness | ASTM D 1777 | 85 mils | 2.15 mm |
| Tensile Bond Strength to Concrete | ASTM C 297-94 | 7 psi | |

**www.liquidboot.com** LBI Technologies, Inc. 1001 S. Linwood Ave Santa Ana, CA 92705
Tel: 714.384.0111 Fax: 714.384.0112
e-mail: lbi@liquidboot.com

# Attachment C

Tabulated PCB Analytical Results

McCoy Field
Project No. 02685

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| A1-0.5-3' | 0.5-3 | 10/12/04 | 10/19/04 | 20,200 | ND | ND | ND | ND | 20,200 | ND | ND | ND |
| A2-0.5-1.9' | 0.5-1.9 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-0.5-2.5' | 0.5-2.5 | 10/12/04 | 10/20/04 | 112,000 | ND | ND | ND | ND | 112,000 | ND | ND | ND |
| A5-2.5-3.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 102,000 | ND | ND | ND | ND | 102,000 | ND | ND | ND |
| A5-3.5-4.5' | 3.5-4.5 | 12/3/04 | 12/18/04 | 114,000 | ND | ND | ND | ND | 114,000 | ND | ND | ND |
| A5-4.5-5.5' | 4.5-5.5 | 12/28/04 | 1/8/05 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| A5-A-0.5-2.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 1,600 | ND | ND | ND | ND | 1,600 | ND | ND | ND |
| A5-A-2.5-3.5' | 2.5-3.5 | 12/3/04 | 12/18/04 | 64,100 | ND | ND | ND | ND | 64,100 | ND | ND | ND |
| A5-A-3.5-4.5' | 3.5-4.5 | 12/3/04 | 12/18/04 | 3,870 | ND | ND | ND | ND | 3,870 | ND | ND | ND |
| A5-B-0.5-2.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 8,560 | ND | ND | ND | ND | 8,560 | ND | ND | ND |
| A5-B-2.5-3.5' | 2.5-3.5 | 12/3/04 | 12/18/04 | 726,000 | ND | ND | ND | ND | 726,000 | ND | ND | ND |
| A5-C-0.5-2.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 112,000 | ND | ND | ND | ND | 112,000 | ND | ND | ND |
| A5-C-2.5-3.5' | 2.5-3.5 | 12/3/04 | 12/8/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| A5-C-3.5-4.5' | 3.5-4.5 | 12/3/04 | 12/8/04 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND |
| A5-D-0.5-2.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 4,280 | ND | ND | ND | ND | 4,280 | ND | ND | ND |
| A5-D-2.5-3.5' | 2.5-3.5 | 12/3/04 | 12/8/04 | 993,000 | ND | ND | ND | ND | 993,000 | ND | ND | ND |
| A5-D-3.5-4.5' | 3.5-4.5 | 12/3/04 | 12/8/04 | 190,000 | ND | ND | ND | ND | 190,000 | ND | ND | ND |
| A5-E-0.5-2.5' | 0.5-2.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-F-0.5-2.5' | 0.5-2.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-G-0.5-2.5' | 0.5-2.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-H-2.5-3.5' | 2.5-3.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-H-3.5-4.5' | 3.5-4.5 | 12/28/04 | 1/8/05 | 472,000 | ND | ND | ND | ND | 472,000 | ND | ND | ND |
| A5-H-4.5-5.5' | 4.5-5.5 | 12/28/04 | 1/13/05 | 55,000 | ND | ND | ND | ND | 55,000 | ND | ND | ND |
| A5-I-2.5-3.5' | 2.5-3.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-I-3.5-4.5' | 3.5-4.5 | 12/28/04 | 1/8/05 | 74,100 | ND | ND | ND | ND | 74,100 | ND | ND | ND |
| A5-J-3.5-4.5' | 3.5-4.5 | 1/11/05 | 1/13/05 | 8,550 | ND | ND | ND | ND | 8,550 | ND | ND | ND |
| A5-K-3.5-4.5' | 3.5-4.5 | 1/11/05 | 1/13/05 | 18,100 | ND | ND | ND | ND | 18,100 | ND | ND | ND |
| A5-L-3.5-4.5' | 3.5-4.5 | 1/11/05 | 1/13/05 | 55,100 | ND | ND | ND | ND | 55,100 | ND | ND | ND |
| A6-0.5-1.75' | 0.5-1.75 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A7-0.5-1.6 | 0.5-1.6 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A8-0.5-1.6' | 0.5-1.6 | 10/12/04 | 10/20/04 | 4,430 | ND | ND | ND | ND | 4,430 | ND | ND | ND |
| A9-0.5-1.6' | 0.5-1.6 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A13-0.5-3.6' | 0.5-3.6 | 10/12/04 | 10/20/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| A14-0.5-4.7' | 0.5-4.7 | 10/12/04 | 10/20/04 | 12,600 | ND | ND | ND | ND | 12,600 | ND | ND | ND |
| Duplicate 159 (A14-0.5-4.7') | 0.5-4.7 | 10/12/04 | 10/19/04 | 29,500 | ND | ND | ND | ND | 29,500 | ND | ND | ND |
| A18-0.5-3.6' | 0.5-3.6 | 10/12/04 | 10/19/04 | 23,200 | ND | ND | ND | ND | 23,200 | ND | ND | ND |
| A19-0.5-3.5' | 0.5-3.5 | 10/12/04 | 10/20/04 | 40,700 | ND | ND | ND | ND | 40,700 | ND | ND | ND |
| A20-0.5-2.75' | 0.5-2.75 | 10/12/04 | 10/19/04 | 22,300 | ND | ND | ND | ND | 22,300 | ND | ND | ND |
| A21-0.5-2.6' | 0.5-2.6 | 10/12/04 | 10/20/04 | 276,000 | ND | ND | ND | ND | 276,000 | ND | ND | ND |
| A21-2.6-3.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 6,950 | ND | ND | ND | ND | 6,950 | ND | ND | ND |
| A21-A-0.5-2.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 4,200 | ND | ND | ND | ND | 4,200 | ND | ND | ND |
| A21-B-0.5-2.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 18,500 | ND | ND | ND | ND | 18,500 | ND | ND | ND |
| A21-C-0.5-2.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 6,020 | ND | ND | ND | ND | 6,020 | ND | ND | ND |
| A21-C-0.5-2.6'MS | 0.5-2.6 | 12/3/04 | 12/8/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| A21-C-0.5-2.6'MSD | 0.5-2.6 | 12/3/04 | 12/8/04 | 12,300 | ND | ND | ND | ND | 12,300 | ND | ND | ND |
| A21-D-0.5-2.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 3,130 | ND | ND | ND | ND | 3,130 | ND | ND | ND |
| A22-0.5-2.5' | 0.5-2.5 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A23-0.5-2.5' | 0.5-2.5 | 10/12/04 | 10/19/04 | 1,820 | ND | ND | ND | ND | 1,820 | ND | ND | ND |
| A24-0.5-2.6' | 0.5-2.6 | 10/12/04 | 10/19/04 | 3,560 | ND | ND | ND | ND | 3,560 | ND | ND | ND |
| A25-0.5-2.1' | 0.5-2.1 | 10/12/04 | 10/19/04 | 9,800 | ND | ND | ND | ND | 9,800 | ND | ND | ND |
| A26-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/15/04 | 40,500 | ND | ND | ND | ND | 40,500 | ND | ND | ND |
| Duplicate 160 (A26-0.5-1.5') | 0.5-1.5 | 10/14/04 | 10/19/04 | 15,600 | ND | ND | ND | ND | 15,600 | ND | ND | ND |
| A27-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/19/04 | 4,550 | ND | ND | ND | ND | 4,550 | ND | ND | ND |
| A43-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A44-0.5-1.7 | 0.5-1.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A45-0.5-2.5 | 0.5-2.5 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A46-0.5-2.1 | 0.5-2.1 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A50-0.5-2.7 | 0.5-2.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A52-0-3.5 | 0-3.5 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A53-0-3 | 0-3 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A53-0-3'MS | 0-3 | 11/11/04 | 11/17/04 | 6,200 | ND | ND | ND | ND | 6,200 | ND | ND | ND |
| A53-0-3'MSD | 0-3 | 11/11/04 | 11/17/04 | 5,870 | ND | ND | ND | ND | 5,870 | ND | ND | ND |
| A54-0-2.5 | 0-2.5 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A55-0-1 | 0-1 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A57-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A58-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A59-0-1.5 | 0-1.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A59.5-1-3' | 1-3 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A60-1-3.5 | 1-3.5 | 11/4/04 | 11/11/04 | 2,750 | ND | ND | ND | ND | 2,750 | ND | ND | ND |
| B1-0.5-1.1' | 0.5-1.1 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B8-0.5-0.6' | 0.5-0.6 | 10/12/04 | 10/20/04 | 6,190 | ND | ND | ND | ND | 6,190 | ND | ND | ND |
| B9-0.5-0.7 | 0.5-0.7 | 10/12/04 | 10/20/04 | 9,030 | ND | ND | ND | ND | 9,030 | ND | ND | ND |
| B18-0.5-2.8' | 0.5-2.8 | 10/12/04 | 10/20/04 | 55,900 | ND | ND | ND | ND | 55,900 | ND | ND | ND |
| B18-A-0.5-2.8' | 0.5-2.8 | 12/3/04 | 12/8/04 | 7,630 | ND | ND | ND | ND | 7,630 | ND | ND | ND |
| B18-B-0.5-2.8' | 0.5-2.8 | 12/3/04 | 12/8/04 | 14,100 | ND | ND | ND | ND | 14,100 | ND | ND | ND |
| B18-C-0.5-2.8' | 0.5-2.8 | 12/3/04 | 12/8/04 | 37,700 | ND | ND | ND | ND | 37,700 | ND | ND | ND |
| B18-D-0.5-2.8' | 0.5-2.8 | 12/3/04 | 12/8/04 | 6,430 | ND | ND | ND | ND | 6,430 | ND | ND | ND |
| B19-0.5-2.4' | 0.5-2.4 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B23-0.5-0.7' | 0.5-0.7 | 10/12/04 | 10/19/04 | 9,420 | ND | ND | ND | ND | 9,420 | ND | ND | ND |
| B24-0.5-1.2' | 0.5-1.2 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B25-0.5-2.1' | 0.5-1.2 | 10/12/04 | 10/19/04 | 9,320 | ND | ND | ND | ND | 9,320 | ND | ND | ND |
| B26-0.5-1.9 | 0.5-1.9 | 10/14/04 | 10/15/04 | 44,800 | ND | ND | ND | ND | 44,800 | ND | ND | ND |
| B26-0.5-1.9'MS | 0.5-1.9 | 10/14/04 | 10/15/04 | 39,500 | ND | ND | ND | ND | 39,500 | ND | ND | ND |
| B26-0.5-1.9'MSD | 0.5-1.9 | 10/14/04 | 10/15/04 | 106,000 | ND | ND | ND | ND | 106,000 | ND | ND | ND |
| B26-0.5-2.0 | 0.5-2.0 | 12/3/04 | 12/8/04 | 9,390 | ND | ND | ND | ND | 9,390 | ND | ND | ND |
| B28-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B32-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/19/04 | 1,350 | ND | ND | ND | ND | 1,350 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| B37-0.5-0.9 | 0.5-0.9 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B38-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B41-0.5-0.8 | 0.5-0.8 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B42-0.5-1.6 | 0.5-1.6 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B43-0.5-1.75 | 0.5-1.75 | 10/14/04 | 10/19/04 | 2,130 | ND | ND | ND | ND | 2,130 | ND | ND | ND |
| B44-0.5-2.4 | 0.5-2.4 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B46-0.5-1.0 | 0.5-1 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B53-0-2 | 0-2 | 11/11/04 | 11/17/04 | 1,110 | ND | ND | ND | ND | 1,110 | ND | ND | ND |
| B54-0-1 | 0-1 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B59.5-0.5-2 | 0.5-2 | 11/4/04 | 11/11/04 | 2,950 | ND | ND | ND | ND | 2,950 | ND | ND | ND |
| B60-1-3.5 | 1-3.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C1-0.5-0.6' | 0.5-0.6 | 10/12/04 | 10/19/04 | 4,560 | ND | ND | ND | ND | 4,560 | ND | ND | ND |
| C5-0.5-0.6' | 0.5-0.6 | 10/12/04 | 10/19/04 | 13,300 | ND | ND | ND | ND | 13,300 | ND | ND | ND |
| C6-0.5-1 | 0.5-1 | 10/12/04 | 10/20/04 | 14,500 | ND | ND | ND | ND | 14,500 | ND | ND | ND |
| C7-0.5-1 | 0.5-1 | 10/12/04 | 10/20/04 | 15,500 | ND | ND | ND | ND | 15,500 | ND | ND | ND |
| C8-0.5-1.25' | 0.5-1.25 | 10/12/04 | 10/20/04 | 9,340 | ND | ND | ND | ND | 9,340 | ND | ND | ND |
| C9-0.5-1.7' | 0.5-1.7 | 10/12/04 | 10/20/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| C18-0.5-2.25' | 0.5-2.25 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C19-0.5-1.3' | 0.5-1.3 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C26-0.5-1.0 | 0.5-1 | 10/14/04 | 10/19/04 | 2,160 | ND | ND | ND | ND | 2,160 | ND | ND | ND |
| C50-0.5-1.7 | 0.5-1.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C53-0-1.5 | 0-1.5 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C59.5-0.5-2 | 0.5-2 | 11/4/04 | 11/11/04 | 1,300 | ND | ND | ND | ND | 1,300 | ND | ND | ND |
| C60-1-3.5 | 1-3.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| D1-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/6/05 | 1,340 | ND | ND | ND | ND | 1,340 | ND | ND | ND |
| D5-0.5-0.8 | 0.5-0.8 | 12/28/04 | 1/6/05 | 8,220 | ND | ND | ND | ND | 8,220 | ND | ND | ND |
| D6-0.5-1.1 | 0.5-1.1 | 12/28/04 | 1/6/05 | 5,470 | ND | ND | ND | ND | 5,470 | ND | ND | ND |
| D7-0.5-1.15 | 0.5-1.15 | 12/28/04 | 1/6/05 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |
| D8-0.5-1.45 | 0.5-1.45 | 12/28/04 | 1/6/05 | 7,740 | ND | ND | ND | ND | 7,740 | ND | ND | ND |
| D9-0.5-1.9 | 0.5-1.9 | 12/28/04 | 1/6/05 | 6,050 | ND | ND | ND | ND | 6,050 | ND | ND | ND |
| D10-0.5-2.2 | 0.5-2.2 | 12/28/04 | 1/6/05 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| D10-0.5-2.2MS | 0.5-2.2 | 12/28/04 | 1/6/05 | 18,600 | ND | ND | ND | ND | 18,600 | ND | ND | ND |
| D10-0.5-2.2MSD | 0.5-2.2 | 12/28/04 | 1/6/05 | 19,400 | ND | ND | ND | ND | 19,400 | ND | ND | ND |
| D18-0.5-1.1 | 0.5-1.1 | 10/12/04 | 10/19/04 | 5,290 | ND | ND | ND | ND | 5,290 | ND | ND | ND |
| D46-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| D53-0-2 | 0-2 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| D59.5-0-2 | 0-2 | 11/4/04 | 11/12/04 | 35,435 | ND | ND | ND | ND | 35,435 | ND | ND | ND |
| D60-0-1.5 | 0-1.5 | 11/4/04 | 11/12/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| E1-0.5-0.8 | 0.5-0.8 | 12/28/04 | 1/6/05 | 1,070 | ND | ND | ND | ND | 1,070 | ND | ND | ND |
| E5-0.5-0.85 | 0.5-0.85 | 12/28/04 | 1/6/05 | 14,400 | ND | ND | ND | ND | 14,400 | ND | ND | ND |
| E6-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/6/05 | 14,300 | ND | ND | ND | ND | 14,300 | ND | ND | ND |
| E7-0.5-1.2 | 0.5-1.2 | 12/28/04 | 1/6/05 | 8,490 | ND | ND | ND | ND | 8,490 | ND | ND | ND |
| E8-0.5-1.25 | 0.5-1.25 | 12/28/04 | 1/6/05 | 3,850 | ND | ND | ND | ND | 3,850 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **RCS-1** | | | | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Turnkey Acceptance Limit** | | | | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **UCL** | | | | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| E9-0.5-1.5 | 0.5-1.5 | 12/28/04 | 1/6/05 | 6,200 | ND | ND | ND | ND | 6,200 | ND | ND | ND |
| E10-0.5-1.9 | 0.5-1.9 | 12/28/04 | 1/6/05 | 9,900 | ND | ND | ND | ND | 9,900 | ND | ND | ND |
| E13-0.5-2.4 | 0.5-2.4 | 12/28/04 | 1/8/05 | 6,700 | ND | ND | ND | ND | 6,700 | ND | ND | ND |
| Duplicate 205 (E13-0.5-2.4) | 0.5-2.4 | 12/28/04 | 1/8/05 | 6,580 | ND | ND | ND | ND | 6,580 | ND | ND | ND |
| E14-0.5-1.25 | 0.5-1.25 | 10/14/04 | 10/21/04 | 5,970 | ND | ND | ND | ND | 5,970 | ND | ND | ND |
| E15-0.5-2.5 | 0.5-2.5 | 10/14/04 | 10/21/04 | 2,800 | ND | ND | ND | ND | 2,800 | ND | ND | ND |
| E15-0.5-2.5'MS | 0.5-2.5 | 10/14/04 | 10/21/04 | 9,050 | ND | ND | ND | ND | 9,050 | ND | ND | ND |
| E15-0.5-2.5'MSD | 0.5-2.5 | 10/14/04 | 10/21/04 | 8,200 | ND | ND | ND | ND | 8,200 | ND | ND | ND |
| E47-0.5-0.6 | 0.5-0.6 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| E53-0-1 | 0-1 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| E59.5-0-2 | 0-2 | 11/4/04 | 11/12/04 | 16,800 | ND | ND | ND | ND | 16,800 | ND | ND | ND |
| F13-0.5-1.4 | 0.5-1.4 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| F14-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/21/04 | 8,250 | ND | ND | ND | ND | 8,250 | ND | ND | ND |
| F15-0.5-1 | 0.5-1 | 10/14/04 | 10/21/04 | 5,640 | ND | ND | ND | ND | 5,640 | ND | ND | ND |
| F50-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| F51-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| F59.5-0-2 | 0-2 | 11/4/04 | 11/12/04 | 21,800 | ND | ND | ND | ND | 21,800 | ND | ND | ND |
| Duplicate 187 (F59.5-0-2') | 0-2 | 11/4/04 | 11/12/04 | 40,260 | ND | ND | ND | ND | 40,260 | ND | ND | ND |
| F60-0.25-2 | 0.25-2 | 11/4/04 | 11/12/04 | 45,500 | ND | ND | ND | ND | 45,500 | ND | ND | ND |
| F,G55.25-0-1 | 0-1 | 11/11/04 | 11/17/04 | 86,400 | ND | ND | ND | ND | 86,400 | ND | ND | ND |
| F,G55.25-A-0-1' | 0-1 | 1/14/05 | 1/15/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| F,G55.25-B-0-1' | 0-1 | 1/14/05 | 1/15/05 | 2,400 | ND | ND | ND | ND | 2,400 | ND | ND | ND |
| F,G55.25-C-0-1' | 0-1 | 1/14/05 | 1/15/05 | 1,560 | ND | ND | ND | ND | 1,560 | ND | ND | ND |
| F,G55.25-D-0-1' | 0-1 | 1/14/05 | 1/15/05 | 2,020 | ND | ND | ND | ND | 2,020 | ND | ND | ND |
| G13-0.5-1.2 | 0.5-1.2 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| G14-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/21/04 | 5,830 | ND | ND | ND | ND | 5,830 | ND | ND | ND |
| G18-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 163 (G18-0.5-1.2') | 0.5-1.2 | 10/14/04 | 10/21/04 | 2,790 | ND | ND | ND | ND | 2,790 | ND | ND | ND |
| G50-0.5-1.6 | 0.5-1.6 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| G50-0.5-1.6'MS | 0.5-1.6 | 10/14/04 | 10/20/04 | 5,710 | ND | ND | ND | ND | 5,710 | ND | ND | ND |
| G50-0.5-1.6'MSD | 0.5-1.6 | 10/14/04 | 10/20/04 | 6,150 | ND | ND | ND | ND | 6,150 | ND | ND | ND |
| G51-0-1 | 0-1 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| G52-0-1 | 0-1 | 11/11/04 | 11/17/04 | 1,110 | ND | ND | ND | ND | 1,110 | ND | ND | ND |
| G53-0-1 | 0-1 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| G54-0-1 | 0-1 | 11/11/04 | 11/17/04 | 4,390 | ND | ND | ND | ND | 4,390 | ND | ND | ND |
| G59-0-2' | 0-2 | 11/4/04 | 11/11/04 | 3,250 | ND | ND | ND | ND | 3,250 | ND | ND | ND |
| G59.5-0-3.25' | 0-3.25 | 11/4/04 | 11/11/04 | 2,400 | ND | ND | ND | ND | 2,400 | ND | ND | ND |
| G59.5-0-3.25'MS | 0-3.25 | 11/4/04 | 11/11/04 | 9,610 | ND | ND | ND | ND | 9,610 | ND | ND | ND |
| G59.5-0-3.25'MSD | 0-3.25 | 11/4/04 | 11/11/04 | 8,745 | ND | ND | ND | ND | 8,745 | ND | ND | ND |
| G60-0.5-3 | 0.5-3 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| HG56.75-0-1.5 | 0-1.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H1-0.5-0.65 | 0.5-0.65 | 12/28/04 | 1/6/05 | 7,580 | ND | ND | ND | ND | 7,580 | ND | ND | ND |
| H13-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/8/05 | 3,830 | ND | ND | ND | ND | 3,830 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| H14-0.5-1.25 | 0.5-1.25 | 10/14/04 | 10/21/04 | 6,380 | ND | ND | ND | ND | 6,380 | ND | ND | ND |
| H15-0.5-1.3 | 0.5-1.3 | 10/14/04 | 10/21/04 | 5,870 | ND | ND | ND | ND | 5,870 | ND | ND | ND |
| H21-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H22-0.5-1.3 | 0.5-1.3 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H26-0.5-1 | 0.5-1 | 10/14/04 | 10/21/04 | 5,210 | ND | ND | ND | ND | 5,210 | ND | ND | ND |
| H50-0.5-1.25 | 0.5-1.25 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 162 (H50-0.5-1.25') | 0.5-1.25 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H51-0-1.5 | 0-1.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H52-0-1 | 0-1 | 11/11/04 | 11/17/04 | 18,800 | ND | ND | ND | ND | 18,800 | ND | ND | ND |
| H54-0-3 | 0-3 | 11/11/04 | 11/17/04 | 4,170 | ND | ND | ND | ND | 4,170 | ND | ND | ND |
| H55-0-3 | 0-3 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H56-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H57-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H58-0-3 | 0-3 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H59-0-2.5 | 0-2.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H59.5-0-2 | 0-2 | 11/4/04 | 11/11/04 | 8,900 | ND | ND | ND | ND | 8,900 | ND | ND | ND |
| H60-0-2.5 | 0-2.5 | 11/4/04 | 11/12/04 | 47,700 | ND | ND | ND | ND | 47,700 | ND | ND | ND |
| I1-0.5-0.7 | 0.5-0.7 | 12/28/04 | 1/6/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I13-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I14-0.5-1.25 | 0.5-1.25 | 12/28/04 | 1/8/05 | 4,200 | ND | ND | ND | ND | 4,200 | ND | ND | ND |
| I26-0.5-1.1 | 0.5-1.1 | 10/14/04 | 10/21/04 | 2,630 | ND | ND | ND | ND | 2,630 | ND | ND | ND |
| I50-0.5-1 | 0.5-1 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I51-0-1.75 | 0-1.75 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I52-0-1.75 | 0-1.75 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I56-0-1' | 0-1 | 2/16/05 | 2/17/05 | 2,150 | ND | ND | ND | ND | 2,150 | ND | ND | ND |
| I56-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I57-0-1' | 0-1 | 2/16/05 | 2/17/05 | 1,725 | ND | ND | ND | ND | 1,725 | ND | ND | ND |
| I57-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I58-0-1' | 0-1 | 2/16/05 | 2/17/05 | 420 | ND | ND | ND | ND | 420 | ND | ND | ND |
| I58-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I59-0-1' | 0-1 | 2/16/05 | 2/17/05 | 32,600 | ND | ND | ND | ND | 32,600 | ND | ND | ND |
| I59-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I60-0-1' | 0-1 | 2/16/05 | 2/17/05 | 9,450 | ND | ND | ND | ND | 9,450 | ND | ND | ND |
| I60-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J1-0.5-0.7 | 0.5-0.7 | 12/28/04 | 1/6/05 | 4,390 | ND | ND | ND | ND | 4,390 | ND | ND | ND |
| J21-0.5-1 | 0.5-1 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J26-0.5-1 | 0.5-1 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J50-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J51-0-1 | 0-1 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J52-0-0.75 | 0-0.75 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J58-0-1' | 0-1 | 2/16/05 | 2/17/05 | 760 | ND | ND | ND | ND | 760 | ND | ND | ND |
| J58-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J59-0-1' | 0-1 | 2/16/05 | 2/17/05 | 49,000 | ND | ND | ND | ND | 49,000 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| J59-1-3' | 1-3 | 2/16/05 | 2/17/05 | 490 | ND | ND | ND | ND | 490 | ND | ND | ND |
| J60-0-1' | 0-1 | 2/16/05 | 2/17/05 | 2,360 | ND | ND | ND | ND | 2,360 | ND | ND | ND |
| J60-1-3' | 1-3 | 2/16/05 | 2/17/05 | 550 | ND | ND | ND | ND | 550 | ND | ND | ND |
| K1-0.5-0.7 | 0.5-0.7 | 12/28/04 | 1/6/05 | 11,900 | ND | ND | ND | ND | 11,900 | ND | ND | ND |
| K8-0.5-0.55 | 0.5-0.65 | 12/28/04 | 1/6/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K9-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/6/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K10-0.5-1.1 | 0.5-1.1 | 12/28/04 | 1/6/05 | 3,530 | ND | ND | ND | ND | 3,530 | ND | ND | ND |
| K12-0.5-1.2 | 0.5-1.2 | 12/28/04 | 1/6/05 | 6,010 | ND | ND | ND | ND | 6,010 | ND | ND | ND |
| K13-0.5-1.7 | 0.5-1.7 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K14-0.5-1.15 | 0.5-1.15 | 12/28/04 | 1/8/05 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| K51-0-0.75 | 0-0.75 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K60-0-1' | 0-1 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K60-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| L1-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/6/05 | 1,090 | ND | ND | ND | ND | 1,090 | ND | ND | ND |
| L9-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/6/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| L10-0.5-1.1 | 0.5-1.1 | 12/28/04 | 1/6/05 | 7,170 | ND | ND | ND | ND | 7,170 | ND | ND | ND |
| L12-0.5-1 | 0.5-1 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| L13-0.5-1.5 | 0.5-1.5 | 12/28/04 | 1/8/05 | 5,020 | ND | ND | ND | ND | 5,020 | ND | ND | ND |
| L14-0.5-1.75 | 0.5-1.75 | 12/28/04 | 1/8/05 | 4,210 | ND | ND | ND | ND | 4,210 | ND | ND | ND |
| L60-0-1' | 0-1 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| L60-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| M12-0.5-0.8 | 0.5-0.8 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| M14-0.5-1.25 | 0.5-1.25 | 12/28/04 | 1/8/05 | 8,350 | ND | ND | ND | ND | 8,350 | ND | ND | ND |
| M53-0-2 | 0-2 | 11/11/04 | 11/17/04 | 4,260 | ND | ND | ND | ND | 4,260 | ND | ND | ND |
| N1-0.5-1.2 | 0.5-1.2 | 12/28/04 | 1/6/05 | 5,020 | ND | ND | ND | ND | 5,020 | ND | ND | ND |
| Duplicate 206 (N1-0.5-1.2) | 0.5-1.2 | 12/28/04 | 1/8/05 | 5,460 | ND | ND | ND | ND | 5,460 | ND | ND | ND |
| N2-0.5-1.4 | 0.5-1.4 | 12/28/04 | 1/6/05 | 4,940 | ND | ND | ND | ND | 4,940 | ND | ND | ND |
| N3-0.5-1.3 | 0.5-1.3 | 12/28/04 | 1/6/05 | 4,910 | ND | ND | ND | ND | 4,910 | ND | ND | ND |
| N4-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/6/05 | 3,250 | ND | ND | ND | ND | 3,250 | ND | ND | ND |
| N12-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| N13-0.5-1.5 | 0.5-1.5 | 12/28/04 | 1/8/05 | 3,260 | ND | ND | ND | ND | 3,260 | ND | ND | ND |
| N14-0.5-1 | 0.5-1 | 12/28/04 | 1/8/05 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| N15-0.5-1 | 0.5-1 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| N42-0.5-1.7 | 0.5-1.7 | 10/14/04 | 10/20/04 | 21,700 | ND | ND | ND | ND | 21,700 | ND | ND | ND |
| N43-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/20/04 | 1,740 | ND | ND | ND | ND | 1,740 | ND | ND | ND |
| N53-0-2.5 | 0-2.5 | 11/11/04 | 11/17/04 | 6,370 | ND | ND | ND | ND | 6,370 | ND | ND | ND |
| O13-0.5-1.1 | 0.5-1.1 | 12/28/04 | 1/8/05 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| O14-0.5-1 | 0.5-1 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| O15-0.5-1.75 | 0.5-1.75 | 12/28/04 | 1/8/05 | 14,800 | ND | ND | ND | ND | 14,800 | ND | ND | ND |
| O15-0.5-1.75MS | 0.5-1.75 | 12/28/04 | 1/8/05 | 30,500 | ND | ND | ND | ND | 30,500 | ND | ND | ND |
| O15-0.5-1.75MSD | 0.5-1.75 | 12/28/04 | 1/8/05 | 24,800 | ND | ND | ND | ND | 24,800 | ND | ND | ND |
| O42-0.5-1.6 | 0.5-1.6 | 10/14/04 | 10/20/04 | 13,000 | ND | ND | ND | ND | 13,000 | ND | ND | ND |
| O43-0.5-0.6 | 0.5-0.6 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| O53-0-3.5 | 0-3.5 | 11/11/04 | 11/17/04 | 4,300 | ND | ND | ND | ND | 4,300 | ND | ND | ND |
| P11-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/6/05 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| P13-0.5-1.0 | 0.5-1.0 | 12/28/04 | 1/8/05 | 17,900 | ND | ND | ND | ND | 17,900 | ND | ND | ND |
| P14-0.5-1.35 | 0.5-1.35 | 12/28/04 | 1/8/05 | 8,820 | ND | ND | ND | ND | 8,820 | ND | ND | ND |
| Duplicate 204 (P14-0.5-1.35) | 0.5-1.35 | 12/28/04 | 1/8/05 | 12,300 | ND | ND | ND | ND | 12,300 | ND | ND | ND |
| P15-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| P25-0.5-1.75 | 0.5-1.75 | 10/14/04 | 10/21/04 | 3,040 | ND | ND | ND | ND | 3,040 | ND | ND | ND |
| P26-0.5-1.6 | 0.5-1.6 | 10/14/04 | 10/20/04 | 8,280 | ND | ND | ND | ND | 8,280 | ND | ND | ND |
| P27-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/20/04 | 1,730 | ND | ND | ND | ND | 1,730 | ND | ND | ND |
| P28-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/20/04 | 3,460 | ND | ND | ND | ND | 3,460 | ND | ND | ND |
| P29-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/20/04 | 9,180 | ND | ND | ND | ND | 9,180 | ND | ND | ND |
| P31-0.5-1 | 0.5-1 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| P50-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/20/04 | 8,540 | ND | ND | ND | ND | 8,540 | ND | ND | ND |
| P53-0-3.5 | 0-3.5 | 11/11/04 | 11/17/04 | 3,150 | ND | ND | ND | ND | 3,150 | ND | ND | ND |
| Q53-Landscape-0-4 | 0-4 | 11/11/04 | 11/17/04 | 1,940 | ND | ND | ND | ND | 1,940 | ND | ND | ND |
| Dup 189 (Landscape Comp 15) | -- | 11/11/04 | 11/17/04 | 7,280 | ND | ND | ND | ND | 7,280 | ND | ND | ND |

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC1** | PC1-1-3' | 1-3 | 06/11/04 | 06/19/04 | 5,290 | ND | ND | ND | ND | 5,290 | ND | ND | ND |
| | PC1-3-6' | 3-6 | 06/11/04 | 06/19/04 | 16,400 | ND | ND | ND | ND | 16,400 | ND | ND | ND |
| **PC2** | PC2-1-3' | 1-3 | 06/11/04 | 06/19/04 | 41,000 | ND | ND | ND | ND | 41,000 | ND | ND | ND |
| | PC2-3-6' | 3-6 | 06/11/04 | 06/19/04 | 13,700 | ND | ND | ND | ND | 13,700 | ND | ND | ND |
| | PC2-1-3' | 1-3 | 08/25/04 | 09/07/04 | **338,000** | ND | ND | ND | ND | 338,000 | ND | ND | ND |
| | PC2-3-6' | 3-6 | 08/25/04 | 09/01/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC2-A-1-3' | 1-3 | 10/15/04 | 10/18/04 | 7,160 | ND | ND | ND | ND | 7,160 | ND | ND | ND |
| | PC2-A-3-4.75' | 3-4.75 | 10/15/04 | 10/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC2-B-1-3' | 1-3 | 10/15/04 | 10/18/04 | 39,700 | ND | ND | ND | ND | 39,700 | ND | ND | ND |
| | PC2-B-3-6' | 3-6 | 10/15/04 | 10/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC2-C-1-3' | 1-3 | 10/15/04 | 10/18/04 | 13,300 | ND | ND | ND | ND | 13,300 | ND | ND | ND |
| | PC2-C-3-6' | 3-6 | 10/15/04 | 10/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC2-C-3-6'MS | 3-6 | 10/15/04 | 10/18/04 | 6,720 | ND | ND | ND | ND | 6,720 | ND | ND | ND |
| | PC2-C-3-6'MSD | 3-6 | 10/15/04 | 10/18/04 | 5,810 | ND | ND | ND | ND | 5,810 | ND | ND | ND |
| | PC2-D-1-3' | 1-3 | 10/15/04 | 10/18/04 | 40,900 | ND | ND | ND | ND | 40,900 | ND | ND | ND |
| | PC2-D-3-6' | 3-6 | 10/15/04 | 10/18/04 | 3,950 | ND | ND | ND | ND | 3,950 | ND | ND | ND |
| **PC3** | PC3-1-3' | 1-3 | 06/11/04 | 06/19/04 | 1,790 | ND | ND | ND | ND | 1,790 | ND | ND | ND |
| | PC3-3-5.5' | 3-5.5 | 06/11/04 | 06/19/04 | 3,820 | ND | ND | ND | ND | 3,820 | ND | ND | ND |
| **PC4** | PC4-1-3' | 1-3 | 06/11/04 | 06/19/04 | 3,160 | ND | ND | ND | ND | 3,160 | ND | ND | ND |
| | PC4-3-5' | 3-5 | 06/11/04 | 06/19/04 | 2,550 | ND | ND | ND | ND | 2,550 | ND | ND | ND |
| **PC5** | PC5-1-3' | 1-3 | 06/11/04 | 06/19/04 | 16,300 | ND | ND | ND | ND | 16,300 | ND | ND | ND |
| | PC5-3-5.5' | 3-5.5 | 06/11/04 | 06/19/04 | 16,900 | ND | ND | ND | ND | 16,900 | ND | ND | ND |
| **PC6** | PC6-1-2' | 1-2 | 06/11/04 | 06/19/04 | 4,910 | ND | ND | ND | ND | 4,910 | ND | ND | ND |
| **PC7** | PC7-1-3' | 1-3 | 06/11/04 | 06/19/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| | PC7-3-5' | 3-5 | 06/11/04 | 06/19/04 | 2,370 | ND | ND | ND | ND | 2,370 | ND | ND | ND |
| **PC8** | PC8-1-4' | 1-4 | 06/11/04 | 06/19/04 | 21,500 | ND | ND | ND | ND | 21,500 | ND | ND | ND |
| **PC9** | PC9-1-3' | 1-3 | 06/11/04 | 07/03/04 | 5,300 | ND | ND | ND | ND | 5,300 | ND | ND | ND |
| | PC9-3-6' | 3-6 | 06/11/04 | 07/03/04 | 7,610 | ND | ND | ND | ND | 7,610 | ND | ND | ND |
| **PC10** | PC10-1-3' | 1-3 | 06/11/04 | 06/19/04 | 5,140 | ND | ND | ND | ND | 5,140 | ND | ND | ND |
| | Duplicate 36 (PC10-1-3') | 1-3 | 06/11/04 | 07/11/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| | PC10-3-6' | 3-6 | 06/11/04 | 06/19/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |
| | PC10-3-6'MS | 3-6 | 06/11/04 | 06/19/04 | 10,300 | ND | ND | ND | ND | 10,300 | ND | ND | ND |
| | PC10-3-6'MSD | 3-6 | 06/11/04 | 06/19/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| **PC11** | PC11-1-3' | 1-3 | 06/11/04 | 06/19/04 | 15,100 | ND | ND | ND | ND | 15,100 | ND | ND | ND |
| | PC11-3-5' | 3-5 | 06/11/04 | 06/19/04 | 42,700 | ND | ND | ND | ND | 42,700 | ND | ND | ND |
| **PC12** | PC12-1-3' | 1-3 | 06/11/04 | 06/19/04 | 33,100 | ND | ND | ND | ND | 33,100 | ND | ND | ND |
| | PC12-3-5' | 3-5 | 06/11/04 | 06/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC13** | PC13-1-3' | 1-3 | 06/11/04 | 06/19/04 | 6,150 | ND | ND | ND | ND | 6,150 | ND | ND | ND |
| | PC13-3-6' | 3-6 | 06/11/04 | 06/19/04 | 5,080 | ND | ND | ND | ND | 5,080 | ND | ND | ND |
| **PC14** | PC14-1-3' | 1-3 | 06/11/04 | 06/19/04 | 5,350 | ND | ND | ND | ND | 5,350 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC14** | PC14-3-6' | 3-6 | 06/11/04 | 06/19/04 | 3,400 | ND | ND | ND | ND | 3,400 | ND | ND | ND |
| **PC15** | PC15-1-2' | 1-2 | 06/11/04 | 06/19/04 | 9,490 | ND | ND | ND | ND | 9,490 | ND | ND | ND |
| **PC16** | PC16-1-2' | 1-2 | 06/11/04 | 06/19/04 | 1,780 | ND | ND | ND | ND | 1,780 | ND | ND | ND |
| **PC17** | PC17-1-2' | 1-2 | 06/11/04 | 06/19/04 | 22,400 | ND | ND | ND | ND | 22,400 | ND | ND | ND |
| **PC18** | PC18-1-3' | 1-3 | 06/11/04 | 07/03/04 | 8,660 | ND | ND | ND | ND | 8,660 | ND | ND | ND |
| | PC18-3-6' | 3-6 | 06/11/04 | 07/03/04 | 3,100 | ND | ND | ND | ND | 3,100 | ND | ND | ND |
| **PC19** | PC19-1-2' | 1-2 | 06/11/04 | 07/03/04 | 5,760 | ND | ND | ND | ND | 5,760 | ND | ND | ND |
| **PC20** | PC20-1-2' | 1-2 | 06/11/04 | 07/03/04 | 5,680 | ND | ND | ND | ND | 5,680 | ND | ND | ND |
| **PC21** | PC21-1-2' | 1-2 | 06/11/04 | 07/07/04 | 26,800 | ND | ND | ND | ND | 26,800 | ND | ND | ND |
| **PC22** | PC22-1-2' | 1-2 | 06/11/04 | 07/11/04 | 16,100 | ND | ND | ND | ND | 16,100 | ND | ND | ND |
| **PC23** | PC23-1-2' | 1-2 | 06/11/04 | 07/11/04 | 6,540 | ND | ND | ND | ND | 6,540 | ND | ND | ND |
| **PC24** | PC24-1-3' | 1-3 | 06/11/04 | 07/11/04 | 5,630 | ND | ND | ND | ND | 5,630 | ND | ND | ND |
| | Duplicate 38 (PC24-1-3') | 1-3 | 06/11/04 | 07/11/04 | 4,230 | ND | ND | ND | ND | 4,230 | ND | ND | ND |
| | PC24-3-6' | 3-6 | 06/11/04 | 07/11/04 | 5,580 | ND | ND | ND | ND | 5,580 | ND | ND | ND |
| | PC24-3-6'MS | 3-6 | 06/11/04 | 07/11/04 | 12,600 | ND | ND | ND | ND | 12,600 | ND | ND | ND |
| | PC24-3-6'MSDUP | 3-6 | 06/11/04 | 07/11/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| **PC25** | PC25-1-2' | 1-2 | 06/11/04 | 07/03/04 | 6,440 | ND | ND | ND | ND | 6,440 | ND | ND | ND |
| **PC26** | PC26-1-2' | 1-2 | 06/11/04 | 07/04/04 | 5,060 | ND | ND | ND | ND | 5,060 | ND | ND | ND |
| **PC27** | PC27-1-2' | 1-2 | 06/11/04 | 07/04/04 | 26,900 | ND | ND | ND | ND | 26,900 | ND | ND | ND |
| **PC28** | PC28-1-2' | 1-2 | 06/11/04 | 07/04/04 | 10,500 | ND | ND | ND | ND | 10,500 | ND | ND | ND |
| **PC29** | PC29-1-2' | 1-2 | 06/11/04 | 07/11/04 | 7,940 | ND | ND | ND | ND | 7,940 | ND | ND | ND |
| **PC30** | PC30-1-3' | 1-3 | 06/11/04 | 07/09/04 | 6,820 | ND | ND | ND | ND | 6,820 | ND | ND | ND |
| | PC30-3-6' | 3-6 | 06/11/04 | 07/09/04 | 3,950 | ND | ND | ND | ND | 3,950 | ND | ND | ND |
| **PC31** | PC31-1-2' | 1-2 | 06/11/04 | 07/04/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| **PC32** | PC32-1-2' | 1-2 | 06/11/04 | 07/04/04 | 14,400 | ND | ND | ND | ND | 14,400 | ND | ND | ND |
| **PC33** | PC33-1-3' | 1-3 | 06/11/04 | 07/04/04 | 2,740 | ND | ND | ND | ND | 2,740 | ND | ND | ND |
| | PC33-3-5.5' | 1-5.5 | 06/11/04 | 07/04/04 | 27,000 | ND | ND | ND | ND | 27,000 | ND | ND | ND |
| **PC34** | PC34-1-3' | 1-3 | 06/11/04 | 07/11/04 | 18,300 | ND | ND | ND | ND | 18,300 | ND | ND | ND |
| | PC34-3-6' | 3-6 | 06/11/04 | 07/11/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND |
| **PC35** | PC35-1-2' | 1-2 | 06/11/04 | 07/11/04 | **57,100** | ND | ND | ND | ND | 57,100 | ND | ND | ND |
| **PC36** | PC36-1-2' | 1-2 | 06/11/04 | 07/11/04 | 22,900 | ND | ND | ND | ND | 22,900 | ND | ND | ND |
| **PC37** | PC37-1-3' | 1-3 | 06/11/04 | 07/11/04 | 7,850 | ND | ND | ND | ND | 7,850 | ND | ND | ND |
| | PC37-3-6' | 3-6 | 06/11/04 | 07/11/04 | 24,300 | ND | ND | ND | ND | 24,300 | ND | ND | ND |
| **PC38** | PC38-1-3' | 1-3 | 06/11/04 | 07/04/04 | 34,600 | ND | ND | ND | ND | 34,600 | ND | ND | ND |
| | PC38-3-5' | 3-5 | 06/11/04 | 07/04/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| **PC39** | PC39-1-3' | 1-3 | 06/11/04 | 07/04/04 | 7,050 | ND | ND | ND | ND | 7,050 | ND | ND | ND |
| | PC39-1-3'MS | 1-3 | 06/11/04 | 07/04/04 | 10,300 | ND | ND | ND | ND | 10,300 | ND | ND | ND |
| | PC39-1-3'MSDUP | 1-3 | 06/11/04 | 07/04/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| | Duplicate 39 (PC39-3-6') | 3-6 | 06/11/04 | 07/11/04 | 29,000 | ND | ND | ND | ND | 29,000 | ND | ND | ND |

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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC39-3-6' | 3-6 | 06/11/04 | 07/04/04 | 21,000 | ND | ND | ND | ND | 21,000 | ND | ND | ND |
| **PC40** | PC40-1-3' | 1-3 | 06/11/04 | 07/04/04 | 1,210 | ND | ND | ND | ND | 1,210 | ND | ND | ND |
| | PC40-3-5.5' | 3-5.5 | 06/11/04 | 07/04/04 | 33,400 | ND | ND | ND | ND | 33,400 | ND | ND | ND |
| | PC40-1-4' | 1-4 | 08/25/04 | 09/01/04 | 13,100 | ND | ND | ND | ND | 13,100 | ND | ND | ND |
| | PC40-4-7' | 4-7 | 08/25/04 | 09/01/04 | 33,400 | ND | ND | ND | ND | 33,400 | ND | ND | ND |
| **PC41** | PC41-1-3' | 1-3 | 06/11/04 | 07/04/04 | 1,310 | ND | ND | ND | ND | 1,310 | ND | ND | ND |
| | PC41-3-6' | 3-6 | 06/11/04 | 07/04/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| | PC41-1-4' | 1-4 | 08/25/04 | 09/01/04 | 25,200 | ND | ND | ND | ND | 25,200 | ND | ND | ND |
| | PC41-4-7' | 4-7 | 08/25/04 | 08/31/04 | 19,300 | ND | ND | ND | ND | 19,300 | ND | ND | ND |
| **PC42** | PC42-1-3' | 1-3 | 06/11/04 | 07/11/04 | 3,180 | ND | ND | ND | ND | 3,180 | ND | ND | ND |
| | PC42-3-5' | 3-5 | 06/11/04 | 07/11/04 | **73,800** | ND | ND | ND | ND | 73,800 | ND | ND | ND |
| **PC43** | PC43-1-3' | 1-3 | 06/11/04 | 07/11/04 | 16,300 | ND | ND | ND | ND | 16,300 | ND | ND | ND |
| | PC43-3-6' | 3-6 | 06/11/04 | 07/11/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| **PC44** | PC44-1-3' | 1-3 | 08/26/04 | 09/01/04 | 5,160 | ND | ND | ND | ND | 5,160 | ND | ND | ND |
| **PC45** | PC45-1-2' | 1-2 | 06/11/04 | 07/11/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| **PC46** | PC46-1-3' | 1-3 | 06/11/04 | 07/11/04 | 21,700 | ND | ND | ND | ND | 21,700 | ND | ND | ND |
| | PC46-3-5.5' | 3-5.5 | 06/11/04 | 07/11/04 | 31,900 | ND | ND | ND | ND | 31,900 | ND | ND | ND |
| **PC47** | PC47-1-3' | 1-3 | 06/11/04 | 07/11/04 | 36,200 | ND | ND | ND | ND | 36,200 | ND | ND | ND |
| | PC47-3-6' | 3-6 | 06/11/04 | 07/11/04 | 37,000 | ND | ND | ND | ND | 37,000 | ND | ND | ND |
| **PC48** | PC48-1-2' | 1-2 | 06/11/04 | 07/11/04 | 3,630 | ND | ND | ND | ND | 3,630 | ND | ND | ND |
| **PC49** | PC49-1-2' | 1-2 | 06/11/04 | 07/11/04 | 2,690 | ND | ND | ND | ND | 2,690 | ND | ND | ND |
| **PC50** | PC50-1-3' | 1-3 | 06/11/04 | 07/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC50-3-5' | 3-5 | 06/11/04 | 07/11/04 | 3,620 | ND | ND | ND | ND | 3,620 | ND | ND | ND |
| **PC51** | PC51-1-3' | 1-3 | 6/14/04 | 7/12/04 | 7,570 | ND | ND | ND | ND | 7,570 | ND | ND | ND |
| | PC51-1-3'MS | 1-3 | 6/14/04 | 7/12/04 | 6,380 | ND | ND | ND | ND | 6,380 | ND | ND | ND |
| | PC51-1-3'MSD | 1-3 | 6/14/04 | 7/12/04 | 8,440 | ND | ND | ND | ND | 8,440 | ND | ND | ND |
| | Duplicate 40 (PC51-3-6') | 3-6 | 6/14/04 | 7/18/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND |
| | PC51-3-6' | 3-6 | 6/14/04 | 7/12/04 | 3,900 | ND | ND | ND | ND | 3,900 | ND | ND | ND |
| **PC52** | PC52-1-2' | 1-2 | 6/14/04 | 7/12/04 | 17,600 | ND | ND | ND | ND | 17,600 | ND | ND | ND |
| | PC52-3-6.5' | 3-6.5 | 8/25/04 | 8/31/04 | 5,880 | ND | ND | ND | ND | 5,880 | ND | ND | ND |
| **PC53** | PC53-1-2' | 1-2 | 6/14/04 | 7/12/04 | 4,680 | ND | ND | ND | ND | 4,680 | ND | ND | ND |
| **PC54** | PC54-1-3' | 1-3 | 6/14/04 | 7/12/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | PC54-3-6' | 3-6 | 6/14/04 | 7/12/04 | 30,000 | ND | ND | ND | ND | 30,000 | ND | ND | ND |
| **PC55** | PC55-1-3' | 1-3 | 6/14/04 | 7/12/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| | PC55-3-6' | 3-6 | 6/14/04 | 7/12/04 | 17,200 | ND | ND | ND | ND | 17,200 | ND | ND | ND |
| **PC56** | PC56-1-2' | 1-2 | 6/14/04 | 7/12/04 | 1,130 | ND | ND | ND | ND | 1,130 | ND | ND | ND |
| **PC57** | PC57-1-2' | 1-2 | 6/14/04 | 7/12/04 | 4,890 | ND | ND | ND | ND | 4,890 | ND | ND | ND |
| | PC57-3-6.5' | 3-6.5 | 8/25/04 | 9/7/04 | 38,000 | ND | ND | ND | ND | 38,000 | ND | ND | ND |
| **PC58** | PC58-1-3' | 1-3 | 6/14/04 | 7/12/04 | 15,500 | ND | ND | ND | ND | 15,500 | ND | ND | ND |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC58** | PC58-3-6' | 3-6 | 6/14/04 | 7/12/04 | 4,690 | ND | ND | ND | ND | 4,690 | ND | ND | ND |
| **PC59** | PC59-1-3' | 1-3 | 6/14/04 | 7/11/04 | 5,480 | ND | ND | ND | ND | 5,480 | ND | ND | ND |
| | PC59-3-6' | 3-6 | 6/14/04 | 7/11/04 | 3,990 | ND | ND | ND | ND | 3,990 | ND | ND | ND |
| **PC60** | PC60-1-3' | 1-3 | 6/14/04 | 7/12/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| | PC60-3-6' | 3-6 | 6/14/04 | 7/12/04 | **215,000** | ND | ND | ND | ND | 215,000 | ND | ND | ND |
| | PC60-1-3' | 1-3 | 8/25/04 | 8/31/04 | 18,900 | ND | ND | ND | ND | 18,900 | ND | ND | ND |
| | PC60-3-6' | 3-6 | 8/25/04 | 9/2/04 | 4,280 | ND | ND | ND | ND | 4,280 | ND | ND | ND |
| | PC60-6-11' | 6-11 | 9/20/04 | 9/22/04 | 33,000 | ND | ND | ND | ND | 33,000 | ND | ND | ND |
| | PC60-A-1-3' | 1-3 | 9/14/04 | 9/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-A-3-6' | 3-6 | 9/14/04 | 9/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-A-6-8' | 6-8 | 9/14/04 | 9/21/04 | 25,400 | ND | ND | ND | ND | 25,400 | ND | ND | ND |
| | PC60-B-1-3' | 1-3 | 9/14/04 | 9/21/04 | 20,100 | ND | ND | ND | ND | 20,100 | ND | ND | ND |
| | PC60-B-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-B-6-11' | 6-11 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-C-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-C-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 135 (PC60-C-3-6') | 3-6 | 9/14/04 | 9/21/04 | 20,300 | ND | ND | ND | ND | 20,300 | ND | ND | ND |
| | PC60-C-6-10' | 6-10 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-D-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-D-3-6' | 3-6 | 9/14/04 | 9/24/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | PC60-D-6-10' | 6-10 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-E-1-3' | 1-3 | 9/9/04 | 9/18/04 | 30,400 | ND | ND | ND | ND | 30,400 | ND | ND | ND |
| | PC60-E-3-6' | 3-6 | 9/9/04 | 9/18/04 | 9,160 | ND | ND | ND | ND | 9,160 | ND | ND | ND |
| | PC60-F-1-3' | 1-3 | 9/9/04 | 9/18/04 | 31,400 | ND | ND | ND | ND | 31,400 | ND | ND | ND |
| | PC60-F-3-6' | 3-6 | 9/9/04 | 9/18/04 | 17,200 | ND | ND | ND | ND | 17,200 | ND | ND | ND |
| | PC60-F-6-9' | 6-9 | 9/9/04 | 9/14/04 | **136,000** | ND | ND | ND | ND | 136,000 | ND | ND | ND |
| | PC60-G-6-11' | 6-11 | 9/20/04 | 9/22/04 | 3,420 | ND | ND | ND | ND | 3,420 | ND | ND | ND |
| | PC60-H-3-6' | 3-6 | 9/20/04 | 9/22/04 | 4,620 | ND | ND | ND | ND | 4,620 | ND | ND | ND |
| | PC60-H-6-11' | 6-11 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60 I-3-6 | 3-6 | 9/20/04 | 9/22/04 | 3,890 | ND | ND | ND | ND | 3,890 | ND | ND | ND |
| | PC60 I-6-11 | 6-11 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60 J-3-6 | 3-6 | 9/20/04 | 9/22/04 | 3,920 | ND | ND | ND | ND | 3,920 | ND | ND | ND |
| | PC60 J-6-11 | 6-11 | 9/20/04 | 9/22/04 | 4,750 | ND | ND | ND | ND | 4,750 | ND | ND | ND |
| | PC60 K-3-6 | 3-6 | 9/20/04 | 9/22/04 | 3,160 | ND | ND | ND | ND | 3,160 | ND | ND | ND |
| | PC60 K-6-11 | 6-11 | 9/20/04 | 9/22/04 | 11,600 | ND | ND | ND | ND | 11,600 | ND | ND | ND |
| | PC60 L-3-6 | 3-6 | 9/20/04 | 9/22/04 | 13,100 | ND | ND | ND | ND | 13,100 | ND | ND | ND |
| | PC60 L-6-11 | 6-11 | 9/20/04 | 9/22/04 | 23,600 | ND | ND | ND | ND | 23,600 | ND | ND | ND |
| | PC60 M-3-6 | 3-6 | 9/20/04 | 9/22/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |
| | PC60 M-6-11 | 6-11 | 9/20/04 | 9/22/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| **PC61** | PC61-1-3' | 1-3 | 6/14/04 | 7/11/04 | 6,270 | ND | ND | ND | ND | 6,270 | ND | ND | ND |

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Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC61** | PC61-3-6' | 3-6 | 6/14/04 | 7/11/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| **PC62** | PC62-1-2' | 1-2 | 6/14/04 | 7/12/04 | 8,940 | ND | ND | ND | ND | 8940 | ND | ND | ND |
| | PC62-3-6.5' | 3-6.5 | 8/26/04 | 8/31/04 | 14,200 | ND | ND | ND | ND | 14200 | ND | ND | ND |
| **PC63** | PC63-1-2' | 1-2 | 6/14/04 | 7/12/04 | 6,260 | ND | ND | ND | ND | 6260 | ND | ND | ND |
| **PC64** | PC64-1-3' | 1-3 | 6/14/04 | 7/19/04 | 4,050 | ND | ND | ND | ND | 4050 | ND | ND | ND |
| | Duplicate 41 (PC63-1-3') | 1-3 | 6/14/04 | 7/18/04 | 6,660 | ND | ND | ND | ND | 6660 | ND | ND | ND |
| | PC64-3-6'MS | 3-6 | 6/14/04 | 7/19/04 | 26,000 | ND | ND | ND | ND | 26000 | ND | ND | ND |
| | PC64-3-6'MSD | 3-6 | 6/14/04 | 7/19/04 | 37,000 | ND | ND | ND | ND | 37000 | ND | ND | ND |
| | PC64-3-6' | 3-6 | 6/14/04 | 7/19/04 | 31,500 | ND | ND | ND | ND | 31500 | ND | ND | ND |
| **PC65** | PC65-1-3' | 1-3 | 6/14/04 | 7/12/04 | 18,400 | ND | ND | ND | ND | 18400 | ND | ND | ND |
| | PC65-3-6' | 3-6 | 6/14/04 | 7/12/04 | 16,700 | ND | ND | ND | ND | 16700 | ND | ND | ND |
| **PC66** | PC66-1-2' | 1-2 | 6/14/04 | 7/12/04 | 3,480 | ND | ND | ND | ND | 3480 | ND | ND | ND |
| **PC67** | PC67-1-2' | 1-2 | 6/14/04 | 7/12/04 | 24,700 | ND | ND | ND | ND | 24700 | ND | ND | ND |
| | PC67-3-6.5' | 3-6.5 | 8/25/04 | 8/31/04 | 12,300 | ND | ND | ND | ND | 12300 | ND | ND | ND |
| **PC68** | PC68-1-3' | 1-3 | 6/14/04 | 7/12/04 | 5,470 | ND | ND | ND | ND | 5470 | ND | ND | ND |
| | PC68-3-6' | 3-6 | 6/14/04 | 7/12/04 | 11,600 | ND | ND | ND | ND | 11600 | ND | ND | ND |
| **PC69** | PC69-1-3' | 1-3 | 6/14/04 | 7/12/04 | 3,690 | ND | ND | ND | ND | 3690 | ND | ND | ND |
| | PC69-3-6' | 3-6 | 6/14/04 | 7/19/04 | 6,780 | ND | ND | ND | ND | 6780 | ND | ND | ND |
| **PC70** | PC70-1-2' | 1-2 | 6/14/04 | 7/19/04 | 13,500 | ND | ND | ND | ND | 13500 | ND | ND | ND |
| **PC71** | PC71-1-2' | 1-2 | 6/14/04 | 7/19/04 | 5,880 | ND | ND | ND | ND | 5880 | ND | ND | ND |
| **PC72** | PC72-1-3' | 1-3 | 6/14/04 | 7/19/04 | 11,700 | ND | ND | ND | ND | 11700 | ND | ND | ND |
| | PC72-3-6' | 3-6 | 6/14/04 | 7/19/04 | 4,560 | ND | ND | ND | ND | 4560 | ND | ND | ND |
| **PC73** | PC73-1-3' | 1-3 | 6/14/04 | 7/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC73-3-6' | 3-6 | 6/14/04 | 7/19/04 | 3,690 | ND | ND | ND | ND | 3690 | ND | ND | ND |
| **PC74** | PC74-1-2' | 1-2 | 6/14/04 | 7/19/04 | 16,300 | ND | ND | ND | ND | 16300 | ND | ND | ND |
| **PC75** | PC75-1-2' | 1-2 | 6/14/04 | 7/18/04 | 9,100 | ND | ND | ND | ND | 9100 | ND | ND | ND |
| **PC76** | PC76-1-3' | 1-3 | 6/14/04 | 7/18/04 | **52,200** | ND | ND | ND | ND | 52200 | ND | ND | ND |
| | PC76-1-3'MS | 1-3 | 6/14/04 | 7/18/04 | 14,300 | ND | ND | ND | ND | 14300 | ND | ND | ND |
| | PC76-1-3'MSD | 1-3 | 6/14/04 | 7/18/04 | 10,100 | ND | ND | ND | ND | 10100 | ND | ND | ND |
| | Duplicate 42 (PC76-3-5.5') | 3-5.5 | 6/14/04 | 7/18/04 | 32,200 | ND | ND | ND | ND | 32200 | ND | ND | ND |
| | PC76-3-5.5' | 3-5.5 | 6/14/04 | 7/18/04 | 31,900 | ND | ND | ND | ND | 31900 | ND | ND | ND |
| **PC77** | PC77-1-3' | 1-3 | 6/14/04 | 7/18/04 | **76,100** | ND | ND | ND | ND | 76100 | ND | ND | ND |
| | PC77-3-6' | 3-6 | 6/14/04 | 7/18/04 | 7,160 | ND | ND | ND | ND | 7160 | ND | ND | ND |
| **PC78** | PC78-1-3' | 1-3 | 6/14/04 | 7/19/04 | 5,550 | ND | ND | ND | ND | 5550 | ND | ND | ND |
| | PC78-3-6' | 3-6 | 6/14/04 | 7/19/04 | 11,100 | ND | ND | ND | ND | 11100 | ND | ND | ND |
| **PC79** | PC79-1-3' | 1-3 | 6/14/04 | 7/19/04 | 5,120 | ND | ND | ND | ND | 5120 | ND | ND | ND |
| | PC79-3-6' | 3-6 | 6/14/04 | 7/19/04 | 6,120 | ND | ND | ND | ND | 6120 | ND | ND | ND |
| **PC80** | PC80-1-3' | 1-3 | 6/14/04 | 7/19/04 | 4,220 | ND | ND | ND | ND | 4220 | ND | ND | ND |
| | PC80-3-6' | 3-6 | 6/14/04 | 7/19/04 | 28,700 | ND | ND | ND | ND | 28700 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC81** | PC81-1-4.5 | 1-4.5 | 6/14/04 | 7/19/04 | 6,760 | ND | ND | ND | ND | 6760 | ND | ND | ND |
| **PC82** | PC82-1-3' | 1-3 | 6/14/04 | 7/19/04 | 12,300 | ND | ND | ND | ND | 12300 | ND | ND | ND |
| | PC82-3-6' | 3-6 | 6/14/04 | 7/19/04 | 26,900 | ND | ND | ND | ND | 26900 | ND | ND | ND |
| **PC83** | PC83-1-3' | 1-3 | 6/14/04 | 7/19/04 | 17,700 | ND | ND | ND | ND | 17700 | ND | ND | ND |
| | PC83-3-6' | 3-6 | 6/14/04 | 7/19/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| **PC84** | PC84-1-3' | 1-3 | 6/14/04 | 7/19/04 | 15,300 | ND | ND | ND | ND | 15300 | ND | ND | ND |
| | PC84-3-6' | 3-6 | 6/14/04 | 7/19/04 | 6,940 | ND | ND | ND | ND | 6940 | ND | ND | ND |
| **PC85** | PC85-1-3' | 1-3 | 6/14/04 | 7/19/04 | 14,400 | ND | ND | ND | ND | 14400 | ND | ND | ND |
| | PC85-3-6' | 3-6 | 6/14/04 | 7/19/04 | 6,280 | ND | ND | ND | ND | 6280 | ND | ND | ND |
| **PC86** | PC86-1-3' | 1-3 | 6/14/04 | 7/19/04 | 8,220 | ND | ND | ND | ND | 8220 | ND | ND | ND |
| | PC86-1-3'MS | 1-3 | 6/14/04 | 7/18/04 | 6,030 | ND | ND | ND | ND | 6030 | ND | ND | ND |
| | PC86-1-3'MSD | 1-3 | 6/14/04 | 7/18/04 | 10,100 | ND | ND | ND | ND | 10100 | ND | ND | ND |
| | Duplicate 43 (PC86-3-6') | 3-6 | 6/14/04 | 7/18/04 | 21,400 | ND | ND | ND | ND | 21400 | ND | ND | ND |
| | PC86-3-6' | 3-6 | 6/14/04 | 7/19/04 | 14,300 | ND | ND | ND | ND | 14300 | ND | ND | ND |
| **PC87** | PC87-1-3' | 1-3 | 6/14/04 | 7/18/04 | 10,100 | ND | ND | ND | ND | 10100 | ND | ND | ND |
| | PC87-3-6' | 3-6 | 6/14/04 | 7/18/04 | 9,550 | ND | ND | ND | ND | 9550 | ND | ND | ND |
| **PC88** | PC88-1-3' | 1-3 | 6/30/04 | 7/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC88-3-6.5 | 3-6.5 | 6/30/04 | 7/31/04 | 9,920 | ND | ND | ND | ND | 9920 | ND | ND | ND |
| **PC89** | PC89-1-3' | 1-3 | 6/30/04 | 7/31/04 | **94,100** | ND | ND | ND | ND | 94100 | ND | ND | ND |
| | PC89-A-1-3' | 1-3 | 11/17/04 | 11/18/04 | 6,020 | ND | ND | ND | ND | 6020 | ND | ND | ND |
| | PC89-B-1-3' | 1-3 | 11/17/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC89-C-1-3' | 1-3 | 11/17/04 | 11/18/04 | 2,160 | ND | ND | ND | ND | 2160 | ND | ND | ND |
| **PC90** | PC90-1-3' | 1-3 | 6/30/04 | 7/31/04 | 9,730 | ND | ND | ND | ND | 9730 | ND | ND | ND |
| **Elevator2** | Elevator2-1-4' | 1-4 | 11/17/04 | 11/18/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| | Elevator2-4-8' | 4-8 | 11/17/04 | 11/18/04 | 25,600 | ND | ND | ND | ND | 25600 | ND | ND | ND |
| | Elevator2-8-11' | 8-11 | 11/17/04 | 11/18/04 | 2,410 | ND | ND | ND | ND | 2410 | ND | ND | ND |
| **PC91** | PC91-1-3' | 1-3 | 6/30/04 | 7/31/04 | 3,360 | ND | ND | ND | ND | 3360 | ND | ND | ND |
| **PC92** | PC92-1-3' | 1-3 | 6/30/04 | 8/2/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| **PC93** | PC93-1-3' | 1-3 | 6/30/04 | 8/2/04 | 33,900 | ND | ND | ND | ND | 33900 | ND | ND | ND |
| | PC93-3-6.5' | 3-6.5 | 6/30/04 | 8/2/04 | 17,700 | ND | ND | ND | ND | 17700 | ND | ND | ND |
| **PC94** | PC94-1-3' | 1-3 | 6/30/04 | 8/2/04 | 2,870 | ND | ND | ND | ND | 2870 | ND | ND | ND |
| **PC95** | PC95-1-3.5' | 1-3.5 | 6/30/04 | 8/2/04 | 4,750 | ND | ND | ND | ND | 4750 | ND | ND | ND |
| **PC96** | PC96-1-3' | 1-3 | 6/30/04 | 8/2/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| **PC97** | PC97-1-3' | 1-3 | 6/30/04 | 8/2/04 | 21,000 | ND | ND | ND | ND | 21000 | ND | ND | ND |
| **PC98** | PC98-1-3' | 1-3 | 6/30/04 | 7/31/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| | PC98-3-6.5' | 3-6.5 | 6/30/04 | 7/31/04 | 6,900 | ND | ND | ND | ND | 6900 | ND | ND | ND |
| **PC99** | PC99-1-3' | 1-3 | 6/30/04 | 7/31/04 | 8,090 | ND | ND | ND | ND | 8090 | ND | ND | ND |
| | PC99-1-3'MS | 1-3 | 6/30/04 | 7/31/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| | PC99-1-3'MSD | 1-3 | 6/30/04 | 7/31/04 | 12,400 | ND | ND | ND | ND | 12400 | ND | ND | ND |
| | PC99-3-6.5' | 3-6.5 | 6/30/04 | 7/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Duplicate 45 (PC99-3-6.5') | 3-6.5 | 6/30/04 | 8/7/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC100** | PC100-1-3' | 1-3 | 6/30/04 | 8/2/04 | **70,500** | ND | ND | ND | ND | 70500 | ND | ND | ND |
| | PC100-A-1-3' | 1-3 | 11/17/04 | 11/18/04 | 2,740 | ND | ND | ND | ND | 2740 | ND | ND | ND |
| | PC100-B-1-3' | 1-3 | 11/17/04 | 11/18/04 | 6,810 | ND | ND | ND | ND | 6810 | ND | ND | ND |
| | PC100-C-1-3' | 1-3 | 11/17/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC101** | PC101-1-3' | 1-3 | 6/30/04 | 8/7/04 | 11,400 | ND | ND | ND | ND | 11400 | ND | ND | ND |
| **PC102** | PC102-1-3' | 1-3 | 6/30/04 | 8/7/04 | 13,900 | ND | ND | ND | ND | 13900 | ND | ND | ND |
| | PC102-3-6.5' | 1-3 | 6/30/04 | 8/7/04 | 4,880 | ND | ND | ND | ND | 4880 | ND | ND | ND |
| **PC103** | PC103-1-3' | 1-3 | 6/30/04 | 8/2/04 | **49,100** | ND | ND | ND | ND | 49100 | ND | ND | ND |
| | PC103-3-6.5' | 3-6.5 | 6/30/04 | 8/2/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| **PC104** | PC104-1-3' | 1-3 | 6/30/04 | 8/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC105** | PC105-1-3' | 1-3 | 6/30/04 | 8/7/04 | 33,800 | ND | ND | ND | ND | 33800 | ND | ND | ND |
| **PC106** | PC106-1-3' | 1-3 | 6/30/04 | 8/7/04 | 5,180 | ND | ND | ND | ND | 5180 | ND | ND | ND |
| **PC107** | PC107-1-3' | 1-3 | 6/30/04 | 8/7/04 | 3,410 | ND | ND | ND | ND | 3410 | ND | ND | ND |
| **PC108** | PC108-1-3.5' | 1-3 | 6/30/04 | 8/7/04 | 1,840 | ND | ND | ND | ND | 1840 | ND | ND | ND |
| **Composite** | PC1014-PC108 | -- | 6/30/04 | 8/7/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| | PC1014-PC108MS | -- | 6/30/04 | 8/7/04 | 15,200 | ND | ND | ND | ND | 15200 | ND | ND | ND |
| | PC1014-PC108MSD | -- | 6/30/04 | 8/7/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| **PC109** | PC109-1-3' | 1-3 | 7/1/04 | 8/5/04 | 5,150 | ND | ND | ND | ND | 5150 | ND | ND | ND |
| **PC110** | PC110-1-3' | 1-3 | 7/1/04 | 8/5/04 | 14,500 | ND | ND | ND | ND | 14500 | ND | ND | ND |
| **PC111** | PC111-1-3' | 1-3 | 7/1/04 | 8/7/04 | 19,400 | ND | ND | ND | ND | 19400 | ND | ND | ND |
| **PC112** | PC112-1-3' | 1-3 | 7/1/04 | 8/5/04 | 11,400 | ND | ND | ND | ND | 11400 | ND | ND | ND |
| **PC113** | PC113-1-3' | 1-3 | 7/1/04 | 8/5/04 | 16,800 | ND | ND | ND | ND | 16800 | ND | ND | ND |
| | PC113-3-6.5' | 3-6.5 | 7/1/04 | 8/5/04 | 25,600 | ND | ND | ND | ND | 25600 | ND | ND | ND |
| **PC114** | PC114-1-3' | 1-3 | 7/1/04 | 8/5/04 | 9,700 | ND | ND | ND | ND | 9700 | ND | ND | ND |
| | PC114-1-3'MS | 1-3 | 7/1/04 | 8/5/04 | 18,700 | ND | ND | ND | ND | 18700 | ND | ND | ND |
| | PC114-1-3'MSD | 1-3 | 7/1/04 | 8/5/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| | PC114-3-6' | 3-6 | 7/1/04 | 8/5/04 | 6,190 | ND | ND | ND | ND | 6190 | ND | ND | ND |
| | Duplicate 47 (PC114-3-6') | 3-6 | 7/1/04 | 8/11/04 | 6,670 | ND | ND | ND | ND | 6670 | ND | ND | ND |
| **PC115** | PC115-1-3' | 1-3 | 7/1/04 | 8/7/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| | PC115-3-6.5' | 3-6.5 | 7/1/04 | 8/7/04 | 19,800 | ND | ND | ND | ND | 19800 | ND | ND | ND |
| **PC116** | PC116-1-3' | 1-3 | 7/1/04 | 8/8/04 | 5,490 | ND | ND | ND | ND | 5490 | ND | ND | ND |
| | PC116-3-7' | 3-7 | 7/1/04 | 8/8/04 | 9,710 | ND | ND | ND | ND | 9710 | ND | ND | ND |
| **PC117** | PC117-1-3' | 1-3 | 7/1/04 | 8/8/04 | 7,660 | ND | ND | ND | ND | 7660 | ND | ND | ND |
| | PC117-3-7' | 1-3 | 7/1/04 | 8/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC118** | PC118-1-3' | 1-3 | 7/1/04 | 8/8/04 | 5,100 | ND | ND | ND | ND | 5100 | ND | ND | ND |
| | PC118-3-7' | 3-7 | 7/1/04 | 8/8/04 | 8,840 | ND | ND | ND | ND | 8840 | ND | ND | ND |
| **PC119** | PC119-1-3' | 1-3 | 7/1/04 | 8/5/04 | 9,440 | ND | ND | ND | ND | 9440 | ND | ND | ND |
| | PC119-3-6.5' | 3-6.5 | 7/1/04 | 8/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC120** | PC120-1-3' | 1-3 | 7/1/04 | 8/5/04 | 9,240 | ND | ND | ND | ND | 9240 | ND | ND | ND |
| | PC120-3-6.5' | 3-6.5 | 7/1/04 | 8/5/04 | 3,770 | ND | ND | ND | ND | 3770 | ND | ND | ND |
| **PC121** | PC121-1-3' | 1-3 | 7/1/04 | 8/8/04 | 1,510 | ND | ND | ND | ND | 1510 | ND | ND | ND |
| | PC121-3-6.5' | 3-6.5 | 7/1/04 | 8/7/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC122** | PC122-1-3' | 1-3 | 7/1/04 | 8/7/04 | 3,880 | ND | ND | ND | ND | 3880 | ND | ND | ND |
| | PC122-3-6' | 3-6 | 7/1/04 | 8/7/04 | **187,000** | ND | ND | ND | ND | 187000 | ND | ND | ND |
| | PC122-1-3' | 1-3 | 8/26/04 | 9/1/04 | 2,400 | ND | ND | ND | ND | 2400 | ND | ND | ND |
| | PC122-3-6.5' | 3-6.5 | 8/26/04 | 9/8/04 | **260,000** | ND | ND | ND | ND | 260000 | ND | ND | ND |
| | PC122-6-9' | 6-9 | 9/9/04 | 9/14/04 | **2,960,000** | ND | ND | ND | ND | 2960000 | ND | ND | ND |
| | PC122-A-1-3' | 1-3 | 9/9/04 | 9/12/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-A-3-6' | 3-6 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-A-6-9' | 6-9 | 9/9/04 | 9/13/04 | **113,000** | ND | ND | ND | ND | 113000 | ND | ND | ND |
| | PC122-B-1-3' | 1-3 | 9/9/04 | 9/12/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-B-3-6' | 3-6 | 9/9/04 | 9/12/04 | 39,700 | ND | ND | ND | ND | 39700 | ND | ND | ND |
| | PC122-B-6-9' | 6-9 | 9/9/04 | 9/12/04 | **58,500** | ND | ND | ND | ND | 58500 | ND | ND | ND |
| | PC122-C-1-3' | 1-3 | 9/9/04 | 9/12/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-C-3-6' | 3-6 | 9/9/04 | 9/12/04 | **80,200** | ND | ND | ND | ND | 80200 | ND | ND | ND |
| | PC122-C-6-9' | 6-9 | 9/9/04 | 9/12/04 | **65,800** | ND | ND | ND | ND | 65800 | ND | ND | ND |
| | PC122-D-1-3' | 1-3 | 9/9/04 | 9/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-D-3-6' | 3-6 | 9/9/04 | 9/13/04 | **702,000** | ND | ND | ND | ND | 702000 | ND | ND | ND |
| | Duplicate 131 (PC122-D-3-6') | 3-6 | 9/9/04 | 9/13/04 | **544,000** | ND | ND | ND | ND | 544000 | ND | ND | ND |
| | PC122-D-6-9' | 6-9 | 9/9/04 | 9/12/04 | **83,800** | ND | ND | ND | ND | 83800 | ND | ND | ND |
| | PC122-E-1-3' | 1-3 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-E-3-6' | 3-6 | 9/9/04 | 9/13/04 | **67,700** | ND | ND | ND | ND | 67700 | ND | ND | ND |
| | PC122-E-6-9' | 6-9 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-F-1-3' | 1-3 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-F-3-6' | 3-6 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-F-6-9' | 6-9 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-G-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-G-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-G-6-9' | 6-9 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-H-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-H-3-6' | 3-6 | 9/9/04 | 9/14/04 | **74,300** | ND | ND | ND | ND | 74300 | ND | ND | ND |
| | PC122-H-6-8.5' | 6-8.5 | 9/9/04 | 9/14/04 | 22,300 | ND | ND | ND | ND | 22300 | ND | ND | ND |
| | PC122-I-1-3' | 1-3 | 10/15/04 | 10/27/04 | 8,410 | ND | ND | ND | ND | 8410 | ND | ND | ND |
| | PC122-I-3-6' | 3-6 | 10/15/04 | 10/19/04 | **101,000** | ND | ND | ND | ND | 101000 | ND | ND | ND |
| | PC122-I-6-10.5' | 6-10.5 | 10/15/04 | 10/19/04 | 36,000 | ND | ND | ND | ND | 36000 | ND | ND | ND |
| | PC122-J-1-3' | 1-3 | 10/15/04 | 10/27/04 | 1,700 | ND | ND | ND | ND | 1700 | ND | ND | ND |
| | PC122-J-3-6' | 3-6 | 10/15/04 | 10/19/04 | **49,800** | ND | ND | ND | ND | 49800 | ND | ND | ND |
| | PC122-J-6-10.75' | 6-10.75 | 10/15/04 | 10/19/04 | 7,900 | ND | ND | ND | ND | 7900 | ND | ND | ND |
| | PC122-K-3-6' | 3-6 | 10/15/04 | 10/19/04 | 17,300 | ND | ND | ND | ND | 17300 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC122-K-6-6.25' | 6-6.25 | 10/15/04 | 10/19/04 | 32,200 | ND | ND | ND | ND | 32200 | ND | ND | ND |
| | PC122-L-1-3' | 1-3 | 10/15/04 | 10/19/04 | 9,460 | ND | ND | ND | ND | 9460 | ND | ND | ND |
| | PC122-L-3-6' | 3-6 | 10/15/04 | 10/19/04 | **1,020,000** | ND | ND | ND | ND | 1020000 | ND | ND | ND |
| | PC122-L-6-10.75' | 6-10.75 | 10/15/04 | 10/19/04 | **66,800** | ND | ND | ND | ND | 66800 | ND | ND | ND |
| | PC122-M-1-3' | 1-3 | 10/15/04 | 10/20/04 | 5,320 | ND | ND | ND | ND | 5320 | ND | ND | ND |
| | PC122-M-3-6' | 3-6 | 10/15/04 | 10/20/04 | **269,000** | ND | ND | ND | ND | 269000 | ND | ND | ND |
| | PC122-M-6-10.5' | 6-10.5 | 10/15/04 | 10/20/04 | 7,990 | ND | ND | ND | ND | 7990 | ND | ND | ND |
| | PC122-N-3-6' | 3-6 | 10/28/04 | 10/30/04 | 10,700 | ND | ND | ND | ND | 10700 | ND | ND | ND |
| | PC122-O-1-3' | 1-3 | 10/28/04 | 11/7/04 | 4,430 | ND | ND | ND | ND | 4430 | ND | ND | ND |
| | PC122-O-3-6' | 3-6 | 10/28/04 | 10/30/04 | **134,000** | ND | ND | ND | ND | 134000 | ND | ND | ND |
| | PC122-O-6-9.5' | 6-9.5 | 10/28/04 | 11/7/04 | 3,770 | ND | ND | ND | ND | 3770 | ND | ND | ND |
| | PC122-P-3-6' | 3-6 | 10/28/04 | 10/30/04 | **68,200** | ND | ND | ND | ND | 68200 | ND | ND | ND |
| | PC122-Q-3-6' | 3-6 | 10/28/04 | 10/30/04 | 25,100 | ND | ND | ND | ND | 25100 | ND | ND | ND |
| | PC122-R-3-6' | 3-6 | 10/28/04 | 10/30/04 | **89,400** | ND | ND | ND | ND | 89400 | ND | ND | ND |
| | PC122-S-3-6' | 3-6 | 10/28/04 | 10/30/04 | **62,000** | ND | ND | ND | ND | 62000 | ND | ND | ND |
| | PC122-T-3-6' | 3-6 | 10/28/04 | 10/30/04 | 5,090 | ND | ND | ND | ND | 5090 | ND | ND | ND |
| | PC122-U-3-6' | 3-6 | 11/2/04 | 11/3/04 | **60,300** | ND | ND | ND | ND | 60300 | ND | ND | ND |
| | PC122-V-1-3' | 1-3 | 11/2/04 | 11/10/04 | 14,300 | ND | ND | ND | ND | 14300 | ND | ND | ND |
| | PC122-V-3-6' | 3-6 | 11/2/04 | 11/3/04 | **127,000** | ND | ND | ND | ND | 127000 | ND | ND | ND |
| | Duplicate 180 (PC122-V-3-6') | 3-6 | 11/2/04 | 11/3/04 | **146,000** | ND | ND | ND | ND | 146000 | ND | ND | ND |
| | PC122-V-6-10' | 6-10 | 11/2/04 | 11/10/04 | 6,790 | ND | ND | ND | ND | 6790 | ND | ND | ND |
| | PC122-W-3-6' | 3-6 | 11/2/04 | 11/3/04 | 21,400 | ND | ND | ND | ND | 21400 | ND | ND | ND |
| | PC122-X-3-6' | 3-6 | 12/2/04 | 12/4/04 | 11,100 | ND | ND | ND | ND | 11100 | ND | ND | ND |
| | PC122-Y-3-6' | 3-6 | 12/2/04 | 12/4/04 | 23,100 | ND | ND | ND | ND | 23100 | ND | ND | ND |
| | PC122-Z-3-6' | 3-6 | 12/2/04 | 12/4/04 | 1,960 | ND | ND | ND | ND | 1960 | ND | ND | ND |
| **PC123** | PC123-1-3' | 1-3 | 7/1/04 | 8/8/04 | 1,280 | ND | ND | ND | ND | 1280 | ND | ND | ND |
| | PC123-3-7' | 3-7 | 7/1/04 | 8/8/04 | 9,030 | ND | ND | ND | ND | 9030 | ND | ND | ND |
| **PC124** | PC124-1-3' | 1-3 | 7/1/04 | 8/8/04 | 9,740 | ND | ND | ND | ND | 9740 | ND | ND | ND |
| | Duplicate 48 (PC124-1-3') | 1-3 | 7/1/04 | 8/11/04 | 9,360 | ND | ND | ND | ND | 9360 | ND | ND | ND |
| | PC124-3-7' | 3-7 | 7/1/04 | 8/8/04 | 3,720 | ND | ND | ND | ND | 3720 | ND | ND | ND |
| | PC124-3-7'MS | 3-7 | 7/1/04 | 8/8/04 | 6,680 | ND | ND | ND | ND | 6680 | ND | ND | ND |
| | PC124-3-7'MSD | 3-7 | 7/1/04 | 8/8/04 | 13,700 | ND | ND | ND | ND | 13700 | ND | ND | ND |
| **PC125** | PC125-1-3' | 1-3 | 7/1/04 | 8/5/04 | 8,280 | ND | ND | ND | ND | 8280 | ND | ND | ND |
| | PC125-3-6.5' | 3-6.5 | 7/1/04 | 8/5/04 | 5,050 | ND | ND | ND | ND | 5050 | ND | ND | ND |
| **PC126** | PC126-1-3' | 1-3 | 7/1/04 | 8/7/04 | 8,910 | ND | ND | ND | ND | 8910 | ND | ND | ND |
| | PC126-3-6' | 3-6 | 7/1/04 | 8/7/04 | 9,640 | ND | ND | ND | ND | 9640 | ND | ND | ND |
| **PC127** | PC127-1-3' | 1-3 | 7/1/04 | 8/8/04 | 9,670 | ND | ND | ND | ND | 9670 | ND | ND | ND |
| | PC127-3-6.5' | 3-6.5 | 7/1/04 | 8/8/04 | 23,900 | ND | ND | ND | ND | 23900 | ND | ND | ND |
| **PC128** | PC128-1-3' | 1-3 | 7/1/04 | 8/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC128-3-7' | 3-7 | 7/1/04 | 8/11/04 | 2,400 | ND | ND | ND | ND | 2400 | ND | ND | ND |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC129** | PC129-1-3' | 1-3 | 7/1/04 | 8/11/04 | 26,600 | ND | ND | ND | ND | 26600 | ND | ND | ND |
| | PC129-3-7' | 3-7 | 7/1/04 | 8/11/04 | 8,800 | ND | ND | ND | ND | 8800 | ND | ND | ND |
| **PC130** | PC130-1-3' | 1-3 | 7/1/04 | 8/11/04 | 11,400 | ND | ND | ND | ND | 11400 | ND | ND | ND |
| | PC130-3-7' | 3-7 | 7/1/04 | 8/11/04 | 6,320 | ND | ND | ND | ND | 6320 | ND | ND | ND |
| **PC131** | PC131-1-3' | 1-3 | 7/1/04 | 8/11/04 | 23,600 | ND | ND | ND | ND | 23600 | ND | ND | ND |
| | PC131-3-6.5' | 3-6.5 | 7/1/04 | 8/11/04 | 10,400 | ND | ND | ND | ND | 10400 | ND | ND | ND |
| **PC132** | PC132-1-3' | 1-3 | 7/1/04 | 8/10/04 | 9,730 | ND | ND | ND | ND | 9730 | ND | ND | ND |
| | PC132-3-6.5' | 3-6.5 | 7/1/04 | 8/10/04 | 5,420 | ND | ND | ND | ND | 5420 | ND | ND | ND |
| **PC133** | PC133-1-3' | 1-3 | 7/1/04 | 8/10/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| | PC133-3-6.5' | 3-6.5 | 7/1/04 | 8/10/04 | 8,600 | ND | ND | ND | ND | 8600 | ND | ND | ND |
| **PC134** | PC134-1-3' | 1-3 | 7/1/04 | 8/7/04 | 2,750 | ND | ND | ND | ND | 2750 | ND | ND | ND |
| | PC134-1-3'MS | 1-3 | 7/1/04 | 8/7/04 | 9,120 | ND | ND | ND | ND | 9120 | ND | ND | ND |
| | PC134-1-3'MSD | 1-3 | 7/1/04 | 8/7/04 | 6,250 | ND | ND | ND | ND | 6250 | ND | ND | ND |
| | PC134-3-6' | 3-6 | 7/1/04 | 8/7/04 | 13,100 | ND | ND | ND | ND | 13100 | ND | ND | ND |
| | Duplicate 49 (PC134-3-6') | 3-6 | 7/1/04 | 8/11/04 | 8,290 | ND | ND | ND | ND | 8290 | ND | ND | ND |
| **PC135** | PC135-1-3' | 1-3 | 7/1/04 | 8/11/04 | 5,900 | ND | ND | ND | ND | 5900 | ND | ND | ND |
| | PC135-3-6.5' | 3-6.5 | 7/1/04 | 8/11/04 | 4,790 | ND | ND | ND | ND | 4790 | ND | ND | ND |
| | PC135-1-3' | 1-3 | 8/26/04 | 9/1/04 | 13,800 | ND | ND | ND | ND | 13800 | ND | ND | ND |
| | PC135-3-6.5' | 3-6.5 | 8/26/04 | 9/1/04 | 25,000 | ND | ND | ND | ND | 25000 | ND | ND | ND |
| **PC136** | PC136-1-3' | 1-3 | 7/1/04 | 8/11/04 | 27,000 | ND | ND | ND | ND | 27000 | ND | ND | ND |
| **PC137** | PC137-1-3' | 1-3 | 7/1/04 | 8/10/04 | 24,900 | ND | ND | ND | ND | 24900 | ND | ND | ND |
| **PC138** | PC138-1-3' | 1-3 | 7/1/04 | 8/10/04 | 9,690 | ND | ND | ND | ND | 9690 | ND | ND | ND |
| **PC139** | PC139-1-3' | 1-3 | 7/1/04 | 8/7/04 | 9,800 | ND | ND | ND | ND | 9800 | ND | ND | ND |
| | PC139-3-6' | 3-6 | 7/1/04 | 8/7/04 | 10,800 | ND | ND | ND | ND | 10800 | ND | ND | ND |
| **PC140** | PC140-1-3' | 1-3 | 7/1/04 | 8/11/04 | 7,790 | ND | ND | ND | ND | 7790 | ND | ND | ND |
| **PC141** | PC141-3.5' | 1-3.5 | 7/1/04 | 8/11/04 | 12,500 | ND | ND | ND | ND | 12500 | ND | ND | ND |
| **PC142** | PC142-1-3.5' | 1-3.5 | 7/1/04 | 8/11/04 | 8,220 | ND | ND | ND | ND | 8220 | ND | ND | ND |
| | PC142-3.5-7' | 3.5-7 | 11/17/04 | 11/18/04 | 17,400 | ND | ND | ND | ND | 17400 | ND | ND | ND |
| **PC143** | PC143-1-3' | 1-3 | 7/1/04 | 8/11/04 | 8,440 | ND | ND | ND | ND | 8440 | ND | ND | ND |
| | PC143-3-6.5' | 3-6.5 | 7/1/04 | 8/11/04 | 6,140 | ND | ND | ND | ND | 6140 | ND | ND | ND |
| | PC143-1-3' | 1-3 | 8/26/04 | 9/1/04 | 2,160 | ND | ND | ND | ND | 2160 | ND | ND | ND |
| | PC143-3-6.5' | 3-6.5 | 8/26/04 | 9/1/04 | 23,500 | ND | ND | ND | ND | 23500 | ND | ND | ND |
| **PC144** | PC144-1-3' | 1-3 | 7/1/04 | 8/11/04 | 7,010 | ND | ND | ND | ND | 7010 | ND | ND | ND |
| | PC144-3-7' | 3-7 | 11/17/04 | 11/18/04 | 3,700 | ND | ND | ND | ND | 3700 | ND | ND | ND |
| **PC145** | PC145-1-3' | 1-3 | 7/1/04 | 8/11/04 | 2,490 | ND | ND | ND | ND | 2490 | ND | ND | ND |
| | PC145-3-7' | 3-7 | 11/17/04 | 11/18/04 | 3,970 | ND | ND | ND | ND | 3970 | ND | ND | ND |
| **PC146** | PC146-1-3.5' | 1-3.5 | 7/1/04 | 8/10/04 | 1,690 | ND | ND | ND | ND | 1690 | ND | ND | ND |
| | PC146-3.5-7' | 3.5-7 | 11/17/04 | 11/18/04 | 8,250 | ND | ND | ND | ND | 8250 | ND | ND | ND |
| | PC147-1-3' | 1-3 | 7/1/04 | 8/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 50 (PC147-1-3') | 1-3 | 7/1/04 | 8/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC147** | PC147-3-6' | 3-6 | 7/1/04 | 8/10/04 | 3,420 | ND | ND | ND | ND | 3420 | ND | ND | ND |
| | PC147-3-6'MS | 3-6 | 7/1/04 | 8/10/04 | 5,830 | ND | ND | ND | ND | 5830 | ND | ND | ND |
| | PC147-3-6'MSD | 3-6 | 7/1/04 | 8/10/04 | 5,440 | ND | ND | ND | ND | 5440 | ND | ND | ND |
| **PC148** | PC148-1-3' | 1-3 | 7/1/04 | 8/11/04 | 19,200 | ND | ND | ND | ND | 19200 | ND | ND | ND |
| | PC148-3-7' | 3-7 | 11/17/04 | 11/18/04 | 19,700 | ND | ND | ND | ND | 19700 | ND | ND | ND |
| **PC149** | PC149-1-3.5' | 1-3.5 | 7/1/04 | 8/10/04 | 26,400 | ND | ND | ND | ND | 26400 | ND | ND | ND |
| | PC149-3.5-7' | 3.5-7 | 11/17/04 | 11/18/04 | 7,170 | ND | ND | ND | ND | 7170 | ND | ND | ND |
| **PC150** | PC150-1-3' | 1-3 | 7/1/04 | 8/10/04 | 19,800 | ND | ND | ND | ND | 19800 | ND | ND | ND |
| **PC151** | PC151-1-3' | 1-3 | 7/1/04 | 8/10/04 | 2,800 | ND | ND | ND | ND | 2800 | ND | ND | ND |
| **PC152** | PC152-1-3' | 1-3 | 7/1/04 | 8/10/04 | 46,000 | ND | ND | ND | ND | 46000 | ND | ND | ND |
| **PC153** | PC153-1-3' | 1-3 | 8/25/04 | 9/2/04 | 16,500 | ND | ND | ND | ND | 16500 | ND | ND | ND |
| | PC153-3-6' | 3-6 | 8/25/04 | 9/1/04 | 4,450 | ND | ND | ND | ND | 4450 | ND | ND | ND |
| **PC154** | PC154-1-5' | 1-5 | 7/20/04 | 8/31/04 | 28,500 | ND | ND | ND | ND | 28500 | ND | ND | ND |
| | PC154-5-6.5' | 5-6.5 | 11/17/04 | 11/18/04 | 10,700 | ND | ND | ND | ND | 10700 | ND | ND | ND |
| **PC155** | PC155-1-3' | 1-3 | 7/20/04 | 8/31/04 | 5,280 | ND | ND | ND | ND | 5280 | ND | ND | ND |
| | PC155-3-5.5' | 3-5.5 | 7/20/04 | 8/31/04 | 8,830 | ND | ND | ND | ND | 8830 | ND | ND | ND |
| | PC155-5.5-7' | 5.5-7 | 11/17/04 | 11/18/04 | 9,200 | ND | ND | ND | ND | 9200 | ND | ND | ND |
| **PC156** | PC156-1-3' | 1-3 | 7/20/04 | 8/31/04 | 9,270 | ND | ND | ND | ND | 9270 | ND | ND | ND |
| **PC157** | PC157-1-3.5' | 1-3.5 | 7/20/04 | 8/14/04 | 12,500 | ND | ND | ND | ND | 12500 | ND | ND | ND |
| **PC158** | PC158-1-3' | 1-3 | 7/20/04 | 8/31/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| | PC158-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 27,800 | ND | ND | ND | ND | 27800 | ND | ND | ND |
| **PC159** | PC159-1-4' | 1-4 | 7/20/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC159-4-7' | 4-7 | 7/20/04 | 8/31/04 | 1,430 | ND | ND | ND | ND | 1430 | ND | ND | ND |
| **PC160** | PC160-1-4' | 1-4 | 7/20/04 | 8/14/04 | 1,840 | ND | ND | ND | ND | 1840 | ND | ND | ND |
| | Duplicate 51 (PC160-1-4') | 1-4 | 7/20/04 | 9/4/04 | 2,883 | ND | ND | ND | ND | 2883 | ND | ND | ND |
| | PC160-4-7' | 4-7 | 7/20/04 | 8/14/04 | 5,640 | ND | ND | ND | ND | 5640 | ND | ND | ND |
| | PC160-4-7'MS | 4-7 | 7/20/04 | 8/14/04 | 12,400 | ND | ND | ND | ND | 12400 | ND | ND | ND |
| | PC160-4-7'MSD | 4-7 | 7/20/04 | 8/13/04 | 14,200 | ND | ND | ND | ND | 14200 | ND | ND | ND |
| **PC161** | PC161-1-3' | 1-3 | 7/20/04 | 8/13/04 | 2,620 | ND | ND | ND | ND | 2620 | ND | ND | ND |
| | PC161-3-6.5' | 3-6.5 | 7/20/04 | 8/13/04 | 3,850 | ND | ND | ND | ND | 3850 | ND | ND | ND |
| **PC162** | PC162-1-3' | 1-3 | 7/20/04 | 8/31/04 | 3,910 | ND | ND | ND | ND | 3910 | ND | ND | ND |
| | PC162-3-6.5' | 3-6.5 | 7/20/04 | 8/13/04 | 2,144 | ND | ND | ND | ND | 2144 | ND | ND | ND |
| **PC163** | PC163-1-4' | 1-4 | 7/20/04 | 8/31/04 | 8,840 | ND | ND | ND | ND | 8840 | ND | ND | ND |
| | PC163-4-7' | 4-7 | 7/20/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC164-1-3' | 1-3 | 7/20/04 | 8/31/04 | **107,200** | ND | ND | ND | ND | 107200 | ND | ND | ND |
| | PC164-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 9,194 | ND | ND | ND | ND | 9194 | ND | ND | ND |
| | PC164-A-1-3' | 1-3 | 10/28/04 | 10/30/04 | 20,800 | ND | ND | ND | ND | 20800 | ND | ND | ND |
| | PC164-A-3-6.5' | 3-6.5 | 10/28/04 | 10/30/04 | 1,350 | ND | ND | ND | ND | 1350 | ND | ND | ND |
| | PC164-B-1-3' | 1-3 | 10/28/04 | 10/30/04 | 12,200 | ND | ND | ND | ND | 12200 | ND | ND | ND |
| | PC164-B-3-6.5' | 3-6.5 | 10/28/04 | 10/30/04 | 2,650 | ND | ND | ND | ND | 2650 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC164** | PC164-C-1-3' | 1-3 | 10/28/04 | 10/30/04 | 8,620 | ND | ND | ND | ND | 8620 | ND | ND | ND |
| | Duplicate 173 (PC164-C-1-3' | 1-3 | 10/28/04 | 10/30/04 | 9,840 | ND | ND | ND | ND | 9840 | ND | ND | ND |
| | PC164-C-3-6.5' | 3-6.5 | 10/28/04 | 10/30/04 | 2,260 | ND | ND | ND | ND | 2260 | ND | ND | ND |
| | PC164-C-3-6.5'MS | 3-6.5 | 10/28/04 | 10/30/04 | 2,070 | ND | ND | ND | ND | 2070 | ND | ND | ND |
| | PC164-C-3-6.5'MSD | 3-6.5 | 10/28/04 | 10/30/04 | 2,460 | ND | ND | ND | ND | 2460 | ND | ND | ND |
| | PC164-D-1-3' | 1-3 | 10/28/04 | 10/30/04 | **50,300** | ND | ND | ND | ND | 50300 | ND | ND | ND |
| | PC164-D-3-6.5' | 3-6.5 | 10/28/04 | 10/30/04 | 2,480 | ND | ND | ND | ND | 2480 | ND | ND | ND |
| | PC164-E-1-3' | 1-3 | 12/2/04 | 12/4/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| | PC164-F-1-3' | 1-3 | 12/2/04 | 12/4/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| **PC165** | PC165-1-3' | 1-3 | 8/25/04 | 9/1/04 | 5,110 | ND | ND | ND | ND | 5110 | ND | ND | ND |
| | PC165-3-6' | 3-6 | 8/25/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC166** | PC166-1-4' | 1-4 | 7/20/04 | 8/31/04 | 4,740 | ND | ND | ND | ND | 4740 | ND | ND | ND |
| | PC166-4-7' | 1-4 | 7/20/04 | 8/31/04 | 2,410 | ND | ND | ND | ND | 2410 | ND | ND | ND |
| **PC167** | PC167-1-3' | 1-3 | 7/20/04 | 8/31/04 | 4,870 | ND | ND | ND | ND | 4870 | ND | ND | ND |
| | PC167-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 3,750 | ND | ND | ND | ND | 3750 | ND | ND | ND |
| **PC168** | PC168-1-3' | 1-3 | 7/20/04 | 8/31/04 | 5,590 | ND | ND | ND | ND | 5590 | ND | ND | ND |
| | PC168-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 22,000 | ND | ND | ND | ND | 22000 | ND | ND | ND |
| **PC169** | PC169-1-3' | 1-3 | 7/20/04 | 8/31/04 | 664 | ND | ND | ND | ND | 664 | ND | ND | ND |
| | PC169-1-3'MS | 1-3 | 7/20/04 | 8/31/04 | 7,450 | ND | ND | ND | ND | 7450 | ND | ND | ND |
| | PC169-1-3'MSD | 1-3 | 7/20/04 | 8/31/04 | 6,560 | ND | ND | ND | ND | 6560 | ND | ND | ND |
| | PC169-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 19,200 | ND | ND | ND | ND | 19200 | ND | ND | ND |
| | Duplicate 52 (PC169-3-6.5') | 3-6.5 | 7/20/04 | 9/4/04 | 42,300 | ND | ND | ND | ND | 42300 | ND | ND | ND |
| **PC170** | PC170-1-4' | 1-4 | 7/20/04 | 8/31/04 | 24,600 | ND | ND | ND | ND | 24600 | ND | ND | ND |
| | PC170-4-7' | 4-7 | 7/20/04 | 8/31/04 | 11,100 | ND | ND | ND | ND | 11100 | ND | ND | ND |
| **PC171** | PC171-1-4' | 1-4 | 7/20/04 | 8/31/04 | 1,530 | ND | ND | ND | ND | 1530 | ND | ND | ND |
| | PC171-4-7' | 4-7 | 7/20/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC172** | PC172-1-4' | 1-4 | 7/20/04 | 8/31/04 | 4,660 | ND | ND | ND | ND | 4660 | ND | ND | ND |
| | PC172-4-7' | 4-7 | 7/20/04 | 8/31/04 | 8,520 | ND | ND | ND | ND | 8520 | ND | ND | ND |
| **PC173** | PC173-1-4' | 1-4 | 7/20/04 | 8/31/04 | 3,350 | ND | ND | ND | ND | 3350 | ND | ND | ND |
| | PC173-4-7' | 4-7 | 7/20/04 | 8/31/04 | 2,920 | ND | ND | ND | ND | 2920 | ND | ND | ND |
| **PC174** | PC174-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,460 | ND | ND | ND | ND | 5460 | ND | ND | ND |
| **PC175** | PC175-1-3' | 1-3 | 7/20/04 | 9/4/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| **PC176** | PC176-1-3' | 1-3 | 7/20/04 | 9/4/04 | **77,300** | ND | ND | ND | ND | 77300 | ND | ND | ND |
| **PC177** | PC177-1-3' | 1-3 | 8/25/04 | 9/1/04 | 20,100 | ND | ND | ND | ND | 20100 | ND | ND | ND |
| | PC177-3-6' | 3-6 | 8/25/04 | 9/1/04 | 4,920 | ND | ND | ND | ND | 4920 | ND | ND | ND |
| **PC178** | PC178-1-4' | 1-4 | 7/20/04 | 9/4/04 | 10,900 | ND | ND | ND | ND | 10900 | ND | ND | ND |
| | PC178-4-7' | 4-7 | 7/20/04 | 9/4/04 | 6,140 | ND | ND | ND | ND | 6140 | ND | ND | ND |
| **PC179** | PC179-1-3' | 1-3 | 7/20/04 | 9/4/04 | 7,000 | ND | ND | ND | ND | 7000 | ND | ND | ND |
| | Duplicate 54 (PC179-1-3') | 1-3 | 7/20/04 | 9/4/04 | 6,390 | ND | ND | ND | ND | 6390 | ND | ND | ND |
| | PC179-3-6.5' | 3-6.5 | 7/20/04 | 9/4/04 | 7,500 | ND | ND | ND | ND | 7500 | ND | ND | ND |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC179-3-6.5'MS | 3-6.5 | 7/20/04 | 9/4/04 | 5,520 | ND | ND | ND | ND | 5520 | ND | ND | ND |
| | PC179-3-6.5'MSD | 3-6.5 | 7/20/04 | 9/4/04 | 1,650 | ND | ND | ND | ND | 1650 | ND | ND | ND |
| **PC180** | PC180-1-4' | 1-4 | 10/28/04 | 10/30/04 | 2,340 | ND | ND | ND | ND | 2340 | ND | ND | ND |
| | PC180-4-8' | 4-8 | 10/28/04 | 10/30/04 | 2,140 | ND | ND | ND | ND | 2140 | ND | ND | ND |
| | PC180-8-10.5' | 8-10.5 | 10/28/04 | 10/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC181** | PC181-1-3' | 1-3 | 8/25/04 | 8/31/04 | 3,510 | ND | ND | ND | ND | 3510 | ND | ND | ND |
| | PC181-3-6' | 3-6 | 8/25/04 | 8/31/04 | 3,520 | ND | ND | ND | ND | 3520 | ND | ND | ND |
| **PC182** | PC182-1-3 | 1-3 | 7/21/04 | 8/17/04 | 26,400 | ND | ND | ND | ND | 26400 | ND | ND | ND |
| | PC182-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 44,700 | ND | ND | ND | ND | 44700 | ND | ND | ND |
| **PC183** | PC183-1-3' | 1-3 | 7/21/04 | 8/17/04 | 2,090 | ND | ND | ND | ND | 2090 | ND | ND | ND |
| | PC183-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | **48,300** | ND | ND | ND | ND | 48300 | ND | ND | ND |
| **PC184** | PC184-1-4' | 1-4 | 7/21/04 | 8/17/04 | 13,100 | ND | ND | ND | ND | 13100 | ND | ND | ND |
| | PC184-4-7' | 4-7 | 7/21/04 | 8/17/04 | 11,900 | ND | ND | ND | ND | 11900 | ND | ND | ND |
| **PC185** | PC185-1-4' | 1-4 | 7/21/04 | 8/17/04 | 10,700 | ND | ND | ND | ND | 10700 | ND | ND | ND |
| | PC185-4-7' | 4-7 | 7/21/04 | 8/17/04 | 1,770 | ND | ND | ND | ND | 1770 | ND | ND | ND |
| **PC186** | PC186-1-4' | 1-4 | 7/21/04 | 8/17/04 | 7,940 | ND | ND | ND | ND | 7940 | ND | ND | ND |
| | PC186-4-7' | 4-7 | 7/21/04 | 8/17/04 | 6,280 | ND | ND | ND | ND | 6280 | ND | ND | ND |
| **PC187** | PC187-1-4' | 1-4 | 7/21/04 | 8/17/04 | 3,660 | ND | ND | ND | ND | 3660 | ND | ND | ND |
| | PC187-4-7' | 4-7 | 7/21/04 | 8/17/04 | 5,620 | ND | ND | ND | ND | 5620 | ND | ND | ND |
| **PC188** | PC188-1-4' | 1-4 | 7/20/04 | 9/4/04 | 3,590 | ND | ND | ND | ND | 3590 | ND | ND | ND |
| | PC188-4-7' | 4-7 | 7/20/04 | 9/4/04 | 5,180 | ND | ND | ND | ND | 5180 | ND | ND | ND |
| **PC189** | PC189-1-4' | 1-4 | 7/20/04 | 9/4/04 | 4,540 | ND | ND | ND | ND | 4540 | ND | ND | ND |
| | Duplicate 55 (PC189-1-4') | 1-4 | 7/20/04 | 9/4/04 | 5,030 | ND | ND | ND | ND | 5030 | ND | ND | ND |
| | PC189-4-7' | 4-7 | 7/20/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC189-4-7'MS | 4-7 | 7/20/04 | 9/4/04 | 9,200 | ND | ND | ND | ND | 9200 | ND | ND | ND |
| | PC189-4-7'MSD | 4-7 | 7/20/04 | 9/4/04 | 11,000 | ND | ND | ND | ND | 11000 | ND | ND | ND |
| **PC190** | PC190-1-3' | 1-3 | 7/21/04 | 8/17/04 | 3,620 | ND | ND | ND | ND | 3620 | ND | ND | ND |
| | PC190-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | **959,000** | ND | ND | ND | ND | 959000 | ND | ND | ND |
| | PC190-6.5-10' | 6.5-10 | 9/22/04 | 9/29/04 | 4,190 | ND | ND | ND | ND | 4190 | ND | ND | ND |
| | Duplicate 141 (PC190-6.5-10') | 6.5-10 | 9/22/04 | 9/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC190-A-1-3' | 1-3 | 9/22/04 | 9/29/04 | 4,590 | ND | ND | ND | ND | 4590 | ND | ND | ND |
| | PC190-A-3-6.5' | 3-6.5 | 9/22/04 | 9/29/04 | 44,300 | ND | ND | ND | ND | 44300 | ND | ND | ND |
| | PC190-A-6.5-10' | 6.5-10 | 9/22/04 | 9/29/04 | 2,700 | ND | ND | ND | ND | 2700 | ND | ND | ND |
| | PC190-B-1-3' | 1-3 | 9/22/04 | 9/29/04 | 46,100 | ND | ND | ND | ND | 46100 | ND | ND | ND |
| | PC190-B-3-6.5' | 3-6.5 | 9/22/04 | 9/29/04 | 9,580 | ND | ND | ND | ND | 9580 | ND | ND | ND |
| | PC190-B-6.5-10' | 6.5-10 | 9/22/04 | 9/29/04 | 20,800 | ND | ND | ND | ND | 20800 | ND | ND | ND |
| | PC190-C-1-3' | 1-3 | 9/23/04 | 9/29/04 | 4,480 | ND | ND | ND | ND | 4480 | ND | ND | ND |
| | PC190-C-3-6.5' | 3-6.5 | 9/23/04 | 9/29/04 | 2,780 | ND | ND | ND | ND | 2780 | ND | ND | ND |
| | PC190-C-6.5-12' | 6.5-12 | 9/23/04 | 9/29/04 | 27,400 | ND | ND | ND | ND | 27400 | ND | ND | ND |
| | PC190-D-1-3' | 1-3 | 9/22/04 | 9/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC190-D-3-6.5' | 3-6.5 | 9/22/04 | 9/29/04 | 28,500 | ND | ND | ND | ND | 28500 | ND | ND | ND |
| | PC190-D-3-6.5'MS | 3-6.5 | 9/22/04 | 9/29/04 | 25,000 | ND | ND | ND | ND | 25000 | ND | ND | ND |
| | PC190-D-3-6.5'MSD | 3-6.5 | 9/22/04 | 9/29/04 | 33,600 | ND | ND | ND | ND | 33600 | ND | ND | ND |
| | PC190-D-6.5-10.5' | 6.5-10.5 | 9/22/04 | 9/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC191** | PC191-1-3' | 1-3 | 7/21/04 | 8/17/04 | **236,000** | ND | ND | ND | ND | 236000 | ND | ND | ND |
| | PC191-3-6' | 3-6 | 9/23/04 | 9/29/04 | 11,000 | ND | ND | ND | ND | 11000 | ND | ND | ND |
| | Duplicate 167 (PC191-3-6') | 3-6 | 10/20/04 | 10/25/04 | 19,500 | ND | ND | ND | ND | 19500 | ND | ND | ND |
| | PC191-6-10' | 6-10 | 9/23/04 | 9/29/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| | PC191-A-1-3' | 1-3 | 9/23/04 | 9/29/04 | **1,685,000** | ND | ND | ND | ND | 495000 | 1190000 | ND | ND |
| | Duplicate 142 (PC191-A-1-3') | 1-3 | 9/23/04 | 9/29/04 | **92,700** | ND | ND | ND | ND | 92700 | ND | ND | ND |
| | PC191-A-3-6' | 3-6 | 9/23/04 | 9/29/04 | **94,000** | ND | ND | ND | ND | 94000 | ND | ND | ND |
| | PC191-A-3-6'MS | 3-6 | 9/23/04 | 10/1/04 | **254,700** | ND | ND | ND | ND | 254700 | ND | ND | ND |
| | PC191-A-3-6'MSD | 3-6 | 9/23/04 | 10/1/04 | **367,000** | ND | ND | ND | ND | 367000 | ND | ND | ND |
| | PC191-B-1-3' | 1-3 | 9/23/04 | 9/29/04 | 3,800 | ND | ND | ND | ND | 3800 | ND | ND | ND |
| | PC191-B-3-6' | 3-6 | 9/23/04 | 9/29/04 | 10,400 | ND | ND | ND | ND | 10400 | ND | ND | ND |
| | PC191-C-1-3' | 1-3 | 9/23/04 | 9/29/04 | 9,380 | ND | ND | ND | ND | 9380 | ND | ND | ND |
| | PC191-C-3-6' | 3-6 | 9/23/04 | 9/29/04 | 31,100 | ND | ND | ND | ND | 31100 | ND | ND | ND |
| | PC191-D-1-3' | 1-3 | 9/23/04 | 9/29/04 | 2,860 | ND | ND | ND | ND | 2860 | ND | ND | ND |
| | PC191-D-3-6' | 3-6 | 9/23/04 | 9/29/04 | **664,000** | ND | ND | ND | ND | 664000 | ND | ND | ND |
| | PC191-E-1-3' | 1-3 | 10/15/04 | 10/20/04 | 2,020 | ND | ND | ND | ND | 2020 | ND | ND | ND |
| | PC191-E-1-3'MS | 1-3 | 10/15/04 | 10/20/04 | 6,790 | ND | ND | ND | ND | 6790 | ND | ND | ND |
| | PC191-E-1-3'MSD | 1-3 | 10/15/04 | 10/20/04 | 4,710 | ND | ND | ND | ND | 4710 | ND | ND | ND |
| | PC191-E-3-6' | 3-6 | 10/15/04 | 10/20/04 | 42,100 | ND | ND | ND | ND | 42100 | ND | ND | ND |
| | Duplicate 166 (PC191-E-3-6') | 3-6 | 10/15/04 | 10/20/04 | 36,800 | ND | ND | ND | ND | 36800 | ND | ND | ND |
| | PC191-F-1-3' | 1-3 | 10/20/04 | 10/25/04 | 5,350 | ND | ND | ND | ND | 5350 | ND | ND | ND |
| | PC191-F-3-6' | 3-6 | 10/20/04 | 10/25/04 | 16,700 | ND | ND | ND | ND | 16700 | ND | ND | ND |
| | PC191-F-6-10.5' | 6-10.5 | 10/20/04 | 10/25/04 | 26,000 | ND | ND | ND | ND | 26000 | ND | ND | ND |
| | PC191-G-1-3' | 1-3 | 10/15/04 | 10/27/04 | **78,400** | ND | ND | ND | ND | 78400 | ND | ND | ND |
| | PC191-G-3-6' | 3-6 | 10/15/04 | 10/20/04 | **57,500** | ND | ND | ND | ND | 57500 | ND | ND | ND |
| | PC191-G-6-9' | 6-9 | 10/15/04 | 10/20/04 | 29,000 | ND | ND | ND | ND | 29000 | ND | ND | ND |
| | PC191-H-1-3' | 1-3 | 10/20/04 | 10/25/04 | 15,100 | ND | ND | ND | ND | 15100 | ND | ND | ND |
| | PC191-H-3-6' | 3-6 | 10/20/04 | 10/26/04 | 19,100 | ND | ND | ND | ND | 19100 | ND | ND | ND |
| | PC191-H-6-10.5' | 6-10.5 | 10/20/04 | 10/26/04 | 3,990 | ND | ND | ND | ND | 3990 | ND | ND | ND |
| | PC191-I-1-3' | 1-3 | 10/15/04 | 10/20/04 | 7,380 | ND | ND | ND | ND | 7380 | ND | ND | ND |
| | PC191-I-3-6' | 3-6 | 10/15/04 | 10/20/04 | 6,800 | ND | ND | ND | ND | 6800 | ND | ND | ND |
| | PC191-I-6-10.75' | 6-10.75 | 10/15/04 | 10/20/04 | 2,910 | ND | ND | ND | ND | 2910 | ND | ND | ND |
| | PC191-I-1-3' | 1-3 | 10/20/04 | 10/26/04 | 7,400 | ND | ND | ND | ND | 7400 | ND | ND | ND |
| | PC191-I-3-6' | 3-6 | 10/20/04 | 10/26/04 | **67,900** | ND | ND | ND | ND | 67900 | ND | ND | ND |
| | PC191-I-6-10.75' | 6-10.75 | 10/20/04 | 10/26/04 | 7,800 | ND | ND | ND | ND | 7800 | ND | ND | ND |
| | PC191-J-1-3' | 1-3 | 10/20/04 | 10/26/04 | 4,200 | ND | ND | ND | ND | 4200 | ND | ND | ND |
| | PC191-J-3-6' | 3-6 | 10/20/04 | 10/27/04 | **786,000** | ND | ND | ND | ND | 786000 | ND | ND | ND |

**NOTES:**
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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC191-J-6-10.5' | 6-10.5 | 10/20/04 | 10/26/04 | 27,600 | ND | ND | ND | ND | 27600 | ND | ND | ND |
| | PC191-K-3-6' | 3-6 | 11/11/04 | 11/15/04 | 31,400 | ND | ND | ND | ND | 31400 | ND | ND | ND |
| | PC191-L-3-6' | 3-6 | 11/11/04 | 11/15/04 | **55,700** | ND | ND | ND | ND | 55700 | ND | ND | ND |
| | PC191-L-3-6'MS | 3-6 | 11/11/04 | 11/15/04 | 27,200 | ND | ND | ND | ND | 27200 | ND | ND | ND |
| | PC191-L-3-6'MSD | 3-6 | 11/11/04 | 11/15/04 | 16,100 | ND | ND | ND | ND | 16100 | ND | ND | ND |
| **PC192** | PC192-1-3' | 1-3 | 7/21/04 | 8/17/04 | 9,220 | ND | ND | ND | ND | 9220 | ND | ND | ND |
| | PC192-3-6.5' | 3-6.5 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC193** | PC193-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,360 | ND | ND | ND | ND | 5360 | ND | ND | ND |
| | PC193-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 2,850 | ND | ND | ND | ND | 2850 | ND | ND | ND |
| **PC194** | PC194-1-3' | 1-3 | 7/21/04 | 8/31/04 | 3,040 | ND | ND | ND | ND | 3040 | ND | ND | ND |
| | PC194-1-3' | 1-3 | 8/25/04 | 8/17/04 | 8,920 | ND | ND | ND | ND | 8920 | ND | ND | ND |
| **PC195** | PC195-1-3' | 1-3 | 8/25/04 | 8/31/04 | 2,480 | ND | ND | ND | ND | 2480 | ND | ND | ND |
| | PC195-3-6' | 3-6 | 8/25/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC196** | PC196-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,610 | ND | ND | ND | ND | 5610 | ND | ND | ND |
| | PC196-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 10,700 | ND | ND | ND | ND | 10700 | ND | ND | ND |
| | PC196-3-6.5'MS | 3-6.5 | 7/21/04 | 8/17/04 | 6,490 | ND | ND | ND | ND | 6490 | ND | ND | ND |
| | PC196-3-6.5'MSD | 3-6.5 | 7/21/04 | 8/17/04 | 7,280 | ND | ND | ND | ND | 7280 | ND | ND | ND |
| **PC197** | PC197-1-3' | 1-3 | 7/21/04 | 8/17/04 | 2,000 | ND | ND | ND | ND | 2000 | ND | ND | ND |
| | PC197-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 23,200 | ND | ND | ND | ND | 23200 | ND | ND | ND |
| **PC198** | PC198-1-3' | 1-3 | 7/21/04 | 8/17/04 | 7,580 | ND | ND | ND | ND | 7580 | ND | ND | ND |
| | PC198-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | **349,000** | ND | ND | ND | ND | 349000 | ND | ND | ND |
| | PC198-6.5-10' | 6.5-10 | 9/24/04 | 10/1/04 | 4,260 | ND | ND | ND | ND | 4260 | ND | ND | ND |
| | Duplicate 145 (PC198-6.5-10') | 6.5-10 | 9/24/04 | 10/1/04 | 43,400 | ND | ND | ND | ND | 43400 | ND | ND | ND |
| | PC198-A-1-3' | 1-3 | 9/24/04 | 10/2/04 | 4,190 | ND | ND | ND | ND | 4190 | ND | ND | ND |
| | PC198-A-3-6.5' | 3-6.5 | 9/24/04 | 10/1/04 | 13,520 | ND | ND | ND | ND | 13520 | ND | ND | ND |
| | PC198-A-6.5-9' | 6.5-9 | 9/24/04 | 10/2/04 | 1,640 | ND | ND | ND | ND | 1640 | ND | ND | ND |
| | PC198-B-1-3' | 1-3 | 9/24/04 | 10/1/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| | PC198-B-3-6.5' | 3-6.5 | 9/24/04 | 10/1/04 | 8,540 | ND | ND | ND | ND | 8540 | ND | ND | ND |
| | PC198-B-3-6.5'MS | 3-6.5 | 9/24/04 | 10/4/04 | 14,000 | ND | ND | ND | ND | 14000 | ND | ND | ND |
| | PC198-B-3-6.5'MSD | 3-6.5 | 9/24/04 | 10/4/04 | 7,760 | ND | ND | ND | ND | 7760 | ND | ND | ND |
| | PC198-B-6.5-9' | 6.5-9 | 9/24/04 | 10/1/04 | 3,750 | ND | ND | ND | ND | 3750 | ND | ND | ND |
| | PC198-C-1-3' | 1-3 | 9/24/04 | 10/1/04 | 4,430 | ND | ND | ND | ND | 4430 | ND | ND | ND |
| | PC198-C-3-6.5' | 3-6.5 | 9/24/04 | 10/1/04 | 17,700 | ND | ND | ND | ND | 17700 | ND | ND | ND |
| | PC198-C-6.5-11' | 6.5-11 | 9/24/04 | 10/1/04 | 12,300 | ND | ND | ND | ND | 12300 | ND | ND | ND |
| | PC198-D-1-3' | 1-3 | 9/24/04 | 10/1/04 | 9,160 | ND | ND | ND | ND | 9160 | ND | ND | ND |
| | PC198-D-3-6.5' | 3-6.5 | 9/24/04 | 10/1/04 | 22,600 | ND | ND | ND | ND | 22600 | ND | ND | ND |
| | PC198-D-6.5-8.5' | 6.5-8.5 | 9/24/04 | 10/1/04 | 6,430 | ND | ND | ND | ND | 6430 | ND | ND | ND |
| **PC199** | PC199-1-4' | 1-4 | 7/21/04 | 8/17/04 | 15,900 | ND | ND | ND | ND | 15900 | ND | ND | ND |
| | PC199-4-7' | 4-7 | 7/21/04 | 8/17/04 | 27,000 | ND | ND | ND | ND | 27000 | ND | ND | ND |
| **PC200** | PC200-1-4' | 1-4 | 7/21/04 | 8/17/04 | 8,330 | ND | ND | ND | ND | 8330 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC200** | PC200-4-7' | 4-7 | 7/21/04 | 8/17/04 | 3,080 | ND | ND | ND | ND | 3080 | ND | ND | ND |
| **PC201** | PC201-1-4' | 1-4 | 7/21/04 | 8/17/04 | 8,080 | ND | ND | ND | ND | 8080 | ND | ND | ND |
| | PC201-1-4'MS | 1-4 | 7/21/04 | 8/17/04 | 8,380 | ND | ND | ND | ND | 8380 | ND | ND | ND |
| | PC201-1-4'MSD | 1-4 | 7/21/04 | 8/17/04 | 8,220 | ND | ND | ND | ND | 8220 | ND | ND | ND |
| | PC201-4-7' | 4-7 | 7/21/04 | 8/17/04 | 9,650 | ND | ND | ND | ND | 9650 | ND | ND | ND |
| | Duplicate 57 (PC201-4-7') | 4-7 | 7/21/04 | 8/17/04 | 4,330 | ND | ND | ND | ND | 4330 | ND | ND | ND |
| **PC202** | PC202-1-4' | 1-4 | 7/21/04 | 8/17/04 | 2,060 | ND | ND | ND | ND | 2060 | ND | ND | ND |
| | PC202-4-7' | 4-7 | 7/21/04 | 8/17/04 | 3,340 | ND | ND | ND | ND | 3340 | ND | ND | ND |
| **PC203** | PC203-1-4' | 1-4 | 7/21/04 | 8/17/04 | 3,290 | ND | ND | ND | ND | 3290 | ND | ND | ND |
| | PC203-4-7' | 4-7 | 7/21/04 | 8/17/04 | 8,740 | ND | ND | ND | ND | 8740 | ND | ND | ND |
| **PC204** | PC204-1-4' | 1-4 | 7/22/04 | 8/18/04 | 3,680 | ND | ND | ND | ND | 3680 | ND | ND | ND |
| | PC204-4-7' | 4-7 | 7/22/04 | 8/18/04 | 9,810 | ND | ND | ND | ND | 9810 | ND | ND | ND |
| **PC205** | PC205-1-3' | 1-3 | 7/22/04 | 8/18/04 | 2,970 | ND | ND | ND | ND | 2970 | ND | ND | ND |
| | PC205-3-6.5' | 3-6.5 | 7/22/04 | 8/18/04 | 3,820 | ND | ND | ND | ND | 3820 | ND | ND | ND |
| **PC206** | PC206-1-3' | 1-3 | 7/22/04 | 8/20/04 | 2,300 | ND | ND | ND | ND | 2300 | ND | ND | ND |
| | PC206-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | **71,700** | ND | ND | ND | ND | 71700 | ND | ND | ND |
| | PC206-A-3-6.5' | 3-6.5 | 12/2/04 | 12/4/04 | 14,700 | ND | ND | ND | ND | 14700 | ND | ND | ND |
| | PC206-B-3-6.5' | 3-6.5 | 12/2/04 | 12/4/04 | 12,200 | ND | ND | ND | ND | 12200 | ND | ND | ND |
| | Duplicate 195 (PC206-B-3-6.5') | 3-6.5 | 12/2/04 | 12/4/04 | 13,100 | ND | ND | ND | ND | 13100 | ND | ND | ND |
| **PC207** | PC207-1-3' | 1-3 | 7/22/04 | 8/20/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| | PC207-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | 3,510 | ND | ND | ND | ND | 3510 | ND | ND | ND |
| **PC208** | PC208-1-4' | 1-4 | 7/22/04 | 8/19/04 | 39,400 | ND | ND | ND | ND | 39400 | ND | ND | ND |
| | PC208-4-7 | 4-7 | 7/22/04 | 8/19/04 | 7,210 | ND | ND | ND | ND | 7210 | ND | ND | ND |
| **PC209** | PC209-1-3' | 1-3 | 7/22/04 | 8/19/04 | 9,600 | ND | ND | ND | ND | 9600 | ND | ND | ND |
| | PC209-1-3'MS | 1-3 | 7/22/04 | 8/19/04 | 13,500 | ND | ND | ND | ND | 13500 | ND | ND | ND |
| | PC209-1-3'MSD | 1-3 | 7/22/04 | 8/19/04 | 11,900 | ND | ND | ND | ND | 11900 | ND | ND | ND |
| | PC209-3-6.5' | 3-6.5 | 7/22/04 | 8/19/04 | 11,700 | ND | ND | ND | ND | 11700 | ND | ND | ND |
| | Duplicate 59 (PC209-3-6.5') | 3-6.5 | 7/22/04 | 8/18/04 | 20,900 | ND | ND | ND | ND | 20900 | ND | ND | ND |
| **PC210** | PC210-1-3' | 1-3 | 7/22/04 | 8/19/04 | 2,260 | ND | ND | ND | ND | 2260 | ND | ND | ND |
| | PC210-3-6' | 3-6 | 7/22/04 | 8/19/04 | 4,570 | ND | ND | ND | ND | 4570 | ND | ND | ND |
| | PC210-6-9' | 6-9 | 11/17/04 | 11/23/04 | 2,650 | ND | ND | ND | ND | 2650 | ND | ND | ND |
| | Duplicate 192 (PC210-6-9') | 6-9 | 11/17/04 | 11/23/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| **PC211** | PC211-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 3,000 | ND | ND | ND | ND | 3000 | ND | ND | ND |
| **PC212** | PC212-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 19,200 | ND | ND | ND | ND | 19200 | ND | ND | ND |
| **PC213** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC214** | PC214-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 9,960 | ND | ND | ND | ND | 9960 | ND | ND | ND |
| **PC215** | PC215-1-3' | 1-3 | 7/22/04 | 8/19/04 | 3,340 | ND | ND | ND | ND | 3340 | ND | ND | ND |
| **PC216** | PC216-1-3' | 1-3 | 7/22/04 | 8/20/04 | 24,100 | ND | ND | ND | ND | 24100 | ND | ND | ND |
| **PC217** | PC217-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 4,900 | ND | ND | ND | ND | 4900 | ND | ND | ND |
| **PC218** | PC218-1-3' | 1-3 | 7/22/04 | 8/19/04 | 4,150 | ND | ND | ND | ND | 4150 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC218** | PC218-3-6.5 | 3-6.5 | 7/22/04 | 8/19/04 | 8,870 | ND | ND | ND | ND | 8870 | ND | ND | ND |
| **PC219** | PC219-1-4' | 1-4 | 7/22/04 | 8/19/04 | 2,020 | ND | ND | ND | ND | 2020 | ND | ND | ND |
| | PC219-4-7' | 4-7 | 7/22/04 | 8/19/04 | 5,500 | ND | ND | ND | ND | 5500 | ND | ND | ND |
| **PC220** | PC220-1-3' | 1-3 | 7/22/04 | 8/20/04 | 1,600 | ND | ND | ND | ND | 1600 | ND | ND | ND |
| | PC220-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | 2,660 | ND | ND | ND | ND | 2660 | ND | ND | ND |
| **PC221** | PC221-1-3' | 1-3 | 7/22/04 | 8/20/04 | 8,570 | ND | ND | ND | ND | 8570 | ND | ND | ND |
| | PC221-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| **PC222** | PC222-1-3.5' | 1-3.5 | 7/22/04 | 8/20/04 | 8,870 | ND | ND | ND | ND | 8870 | ND | ND | ND |
| **PC223** | PC223-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 17,600 | ND | ND | ND | ND | 17600 | ND | ND | ND |
| **PC224** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC225** | PC225-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | **220,000** | ND | ND | ND | ND | 220000 | ND | ND | ND |
| | PC225-3.5-6 | 3.5-6 | 9/23/04 | 10/2/04 | 5,790 | ND | ND | ND | ND | 5790 | ND | ND | ND |
| | PC225-6-11 | 6-11 | 9/23/04 | 10/2/04 | 5,080 | ND | ND | ND | ND | 5080 | ND | ND | ND |
| | PC225-A-1-3.5 | 1-3.5 | 9/23/04 | 10/2/04 | 1,580 | ND | ND | ND | ND | 1580 | ND | ND | ND |
| | PC225-A 3.5-6 | 3.5-6 | 9/23/04 | 10/2/04 | 5,230 | ND | ND | ND | ND | 5230 | ND | ND | ND |
| | PC225-B-1-3.5 | 1-3.5 | 9/23/04 | 10/2/04 | 1,330 | ND | ND | ND | ND | 1330 | ND | ND | ND |
| | PC225-B-3.5-6 | 3.5-6 | 9/23/04 | 10/2/04 | 3,350 | ND | ND | ND | ND | 3350 | ND | ND | ND |
| | PC225-C-1-3.5 | 1-3.5 | 9/23/04 | 10/2/04 | 7,190 | ND | ND | ND | ND | 7190 | ND | ND | ND |
| | PC225-C-3.5-6 | 3.5-6 | 9/23/04 | 10/2/04 | 11,800 | ND | ND | ND | ND | 11800 | ND | ND | ND |
| | PC225-D-1-3.5 | 1-3.5 | 9/23/04 | 10/2/04 | 6,160 | ND | ND | ND | ND | 6160 | ND | ND | ND |
| | PC225-D-3.5-6 | 3.5-6 | 9/23/04 | 9/30/04 | 28,100 | ND | ND | ND | ND | 28100 | ND | ND | ND |
| **PC226** | PC226-1-3' | 1-3' | 7/22/04 | 8/19/04 | 12,700 | ND | ND | ND | ND | 12700 | ND | ND | ND |
| **PC227** | PC227-1-3' | 1-3 | 7/22/04 | 8/18/04 | 3,280 | ND | ND | ND | ND | 3280 | ND | ND | ND |
| | PC227-1-3'MS | 1-3 | 7/22/04 | 8/18/04 | 9,920 | ND | ND | ND | ND | 9920 | ND | ND | ND |
| | PC227-1-3'MSD | 1-3 | 7/22/04 | 8/18/04 | 9,250 | ND | ND | ND | ND | 9250 | ND | ND | ND |
| | PC227-3-6.5' | 3-6.5 | 7/22/04 | 8/18/04 | 4,130 | ND | ND | ND | ND | 4130 | ND | ND | ND |
| | Duplicate 60 (PC227-3-6.5') | 3-6.5 | 7/22/04 | 8/18/04 | 6,630 | ND | ND | ND | ND | 6630 | ND | ND | ND |
| **PC228** | PC228-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 5,068 | ND | ND | ND | ND | 5068 | ND | ND | ND |
| **PC229** | PC229-1-4' | 1-4 | 7/22/04 | 8/19/04 | 5,950 | ND | ND | ND | ND | 5950 | ND | ND | ND |
| | PC229-4-7' | 4-7 | 7/22/04 | 8/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC230** | PC230-1-4' | 1-4 | 7/22/04 | 8/20/04 | 4,660 | ND | ND | ND | ND | 4660 | ND | ND | ND |
| | PC230-4-7' | 4-7 | 7/22/04 | 8/20/04 | 15,700 | ND | ND | ND | ND | 15700 | ND | ND | ND |
| **PC231** | PC231-1-3' | 1-3 | 7/22/04 | 8/20/04 | 6,000 | ND | ND | ND | ND | 6000 | ND | ND | ND |
| | PC231-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | 3,230 | ND | ND | ND | ND | 3230 | ND | ND | ND |
| **PC232** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC233** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC234** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC235** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC236** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC237** | PC237-1-4' | 1-4 | 7/22/04 | 8/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC237** | PC237-4-7' | 4-7 | 7/22/04 | 8/19/04 | 14,800 | ND | ND | ND | ND | 14800 | ND | ND | ND |
| **PC238** | PC238-1-3' | 1-3 | 8/26/04 | 9/1/04 | 16,200 | ND | ND | ND | ND | 16200 | ND | ND | ND |
| | PC238-3-6.5' | 3-6.5 | 8/26/04 | 9/1/04 | 8,080 | ND | ND | ND | ND | 8080 | ND | ND | ND |
| **PC239** | PC239-1-3' | 1-3 | 7/22/04 | 8/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC239-3-6.5' | 3-6.5 | 7/22/04 | 8/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC240** | PC240-1-3' | 1-3 | 7/22/04 | 8/19/04 | 6,080 | ND | ND | ND | ND | 6080 | ND | ND | ND |
| | PC240-3-6.5' | 3-6.5 | 7/22/04 | 8/19/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| **PC241** | PC241-1-3' | 1-3 | 7/29/04 | 8/20/04 | 4,110 | ND | ND | ND | ND | 4110 | ND | ND | ND |
| | Duplicate 62 (PC241-1-3') | 1-3 | 7/29/04 | 8/20/04 | 1,270 | ND | ND | ND | ND | 1270 | ND | ND | ND |
| | PC241-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 5,750 | ND | ND | ND | ND | 5750 | ND | ND | ND |
| | PC241-3-6.5'MS | 3-6.5 | 7/29/04 | 8/20/04 | 7,710 | ND | ND | ND | ND | 7710 | ND | ND | ND |
| | PC241-3-6.5'MSD | 3-6.5 | 7/29/04 | 8/20/04 | 8,820 | ND | ND | ND | ND | 8820 | ND | ND | ND |
| **PC242** | PC242-1-3' | 1-3 | 7/29/04 | 8/20/04 | 13,300 | ND | ND | ND | ND | 13300 | ND | ND | ND |
| **PC243** | PC243-1-3' | 1-3 | 7/29/04 | 8/20/04 | 4,780 | ND | ND | ND | ND | 4780 | ND | ND | ND |
| **PC244** | PC244-1-3' | 1-3 | 7/29/04 | 8/20/04 | 11,900 | ND | ND | ND | ND | 11900 | ND | ND | ND |
| **PC245** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC246** | PC246-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC247** | PC247-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC248** | PC248-1-3' | 1-3 | 7/29/04 | 8/20/04 | 3,540 | ND | ND | ND | ND | 3540 | ND | ND | ND |
| **PC249** | PC249-1-4' | 1-4 | 7/29/04 | 8/20/04 | 22,700 | ND | ND | ND | ND | 22700 | ND | ND | ND |
| | PC249-4-7' | 4-7 | 7/29/04 | 8/20/04 | 14,900 | ND | ND | ND | ND | 14900 | ND | ND | ND |
| **PC250** | PC250-1-4' | 1-4 | 7/29/04 | 8/20/04 | 23,000 | ND | ND | ND | ND | 23000 | ND | ND | ND |
| | PC250-4-7' | 4-7 | 7/29/04 | 8/20/04 | 13,200 | ND | ND | ND | ND | 13200 | ND | ND | ND |
| **PC251** | PC251-1-3' | 1-3 | 7/29/04 | 8/20/04 | 2,870 | ND | ND | ND | ND | 2870 | ND | ND | ND |
| | PC251-3-6' | 3-6 | 7/29/04 | 8/20/04 | 8,700 | ND | ND | ND | ND | 8700 | ND | ND | ND |
| **PC252** | PC252-1-3' | 1-3 | 7/29/04 | 8/20/04 | 2,090 | ND | ND | ND | ND | 2090 | ND | ND | ND |
| | PC252-3-6' | 3-6 | 7/29/04 | 8/20/04 | 1,290 | ND | ND | ND | ND | 1290 | ND | ND | ND |
| **PC253** | PC253-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC253-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 4,470 | ND | ND | ND | ND | 4470 | ND | ND | ND |
| **PC254** | PC254-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC254-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 7,750 | ND | ND | ND | ND | 7750 | ND | ND | ND |
| **PC255** | PC255-1-4' | 1-4 | 7/29/04 | 8/20/04 | 9,430 | ND | ND | ND | ND | 9430 | ND | ND | ND |
| | Duplicate 63 (PC255-1-4') | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC255-4-7' | 4-7 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC255-4-7'MS | 4-7 | 7/29/04 | 8/20/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| | PC255-4-7'MSD | 4-7 | 7/29/04 | 8/20/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| **PC256** | PC256-1-4' | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC256-4-7' | 4-7 | 7/29/04 | 8/20/04 | 6,980 | ND | ND | ND | ND | 6980 | ND | ND | ND |
| **PC257** | PC257-1-4' | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC257** | PC257-4-7' | 4-7 | 7/29/04 | 8/20/04 | 2,050 | ND | ND | ND | ND | 2050 | ND | ND | ND |
| **PC258** | PC258-1-4' | 1-4 | 7/29/04 | 8/20/04 | 1,800 | ND | ND | ND | ND | 1800 | ND | ND | ND |
| | PC258-4-7' | 4-7 | 7/29/04 | 8/20/04 | 1,980 | ND | ND | ND | ND | 1980 | ND | ND | ND |
| **PC259** | PC259-1-4' | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC259-4-7' | 4-7 | 7/29/04 | 8/20/04 | **53,700** | ND | ND | ND | ND | 53700 | ND | ND | ND |
| | PC259-A-4-7' | 4-7 | 11/17/04 | 11/23/04 | 3,340 | ND | ND | ND | ND | 3340 | ND | ND | ND |
| | PC259-B-4-7' | 4-7 | 11/17/04 | 11/20/04 | 5,280 | ND | ND | ND | ND | 5280 | ND | ND | ND |
| **PC260** | PC260-1-4' | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC260-4-7' | 4-7 | 7/29/04 | 8/20/04 | **86,200** | ND | ND | ND | ND | 86200 | ND | ND | ND |
| | PC260-A-4-7' | 4-7 | 11/17/04 | 11/24/04 | 5,280 | ND | ND | ND | ND | 5280 | ND | ND | ND |
| | Duplicate 193 (PC260-A-4-7') | 4-7 | 11/17/04 | 11/24/04 | 9,450 | ND | ND | ND | ND | 9450 | ND | ND | ND |
| | PC260-B-4-7' | 4-7 | 11/17/04 | 11/20/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| **PC261** | PC261-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC261-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 2,730 | ND | ND | ND | ND | 2730 | ND | ND | ND |
| **PC262** | PC262-1-3' | 1-3 | 7/29/04 | 8/20/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| | PC262-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 6,460 | ND | ND | ND | ND | 6460 | ND | ND | ND |
| **PC263** | PC263-1-4' | 1-4 | 7/29/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC263-4-7' | 4-7 | 7/29/04 | 8/21/04 | 6,640 | ND | ND | ND | ND | 6640 | ND | ND | ND |
| **PC264** | PC264-1-4' | 1-4 | 7/29/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC264-4-7' | 4-7 | 7/29/04 | 8/21/04 | 4,010 | ND | ND | ND | ND | 4010 | ND | ND | ND |
| **PC265** | PC265-1-4' | 1-4 | 7/29/04 | 8/21/04 | 1,160 | ND | ND | ND | ND | 1160 | ND | ND | ND |
| | Duplicate 64 (PC265-1-4') | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC265-4-7' | 4-7 | 7/29/04 | 8/21/04 | 27,700 | ND | ND | ND | ND | 27700 | ND | ND | ND |
| | PC265-4-7'MS | 4-7 | 7/29/04 | 8/21/04 | 39,500 | ND | ND | ND | ND | 39500 | ND | ND | ND |
| | PC265-4-7'MSD | 4-7 | 7/29/04 | 8/21/04 | 35,100 | ND | ND | ND | ND | 35100 | ND | ND | ND |
| **PC266** | PC266-1-4' | 1-4 | 7/29/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC266-4-7' | 4-7 | 7/29/04 | 8/21/04 | 19,400 | ND | ND | ND | ND | 19400 | ND | ND | ND |
| **PC267** | PC267-1-4' | 1-4 | 7/29/04 | 8/21/04 | 3,720 | ND | ND | ND | ND | 3720 | ND | ND | ND |
| | PC267-4-7' | 4-7 | 7/29/04 | 8/21/04 | 12,000 | ND | ND | ND | ND | 12000 | ND | ND | ND |
| **PC268** | PC268-1-4' | 1-4 | 7/29/04 | 8/21/04 | 3,130 | ND | ND | ND | ND | 3130 | ND | ND | ND |
| | PC268-4-7' | 4-7 | 7/29/04 | 8/21/04 | 11,700 | ND | ND | ND | ND | 11700 | ND | ND | ND |
| **PC269** | PC269-1-4' | 1-4 | 7/29/04 | 8/20/04 | 1,940 | ND | ND | ND | ND | 1940 | ND | ND | ND |
| | PC269-4-7' | 4-7 | 7/29/04 | 8/20/04 | 6,580 | ND | ND | ND | ND | 6580 | ND | ND | ND |
| **PC270** | PC270-1-4' | 1-4 | 7/29/04 | 8/20/04 | 19,000 | ND | ND | ND | ND | 19000 | ND | ND | ND |
| | PC270-4-7' | 4-7 | 7/29/04 | 8/20/04 | 4,230 | ND | ND | ND | ND | 4230 | ND | ND | ND |
| **PC271** | PC271-1-4' | 1-4 | 7/29/04 | 8/20/04 | 1,880 | ND | ND | ND | ND | 1880 | ND | ND | ND |
| | PC271-4-7' | 4-7 | 7/29/04 | 8/21/04 | 2,000 | ND | ND | ND | ND | 2000 | ND | ND | ND |
| **PC272** | PC272-1-3' | 1-3 | 7/29/04 | 8/20/04 | **77,700** | ND | ND | ND | ND | 77700 | ND | ND | ND |
| | PC272-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| | PC272-A-1-3' | 1-3 | 11/17/04 | 11/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC272-B-1-3' | 1-3 | 11/17/04 | 11/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC272-C-1-3' | 1-3 | 11/17/04 | 11/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC273** | PC273-1-3' | 1-3 | 7/29/04 | 8/20/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| | PC273-1-3'MS | 1-3 | 7/29/04 | 8/20/04 | 13,300 | ND | ND | ND | ND | 13300 | ND | ND | ND |
| | PC273-1-3'MSD | 1-3 | 7/29/04 | 8/20/04 | 14,100 | ND | ND | ND | ND | 14100 | ND | ND | ND |
| | Duplicate 65 (PC273-1-3') | 1-3 | 7/29/04 | 8/20/04 | 29,500 | ND | ND | ND | 16700 | 12800 | ND | ND | ND |
| | PC273-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 9,670 | ND | ND | ND | ND | 9670 | ND | ND | ND |
| **PC1001** | PC1001-1-4' | 1-4 | 8/25/04 | 8/31/04 | 34,700 | ND | ND | ND | ND | 34700 | ND | ND | ND |
| | PC1001-4-7' | 4-7 | 8/25/04 | 8/31/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| | Duplicate 116 (PC1001-4-7') | 4-7 | 8/25/04 | 8/31/04 | 5,840 | ND | ND | ND | ND | 5840 | ND | ND | ND |
| **PC1002** | PC1002-1-4' | 1-4 | 8/25/04 | 8/31/04 | 22,100 | ND | ND | ND | ND | 22100 | ND | ND | ND |
| | PC1002-4-7' | 4-7 | 8/25/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1003** | PC1003-1-4' | 1-4 | 8/25/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1003-4-7' | 4-7 | 11/17/04 | 11/18/04 | 18,000 | ND | ND | ND | ND | 18000 | ND | ND | ND |
| **PC1004** | PC1004-1-4' | 1-4 | 8/25/04 | 8/31/04 | 16,200 | ND | ND | ND | ND | 16200 | ND | ND | ND |
| | PC1004-4-7' | 4-7 | 8/25/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1005** | PC1005-1-3.5' | 1-3.5 | 8/25/04 | 8/31/04 | 5,250 | ND | ND | ND | ND | 5250 | ND | ND | ND |
| **PC1006** | PC1006-1-3' | 1-3 | 8/25/04 | 9/7/04 | **468,000** | ND | ND | ND | ND | 468000 | ND | ND | ND |
| | Duplicate 117 (PC1006-1-3') | 1-3 | 8/25/04 | 8/31/04 | 12,500 | ND | ND | ND | ND | 12500 | ND | ND | ND |
| | PC1006-A-1-3' | 1-3 | 10/15/04 | 10/19/04 | 10,300 | ND | ND | ND | ND | 10300 | ND | ND | ND |
| | PC1006-A-3-5.5' | 3-5.5 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1006-B-1-3' | 1-3 | 10/15/04 | 10/19/04 | 21,200 | ND | ND | ND | ND | 21200 | ND | ND | ND |
| | PC1006-B-3-6' | 3-6 | 10/15/04 | 10/19/04 | **48,300** | ND | ND | ND | ND | 48300 | ND | ND | ND |
| | PC1006-C-1-3' | 1-3 | 10/15/04 | 10/19/04 | 8,200 | ND | ND | ND | ND | 8200 | ND | ND | ND |
| | PC1006-C-3-5.5' | 3-5.5 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1006-D-1-3' | 1-3 | 10/15/04 | 10/19/04 | 5,870 | ND | ND | ND | ND | 5870 | ND | ND | ND |
| | PC1006-D-3-4.75' | 3-4.75 | 10/15/04 | 10/19/04 | 8,620 | ND | ND | ND | ND | 8620 | ND | ND | ND |
| **PC1007** | PC1007-1-3.5' | 1-3.5 | 8/25/04 | 9/7/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1008** | PC1008-1-3' | 1-3 | 8/25/04 | 8/31/04 | 21,600 | ND | ND | ND | ND | 21600 | ND | ND | ND |
| | PC1008-3-6.5' | 3-6.5 | 8/25/04 | 9/1/04 | 10,200 | ND | ND | ND | ND | 10200 | ND | ND | ND |
| **PC1009** | PC1009-1-3' | 1-3 | 8/25/04 | 8/31/04 | 5,160 | ND | ND | ND | ND | 5160 | ND | ND | ND |
| | PC1009-3-6' | 3-6 | 8/25/04 | 8/31/04 | 25,600 | ND | ND | ND | ND | 25600 | ND | ND | ND |
| **PC1010** | PC1010-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1010-3-6.5' | 3-6.5 | 8/26/04 | 9/1/04 | 6,060 | ND | ND | ND | ND | 6060 | ND | ND | ND |
| **PC1011** | PC1011-1-3' | 1-3 | 8/25/04 | 8/31/04 | 28,600 | ND | ND | ND | ND | 28600 | ND | ND | ND |
| | PC1011-3-6' | 3-6 | 8/25/04 | 8/31/04 | 6,890 | ND | ND | ND | ND | 6890 | ND | ND | ND |
| | PC1012-1-4' | 1-4 | 8/26/04 | 8/31/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| | PC1012-4-7' | 4-7 | 8/26/04 | 9/8/04 | **127,000** | ND | ND | ND | ND | 127000 | ND | ND | ND |
| | PC1012-1-4' | 1-4 | 9/14/04 | 9/21/04 | 25,300 | ND | ND | ND | ND | 25300 | ND | ND | ND |
| | PC1012-7-10' | 7-10 | 9/14/04 | 9/24/04 | **50,700** | ND | ND | ND | ND | 50700 | ND | ND | ND |

**NOTES:**
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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC1012** | PC1012-A-1-4' | 1-4 | 9/14/04 | 9/21/04 | **53,900** | ND | ND | ND | ND | 53900 | ND | ND | ND |
| | PC1012-A-4-7' | 4-7 | 9/14/04 | 9/24/04 | 22,300 | ND | ND | ND | ND | 22300 | ND | ND | ND |
| | PC1012-A-7-10.5' | 7-10.5 | 9/14/04 | 9/24/04 | **146,000** | ND | ND | ND | ND | 146000 | ND | ND | ND |
| | PC1012-B-1-4' | 1-4 | 9/14/04 | 9/24/04 | 6,770 | ND | ND | ND | ND | 6770 | ND | ND | ND |
| | PC1012-B-4-7' | 4-7 | 9/14/04 | 9/21/04 | **142,000** | ND | ND | ND | ND | 142000 | ND | ND | ND |
| | PC1012-B-7-8' | 7-8 | 9/14/04 | 9/24/04 | 11,200 | ND | ND | ND | ND | ND | ND | ND | 11200 |
| | PC1012-C-1-4' | 1-4 | 9/14/04 | 9/24/04 | 13,800 | ND | ND | ND | ND | 13800 | ND | ND | ND |
| | PC1012-C-4-7' | 4-7 | 9/14/04 | 9/24/04 | 4,570 | ND | ND | ND | ND | 4570 | ND | ND | ND |
| | PC1012-C-7-11' | 7-11 | 9/14/04 | 9/24/04 | 6,220 | ND | ND | ND | ND | 6220 | ND | ND | ND |
| | PC1012-D-1-4' | 1-4 | 9/14/04 | 9/21/04 | 21,300 | ND | ND | ND | ND | 21300 | ND | ND | ND |
| | PC1012-D-4-7' | 4-7 | 9/14/04 | 9/24/04 | **122,000** | ND | ND | ND | ND | 122000 | ND | ND | ND |
| | PC1012-D-7-10' | 7-10 | 9/14/04 | 9/24/04 | 21,200 | ND | ND | ND | ND | 21200 | ND | ND | ND |
| | PC1012-E-4-7' | 4-7 | 10/15/04 | 10/19/04 | 13,800 | ND | ND | ND | ND | 13800 | ND | ND | ND |
| | PC1012-E-7-10' | 7-10 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-F-1-4' | 1-4 | 10/15/04 | 10/19/04 | 5,870 | ND | ND | ND | ND | 5870 | ND | ND | ND |
| | Duplicate 165 (PC1012-F-1-4') | 1-4 | 10/15/04 | 10/19/04 | 8,840 | ND | ND | ND | ND | 8840 | ND | ND | ND |
| | PC1012-F-4-7' | 4-7 | 10/15/04 | 10/19/04 | 7,390 | ND | ND | ND | ND | 7390 | ND | ND | ND |
| | PC1012-F-7-10' | 7-10 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-F-7-10'MS | 7-10 | 10/15/04 | 10/19/04 | 11,160 | ND | ND | ND | ND | 11160 | ND | ND | ND |
| | PC1012-F-7-10'MSD | 7-10 | 10/15/04 | 10/19/04 | 12,900 | ND | ND | ND | ND | 12900 | ND | ND | ND |
| | PC1012-G-1-4' | 1-4 | 10/15/04 | 10/19/04 | 10,200 | ND | ND | ND | ND | 10200 | ND | ND | ND |
| | PC1012-G-4-7' | 4-7 | 10/15/04 | 10/19/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| | PC1012-G-7-10.5' | 7-10.5 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-H-1-4' | 1-4 | 10/15/04 | 10/19/04 | 3,760 | ND | ND | ND | ND | 3760 | ND | ND | ND |
| | PC1012-H-4-7' | 4-7 | 10/15/04 | 10/19/04 | 12,900 | ND | ND | ND | ND | 12900 | ND | ND | ND |
| | PC1012-H-7-10' | 7-10 | 10/15/04 | 10/19/04 | 1,890 | ND | ND | ND | ND | 1890 | ND | ND | ND |
| | PC1012-I-1-4' | 1-4 | 10/15/04 | 10/19/04 | 2,070 | ND | ND | ND | ND | 2070 | ND | ND | ND |
| | PC1012-I-4-7' | 4-7 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-I-7-10' | 7-10 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-J-1-4' | 1-4' | 10/15/04 | 10/19/04 | **229,000** | ND | ND | ND | ND | 229000 | ND | ND | ND |
| | PC1012-J-4-7' | 4-7' | 10/16/04 | 10/19/04 | 33,500 | ND | ND | ND | ND | 33500 | ND | ND | ND |
| | PC1012-J-7-10' | 7-10' | 10/17/04 | 10/19/04 | 2,690 | ND | ND | ND | ND | 2690 | ND | ND | ND |
| | PC1012-K-1-4' | 1-4 | 10/15/04 | 10/19/04 | **136,000** | ND | ND | ND | ND | 136000 | ND | ND | ND |
| | PC1012-K-4-7' | 4-7 | 10/15/04 | 10/19/04 | **62,900** | ND | ND | ND | ND | 62900 | ND | ND | ND |
| | PC1012-K-7-10' | 7-10 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-L-1-4' | 1-4 | 11/3/04 | 11/9/04 | 4,010 | ND | ND | ND | ND | 4010 | ND | ND | ND |
| | PC1012-M-1-4' | 1-4 | 11/3/04 | 11/10/04 | 5,710 | ND | ND | ND | ND | 5710 | ND | ND | ND |
| | PC1012-N-1-4' | 1-4 | 10/28/04 | 10/30/04 | 8,910 | ND | ND | ND | ND | 8910 | ND | ND | ND |
| | Duplicate 174 (PC1012-N-1-4') | 1-4 | 10/28/04 | 10/30/04 | 7,590 | ND | ND | ND | ND | 7590 | ND | ND | ND |
| | PC1012-O-1-4' | 1-4 | 10/28/04 | 10/30/04 | 11,100 | ND | ND | ND | ND | 11100 | ND | ND | ND |
| | PC1012-O-1-4'MS | 1-4 | 10/28/04 | 10/30/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC1012-O-1-4'MSD | 1-4 | 10/28/04 | 10/30/04 | 13,200 | ND | ND | ND | ND | 13200 | ND | ND | ND |
| **PC1013** | PC1013-1-3' | 1-3 | 8/26/04 | 8/31/04 | 19,900 | ND | ND | ND | ND | 19900 | ND | ND | ND |
| | PC1013-3-6.5' | 3-6.5 | 8/26/04 | 8/31/04 | 9,760 | ND | ND | ND | ND | 9760 | ND | ND | ND |
| | Duplicate 118 (PC1013-3-6.5') | 3-6.5 | 8/26/04 | 8/31/04 | 6,550 | ND | ND | ND | ND | 6550 | ND | ND | ND |
| **PC1014** | PC1014-1-3.5' | 1-3.5 | 6/30/04 | 8/2/04 | 12,000 | ND | ND | ND | ND | 12000 | ND | ND | ND |
| **PC1015** | PC1015-1-3' | 1-3 | 6/30/04 | 8/2/04 | **68,600** | ND | ND | ND | ND | 68600 | ND | ND | ND |
| | PC1015-A-1-3' | 1-3 | 11/17/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1015-B-1-3' | 1-3 | 11/17/04 | 11/18/04 | 4,780 | ND | ND | ND | ND | 4780 | ND | ND | ND |
| | PC1015-C-1-3' | 1-3 | 11/17/04 | 11/18/04 | 2,240 | ND | ND | ND | ND | 2240 | ND | ND | ND |
| | PC1015-D-1-3' | 1-3 | 11/17/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1016** | PC1016-1-3' | 1-3 | 6/30/04 | 8/2/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| **PC1017** | PC1017-1-3' | 1-3 | 6/30/04 | 8/2/04 | 22,500 | ND | ND | ND | ND | 22500 | ND | ND | ND |
| **PC1018** | PC1018-1-3' | 1-3 | 7/1/04 | 8/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1019** | PC1019-1-3' | 1-3 | 7/1/04 | 8/11/04 | 8,580 | ND | ND | ND | ND | 8580 | ND | ND | ND |
| **PC1020** | PC1020-1-3.5' | 1-3.5 | 7/1/04 | 8/11/04 | 1,810 | ND | ND | ND | ND | 1810 | ND | ND | ND |
| **PC1021** | PC1021-1-3' | 1-3 | 7/1/04 | 8/11/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| **PC1022** | PC1022-1-3' | 1-3 | 7/1/04 | 8/11/04 | 40,000 | ND | ND | ND | ND | 40000 | ND | ND | ND |
| **PC1023** | PC1023-1-5' | 1-5 | 7/20/04 | 8/31/04 | 2,750 | ND | ND | ND | ND | 2750 | ND | ND | ND |
| **PC1024** | PC1024-1-3' | 1-3 | 7/20/04 | 8/31/04 | 23,800 | ND | ND | ND | ND | 23800 | ND | ND | ND |
| | PC1024-3-5.5 | 3-5.5 | 7/20/04 | 8/31/04 | 4,920 | ND | ND | ND | ND | 4920 | ND | ND | ND |
| **PC1025** | PC1025-1-5' | 1-5 | 7/20/04 | 8/31/04 | 7,980 | ND | ND | ND | ND | 7980 | ND | ND | ND |
| **PC1026** | PC1026-1-3' | 1-3 | 720/04 | 8/31/04 | 1,670 | ND | ND | ND | ND | 1670 | ND | ND | ND |
| | PC1026-3-5.5' | 3-5.5 | 7/20/04 | 8/31/04 | 10,100 | ND | ND | ND | ND | 10100 | ND | ND | ND |
| **PC1027** | PC1027-1-3' | 1-3 | 7/21/04 | 8/17/04 | 3,610 | ND | ND | ND | ND | 3610 | ND | ND | ND |
| | PC1027-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 30,900 | ND | ND | ND | ND | 30900 | ND | ND | ND |
| **PC1028** | PC1028-1-3' | 1-3 | 7/21/04 | 8/17/04 | 2,590 | ND | ND | ND | ND | 2590 | ND | ND | ND |
| **PC1029** | PC1029-1-3.5' | 1-3.5 | 7/21/04 | 8/17/04 | 2,630 | ND | ND | ND | ND | 2630 | ND | ND | ND |
| **PC1030** | PC1030-1-3' | 1-3 | 7/21/04 | 8/17/04 | 3,620 | ND | ND | ND | ND | 3620 | ND | ND | ND |
| **PC1031** | PC1031-1-3' | 1-3 | 7/21/04 | 8/17/04 | 2,440 | ND | ND | ND | ND | 2440 | ND | ND | ND |
| **PC1032** | PC1032-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,840 | ND | ND | ND | ND | 5840 | ND | ND | ND |
| **PC1033** | PC1033-1-3.5' | 1-3.5 | 7/21/04 | 8/17/04 | 7,370 | ND | ND | ND | ND | 7370 | ND | ND | ND |
| **PC1034** | PC1034-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,050 | ND | ND | ND | ND | 5050 | ND | ND | ND |
| **PC1035** | PC1035-1-3' | 1-3 | 7/21/04 | 8/17/04 | 11,600 | ND | ND | ND | ND | 11600 | ND | ND | ND |
| **PC1036** | PC1036-1-3' | 1-3 | 7/21/04 | 8/17/04 | 7,400 | ND | ND | ND | ND | 7400 | ND | ND | ND |
| **PC1037** | PC1037-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,980 | ND | ND | ND | ND | 5980 | ND | ND | ND |
| | Duplicate 56 (PC1037-1-3') | 1-3 | 7/21/04 | 8/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1038** | PC1038-1-3' | 1-3 | 7/21/04 | 8/17/04 | 1,500 | ND | ND | ND | ND | 1500 | ND | ND | ND |
| **PC1039** | PC1039-1-3.5' | 1-3.5 | 7/21/04 | 8/17/04 | 2,190 | ND | ND | ND | ND | 2190 | ND | ND | ND |
| **PC1040** | PC1040-1-3.5 | 1-3.5 | 7/21/04 | 8/17/04 | 16,800 | ND | ND | ND | ND | 16800 | ND | ND | ND |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC1041** | PC1041-1-3' | 1-3 | 7/21/04 | 8/17/04 | **62,300** | ND | ND | ND | ND | 62300 | ND | ND | ND |
| **PC1042** | PC1042-1-3' | 1-3 | 7/21/04 | 8/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1043** | PC1043-1-3' | 1-3 | 7/21/04 | 8/17/04 | 6,400 | ND | ND | ND | ND | 6400 | ND | ND | ND |
| **PC1044** | PC1044-1-3' | 1-3 | 7/21/04 | 8/17/04 | 4,500 | ND | ND | ND | ND | 4500 | ND | ND | ND |
| | PC1044-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 2,290 | ND | ND | ND | ND | 2290 | ND | ND | ND |
| **PC1045** | PC1045-1-4' | 1-4 | 10/28/04 | 10/30/04 | 32,900 | ND | ND | ND | ND | 32900 | ND | ND | ND |
| | PC1045-4-8' | 4-8 | 10/28/04 | 10/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1045-8-10' | 8-10 | 10/28/04 | 10/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1046** | PC1046-1-3' | 1-3 | 7/21/04 | 8/17/04 | 20,900 | ND | ND | ND | ND | 20900 | ND | ND | ND |
| | PC1046-3-6' | 3-6 | 7/21/04 | 8/17/04 | 1,320 | ND | ND | ND | ND | 1320 | ND | ND | ND |
| | PC1046-6-9' | 6-9 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1047** | PC1047-1-3' | 1-3 | 7/22/04 | 8/19/04 | 14,500 | ND | ND | ND | ND | 14500 | ND | ND | ND |
| | PC1047-3-6' | 3-6 | 7/22/04 | 8/19/04 | 46,200 | ND | ND | ND | ND | 46200 | ND | ND | ND |
| | PC1047-6-9' | 6-9 | 11/17/04 | 11/23/04 | 2,760 | ND | ND | ND | ND | 2760 | ND | ND | ND |
| **PC1048** | PC1048-1-3' | 1-3 | 7/22/04 | 8/20/04 | 2,920 | ND | ND | ND | ND | 2920 | ND | ND | ND |
| **PC1049** | PC1049-1-3' | 1-3 | 7/22/04 | 8/19/04 | 5,270 | ND | ND | ND | ND | 5270 | ND | ND | ND |
| **PC1050** | PC1050-1-4' | 1-4 | 11/17/04 | 11/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1050-4-7' | 4-7 | 11/17/04 | 11/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1051** | PC1051-1-4' | 1-4 | 11/17/04 | 11/24/04 | 4,620 | ND | ND | ND | ND | 4620 | ND | ND | ND |
| | PC1051-4-7' | 4-7 | 11/17/04 | 11/24/04 | 16,000 | ND | ND | ND | ND | 16000 | ND | ND | ND |
| **PC1052** | PC1052-1-3' | 1-3 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1052-3-6' | 3-6 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1052-6-9.5' | 6-9.5 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **ANT-1** | ANT-1-1-3' | 1-3 | 6/14/04 | 7/12/04 | 6,250 | ND | ND | ND | ND | 6250 | ND | ND | ND |
| | ANT-1-3-6' | 3-6 | 6/14/04 | 7/12/04 | 22,400 | ND | ND | ND | ND | 22400 | ND | ND | ND |
| **ANT-2** | ANT-2-1-3' | 1-3 | 6/14/04 | 7/12/04 | 6,080 | ND | ND | ND | ND | 6080 | ND | ND | ND |
| | ANT-2-3-6' | 3-6 | 6/14/04 | 7/12/04 | 6,770 | ND | ND | ND | ND | 6770 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Grade Beams
## Polychlorinated Biphenyls

| Sample ID | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| GB1-1-3' | 1-3 | 7/30/04 | 8/21/04 | 17,100 | ND | ND | ND | ND | 17,100 | ND | ND | ND |
| GB2-1-3' | 1-3 | 7/30/04 | 8/21/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| GB3-1-3' | 1-3 | 7/30/04 | 8/21/04 | **318,000** | ND | ND | ND | ND | 318,000 | ND | ND | ND |
| GB3-1-3'MS | 1-3 | 7/30/04 | 8/21/04 | 324,000 | ND | ND | ND | ND | 324,000 | ND | ND | ND |
| GB3-1-3'MSD | 1-3 | 7/30/04 | 8/21/04 | 313,000 | ND | ND | ND | ND | 313,000 | ND | ND | ND |
| GB3-3-6' | 3-6 | 9/22/04 | 9/29/04 | 2,110 | ND | ND | ND | ND | 2,110 | ND | ND | ND |
| GB3-6-9' | 6-9 | 9/22/04 | 9/29/04 | **184,100** | ND | ND | ND | ND | 80,100 | 104,000 | ND | ND |
| GB3-A-1-3' | 1-3 | 9/22/04 | 9/29/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| GB3-A-3-6' | 3-6 | 9/22/04 | 9/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-B-1-3' | 1-3 | 9/22/04 | 9/28/04 | 4,080 | ND | ND | ND | ND | 4,080 | ND | ND | ND |
| GB3-B-3-6' | 3-6 | 9/22/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-C-1-3' | 1-3 | 9/22/04 | 9/28/04 | 24,800 | ND | ND | ND | ND | 24,800 | ND | ND | ND |
| GB3-C-3-5' | 3-5 | 9/22/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-D-1-3' | 1-3 | 9/22/04 | 9/28/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| GB3-D-3-6' | 3-6 | 9/22/04 | 9/28/04 | **63,600** | ND | ND | ND | 27,300 | 36,300 | ND | ND | ND |
| GB3-E-6-7' | 6-7 | 11/2/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-F-6-7' | 6-7 | 11/2/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-G-6-7' | 6-7 | 11/2/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-H-6-7' | 6-7 | 11/2/04 | 11/3/04 | 13,100 | ND | ND | ND | ND | 13,100 | ND | ND | ND |
| GB4-1-2' | 1-2 | 7/30/04 | 8/21/04 | 16,200 | ND | ND | ND | ND | 16,200 | ND | ND | ND |
| GB5-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | 4,410 | ND | ND | ND | ND | 4,410 | ND | ND | ND |
| GB6-1-3' | 1-3 | 7/30/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB7-1-2' | 1-2 | 7/30/04 | 8/23/04 | 23,400 | ND | ND | ND | ND | 23,400 | ND | ND | ND |
| GB8-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | 2,660 | ND | ND | ND | ND | 2,660 | ND | ND | ND |
| GB9-1-2' | 1-2 | 7/30/04 | 8/21/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| GB10-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB11-1-3' | 1-3 | 7/30/04 | 8/23/04 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND |
| Duplicate 79 (GB11-1-3') | 1-3 | 7/30/04 | 8/24/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| GB12-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB13-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| GB14-1-2' | 1-2 | 7/30/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB15-1-2' | 1-2 | 7/30/04 | 8/23/04 | 2,240 | ND | ND | ND | ND | 2240 | ND | ND | ND |
| GB16-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB17-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | 1,480 | ND | ND | ND | ND | 1480 | ND | ND | ND |
| GB18-1-2' | 1-2 | 7/30/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB19-1-2' | 1-2 | 7/30/04 | 8/23/04 | 2,080 | ND | ND | ND | ND | 2080 | ND | ND | ND |
| GB20-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 36,900 | ND | ND | ND | ND | 36900 | ND | ND | ND |
| GB21-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 8,670 | ND | ND | ND | ND | 8670 | ND | ND | ND |
| GB22-1-2' | 1-2 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB23-1-2' | 1-2 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB24-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 4,150 | ND | ND | ND | ND | 4150 | ND | ND | ND |
| GB25-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 19,900 | ND | ND | ND | ND | 19900 | ND | ND | ND |

# Grade Beams
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| GB26-1-2' | 1-2 | 7/30/04 | 8/23/04 | 14,200 | ND | ND | ND | ND | 14200 | ND | ND | ND |
| GB27-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB28-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 5,540 | ND | ND | ND | ND | 5,540 | ND | ND | ND |
| GB28-1-2.5'MS | 1-2.5 | 7/30/04 | 8/23/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| GB28-1-2.5'MSD | 1-2.5 | 7/30/04 | 8/23/04 | 12,500 | ND | ND | ND | ND | 12,500 | ND | ND | ND |
| GB29-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 13,000 | ND | ND | ND | ND | 13,000 | ND | ND | ND |
| Duplicate 81 (GB29-1-2.5') | 1-2.5 | 7/30/04 | 8/24/04 | 5,390 | ND | ND | ND | ND | 5,390 | ND | ND | ND |
| GB30-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 6,400 | ND | ND | ND | ND | 6,400 | ND | ND | ND |
| GB31-1-2' | 1-2 | 7/30/04 | 8/23/04 | 9,360 | ND | ND | ND | ND | 9,360 | ND | ND | ND |
| GB32-1-2' | 1-2 | 7/30/04 | 8/24/04 | 1,580 | ND | ND | ND | ND | 1,580 | ND | ND | ND |
| GB33-1-2' | 1-2 | 7/30/04 | 8/24/04 | 25,900 | ND | ND | ND | ND | 25,900 | ND | ND | ND |
| GB34-1-2' | 1-2 | 7/30/04 | 8/24/04 | 1,320 | ND | ND | ND | ND | 1,320 | ND | ND | ND |
| GB35-1-2' | 1-2 | 7/30/04 | 8/23/04 | 13,100 | ND | ND | ND | ND | 13,100 | ND | ND | ND |
| GB35-2-6.5' | 2-6.5 | 11/17/04 | 11/18/04 | 26,600 | ND | ND | ND | ND | 26,600 | ND | ND | ND |
| GB36-1-2' | 1-2 | 7/30/04 | 8/24/04 | 8,230 | ND | ND | ND | ND | 8,230 | ND | ND | ND |
| GB37-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB38-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB39-1-2' | 1-2 | 7/30/04 | 8/23/04 | 5,630 | ND | ND | ND | ND | 5,630 | ND | ND | ND |
| GB40-1-2' | 1-2 | 7/30/04 | 8/23/04 | 1,940 | ND | ND | ND | ND | 1,940 | ND | ND | ND |
| GB41-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB42-1-3' | 1-3 | 7/30/04 | 8/24/04 | 2,150 | ND | ND | ND | ND | 2,150 | ND | ND | ND |
| GB42-1-3'MS | 1-3 | 7/30/04 | 8/24/04 | 6,680 | ND | ND | ND | ND | 6,680 | ND | ND | ND |
| GB42-1-3'MSD | 1-3 | 7/30/04 | 8/24/04 | 7,720 | ND | ND | ND | ND | 7,720 | ND | ND | ND |
| GB43-1-2' | 1-2 | 7/30/04 | 8/23/04 | 5,650 | ND | ND | ND | ND | 5,650 | ND | ND | ND |
| GB44-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB45-1-2' | 1-2 | 7/30/04 | 8/24/04 | 12,100 | ND | ND | ND | ND | 12,100 | ND | ND | ND |
| GB46-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 22,600 | ND | ND | ND | ND | 22,600 | ND | ND | ND |
| GB47-1-3' | 1-3 | 7/30/04 | 8/24/04 | 3,880 | ND | ND | ND | ND | 3,880 | ND | ND | ND |
| GB48-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 9,390 | ND | ND | ND | ND | 9,390 | ND | ND | ND |
| GB49-1-3' | 1-3 | 7/30/04 | 8/24/04 | 5,440 | ND | ND | ND | ND | 5,440 | ND | ND | ND |
| GB50-1-3' | 1-3 | 7/30/04 | 8/24/04 | 4,360 | ND | ND | ND | ND | 4,360 | ND | ND | ND |
| GB52-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 6,950 | ND | ND | ND | ND | 6,950 | ND | ND | ND |
| Duplicate 82 (GB52-1-2.5') | 1-2.5 | 7/30/04 | 8/24/04 | 5,660 | ND | ND | ND | ND | 5,660 | ND | ND | ND |
| GB53-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND |
| GB54-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 2,150 | ND | ND | ND | ND | 2,150 | ND | ND | ND |
| GB55-1-3' | 1-3 | 7/30/04 | 8/24/04 | 9,470 | ND | ND | ND | ND | 9,470 | ND | ND | ND |
| GB56-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 1,180 | ND | ND | ND | ND | 1,180 | ND | ND | ND |
| GB57-1-3' | 1-3 | 8/4/04 | 8/31/04 | **50,900** | ND | ND | ND | ND | 50,900 | ND | ND | ND |
| GB57-C-1-3' | 1-3 | 12/3/04 | 12/8/04 | 17,800 | ND | ND | ND | ND | 17,800 | ND | ND | ND |
| GB58-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB59-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB60-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 2,440 | ND | ND | ND | ND | 2,440 | ND | ND | ND |

# Grade Beams
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| Duplicate 91 (GB60-1-2.5') | 1-2.5' | 8/4/04 | 9/4/04 | 1,330 | ND | ND | ND | ND | 1,330 | ND | ND | ND |
| GB60-1-2.5'MS | 1-2.5 | 8/4/04 | 9/3/04 | 1,770 | ND | ND | ND | ND | 1,770 | ND | ND | ND |
| GB60-1-2.5'MSD | 1-2.5 | 8/4/04 | 9/3/04 | 5,840 | ND | ND | ND | ND | 5,840 | ND | ND | ND |
| GB61-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB62-1-2.5 | 1-2.5 | 8/4/04 | 9/3/04 | 2,610 | ND | ND | ND | ND | 2,610 | ND | ND | ND |
| GB63-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 6,700 | ND | ND | ND | ND | 6,700 | ND | ND | ND |
| GB64-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 2,140 | ND | ND | ND | ND | 2,140 | ND | ND | ND |
| GB65-1-2' | 1-2 | 8/26/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB66-1-2' | 1-2 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB67-1-2' | 1-2 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB68-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB69-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB70-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB71-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 5,890 | ND | ND | ND | ND | 5,890 | ND | ND | ND |
| GB72-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 7,020 | ND | ND | ND | ND | 7,020 | ND | ND | ND |
| GB73-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 9,310 | ND | ND | ND | ND | 9,310 | ND | ND | ND |
| GB74-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB75-1-3' | 1-3 | 8/4/04 | 9/4/04 | 3,310 | ND | ND | ND | ND | 3,310 | ND | ND | ND |
| Duplicate 93 (GB75-1-3') | 1-3 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB75-1-3'MS | 1-3 | 8/4/04 | 9/4/04 | 4,650 | ND | ND | ND | ND | 4,650 | ND | ND | ND |
| GB75-1-3'MSD | 1-3 | 8/4/04 | 9/4/04 | 3,620 | ND | ND | ND | ND | 3,620 | ND | ND | ND |
| GB76-1-3.5' | 1-3.5 | 12/2/04 | 12/4/04 | 1,750 | ND | ND | ND | ND | 1,750 | ND | ND | ND |
| GB77-1-3' | 1-3 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB78-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB79-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB80-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | 2,280 | ND | ND | ND | ND | 2,280 | ND | ND | ND |
| GB81-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB82-1-3' | 1-3 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

# Building Subsurface Utilities
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| BS-1-1-4' | 1-4 | 10/29/04 | 11/2/04 | 8,570 | ND | ND | ND | ND | 8,570 | ND | ND | ND |
| BS-2-1-4' | 1-4 | 10/29/04 | 11/2/04 | 8,380 | ND | ND | ND | ND | 8,380 | ND | ND | ND |
| BS-3-1-4' | 1-4 | 10/29/04 | 11/2/04 | 4,670 | ND | ND | ND | ND | 4,670 | ND | ND | ND |
| BS-4-1-4' | 1-4 | 10/29/04 | 11/2/04 | 6,040 | ND | ND | ND | ND | 6,040 | ND | ND | ND |
| BS-5-1-4' | 1-4 | 10/29/04 | 11/2/04 | 4,790 | ND | ND | ND | ND | 4,790 | ND | ND | ND |
| BS-6-1-5' | 1-5 | 10/29/04 | 11/2/04 | 2,620 | ND | ND | ND | ND | 2,620 | ND | ND | ND |
| BS-7-1-4' | 1-4 | 10/29/04 | 11/2/04 | 8,820 | ND | ND | ND | ND | 8,820 | ND | ND | ND |
| BS-8-1-3.5' | 1-3.5 | 10/29/04 | 11/2/04 | 1,770 | ND | ND | ND | ND | 1,770 | ND | ND | ND |
| BS-9-1-4.5' | 1-4.5 | 10/29/04 | 11/2/04 | 7,660 | ND | ND | ND | ND | 7,660 | ND | ND | ND |
| BS-10-1-4.5' | 1-4.5 | 10/29/04 | 11/2/04 | 5,160 | ND | ND | ND | ND | 5,160 | ND | ND | ND |
| BS-11-1-4' | 1-4 | 10/29/04 | 11/2/04 | 26,600 | ND | ND | ND | ND | 26,600 | ND | ND | ND |
| BS-12-1-4' | 1-4 | 10/29/04 | 11/2/04 | 33,400 | ND | ND | ND | ND | 33,400 | ND | ND | ND |
| BS-13-1-5' | 1-5 | 10/29/04 | 11/2/04 | 3,220 | ND | ND | ND | ND | 3,220 | ND | ND | ND |
| BS-14-1-4' | 1-4 | 10/29/04 | 11/2/04 | 12,700 | ND | ND | ND | ND | 12,700 | ND | ND | ND |
| BS-15-1-3.25' | 1-3.25 | 10/29/04 | 11/2/04 | 21,600 | ND | ND | ND | ND | 21,600 | ND | ND | ND |
| BS-16-1-3' | 1-3 | 10/29/04 | 11/2/04 | 27,800 | ND | ND | ND | ND | 27,800 | ND | ND | ND |
| BS-17-1-3' | 1-3 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-18-1-2' | 1-2 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-19-1-3.5' | 1-3.5 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-20-1-2.5' | 1-2.5 | 10/29/04 | 11/4/04 | 1,480 | ND | ND | ND | ND | 1,480 | ND | ND | ND |
| BS-21-1-2.5' | 1-2.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-22-1-2' | 1-2 | 10/29/04 | 11/4/04 | 1,250 | ND | ND | ND | ND | 1,250 | ND | ND | ND |
| BS-23-1-2' | 1-2 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-25-1-2.5' | 1-2.5 | 10/29/04 | 11/3/04 | 1,280 | ND | ND | ND | ND | 1,280 | ND | ND | ND |
| BS-26-1-3' | 1-3 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-26-1-3'MS | 1-3 | 10/29/04 | 11/3/04 | 4,930 | ND | ND | ND | ND | 4,930 | ND | ND | ND |
| BS-26-1-3'MSD | 1-3 | 10/29/04 | 11/3/04 | 4,610 | ND | ND | ND | ND | 4610 | ND | ND | ND |
| Duplicate 175 | | 10/29/04 | 11/3/04 | 1,120 | ND | ND | ND | ND | 1120 | ND | ND | ND |
| BS27-1-2' | 1-2 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-29-1-1.5' | 1-1.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-30-1-2.5' | 1-2.5 | 10/29/04 | 11/3/04 | 1,610 | ND | ND | ND | ND | 1610 | ND | ND | ND |
| BS-31-1-1.5' | 1-1.5 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-32-1-2' | 1-2 | 10/29/04 | 11/3/04 | 4,250 | ND | ND | ND | ND | 4250 | ND | ND | ND |
| BS-33-1-1.5' | 1-1.5 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-34-1-2.5' | 1-2.5 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-35-1-1.5' | 1-1.5 | 11/2/04 | 11/6/04 | 18,400 | ND | ND | ND | ND | 18400 | ND | ND | ND |
| BS-36-1-2' | 1-2 | 11/2/04 | 11/6/04 | 7,340 | ND | ND | ND | ND | 7340 | ND | ND | ND |
| BS-37-1-2.5' | 1-2.5 | 11/2/04 | 11/6/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-38-1-2.5' | 1-2.5 | 11/2/04 | 11/6/04 | 20,600 | ND | ND | ND | ND | 20,600 | ND | ND | ND |
| Duplicate 179 (BS38-1-2.5') | 1-2.5 | 11/2/04 | 11/8/04 | 11,600 | ND | ND | ND | ND | 11,600 | ND | ND | ND |
| BS-39-1-3' | 1-3 | 11/2/04 | 11/8/04 | 2,660 | ND | ND | ND | ND | 2,660 | ND | ND | ND |
| BS-40-1-1.5' | 1-1.5 | 11/2/04 | 11/8/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |

# Building Subsurface Utilities
## Polychlorinated Biphenyls

| Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| BS-41-1-1.5' | 1-1.5 | 11/2/04 | 11/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-42-1-2' | 1-2 | 11/2/04 | 11/9/04 | 5,270 | ND | ND | ND | ND | 5,270 | ND | ND | ND |
| BS-43-1-2' | 1-2 | 11/2/04 | 11/8/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND |
| BS-44-1-2.5' | 1-2.5 | 11/2/04 | 11/8/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND |
| BS-45-1-2.5' | 1-2.5 | 11/2/04 | 11/8/04 | 5,690 | ND | ND | ND | ND | 5,690 | ND | ND | ND |
| BS-46-1-2.5' | 1-2.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-47-1-3' | 1-3 | 10/29/04 | 11/4/04 | 18,600 | ND | ND | ND | ND | 18,600 | ND | ND | ND |
| BS-48-1-3.5' | 1-3.5 | 10/29/04 | 11/4/04 | 6,740 | ND | ND | ND | ND | 6,740 | ND | ND | ND |
| BS-49-1-4' | 1-4 | 10/29/04 | 11/4/04 | 13,700 | ND | ND | ND | ND | 13,700 | ND | ND | ND |
| BS-50-1-4.5' | 1-4.5 | 10/29/04 | 11/4/04 | 19,300 | ND | ND | ND | ND | 19,300 | ND | ND | ND |
| BS-51-1-5' | 1-5 | 10/29/04 | 11/4/04 | 1,570 | ND | ND | ND | ND | 1,570 | ND | ND | ND |
| BS-52-1-1.25' | 1-1.25 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-53-1-1.5' | 1-1.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-54-1-1.5' | 1-1.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-55-1-1.25' | 1-1.25 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-56-1-1.25' | 1-1.25 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-57-1-2.5' | 1-2.5 | 10/29/04 | 11/4/04 | 10,900 | ND | ND | ND | ND | 10,900 | ND | ND | ND |
| BS-58-1-4' | 1-4 | 11/2/04 | 11/8/04 | 3,700 | ND | ND | ND | ND | 3,700 | ND | ND | ND |
| Duplicate 178 (BS-58-1-4') | 1-4 | 11/2/04 | 11/8/04 | 4,980 | ND | ND | ND | ND | 4,980 | ND | ND | ND |
| BS-59-1-1.5' | 1-1.5 | 11/2/04 | 11/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-60-1-5' | 1-5 | 11/2/04 | 11/8/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| BS61-2-6' | 2-6 | 11/17/04 | 11/5/04 | 9,230 | ND | ND | ND | ND | 9,230 | ND | ND | ND |
| Duplicate 191 (BS61-2-6') | 2-6 | 11/17/04 | 11/18/04 | 6,440 | ND | ND | ND | ND | 6,440 | ND | ND | ND |
| BS-61-1-2' | 1-2 | 10/29/04 | 11/18/04 | 2,190 | ND | ND | ND | ND | 2,190 | ND | ND | ND |
| BS-62-1-2.5' | 1-2.5 | 10/29/04 | 11/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-63-1-3' | 1-3 | 10/29/04 | 11/4/04 | 7,800 | ND | ND | ND | ND | 7,800 | ND | ND | ND |
| BS-64-1-3.5' | 1-3.5 | 10/29/04 | 11/4/04 | 8,350 | ND | ND | ND | ND | 8,350 | ND | ND | ND |
| BS-65-1-4' | 1-4 | 10/29/04 | 11/4/04 | 32,500 | ND | ND | ND | ND | 32,500 | ND | ND | ND |
| BS-66-1-5' | 1-5 | 10/29/04 | 11/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-67-1-1.5' | 1-1.5 | 10/29/04 | 11/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-68-1-1.5' | 1-1.5 | 10/29/04 | 11/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-69-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | **98,800** | ND | ND | ND | ND | 98,800 | ND | ND | ND |
| BS-69-1.5-2.5' | 1.5-2.5 | 12/2/04 | 12/4/04 | 14,200 | ND | ND | ND | ND | 14,200 | ND | ND | ND |
| BS-69-E-1-1.5' | 1-1.5 | 11/11/04 | 11/15/04 | 48,000 | ND | ND | ND | ND | 48,000 | ND | ND | ND |
| BS-69-W-1-1.5' | 1-1.5 | 11/11/04 | 11/15/04 | **138,700** | ND | ND | ND | ND | 138,700 | ND | ND | ND |
| BS-69-A-1-2' | 1-2 | 11/17/04 | 11/18/04 | 32,500 | ND | ND | ND | ND | 32,500 | ND | ND | ND |
| BS-69-B-1-2' | 1-2 | 11/17/04 | 11/18/04 | 2,280 | ND | ND | ND | ND | 2,280 | ND | ND | ND |
| BS-69-C-1-2' | 1-2 | 11/17/04 | 11/18/04 | 7,700 | ND | ND | ND | ND | 7,700 | ND | ND | ND |
| BS-70-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | 20,100 | ND | ND | ND | ND | 20,100 | ND | ND | ND |
| BS-71-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-72-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | 30,600 | ND | ND | ND | ND | 30,600 | ND | ND | ND |

# Building Subsurface Utilities
## Polychlorinated Biphenyls

| Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| BS-73-1-1.5' | 1-1.5 | 11/3/04 | 11/10/04 | 2,240 | ND | ND | ND | ND | 2,240 | ND | ND | ND |
| BS-74-1-2' | 1-2 | 11/3/04 | 11/9/04 | 3,520 | ND | ND | ND | ND | 3,520 | ND | ND | ND |
| BS-75-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| BS-76-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-77-1-2' | 1-2 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-78-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-79-1-4' | 1-4 | 11/3/04 | 11/9/04 | 24,800 | ND | ND | ND | ND | 24,800 | ND | ND | ND |
| Duplicate 181 (BS79-1-4') | 1-4 | 11/3/04 | 11/9/04 | 23,600 | ND | ND | ND | ND | 23,600 | ND | ND | ND |
| BS-80-1-2' | 1-2 | 11/3/04 | 11/9/04 | 4,000 | ND | ND | ND | ND | 4,000 | ND | ND | ND |
| BS-81-1-2' | 1-2 | 11/3/04 | 11/9/04 | 13,600 | ND | ND | ND | ND | 13,600 | ND | ND | ND |
| BS-82-1-5' | 1-5 | 11/3/04 | 11/9/04 | 8,510 | ND | ND | ND | ND | 8,510 | ND | ND | ND |
| BS-83-1-1.5 | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-84-1-3.75' | 1-3.75 | 11/3/04 | 11/9/04 | 14,500 | ND | ND | ND | ND | 14,500 | ND | ND | ND |
| BS-85-1-2' | 1-2 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-86-1-2' | 1-2 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-87-1-5.5' | 1-5.5 | 11/3/04 | 11/9/04 | 4,020 | ND | ND | ND | ND | 4,020 | ND | ND | ND |
| BS-88-1-5.5' | 1-5.5 | 11/3/04 | 11/9/04 | 2,000 | ND | ND | ND | ND | 2,000 | ND | ND | ND |
| BS-89-1-6' | 1-6 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-90-1-4' | 1-4 | 11/3/04 | 11/9/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND |
| BS-90-4-7' | 4-7 | 11/3/04 | 11/9/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| Duplicate 184 (BS90-4-7') | 4-7 | 11/3/04 | 11/10/04 | 8,350 | ND | ND | ND | ND | 8,350 | ND | ND | ND |
| BS-91-1-4' | 1-4 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-91-4-6.75' | 4-6.75 | 11/3/04 | 11/9/04 | 2,650 | ND | ND | ND | ND | 2,650 | ND | ND | ND |
| BS-92-1-2' | 1-2 | 11/3/04 | 11/9/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND |
| BS-93-1-2' | 1-2 | 11/3/04 | 11/10/04 | 2,000 | ND | ND | ND | ND | 2,000 | ND | ND | ND |
| BS-94-1-4.5' | 1-4.5 | 11/3/04 | 11/10/04 | 2,700 | ND | ND | ND | ND | 2,700 | ND | ND | ND |
| BS-95-1-2' | 1-2 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-96-1-6' | 1-6 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-97-1-5.25' | 1-5.25 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 182 (BS-97-1-5.25') | 1-5.25 | 11/3/04 | 11/10/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| BS-98-1-5' | 1-5 | 11/3/04 | 11/10/04 | 5,450 | ND | ND | ND | ND | 5,450 | ND | ND | ND |
| BS-99-1-4.25' | 1-4.25 | 11/3/04 | 11/10/04 | 20,100 | ND | ND | ND | ND | 20,100 | ND | ND | ND |
| BS-100-1-4' | 1-4 | 11/3/04 | 11/9/04 | 6,190 | ND | ND | ND | ND | 6,190 | ND | ND | ND |
| BS-101-1-3.75' | 1-3.75 | 11/3/04 | 11/9/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| BS-102-1-2' | 1-2 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-103-1-2.75' | 1-2.75 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-104-1-4' | 1-4 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-105-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-106-1-4' | 1-4 | 11/3/04 | 11/9/04 | 2,180 | ND | ND | ND | ND | 2,180 | ND | ND | ND |
| BS-107-1-3.25' | 1-3.25 | 11/3/04 | 11/10/04 | 40,000 | ND | ND | ND | ND | 40,000 | ND | ND | ND |
| BS-108-1-1.75' | 1-1.75 | 11/3/04 | 11/10/04 | 3,440 | ND | ND | ND | ND | 3,440 | ND | ND | ND |
| BS-109-1-3.75' | 1-3.75 | 11/3/04 | 11/10/04 | 8,520 | ND | ND | ND | ND | 8,520 | ND | ND | ND |

## Building Subsurface Utilities
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| BS-110-1-3.75' | 1-3.75 | 11/3/04 | 11/10/04 | 18,100 | ND | ND | ND | ND | 18,100 | ND | ND | ND |
| BS-111-1-4.5' | 1-4.5 | 11/3/04 | 11/9/04 | 8,620 | ND | ND | ND | ND | 8,620 | ND | ND | ND |
| BS-112-1-4' | 1-4 | 11/3/04 | 11/10/04 | 48,000 | ND | ND | ND | ND | 48,000 | ND | ND | ND |
| BS-112-4-7' | 4-7 | 11/3/04 | 11/10/04 | 5,960 | ND | ND | ND | ND | 5,960 | ND | ND | ND |
| BS-113-1-4' | 1-4 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-113-4-7' | 4-7 | 11/3/04 | 11/10/04 | 6,670 | ND | ND | ND | ND | 6,670 | ND | ND | ND |
| BS-114-1-5' | 1-5 | 11/3/04 | 11/9/04 | 2,530 | ND | ND | ND | ND | 2,530 | ND | ND | ND |
| BS-115-1-2' | 1-2 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-116-1-2' | 1-2 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-117-1-2' | 1-2 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-118-1-1.75' | 1-1.75 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

# Utility Tie-Ins
# Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Tie-In** | **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **TI-1A** | TI-1A-1-4' | 1-4 | 10/20/04 | 10/26/04 | 21,700 | ND | ND | ND | ND | 21,700 | ND | ND | ND |
| | TI-1A-4-8' | 4-8 | 10/20/04 | 10/26/04 | 3,600 | ND | ND | ND | ND | 3,600 | ND | ND | ND |
| | TI-1A-8-11' | 8-11 | 10/20/04 | 10/26/04 | 3,720 | ND | ND | ND | ND | 3,720 | ND | ND | ND |
| **TI-2A** | TI-2A-1-4' | 1-4 | 10/20/04 | 10/26/04 | **60,900** | ND | ND | ND | ND | 60,900 | ND | ND | ND |
| | TI-2A-4-8' | 4-8 | 10/20/04 | 10/26/04 | 7,210 | ND | ND | ND | ND | 7,210 | ND | ND | ND |
| | TI-2A-8-11' | 8-11 | 10/20/04 | 10/26/04 | 2,870 | ND | ND | ND | ND | 2,870 | ND | ND | ND |
| **TI-3A** | TI-3A-1-4' | 1-4 | 10/20/04 | 10/26/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | TI-3A-4-8' | 4-8 | 10/20/04 | 10/27/04 | 44,600 | ND | ND | ND | ND | 44,600 | ND | ND | ND |
| | TI-3A-8-11' | 8-11 | 10/20/04 | 10/26/04 | 2,350 | ND | ND | ND | ND | 2,350 | ND | ND | ND |
| **TI-4A** | TI-4A-0-4' | 0-4 | 10/20/04 | 10/26/04 | 3,680 | ND | ND | ND | ND | 3,680 | ND | ND | ND |
| | TI-4A-4-8' | 4-8 | 10/20/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | TI-4A-8-9' | 8-9 | 10/20/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **TI-5A** | TI-5A-1-4' | 1-4 | 10/20/04 | 10/27/04 | **75,000** | ND | ND | ND | ND | 75,000 | ND | ND | ND |
| | TI-5A-4-8' | 4-8 | 10/20/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | TI-5A-8-9.25' | 8-9.25 | 10/20/04 | 10/26/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Q40** | Q40-2-4' | 2-4 | 5/26/04 | 6/5/04 | 1,530 | ND | ND | ND | ND | 1,530 | ND | ND | ND | ~ |
| | Q40-4-8' | 4-8 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q41** | Q41-2-4' | 2-4 | 5/26/04 | 6/5/04 | 25,900 | ND | ND | ND | ND | ND | ND | ND | 25,900 | ~ |
| | Q41-4-6' | 4-6 | 5/26/04 | 6/5/04 | 6,470 | ND | ND | ND | ND | 6,470 | ND | ND | ND | ~ |
| | Q41-6-8.5' | 6-8.5 | 5/26/04 | 6/5/04 | 1,410 | ND | ND | ND | ND | 1,410 | ND | ND | ND | ~ |
| | Q41-OS-9-10' | 9-10 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q42** | Q42-2-4' | 2-4 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q42-4-6' | 4-6 | 5/26/04 | 6/5/04 | 9,140 | ND | ND | ND | ND | 9,140 | ND | ND | ND | ~ |
| | Q42-6-8.5' | 6-8.5 | 5/26/04 | 6/5/04 | 7,570 | ND | ND | ND | ND | 7,570 | ND | ND | ND | ~ |
| | Q42-OS-9-10' | 9-10 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q43** | Q43-2-4' | 2-4 | 5/26/04 | 6/5/04 | 2,190 | ND | ND | ND | ND | 2,190 | ND | ND | ND | ~ |
| | Q43-4-6' | 4-6 | 5/26/04 | 6/11/04 | **99,000** | ND | ND | ND | ND | 99,000 | ND | ND | ND | ~ |
| | Q43-6-8.5' | 6-8.5 | 5/26/04 | 6/12/04 | **108,000** | ND | ND | ND | ND | 108,000 | ND | ND | ND | ~ |
| | Q43-OS-9-10' | 9-10 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| | Q43-A-4-6' | 4-6 | 6/30/04 | 7/31/04 | 20,300 | ND | ND | ND | ND | 20300 | ND | ND | ND | ~ |
| | Q43-A-6-9' | 6-9 | 6/30/04 | 7/31/04 | 10,200 | ND | ND | ND | ND | 10200 | ND | ND | ND | ~ |
| | Duplicate 68 (Q43-A-6-9') | 6-9 | 6/30/04 | 8/7/04 | 6,490 | ND | ND | ND | ND | 6490 | ND | ND | ND | |
| | Q43-B-4-6' | 4-6 | 6/30/04 | 7/31/04 | 4,750 | ND | ND | ND | ND | 4750 | ND | ND | ND | ~ |
| | Q43-B-6-9' | 6-9 | 6/30/04 | 7/31/04 | 4,250 | ND | ND | ND | ND | 4250 | ND | ND | ND | ~ |
| | Q43-B-6-9'MS | 6-9 | 6/30/04 | 7/31/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND | ~ |
| | Q43-B-6-9'MSD | 6-9 | 6/30/04 | 7/31/04 | 17,100 | ND | ND | ND | ND | 17100 | ND | ND | ND | ~ |
| | Q43-C-4-6' | 4-6 | 6/30/04 | 7/31/04 | 2,380 | ND | ND | ND | ND | 2380 | ND | ND | ND | ~ |
| | Q43-C-6-9' | 6-9 | 6/30/04 | 7/31/04 | 2,470 | ND | ND | ND | ND | 2470 | ND | ND | ND | ~ |
| | Q43-D-4-6' | 4-6 | 6/30/04 | 7/31/04 | 1,720 | ND | ND | ND | ND | 1720 | ND | ND | ND | ~ |
| | Q43-D-6-8.5' | 6-8.5 | 6/30/04 | 7/31/04 | 47,600 | ND | ND | ND | ND | 47600 | ND | ND | ND | ~ |
| | Q43-E-4-6' | 4-6 | 6/30/04 | 7/31/04 | **50,900** | ND | ND | ND | ND | 50900 | ND | ND | ND | ~ |
| | Q43-E-6-8.5' | 6-8.5 | 6/30/04 | 7/31/04 | 4,720 | ND | ND | ND | ND | 4720 | ND | ND | ND | ~ |
| | Q43-F-4-6' | 4-6 | 6/30/04 | 7/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q43-F-6-9.5' | 6-9.5 | 6/30/04 | 7/31/04 | 9,870 | ND | ND | ND | ND | 9870 | ND | ND | ND | ~ |
| **Q44** | Q44-1-3' | 1-3 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q44-3-6' | 3-6 | 5/26/04 | 6/5/04 | 5,880 | ND | ND | ND | ND | 5,880 | ND | ND | ND | ~ |
| | Q44-6-9' | 6-9 | 5/26/04 | 6/5/04 | 6,370 | ND | ND | ND | ND | 6,370 | ND | ND | ND | ~ |
| **Q45** | Q45-1-3' | 1-3 | 5/26/04 | 6/5/04 | 1,500 | ND | ND | ND | ND | 1,500 | ND | ND | ND | ~ |
| | Q45-3-6' | 3-6 | 5/26/04 | 6/5/04 | 3,450 | ND | ND | ND | ND | 3,450 | ND | ND | ND | ~ |
| | Q45-6-9' | 6-9 | 5/26/04 | 6/5/04 | 3,560 | ND | ND | ND | ND | 3,560 | ND | ND | ND | ~ |
| **Q46** | Q46-1-4' | 1-4 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q46-4-7' | 4-7 | 5/26/04 | 6/5/04 | 6,340 | ND | ND | ND | ND | 6,340 | ND | ND | ND | ~ |
| | Q46-4-7'MS | 4-7 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q46-4-7'MSDUP | 4-7 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Q46-7-10' | 7-10 | 5/26/04 | 6/5/04 | 7,180 | ND | ND | ND | ND | 7,180 | ND | ND | ND | ~ |
| | Q46-OS-10.5-11.5' | 10.5-11.5 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q47** | Q47-1-3' | 1-3 | 5/26/04 | 6/5/04 | 3,240 | ND | ND | ND | ND | 3,240 | ND | ND | ND | ~ |
| | Q47-3-6' | 3-6 | 5/26/04 | 6/5/04 | 3,730 | ND | ND | ND | ND | 3,730 | ND | ND | ND | ~ |
| | Q47-6-9' | 6-9 | 5/26/04 | 6/5/04 | 8,630 | ND | ND | ND | ND | 8,630 | ND | ND | ND | ~ |
| **Q48** | Q48-1-3' | 1-3 | 5/26/04 | 6/5/04 | 2,640 | ND | ND | ND | ND | 2,640 | ND | ND | ND | ~ |
| | Q48-3-6' | 3-6 | 5/26/04 | 6/5/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND | ~ |
| **Q49** | Q49-1-3' | 1-3 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q49-3-5' | 3-5 | 5/26/04 | 6/5/04 | 1,800 | ND | ND | ND | ND | 1,800 | ND | ND | ND | ~ |
| | Q49-5-8' | 5-8 | 5/26/04 | 6/5/04 | 6,730 | ND | ND | ND | ND | 6,730 | ND | ND | ND | ~ |
| | Q49-OS-9.5-10.5' | 9.5-10.5 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q50** | Q50-1-4' | 1-4 | 5/26/04 | 6/5/04 | 2,860 | ND | ND | ND | ND | 2,860 | ND | ND | ND | ~ |
| | Q50-4-7' | 4-7 | 5/26/04 | 6/5/04 | 5,310 | ND | ND | ND | ND | 5,310 | ND | ND | ND | ~ |
| | Q50-7-11' | 7-11 | 5/26/04 | 6/6/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q50-OS-11.5-12' | 11.5-12 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q51** | Q51-1-4' | 1-4 | 5/26/04 | 6/6/04 | 9,140 | ND | ND | ND | ND | 3,410 | ND | ND | 5,730 | ~ |
| | Q51-4-7' | 4-7 | 5/26/04 | 6/6/04 | 2,560 | ND | ND | ND | ND | 2,560 | ND | ND | ND | ~ |
| | Q51-7-10' | 7-10 | 5/26/04 | 6/6/04 | 1,720 | ND | ND | ND | ND | 1,720 | ND | ND | ND | ~ |
| | Q51-OS-10.5-11.5' | 10.5-11.5 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q52** | Q52-1-4' | 1-4 | 6/14/04 | 7/13/04 | 9,650 | ND | ND | ND | ND | 9,650 | ND | ND | ND | ~ |
| | Q52-4-7' | 4-7 | 6/14/04 | 7/4/04 | 4,520 | ND | ND | ND | ND | 4,520 | ND | ND | ND | ~ |
| | Duplicate 27 | | 6/14/04 | 7/13/04 | 6,240 | ND | ND | ND | ND | 6,240 | ND | ND | ND | ~ |
| | Q52-7-11' | 7-11 | 6/14/04 | 7/4/04 | 5,320 | ND | ND | ND | ND | 5,320 | ND | ND | ND | ~ |
| | Q52-OS-11.5-12' | 11.5-12 | 6/14/04 | 6/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q53** | Q53-1-4' | 1-4 | 6/14/04 | 7/4/04 | 2,940 | ND | ND | ND | ND | 2,940 | ND | ND | ND | ~ |
| | Q53-1-4'MS | 1-4 | 6/14/04 | 7/4/04 | 4,810 | ND | ND | ND | ND | 4,810 | ND | ND | ND | ~ |
| | Q53-1-4'MSD | 1-4 | 6/14/04 | 7/4/04 | 4,670 | ND | ND | ND | ND | 4,670 | ND | ND | ND | ~ |
| | Q53-4-8' | 4-8 | 6/14/04 | 7/4/04 | 1,450 | ND | ND | ND | ND | 1,450 | ND | ND | ND | ~ |
| **former Q54** | Q54-1-4' | 1-4 | 6/14/04 | 7/4/04 | 2,640 | ND | ND | ND | ND | 2,640 | ND | ND | ND | ~ |
| | Q54-4-7' | 4-7 | 6/14/04 | 7/4/04 | 1,640 | ND | ND | ND | ND | 1,640 | ND | ND | ND | ~ |
| | Q54-7-11' | 7-11 | 6/14/04 | 7/4/04 | 1,450 | ND | ND | ND | ND | 1,450 | ND | ND | ND | ~ |
| | Q54-OS-11-12' | 11-12 | 6/14/04 | 6/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **former Q55** | Q55-1-4' | 1-4 | 6/14/04 | 7/13/04 | 1,560 | ND | ND | ND | ND | 1,560 | ND | ND | ND | ~ |
| | Q55-4-8' | 4-8 | 6/14/04 | 7/4/04 | 3,710 | ND | ND | ND | ND | 3,710 | ND | ND | ND | ~ |
| | Q55-8-11' | 8-11 | 6/30/04 | 7/31/04 | 2,060 | ND | ND | ND | ND | 2,060 | ND | ND | ND | ~ |
| **former Q56** | Q56-1-4' | 1-4 | 6/17/04 | 7/30/04 | 4,580 | ND | ND | ND | ND | 4,580 | ND | ND | ND | ~ |
| | Q56-4-8' | 4-8 | 6/17/04 | 7/30/04 | 2,840 | ND | ND | ND | ND | 2,840 | ND | ND | ND | ~ |
| | Q56-8-12' | 8-12 | 6/17/04 | 7/30/04 | 1,610 | ND | ND | ND | ND | 1,610 | ND | ND | ND | ~ |
| | Q57-1-4' | 1-4 | 6/17/04 | 7/30/04 | 4,410 | ND | ND | ND | ND | 4,410 | ND | ND | ND | ~ |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **former Q57** | Q57-4-7' | 4-7 | 6/17/04 | 7/30/04 | 4,280 | ND | ND | ND | ND | 4,280 | ND | ND | ND | ~ |
| | Q57-7-10' | 7-10 | 6/17/04 | 7/30/04 | 2,690 | ND | ND | ND | ND | 2,690 | ND | ND | ND | ~ |
| | Q57-OS-10.5-12' | 10.5-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **former Q58** | Q58-1-4' | 1-4 | 6/17/04 | 7/30/04 | 5,610 | ND | ND | ND | ND | 5,610 | ND | ND | ND | ~ |
| | Q58-4-7' | 4-7 | 6/17/04 | 7/30/04 | 4,030 | ND | ND | ND | ND | 4,030 | ND | ND | ND | ~ |
| | Q58-7-11' | 7-11 | 6/17/04 | 7/30/04 | 2,040 | ND | ND | ND | ND | 2,040 | ND | ND | ND | ~ |
| **former Q59** | Q59-1-3' | 1-3 | 6/17/04 | 7/30/04 | 22,300 | ND | ND | ND | ND | 22,300 | ND | ND | ND | ~ |
| | Q59-3-6' | 3-6 | 6/17/04 | 7/30/04 | 2,810 | ND | ND | ND | ND | 2,810 | ND | ND | ND | ~ |
| | Q59-6-9' | 6-9 | 6/17/04 | 7/30/04 | 1,840 | ND | ND | ND | ND | 1,840 | ND | ND | ND | ~ |
| | Q59-OS-9.5-12' | 9.5-12 | 6/17/04 | 7/9/04 | 851 | ND | ND | ND | ND | 851 | ND | ND | ND | ~ |
| | DUPLICATE 28 | | 6/17/04 | 7/31/04 | 9,330 | ND | ND | ND | ND | 9,330 | ND | ND | ND | ~ |
| **former Q60** | Q60-1-4' | 1-4 | 6/17/04 | 7/30/04 | **217,000** | ND | ND | ND | ND | 217,000 | ND | ND | ND | ~ |
| | Q60-1-4'MS | 1-4 | 6/17/04 | 7/30/04 | 392,000 | ND | ND | ND | ND | 392,000 | ND | ND | ND | ~ |
| | Q60-1-4'MS DUP | 1-4 | 6/17/04 | 7/30/04 | 351,000 | ND | ND | ND | ND | 351,000 | ND | ND | ND | ~ |
| | Q60-4-7' | 4-7 | 6/17/04 | 7/30/04 | **80,700** | ND | ND | ND | ND | 80,700 | ND | ND | ND | ~ |
| | Q60-7-10.5' | 7-10.5 | 6/17/04 | 7/30/04 | 3,590 | ND | ND | ND | ND | 3,590 | ND | ND | ND | ~ |
| | Q60-OS-11-12' | 11-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **former Q61** | Q61-1-4' | 1-4 | 6/17/04 | 7/30/04 | 14,900 | ND | ND | ND | ND | 14,900 | ND | ND | ND | ~ |
| | Q61-4-7' | 4-7 | 6/17/04 | 7/30/04 | 3,360 | ND | ND | ND | ND | 3,360 | ND | ND | ND | ~ |
| | Q61-7-11' | 7-11 | 6/17/04 | 7/30/04 | 3,890 | ND | ND | ND | ND | 3,890 | ND | ND | ND | ~ |
| **Q55** | Q55A-1-4' | 1-4 | 7/7/04 | 8/6/04 | 8,260 | ND | ND | ND | ND | 8,260 | ND | ND | ND | ~ |
| | DUPLICATE 76 | 1-4 | 7/7/04 | 8/6/04 | 7,840 | ND | ND | ND | ND | 7,840 | ND | ND | ND | ~ |
| | Q55A-4-7' | 4-7 | 7/7/04 | 8/6/04 | 6,050 | ND | ND | ND | ND | 6,050 | ND | ND | ND | ~ |
| | Q55A-4-7'MS | 4-7 | 7/7/04 | 8/6/04 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND | ~ |
| | Q55A-4-7'MSD | 4-7 | 7/7/04 | 8/6/04 | 8,120 | ND | ND | ND | ND | 8,120 | ND | ND | ND | ~ |
| | Q55A-7-11' | 7-11 | 7/7/04 | 8/6/04 | 2,070 | ND | ND | ND | ND | 2,070 | ND | ND | ND | ~ |
| | Q55A-OS-11.5-12' | 11.5-12 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q56** | Q56A-1-4' | 1-4 | 7/7/04 | 8/6/04 | 14,900 | ND | ND | ND | ND | 14,900 | ND | ND | ND | ~ |
| | Q56A-4-7' | 4-7 | 7/7/04 | 8/6/04 | **57,500** | ND | ND | ND | ND | 57,500 | ND | ND | ND | ~ |
| | Q56A-7-10' | 7-10 | 7/7/04 | 8/6/04 | 2,750 | ND | ND | ND | ND | 2,750 | ND | ND | ND | ~ |
| | Q56A-OS-10.5-13' | 10.5-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q56-B-1-4' | 1-4 | 8/18/04 | 8/19/04 | 18,000 | ND | ND | ND | ND | 18,000 | ND | ND | ND | ~ |
| | Q56-B-4-7' | 4-7 | 8/18/04 | 8/19/04 | **62,500** | ND | ND | ND | ND | 62,500 | ND | ND | ND | ~ |
| | Q56-B-7-9.5' | 7-9.5 | 8/18/04 | 8/19/04 | 1,450 | ND | ND | ND | ND | 1,450 | ND | ND | ND | ~ |
| | Q56-C-1-4' | 1-4 | 8/18/04 | 8/19/04 | 3,930 | ND | ND | ND | ND | 3,930 | ND | ND | ND | ~ |
| | Q56-C-4-7' | 4-7 | 8/18/04 | 8/20/04 | 24,100 | ND | ND | ND | ND | 24,100 | ND | ND | ND | ~ |
| | Q56-C-7-8' | 7-8 | 8/18/04 | 8/19/04 | 1,590 | ND | ND | ND | ND | 1,590 | ND | ND | ND | ~ |
| | Q56-D-1-4' | 1-4 | 8/18/04 | 8/24/04 | 3,360 | ND | ND | ND | ND | 3,360 | ND | ND | ND | ~ |
| | Q56-D-4-7' | 4-7 | 8/18/04 | 8/24/04 | 39,600 | ND | ND | ND | ND | 39,600 | ND | ND | ND | ~ |

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## North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Q56-D-7-11' | 7-11 | 8/18/04 | 8/24/04 | 2,780 | ND | ND | ND | ND | 2,780 | ND | ND | ND | ~ |
| **Q57** | Q57A-1-4' | 1-4 | 7/7/04 | 8/6/04 | 5,760 | ND | ND | ND | ND | 5,760 | ND | ND | ND | ~ |
| | Q57A-4-7' | 4-7 | 7/7/04 | 8/7/04 | 8,000 | ND | ND | ND | ND | 8,000 | ND | ND | ND | ~ |
| | Q57A-7-10' | 7-10 | 7/7/04 | 8/7/04 | 2,320 | ND | ND | ND | ND | 2,320 | ND | ND | ND | ~ |
| | Q57A-OS-10.5-13' | 10.5-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q58** | Q58A-1-3' | 1-3 | 7/7/04 | 8/7/04 | 6,660 | ND | ND | ND | ND | 6,660 | ND | ND | ND | ~ |
| | Q58A-3-6' | 3-6 | 7/7/04 | 8/7/04 | 9,670 | ND | ND | ND | ND | 9,670 | ND | ND | ND | ~ |
| | Q58A-6-9.5' | 6-9.5 | 7/7/04 | 8/7/04 | 1,960 | ND | ND | ND | ND | 1,960 | ND | ND | ND | ~ |
| | Q58A-OS-10-12' | 10-12 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q59** | Q59A-1-3' | 1-3 | 7/7/04 | 8/7/04 | 20,000 | ND | ND | ND | ND | 20,000 | ND | ND | ND | ~ |
| | Q59A-3-6' | 3-6 | 7/7/04 | 8/7/04 | 2,280 | ND | ND | ND | ND | 2,280 | ND | ND | ND | ~ |
| | Q59A-6-9.5' | 6-9.5 | 7/7/04 | 8/7/04 | 5,090 | ND | ND | ND | ND | 5,090 | ND | ND | ND | ~ |
| | Q59A-OS-10-13' | 10-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q60** | Q60A-1-4' | 1-4 | 7/7/04 | 8/7/04 | 3,230 | ND | ND | ND | ND | 3,230 | ND | ND | ND | ~ |
| | Q60A-4-7' | 4-7 | 7/7/04 | 8/7/04 | 4,350 | ND | ND | ND | ND | 4,350 | ND | ND | ND | ~ |
| | Q60A-7-10.5' | 7-10.5 | 7/7/04 | 8/7/04 | 3,810 | ND | ND | ND | ND | 3,810 | ND | ND | ND | ~ |
| | Q60A-OS-11-12' | 11-12 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q60-B-1-4' | 1-4 | 8/18/04 | 8/20/04 | 1,960 | ND | ND | ND | ND | 1,960 | ND | ND | ND | ~ |
| | Q60-B-4-7' | 4-7 | 8/18/04 | 8/20/04 | 2,270 | ND | ND | ND | ND | 2,270 | ND | ND | ND | ~ |
| | Q60-C-1-4' | 1-4 | 8/18/04 | 8/21/04 | **82,600** | ND | ND | ND | ND | 82,600 | ND | ND | ND | ~ |
| | Duplicate 112 | 1-4 | 8/18/04 | 8/22/04 | 16,100 | ND | ND | ND | ND | 16,100 | ND | ND | ND | ~ |
| | Q60-C-4-7' | 4-7 | 8/18/04 | 8/20/04 | 1,360 | ND | ND | ND | ND | 1,360 | ND | ND | ND | ~ |
| | Q60-C-4-7'MS | 4-7 | 8/18/04 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | ~ |
| | Q60-C-4-7'MSD | 4-7 | 8/18/04 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | ~ |
| | Q60-D-1-4' | 1-4 | 8/18/04 | 8/21/04 | **73,900** | ND | ND | ND | ND | 73,900 | ND | ND | ND | ~ |
| | Q60-D-4-7' | 4-7 | 8/18/04 | 8/22/04 | **68,100** | ND | ND | ND | ND | 68,100 | ND | ND | ND | ~ |
| | Q60-E-1-4' | 1-4 | 8/18/04 | 8/20/04 | **97,100** | ND | ND | ND | ND | 97,100 | ND | ND | ND | ~ |
| | Q60-E-4-7' | 4-7 | 8/18/04 | 8/20/04 | 1,690 | ND | ND | ND | ND | 1,690 | ND | ND | ND | ~ |
| | Q60-F-1-4' | 1-4 | 8/18/04 | 8/20/04 | 29,300 | ND | ND | ND | ND | 29,300 | ND | ND | ND | ~ |
| | Q60-F-4-7' | 4-7 | 8/18/04 | 8/20/04 | 2,050 | ND | ND | ND | ND | 2,050 | ND | ND | ND | ~ |
| | Q60-G-1-4' | 1-4 | 8/18/04 | 8/20/04 | 5,910 | ND | ND | ND | ND | 5,910 | ND | ND | ND | ~ |
| | Q60-G-4-7' | 4-7 | 8/18/04 | 8/20/04 | 1,310 | ND | ND | ND | ND | 1,310 | ND | ND | ND | ~ |
| | Q60-H-1-4' | 1-4 | 8/18/04 | 8/20/04 | 1,030 | ND | ND | ND | ND | 1,030 | ND | ND | ND | ~ |
| | Q60-H-4-7' | 4-7 | 8/18/04 | 8/20/04 | 3,610 | ND | ND | ND | ND | 3,610 | ND | ND | ND | ~ |
| **Q61** | Q61A-1-4' | 1-4 | 7/7/04 | 8/7/04 | 40,200 | ND | ND | ND | ND | 40,200 | ND | ND | ND | ~ |
| | Q61A-4-8' | 4-8 | 7/7/04 | 8/7/04 | 12,800 | ND | ND | ND | ND | 12,800 | ND | ND | ND | ~ |
| | Q61A-8-12' | 8-12 | 7/7/04 | 8/7/04 | 1,910 | ND | ND | ND | ND | 1,910 | ND | ND | ND | ~ |
| | Q61A-OS-12-13' | 12-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | DUPLICATE 77 | 12-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |

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Black shading indicates UCL exceedance.

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Q62** | Q62-1-4' | 1-4 | 6/17/04 | 7/30/04 | **62,300** | ND | ND | ND | ND | 62,300 | ND | ND | ND | ~ |
| | Q62-4-7' | 4-7 | 6/17/04 | 7/30/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND | ~ |
| | Q62-7-11.5' | 7-11.5 | 6/17/04 | 7/30/04 | 2,660 | ND | ND | ND | ND | 2,660 | ND | ND | ND | ~ |
| | Q62-A-1-4' | 1-4 | 9/22/04 | 9/24/04 | **55,180** | ND | ND | ND | ND | 55,180 | ND | ND | ND | ~ |
| | Q62-A-4-7' | 4-7 | 9/22/04 | 9/24/04 | 2,400 | ND | ND | ND | ND | 2,400 | ND | ND | ND | ~ |
| | Q62-B-1-4' | 1-4 | 9/22/04 | 9/24/04 | 5,800 | ND | ND | ND | ND | 5,800 | ND | ND | ND | ~ |
| | Q62-B-4-7' | 4-7 | 9/22/04 | 9/24/04 | 4,000 | ND | ND | ND | ND | 4,000 | ND | ND | ND | ~ |
| | Q62-C-1-4' | 1-4 | 9/24/04 | 9/28/04 | 2,050 | ND | ND | ND | ND | 2,050 | ND | ND | ND | ~ |
| | Q62-C-4-7' | 4-7 | 9/24/04 | 9/28/04 | 2,060 | ND | ND | ND | ND | 2,060 | ND | ND | ND | ~ |
| | Q62-D-1-4' | 1-4 | 9/24/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q62-D-4-7' | 4-7 | 9/24/04 | 9/28/04 | **48,900** | ND | ND | ND | ND | 48,900 | ND | ND | ND | ~ |
| **Q63** | Q63-1-4' | 1-4 | 6/17/04 | 7/30/04 | 22,500 | ND | ND | ND | ND | 22,500 | ND | ND | ND | ~ |
| | Q63-4-7' | 4-7 | 6/17/04 | 7/30/04 | 1,370 | ND | ND | ND | ND | 1,370 | ND | ND | ND | ~ |
| | Q63-7-10.5' | 7-10.5 | 6/17/04 | 7/30/04 | 1,480 | ND | ND | ND | ND | 1,480 | ND | ND | ND | ~ |
| | Q63-OS-11-12' | 11-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q64** | Q64-1-4' | 1-4 | 6/17/04 | 7/31/04 | 6,890 | ND | ND | ND | ND | 6,890 | ND | ND | ND | ~ |
| | Q64-4-7' | 4-7 | 6/17/04 | 7/31/04 | 16,600 | ND | ND | ND | ND | 16,600 | ND | ND | ND | ~ |
| | Q64-7-11' | 7-11 | 6/17/04 | 7/31/04 | 7,830 | ND | ND | ND | ND | 7,830 | ND | ND | ND | ~ |
| | Q64-OS-11.5-12' | 11.5-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q65** | Q65-1-4' | 1-4 | 6/17/04 | 7/31/04 | **121,000** | ND | ND | ND | ND | 121,000 | ND | ND | ND | ~ |
| | Q65-4-7' | 4-7 | 6/17/04 | 7/31/04 | 6,950 | ND | ND | ND | ND | 6,950 | ND | ND | ND | ~ |
| | Q65-7-11' | 7-11 | 6/17/04 | 7/31/04 | 8,760 | ND | ND | ND | ND | 8,760 | ND | ND | ND | ~ |
| | Q65-OS-11.5-12' | 11.5-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-A-1-4' | 1-4 | 8/18/04 | 8/22/04 | **94,900** | ND | ND | ND | ND | 94,900 | ND | ND | ND | ~ |
| | Q65-A-4-7' | 4-7 | 8/18/04 | 8/20/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND | ~ |
| | Q65-B-1-4' | 1-4 | 8/18/04 | 8/20/04 | 9,920 | ND | ND | ND | ND | 9,920 | ND | ND | ND | ~ |
| | Q65-B-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,640 | ND | ND | ND | ND | 2,640 | ND | ND | ND | ~ |
| | Q65-C-1-4' | 1-4 | 8/18/04 | 8/19/04 | 4,510 | ND | ND | ND | ND | 4,510 | ND | ND | ND | ~ |
| | Q65-C-4-7'MS | 4-7 | 8/18/04 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | ~ |
| | Q65-C-4-7'MSD | 4-7 | 8/18/04 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | ~ |
| | Q65-C-4-7' | 4-7 | 8/18/04 | 8/19/04 | 5,960 | ND | ND | ND | ND | 5,960 | ND | ND | ND | ~ |
| | Duplicate 113 | 4-7 | 8/18/04 | 8/20/04 | 9,820 | ND | ND | ND | ND | 9,820 | ND | ND | ND | ~ |
| | Q65-D-1-4' | 1-4 | 8/18/04 | 8/20/04 | 35,100 | ND | ND | ND | ND | 35,100 | ND | ND | ND | ~ |
| | Q65-D-4-7' | 4-7 | 8/18/04 | 8/19/04 | 5,820 | ND | ND | ND | ND | 5,820 | ND | ND | ND | ~ |
| | Q65-E-1-4' | 1-4 | 8/18/04 | 8/20/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND | ~ |
| | Q65-E-4-7' | 4-7 | 8/18/04 | 8/20/04 | 3,100 | ND | ND | ND | ND | 3,100 | ND | ND | ND | ~ |
| | Q65-F-1-4' | 1-4 | 8/18/04 | 8/22/04 | 26,600 | ND | ND | ND | ND | 26,600 | ND | ND | ND | ~ |
| | Q65-F-4-7' | 4-7 | 8/18/04 | 8/20/04 | 28,300 | ND | ND | ND | ND | 28,300 | ND | ND | ND | ~ |
| | Q65-G-1-4' | 1-4 | 8/18/04 | 8/20/04 | **92,000** | ND | ND | ND | ND | 92,000 | ND | ND | ND | ~ |
| | Q65-G-4-7' | 4-7 | 8/18/04 | 8/19/04 | 3,150 | ND | ND | ND | ND | 3,150 | ND | ND | ND | ~ |

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# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Q65-H-1-4' | 1-4 | 8/18/04 | 8/20/04 | 22,000 | ND | ND | ND | ND | 22,000 | ND | ND | ND | ~ |
| | Q65-H-4-7' | 4-7 | 8/18/04 | 8/20/04 | 2,360 | ND | ND | ND | ND | 2,360 | ND | ND | ND | ~ |
| | Q65-I-1-4' | 1-4 | 8/18/04 | 8/25/04 | 19,700 | ND | ND | ND | ND | 19,700 | ND | ND | ND | ~ |
| | Q65-I-4-7' | 4-7 | 8/18/04 | 8/25/04 | 6,230 | ND | ND | ND | ND | 6,230 | ND | ND | ND | ~ |
| | Q65-K-1-4' | 1-4 | 9/24/04 | 9/28/04 | **51,800** | ND | ND | ND | ND | 51,800 | ND | ND | ND | ~ |
| | Q65-K-4-7' | 4-7 | 9/24/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-K-7-8' | 7-8 | 10/1/04 | 10/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-L-1-4' | 1-4 | 9/24/04 | 9/28/04 | **230,000** | ND | ND | ND | ND | 230,000 | ND | ND | ND | ~ |
| | Q65-L-4-7' | 4-7 | 9/24/04 | 9/28/04 | **265,000** | ND | ND | ND | ND | 265,000 | ND | ND | ND | ~ |
| | Q65-L-7-10' | 7-10 | 10/1/04 | 10/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-M-1-4' | 1-4 | 10/1/04 | 10/4/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND | ~ |
| | Q65-M-4-7' | 4-7 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-M-7-11' | 7-11 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-N-1-4' | 1-4 | 10/1/04 | 10/4/04 | 28,500 | ND | ND | ND | ND | 28,500 | ND | ND | ND | ~ |
| | Q65-N-4-7' | 4-7 | 10/1/04 | 10/2/04 | 2,480 | ND | ND | ND | ND | 2,480 | ND | ND | ND | ~ |
| | Duplicate 152 (Q65-N-4-7') | 4-7 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-N-7-10.5' | 7-10.5 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-O-1-4' | 1-4 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-O-4-7' | 4-7 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-O-7-10' | 7-10 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q66** | Q66-1-4' | 1-4 | 6/17/04 | 7/31/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND | ~ |
| | Q66-4-8' | 4-8 | 6/17/04 | 7/31/04 | 7,330 | ND | ND | ND | ND | 7,330 | ND | ND | ND | ~ |
| | Q66-OS-11-11.5 | 11-11.5 | 6/17/04 | 7/9/04 | 601 | ND | ND | ND | ND | 601 | ND | ND | ND | ~ |
| **Q67** | Q67-1-4' | 1-4 | 6/17/04 | 7/31/04 | 5,310 | ND | ND | ND | ND | 5,310 | ND | ND | ND | ~ |
| | Q67-4-8' | 4-8 | 6/17/04 | 7/31/04 | 32,100 | ND | ND | ND | ND | 32,100 | ND | ND | ND | ~ |
| | Q67-OS-8.5-9.5 | 8.5-9.5 | 6/17/04 | 7/9/04 | 933 | ND | ND | ND | ND | 933 | ND | ND | ND | ~ |
| | Q67-C-1-4' | 1-4 | 8/19/04 | 8/26/04 | 38,300 | ND | ND | ND | ND | 38,300 | ND | ND | ND | ~ |
| | Q67-C-4-8' | 4-8 | 8/19/04 | 8/26/04 | 5,360 | ND | ND | ND | ND | 5,360 | ND | ND | ND | ~ |
| **Q68** | Q68-1-4' | 1-4 | 7/7/04 | 8/7/04 | 5,660 | ND | ND | ND | ND | 5,660 | ND | ND | ND | ~ |
| | Q68-4-7' | 4-7 | 7/7/04 | 8/7/04 | 2,870 | ND | ND | ND | ND | 2,870 | ND | ND | ND | ~ |
| | Q68-4-7'MS | 4-7 | 7/7/04 | 8/7/04 | 7,160 | ND | ND | ND | ND | 7,160 | ND | ND | ND | ~ |
| | Q68-4-7'MSD | 4-7 | 7/7/04 | 8/7/04 | 7,090 | ND | ND | ND | ND | 7,090 | ND | ND | ND | ~ |
| | Q68-7-11' | 7-11 | 7/7/04 | 8/7/04 | 4,900 | ND | ND | ND | ND | 4,900 | ND | ND | ND | ~ |
| | Q69-1-4' | 1-4 | 7/7/04 | 8/6/04 | **113,000** | ND | ND | ND | ND | 113,000 | ND | ND | ND | ~ |
| | Q69-4-7' | 4-7 | 7/7/04 | 8/6/04 | **650,000** | ND | ND | ND | ND | 650,000 | ND | ND | ND | ~ |
| | Q69-7-10.5' | 7-10.5 | 7/7/04 | 8/6/04 | 12,500 | ND | ND | ND | ND | 12,500 | ND | ND | ND | ~ |
| | Q69-OS-11-12' | 11-12 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q69-A-1-4' | 1-4 | 8/18/04 | 8/19/04 | 3,590 | ND | ND | ND | ND | 3,590 | ND | ND | ND | ~ |
| | Q69-A-4-7' | 4-7 | 8/18/04 | 8/19/04 | 3,280 | ND | ND | ND | ND | 3,280 | ND | ND | ND | ~ |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) | Method 680 Homologs (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Q69** | Q69-A-7-9.5' | 7-9.5 | 8/18/04 | 8/19/04 | 2,020 | ND | ND | ND | ND | 2,020 | ND | ND | ND | ~ |
| | Q69-B-1-4' | 1-4 | 8/18/04 | 8/19/04 | 2,780 | ND | ND | ND | ND | 2,780 | ND | ND | ND | ~ |
| | Q69-B-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,520 | ND | ND | ND | ND | 2,520 | ND | ND | ND | ~ |
| | Q69-B-7-13 | 7-13 | 8/18/04 | 8/19/04 | 1,040 | ND | ND | ND | ND | 1,040 | ND | ND | ND | ~ |
| | Q69-C-1-4' | 1-4 | 8/18/04 | 8/19/04 | 6,280 | ND | ND | ND | ND | 6,280 | ND | ND | ND | ~ |
| | Q69-C-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,260 | ND | ND | ND | ND | 2,260 | ND | ND | ND | ~ |
| | Q69-C-7-10' | 7-10 | 8/18/04 | 8/19/04 | 2,880 | ND | ND | ND | ND | 2,880 | ND | ND | ND | ~ |
| | Q69-D-1-4' | 1-4 | 8/18/04 | 8/19/04 | 2,010 | ND | ND | ND | ND | 2,010 | ND | ND | ND | ~ |
| | Q69-D-4-7' | 4-7 | 8/18/04 | 8/20/04 | 10,500 | ND | ND | ND | ND | 10,500 | ND | ND | ND | ~ |
| | Q69-D-7-10' | 7-10 | 8/18/04 | 8/19/04 | 950 | ND | ND | ND | ND | 950 | ND | ND | ND | ~ |
| | Q69-E-1-4' | 1-4 | 8/18/04 | 8/19/04 | 2,340 | ND | ND | ND | ND | 2,340 | ND | ND | ND | ~ |
| | Q69-E-4-7' | 4-7 | 8/18/04 | 8/19/04 | 22,500 | ND | ND | ND | ND | 22,500 | ND | ND | ND | ~ |
| | Q69-E-7-10' | 7-10 | 8/18/04 | 8/20/04 | 1,060 | ND | ND | ND | ND | 1,060 | ND | ND | ND | ~ |
| | Q69-F-1-4' | 1-4 | 8/18/04 | 8/19/04 | 5,690 | ND | ND | ND | ND | 5,690 | ND | ND | ND | ~ |
| | Q69-F-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,610 | ND | ND | ND | ND | 2,610 | ND | ND | ND | ~ |
| | Q69-F-7-9' | 7-9 | 8/18/04 | 8/19/04 | 2,540 | ND | ND | ND | ND | 2,540 | ND | ND | ND | ~ |
| | Q69-G-1-4' | 1-4 | 8/18/04 | 8/19/04 | 2,600 | ND | ND | ND | ND | 2,600 | ND | ND | ND | ~ |
| | Duplicate 111 | 1-4 | 8/18/04 | 8/20/04 | 4,680 | ND | ND | ND | ND | 4,680 | ND | ND | ND | ~ |
| | Q69-G-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,950 | ND | ND | ND | ND | 2,950 | ND | ND | ND | ~ |
| | Q69-G-4-7'MS | 4-7 | 8/18/04 | | | | | | | | | | | ~ |
| | Q69-G-4-7'MSD | 4-7 | 8/18/04 | | | | | | | | | | | ~ |
| | Q69-G-7-9' | 7-9 | 8/18/04 | 8/19/04 | 1,710 | ND | ND | ND | ND | 1,710 | ND | ND | ND | ~ |
| | Q69-H-1-4' | 1-4 | 8/18/04 | 8/19/04 | 3,370 | ND | ND | ND | ND | 3,370 | ND | ND | ND | ~ |
| | Q69-H-4-7' | 4-7 | 8/18/04 | 8/19/04 | 1,230 | ND | ND | ND | ND | 1,230 | ND | ND | ND | ~ |
| | Q69-H-7-13' | 7-13 | 8/18/04 | 8/19/04 | 1,680 | ND | ND | ND | ND | 1,680 | ND | ND | ND | ~ |
| **Q70** | Q70-1-4' | 1-4 | 8/19/04 | 8/23/04 | **290,000** | ND | ND | ND | ND | 290,000 | ND | ND | ND | ~ |
| | Q70-4-7' | 4-7 | 8/19/04 | 8/23/04 | 3,240 | ND | ND | ND | ND | 3,240 | ND | ND | ND | ~ |
| | Q70-7-11' | 7-11 | 8/19/04 | 8/23/04 | 1,190 | ND | ND | ND | ND | 1,190 | ND | ND | ND | ~ |
| | Q70-OS-11.5-12' | 11.5-12 | 8/19/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-A-1-4' | 1-4 | 8/25/04 | 8/27/04 | 10,300 | ND | ND | ND | ND | 10300 | ND | ND | ND | ~ |
| | Q70-A-4-7' | 4-7 | 8/25/04 | 8/27/04 | 1,080 | ND | ND | ND | ND | 1080 | ND | ND | ND | ~ |
| | Q70-B-1-4' | 1-4 | 8/25/04 | 8/27/04 | 22,800 | ND | ND | ND | ND | 22800 | ND | ND | ND | ~ |
| | Q70-B-4-7' | 4-7 | 8/25/04 | 8/27/04 | 1,480 | ND | ND | ND | ND | 1480 | ND | ND | ND | ~ |
| | Q70-C-1-4' | 1-4 | 8/25/04 | 8/27/04 | 4,400 | ND | ND | ND | ND | 4400 | ND | ND | ND | ~ |
| | Q70-C-4-7' | 4-7 | 8/25/04 | 8/27/04 | 1,730 | ND | ND | ND | ND | 1730 | ND | ND | ND | ~ |
| | Q70-D-1-4' | 1-4 | 8/25/04 | 8/27/04 | **132,000** | ND | ND | ND | ND | 132000 | ND | ND | ND | ~ |
| | Q70-D-4-7' | 4-7 | 8/25/04 | 8/27/04 | 2,070 | ND | ND | ND | ND | 2070 | ND | ND | ND | ~ |
| | Q70-E-1-4' | 1-4 | 8/25/04 | 8/27/04 | **106,000** | ND | ND | ND | ND | 106000 | ND | ND | ND | ~ |
| | Q70-E-4-7' | 4-7 | 8/25/04 | 8/27/04 | 1,340 | ND | ND | ND | ND | 1340 | ND | ND | ND | ~ |
| | Q70-F-1-4' | 1-4 | 8/25/04 | 8/30/04 | 24,000 | ND | ND | ND | ND | 24000 | ND | ND | ND | ~ |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Q70-F-4-7' | 4-7 | 8/25/04 | 8/27/04 | 2,920 | ND | ND | ND | ND | 2920 | ND | ND | ND | ~ |
| | Q70-G-1-4' | 1-4 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-G-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-H-1-4' | 1-4 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-H-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-I-1-4' | 1-4 | 9/8/04 | 9/9/04 | 3,200 | ND | ND | ND | ND | ND | ND | ND | ND | 3200 |
| | Q70-I-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-J-1-4' | 1-4 | 9/8/04 | 9/18/04 | 1,400 | ND | ND | ND | ND | ND | ND | ND | ND | 1400 |
| | Q70-J-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-K-1-4' | 1-4 | 9/8/04 | 9/9/04 | 14,000 | ND | ND | ND | ND | ND | ND | ND | ND | 14000 |
| | Duplicate 130 (Q70-K-1-4') | 1-4 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-K-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q71** | Q71-1-4' | 1-4 | 8/19/04 | 8/23/04 | 4,900 | ND | ND | ND | ND | 4,900 | ND | ND | ND | ~ |
| | Duplicate 115 (Q71-1-4') | 1-4 | 8/19/04 | 8/23/04 | 3,700 | ND | ND | ND | ND | 3,700 | ND | ND | ND | ~ |
| | Q71-4-7' | 4-7 | 8/19/04 | 8/23/04 | 2,300 | ND | ND | ND | ND | 2,300 | ND | ND | ND | ~ |
| | Q71-4-7'MS | 4-7 | 8/19/04 | | | | | | | | | | | ~ |
| | Q71-4-7'MSD | 4-7 | 8/19/04 | | | | | | | | | | | ~ |
| | Q71-7-11.5' | 7-11.5 | 8/19/04 | 8/23/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND | ~ |
| | Q71-OS-12-12.5' | 12-12.5 | 8/19/04 | 8/23/04 | ND | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ~ |
| **Q72** | Q72-1-4' | 1-4 | 9/22/04 | 9/23/04 | 7,900 | ND | ND | ND | ND | 7,900 | ND | ND | ND | ~ |
| | Q72-4-7' | 4-7 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q72-7-8.5' | 7-8.5 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q73** | Q73-1-4' | 1-4 | 9/22/04 | 9/23/04 | 13,900 | ND | ND | ND | ND | 13,900 | ND | ND | ND | ~ |
| | Q73-4-7' | 4-7 | 9/22/04 | 9/23/04 | 11,560 | ND | ND | ND | ND | 11,560 | ND | ND | ND | ~ |
| | Q73-7-11' | 7-11 | 9/22/04 | 9/23/04 | 3,500 | ND | ND | ND | ND | 3,500 | ND | ND | ND | ~ |
| **Q74** | Q74-1-4' | 1-4 | 9/22/04 | 9/23/04 | 6,740 | ND | ND | ND | ND | 6,740 | ND | ND | ND | ~ |
| | Q74-4-7' | 4-7 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q74-7-8.5' | 7-8.5 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q75** | Q75-1-4' | 1-4 | 9/22/04 | 9/23/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND | ~ |
| | Q75-4-7' | 4-7 | 9/22/04 | 9/23/04 | 25,000 | ND | ND | ND | ND | 25,000 | ND | ND | ND | ~ |
| | Q75-7-10' | 7-10 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Water Line
## Polychlorinated Biphenyls (PCBs)

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **LOCATION** | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **W1** | W1-1-3' | 1-3 | 7/2/04 | 8/13/04 | **48,200** | ND | ND | ND | ND | 48,200 | ND | ND | ND |
| | W1-3-5' | 3-5 | 7/2/04 | 8/13/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| **W2** | W2-1-3' | 1-3 | 7/2/04 | 8/13/04 | 6,230 | ND | ND | ND | ND | 6,230 | ND | ND | ND |
| | W2-3-5' | 3-5 | 7/2/04 | 8/13/04 | 1,340 | ND | ND | ND | ND | 1,340 | ND | ND | ND |
| **W3** | W3-1-3' | 1-3 | 7/2/04 | 8/13/04 | 2,280 | ND | ND | ND | ND | 2,280 | ND | ND | ND |
| | W3-3-5' | 3-5 | 7/2/04 | 8/13/04 | 1,840 | ND | ND | ND | ND | 1,840 | ND | ND | ND |
| **W4** | W4-1-3' | 1-3 | 7/2/04 | 8/13/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| | W4-1-3'MS | 1-3 | 7/2/04 | 8/13/04 | 12,200 | ND | ND | ND | ND | 12,200 | ND | ND | ND |
| | W4-1-3'MSD | 1-3 | 7/2/04 | 8/13/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | W4-3-5' | 3-5 | 7/2/04 | 8/13/04 | 1,850 | ND | ND | ND | ND | 1,850 | ND | ND | ND |
| | Duplicate 74 | 3-5 | 7/2/04 | 8/13/04 | 27,700 | ND | ND | ND | ND | 27,700 | ND | ND | ND |
| **W5** | W5-1-3' | 1-3 | 7/2/04 | 8/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W5-3-5' | 3-5 | 7/2/04 | 8/13/04 | 2,220 | ND | ND | ND | ND | 2,220 | ND | ND | ND |
| **W6** | W6-1-3' | 1-3 | 7/2/04 | 8/12/04 | 7,700 | ND | ND | ND | ND | 7,700 | ND | ND | ND |
| | W6-3-5' | 3-5 | 7/2/04 | 8/13/04 | 2,110 | ND | ND | ND | ND | 2,110 | ND | ND | ND |
| **W7** | W7-1-3' | 1-3 | 7/2/04 | 8/12/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | Duplicate 73 | 1-3 | 7/2/04 | 8/13/04 | 11,400 | ND | ND | ND | ND | 11,400 | ND | ND | ND |
| | W7-3-5' | 3-5 | 7/2/04 | 8/12/04 | 12,900 | ND | ND | ND | ND | 12,900 | ND | ND | ND |
| | W7-3-5'MS | 3-5 | 7/2/04 | 8/12/04 | 11,500 | ND | ND | ND | ND | 11,500 | ND | ND | ND |
| | W7-3-5'MSD | 3-5 | 7/2/04 | 8/12/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | W8-1-3' | 1-3 | 7/2/04 | 8/12/04 | **133,000** | ND | ND | ND | ND | 133,000 | ND | ND | ND |
| | W8-3-5' | 3-5 | 7/2/04 | 8/12/04 | **124,000** | ND | ND | ND | ND | 124,000 | ND | ND | ND |
| | W8-5-7' | 5-7 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-A-1-3' | 1-3 | 9/8/04 | 9/18/04 | 18,700 | ND | ND | ND | ND | 18,700 | ND | ND | ND |
| | W8-A-3-5' | 3-5 | 9/8/04 | 9/20/04 | 3,580 | ND | ND | ND | ND | 3,580 | ND | ND | ND |
| | W8-A-5-7' | 5-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-B-1-3' | 1-3 | 9/8/04 | 9/12/04 | **93,400** | ND | ND | ND | ND | 93,400 | ND | ND | ND |
| | W8-B-3-5' | 3-5 | 9/8/04 | 9/21/04 | **168,000** | ND | ND | ND | ND | 168,000 | ND | ND | ND |
| | W8-B-5-7' | 5-7 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-C-1-3' | 1-3 | 9/8/04 | 9/21/04 | **126,000** | ND | ND | ND | ND | 126,000 | ND | ND | ND |
| | W8-C-3-5' | 3-5 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-C-5-7' | 5-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-D-1-3' | 1-3 | 9/8/04 | 9/13/04 | 28,200 | ND | ND | ND | ND | 28,200 | ND | ND | ND |
| | W8-D-3-5' | 3-5 | 9/8/04 | 9/13/04 | **192,000** | ND | ND | ND | ND | 192,000 | ND | ND | ND |
| | W8-D-5-7' | 5-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-E-1-3' | 1-3 | 9/8/04 | 9/12/04 | **356,000** | ND | ND | ND | ND | 356,000 | ND | ND | ND |
| | W8-E-3-5' | 3-5 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-E-5-7' | 5-7 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-F-1-3' | 1-3 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-F-3-4' | 3-4 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-G-1-3' | 1-3 | 9/14/04 | 9/17/04 | **152,000** | ND | ND | ND | ND | 152,000 | ND | ND | ND |
| | W8-G-3-5' | 3-5 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

# Water Line
## Polychlorinated Biphenyls (PCBs)

| LOCATION | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **W8** | W8-H-1-3' | 1-3 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-H-3-5' | 3-5 | 9/14/04 | 9/19/04 | **1,260,000** | ND | ND | ND | ND | 1,260,000 | ND | ND | ND |
| | W8-I-1-3' | 1-3 | 9/14/04 | 9/19/04 | **2,320,000** | ND | ND | ND | ND | 2,320,000 | ND | ND | ND |
| | W8-I-3-5' | 3-5 | 9/14/04 | 9/17/04 | 28,500 | ND | ND | ND | ND | 28,500 | ND | ND | ND |
| | W8-J-1-3' | 1-3 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-J-3-5' | 3-5 | 9/14/04 | 9/17/04 | **123,000** | ND | ND | ND | ND | 123,000 | ND | ND | ND |
| | W8-J-5-7' | 5-7 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-K-1-3' | 1-3 | 9/14/04 | 9/22/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | W8-K-3-5' | 3-5 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-K-5-7' | 5-7 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-L-1-3' | 1-3 | 9/14/04 | 9/22/04 | 5,200 | ND | ND | ND | ND | 5,200 | ND | ND | ND |
| | Duplicate 137 (W8-L-1-3') | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-L-3-4' | 3-4 | 9/14/04 | 9/22/04 | 26,500 | ND | ND | ND | ND | 26,500 | ND | ND | ND |
| | W8-L-4-7' | 4-7 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-M-1-3 | 1-3 | 9/24/04 | 9/28/04 | **77,600** | ND | ND | ND | ND | 77,600 | ND | ND | ND |
| | W8-M-1-3'MS | 1-3 | 9/24/04 | 9/28/04 | 24,200 | ND | ND | ND | ND | 24,200 | ND | ND | ND |
| | W8-M-1-3'MSD | 1-3 | 9/24/04 | 9/28/04 | **53,100** | ND | ND | ND | ND | 53,100 | ND | ND | ND |
| | W8-M-3-5 | 3-5 | 9/24/04 | 9/28/04 | 20,900 | ND | ND | ND | ND | 20,900 | ND | ND | ND |
| | Duplicate 143 (W8-M-3-5') | 3-5 | 9/24/04 | 9/28/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | W8-M-5-7 | 5-7 | 9/24/04 | 9/28/04 | 2,930 | ND | ND | ND | ND | 2,930 | ND | ND | ND |
| | W8-N-1-3' | 1-3 | 9/24/04 | 9/28/04 | 2,480 | ND | ND | ND | ND | 2,480 | ND | ND | ND |
| | W8-N-3-5' | 3-5 | 9/24/04 | 9/28/04 | 2,430 | ND | ND | ND | ND | 2,430 | ND | ND | ND |
| | W8-N-5-7' | 5-7 | 9/24/04 | 9/28/04 | 2,080 | ND | ND | ND | ND | 2,080 | ND | ND | ND |
| | W8-N-5-7'MS | 5-7 | 9/24/04 | 9/28/04 | 7,970 | ND | ND | ND | ND | 7,970 | ND | ND | ND |
| | W8-N-5-7'MSD | 5-7 | 9/24/04 | 9/28/04 | 8,440 | ND | ND | ND | ND | 8,440 | ND | ND | ND |
| | W8-O-1-3' | 1-3 | 9/24/04 | 9/28/04 | **146,000** | ND | ND | ND | ND | 146,000 | ND | ND | ND |
| | W8-O-3-5' | 3-5 | 9/24/04 | 9/28/04 | 31,400 | ND | ND | ND | ND | 31,400 | ND | ND | ND |
| | W8-O-5-7' | 5-7 | 9/24/04 | 9/28/04 | 2,540 | ND | ND | ND | ND | 2,540 | ND | ND | ND |
| | W8-P-1-3' | 1-3 | 9/24/04 | 9/28/04 | 2,650 | ND | ND | ND | ND | 2,650 | ND | ND | ND |
| | W8-P-3-5' | 3-5 | 9/24/04 | 9/28/04 | **115,000** | ND | ND | ND | ND | 115,000 | ND | ND | ND |
| | W8-P-5-7' | 5-7 | 9/24/04 | 9/28/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND |
| | W8-Q-1-3' | 1-3 | 9/24/04 | 9/28/04 | **92,300** | ND | ND | ND | ND | 92,300 | ND | ND | ND |
| | W8-Q-3-5' | 3-5 | 9/24/04 | 9/28/04 | 19,100 | ND | ND | ND | ND | 19,100 | ND | ND | ND |
| | W8-Q-5-7' | 5-7 | 9/24/04 | 9/28/04 | 2,150 | ND | ND | ND | ND | 2,150 | ND | ND | ND |
| | W8-R-1-3' | 1-3 | 9/24/04 | 9/28/04 | 4,580 | ND | ND | ND | ND | 4,580 | ND | ND | ND |
| | W8-R-3-5' | 3-5 | 9/24/04 | 9/28/04 | 9,320 | ND | ND | ND | ND | 9,320 | ND | ND | ND |
| | W8-R-5-7' | 5-7 | 9/24/04 | 9/28/04 | 2,080 | ND | ND | ND | ND | 2,080 | ND | ND | ND |
| | W8-S-1-3' | 1-3 | 9/24/04 | 9/28/04 | 3,410 | ND | ND | ND | ND | 3,410 | ND | ND | ND |
| | W8-S-3-5' | 3-5 | 9/24/04 | 9/28/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| | W8-S-5-7' | 5-7 | 9/24/04 | 9/28/04 | 5,850 | ND | ND | ND | ND | 5,850 | ND | ND | ND |
| | W8-T-1-3' | 1-3 | 9/24/04 | 9/28/04 | 9,820 | ND | ND | ND | ND | 9,820 | ND | ND | ND |
| | W8-T-3-5' | 3-5 | 9/24/04 | 9/28/04 | 1,650 | ND | ND | ND | ND | 1,650 | ND | ND | ND |
| | W8-T-5-7' | 5-7 | 9/24/04 | 9/28/04 | 1,870 | ND | ND | ND | ND | 1,870 | ND | ND | ND |

# Water Line
## Polychlorinated Biphenyls (PCBs)

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **LOCATION** | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | W8-U-1-3' | 1-3 | 9/24/04 | 9/28/04 | **119,000** | ND | ND | ND | ND | 119,000 | ND | ND | ND |
| | W8-U-3-5' | 3-5 | 9/24/04 | 9/28/04 | 2,070 | ND | ND | ND | ND | 2,070 | ND | ND | ND |
| | W8-U-5-7' | 5-7 | 9/24/04 | 9/28/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND |
| **W9** | W9-1-3' | 1-3 | 7/2/04 | 8/12/04 | 11,400 | ND | ND | ND | ND | 11,400 | ND | ND | ND |
| | W9-3-5' | 3-5 | 7/2/04 | 8/12/04 | 3,950 | ND | ND | ND | ND | 3,950 | ND | ND | ND |
| **W10** | W10-1-3' | 1-3 | 7/2/04 | 8/12/04 | 12,500 | ND | ND | ND | ND | 12,500 | ND | ND | ND |
| | W10-3-5' | 3-5 | 7/2/04 | 8/12/04 | 6,640 | ND | ND | ND | ND | 6,640 | ND | ND | ND |
| **W11** | W11-1-3' | 1-3 | 7/2/04 | 8/18/04 | 3,700 | ND | ND | ND | ND | 3,700 | ND | ND | ND |
| | W11-3-5' | 3-5 | 7/2/04 | 8/12/04 | 2,010 | ND | ND | ND | ND | 2,010 | ND | ND | ND |
| | W11-A-1-4' | 1-4 | 9/20/04 | 9/22/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| | W11-A-4-8' | 4-8 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W11-A-8-10' | 8-10 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W11-B-1-4' | 1-4 | 9/20/04 | 9/22/04 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| | W11-B-4-8' | 4-8 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W11-B-8-9' | 8-9 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **W12** | W12-1-3' | 1-3 | 7/2/04 | 8/18/04 | 5,640 | ND | ND | ND | ND | 5,640 | ND | ND | ND |
| | W12-3-5' | 3-5 | 7/2/04 | 8/18/04 | 11,600 | ND | ND | ND | ND | 11,600 | ND | ND | ND |
| | W12-A-1-4' | 1-4 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 140 (W12-A-1-4') | 1-4 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W12-A-4-8' | 4-8 | 9/22/04 | 9/23/04 | 3,100 | ND | ND | ND | ND | 3,100 | ND | ND | ND |
| | W12-A-4-8'MS | 4-8 | 9/22/04 | 9/23/04 | 6,840 | ND | ND | ND | ND | 6,840 | ND | ND | ND |
| | W12-A-4-8'MSD | 4-8 | 9/22/04 | 9/23/04 | 10,650 | ND | ND | ND | ND | 10,650 | ND | ND | ND |
| | W12-A-8-11' | 8-11 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W12-B-1-4' | 1-4 | 9/22/04 | 9/23/04 | 4,500 | ND | ND | ND | ND | 4,500 | ND | ND | ND |
| | W12-B-4-8' | 4-8 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W12-B-8-9.5' | 8-9.5 | 9/22/04 | 9/23/04 | 4,500 | ND | ND | ND | ND | 4,500 | ND | ND | ND |
| **W13** | W13-1-3' | 1-3 | 7/2/04 | 8/18/04 | 8,420 | ND | ND | ND | ND | 8,420 | ND | ND | ND |
| | W13-3-5' | 3-5 | 7/2/04 | 8/18/04 | 14,800 | ND | ND | ND | ND | 14,800 | ND | ND | ND |
| **W14** | W14-1-3' | 1-3 | 7/2/04 | 8/18/04 | 6,850 | ND | ND | ND | ND | 6,850 | ND | ND | ND |
| | W14-3-5' | 3-5 | 7/2/04 | 8/18/04 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| **W15** | W15-1-3' | 1-3 | 7/2/04 | 8/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W15-3-5' | 3-5 | 7/2/04 | 8/18/04 | 8,540 | ND | ND | ND | ND | 8,540 | ND | ND | ND |
| **W16** | W16-1-3' | 1-3 | 7/2/04 | 7/27/04 | 4,190 | ND | ND | ND | ND | 4,190 | ND | ND | ND |
| | W16-3-5' | 3-5 | 7/2/04 | 7/27/04 | 7,580 | ND | ND | ND | ND | 7,580 | ND | ND | ND |
| **W17** | W17-1-3' | 1-3 | 7/2/04 | 8/12/04 | 8,930 | ND | ND | ND | ND | 8,930 | ND | ND | ND |
| | W17-3-5' | 3-5 | 7/2/04 | 8/12/04 | 5,970 | ND | ND | ND | ND | 5,970 | ND | ND | ND |
| **W18** | W18-1-3' | 1-3 | 7/2/04 | 8/12/04 | 7,960 | ND | ND | ND | ND | 7,960 | ND | ND | ND |
| | Duplicate 70 | 1-3 | 7/2/04 | 8/13/04 | 1,750 | ND | ND | ND | ND | 1,750 | ND | ND | ND |
| | W18-3-5' | 3-5 | 7/2/04 | 8/12/04 | 5,990 | ND | ND | ND | ND | 5,990 | ND | ND | ND |
| **W19** | W19-1-3' | 1-3 | 7/2/04 | 8/12/04 | 12,800 | ND | ND | ND | ND | 12,800 | ND | ND | ND |
| | W19-1-3'MS | 1-3 | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | W19-1-3'MSD | 1-3 | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |

McCoy Field
Project No. 02685

## Water Line
## Polychlorinated Biphenyls (PCBs)

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **LOCATION** | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | W19-3-5' | 3-5 | 7/2/04 | 8/12/04 | 25,700 | ND | ND | ND | ND | 25,700 | ND | ND | ND |
| **W20** | W20-1-3' | 1-3 | 7/2/04 | 8/12/04 | 7,240 | ND | ND | ND | ND | 7,240 | ND | ND | ND |
| | W20-3-5' | 3-5 | 7/2/04 | 8/12/04 | 2,940 | ND | ND | ND | ND | 2,940 | ND | ND | ND |
| **W21** | W21-1-3' | 1-3 | 7/2/04 | 8/12/04 | 5,970 | ND | ND | ND | ND | 5,970 | ND | ND | ND |
| | W21-3-5' | 3-5 | 7/2/04 | 8/12/04 | 7,530 | ND | ND | ND | ND | 7,530 | ND | ND | ND |
| **W22** | W22-1-4' | 1-4 | 7/7/04 | 8/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W22-4-8' | 4-8 | 7/7/04 | 8/13/04 | **69,800** | ND | ND | ND | ND | 69,800 | ND | ND | ND |
| | W22-A-1-4' | 1-4 | 9/14/04 | 9/20/04 | **77,200** | ND | ND | ND | ND | 77,200 | ND | ND | ND |
| | W22-A-4-8' | 4-8 | 9/14/04 | 9/20/04 | **54,200** | ND | ND | ND | ND | 54,200 | ND | ND | ND |
| | W22-B-1-4' | 1-4 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W22-B-4-8' | 4-8 | 9/14/04 | 9/23/04 | **78,600** | ND | ND | ND | ND | 78,600 | ND | ND | ND |
| | W22-C-1-4' | 1-4 | 9/14/04 | 9/23/04 | 9,930 | ND | ND | ND | ND | 9,930 | ND | ND | ND |
| | W22-C-4-8' | 4-8 | 9/14/04 | 9/23/04 | 15,000 | ND | ND | ND | ND | 15,000 | ND | ND | ND |
| | W22-D-1-4' | 1-4 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W22-D-4-8' | 4-8 | 9/14/04 | 9/23/04 | 37,000 | ND | ND | ND | ND | 37,000 | ND | ND | ND |
| **W23** | W23-1-4' | 1-4 | 7/7/04 | 8/13/04 | 4,410 | ND | ND | ND | ND | 4,410 | ND | ND | ND |
| | W23-4-8' | 4-8 | 7/7/04 | 8/13/04 | 21,900 | ND | ND | ND | ND | 21,900 | ND | ND | ND |
| | Duplicate 78 | 4-8 | 7/7/04 | 8/13/04 | 27,300 | ND | ND | ND | ND | 27,300 | ND | ND | ND |
| **W24** | W24-1-4' | 1-4 | 7/7/04 | 8/13/04 | 7,680 | ND | ND | ND | ND | 7,680 | ND | ND | ND |
| | W24-4-8' | 4-8 | 7/7/04 | 8/13/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| **W25** | W25-1-4' | 1-4 | 7/7/04 | 8/13/04 | 3,900 | ND | ND | ND | ND | 3,900 | ND | ND | ND |
| | W25-4-8' | 4-8 | 7/7/04 | 8/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **W26** | W26-1-4' | 1-4 | 7/7/04 | 8/13/04 | 23,500 | ND | ND | ND | ND | 23,500 | ND | ND | ND |
| | W26-1-4'MS | 1-4 | 7/7/04 | 8/13/04 | 26,200 | ND | ND | ND | ND | 26,200 | ND | ND | ND |
| | W26-1-4'MSD | 1-4 | 7/7/04 | 8/13/04 | 26,400 | ND | ND | ND | ND | 26,400 | ND | ND | ND |
| | W26-4-8' | 4-8 | 7/7/04 | 8/13/04 | 5,570 | ND | ND | ND | ND | 5,570 | ND | ND | ND |
| **W27** | W27-1-4' | 1-4 | 7/7/04 | 8/13/04 | 8,660 | ND | ND | ND | ND | 8,660 | ND | ND | ND |
| | W27-4-8' | 4-8 | 7/7/04 | 8/13/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| **W28** | W28-1-4' | 1-4 | 7/7/04 | 8/13/04 | 2,140 | ND | ND | ND | ND | 2,140 | ND | ND | ND |
| | W28-4-8' | 4-8 | 7/7/04 | 8/13/04 | 3,120 | ND | ND | ND | ND | 3,120 | ND | ND | ND |
| **W29** | W29-1-4' | 1-4 | 7/7/04 | 8/13/04 | 5,460 | ND | ND | ND | ND | 5,460 | ND | ND | ND |
| | W29-4-8' | 4-8 | 7/7/04 | 8/13/04 | 6,440 | ND | ND | ND | ND | 6,440 | ND | ND | ND |
| **W30** | W30-1-4' | 1-4 | 7/7/04 | 8/13/04 | 5,750 | ND | ND | ND | ND | 5,750 | ND | ND | ND |
| | W30-4-8' | 4-8 | 7/7/04 | 8/13/04 | 2,110 | ND | ND | ND | ND | 2,110 | ND | ND | ND |
| **W31** | W31-1-4' | 1-4 | 7/7/04 | 8/7/2004 | 8,000 | ND | ND | ND | ND | 8,000 | ND | ND | ND |
| | W31-4-8' | 4-8 | 7/7/04 | 8/7/04 | 6,290 | ND | ND | ND | ND | 6,290 | ND | ND | ND |
| **W32** | W32-1-4' | 1-4 | 7/7/04 | 8/7/04 | 26,600 | ND | ND | ND | ND | 26,600 | ND | ND | ND |
| | W32-4-7.5' | 4-7.5 | 7/7/04 | 8/7/04 | 2,040 | ND | ND | ND | ND | 2,040 | ND | ND | ND |
| **W33** | W33-1-4' | 1-4 | 7/7/04 | 8/7/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | W33-4-6.5' | 4-6.5 | 7/7/04 | 8/7/04 | 7,840 | ND | ND | ND | ND | 7,840 | ND | ND | ND |
| W16-W21 | | ~ | 7/2/04 | 8/12/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |

McCoy Field
Project No. 02685

# North Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB61** | DB61-2.5-4' | 2.5-4 | 8/5/04 | 9/8/04 | 20,400 | ND | ND | ND | ND | 20,400 | ND | ND | ND |
| | DB61-4-8' | 4-8 | 8/5/04 | 9/8/04 | 1,380 | ND | ND | ND | ND | 1,380 | ND | ND | ND |
| | DB61-8-11' | 8-11 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB62** | DB62-2.5-4' | 2.5-4 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB62-4-8' | 4-8 | 8/5/04 | 9/8/04 | 14,800 | ND | ND | ND | ND | 14,800 | ND | ND | ND |
| | DB62-8-9.5' | 8-9.5 | 8/5/04 | 9/8/04 | 5,130 | ND | ND | ND | ND | 5,130 | ND | ND | ND |
| **DB63** | DB63-1-3' | 1-3 | 8/5/04 | 9/8/04 | 1,660 | ND | ND | ND | ND | 1,660 | ND | ND | ND |
| | DB63-3-6' | 3-6 | 8/5/04 | 9/8/04 | 2,370 | ND | ND | ND | ND | 2,370 | ND | ND | ND |
| | DB63-6-9' | 6-9 | 8/5/04 | 9/8/04 | 2,860 | ND | ND | ND | ND | 2,860 | ND | ND | ND |
| **DB64** | DB64-1-4' | 1-4 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB64-4-8' | 4-8 | 8/5/04 | 9/8/04 | 7,150 | ND | ND | ND | ND | 7,150 | ND | ND | ND |
| | DB64-8-12' | 8-12 | 8/5/04 | 9/8/04 | 3,110 | ND | ND | ND | ND | 3,110 | ND | ND | ND |
| **DB65** | DB65-1-4' | 1-4 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB65-4-7' | 4-7 | 8/5/04 | 9/8/04 | 4,560 | ND | ND | ND | ND | 4,560 | ND | ND | ND |
| | DB65-4-7'MS | 4-7 | 8/5/04 | 9/8/04 | 15,000 | ND | ND | ND | ND | 15,000 | ND | ND | ND |
| | DB65-4-7'MSD | 4-7 | 8/5/04 | 9/8/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |
| | DB65-7-10.5' | 7-10.5 | 8/5/04 | 9/8/04 | 9,310 | ND | ND | ND | ND | 9,310 | ND | ND | ND |
| | Duplicate 95 | 7-10.5 | 8/5/04 | 9/8/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND |
| **DB66** | DB66-1-4' | 1-4 | 8/5/04 | 9/7/04 | 1,450 | ND | ND | ND | ND | 1,450 | ND | ND | ND |
| | DB66-4-8' | 4-8 | 8/5/04 | 9/8/04 | 18,000 | ND | ND | ND | ND | 18,000 | ND | ND | ND |
| | DB66-8-12' | 8-12 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB67** | DB67-1-4' | 1-4 | 8/5/04 | 9/7/04 | 4,720 | ND | ND | ND | ND | 4,720 | ND | ND | ND |
| | DB67-4-7' | 4-7 | 8/5/04 | 9/7/04 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| | DB67-7-10.5' | 7-10.5 | 8/5/04 | 9/7/04 | 9,530 | ND | ND | ND | ND | 9,530 | ND | ND | ND |
| **DB68** | DB68-1-4' | 1-4 | 8/5/04 | 9/7/04 | 1,490 | ND | ND | ND | ND | 1,490 | ND | ND | ND |
| | DB68-4-8' | 4-8 | 8/5/04 | 9/7/04 | 6,110 | ND | ND | ND | ND | 6,110 | ND | ND | ND |
| | DB68-8-11' | 8-11 | 8/5/04 | 9/7/04 | 6,830 | ND | ND | ND | ND | 6,830 | ND | ND | ND |
| **DB69** | DB69-1-4' | 1-4 | 8/5/04 | 9/7/04 | 5,040 | ND | ND | ND | ND | 5,040 | ND | ND | ND |
| | DB69-4-8' | 4-8 | 8/5/04 | 9/7/04 | 3,010 | ND | ND | ND | ND | 3,010 | ND | ND | ND |
| | DB69-8-11.5' | 8-11.5 | 8/5/04 | 9/7/04 | 4,760 | ND | ND | ND | ND | 4,760 | ND | ND | ND |
| **DB70** | DB70-1-4' | 1-4 | 8/5/04 | 9/7/04 | 4,090 | ND | ND | ND | ND | 4,090 | ND | ND | ND |
| | DB70-4-7' | 4-7 | 8/5/04 | 9/7/04 | 1,410 | ND | ND | ND | ND | 1,410 | ND | ND | ND |
| | DB70-7-11' | 7-11 | 8/5/04 | 9/7/04 | 3,560 | ND | ND | ND | ND | 3,560 | ND | ND | ND |
| **DB71** | DB71-1-4' | 1-4 | 8/5/04 | 9/4/04 | 6,690 | ND | ND | ND | ND | 6,690 | ND | ND | ND |
| | DB71-4-8' | 4-8 | 8/5/04 | 9/4/04 | 3,070 | ND | ND | ND | ND | 3,070 | ND | ND | ND |
| | DB71-4-8'MS | 4-8 | 8/5/04 | 9/7/04 | 7,440 | ND | ND | ND | ND | 7,440 | ND | ND | ND |
| | DB71-4-8'MSD | 4-8 | 8/5/04 | 9/7/04 | 6,021 | ND | ND | ND | ND | 6,021 | ND | ND | ND |
| | DB71-8-12' | 8-12 | 8/5/04 | 9/4/04 | 2,250 | ND | ND | ND | ND | 2,250 | ND | ND | ND |
| | Duplicate 96 | 8-12 | 8/5/04 | 9/8/04 | 2,740 | ND | ND | ND | ND | 2,740 | ND | ND | ND |
| **DB72** | DB72-1-4' | 1-4 | 8/5/04 | 9/4/04 | 9,290 | ND | ND | ND | ND | 9,290 | ND | ND | ND |
| | DB72-4-7' | 4-7 | 8/5/04 | 9/4/04 | 4,330 | ND | ND | ND | ND | 4,330 | ND | ND | ND |
| | DB72-7-10' | 7-10 | 8/5/04 | 9/4/04 | 2,420 | ND | ND | ND | ND | 2,420 | ND | ND | ND |
| | DB73-1-4' | 1-4 | 8/5/04 | 9/4/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |

McCoy Field
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## North Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB73** | DB73-4-8' | 4-8 | 8/5/04 | 9/4/04 | 1,440 | ND | ND | ND | ND | 1,440 | ND | ND | ND |
| | DB73-8-11' | 8-11 | 8/5/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB74** | DB74-1-4' | 1-4 | 8/5/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB74-4-7' | 4-7 | 8/5/04 | 9/4/04 | 3,420 | ND | ND | ND | ND | 3,420 | ND | ND | ND |
| | DB74-7-10' | 7-10 | 8/5/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB75** | DB75-1-4' | 1-4 | 8/5/04 | 9/4/04 | 4,910 | ND | ND | ND | ND | 4910 | ND | ND | ND |
| | DB75-4-8' | 4-8 | 8/5/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

# South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB1** | DB 1-1-4' | 1-4 | 8/3/04 | 8/25/04 | 6,630 | ND | ND | ND | ND | 6,630 | ND | ND | ND |
| **DB2** | DB 2-1-4' | 1-4 | 8/3/04 | 8/25/04 | 2,300 | ND | ND | ND | ND | 2,300 | ND | ND | ND |
| **DB3** | DB 3-1-4' | 1-4 | 8/3/04 | 8/28/04 | 10,400 | ND | ND | ND | ND | 10,400 | ND | ND | ND |
| | DB3-1-4'MS | 1-4 | 8/3/04 | 9/10/04 | 9,220 | ND | ND | ND | ND | 9,220 | ND | ND | ND |
| | DB3-1-4'MSD | 1-4 | 8/3/04 | 8/28/04 | 8,500 | ND | ND | ND | ND | 8,500 | ND | ND | ND |
| | DB3-A-3-6' | 3-6 | 8/25/04 | 10/26/04 | **78,500** | ND | ND | ND | 55,800 | 22,700 | ND | ND | ND |
| | DB3-A-6-9' | 6-9 | 8/25/04 | 10/26/04 | **53,400** | ND | ND | ND | 23,900 | 29,500 | ND | ND | ND |
| | Duplicate 172 (DB3-A-6-9') | 6-9 | 8/25/04 | 10/26/04 | 35,000 | ND | ND | ND | 23,000 | 12,000 | ND | ND | ND |
| | DB3-A-9-10.5' | 9-10.5 | 8/25/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB4** | DB 4-1-4' | 1-4 | 8/3/04 | 8/28/04 | 4,620 | ND | ND | ND | ND | 4,620 | ND | ND | ND |
| | Duplicate 86 | 1-4 | 8/3/04 | 8/28/04 | 5,510 | ND | ND | ND | ND | 5,510 | ND | ND | ND |
| | DB4-A-3-6' | 3-6 | 8/25/04 | 10/26/04 | 28,200 | ND | ND | ND | 16,600 | 11,600 | ND | ND | ND |
| | DB4-A-6-9' | 6-9 | 8/25/04 | 10/26/04 | 43,600 | ND | ND | ND | 31,200 | 12,400 | ND | ND | ND |
| | DB4-A-9-11' | 9-11 | 8/25/04 | 10/26/04 | 32,400 | ND | ND | ND | 19,900 | 12,500 | ND | ND | ND |
| **DB5** | DB 5-1-4' | 1-4 | 8/3/04 | 8/28/04 | **64,000** | ND | ND | ND | 36,800 | 27,200 | ND | ND | ND |
| | DB5-A-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-A-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-A-6-10' | 6-10 | 9/14/04 | 9/20/04 | **67,800** | ND | ND | ND | ND | 67,800 | ND | ND | ND |
| | DB5-B-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-B-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-B-6-10' | 6-10 | 9/14/04 | 9/20/04 | **113,000** | ND | ND | ND | ND | 113,000 | ND | ND | ND |
| | DB5-B-10-13' | 10-13 | 9/14/04 | 9/23/04 | 11,500 | ND | ND | ND | ND | 11,500 | ND | ND | ND |
| | DB5-C-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-C-3-6' | 3-6 | 9/14/04 | 9/20/04 | **79,700** | ND | ND | ND | ND | 79,700 | ND | ND | ND |
| | DB5-C-6-11.5' | 6-11.5 | 9/14/04 | 9/23/04 | 5,390 | ND | ND | ND | ND | 5,390 | ND | ND | ND |
| | DB5-D-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-D-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-D-6-11.5' | 6-11.5 | 9/14/04 | 9/23/04 | 12,900 | ND | ND | ND | ND | 12,900 | ND | ND | ND |
| | DB5-E-1-3' | 1-3 | 9/29/04 | 9/30/04 | 5,610 | ND | ND | ND | ND | 5,610 | ND | ND | ND |
| | DB5-E-3-6' | 3-6 | 9/29/04 | 9/30/04 | 5,920 | ND | ND | ND | ND | 5,920 | ND | ND | ND |
| | DB5-E-6-10' | 6-10 | 9/29/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-E-10-12' | 10-12 | 9/29/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-F-1-3' | 1-3 | 9/29/04 | 9/30/04 | 11,300 | ND | ND | ND | ND | 11,300 | ND | ND | ND |
| | DB5-F-3-6' | 3-6 | 9/29/04 | 9/30/04 | **49,100** | ND | ND | ND | 29,100 | 20,000 | ND | ND | ND |
| | DB5-F-6-10' | 6-10 | 9/29/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-F-10-11.5' | 10-11.5 | 9/29/04 | 9/30/04 | 1,820 | ND | ND | ND | ND | 1,820 | ND | ND | ND |
| | DB5-G-1-3' | 1-3 | 9/30/04 | 10/7/04 | 4,100 | ND | ND | ND | ND | 4,100 | ND | ND | ND |
| | DB5-G-3-6' | 3-6 | 9/30/04 | 10/7/04 | **60,100** | ND | ND | ND | 21,600 | 38,500 | ND | ND | ND |
| | DB5-G-6-10.5 | 6-10.5 | 9/30/04 | 10/7/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-H-1-3' | 1-3 | 9/30/04 | 9/30/04 | 36,800 | ND | ND | ND | 18,600 | 18,200 | ND | ND | ND |
| | DB5-H-3-6' | 3-6 | 9/30/04 | 9/30/04 | 33,800 | ND | ND | ND | ND | 33,800 | ND | ND | ND |
| | DB5-H-6-10' | 6-10 | 9/30/04 | 9/30/04 | 6,960 | ND | ND | ND | ND | 6,960 | ND | ND | ND |
| | DB5-H-10-12' | 10-12 | 9/30/04 | 9/30/04 | 4,170 | ND | ND | ND | ND | 4,170 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB5-I-1-3' | 1-3 | 9/30/04 | 9/30/04 | 8,870 | ND | ND | ND | ND | 8,870 | ND | ND | ND |
| | DB5-I-3-6' | 3-6 | 9/30/04 | 9/30/04 | 12,200 | ND | ND | ND | ND | 12,200 | ND | ND | ND |
| | DB5-I-6-10' | 6-10 | 9/30/04 | 9/30/04 | 19,900 | ND | ND | ND | ND | 19,900 | ND | ND | ND |
| | DB5-I-10-11.5' | 10-11.5 | 9/30/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-J-1-3' | 1-3 | 9/30/04 | 9/30/04 | 6,900 | ND | ND | ND | ND | 6,900 | ND | ND | ND |
| | DB5-J-3-6' | 3-6 | 9/30/04 | 9/30/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | DB5-J-6-10' | 6-10 | 9/30/04 | 9/30/04 | 15,200 | ND | ND | ND | ND | 15,200 | ND | ND | ND |
| | DB5-J-10-11.5' | 10-11.5 | 9/30/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-K-1-3' | 1-3 | 9/30/04 | 9/30/04 | 13,600 | ND | ND | ND | ND | 13,600 | ND | ND | ND |
| | DB5-K-3-6' | 3-6 | 9/30/04 | 9/30/04 | 5,420 | ND | ND | ND | ND | 5,420 | ND | ND | ND |
| | DB5-K-6-10' | 6-10 | 9/30/04 | 9/30/04 | 27,600 | ND | ND | ND | ND | 27,600 | ND | ND | ND |
| | DB5-K-10-12' | 10-12 | 9/30/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-L-1-3' | 1-3 | 9/30/04 | 9/30/04 | 7,740 | ND | ND | ND | ND | 7,740 | ND | ND | ND |
| | DB5-L-1-3'MS | 1-3 | 9/30/04 | 9/30/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | DB5-L-1-3'MSD | 1-3 | 9/30/04 | 9/30/04 | 17,200 | ND | ND | ND | ND | 17,200 | ND | ND | ND |
| | DB5-L-3-6' | 3-6 | 9/30/04 | 9/30/04 | 8,440 | ND | ND | ND | ND | 8,440 | ND | ND | ND |
| | Duplicate 147 (DB5-L-3-6') | 3-6 | 9/30/04 | 9/30/04 | 5,770 | ND | ND | ND | ND | 5,770 | ND | ND | ND |
| | DB5-L-6-10' | 6-10 | 9/30/04 | 9/30/04 | 7,240 | ND | ND | ND | ND | 7,240 | ND | ND | ND |
| | DB5-L-10-11.5' | 10-11.5 | 9/30/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-M-1-3' | 1-3 | 9/29/04 | 9/30/04 | 8,470 | ND | ND | ND | ND | 8,470 | ND | ND | ND |
| | DB5-M-3-6' | 3-6 | 9/29/04 | 9/30/04 | **70,600** | ND | ND | ND | 24,000 | 46,600 | ND | ND | ND |
| | DB5-M-6-10' | 6-10 | 9/29/04 | 9/30/04 | 38,600 | ND | ND | ND | 15,500 | 23,100 | ND | ND | ND |
| | DB5-M-10-12' | 10-12 | 9/29/04 | 9/30/04 | 1,520 | ND | ND | ND | ND | 1,520 | ND | ND | ND |
| **DB6** | DB 6-1-4' | 1-4 | 8/3/04 | 8/28/04 | 2,500 | ND | ND | ND | ND | 2,500 | ND | ND | ND |
| **DB7** | DB 7-1-4' | 1-4 | 8/3/04 | 8/25/04 | 8,840 | ND | ND | ND | ND | 8,840 | ND | ND | ND |
| **DB8** | DB 8-1-3' | 1-3 | 8/3/04 | 8/25/04 | 8,180 | ND | ND | ND | ND | 8,180 | ND | ND | ND |
| | DB 8-3-6' | 3-6 | 8/3/04 | 8/25/04 | 7,490 | ND | ND | ND | ND | 7,490 | ND | ND | ND |
| | DB 8-6-9' | 6-9 | 8/3/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB9** | DB 9-1-3' | 1-3 | 8/3/04 | 8/28/04 | 1,370 | ND | ND | ND | ND | 1,370 | ND | ND | ND |
| | DB 9-3-6' | 3-6 | 8/3/04 | 8/28/04 | 8,470 | ND | ND | ND | ND | 8,470 | ND | ND | ND |
| | DB 9-6-9' | 6-9 | 8/3/04 | 8/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB 9-6-9'MS | 6-9 | 8/3/04 | 8/28/04 | 9,250 | ND | ND | ND | ND | 9,250 | ND | ND | ND |
| | DB 9-6-9'MSD | 6-9 | 8/3/04 | 8/28/04 | 7,590 | ND | ND | ND | ND | 7,590 | ND | ND | ND |
| **DB10** | DB 10-1-3' | 1-3 | 8/4/04 | 8/28/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DB 10-3-6' | 3-6 | 8/4/04 | 8/28/04 | 45,000 | ND | ND | ND | ND | 45,000 | ND | ND | ND |
| | Duplicate 83 | 3-6 | 8/4/04 | 8/28/04 | 6,940 | ND | ND | ND | ND | 6,940 | ND | ND | ND |
| | DB 10-6-9' | 6-9 | 8/4/04 | 8/28/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| **DB11** | DB 11-1-3' | 1-3 | 8/4/04 | 9/3/04 | 5,800 | ND | ND | ND | ND | 5,800 | ND | ND | ND |
| | DB 11-3-6' | 3-6 | 8/4/04 | 9/3/04 | 6,630 | ND | ND | ND | ND | 6,630 | ND | ND | ND |
| | DB 11-3-6'MS | 3-6 | 8/4/04 | 9/3/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| | DB 11-3-6'MSD | 3-6 | 8/4/04 | 9/3/04 | 12,800 | ND | ND | ND | ND | 12,800 | ND | ND | ND |
| | DB 11-6-9' | 6-9 | 8/4/04 | 9/3/04 | 4,590 | ND | ND | ND | ND | 4,590 | ND | ND | ND |
| | Duplicate 90 (DB11-6-9') | 6-9 | 8/4/04 | 9/4/04 | 2,020 | ND | ND | ND | ND | 2,020 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | DB11-A-9-11' | 9-11 | 8/25/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB12** | DB12-1-4' | 1-4 | 8/4/04 | 9/3/04 | 23,900 | ND | ND | ND | ND | 23,900 | ND | ND | ND |
| **DB13** | DB13-1-4' | 1-4 | 8/3/04 | 8/25/04 | 4,620 | ND | ND | ND | ND | 4,620 | ND | ND | ND |
| **DB14** | DB14-1-3' | 1-3 | 8/3/04 | 8/26/04 | 21,100 | ND | ND | ND | ND | 21,100 | ND | ND | ND |
| | DB14-3-6' | 3-6 | 8/3/04 | 8/26/04 | 7,820 | ND | ND | ND | ND | 7,820 | ND | ND | ND |
| | DB14-6-9' | 6-9 | 8/3/04 | 8/26/04 | 1,190 | ND | ND | ND | ND | 1,190 | ND | ND | ND |
| **DB15** | DB15-1-3' | 1-3 | 8/3/04 | 8/28/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | DB15-3-6' | 3-6 | 8/3/04 | 8/28/04 | 31,400 | ND | ND | ND | ND | 31,400 | ND | ND | ND |
| | DB15-6-9' | 6-9 | 8/3/04 | 8/28/04 | 29,600 | ND | ND | ND | ND | 29,600 | ND | ND | ND |
| | DB16-1-3' | 1-3 | 8/4/04 | 8/28/04 | 32,700 | ND | ND | ND | 12,500 | 20,200 | ND | ND | ND |
| | DB16-3-6' | 3-6 | 8/4/04 | 8/28/04 | **65,000** | ND | ND | ND | 29,000 | 36,000 | ND | ND | ND |
| | DB16-6-9' | 6-9 | 8/4/04 | 8/28/04 | **148,000** | ND | ND | ND | 72,200 | 75,800 | ND | ND | ND |
| | DB16-A-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-A-3-6' | 3-6 | 9/14/04 | 9/23/04 | 24,200 | ND | ND | ND | ND | 24,200 | ND | ND | ND |
| | DB16-A-6-10' | 6-10 | 9/14/04 | 9/18/04 | **66,200** | ND | ND | ND | ND | 66,200 | ND | ND | ND |
| | DB16-B-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-B-3-6' | 3-6 | 9/14/04 | 9/24/04 | 25,300 | ND | ND | ND | ND | 25,300 | ND | ND | ND |
| | DB16-B-6-10' | 6-10 | 9/14/04 | 9/18/04 | **169,000** | ND | ND | ND | ND | 169,000 | ND | ND | ND |
| | DB16-C-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-C-3-6' | 3-6 | 9/14/04 | 9/19/04 | **70,900** | ND | ND | ND | ND | 70,900 | ND | ND | ND |
| | DB16-C-6-11' | 6-11 | 9/14/04 | 9/23/04 | 27,300 | ND | ND | ND | ND | 27,300 | ND | ND | ND |
| | DB16-D-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-D-3-6' | 3-6 | 9/14/04 | 9/23/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | DB16-D-6-10' | 6-10 | 9/14/04 | 9/23/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| | DB16-E-1-3' | 1-3 | 9/30/04 | 10/4/04 | 9,140 | ND | ND | ND | ND | 9,140 | ND | ND | ND |
| | DB16-E-3-6' | 3-6 | 9/30/04 | 10/4/04 | **102,000** | ND | ND | ND | ND | 102,000 | ND | ND | ND |
| | DB16-E-6-10' | 6-10 | 9/30/04 | 10/4/04 | 27,200 | ND | ND | ND | ND | 27,200 | ND | ND | ND |
| | DB16-E-10-12' | 10-12 | 9/30/04 | 10/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-F-1-3' | 1-3 | 9/30/04 | 10/1/04 | 7,600 | ND | ND | ND | ND | 7,600 | ND | ND | ND |
| | DB16-F-3-6' | 3-6 | 9/30/04 | 10/1/04 | 15,600 | ND | ND | ND | ND | 15,600 | ND | ND | ND |
| | DB16-F-6-10' | 6-10 | 9/30/04 | 10/1/04 | 46,800 | ND | ND | ND | ND | 46,800 | ND | ND | ND |
| | DB16-F-10-11.5' | 10-11.5 | 9/30/04 | 10/1/04 | 6,200 | ND | ND | ND | ND | 6,200 | ND | ND | ND |
| | DB16-G-1-3' | 1-3 | 9/30/04 | 10/1/04 | 8,730 | ND | ND | ND | ND | 8,730 | ND | ND | ND |
| | DB16-G-3-6' | 3-6 | 9/30/04 | 10/1/04 | 23,400 | ND | ND | ND | ND | 23,400 | ND | ND | ND |
| | DB16-G-6-10.5' | 6-10.5 | 9/30/04 | 10/1/04 | 37,300 | ND | ND | ND | ND | 37,300 | ND | ND | ND |
| | DB16-H-1-3' | 1-3 | 9/30/04 | 10/1/04 | 13,700 | ND | ND | ND | ND | 13,700 | ND | ND | ND |
| | DB16-H-3-6' | 3-6 | 9/30/04 | 10/1/04 | **178,000** | ND | ND | ND | ND | 178,000 | ND | ND | ND |
| | DB16-H-6-10' | 6-10 | 9/30/04 | 10/1/04 | 25,100 | ND | ND | ND | ND | 25,100 | ND | ND | ND |
| | DB16-H-10-11.5' | 10-11.5 | 9/30/04 | 10/1/04 | **59,300** | ND | ND | ND | ND | 59,300 | ND | ND | ND |
| | DB16-I-1-3' | 1-3 | 9/30/04 | 10/1/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DB16-I-3-6' | 3-6 | 9/30/04 | 10/1/04 | 26,100 | ND | ND | ND | ND | 26,100 | ND | ND | ND |
| | DB16-I-6-10' | 6-10 | 9/30/04 | 10/1/04 | 47,300 | ND | ND | ND | ND | 47,300 | ND | ND | ND |
| | DB16-I-10-11.5' | 10-11.5 | 9/30/04 | 10/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB16** | DB16-J-1-3' | 1-3 | 9/30/04 | 10/1/04 | 16,400 | ND | ND | ND | ND | 16,400 | ND | ND | ND |
| | DB16-J-3-6' | 3-6 | 9/30/04 | 10/1/04 | 14,800 | ND | ND | ND | ND | 14,800 | ND | ND | ND |
| | DB16-J-6-10' | 6-10 | 9/30/04 | 10/1/04 | **66,800** | ND | ND | ND | ND | 66,800 | ND | ND | ND |
| | DB16-J-10-11' | 10-11 | 9/30/04 | 10/1/04 | 47,600 | ND | ND | ND | ND | 47,600 | ND | ND | ND |
| | DB16-K-1-3' | 1-3 | 9/30/04 | 10/1/04 | 21,800 | ND | ND | ND | ND | 21,800 | ND | ND | ND |
| | DB16-K-3-6' | 3-6 | 9/30/04 | 10/1/04 | 38,200 | ND | ND | ND | ND | 38,200 | ND | ND | ND |
| | DB16-K-6-10' | 6-10 | 9/30/04 | 10/1/04 | 44,800 | ND | ND | ND | ND | 44,800 | ND | ND | ND |
| | DB16-K-10-11.75' | 10-11.75 | 9/30/04 | 10/1/04 | 18,200 | ND | ND | ND | ND | 18,200 | ND | ND | ND |
| | DB16-L-1-3' | 1-3 | 9/30/04 | 10/1/04 | 7,700 | ND | ND | ND | ND | 7,700 | ND | ND | ND |
| | Duplicate 149 (DB16-L-1-3') | 1-3 | 9/30/04 | 10/1/04 | 2,890 | ND | ND | ND | ND | 2,890 | ND | ND | ND |
| | DB16-L-3-6' | 3-6 | 9/30/04 | 10/1/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DB16-L-6-10' | 6-10 | 9/30/04 | 10/1/04 | **131,000** | ND | ND | ND | ND | 131,000 | ND | ND | ND |
| | DB16-L-10-11' | 10-11 | 9/30/04 | 10/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-M-1-3' | 1-3 | 9/30/04 | 10/1/04 | 5,830 | ND | ND | ND | ND | 5,830 | ND | ND | ND |
| | DB16-M-3-6' | 3-6 | 9/30/04 | 10/1/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| | DB16-M-6-10' | 6-10 | 9/30/04 | 10/1/04 | 34,100 | ND | ND | ND | ND | 34,100 | ND | ND | ND |
| | DB16-M-10-12' | 10-12 | 9/30/04 | 10/1/04 | **60,800** | ND | ND | ND | ND | 60,800 | ND | ND | ND |
| | DB16-N-1-3' | 1-3 | 9/30/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB16-N-3-6' | 3-6 | 9/30/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB16-N-6-10' | 6-10 | 9/30/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB16-N-10-11.5' | 10-11.5 | 9/30/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB16-O-1-3' | 1-3 | 9/30/04 | 10/6/04 | 29,100 | ND | ND | ND | ND | 29,100 | ND | ND | ND |
| | DB16-O-3-6' | 3-6 | 9/30/04 | 10/6/04 | 37,300 | ND | ND | ND | ND | 37,300 | ND | ND | ND |
| | DB16-O-6-10' | 6-10 | 9/30/04 | 10/6/04 | 39,900 | ND | ND | ND | ND | 39,900 | ND | ND | ND |
| | DB16-P-1-3' | 1-3 | 9/30/04 | 10/6/04 | 13,600 | ND | ND | ND | ND | 13,600 | ND | ND | ND |
| | DB16-P-3-6' | 3-6 | 9/30/04 | 10/6/04 | 13,700 | ND | ND | ND | ND | 13,700 | ND | ND | ND |
| | DB16-P-6-10' | 6-10 | 9/30/04 | 10/6/04 | 18,800 | ND | ND | ND | ND | 18,800 | ND | ND | ND |
| | DB16-P-10-12.5' | 10-12.5 | 9/30/04 | 10/6/04 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| | DB16-Q-1-3' | 1-3 | 9/30/04 | 10/6/04 | 15,000 | ND | ND | ND | ND | 15,000 | ND | ND | ND |
| | DB16-Q-3-6' | 3-6 | 9/30/04 | 10/6/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | DB16-Q-6-10' | 6-10 | 9/30/04 | 10/6/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DB16-Q-10-11.5' | 10-11.5 | 9/30/04 | 10/6/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-R-1-3' | 1-3 | 10/1/04 | 10/2/04 | 7,860 | ND | ND | ND | ND | 7,860 | ND | ND | ND |
| | DB16-R-3-6' | 3-6 | 10/1/04 | 10/2/04 | 8,970 | ND | ND | ND | ND | 8,970 | ND | ND | ND |
| | DB16-R-6-10' | 6-10 | 10/1/04 | 10/2/04 | 24,700 | ND | ND | ND | ND | 24,700 | ND | ND | ND |
| | DB16-R-10-11' | 10-11 | 10/1/04 | 10/2/04 | 25,700 | ND | ND | ND | ND | 25,700 | ND | ND | ND |
| | DB16-S-1-3' | 1-3 | 10/1/04 | 10/2/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | DB16-S-3-6' | 3-6 | 10/1/04 | 10/2/04 | 40,100 | ND | ND | ND | ND | 40,100 | ND | ND | ND |
| | DB16-S-6-10' | 6-10 | 10/1/04 | 10/4/04 | **88,500** | ND | ND | ND | ND | 88,500 | ND | ND | ND |
| | DB16-S-10-13.5' | 10-13.5 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-T-1-3' | 1-3 | 9/30/04 | 10/6/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| | DB16-T-3-6' | 3-6 | 9/30/04 | 10/7/04 | **136,000** | ND | ND | ND | ND | 136,000 | ND | ND | ND |
| | DB16-T-6-10' | 6-10 | 9/30/04 | 10/7/04 | **131,000** | ND | ND | ND | ND | 131,000 | ND | ND | ND |
| | DB16-T-10-11' | 10-11 | 9/30/04 | 10/6/04 | 34,000 | ND | ND | ND | ND | 34,000 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **RCS-1** | | | | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Turnkey Acceptance Limit** | | | | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **UCL** | | | | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-U-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-U-3-6' | 3-6 | 10/8/04 | 10/13/04 | **81,500** | ND | ND | ND | 39,700 | 41,800 | ND | ND | ND |
| DB16-U-6-10.5' | 6-10.5 | 10/8/04 | 10/11/04 | 7,080 | ND | ND | ND | ND | 7,080 | ND | ND | ND |
| DB16-V-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-V-3-6' | 3-6 | 10/8/04 | 10/13/04 | 6,220 | ND | ND | ND | ND | 6,220 | ND | ND | ND |
| DB16-V-6-10' | 6-10 | 10/8/04 | 10/11/04 | 2,020 | ND | ND | ND | ND | 2,020 | ND | ND | ND |
| DB16-V-10-13' | 10-13 | 10/8/04 | 10/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB16-W-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-W-3-6' | 3-6 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-W-6-10.5' | 6-10.5 | 10/8/04 | 10/11/04 | 22,600 | ND | ND | ND | 11,500 | 11,100 | ND | ND | ND |
| DB16-X-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-X-3-6' | 3-6 | 10/8/04 | 10/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB16-X-6-10' | 6-10 | 10/8/04 | 10/11/04 | 41,100 | ND | ND | ND | 17,300 | 23,800 | ND | ND | ND |
| DB16-Y-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-Y-3-6' | 3-6 | 10/8/04 | 10/11/04 | **393,000** | ND | ND | ND | 148,000 | 245,000 | ND | ND | ND |
| DB16-Y-6-10' | 6-10 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-Z-1-3' | 1-3 | 10/8/04 | 10/11/04 | 6,610 | ND | ND | ND | ND | 6,610 | ND | ND | ND |
| DB16-Z-3-6' | 3-6 | 10/8/04 | 10/11/04 | 11,900 | ND | ND | ND | ND | 11,900 | ND | ND | ND |
| DB16-Z-6-11' | 6-11 | 10/8/04 | 10/11/04 | 14,300 | ND | ND | ND | ND | 14,300 | ND | ND | ND |
| DB16-AA-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AA-3-6' | 3-6 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AA-6-10' | 6-10 | 10/8/04 | 10/11/04 | 11,900 | ND | ND | ND | ND | 11,900 | ND | ND | ND |
| DB16-AA-6-10'MS | 6-10 | 10/8/04 | 10/11/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| DB16-AA-6-10'MSD | 6-10 | 10/8/04 | 10/11/04 | 20,700 | ND | ND | ND | ND | 20,700 | ND | ND | ND |
| DB16-AA-10-13' | 10-13 | 10/8/04 | 10/11/04 | 6,790 | ND | ND | ND | ND | 6,790 | ND | ND | ND |
| Duplicate 156 (DB16-AA-10-13') | 10-13 | 10/8/04 | 10/11/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| DB16-AB-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AB-3-6' | 3-6 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AB-6-10' | 6-10 | 10/8/04 | 10/11/04 | 9,990 | ND | ND | ND | ND | 9,990 | ND | ND | ND |
| DB16-AB-10-11.75' | 10-11.75 | 10/8/04 | 10/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB16-AC-1-3' | 1-3 | 10/8/04 | 10/13/04 | 4,940 | ND | ND | ND | ND | 4,940 | ND | ND | ND |
| DB16-AC-3-6' | 3-6 | 10/8/04 | 10/13/04 | **71,700** | ND | ND | ND | ND | 71,700 | ND | ND | ND |
| DB16-AC-6-10' | 6-10 | 10/8/04 | 10/11/04 | **98,900** | ND | ND | ND | 51,200 | 47,700 | ND | ND | ND |
| DB16-AC-10-13' | 10-13 | 10/8/04 | 10/11/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| DB16-AD-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AD-3-6' | 3-6 | 10/8/04 | 10/13/04 | 4,910 | ND | ND | ND | ND | 4,910 | ND | ND | ND |
| DB16-AD-6-10' | 6-10 | 10/8/04 | 10/11/04 | 31,100 | ND | ND | ND | 15,200 | 15,900 | ND | ND | ND |
| DB16-AD-10-12' | 10-12 | 10/8/04 | 10/11/04 | 1,560 | ND | ND | ND | ND | 1,560 | ND | ND | ND |
| DB16-AE-1-3' | 1-3 | 10/8/04 | 10/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB16-AE-3-6' | 3-6 | 10/8/04 | 10/11/04 | **53,300** | ND | ND | ND | 21,100 | 32,200 | ND | ND | ND |
| DB16-AE-6-10' | 6-10 | 10/8/04 | 10/11/04 | **71,500** | ND | ND | ND | 36,000 | 35,500 | ND | ND | ND |
| DB16-AE-10-13' | 10-13 | 10/8/04 | 10/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB17-1-3' | 1-3 | 8/4/04 | 8/29/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB17** | DB17-3-6' | 3-6 | 8/4/04 | 8/29/04 | 14,200 | ND | ND | ND | ND | 14,200 | ND | ND | ND |
| | DB17-6-9' | 6-9 | 8/4/04 | 8/29/04 | 34,300 | ND | ND | ND | ND | 34,300 | ND | ND | ND |
| | DB17-A-9-10.5' | 9-11 | 8/25/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB17-A-9-10.5'MS | 9-11 | 8/25/04 | 10/26/04 | 11,300 | ND | ND | ND | ND | 11,300 | ND | ND | ND |
| | DB17-A-9-10.5'MSD | 9-11 | 8/25/04 | 10/26/04 | 9,970 | ND | ND | ND | ND | 9,970 | ND | ND | ND |
| **DB18** | DB18-1-4' | 1-4 | 8/4/04 | 9/3/04 | 19,500 | ND | ND | ND | ND | 19,500 | ND | ND | ND |
| **DB19** | DB19-1-4' | 1-4 | 8/3/04 | 8/25/04 | 7,830 | ND | ND | ND | ND | 7,830 | ND | ND | ND |
| **DB20** | DB20-1-3' | 1-3 | 8/3/04 | 8/26/04 | 4,900 | ND | ND | ND | ND | 4,900 | ND | ND | ND |
| | DB20-3-6' | 3-6 | 8/3/04 | 8/26/04 | 38,100 | ND | ND | ND | 23,500 | 14,600 | ND | ND | ND |
| | DB20-6-9' | 6-9 | 8/3/04 | 8/26/04 | 2,490 | ND | ND | ND | ND | 2,490 | ND | ND | ND |
| **DB21** | DB21-1-3' | 1-3 | 8/3/04 | 8/27/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | DB21-3-6' | 3-6 | 8/3/04 | 8/27/04 | 5,910 | ND | ND | ND | ND | 5,910 | ND | ND | ND |
| | DB21-6-9' | 6-9 | 8/3/04 | 8/27/04 | 17,100 | ND | ND | ND | ND | 17,100 | ND | ND | ND |
| **DB22** | DB22-1-3' | 1-3 | 8/4/04 | 8/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB22-3-6' | 3-6 | 8/4/04 | 8/28/04 | 6,300 | ND | ND | ND | ND | 6,300 | ND | ND | ND |
| | DB22-6-9' | 6-9 | 8/4/04 | 8/28/04 | 6,790 | ND | ND | ND | ND | 6,790 | ND | ND | ND |
| **DB23** | DB23-1-3' | 1-3 | 8/4/04 | 8/29/04 | 22,000 | ND | ND | ND | ND | 22,000 | ND | ND | ND |
| | DB23-3-6' | 3-6 | 8/4/04 | 8/29/04 | 5,010 | ND | ND | ND | ND | 5,010 | ND | ND | ND |
| | DB23-6-9' | 6-9 | 8/4/04 | 8/29/04 | 3,360 | ND | ND | ND | ND | 3,360 | ND | ND | ND |
| **DB24** | DB24-1-4' | 1-4 | 8/4/04 | 9/3/04 | 23,500 | ND | ND | ND | ND | 23,500 | ND | ND | ND |
| **DB25** | DB25-1-4' | 1-4 | 8/3/04 | 8/25/04 | 10,900 | ND | ND | ND | ND | 10,900 | ND | ND | ND |
| **DB26** | DB26-1-3' | 1-3 | 8/3/04 | 8/26/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| | DB26-3-6' | 3-6 | 8/3/04 | 8/26/04 | **53,200** | ND | ND | ND | 17,700 | 35,500 | ND | ND | ND |
| | DB26-6-9' | 6-9 | 8/3/04 | 8/26/04 | 44,400 | ND | ND | ND | 21,500 | 22,900 | ND | ND | ND |
| | DB26-A-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-A-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-A-6-8' | 6-8 | 9/9/04 | 9/20/04 | 20,900 | ND | ND | ND | ND | 20,900 | ND | ND | ND |
| | DB26-B-1-3' | 1-3 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-B-3-6' | 3-6 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-B-6-9' | 6-9 | 9/9/04 | 9/20/04 | 27300* | ND | ND | ND | ND | 27300* | ND | ND | ND |
| | Duplicate 132 (DB26-B-6-9') | 6-9 | 9/9/04 | 9/20/04 | 25500* | ND | ND | ND | ND | 25500* | ND | ND | ND |
| | DB26-C-1-3' | 1-3 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-C-3-6' | 3-6 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-C-6-9' | 6-9 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-D-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-D-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-D-6-9' | 6-9 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-E-3-6' | 3-6 | 9/22/04 | 9/23/04 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| | DB26-E-6-13' | 6-13 | 9/22/04 | 9/23/04 | 10,000 | ND | ND | ND | ND | 10,000 | ND | ND | ND |
| | DB26-F-3-6' | 3-6 | 9/22/04 | 9/23/04 | 4,130 | ND | ND | ND | ND | 4,130 | ND | ND | ND |
| | DB26-F-6-13' | 6-13 | 9/22/04 | 9/23/04 | 7,810 | ND | ND | ND | ND | 7,810 | ND | ND | ND |
| | DB26-G-3-6' | 3-6 | 9/22/04 | 9/23/04 | 5,410 | ND | ND | ND | ND | 5,410 | ND | ND | ND |
| | DB26-G-6-12.5' | 6-12.5 | 9/22/04 | 9/23/04 | 2,410 | ND | ND | ND | ND | 2,410 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | DB26-H-3-6' | 3-6 | 9/22/04 | 9/23/04 | 8,160 | ND | ND | ND | ND | 8,160 | ND | ND | ND |
| | DB26-H-6-11' | 6-11 | 9/22/04 | 9/23/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| **DB27** | DB27-1-3' | 1-3 | 8/3/04 | 8/27/04 | 3,980 | ND | ND | ND | ND | 3,980 | ND | ND | ND |
| | DB27-3-6' | 3-6 | 8/3/04 | 8/27/04 | 3,390 | ND | ND | ND | ND | 3,390 | ND | ND | ND |
| | DB27-6-9' | 6-9 | 8/3/04 | 8/27/04 | 2,200 | ND | ND | ND | ND | 2,200 | ND | ND | ND |
| **DB28** | DB28-1-3' | 1-3 | 8/3/04 | 8/28/04 | 2,500 | ND | ND | ND | ND | 2,500 | ND | ND | ND |
| | DB28-3-6' | 3-6 | 8/3/04 | 8/28/04 | 7,130 | ND | ND | ND | ND | 7,130 | ND | ND | ND |
| | Duplicate 85 | 3-6 | 8/3/04 | 8/28/04 | 2,200 | ND | ND | ND | ND | 2,200 | ND | ND | ND |
| | DB28-6-9' | 6-9 | 8/3/04 | 9/9/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| | DB28-6-9'MS | 6-9 | 8/3/04 | 9/10/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| | DB28-6-9'MSD | 6-9 | 8/3/04 | 8/28/04 | 10,000 | ND | ND | ND | ND | 10,000 | ND | ND | ND |
| **DB29** | DB29-1-3' | 1-3 | 8/4/04 | 8/29/04 | 6,350 | ND | ND | ND | ND | 6,350 | ND | ND | ND |
| | DB29-3-6' | 3-6 | 8/4/04 | 8/29/04 | 3,870 | ND | ND | ND | ND | 3,870 | ND | ND | ND |
| | DB29-6-9' | 6-9 | 8/4/04 | 8/29/04 | 2,470 | ND | ND | ND | ND | 2,470 | ND | ND | ND |
| **DB30** | DB30-1-4' | 1-4 | 8/4/04 | 9/3/04 | 9,450 | ND | ND | ND | ND | 9,450 | ND | ND | ND |
| **DB31** | DB31-1-4' | 1-4 | 8/3/04 | 8/25/04 | 7,010 | ND | ND | ND | ND | 7,010 | ND | ND | ND |
| **DB32** | DB32-1-3' | 1-3 | 8/3/04 | 8/26/04 | **51,180** | ND | ND | ND | 46,300 | 4,880 | ND | ND | ND |
| | DB32-3-6' | 3-6 | 8/3/04 | 8/26/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | DB32-6-9' | 6-9 | 8/3/04 | 8/26/04 | 40,500 | ND | ND | ND | ND | 40,500 | ND | ND | ND |
| | DB32-A-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-A-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-B-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-B-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-C-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-C-3-6' | 3-6 | 9/9/04 | 9/14/04 | 24,800 | ND | ND | ND | ND | 24,800 | ND | ND | ND |
| | DB32-D-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-D-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB33** | DB33-1-3' | 1-3 | 8/3/04 | 8/27/04 | 3,030 | ND | ND | ND | ND | 3,030 | ND | ND | ND |
| | DB33-3-6' | 3-6 | 8/3/04 | 8/27/04 | 3,810 | ND | ND | ND | ND | 3,810 | ND | ND | ND |
| | DB33-6-9' | 6-9 | 8/3/04 | 8/27/04 | 3,930 | ND | ND | ND | ND | 3,930 | ND | ND | ND |
| **DB34** | DB34-1-3' | 1-3 | 8/4/04 | 8/28/04 | 1,620 | ND | ND | ND | ND | 1,620 | ND | ND | ND |
| | DB34-3-6' | 3-6 | 8/4/04 | 8/28/04 | 5,970 | ND | ND | ND | ND | 5,970 | ND | ND | ND |
| | DB34-6-9' | 6-9 | 8/4/04 | 9/10/04 | 2,390 | ND | ND | ND | ND | 2,390 | ND | ND | ND |
| **DB35** | DB35-1-3' | 1-3 | 8/4/04 | 8/29/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| | DB35-3-6' | 3-6 | 8/4/04 | 8/29/04 | 25,400 | ND | ND | ND | ND | 25,400 | ND | ND | ND |
| | DB35-6-9' | 6-9 | 8/4/04 | 8/29/04 | 6,150 | ND | ND | ND | ND | 6,150 | ND | ND | ND |
| **DB36** | DB36-1-4' | 1-4 | 8/4/04 | 9/3/04 | 5,860 | ND | ND | ND | ND | 5,860 | ND | ND | ND |
| **DB37** | DB37-1-4' | 1-4 | 8/3/04 | 8/25/04 | 32,100 | ND | ND | ND | ND | 32,100 | ND | ND | ND |
| **DB38** | DB38-1-3' | 1-3 | 8/3/04 | 8/26/04 | 2,460 | ND | ND | ND | ND | 2,460 | ND | ND | ND |
| | DB38-3-6' | 3-6 | 8/3/04 | 8/26/04 | 26,500 | ND | ND | ND | ND | 26,500 | ND | ND | ND |
| | Duplicate 84 | 3-6 | 8/3/04 | 9/10/04 | 17,100 | ND | ND | ND | ND | 17,100 | ND | ND | ND |
| | DB38-6-9' | 6-9 | 8/3/04 | 8/26/04 | 5,250 | ND | ND | ND | ND | 5,250 | ND | ND | ND |
| | DB39-1-3' | 1-3 | 8/3/04 | 8/26/04 | 5,670 | ND | ND | ND | ND | 5,670 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB39** | DB39-3-6' | 3-6 | 8/3/04 | 8/26/04 | 13,000 | ND | ND | ND | ND | 13,000 | ND | ND | ND |
| | DB39-6-9' | 6-9 | 8/3/04 | 8/26/04 | 5,940 | ND | ND | ND | ND | 5,940 | ND | ND | ND |
| **DB40** | DB40-1-3' | 1-3 | 8/4/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB40-3-6' | 3-6 | 8/4/04 | 8/28/04 | 5,100 | ND | ND | ND | ND | 5,100 | ND | ND | ND |
| | DB40-6-9' | 6-9 | 8/4/04 | 9/10/04 | 14,600 | ND | ND | ND | ND | 14,600 | ND | ND | ND |
| **DB41** | DB41-1-3' | 1-3 | 8/4/04 | 9/10/04 | 19,700 | ND | ND | ND | ND | 19,700 | ND | ND | ND |
| | DB41-3-6' | 3-6 | 8/4/04 | 8/28/04 | 6,820 | ND | ND | ND | ND | 6,820 | ND | ND | ND |
| | DB41-6-9' | 6-9 | 8/4/04 | 8/28/04 | 9,970 | ND | ND | ND | ND | 9,970 | ND | ND | ND |
| **DB42** | DB42-1-4' | 1-4 | 8/4/04 | 9/3/04 | 7,910 | ND | ND | ND | ND | 7,910 | ND | ND | ND |
| **DB43** | DB43-1-4' | 1-4 | 8/3/04 | 8/25/04 | 36,700 | ND | ND | ND | ND | 36,700 | ND | ND | ND |
| **DB44** | DB44-1-3' | 1-3 | 8/3/04 | 8/26/04 | 1,460 | ND | ND | ND | ND | 1,460 | ND | ND | ND |
| | DB44-3-6' | 3-6 | 8/3/04 | 8/26/04 | 38,200 | ND | ND | ND | ND | 38,200 | ND | ND | ND |
| | DB44-6-9' | 6-9 | 8/3/04 | 8/26/04 | 29,000 | ND | ND | ND | ND | 29,000 | ND | ND | ND |
| **DB45** | DB45-1-3' | 1-3 | 8/3/04 | 8/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB45-3-6' | 3-6 | 8/3/04 | 8/26/04 | 17,700 | ND | ND | ND | ND | 17,700 | ND | ND | ND |
| | DB45-3-6'MS | 3-6 | 8/3/04 | 8/26/04 | 21,900 | ND | ND | ND | ND | 21,900 | ND | ND | ND |
| | DB45-3-6'MSD | 3-6 | 8/3/04 | 8/26/04 | 20,700 | ND | ND | ND | ND | 20,700 | ND | ND | ND |
| | DB45-6-9' | 6-9 | 8/3/04 | 8/26/04 | 3,770 | ND | ND | ND | ND | 3,770 | ND | ND | ND |
| | Duplicate 87 | 6-9 | 8/3/04 | 8/28/04 | 9,650 | ND | ND | ND | ND | 9,650 | ND | ND | ND |
| **DB46** | DB46-1-4' | 1-3 | 9/8/04 | 9/12/04 | **87,400** | ND | ND | ND | ND | 87,400 | ND | ND | ND |
| | DB46-4-7' | 3-6 | 9/8/04 | 9/20/04 | 18,000 | ND | ND | ND | ND | 18,000 | ND | ND | ND |
| | DB46-7-10' | 6-9 | 9/8/04 | 9/20/04 | 4,280 | ND | ND | ND | ND | 4,280 | ND | ND | ND |
| | DB46 A-1-3 | 1-3 | 9/20/04 | 9/20/04 | 26,300 | ND | ND | ND | ND | 26,300 | ND | ND | ND |
| | DB46 A-3-6 | 3-6 | 9/20/04 | 9/20/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |
| | Duplicate 138 (DB46-A-3-6') | 3-6 | 9/20/04 | 9/20/04 | 14,300 | ND | ND | ND | ND | 14,300 | ND | ND | ND |
| | DB46 A-6-10.5 | 6-10.5 | 9/20/04 | 9/20/04 | 4,170 | ND | ND | ND | ND | 4,170 | ND | ND | ND |
| | DB46 A-6-10.5MS | 6-10.5 | 9/20/04 | 9/20/04 | 8,000 | ND | ND | ND | ND | 8,000 | ND | ND | ND |
| | DB46 A-6-10.5MSD | 6-10.5 | 9/20/04 | 9/20/04 | 9,910 | ND | ND | ND | ND | 9,910 | ND | ND | ND |
| | DB46 B-1-3 | 1-3 | 9/20/04 | 9/20/04 | 7,680 | ND | ND | ND | ND | 7,680 | ND | ND | ND |
| | DB46 B-3-6 | 3-6 | 9/20/04 | 9/20/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| | DB46 B-6-10 | 6-10 | 9/20/04 | 9/20/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |
| | DB46 C-1-3 | 1-3 | 9/20/04 | 9/20/04 | 7,320 | ND | ND | ND | ND | 7,320 | ND | ND | ND |
| | DB46 C-3-6 | 3-6 | 9/20/04 | 9/20/04 | 12,900 | ND | ND | ND | ND | 12,900 | ND | ND | ND |
| | DB46 C-6-10 | 6-10 | 9/20/04 | 9/20/04 | 9,270 | ND | ND | ND | ND | 9,270 | ND | ND | ND |
| | DB46 D-1-3 | 1-3 | 9/20/04 | 9/20/04 | 19 | ND | ND | ND | ND | 19 | ND | ND | ND |
| | DB46 D-3-6 | 3-6 | 9/20/04 | 9/20/04 | 12,800 | ND | ND | ND | ND | 12,800 | ND | ND | ND |
| | DB46 D-6-10 | 6-10 | 9/20/04 | 9/20/04 | 5,000 | ND | ND | ND | ND | 5,000 | ND | ND | ND |
| **DB47** | DB47-1-4' | 1-4 | 9/8/04 | 9/20/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | DB47-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB47-7-10.5' | 7-10.5 | 9/8/04 | 9/22/04 | 4,640 | ND | ND | ND | ND | 4,640 | ND | ND | ND |
| **DB48** | DB48-1-4' | 1-4 | 9/8/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB49** | DB49-1-4' | 1-4 | 8/3/04 | 8/25/04 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND |
| | DB50-1-3' | 1-3 | 8/3/04 | 8/26/04 | 22,800 | ND | ND | ND | ND | 22,800 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB50** | DB50-3-6' | 3-6 | 8/3/04 | 8/26/04 | 1,910 | ND | ND | ND | ND | 1,910 | ND | ND | ND |
| | DB50-6-9' | 6-9 | 8/3/04 | 8/26/04 | 4,150 | ND | ND | ND | ND | 4,150 | ND | ND | ND |
| **DB51** | DB51-1-3' | 1-3 | 8/3/04 | 8/26/04 | 3,500 | ND | ND | ND | ND | 3,500 | ND | ND | ND |
| | DB51-3-6' | 3-6 | 8/3/04 | 8/26/04 | 3,750 | ND | ND | ND | ND | 3,750 | ND | ND | ND |
| | DB51-6-9' | 6-9 | 8/3/04 | 8/26/04 | 8,910 | ND | ND | ND | ND | 8,910 | ND | ND | ND |
| **DB52** | DB52-1-4' | 1-4 | 9/8/04 | 9/18/04 | 7,560 | ND | ND | ND | ND | 7,560 | ND | ND | ND |
| | DB52-4-7' | 4-7 | 9/8/04 | 9/9/04 | 23,400 | ND | ND | ND | ND | 23,400 | ND | ND | ND |
| | Duplicate 128 (DB52-4-7') | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-7-10.5' | 7-10.5 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-A-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-A-3-6' | 3-6 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-A-6-10' | 6-10 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 136 (DB52-A-6-10') | 6-10 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-B-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-B-3-6' | 3-6 | 9/14/04 | 9/24/04 | 32,500 | ND | ND | ND | ND | 32,500 | ND | ND | ND |
| | DB52-B-6-10' | 6-10 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-C-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-C-3-6' | 3-6 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-C-6-9.5' | 6-9.5 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-D-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-D-3-6' | 3-6 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-D-6-9.5' | 6-9.5 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB53** | DB53-1-4' | 1-4 | 9/8/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB53-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB53-7-10' | 7-10 | 9/8/04 | 9/20/04 | 7,350 | ND | ND | ND | ND | 7,350 | ND | ND | ND |
| **DB54** | DB54-1-4' | 1-4 | 9/8/04 | 9/20/04 | 34,200 | ND | ND | ND | ND | 34,200 | ND | ND | ND |
| **DB55** | DB55-1-4' | 1-4 | 8/3/04 | 8/25/04 | 6,960 | ND | ND | ND | ND | 6,960 | ND | ND | ND |
| **DB56** | DB56-1-4' | 1-4 | 8/3/04 | 8/26/04 | 2,940 | ND | ND | ND | ND | 2,940 | ND | ND | ND |
| **DB57** | DB57-1-4' | 1-4 | 8/3/04 | 8/26/04 | 7,860 | ND | ND | ND | ND | 7,860 | ND | ND | ND |
| **DB58** | DB58-1-4' | 1-4 | 9/8/04 | 9/22/04 | 15,400 | ND | ND | ND | ND | 15,400 | ND | ND | ND |
| **DB59** | DB59-1-4' | 1-4 | 9/8/04 | 9/13/04 | **96,200** | ND | ND | ND | ND | 96,200 | ND | ND | ND |
| | DB59-4-6' | 4-6 | 12/2/04 | 12/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB59-6-10.5' | 6-10.5 | 12/2/04 | 12/4/04 | 8,810 | ND | ND | ND | ND | 8,810 | ND | ND | ND |
| | DB59 A-1-3 | 1-3 | 9/20/04 | 9/20/04 | 9,510 | ND | ND | ND | ND | 9,510 | ND | ND | ND |
| | DB59 A-3-6 | 3-6 | 9/20/04 | 9/20/04 | 32,200 | ND | ND | ND | ND | 32,200 | ND | ND | ND |
| | DB59 A-6-10.5 | 6-10.5 | 9/20/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB59 B-1-3 | 1-3 | 9/20/04 | 9/20/04 | 28,800 | ND | ND | ND | ND | 28,800 | ND | ND | ND |
| | DB59 B-3-6 | 3-6 | 9/20/04 | 9/20/04 | 5,100 | ND | ND | ND | ND | 5,100 | ND | ND | ND |
| | DB59 B-6-10.5 | 6-10.5 | 9/20/04 | 9/20/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |
| | DB59 C-1-3 | 1-3 | 9/20/04 | 9/20/04 | 22,900 | ND | ND | ND | ND | 22,900 | ND | ND | ND |
| | DB59 C-3-6 | 3-6 | 9/20/04 | 9/20/04 | 8,630 | ND | ND | ND | ND | 8,630 | ND | ND | ND |
| | DB59 C-6-10 | 6-10 | 9/20/04 | 9/20/04 | 22,200 | ND | ND | ND | ND | 22,200 | ND | ND | ND |
| | DB59 D-1-3 | 1-3 | 9/20/04 | 9/20/04 | 14,900 | ND | ND | ND | ND | 14,900 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB59 D-3-6 | 3-6 | 9/20/04 | 9/20/04 | 9,910 | ND | ND | ND | ND | 9,910 | ND | ND | ND |
| | DB59 D-6-10.5 | 6-10.5 | 9/20/04 | 9/20/04 | 12,600 | ND | ND | ND | ND | 12,600 | ND | ND | ND |
| **DB60** | DB60-1-4' | 1-4 | 9/8/04 | 9/20/04 | 28,500 | ND | ND | ND | ND | 28,500 | ND | ND | ND |
| | DB8-Comp | 1-9 | 8/3/04 | 8/25/04 | 4,250 | ND | ND | ND | ND | 4,250 | ND | ND | ND |
| | DB14-Comp | 1-9 | 8/3/04 | 8/26/04 | 9,080 | ND | ND | ND | ND | 9,080 | ND | ND | ND |
| | DB20-Comp | 1-9 | 8/3/04 | 8/26/04 | 3,160 | ND | ND | ND | ND | 3,160 | ND | ND | ND |
| | DB26-Comp | 1-9 | 8/3/04 | 8/26/04 | **65,700** | ND | ND | ND | 35,500 | 30,200 | ND | ND | ND |
| | DB32-Comp | 1-9 | 8/3/04 | 8/26/04 | 15,200 | ND | ND | ND | ND | 15,200 | ND | ND | ND |
| | DB38-Comp | 1-9 | 8/3/04 | 8/26/04 | 27,000 | ND | ND | ND | ND | 27,000 | ND | ND | ND |
| | DB44-Comp | 1-9 | 8/3/04 | 8/26/04 | 19,600 | ND | ND | ND | ND | 19,600 | ND | ND | ND |
| | DB50-Comp | 1-9 | 8/3/04 | 8/26/04 | 5,900 | ND | ND | ND | ND | 5,900 | ND | ND | ND |
| | Comp-DB23, 29, 35-1-3' | 1-3 | 8/4/04 | 8/29/04 | 5,890 | ND | ND | ND | ND | 5,890 | ND | ND | ND |
| | Comp-DB23, 29, 35-3-6' | 3-6 | 8/4/04 | 8/29/04 | 6,210 | ND | ND | ND | ND | 6,210 | ND | ND | ND |
| | Comp-DB23, 29, 35-6-9' | 6-9 | 8/4/04 | 8/29/04 | 4,500 | ND | ND | ND | ND | 4,500 | ND | ND | ND |
| | Comp DB 51, 45, 39-1-3' | 1-3 | 8/3/04 | 8/27/04 | 2,520 | ND | ND | ND | ND | 2,520 | ND | ND | ND |
| | Comp DB 51, 45, 39-3-6' | 3-6 | 8/3/04 | 8/27/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | Comp DB 51, 45, 39-6-9' | 6-9 | 8/3/04 | 8/27/04 | 8,470 | ND | ND | ND | ND | 8,470 | ND | ND | ND |
| | Comp DB 33, 27, 21-1-3' | 1-3 | 8/3/04 | 8/27/04 | 1,990 | ND | ND | ND | ND | 1,990 | ND | ND | ND |
| | Comp DB 33, 27, 21-3-6' | 3-6 | 8/3/04 | 8/27/04 | 1,760 | ND | ND | ND | ND | 1,760 | ND | ND | ND |
| | Comp DB 33, 27, 21-6-9' | 6-9 | 8/3/04 | 8/27/04 | **67,200** | ND | ND | ND | ND | 67,200 | ND | ND | ND |
| | Comp DB 34, 40, 41-1-3' | 1-3 | 8/3/04 | 8/28/04 | 7,320 | ND | ND | ND | ND | 7,320 | ND | ND | ND |
| | Comp DB 34, 40, 41-3-6' | 3-6 | 8/3/04 | 9/10/04 | 6,300 | ND | ND | ND | ND | 6,300 | ND | ND | ND |
| | Duplicate 88 | 3-6 | 8/3/04 | 8/28/04 | 10,300 | ND | ND | ND | ND | 10,300 | ND | ND | ND |
| | Comp DB 34, 40, 41-6-9' | 6-9 | 8/3/04 | 8/28/04 | 3,700 | ND | ND | ND | ND | 3,700 | ND | ND | ND |
| | Comp DB 11 & 17-1-3' | 1-3 | 8/4/04 | 9/3/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| | Comp DB 11 & 17-3-6' | 3-6 | 8/4/04 | 9/3/04 | 5,780 | ND | ND | ND | ND | 5,780 | ND | ND | ND |
| | Comp DB 11 & 17-6-9' | 6-9 | 8/4/04 | 9/3/04 | 6,710 | ND | ND | ND | ND | 6,710 | ND | ND | ND |
| | Comp DB 30, 36, 42-1-4' | 1-4 | 8/4/04 | 9/3/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| | Comp DB 12, 18, 24-1-4' | 1-4 | 8/4/04 | 9/3/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | Duplicate 89 (Comp DB 12, 18, 24-1-4') | 1-4 | 8/4/04 | 9/4/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | Comp DB 12, 18, 24-1-4'MS | 1-4 | 8/4/04 | 9/3/04 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| | Comp DB 12, 18, 24-1-4'MSD | 1-4 | 8/4/04 | 9/3/04 | 22,100 | ND | ND | ND | ND | 22,100 | ND | ND | ND |
| | Comp DB 10, 15, 9-1-3' | 1-3 | 8/3/04 | 8/28/04 | 16,900 | ND | ND | ND | ND | 16,900 | ND | ND | ND |
| | Comp DB 10, 15, 9-3-6' | 3-6 | 8/3/04 | 8/28/04 | 8,010 | ND | ND | ND | ND | 8,010 | ND | ND | ND |
| | Comp DB 10, 15, 9-6-9' | 6-9 | 8/3/04 | 8/28/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| | Comp DB 3&4-1-4' | 1-4 | 8/3/04 | 8/28/04 | 7,850 | ND | ND | ND | ND | 7,850 | ND | ND | ND |
| | Comp DB 5&6-1-4' | 1-4 | 8/3/04 | 8/28/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | Comp DB 16, 22, 28-1-3' | 1-3 | 8/3/04 | 9/10/04 | 5,650 | ND | ND | ND | ND | 5,650 | ND | ND | ND |
| | Comp DB 16, 22, 28-3-6' | 3-6 | 8/3/04 | 8/28/04 | 8,660 | ND | ND | ND | ND | 8,660 | ND | ND | ND |
| | Comp DB 16, 22, 28-6-9' | 6-9 | 8/3/04 | 8/28/04 | 6,320 | ND | ND | ND | ND | 6,320 | ND | ND | ND |

McCoy Field
Project No. 02685

# Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DL1** | DL1-1-4' | 1-4 | 8/10/04 | 9/9/04 | 6,380 | ND | ND | ND | ND | 6,380 | ND | ND | ND |
| | DL1-4-7' | 4-7 | 8/10/04 | 9/9/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | DL1-7-10' | 7-10 | 8/10/04 | 9/9/04 | 5,980 | ND | ND | ND | ND | 5,980 | ND | ND | ND |
| **DL2** | DL2-1-4' | 1-4 | 8/10/04 | 9/9/04 | 19,700 | ND | ND | ND | ND | 19,700 | ND | ND | ND |
| | DL2-4-7' | 4-7 | 8/10/04 | 9/9/04 | 7,190 | ND | ND | ND | ND | 7,190 | ND | ND | ND |
| | DL2-7-11' | 7-11 | 8/10/04 | 9/9/04 | 3,680 | ND | ND | ND | ND | 3,680 | ND | ND | ND |
| **DL3** | DL3-1-4' | 1-4 | 8/10/04 | 9/9/04 | 17,800 | ND | ND | ND | ND | 17,800 | ND | ND | ND |
| | Duplicate 97 (DL3-1-4') | 1-4 | 8/10/04 | 9/9/04 | 10,400 | ND | ND | ND | ND | 10,400 | ND | ND | ND |
| | DL3-4-7' | 4-7 | 8/10/04 | 9/9/04 | 12,200 | ND | ND | ND | ND | 12,200 | ND | ND | ND |
| | DL3-4-7' MS | 4-7 | 8/10/04 | 9/9/04 | 17,100 | ND | ND | ND | ND | 17,100 | ND | ND | ND |
| | DL3-4-7' MSD | 4-7 | 8/10/04 | 9/9/04 | 67,600 | ND | ND | ND | ND | 67,600 | ND | ND | ND |
| | DL3-7-11 | 7-11 | 8/10/04 | 9/9/04 | 2,060 | ND | ND | ND | ND | 2,060 | ND | ND | ND |
| **DL4** | DL4-1-3' | 1-3 | 8/10/04 | 9/9/04 | 23,500 | ND | ND | ND | ND | 23,500 | ND | ND | ND |
| | DL4-5-7' | 5-7 | 8/10/04 | 9/9/04 | 2,240 | ND | ND | ND | ND | 2,240 | ND | ND | ND |
| | DL4-10-11.5 | 10-11.5 | 8/10/04 | 9/9/04 | 13,000 | ND | ND | ND | ND | 13,000 | ND | ND | ND |
| **DL5** | DL5-1-5' | 1-5 | 8/10/04 | 9/9/04 | 3,080 | ND | ND | ND | ND | 3,080 | ND | ND | ND |
| | DL5-5-11 | 5-11 | 8/10/04 | 9/9/04 | 1,830 | ND | ND | ND | ND | 1,830 | ND | ND | ND |
| **DL6** | (no sample collected - clean backfill - located over current sewer line) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL7** | (no sample collected - clean backfill - located on Hathaway Boulevard.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL8** | (no sample collected - clean backfill - located on Hathaway Boulevard.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL9** | DL9-1-4' | 1-4 | 8/10/04 | 9/9/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DL9-4-7' | 4-7 | 8/10/04 | 9/9/04 | 4,380 | ND | ND | ND | ND | 4,380 | ND | ND | ND |
| | DL9-7-10' | 7-10 | 8/10/04 | 9/9/04 | 11,500 | ND | ND | ND | ND | 11,500 | ND | ND | ND |
| **DL10** | DL10-1-4' | 1-4 | 8/11/04 | 9/13/04 | 7,220 | ND | ND | ND | ND | 7,220 | ND | ND | ND |
| | DL10-4-8' | 4-8 | 8/11/04 | 9/23/04 | 14,000 | ND | ND | ND | ND | 14,000 | ND | ND | ND |
| | Duplicate 99 (DL10-4-8') | 4-8 | 8/11/04 | 9/9/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DL10-8-11.5' | 8-11.5 | 8/11/04 | 9/23/04 | 2,220 | ND | ND | ND | ND | 2,220 | ND | ND | ND |
| | DL10-1-4'MS | 1-4 | 8/11/04 | 9/23/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | DL10-1-4'MSD | 1-4 | 8/11/04 | 9/23/04 | 16,600 | ND | ND | ND | ND | 16,600 | ND | ND | ND |
| **DL11** | DL11-1-4' | 1-4 | 8/11/04 | 9/13/04 | 21,140 | ND | ND | ND | ND | 21,140 | ND | ND | ND |
| | DL11-4-7' | 4-7 | 8/11/04 | 9/23/04 | 12,600 | ND | ND | ND | ND | 12,600 | ND | ND | ND |
| | DL11-7-11' | 7-11 | 8/11/04 | 9/23/04 | 9,500 | ND | ND | ND | ND | 9,500 | ND | ND | ND |
| **DL12** | DL12-1-4' | 1-4 | 8/11/04 | 9/23/04 | 11,400 | ND | ND | ND | ND | 11,400 | ND | ND | ND |
| | DL12-4-8' | 4-8 | 8/11/04 | 9/23/04 | 18,600 | ND | ND | ND | ND | 18,600 | ND | ND | ND |
| | DL12-8-11.5' | 8-11.5 | 8/11/04 | 9/13/04 | 25,000 | ND | ND | ND | ND | 25,000 | ND | ND | ND |
| **DL13** | (no sample collected - clean backfill - located in South Corridor) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL14** | DL14-1-4' | 1-4 | 8/11/04 | 9/13/04 | 6,500 | ND | ND | ND | ND | 6,500 | ND | ND | ND |
| | DL14-4-8' | 4-8 | 8/11/04 | 9/23/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | DL14-8-12' | 8-12 | 8/11/04 | 9/14/04 | 4,400 | ND | ND | ND | ND | 4,400 | ND | ND | ND |

McCoy Field
Project No. 02685

# Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DL15** | DL15-1-4' | 1-4 | 12/2/04 | 12/4/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DL15-4-8' | 4-8 | 12/2/04 | 12/4/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| | DL15-8-11' | 8-11 | 12/2/04 | 12/4/04 | 4,610 | ND | ND | ND | ND | 4,610 | ND | ND | ND |
| **COMP** | Duplicate 100 (DL16-DL22 Medium) | -- | 8/11/04 | 9/9/04 | 5,770 | ND | ND | ND | ND | 5,770 | ND | ND | ND |
| **DL16** | DL16-1-4' | 1-4 | 8/11/04 | 9/15/04 | 20,200 | ND | ND | ND | ND | 20,200 | ND | ND | ND |
| | DL16-4-8' | 4-8 | 8/11/04 | 9/15/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| **DL17** | (no sample collected due to proximity to DB59 - use DB59 data) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL18** | DL18-1-3' | 1-3 | 8/11/04 | 9/15/04 | 5,100 | ND | ND | ND | ND | 5,100 | ND | ND | ND |
| | DL18-3-6' | 3-6 | 8/11/04 | 9/15/04 | 3,330 | ND | ND | ND | ND | 3,330 | ND | ND | ND |
| | DL18-A-1-4' | 1-4 | 12/2/04 | 12/4/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | DL18-A-4-8' | 4-8 | 12/2/04 | 12/4/04 | 4,270 | ND | ND | ND | ND | 4,270 | ND | ND | ND |
| | DL18-A-8-10' | 8-10 | 12/2/04 | 12/4/04 | 9,300 | ND | ND | ND | ND | 9,300 | ND | ND | ND |
| **DL19** | DL19-1-3' | 1-3 | 8/11/04 | 9/15/04 | 4,000 | ND | ND | ND | ND | 4,000 | ND | ND | ND |
| | DL19-3-6' | 3-6 | 8/11/04 | 9/15/04 | 8,400 | ND | ND | ND | ND | 8,400 | ND | ND | ND |
| | DL19-A-1-4 | 1-4 | 12/2/04 | 12/4/04 | 11,300 | ND | ND | ND | ND | 11,300 | ND | ND | ND |
| | DL19-A-1-4'MS | 1-4 | 12/2/04 | 12/4/04 | 34,500 | ND | ND | ND | ND | 34,500 | ND | ND | ND |
| | DL19-A-1-4'MSD | 1-4 | 12/2/04 | 12/4/04 | 20,500 | ND | ND | ND | ND | 20,500 | ND | ND | ND |
| | DL19-A-4-8' | 4-8 | 12/2/04 | 12/4/04 | 11,600 | ND | ND | ND | ND | 11,600 | ND | ND | ND |
| | Duplicate 194 (DL19-A-4-8') | 4-8 | 12/2/04 | 12/4/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| | DL19-A-8-11' | 8-11 | 12/2/04 | 12/4/04 | 6,900 | ND | ND | ND | ND | 6,900 | ND | ND | ND |
| **DL20** | DL20-1-3' | 1-3 | 8/11/04 | 9/23/04 | 21,000 | ND | ND | ND | ND | 21,000 | ND | ND | ND |
| | DL20-1-3'MS | 1-3 | 8/11/04 | 9/23/04 | 17,900 | ND | ND | ND | ND | 17,900 | ND | ND | ND |
| | DL20-1-3'MSD | 1-3 | 8/11/04 | 9/23/04 | 21,000 | ND | ND | ND | ND | 21,000 | ND | ND | ND |
| | DL20-3-6' | 3-6 | 8/11/04 | 9/15/04 | 5,825 | ND | ND | ND | ND | 5,825 | ND | ND | ND |
| | DL20-A-1-4' | 1-4 | 10/22/04 | 10/29/04 | 7,760 | ND | ND | ND | ND | 7,760 | ND | ND | ND |
| | DL20-A-4-8' | 4-8 | 10/22/04 | 10/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL20-A-8-9' | 8-9 | 10/22/04 | 10/29/04 | 7,200 | ND | ND | ND | ND | 7,200 | ND | ND | ND |
| **DL21** | DL21-A-1-4' | 1-4 | 10/22/04 | 10/29/04 | 4,170 | ND | ND | ND | ND | 4,170 | ND | ND | ND |
| | DL21-A-4-8' | 4-8 | 10/22/04 | 10/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL21-A-8-8.5' | 8-8.5 | 10/22/04 | 10/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL22** | DL22-1-3' | 1-3 | 8/11/04 | 9/23/04 | 26,000 | ND | ND | ND | ND | 26,000 | ND | ND | ND |
| | DL22-3-6' | 3-6 | 8/11/04 | 9/15/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL22-A-1-4' | 1-4 | 12/2/04 | 12/4/04 | 5,560 | ND | ND | ND | ND | 5,560 | ND | ND | ND |
| | DL22-A-4-8' | 4-8 | 12/2/04 | 12/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL22-A-8-9' | 8-9 | 10/22/04 | 10/29/04 | 2,030 | ND | ND | ND | ND | 2,030 | ND | ND | ND |
| | DL22-A-8-9.5' | 8-9.5 | 12/2/04 | 12/4/04 | 1,930 | ND | ND | ND | ND | 1,930 | ND | ND | ND |
| **DL23** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL24** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL25** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL26** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL27** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL28** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |

McCoy Field
Project No. 02685

# Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DL29** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL30** | DL30-1-4' | 1-4 | 8/11/04 | 9/13/04 | 26,300 | ND | ND | ND | ND | 26,300 | ND | ND | ND |
| | DL30-4-8' | 4-8 | 8/11/04 | 9/13/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | DL30-8-11.5' | 8-11.5 | 8/11/04 | 9/13/04 | 5,000 | ND | ND | ND | ND | 5,000 | ND | ND | ND |
| **DL31** | DL31-1-4' | 1-4 | 8/11/04 | 9/23/04 | 22,850 | ND | ND | ND | ND | 22,850 | ND | ND | ND |
| | DL31-4-7' | 4-7 | 8/11/04 | 9/13/04 | 12,300 | ND | ND | ND | ND | 12,300 | ND | ND | ND |
| | DL31-7-11' | 7-11 | 8/11/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL32** | DL32-1-4' | 1-4 | 8/11/04 | 9/13/04 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| | DL32-4-7' | 4-7 | 8/11/04 | 9/13/04 | 3,000 | ND | ND | ND | ND | 3,000 | ND | ND | ND |
| | DL32-7-11' | 7-11 | 8/11/04 | 9/13/04 | 3,800 | ND | ND | ND | ND | 3,800 | ND | ND | ND |
| **DL33** | DL33-1-3' | 1-3 | 8/11/04 | 9/3/04 | 7,575 | ND | ND | ND | ND | 7,575 | ND | ND | ND |
| | DL33-3-6' | 3-6 | 8/11/04 | 9/3/04 | 6,340 | ND | ND | ND | ND | 6,340 | ND | ND | ND |
| **DL34** | DL34-1-4' | 1-4 | 8/11/04 | 9/3/04 | 10,840 | ND | ND | ND | ND | 10,840 | ND | ND | ND |
| | DL34-4-8' | 4-8 | 8/11/04 | 9/3/04 | 8,730 | ND | ND | ND | ND | 8,730 | ND | ND | ND |
| **DL35** | DL35-1-4' | 1-4 | 8/11/04 | 9/3/04 | 33,800 | ND | ND | ND | ND | 33,800 | ND | ND | ND |
| | DL36-4-8' | 4-8 | 8/11/04 | 9/3/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| **DL36** | DL36-1-4' | 1-4 | 8/11/04 | 9/3/04 | 8,600 | ND | ND | ND | ND | 8,600 | ND | ND | ND |
| | DL36-4-8' | 4-8 | 8/11/04 | 9/3/04 | 4,650 | ND | ND | ND | ND | 4,650 | ND | ND | ND |
| **COMP** | DUPLICATE 121 (DL76-86 Medium) | -- | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **NOTE: There is no DL37 through DL75** | | | | | | | | | | | | | |
| **DL76** | DL76-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL76-3-6' | 3-6 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL76-6-9' | 6-9 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL77** | DL77-1-3' | 1-3 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL77-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL77-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL78** | DL78-1-4' | 1-4 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL78-4-7' | 4-7 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL78-7-10' | 7-10 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL79** | DL79-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL79-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL79-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL80** | DL80-1-4' | 1-4 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 119 (DL80-1-4') | 1-4 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL80-4-8.5' | 4-8.5 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL81** | DL81-1-5' | 1-5 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 120 (DL81-1-5') | 1-5 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL82** | DL82-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL82-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL82-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL83** | DL83-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL83-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

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# Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | DL83-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL84** | DL84-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL84-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL84-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL85** | DL85-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL85-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL85-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL86** | DL86-1-4' | 1-4 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL86-4-7' | 4-7 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL86-7-11' | 7-11 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL87** | DL87-1-4' | 1-4 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL87-4-7' | 4-7 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL87-7-11' | 7-11 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL88** | (no sample collected - clean backfill - located over current sewer line) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL89** | (no sample collected - clean backfill - located on Hathaway Boulevard.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL90** | (no sample collected - clean backfill - located on Hathaway Boulevard.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL91** | DL91-1-4' | 1-4 | 10/22/04 | 10/29/04 | 4,000 | ND | ND | ND | ND | 4,000 | ND | ND | ND |
| | DL91-4-8' | 4-8 | 10/22/04 | 10/29/04 | 7,730 | ND | ND | ND | ND | 7,730 | ND | ND | ND |
| | DL91-8-10' | 8-10 | 10/22/04 | 10/29/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND |
| **DL92** | DL92-1-4' | 1-4 | 8/26/04 | 9/2/04 | **212,000** | ND | ND | ND | ND | 212,000 | ND | ND | ND |
| | DL92-4-8.5' | 4-8.5 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL92-A-1-4' | 1-4 | 10/22/04 | 10/29/04 | 12,100 | ND | ND | ND | ND | 12,100 | ND | ND | ND |
| | DL92-A-4-8' | 4-8 | 10/22/04 | 10/29/04 | 7,020 | ND | ND | ND | ND | 7,020 | ND | ND | ND |
| | DL92-A-8-9.5' | 8-9.5 | 10/22/04 | 10/29/04 | 4,360 | ND | ND | ND | ND | 4,360 | ND | ND | ND |
| | DL92-B-1-4' | 1-4 | 10/22/04 | 10/29/04 | 38,500 | ND | ND | ND | ND | 38,500 | ND | ND | ND |
| | DL92-B-4-8' | 4-8 | 10/22/04 | 10/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL92-B-8-10' | 8-10 | 10/22/04 | 10/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL92-C-1-4' | 1-4 | 10/22/04 | 10/29/04 | **94,500** | ND | ND | ND | ND | 94,500 | ND | ND | ND |
| | Duplicate 169 (DL92-C-1-4') | 1-4 | 10/22/04 | 10/29/04 | **52,800** | ND | ND | ND | ND | 52,800 | ND | ND | ND |
| | DL92-C-4-8' | 4-8 | 10/22/04 | 10/28/04 | 3,260 | ND | ND | ND | ND | 3,260 | ND | ND | ND |
| | DL92-C-8-9.75' | 8-9.75 | 10/22/04 | 10/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL92-D-1-4' | 1-4 | 10/22/04 | 10/28/04 | 24,900 | ND | ND | ND | ND | 24,900 | ND | ND | ND |
| | DL92-D-4-8' | 4-8 | 10/22/04 | 10/28/04 | 4,910 | ND | ND | ND | ND | 4,910 | ND | ND | ND |
| | DL92-D-8-9.5' | 8-9.5 | 10/22/04 | 10/29/04 | 2,320 | ND | ND | ND | ND | 2,320 | ND | ND | ND |
| **DL93** | (no sample collected due to proximity to DB75 - use DB75 data) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL94** | (no sample collected - clean backfill.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL95** | (consistently hit refusal while drilling in this area.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DL96-1-3' | 1-3 | 9/9/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
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# Drain Lines
## Polychlorinated Biphenyls

| | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL96** | (no sample collected beyond 3' bgs - clean backfill.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL97** | DL97-1-2' | 1-2 | 9/9/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | (no sample collected beyond 2' bgs - clean backfill.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL98** | DL98-1-4' | 1-4 | 9/9/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | (no sample collected beyond 4' bgs - clean backfill.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL99** | DL99-1-4' | 1-4 | 9/9/04 | 9/16/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 134 (DL99-1-4') | 1-4 | 9/9/04 | 9/16/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL99-4-7' | 4-7 | 9/9/04 | 9/16/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL99-7-10' | 7-10 | 9/9/04 | 9/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL100** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL101** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL102** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL103** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL104** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL105** | DL105-1-3 | 1-3 | 9/20/04 | 9/22/04 | 3,590 | ND | ND | ND | ND | 3,590 | ND | ND | ND |
| | DL105-3-6 | 3-6 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL105-6-8.5 | 6-8.5 | 9/20/04 | 9/22/04 | 3,210 | ND | ND | ND | ND | 3,210 | ND | ND | ND |
| **DL106** | DL106-1-3 | 1-3 | 9/20/04 | 9/22/04 | 2,890 | ND | ND | ND | ND | 2,890 | ND | ND | ND |
| | DL106-3-6 | 3-6 | 9/20/04 | 9/22/04 | 2,300 | ND | ND | ND | ND | 2,300 | ND | ND | ND |
| | DL106-6-8 | 6-8 | 9/20/04 | 9/22/04 | 1,330 | ND | ND | ND | ND | 1,330 | ND | ND | ND |
| **DL107** | DL107-1-3 | 1-3 | 9/20/04 | 9/22/04 | **63,700** | ND | ND | ND | ND | 63,700 | ND | ND | ND |
| | DL107-3-6 | 3-6 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL107-6-10 | 6-10 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 139 | | 9/20/04 | 9/22/04 | 5,430 | ND | ND | ND | ND | 5,430 | ND | ND | ND |
| | MS-DL107-6-10 | 6-10 | 9/20/04 | 9/22/04 | 6,960 | ND | ND | ND | ND | 6,960 | ND | ND | ND |
| | MSD-DL107-6-10 | 6-10 | 9/20/04 | 9/22/04 | 7,990 | ND | ND | ND | ND | 7,990 | ND | ND | ND |
| | DL107-A-1-3' | 1-3 | 9/24/04 | 9/28/04 | 4,620 | ND | ND | ND | ND | 4,620 | ND | ND | ND |
| | DL107-A-3-6' | 3-6 | 9/24/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL107-A-6-10.25' | 6-10.25 | 10/1/04 | 10/4/04 | 2,940 | ND | ND | ND | ND | 2,940 | ND | ND | ND |
| | DL107-B-1-3' | 1-3 | 9/24/04 | 9/28/04 | 8,420 | ND | ND | ND | ND | 8,420 | ND | ND | ND |
| | DL107-B-3-6' | 3-6 | 9/24/04 | 9/28/04 | **109,000** | ND | ND | ND | ND | 109,000 | ND | ND | ND |
| | DL107-B-6-10' | 6-10 | 10/1/04 | 10/4/04 | 6,260 | ND | ND | ND | ND | 6,260 | ND | ND | ND |
| | DL107-C-1-3' | 1-3 | 10/1/04 | 10/4/04 | **56,300** | ND | ND | ND | ND | 56,300 | ND | ND | ND |
| | DL107-C-3-6' | 3-6 | 10/1/04 | 10/4/04 | 2,990 | ND | ND | ND | ND | 2,990 | ND | ND | ND |
| | DL107-C-6-10' | 6-10 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL107-D-1-3' | 1-3 | 10/1/04 | 10/6/04 | 15,900 | ND | ND | ND | ND | 15,900 | ND | ND | ND |
| | DL107-D-3-6' | 3-6 | 10/1/04 | 10/6/04 | 4,630 | ND | ND | ND | ND | 4,630 | ND | ND | ND |
| | DL107-D-6-10' | 6-10 | 10/1/04 | 10/6/04 | 2,260 | ND | ND | ND | ND | 2,260 | ND | ND | ND |
| **DL108** | DL108-1-3 | 1-3 | 9/20/04 | 9/22/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| | DL108-3-6 | 3-6 | 9/20/04 | 9/22/04 | 4,660 | ND | ND | ND | ND | 4,660 | ND | ND | ND |

## Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | DL108-6-10 | 6-10 | 9/20/04 | 9/22/04 | 3,930 | ND | ND | ND | ND | 3,930 | ND | ND | ND |
| **DL109** | DL109-1-3 | 1-3 | 9/20/04 | 9/22/04 | 9,070 | ND | ND | ND | ND | 9,070 | ND | ND | ND |
| | DL109-3-6 | 3-6 | 9/20/04 | 9/22/04 | 3,920 | ND | ND | ND | ND | 3,920 | ND | ND | ND |
| | DL109-6-10 | 6-10 | 9/20/04 | 9/22/04 | 5,400 | ND | ND | ND | ND | 5,400 | ND | ND | ND |
| **CY-1** | CY-1-1-3' | 1-3 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 158 (CY-1-1-3') | 1-3 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | CY-1-3-6' | 3-6 | 10/12/04 | 10/20/04 | 43,600 | ND | ND | ND | ND | 43,600 | ND | ND | ND |
| | CY-1-6-10' | 6-10 | 10/12/04 | 10/20/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| **CY-2** | CY-2-1-3' | 1-3 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | CY-2-3-6' | 3-6 | 10/12/04 | 10/20/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | CY-2-6-10' | 6-10 | 10/12/04 | 10/20/04 | 21,600 | ND | ND | ND | ND | 21,600 | ND | ND | ND |
| **CY-3** | CY-3-1-3' | 1-3 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | CY-3-3-6' | 3-6 | 10/12/04 | 10/20/04 | 41,600 | ND | ND | ND | ND | 41,600 | ND | ND | ND |
| | CY-3-6-10' | 6-10 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

# ROOF DRAIN OUTLETS
## Polychlorinated Biphenyls

| LOCATION | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **OUTLET 1** | OUTLET 1-A-1-2.5' | 1-2.5 | 7/2/04 | 7/26/04 | 14,300 | ND | ND | ND | ND | 14,300 | ND | ND | ND |
| | OUTLET 1-B-0.5-2.5' | 0.5-2.5 | 7/2/04 | 7/26/04 | 18,000 | ND | ND | ND | ND | 18,000 | ND | ND | ND |
| | OUTLET 1-C-0-2.5' | 0-2.5 | 7/2/04 | 7/27/04 | 21,200 | ND | ND | ND | ND | 21,200 | ND | ND | ND |
| | OUTLET 1-D-0-2' | 0-2 | 7/2/04 | 7/27/04 | 6,460 | ND | ND | ND | ND | 6,460 | ND | ND | ND |
| | OUTLET 1 A+B+C+D | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **OUTLET 2** | OUTLET 2-A-1-2' | 1-2 | 7/2/04 | 7/26/04 | 16,900 | ND | ND | ND | ND | 16,900 | ND | ND | ND |
| | OUTLET 2-B-0-1' | 0-1 | 7/2/04 | 7/26/04 | 5,560 | ND | ND | ND | ND | 5,560 | ND | ND | ND |
| | OUTLET 2-C-0-1' | 0-1 | 7/2/04 | 7/26/04 | 3,620 | ND | ND | ND | ND | 3,620 | ND | ND | ND |
| | OUTLET 2-A+B+C | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **OUTLET 3** | OUTLET 3-A-1-2.5' | 1-2.5 | 7/2/04 | 7/26/04 | 6,810 | ND | ND | ND | ND | 6,810 | ND | ND | ND |
| | OUTLET 3-AB-0-2' | 0-2 | 7/2/04 | 7/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | OUTLET 3-A+B | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | OUTLET 3-C-1-3' | 1-3 | 10/8/04 | 10/14/04 | 2,080 | ND | ND | ND | ND | 2,080 | ND | ND | ND |
| **OUTLET 4** | OUTLET 4-A-1-2.5' | 1-2.5 | 7/2/04 | 7/26/04 | 3,830 | ND | ND | ND | ND | 3,830 | ND | ND | ND |
| | OUTLET 4-B-0-2' | 0-2 | 7/2/04 | 7/26/04 | 4,240 | ND | ND | ND | ND | 4,240 | ND | ND | ND |
| | OUTLET 4-A+B | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | OUTLET 4-C-1-4' | 1-4 | 10/8/04 | 10/14/04 | 1,220 | ND | ND | ND | ND | 1,220 | ND | ND | ND |
| | OUTLET 4 SP | ~ | 7/30/04 | 8/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **OUTLET 5** | OUTLET 5-A-1-2.5' | 1-2.5 | 7/2/04 | 7/26/04 | 1,530 | ND | ND | ND | ND | 1,530 | ND | ND | ND |
| | OUTLET 5-B-0-2' | 0-2 | 7/2/04 | 7/26/04 | 3,420 | ND | ND | ND | ND | 3,420 | ND | ND | ND |
| | OUTLET 5-A+B | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | OUTLET 5-C-1-4' | 1-4 | 10/8/04 | 10/12/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | OUTLET 5 SP | ~ | 7/29/04 | 7/31/04 | 2,220 | ND | ND | ND | ND | 2,220 | ND | ND | ND |

McCoy Field
Project No. 02685

# Lights
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **L1** | L1-1-4' | 1-4 | 8/17/04 | 8/21/04 | 3,640 | ND | ND | ND | ND | 3,640 | ND | ND | ND |
| | L1-4-7' | 4-7 | 8/17/04 | 8/25/04 | 2,920 | ND | ND | ND | ND | 1,770 | 1,150 | ND | ND |
| | L1-7-11' | 7-11 | 8/17/04 | 8/21/04 | 2,100 | ND | ND | ND | ND | 2,100 | ND | ND | ND |
| **L4** | L4-1-4' | 1-4 | 8/17/04 | 8/23/04 | 287 | ND | ND | ND | ND | 287 | ND | ND | ND |
| | L4-4-8' | 4-8 | 8/17/04 | 8/21/04 | 26,200 | ND | ND | ND | ND | 26,200 | ND | ND | ND |
| | L4-8-12' | 8-12 | 8/17/04 | 8/24/04 | 92 | ND | ND | ND | ND | 92 | ND | ND | ND |
| **L5** | L5-1-4' | 1-4 | 8/17/04 | 8/21/04 | 1,580 | ND | ND | ND | ND | 1,580 | ND | ND | ND |
| | Duplicate 104 (L5-1-4') | 1-4 | 8/17/04 | 8/25/04 | 17,000 | ND | ND | ND | ND | 17,000 | ND | ND | ND |
| | L5-4-7' | 4-7 | 8/17/04 | 8/21/04 | 12,500 | ND | ND | ND | ND | 12,500 | ND | ND | ND |
| | L5-7-10' | 7-10 | 8/17/04 | 8/23/04 | 552 | ND | ND | ND | ND | 552 | ND | ND | ND |
| **Flagpole** | FLAGPOLE-1-3' | 1-3 | 8/17/04 | 8/21/04 | 4,140 | ND | ND | ND | ND | 4,140 | ND | ND | ND |
| | FLAGPOLE-3-6' | 3-6 | 8/17/04 | 8/21/04 | 3,960 | ND | ND | ND | ND | 3,960 | ND | ND | ND |
| | FLAGPOLE-6-9' | 6-9 | 8/17/04 | 8/23/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| **L6** | L6-1-4' | 1-4 | 11/17/04 | 11/23/04 | 35,800 | ND | ND | ND | ND | 35,800 | ND | ND | ND |
| | L6-4-8' | 4-8 | 11/17/04 | 11/24/04 | **73,900** | ND | ND | ND | ND | 73,900 | ND | ND | ND |
| | L6-8-9.5' | 8-9.5 | 11/17/04 | 11/23/04 | 10,500 | ND | ND | ND | ND | 10,500 | ND | ND | ND |
| **L7** | L7-1-4' | 1-4 | 11/17/04 | 11/23/04 | 7,010 | ND | ND | ND | ND | 7,010 | ND | ND | ND |
| | L7-4-8' | 4-8 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L7-8-9' | 8-9 | 11/17/04 | 11/23/04 | 2,360 | ND | ND | ND | ND | 2,360 | ND | ND | ND |
| **L8** | L8-1-3' | 1-3 | 8/17/04 | 8/21/04 | 3,810 | ND | ND | ND | ND | 3810 | ND | ND | ND |
| | L8-3-6' | 3-6 | 8/17/04 | 8/25/04 | 13,500 | ND | ND | ND | ND | 13500 | ND | ND | ND |
| | L8-6-9' | 6-9 | 8/17/04 | 8/21/04 | 961 | ND | ND | ND | ND | 961 | ND | ND | ND |
| **L9** | L9-1-4' | 1-4 | 8/17/04 | 8/21/04 | 1,670 | ND | ND | ND | ND | 1670 | ND | ND | ND |
| | L9-4-7' | 4-7 | 8/17/04 | 8/21/04 | 1,240 | ND | ND | ND | ND | 1240 | ND | ND | ND |
| | L9-7-10' | 7-10 | 8/17/04 | 8/23/04 | 3,320 | ND | ND | ND | ND | 1610 | 1710 | ND | ND |
| **L10** | L10-1-3' | 1-3 | 8/17/04 | 8/23/04 | 1,080 | ND | ND | ND | ND | 1080 | ND | ND | ND |
| | L10-3-6' | 3-6 | 8/17/04 | 8/25/04 | **1,020,000** | ND | ND | ND | ND | 1020000 | ND | ND | ND |
| | Duplicate 106 (L10-3-6') | 3-6 | 8/17/04 | 8/21/04 | **178,000** | ND | ND | ND | ND | 178,000 | ND | ND | ND |
| | L10-6-9' | 6-9 | 8/17/04 | 8/24/04 | 23,500 | ND | ND | ND | ND | 23500 | ND | ND | ND |
| | L10-A-3-6' | 3-6 | 12/3/04 | 12/8/04 | 10,000 | ND | ND | ND | ND | 10000 | ND | ND | ND |
| | L10-B-3-6' | 3-6 | 12/3/04 | 12/8/04 | 9,530 | ND | ND | ND | ND | 9530 | ND | ND | ND |
| | L10-C-3-6' | 3-6 | 12/3/04 | 12/8/04 | 3,520 | ND | ND | ND | ND | 3520 | ND | ND | ND |
| | L10-D-3-6' | 3-6 | 12/3/04 | 12/8/04 | **73,500** | ND | ND | ND | ND | 73500 | ND | ND | ND |
| **L11** | L11-1-3' | 1-3 | 8/17/04 | 8/24/04 | 13,100 | ND | ND | ND | ND | 13100 | ND | ND | ND |
| | L11-3-6' | 3-6 | 8/17/04 | 8/23/04 | 2,220 | ND | ND | ND | ND | 2220 | ND | ND | ND |
| | L11-6-9.5' | 6-9.5 | 8/17/04 | 8/23/04 | **113,000** | ND | ND | ND | ND | 113,000 | ND | ND | ND |
| | L11-A-6-10' | 6-10 | 12/3/04 | 12/8/04 | 3,450 | ND | ND | ND | ND | 3,450 | ND | ND | ND |
| | Duplicate 196 (L11-A-6-10') | 6-10 | 12/3/04 | 12/8/04 | 5,410 | ND | ND | ND | ND | 5,410 | ND | ND | ND |
| | L11-B-6-11' | 6-11 | 12/2/04 | 12/4/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Lights
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | L11-C-6-10' | 6-10 | 12/3/04 | 12/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L11-C-6-10'MS | 6-10 | 12/3/04 | 12/8/04 | 8,110 | ND | ND | ND | ND | 8,110 | ND | ND | ND |
| | L11-C-6-10'MSD | 6-10 | 12/3/04 | 12/8/04 | 8,790 | ND | ND | ND | ND | 8,790 | ND | ND | ND |
| | L11-D-6-9.5' | 6-9.5 | 12/2/04 | 12/4/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| **L12** | L12-1-4' | 1-4 | 8/17/04 | 8/24/04 | **54,500** | ND | ND | ND | ND | 54,500 | ND | ND | ND |
| | L12-4-7' | 4-7 | 8/17/04 | 8/24/04 | 3,630 | ND | ND | ND | ND | 3,630 | ND | ND | ND |
| | L12-7-10' | 7-10 | 8/17/04 | 8/24/04 | 21,700 | ND | ND | ND | ND | 21,700 | ND | ND | ND |
| **L13** | L13-1-4' | 1-4 | 8/17/04 | 8/23/04 | 2,350 | ND | ND | ND | ND | 2,350 | ND | ND | ND |
| | L13-4-8' | 4-8 | 8/17/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L13-8-12' | 8-12 | 8/17/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **L14** | L14-1-4' | 1-4 | 8/17/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L14-4-8' | 4-8 | 8/17/04 | 8/24/04 | 95 | ND | ND | ND | ND | 95 | ND | ND | ND |
| | L14-8-12' | 8-12 | 8/17/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **L15** | L15-1-4' | 1-4 | 8/17/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L15-4-8' | 4-8 | 8/17/04 | 8/24/04 | 1,100 | ND | ND | ND | ND | 1,100 | ND | ND | ND |
| | L15-8-12' | 8-12 | 8/17/04 | 8/24/04 | 492 | ND | ND | ND | ND | 492 | ND | ND | ND |
| **L16** | L16-1-4' | 1-4 | 8/17/04 | 8/21/04 | 2,120 | ND | ND | ND | ND | 2,120 | ND | ND | ND |
| | L16-4-8' | 4-8 | 8/17/04 | 8/21/04 | 4,370 | ND | ND | ND | ND | 4,370 | ND | ND | ND |
| **L17** | L17-1-4' | 1-4 | 8/19/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L17-4-7' | 4-7 | 8/19/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L17-7-10' | 7-10 | 8/19/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **L18** | L18-0-4' | 0-4 | 12/3/04 | 12/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L18-4-5' | 4-5 | 12/3/04 | 12/8/04 | 1,210 | ND | ND | ND | ND | 1,210 | ND | ND | ND |
| **L19** | L19-1-4' | 1-4 | 8/19/04 | 8/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 107 (L19-1-4') | 1-4 | 8/19/04 | 8/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L19-4-7' | 4-7 | 8/19/04 | 8/26/04 | 3,120 | ND | ND | ND | ND | 3,120 | ND | ND | ND |
| | L19-7-11' | 7-11 | 8/19/04 | 8/26/04 | 3,260 | ND | ND | ND | ND | 3,260 | ND | ND | ND |
| **L20** | L20-1-4' | 1-4 | 8/19/04 | 8/26/04 | 2,300 | ND | ND | ND | ND | 2,300 | ND | ND | ND |
| | L20-4-7' | 4-7 | 8/19/04 | 8/26/04 | 5,530 | ND | ND | ND | ND | 5,530 | ND | ND | ND |
| | L20-7-11' | 7-11 | 8/19/04 | 8/26/04 | 1,970 | ND | ND | ND | ND | 1,970 | ND | ND | ND |
| **L21** | L21-1-4' | 1-4 | 8/19/04 | 8/26/04 | 2,820 | ND | ND | ND | ND | 2,820 | ND | ND | ND |
| | L21-4-7' | 4-7 | 8/19/04 | 8/26/04 | 1,900 | ND | ND | ND | ND | 1,900 | ND | ND | ND |
| | L21-7-10.5' | 7-10.5 | 8/19/04 | 8/26/04 | 1,420 | ND | ND | ND | ND | 1,420 | ND | ND | ND |
| **L22** | L22-1-4' | 1-4 | 8/19/04 | 8/26/04 | 792 | ND | ND | ND | ND | 792 | ND | ND | ND |
| | L22-4-7' | 4-7 | 8/19/04 | 8/26/04 | 5,160 | ND | ND | ND | ND | 5,160 | ND | ND | ND |
| | L22-7-11.5' | 7-11.5 | 8/19/04 | 8/27/04 | 2,520 | ND | ND | ND | ND | 2,520 | ND | ND | ND |
| **L23** | L23-1-4' | 1-4 | 8/19/04 | 8/26/04 | 2,010 | ND | ND | ND | ND | 2,010 | ND | ND | ND |
| | L23-4-8' | 4-8 | 8/19/04 | 8/26/04 | 22,200 | ND | ND | ND | ND | 22,200 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Lights
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | L23-8-12' | 8-12 | 8/19/04 | 8/26/04 | 1,220 | ND | ND | ND | ND | 1,220 | ND | ND | ND |
| **L24** | L24-1-4' | 1-4 | 8/19/04 | 8/26/04 | 4,470 | ND | ND | ND | ND | 4,470 | ND | ND | ND |
| | L24-4-7' | 4-7 | 8/19/04 | 8/26/04 | 3,780 | ND | ND | ND | ND | 3,780 | ND | ND | ND |
| | L24-7-9' | 7-9 | 8/19/04 | 8/26/04 | 21,400 | ND | ND | ND | ND | 21,400 | ND | ND | ND |
| **L25** | L25-1-4' | 1-4 | 8/19/04 | 8/26/04 | **69,800** | ND | ND | ND | ND | 69,800 | ND | ND | ND |
| | L25-4-7' | 4-7 | 8/19/04 | 8/26/04 | 19,900 | ND | ND | ND | ND | 19,900 | ND | ND | ND |
| | L25-7-10' | 7-10 | 8/19/04 | 8/26/04 | 3,490 | ND | ND | ND | ND | 3,490 | ND | ND | ND |
| **L26** | L26-1-4' | 1-4 | 8/19/04 | 8/27/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | L26-4-8' | 4-8 | 8/19/04 | 8/27/04 | 9,150 | ND | ND | ND | ND | 9,150 | ND | ND | ND |
| | L26-8-12' | 8-12 | 8/19/04 | 8/27/04 | 6,210 | ND | ND | ND | ND | 6,210 | ND | ND | ND |
| **L27** | L27-1-4' | 1-4 | 8/19/04 | 8/27/04 | 5,650 | ND | ND | ND | ND | 5,650 | ND | ND | ND |
| | L27-4-8.5' | 4-8.5 | 8/19/04 | 8/27/04 | 26,300 | ND | ND | ND | ND | 26,300 | ND | ND | ND |
| **L28** | L28-1-3' | 1-3 | 8/19/04 | 8/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DUPLICATE 110 (L28-1-3') | 1-3 | 8/19/04 | 8/26/04 | 629 | ND | ND | ND | ND | 629 | ND | ND | ND |
| | L28-3-6' | 3-6 | 8/19/04 | 8/27/04 | 40,200 | ND (8770) | ND (8770) | ND (8770) | ND (8770) | 40,200 | ND (8770) | ND (8770) | ND (8770) |
| | L28-6-9.5' | 6-9.5 | 8/19/04 | 8/27/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| **L29** | L29-1-4' | 1-4 | 8/19/04 | 8/27/04 | 43,600 | ND (9260) | ND (9260) | ND (9260) | ND (9260) | 43,600 | ND (9260) | ND (9260) | ND (9260) |
| | L29-4-8' | 4-8 | 8/19/04 | 8/27/04 | 1,460 | ND | ND | ND | ND | 1,460 | ND | ND | ND |
| | L29-8-11' | 8-11 | 8/19/04 | 8/27/04 | **49,000** | ND (9800) | ND (9800) | ND (9800) | ND (9800) | 49,000 | ND (9800) | ND (9800) | ND (9800) |
| **L30** | L30-1-4' | 1-4 | 8/19/04 | 8/27/04 | 34,900 | ND | ND | ND | ND | 34,900 | ND | ND | ND |
| | L30-4-8' | 4-8 | 8/19/04 | 8/26/04 | 4,460 | ND | ND | ND | ND | 4,460 | ND | ND | ND |
| | L30-8-11' | 8-11 | 8/19/04 | 8/27/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **L31** | L31-1-4' | 1-4 | 8/19/04 | 8/26/04 | 7,300 | ND | ND | ND | ND | 7,300 | ND | ND | ND |
| | L31-4-8' | 4-8 | 8/19/04 | 8/27/04 | **48,900** | ND (8660) | ND (8660) | ND (8660) | ND (8660) | 48,900 | ND (8660) | ND (8660) | ND (8660) |
| | L31-8-12' | 8-12 | 8/19/04 | 8/27/04 | 20,700 | ND | ND | ND | ND | 20,700 | ND | ND | ND |
| **L32** | Clean backfill from installation of nearby fire hydrant | | | | | | | | | | | | |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Sidewalk
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| Sidewalk-1-1.25-2' | 1.25-2 | 10/28/04 | 10/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-2-1.5-2' | 1.5-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-3-1-2' | 1-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-4-0.25-2' | 0.25-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-5-0.5-2' | 0.5-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-6-0.5-2' | 0.5-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

## North Stockpiles
## Polychlorinated Biphenyls

| | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| North SP-1 | 9/23/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| North SP-2 | 9/23/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| North SP-3 | 9/23/04 | 9/30/04 | 29,100 | ND | ND | ND | ND | 29,100 | ND | ND | ND |
| North SP-4 | 9/23/04 | 9/30/04 | **46,500,000** | ND | ND | ND | ND | 46,500,000 | ND | ND | ND |
| NSP-4-0-1' | 12/9/04 | 12/13/04 | **377,000** | ND | ND | ND | ND | 377,000 | ND | ND | ND |
| NSP-4-1-2' | 12/9/04 | 12/18/04 | 9,380 | ND | ND | ND | ND | 9,380 | ND | ND | ND |
| NSP-4-A-0-1' | 12/9/04 | 12/13/04 | **4,300,000** | ND | ND | ND | ND | 4,300,000 | ND | ND | ND |
| NSP-4-A-1-2' | 12/9/04 | 12/18/04 | **450,000** | ND | ND | ND | ND | 450,000 | ND | ND | ND |
| NSP-4-A-2-3' | 1/11/05 | 1/13/05 | 35,100 | ND | ND | ND | ND | 35,100 | ND | ND | ND |
| NSP-4-B-0-1' | 12/9/04 | 12/13/04 | **102,000** | ND | ND | ND | ND | 102,000 | ND | ND | ND |
| NSP-4-B-1-2' | 12/9/04 | 12/18/04 | 11,500 | ND | ND | ND | ND | 11,500 | ND | ND | ND |
| NSP-4-C-0-1' | 12/9/04 | 12/13/04 | **1,210,000** | ND | ND | ND | ND | 1,210,000 | ND | ND | ND |
| NSP-4-C-1-2' | 12/9/04 | 12/18/04 | 3,450 | ND | ND | ND | ND | 3,450 | ND | ND | ND |
| NSP-4-D-0-1' | 12/9/04 | 12/13/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| NSP-4-D-1-2' | 12/9/04 | 1/15/05 | 38,300 | ND | ND | ND | ND | 38,300 | ND | ND | ND |
| NSP-4-E-0-1' | 12/9/04 | 12/18/04 | **78,900** | ND | ND | ND | ND | 78,900 | ND | ND | ND |
| NSP-4-F-0-1' | 12/9/04 | 12/18/04 | 24,700 | ND | ND | ND | ND | 24,700 | ND | ND | ND |
| NSP-4-H-0-1' | 12/9/04 | 12/18/04 | **630,000** | ND | ND | ND | ND | 630,000 | ND | ND | ND |
| NSP-4-H-1-2' | 1/11/05 | 1/13/05 | **2,290,000** | ND | ND | ND | ND | 2,290,000 | ND | ND | ND |
| NSP-4-H-2-3' | 1/11/05 | 1/15/05 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| NSP-4-I-0-1' | 1/11/05 | 1/13/05 | 8,350 | ND | ND | ND | ND | 8,350 | ND | ND | ND |
| NSP-4-I-1-2' | 1/11/05 | 1/13/05 | **72,800** | ND | ND | ND | ND | 72,800 | ND | ND | ND |
| North SP-5 | 9/23/04 | 9/30/04 | **2,190,000** | ND | ND | ND | ND | 2,190,000 | ND | ND | ND |
| NSP-5-0-1' | 12/9/04 | 12/13/04 | **321,000** | ND | ND | ND | ND | 321,000 | ND | ND | ND |
| NSP-5-1-2' | 12/9/04 | 12/18/04 | 33,600 | ND | ND | ND | ND | 33,600 | ND | ND | ND |
| NSP-5-A-0-1' | 12/9/04 | 12/13/04 | 21,800 | ND | ND | ND | ND | 21,800 | ND | ND | ND |
| NSP-5-B-0-1' | 12/9/04 | 12/13/04 | **70,400** | ND | ND | ND | 37,100 | ND | ND | 33,300 | ND |
| NSP-5-C-0-1' | 12/9/04 | 12/13/04 | 7,770 | ND | ND | ND | ND | 7,770 | ND | ND | ND |
| NSP-5-D-0-1' | 12/9/04 | 12/13/04 | 4,050 | ND | ND | ND | ND | 4,050 | ND | ND | ND |
| NSP-5-F-0-1' | 12/9/04 | 1/15/05 | **332,000** | ND | ND | ND | ND | 332,000 | ND | ND | ND |
| NSP-5-F-1-2' | 12/9/04 | 1/15/05 | 40,300 | ND | ND | ND | ND | 23,700 | ND | 16,600 | ND |
| NSP-5-G-0-1' | 12/9/04 | 1/15/05 | 4,060 | ND | ND | ND | ND | 4,060 | ND | ND | ND |
| NSP-5-G-1-2' | 12/9/04 | 1/15/05 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND |
| NSP-5-I-0-1' | 1/19/05 | 1/20/05 | 8,930 | ND | ND | ND | ND | 8,930 | ND | ND | ND |
| NSP-5-J-0-1' | 1/19/05 | 1/20/05 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| NSP-6-0-1' | 12/9/04 | 12/13/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| North SP-6 | 9/23/04 | 9/30/04 | 2,040 | ND | ND | ND | ND | 2,040 | ND | ND | ND |
| North SP-7 | 10/29/04 | 11/4/04 | 34,700 | ND | ND | ND | ND | 34,700 | ND | ND | ND |
| North SP-8 | 10/29/04 | 11/4/04 | **865,000** | ND | ND | ND | ND | 865,000 | ND | ND | ND |
| NSP-8-A-0-1' | 11/11/04 | 11/15/04 | **74,760** | ND | ND | ND | ND | 74,760 | ND | ND | ND |
| NSP-8-A-0-1' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-A-1-2' | 11/11/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-A-2-3' | 11/11/04 | 11/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

## North Stockpiles
## Polychlorinated Biphenyls

| | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| NSP-8-B-0-1' | 11/11/04 | 11/15/04 | 28,100 | ND | ND | ND | ND | 28,100 | ND | ND | ND |
| NSP-8-B-0-1' | 12/9/04 | 12/13/01 | **589,000** | ND | ND | ND | ND | 589,000 | ND | ND | ND |
| NSP-8-B-1-2' | 11/11/04 | 11/18/04 | 3,280 | ND | ND | ND | ND | 3,280 | ND | ND | ND |
| NSP-8-B-2-3' | 11/11/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-B-3-4' | 11/11/04 | 11/18/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| NSP-8-B-4-5' | 11/11/04 | 11/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-C-0-1' | 12/9/04 | 12/13/04 | **989,000** | ND | ND | ND | ND | 989,000 | ND | ND | ND |
| NSP-8-C-0-1' | 11/11/04 | 11/15/04 | **32,760,000** | ND | ND | ND | ND | 32,760,000 | ND | ND | ND |
| Duplicate 188 | 11/11/04 | 11/15/04 | **37,890,000** | ND | ND | ND | ND | 37,890,000 | ND | ND | ND |
| NSP-8-C-1-2' | 11/11/04 | 11/18/04 | **3,450,000** | ND | ND | ND | ND | 3,450,000 | ND | ND | ND |
| NSP-8-C-2-3' | 11/11/04 | 11/18/04 | **201,000** | ND | ND | ND | ND | 201,000 | ND | ND | ND |
| NSP-8-C-3-4' | 11/11/04 | 11/18/04 | **139,000** | ND | ND | ND | ND | 139,000 | ND | ND | ND |
| NSP-8-C-4-5' | 11/11/04 | 11/22/04 | **62,100** | ND | ND | ND | ND | 62,100 | ND | ND | ND |
| NSP-8-D-0-1' | 11/11/04 | 11/15/04 | 37,300 | ND | ND | ND | ND | 37,300 | ND | ND | ND |
| NSP-8-D-1-2' | 11/11/04 | 11/18/04 | 3,070 | ND | ND | ND | ND | 3,070 | ND | ND | ND |
| NSP-8-D-2-3' | 11/11/04 | 11/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-E-0-1' | 12/9/04 | 12/13/04 | **626,000** | ND | ND | ND | ND | 626,000 | ND | ND | ND |
| NSP-8-E-1-2' | 12/9/04 | 12/10/04 | 4,400 | ND | ND | ND | ND | 4,400 | ND | ND | ND |
| NSP-8-E-2-3' | 12/9/04 | 12/10/04 | 7,190 | ND | ND | ND | ND | 7,190 | ND | ND | ND |
| NSP-8-E-3-4' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-F-0-1' | 12/9/04 | 12/18/04 | **307,000** | ND | ND | ND | ND | 307,000 | ND | ND | ND |
| NSP-8-F-1-2' | 1/11/05 | 1/13/05 | **153,000** | ND | ND | ND | ND | 153,000 | ND | ND | ND |
| NSP-8-F-2-3' | 1/11/05 | 1/15/05 | 1,920 | ND | ND | ND | ND | 1,920 | ND | ND | ND |
| NSP-8-G-0-1' | 12/9/04 | 12/13/04 | **78,500** | ND | ND | ND | ND | 78,500 | ND | ND | ND |
| NSP-8-G-1-2' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-G-2-3' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-G-3-4' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 197 (NSP-8-H-1-2') | 12/3/04 | 7/30/04 | 5,990 | ND | ND | ND | ND | 5,990 | ND | ND | ND |
| NSP-8-I-0-1' | 12/9/04 | 12/13/04 | **55,000** | ND | ND | ND | ND | 55,000 | ND | ND | ND |
| NSP-8-I-1-2' | 12/9/04 | 12/10/04 | 2,110 | ND | ND | ND | ND | 2,110 | ND | ND | ND |
| NSP-8-I-2-3' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-I-3-4' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-K-0-1' | 1/11/05 | 1/13/05 | **95,200** | ND | ND | ND | ND | 95,200 | ND | ND | ND |
| Duplicate 214 (NSP-8-K-0-1') | 1/11/05 | 1/13/05 | **2,250,000** | ND | ND | ND | ND | 2,250,000 | ND | ND | ND |
| NSP-8-K-1-2' | 1/11/05 | 1/15/05 | 3,180 | ND | ND | ND | ND | 3,180 | ND | ND | ND |
| NSP-8-M-0-1' | 1/26/05 | 1/27/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| North SP-9 | 10/29/04 | 11/4/04 | 5,840 | ND | ND | ND | ND | 5,840 | ND | ND | ND |

McCoy Field
Project No. 02685

# Durfee Fence
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| DFA-0-1' | 0-1 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1020) | ND | ND | ND |
| DFA-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1030) | ND | ND | ND |
| DFA-2-3' | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1000) | ND | ND | ND |
| DFA-3-4' | 3-4 | 11/4/04 | 11/10/04 | 2,070 | ND | ND | ND | ND | 2,070 | ND | ND | ND |
| DFA-4-5' | 4-5 | 11/4/04 | 11/10/04 | 2,260 | ND | ND | ND | ND | 2,260 | ND | ND | ND |
| DFA-5-6' | 5-6 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1270) | ND | ND | ND |
| DFA-6-7' | 6-7 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (2550) | ND | ND | ND |
| DFB-0-1' | 0-1 | 11/4/04 | 11/10/04 | 1,340 | ND | ND | ND | ND | 1,340 | ND | ND | ND |
| DFB-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1050) | ND | ND | ND |
| DFB-2-3' | 2-3 | 11/4/04 | 11/10/04 | 2,690 | ND | ND | ND | ND | 2,690 | ND | ND | ND |
| DFB-3-4' | 3-4 | 11/4/04 | 11/10/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |
| DFB-4-5' | 4-5 | 11/4/04 | 11/10/04 | 1,730 | ND | ND | ND | ND | 1,730 | ND | ND | ND |
| DFB-5-6' | 5-6 | 11/4/04 | 11/10/04 | 19,710 | ND | ND | ND | ND | 2,610 | ND | ND | 17,100 |
| DFB-6-7' | 6-7 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (3590) | ND | ND | ND |
| DFC-0-1' | 0-1 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1060) | ND | ND | ND |
| DFC-1-2' | 1-2 | 11/4/04 | 11/10/04 | 1,880 | ND | ND | ND | ND | 1,880 | ND | ND | ND |
| DFC-2-3' | 2-3 | 11/4/04 | 11/10/04 | 10,400 | ND | ND | ND | ND | 10,400 | ND | ND | ND |
| Duplicate 186 | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1290) | ND | ND | ND |
| DFC-3-4' | 3-4 | 11/4/04 | 11/10/04 | 2,030 | ND | ND | ND | ND | 2,030 | ND | ND | ND |
| DFC-4-5' | 4-5 | 11/4/04 | 11/10/04 | 14,210 | ND | ND | ND | ND | 14,210 | ND | ND | ND |
| DFD-0-1' | 0-1 | 11/4/04 | 11/10/04 | 2,340 | ND | ND | ND | ND | 2,340 | ND | ND | ND |
| DFD-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1130) | ND | ND | ND |
| DFD-2-3' | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1180) | ND | ND | ND |
| DFD-3-4' | 3-4 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1330) | ND | ND | ND |
| Duplicate 185 | 3-4 | 11/4/04 | 11/10/04 | 1,590 | ND | ND | ND | ND | 1,590 | ND | ND | ND |
| DFE-0-1' | 0-1 | 11/4/04 | 11/10/04 | 2,950 | ND | ND | ND | ND | 2,950 | ND | ND | ND |
| DFE-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1120) | ND | ND | ND |
| DFE-2-3' | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1150) | ND | ND | ND |
| DFE-3-4' | 3-4 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1310) | ND | ND | ND |
| DFF-0-0.5' | 0-0.5 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1230) | ND | ND | ND |
| DFF-0.5-1.5' | 0.5-1.5 | 11/4/04 | 11/10/04 | 2,050 | ND | ND | ND | ND | 2,050 | ND | ND | ND |
| DFF-1.5-2.5' | 1.5-2.5 | 11/4/04 | 11/10/04 | 3,490 | ND | ND | ND | ND | 3,490 | ND | ND | ND |
| DFF-2.5-3.5' | 2.5-3.5 | 11/4/04 | 11/10/04 | 4,410 | ND | ND | ND | ND | 4,410 | ND | ND | ND |
| DFF-3.5-4.5' | 3.5-4.5 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFG-0-1' | 0-1 | 11/4/04 | 11/10/04 | 2,060 | ND | ND | ND | ND | 2,060 | ND | ND | ND |
| DFG-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1170) | ND | ND | ND |
| DFG-2-3' | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1140) | ND | ND | ND |
| DFG-3-4' | 3-4 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1150) | ND | ND | ND |
| DFG-4-5' | 4-5 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1100) | ND | ND | ND |
| DFG-5-6' | 5-6 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1040) | ND | ND | ND |
| DFH-0-1.5' | 0-1.5 | 11/4/04 | 11/10/04 | 1,580 | ND | ND | ND | ND | 1,580 | ND | ND | ND |
| DFH-1.5-3' | 1.5-3 | 2/16/05 | 2/18/05 | 359 | ND | ND | ND | ND | 359 | ND | ND | ND |

McCoy Field
Project No. 02685

## Durfee Fence
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| DFH-1.5-3'MS | 1.5-3 | 2/16/05 | 2/18/05 | 792 | ND | ND | ND | ND | 792 | ND | ND | ND |
| DFH-1.5-3'MSD | 1.5-3 | 2/16/05 | 2/18/05 | 695 | ND | ND | ND | ND | 695 | ND | ND | ND |
| DFI-0-0.5' | 0-0.5 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1130) | ND | ND | ND |
| DFI-0.5-3' | 0.5-3 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 215 (DFI-0.5-3') | 0.5-3 | 2/16/05 | 2/18/05 | 353 | ND | ND | ND | ND | 353 | ND | ND | ND |
| DFJ-0-0.75' | 0-0.75 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1280) | ND | ND | ND |
| DFJ-0.75-3' | 0.75-3 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFK-0-1' | 0-1 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFK-1-3' | 1-3 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFL-0-1' | 0-1 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFL-1-3' | 1-3 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

ND = Not detected
~ = Constituent not analyzed
Gray shaded values indicate that the Turnkey Acceptance Limit has been exceeded.
Black shaded values indicate that the Upper Concentration Limit (UCL) has been exceeded.

# Attachment E

Long-term Cap Monitoring Plan

# ATTACHMENT E

## Long-Term Cap Monitoring Plan

### Background

The fate and transport characteristics of the contaminants of concern (polychlorinated biphenyls (PCBs), heavy metals (primarily lead and barium) and polynuclear aromatic hydrocarbons (PAHs)) have been evaluated and the following apply:

- All COCs are relatively insoluble in water;
- All COCs are only minimally volatile; and
- Direct contact, adsorption and/or ingestion are the only significant pathway for human exposure.

Therefore, by installing engineered barriers and eliminating direct exposure to contaminated media, the risk to human health and the environment can be substantially eliminated.

The engineered barriers must be maintained in accordance with the following monitoring plan, to keep the contaminated fill layer isolated from human and environmental receptors:

1) The new Keith Middle School has been constructed on steel H-piles, with the base of the concrete floor of the school at or near grade. The floor consists of a minimum of six inches of poured-in-place reinforced concrete. Prior to placement of the concrete floor, an impermeable elastomeric gas membrane ("LIQUID BOOT®") was applied beneath the floor, as an added precaution to prevent migration of any volatile gases into the building. In addition, a passive vent system has been installed to vent any accumulated gases to the atmosphere.

2) Portions of exterior areas of the school facility are landscaped. All landscaped areas were constructed by removing site soil to a minimum depth of 3 feet below final grade, placing a geotextile fabric to demarcate the limits of excavation and to separate residual PCB-impacted soil from clean fill, backfilling with a 6 to 12-inch base of imported clean crushed stone, placing an orange polyethylene mesh warning barrier, followed by imported clean sandy gravel and topsoil to achieve finished grade.

3) The remaining exterior site areas are asphalt or concrete paved. Asphalt has been placed at a minimum thickness of three inches on top of at least two feet of imported crushed stone sub-base underlain by a geotextile fabric. The concrete sidewalks have a minimum thickness of six inches, also on top of two feet of imported clean crushed sub-base, gravel and geotextile fabric.

In combination, the purpose of these three barriers is to prevent human exposure and erosion, and represent the cap for the school facility in accordance with the requirements of 40 CFR 761.61(a)(7).

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## Cap Maintenance

The following activities are required to maintain the integrity of the cap. In the event that activities prohibited in this section must be undertaken, a Massachusetts Licensed Site Professional must be involved to direct and oversee the activities.

A. Maintain all asphalt pavement, concrete pavement, and sidewalks such that the integrity of each is not compromised.

   1) If replacement of asphalt surfaces, concrete pavements and/or sidewalks is required, it shall be limited to the material to be replaced such that the underlying soil is not significantly disturbed (six inches deep or less below bottom of surface being removed) and the surface material is immediately (within 72 hours) repaired or replaced with a comparable barrier.

   2) No excavation shall be performed to a depth greater than two feet beneath paved areas.

B. Maintain all interior building floors such that the integrity of each is not compromised. This shall include a prohibition against any of the following activities, except as provided for above:

   1) Removal of building floor slab that would expose underlying contaminated soil (Note that a minimum of one foot of clean compacted granular fill directly underlies the concrete slab.);

   2) Any penetration or breaching of the vapor barrier beneath the building floor;

   3) Any excavation beneath building floors; and/or

   4) Any such activities that result, or could result, in compromising the structural integrity of building floors, asphalt pavement, or concrete pavement.

C. Maintain all landscaped areas such that soil erosion or other exposure of contaminated fill is prevented. This shall include a prohibition against any of the following activities, except as provided for above:

   1. If vegetation is to be planted or removed, excavation and/or removal of existing root systems shall not extend beyond two feet below existing grade.

   2) Prohibition against any excavation to a depth greater than three feet in landscaped areas.

**ATTACHMENT E**

3) Prohibition against any activities that result, or could result, in the erosion of soil in any unpaved area.

4) Prohibition against planting any deep-rooted vegetation (i.e., with roots typically extending greater than three feet below grade).

5) Any removal of overburden soil that reduces the depth of clean fill over the residual PCB-impacted soil to less than three feet.

**Cap Inspections**

Perform semi-annual inspections and associated record keeping activities to confirm that the cap is being properly maintained to prevent exposure. Particular attention is drawn to the following best management practices:

- Any damage to the cap, whatever the cause, must be repaired immediately to substantially restore the cap to its original design condition.
- Performance of frequent and short watering of landscape vegetation to encourage shallow root growth is recommended.
- Any deep-rooted indigenous species identified during routine inspections shall be immediately removed.

**Deed Restriction**

The above requirements will be recorded on the property in a Notice of Activity and Use Limitation (AUL) at the Bristol County Registry of Deeds. The AUL will be prepared and filed within 60 days of completion of cleanup activity, as required in 40 CFR 761.61(8)(i), in accordance with the requirements of the Massachusetts Contingency Plan 310 CMR 40.0000. The AUL will be maintained, and the Cap Monitoring Plan will continue to be implemented, in perpetuity, or until such time as additional response actions allow the modification or removal of the AUL and Cap Monitoring Plan in accordance with all applicable laws and regulations in force at the time.

**Soil Management Plan**

A Soil Management Plan must be prepared by a Massachusetts Licensed Site Professional (LSP) and implemented prior to the commencement of any activity which is likely to disturb contaminated soil, the top of which is located at two to four feet below surface grade within the AUL area. The Soil Management Plan should describe appropriate soil excavation, handling, storage, transport, and disposal procedures and include a description of the engineering controls and air monitoring procedures necessary to ensure that workers and receptors in the vicinity are not affected by fugitive dust or particles. On-Site workers must be informed of the requirements of the soil management plan, and the Plan must be available on-site throughout the course of the project.

# ATTACHMENT E

## Health and Safety Plan

A Health and Safety Plan must be prepared by a certified Industrial Hygienist or other qualified individual sufficiently trained in worker health and safety requirements and implemented prior to the commencement of any activity which is likely to disturb contaminated soil, the top of which is located at two to four feet below surface grade within the AUL area. The Health and Safety Plan should specify the type of personal protection (i.e., clothing, respirators), engineering controls, and environmental monitoring (if any) necessary to prevent worker exposures to contaminated soil through dermal contact, ingestion, and/or inhalation. Workers must be informed of the requirements of the Health and Safety Plan, and the plan must be available on-site throughout the course of the project.

# ATTACHMENT E – Cap Monitoring Log Sheet

**Inspection Date: _____ Inspection By: _____**

**Use this inspection form to document quarterly inspections. If unacceptable conditions are observed, complete form again immediately after repairs are completed.**

**A. Asphalt Surfaces** - observe asphalt for cracking, holes, asphalt removed during construction, other damage.

**All asphalt surfaces acceptable?** ☐ **YES** ☐ **NO**

If no, describe unacceptable asphalt:

Location _____

Condition _____

_____

_____

Describe any repairs to asphalt conducted since previous inspection: _____

_____

_____

**All repairs adequate?** ☐ **YES** ☐ **NO**

**B. Concrete Surfaces** - observe concrete for cracking, holes, concrete removed during construction, other damage.

**All concrete surfaces acceptable?** ☐ **YES** ☐ **NO**

If no, describe unacceptable concrete:

Location _____

Condition _____

_____

_____

Describe any repairs to concrete conducted since previous inspection: _____

_____

_____

**All repairs adequate?** ☐ **YES** ☐ **NO**

**C. Landscaping** - observe landscaping for erosion, animal holes, excavation, vegetation health.

**All landscaped areas acceptable?** ☐ **YES** ☐ **NO**

If no, describe unacceptable conditions:

Location _____

**ATTACHMENT E – Cap Monitoring Log Sheet**

Condition _____

_____

_____

Describe any repairs to landscaping conducted since previous inspection: _____

_____

_____

**All repairs adequate?** ☐ **YES** ☐ **NO**

# Attachment F

Environmental Monitoring Plan

# ATTACHMENT F

## Environmental Monitoring Plan

### Background

The results of soil gas sampling performed in 2002 under the location of the current School building were evaluated for the potential to adversely impact indoor air, assuming that no vapor barrier was installed. The conclusion was that *no significant risk* to human health is posed by the measured soil gas concentrations. Nevertheless, the City and the School Department decided to install a vapor barrier as an added layer of protection against intrusion of any gases that may accumulate under the building.

Comprehensive review of the fate and transport characteristics of the contaminants of concern was also performed as part of the assessment of corrective actions. The contaminants were ranked according to tendency to solubilize in water, volatilize, and desorb from soil particles. The majority of the contaminants are only slightly soluble, very slightly volatile or non-volatile, and slightly or hardly mobile or immobile. This indicates that these contaminants have a very low migration potential, and that installation of an exposure management barrier is an appropriate response action to manage risk at the site.

Given the fate and transport characteristics of the contaminants of concern, it is not likely that either indoor air or groundwater will be adversely impacted at the site. However, considering the potential receptors are children who could be potentially exposed for an extended period of time, the environmental monitoring activities will be implemented.

### 1.0 INDOOR AIR MONITORING

Indoor air monitoring will be performed as part of a long term environmental monitoring plan for the New Keith Middle School. The indoor air sampling will be conducted in conformance with current industry standards and good engineering practices, based on the Massachusetts Department of Environmental Protection policy entitled "Indoor Air Sampling and Evaluation Guide" WSC Policy #02-430 dated April 2002.

### 1.1 Air Sampling Procedures

The concentrations of potential airborne contaminants within the school building will be monitored on a semi-annual basis.

- **August Sampling Event**

  Air samples will be collected in early August with the goal of collecting the samples in a Summa canister (or equivalent), performing laboratory analyses, evaluating the data, and communicating the results to school officials at least two weeks prior to the start of each school year. This goal of this sampling event is to assess indoor air conditions during the warmer weather, when the formation of volatile gases, if any, is greatest. Also, at that time, the school will likely experience lower than normal air exchanges, since the doors and windows of the school building will be mostly closed and air handling

**ATTACHMENT F**

equipment being generally inactive. In addition, the use of air sampling equipment will not interfere with normal school activities.

- **December Sampling Event**

  The second sampling event will occur during the December school vacation. The goal of this sampling event is to obtain a "worst-case" air sample, during the period when the school will have experienced lower than normal air exchanges. During the winter vacation, the doors and windows will be mostly closed and the heating equipment will be in operation. Frozen ground surrounding the school could also contribute to a buildup of volatile organic gases beneath the school ground and result in the increased potential for gas migration into the building.

## 1.2 Sample Locations

One indoor air sample will be collected from each of the three school building sections (A, B and C). Each location will be selected to be representative of portions of the school building normally occupied by students and teachers. An LSP retained by the School Department will perform a Site inspection prior to each sampling event to select the indoor air sampling locations. Sample locations may be changed between each sampling event. Samples will normally be collected at the height of the normal breathing zone.

## 1.3 Analytical Parameters

At each sampling event, air samples will be collected and analyzed for the following parameters:

1. Volatile Organic Compounds (VOCs) by EPA Method TO-14A - Standard laboratory precleaned and evacuated passivated SUMMA canisters will be used to collect 24-hour composite samples.
2. Polychlorinated Biphenyls (PCB) by NIOSH Method 5503 – Personal sampling pumps will be used to draw sample air through florisil tubes to collect 24-hour composite samples.

Changes based on technical justification may be made in the specific sample collection intervals and/or substitutions be made by equal or improved sampling and/or analytical methods upon review and approval of LSP-of-Record.

## 1.4 Quality Assurance/Quality Control

At one indoor location, a duplicate VOC and PCB sample will be collected to verify precision. At least one VOC and PCB sample will be collected using the same methods from immediately outside of the building (typically at a roof top location) to provide comparative background results. One laboratory prepped and evacuated SUMMA canister and one unopened florisil tube will be transported from the laboratory to the field and back to the laboratory without being used. These blank samples will be laboratory analyzed as field blanks.

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## 1.5 Action Levels

### 1.5.1 PCBs in Indoor Air

Two risk-based air concentrations (RBACs) for PCBs in the gaseous phase within the school have been calculated. Both RBACs are based on an occupational exposure within the school (8 hours per day, 250 days per year, for 25 years, since this represents the longest likely exposure in the school), and are based on the potential carcinogenic effects of PCBs [using U.S. EPA's cancer unit risk value of 2 $(mg/m^3)^{-1}$].

- The first RBAC is an Action Level set at a target excess lifetime cancer risk of $1x10^{-6}$. This Action Level is intended to be used as an initial indicator that PCB concentrations above background levels have been detected and that investigation as to the source of PCBs is warranted.
- The second RBAC is the maximum acceptable air concentration that should not be exceeded for any extended time period, using a target excess lifetime cancer risk of $1x10^{-5}$. Since long-term, rather than short-term, exposure is of concern, the maximum acceptable air concentration could be exceeded over the short-term and still result in acceptable risk levels. Use of this value as the maximum acceptable air concentration is considered conservative.

The two values are calculated in Attachment A and summarized below:

| RBAC for PCBs in air | RBAC ($\mu g/m^3$) |
|---|---|
| Action Level ($1x10^{-6}$) | 0.006 |
| Maximum Acceptable Level ($1x10^{-5}$) | 0.06 |

#### 1.5.1.1 PCB Results Exceeding Action Levels

Any indoor air result with an analyte concentration exceeding 0.006 $\mu g/m^3$ will be cause to initiate a follow-up assessment. At a minimum, such assessment shall consist of a visual inspection of the sample location area for potential indoor air contaminant sources and immediate resampling of the subject location. The laboratory results of this sampling shall be verbally reported to school officials within 72 hours and reported in writing within seven days. The follow up assessment may also include interviews with site personnel to help identify any previously undocumented site activities that may have occurred during sample collection, consultation with the analytical laboratory to confirm the validity of the result, or any other appropriate tasks to determine the source of the elevated indoor air detection.

If the follow-up assessment determines that the previously detected elevated level(s) persist, the LSP will develop a contingent assessment, monitoring, and corrective action plan for submittal to school officials, DEP, and EPA within 30 days.

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If the follow up assessment determines that the previously detected elevated level(s) are either no longer present above 0.006 $\mu g/m^3$ or were anomalous or incorrect results, no further assessment will be required and the sampling program will return to its regular schedule.

### 1.5.2 Volatile Organic Compounds (VOCs)

The VOC results of each indoor air sample will be evaluated by comparison to a combination of the contemporary outdoor air sample and the DEP Threshold Effects Exposure Limits (TELs) and Allowable Ambient Limits (AALs) for Ambient Air currently in effect. The 1995 TELs and AALs are attached.

#### 1.5.2.1 Results Exceeding VOC Background

Any indoor air result with an analyte concentration exceeding TELs or AALs will cause a follow-up assessment to be performed. At a minimum, the assessment shall consist of visual inspection of the sample location for potential indoor air contaminant sources and immediate resampling of the subject location. The assessment may also include interviews with site personnel to identify any previously undocumented site activities that may have occurred during sample collection, consultation with the analytical laboratory, or any other appropriate tasks to determine the source of the elevated indoor air detection.

The VOC results of each indoor air sample will also be compared to the corresponding background (outdoor) air sample. Any indoor air result with an analyte concentration exceeding the outdoor sample result by 50 percent or more will cause a follow up assessment to be performed. At a minimum, such assessment will consist of a visual inspection of the sample location for potential indoor air contaminant sources and immediate resampling of the subject location, along with a corresponding outdoor background sample. The follow-up assessment may also include interviews with site personnel to identify any previously undocumented site activities that may have occurred during sample collection, consultation with the analytical laboratory to confirm the validity of the result, or any other appropriate tasks to determine the source of the elevated indoor air detection.

If the follow-up assessment determines that the contaminant levels of the second sampling event are either no longer present above TELs, AALs, 150% of contemporary outdoor concentrations, or were anomalous or incorrect results, no further assessment will be required and the sampling program will return to its regular schedule.

If the follow up sampling and analysis confirms the presence of level(s) above TELs, AALs, or 150% of outdoor concentrations, the laboratory data will be submitted by the LSP-of-Record to a toxicologist/risk assessor for evaluation in accordance with section 9.0 Health Risk Assessment Under the MCP of the DEP policy “Indoor Air Sampling and Evaluation Guide” for further assessment. The LSP-of-Record will develop a contingent assessment, monitoring, and corrective action plan for submittal to school officials, DEP, and EPA within 30 days.

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## 1.6 Reporting

Except as specified elsewhere in this Monitoring Plan, analytical results shall be provided verbally to school official(s) within 10 days of sample collection.

Except as specified elsewhere in this Monitoring Plan, within 30 days after completion of each sampling event, a written summary report presenting sampling methods, analytical methods (including description and justification for any changes to the above methods), analytical results, any deviations from the standard sampling or analytical methods, and a discussion of the implications of the analytical results will be provided to school officials and EPA.

## 2.0 GROUNDWATER MONITORING

Two groundwater monitoring wells will be installed along the western edge and one groundwater monitoring well will be installed along the southern edge of the school facility to serve as downgradient groundwater monitoring points. The wells will be constructed of two-inch diameter polyvinyl chloride riser pipe and screen. The wells will be installed with 10 feet of screen intersecting the average annual elevation of the water table. Groundwater samples will be collected from each well in the spring and fall. Samples will be collected using low flow sampling in accordance EPA Region I Low Stress (low flow) Purging and Sampling Procedure for the Collection of Ground Water Samples from Monitoring Wells, dated July 30, 1996, which is incorporated by reference in this document. Water quality parameters (pH, temperature, specific conductance, dissolved oxygen, oxidation-reduction potential, and turbidity) will be monitored during well purging with samples collected upon stabilization (generally < 5 percent fluctuation) of all parameters.

At each sampling event, samples will be collected and analyzed for the following parameters:

1. Volatile Organic Compounds (VOCs) by EPA Method 8260B
2. Polychlorinated Biphenyls (PCB) by EPA Method 8081
3. Dissolved Resource Conservation and Recovery Act metals

Substitutions may be made by equal or improved sampling and/or analytical methods.

## 2.1 Action Levels

The results of each groundwater sample will be evaluated by comparison to the Massachusetts Contingency Plan (310 CMR 40.0000) GW-2 and GW-3 standards. Any groundwater result with an analyte concentration exceeding their respective GW-2 or GW-3 standard will be cause for a follow-up assessment to be performed. Such assessment shall consist of reporting of the detection to DEP within 120 days and either:

(1) A Phase I Initial Site Investigation in accordance with the scope presented at 310 CMR 40.0483;

(2) A Method 3 Risk Assessment in accordance with 310 CMR 40.0990; or

**ATTACHMENT F**

(3) Other response actions determined by EPA and the LSP-of-Record retained by the City of New Bedford School Department to be protective of human health and the environment.

## 2.2 Reporting

Except as specified elsewhere in this Monitoring Plan, analytical results shall be verbally transmitted to school official(s) within 10 days of sample collection.

Within 30 days after completion of each sampling event, a summary report presenting sampling methods, analytical methods (including description and justification for any changes to the above methods), analytical results, any deviations from the standard sampling or analytical methods, and a discussion of the implications of the analytical results will be provided to school officials and EPA.

# Attachment G

Specification 02200 – Earthwork (backfill materials)

**SECTION 02200**

**EARTHWORK**

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

A. Bidding requirements, Contract Forms, General and Supplementary Conditions and Division I, General Requirements are hereby made a part of this Section. The Order of Conditions, DEP File No. SE 49-461, No. SE49-475 and all Amendments issued by the New Bedford Conservation Commission, is included in this contract in Section 00200 – Information Available to Bidders.

### 1.02 DESCRIPTION OF WORK

A. ***This project represents the final Phase of a three-phase project. Phase 1 consisted of the excavation and management of regulated soils for the installation of a portion of the project's subsurface utility system. Phase two completed the installation of the subsurface utility system, capping of the regulated soils and the shaping of the subgrades for the Phase III contract as shown on the Plans and specifications.*** The scope of work consists of all materials, equipment, labor and services required for all Earthwork work, including all items incidental thereto, as specified herein and as shown on the Drawings. The following work shall be included:

1. Surplus material shall be removed from the site. No burning on the site shall be permitted.

2. Excavating, filling, trenching and backfilling of all description required for the construction of walls, building structures, utility structures, utilities, pavements, seeded areas and site improvements. Provide all additional fill materials as required and specified herein. Refer to Sections on Heating, Plumbing, Electrical and Structural for other excavation.

3. Pumping and/or bailing necessary to maintain excavated spaces free from water from any source whatsoever.

4. Provide graded materials, as specified, for fills, base courses and backfills as required.

5. Protect all existing utilities, roads, pavements, lawns, planting and other improvements from damage due to construction. Install fencing and safety devices or controls as necessary.

6. Dust control and clean up.

B. The project site is part of a disposal site under the Massachusetts Contingency Plan (MCP) that has received "Special Project" designation by the Department of Environmental Protection. Under recent environmental contracts, near-surface contaminated soil has been removed in the vicinity of the Work, to significantly reduce the potential for exposure of workers to contaminated soil. However, in the event that excavation becomes necessary that could result in worker exposure to "suspect" contaminated subsurface soil, or off-site management of same, the CONTRACTOR must notify the ARCHITECT prior to proceeding with any subsurface excavations.

### 1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Carefully examine all of the Contract Documents for requirements which effect the work of this section.

B. Other specifications sections, which directly relate to the work of this section include, but are not limited to, the following:

1. Section 00200 – Information Available To Bidders
2. Section 02100 - Site Preparation
3. Section 02500 - Paving and Surfacing
4. Section 02665 - Water System
5. Section 02800 - Site Improvements
6. Section 02810 - Irrigation
7. Section 02900 - Lawns and Planting
8. Section 03300 – Cast-In-Place Concrete
9. Section 15300 – Plumbing
10. Section 15400 – Fire Protection
11. Section 16000 - Electrical

1.04 REFERENCE STANDARDS

A. Definitions and Reference Standards:

1. ASTM: Specifications of the American Society for Testing and Materials.

2. AASHTO: American Association of State Highway and Transportation Officials.

3. ACI: American Concrete Institute.

4. Building Code: Commonwealth of Massachusetts State Building Code, latest edition.

5. EPA: Environmental protection Agency.

6. DEP: Department of Environmental Protection.

7. SSHB: Standard Specifications for Highways and Bridges, the Commonwealth of Massachusetts, Mass. Highway Department, latest edition.

1.05 BENCHMARKS AND ENGINEERING

A. Lines and grade work in accordance with Drawings and Specifications shall be laid out by a registered Civil Engineer or Surveyor employed by the Contractor. The Contractor shall establish permanent benchmarks, to which access can easily be had during the progress of the work. The Contractor shall maintain all established bounds and benchmarks and replace, as directed, any that may be disturbed or destroyed. The selection of the registered Civil Engineer or Surveyor shall be subject to the Architect's approval. The General Contractor shall pay all costs of the services of the Civil Engineer or Surveyor.

B. The Contractor shall verify dimensions and elevations on the ground and report any discrepancies immediately to the Architect. Any discrepancies not reported prior to construction shall not be the basis for claims for extra compensation.

C. An As-Built Plan of work completed in the Phase I and II contracts shall be provided to the Contractor in .DWG format.

1.06 SUBSURFACE INFORMATION

A. The Architect shall issue As-Built Drawings indicating the extent of regulated soils that have been removed covered with a geotextile soil separator, warning barrier and brought up to Phase III subgrades with compacted, clean granular fill.

B. The Owner assumes no responsibility for the Contractor's failure to make his own site investigation regarding the character of the soil or subsurface conditions, which may be encountered during the performance of the work. (See Section 00200 – Information Available To Bidders.)

1.07 FINISHED GRADES

A. The words "finished grades" as used herein mean the required final grade elevations indicated on the Drawings. Where not otherwise indicated, areas outside of buildings shall be given uniform slopes between points, for which finished grades are shown, or between such points and existing grade except that vertical curves or roundings shall be provided at abrupt changes in slope.

1.08 GRADES AND ELEVATIONS

A. The Drawings indicate, in general, the alignment and finished grade elevations and sewer, drain, water and underground electric invert grades. The Architect, however, may make such adjustments in grades and alignment as are found necessary in order to avoid interference and to adapt the piping to other special conditions encountered.

1.09 PROTECTION

A. All rules and regulations governing the respective utilities shall be observed in executing all work under this Section. All work shall be executed in such a manner as to prevent any damage to existing buildings, clean corridors, streets, curbs, paving, service utility lines, structures and adjoining property. Monuments and benchmarks shall be carefully maintained and, if disturbed or destroyed, replaced as directed.

B. The Contractor shall furnish all facilities and materials necessary to prevent the earth at the bottom of excavation from becoming frozen or unsuitable to receive footings, foundations or other load bearing units.

C. The Contractor, under this Section, shall provide at his own expense adequate pumping and drainage facades to keep the excavation sufficiently dry as not to affect adversely the quality or time of placement of concrete or other materials to be installed in the excavated areas.

D. The Contractor shall assume full responsibility for damages caused by him or his Subcontractor's equipment and personnel to the existing geotextile soil separator and warning barrier, buildings and grounds as well as adjoining private property.

E. The work of this Section shall be performed in such a manner as to cause no interference with access by the Subcontractors or other Contractors to all portions of the site as is necessary for the normal conduct of their work.

**PART 2 - PRODUCTS**

A. Crushed Stone:

1. Crushed stone to be placed under and around sewer and storm drain pipes as shown on the Drawings and as specified shall be washed graded free of organic materials three-quarter (3/4) inch to one-half (1/2)-inch size. Gradation shall conform to SSHB., Section M2.01.3 as follows:

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 1- inch | | 100% |
| 3/4 inches | 90% | 100% |
| 1/2 inch | 10% | 50% |

| | | |
|---|---|---|
| 3/8 inch | 0% | 20% |
| #4 | 0% | 5% |

2. Crushed stone drive aprons as shown on the Drawings and as specified shall be washed graded free of organic materials two (2) inches to one-half (1/2)-inch size. Gradation shall conform to SSHB., Section M2.01.1 as follows:

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 2 inch | 100% | - |
| 1-1/2 inches | 95% | 50% |
| 1 inch | 35% | 70% |
| 3/4 inch | 0% | 25% |

B. Select Granular Fill: Gravel base as called for on the Drawings, for foundations, bases and miscellaneous site improvements, as specified shall consist of a well graded sand and gravel, free from deleterious matter, loam and clay, meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 8 inches | 100% | |
| 3 inches | 70% | 100% |
| 1/2 inches | 40% | 90% |
| No. 4 | 25% | 80% |
| No. 10 | 15% | 70% |
| No. 40 | 5% | 40% |
| No. 200 | 0% | 12% |

C. Clean Granular Fill: Fill up to subgrade in landscaped areas, shall consist of a well-graded sand and gravel borrow, free from deleterious matter, loam and clay meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 8 inches | 100% | |
| 3 inches | 70% | 100% |
| 1/2 inches | 40% | 100% |
| No. 4 | 25% | 100% |
| No. 10 | 15% | 95% |
| N0. 40 | 10% | 70% |
| No. 200 | 0% | 15% |

D. Bedding Sand: Bedding sand for concrete unit pavers shall be clean, washed natural or manufactured concrete sand meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 3/8 inches | 100% | |
| No. 4 | 95% | 100% |
| No. 8 | 85% | 100% |
| N0. 16 | 50% | 85% |
| No. 30 | 25% | 60% |
| N0. 50 | 10% | 30% |
| No. 100 | 2% | 10% |

E. Joint Sand: Joint sand for concrete unit pavers shall be clean, washed natural or manufactured concrete sand meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| No. 4 | 100% | % |
| No. 8 | 95% | 100% |
| N0. 16 | 70% | 100% |
| No. 30 | 40% | 75% |
| N0. 50 | 10% | 35% |
| No. 100 | 2% | 15% |
| No. 200 | 0% | 10% |

F. Material falling within the above Specifications, encountered during the excavation, shall be stored in segregated stockpiles for reuse. All material shall be tested and subject to approval by the Architect.

G. Sand: Sand for water and gas line pipe bedding shall be, clean masons sand.

## PART 3 – EXECUTION

### 3.01 EXCAVATION

A. General:

1. Excavate all materials to the elevations, dimensions and form as shown on the Drawings and as specified for the construction of building structures, utility structures, utilities, site improvements and other structures necessary for the completion of the building, utilities and site work. All unsuitable materials within the indicated and specified limits shall be excavated and removed. Any quantities involving an extra or other adjustment of the Contract Price shall be subject to measurement verification and approval by the Architect prior to the excavation and removal of such materials. Unsuitable materials shall include the following:

   a. Regulated soils
   b. Pavements, utility structures, building foundations and other man made structures.
   c. Peat, organic silt and other organic materials subject to decomposition, consolidation or decay.
   d. Miscellaneous fill including sand, gravel, cinders, ash, glass, wood, metal and ledge.
   e. Ledge or boulders except as specified for fills herein.

2. **The Architect will provide the Contractor with an as-built drawing showing the extent of regulated soil remediation, location and inverts of all utilities pile locations and elevations installed in the Phase 1 & 2 Contracts.** The Contractor shall obtain, from the proper authorities, locations of all other utilities within the scope of this work so that there will be no damage done to such utilities. Neither the Owner nor the Architect will be responsible for any such damage, and the Contractor shall restore any structure or utility so damaged without additional compensation. Written notifications to the appropriate utility agencies shall be made at least ten (10) days prior to the commencement of any work.

3. Excess Material: Suitable excavated material, which is required for fill, and backfill shall be separately stockpiled as directed by the Architect. All surplus fill other than that required to complete the intent of the Contract shall become the property of the Contractor and shall be disposed of off the property by the General Contractor. All excavated materials, which, in the

opinion of the Architect, are not suitable for, fill or backfill shall be removed and disposed of off the property.

4. Any unsanitary conditions encountered, such as broken sewer mains or uncovered garbage, shall be corrected or removed entirely as directed by the Architect.

B. Excavation for Building Structures:

1. Refer to Structural and Mechanical Drawings and notes thereon which may affect work under this Section.

2. Excavation shall be performed to elevations and dimensions indicated or specified, plus sufficient space to permit erection of forms and shoring, drains, masonry and the inspection of foundations.

3. Bottoms of excavations shall be protected from frost. Foundations, footings or slabs shall not be placed on frozen ground. The Contractor shall shore and brace excavations, protect all slopes and earth banks and provide sheet piling necessary to prevent cave-ins. Shoring and piling shall be removed before backfiliing is completed but not unto permanent supports are in place. Excavation of earth and/or rock beyond indicated or authorized limits shall be refilled with select granular fill compacted to ninety-five (95) percent of the maximum dry density at optimum moisture content as specified herein or concrete as required by the Architect at no additional cost to the Owner.

4. The Contractor shall control the grading around the building so that the ground shall be pitched in order to prevent water from running into the excavated areas of the building or prevent damage to other structures. The Contractor shall furnish all pumping required to keep excavated areas clear of water during construction. Water shall not be conducted onto adjacent property.

5. Excavate to subgrade for concrete slabs, including utility trenches, and footings. Compact subgrade to ninety-five (95) percent of maximum dry density as determined by the Modified Proctor Compaction Test.

6. Make final excavations by hand or using smooth-bladed equipment to avoid disturbance and the formation of ridges, which would be left by a bucket with teeth.

7. Repair or replace geotextile soil separator and warning barrier as required.

8. Prevent water accumulation on bearing surfaces, to reduce the possibility of softening of the subgrade soils.

9. The subgrade soils must be examined in the field by the Architect.

10. The bearing surface should be cleared of all loose and disturbed soil before any footings are placed. Prior to placing forms or reinforcing steel, the cleared area beneath the footings should be compacted with at least four coverage's of a vibratory plate compactor weighing at least 200 pounds imparting at least 5,000 pounds dynamic force.

C. Fill for Site Improvements:

1. Fill to the lines and grades shown on the Drawings and as specified to obtain the subgrades for the following items of work:

   a. Concrete slabs on grade - to twelve (12) inches below underside of slab.
   b. Bituminous concrete road and parking pavement - to twenty-four (24) inches below finished grades.
   c. Concrete paving - to twelve (12) inches below underside of paving.

d. Granite curb - to six (6) inches below and parallel to the underside of curb.
e. Seeded areas - to eighteen (18) inches below finished grade.
f. Shrub bed areas - to twenty-four (24) inches below finished grades.
g. Unspecified improvements - to bottom elevation of item plus ample working space on all sides.

D. Excavation for Utilities and Utility Structures:

1. Excavate to the lines and grades shown on the Drawings and as specified herein to obtain the subgrade for the following items of work:

a. Utility structures - to grades shown on the Drawings. Remove by excavating all unsuitable materials from under drainage structures and backfill with clean granular fill compacted in place to subgrades.
b. Excavation for structures and other accessories shall have twelve (12) inch minimum and twenty-four (24) inch maximum clearance on all sides.
c. All utility lines - to twelve (12) inches below bottom of utility lines or structures.
d. Trench for water pipe shall provide a minimum of five (5) feet of cover above top of pipe.
e. Unless otherwise shown, provide separate trenches for each utility. Lay all piping in open trenches except where tunneling is required. Excavation for structures and other accessories shall have twelve (12) inch minimum and twenty-four (24) inch maximum clearance on all sides.
f. Grade the bottom of trenches evenly to have a constant pitch in the direction of flow and to insure a uniform compacted thickness of selected material as called for.

2. Existing services and utilities encountered shall be immediately repaired, protected and maintained in use until relocation of same has been completed or be cut and capped where directed or be prepared for connections when so required.

## 3.03 PROTECTION SHORING AND DEWATERING

A. Protect open excavations with fencing, warning lights and other suitable safeguards.

B. Shore and brace excavations as required so as to maintain them secure and provide sheet piling to prevent cave-ins. Under Phases 1&2 Regulated soils for have been mitigated by removing the regulated soils and replacing them with clean granular fill so as to provide clean corridors for all below grade improvements. Remove shoring and piling before backfilling is completed and as specified herein.

C. Frost Protection: Make no excavations to the full depth indicated when freezing temperature may be expected unless the footing or slabs can be poured immediately after the excavation has been completed. Protect the bottoms as excavated from frost, if placing of concrete is delayed, with straw, tarpaulins or temporary heat until footings or slabs are poured and backfill is placed.

D. Provide all pumps and pumping facilities, including a well point system as necessary with attendants, to keep all excavations free from water from whatever source at all times, when work is in progress or when necessary for protection and integrity of the work in place. Trenches shall be kept water-free during jointing and for sufficient time thereafter to allow the jointing material to become fully set and completely resistant to water penetration.

E. Maintain ground water in the bearing soil strata at a safe level at all times by methods, which prevent loss of fines or other disturbances to these strata. If the methods employed have not been adequate and the bearing value of the soil has been reduced, remove disturbed soil as directed and replace with compacted graded gravel or concrete at no expense to the Owner.

F. Any ditching required to keep the site free from water during construction is the responsibility of the Contractor and will be repaired, topsoiled and seeded before completion of work.

## 3.04 FILLS. BACKFILLS AND COMPACTION

A. Samples and Testing:

1. All fill material and its placement shall be subject to quality control testing. A qualified laboratory will be selected by the Owner to perform tests on materials. All costs of testing will be paid for by the Owner. Test results and laboratory recommendations shall be available to the Architect.

2. Provide samples of each fill material from the proposed source of supply including on-site sources. Allow sufficient time for testing and evaluation of results before material is needed. Submit samples from alternate source if required.

3. Architect will be sole and final judge of suitability of all material.

4. The laboratory will determine maximum dry density and optimum water content in accordance with ASTM D1557, Method D and the in-place density in accordance with ASTM D1556.

5. Tests of material as delivered may be made from time to time. Materials in question may not be used, pending test results. Tests of compacted materials will be made regularly. Remove rejected materials and replace with new, whether in stockpiles or in place.

6. Cooperate with laboratory in obtaining field samples of in-place materials after compaction. Furnish incidental field labor in connection with these tests.

B. Placing Fills and Compacting

1. Fill material shall be placed in horizontal layers not exceeding six (6) inches under the building and all pavements and nine (9) inch layers in lawn areas. Each layer shall be compacted to the percentage of maximum dry density specified for the particular type of fill and at a water content equal to optimum water content plus or minus two (2) percent. The maximum dry density and optimum water content shall be as specified herein.

2. Areas to be filled or backfilled shall be free of construction debris, refuse, compressible or decayable materials and standing water. Do not place fill when fill materials or layers below it are frozen. Proofroll excavated ground surfaces under the proposed building and paved areas using a vibratory drum compactor or other heavy equipment prior to placing specified base course material.

3. Notify the Architect when excavation is ready for inspection. Filling and backfilling shall not be started until conditions have been approved by the Architect.

4. Before backfilling against walls, the permanent structures must be completed and sufficiently aged to attain strength required to resist backfill pressures without damage. Temporary bracing will not be permitted except by written permission from the Architect. When filling on both sides of a wall or pier, place fill simultaneously on each side. Correct any damage to the structure caused by backfilling operations at no cost to the Owner

5. In confined areas adjacent to footings and foundation walls and in utility trenches beneath floor slab, the fill shall be compacted with hand operated vibration tampers. The maximum lift thickness shall be four (4) inches. The degree of compaction attained shall be equivalent to that attained in the adjacent open areas where heavy rolling equipment is used.

6. After the subgrade under concrete slabs and paved areas has been shaped to line, grade and cross-sections, it shall be rolled with an approved power roller weighing not less than six (6) tons until thoroughly compacted. This operation shall include any reshaping, refilling or wetting

required to obtain proper compaction. Any areas, which subsequently settle, shall be refilled to true subgrade and properly compacted.

7. In freezing weather, a layer of fill shall not be left in an uncompacted state at the close of a day's operations. Prior to terminating operations for the day, the final layer of fill, after compaction, shall be rolled with a smooth-wheeled roller to eliminate ridges of soil left by tractors, trucks and compaction equipment.

C. Placing Select Granular Fills

1. Select granular fills, as specified herein above, shall be provided as follows:

   a. As gravel base course under all pavements unless otherwise called for.
   b. As gravel under and/or around footings curbs as shown on the Drawings or specified unless otherwise called for.

2. Place gravel in six (6) inch maximum layers; fill and compact each layer to ninety-five (95) percent maximum dry density.

D. Placing Clean Granular Fills

1. Clean granular fill material as specified shall be placed under pavements and utilities up to subgrades as specified.

2. Fills shall be placed in layers of a maximum six (6) inch compacted thickness up to subgrade. Compaction shall be to ninety-five (95) percent of maximum dry density as specified.

E. Deficiency of Fill Materials:

1. Provide required additional fill materials as specified if a sufficient quantity of suitable materials is not available from the required excavation on the project site at no additional cost to the Owner. Where water content of the fill must be adjusted to meet this Specification, the fill shall be thoroughly disked to insure uniform distribution of any water added.

F. Fill and Backfill for Utilities:

1. Backfill trenches only after pipe has been inspected, tested and locations of pipes and appurtenances have been recorded. Each pipe section shall be laid on a twelve-(12) inch minimum bed of crushed stone as specified herein above. In addition the water line shall be set in a six-(6) inch bed of sand. Bed shall be shaped by means of hand shovels to give full and continuous support to the lower one-third (1/3) of each pipe. Backfill by hand around pipe, and for a depth of twelve (12) inches above pipe, use sand or crushed stone and tamp firmly in layers not exceeding six (6) inches in thickness. Take care not to disturb the pipe. Compact the remainder of the backfill thoroughly with a rammer of suitable weight or with an approved mechanical tamper to achieve compaction of ninety-five (95) percent as specified.

2. Trenches and utility structures shall be backfilled with greatest care; only the suitable materials taken from the excavation shall be used. Any additional fill materials required for backfilling to subgrades shall be graded fill or ordinary fill as specified. Backfill shall be compacted to ninety-five (95) percent as specified. No mud, frozen earth or stone more than six (6) inches in greatest diameter or other objectionable material shall be used for refilling. Any selected material required for filling, in addition to earth from trench excavation, shall be furnished and placed by the Contractor.

3.05 UTILITY SERVICES LINES

A. Electrical, telephone, cable TV and gas services shall be as specified under other Sections. The excavating, trenching and backfilling for these utilities and other pertinent structures shall be done under this Section.

B. Trenches for utility lines shall be excavated of all peat, silt and other materials, which the Architect deems not stable and backfilled as called for in paragraph 3.04, H to form a stable foundation for laying the utility lines.

3.06 SUBGRADE PREPARATION

A. Bring all areas to required subgrade levels as specified and as determined from the Drawings.

B. Maintain all subgrades for site improvements in satisfactory condition, protected against traffic and properly drained, until the surface improvement is placed. In areas to receive pavement or other surface materials, at top and bottom of embankments, along swales and elsewhere, place sufficient grade stakes to facilitate checking the subgrade levels. Correct all irregularities, compacting thoroughly any fill materials.

C. Check all manhole covers, grates, valve boxes and similar structures for correct elevation and position and make, or have made, any necessary adjustments in such structures.

D. All subgrades must be inspected and approved by the Architect before paving, loaming or other site improvements are made.

3.07 WARNING TAPE OVER BURIED GAS. ELECTRIC. CABLE TV. TELEPHONE

A. Provide and install plastic warning tape over all buried gas, electric and water lines as specified.

B. Warning tape shall be installed according to Manufacturer's recommendations and a minimum of twelve (12) inches below finished grades.

3.08 DUST CONTROL

A. The Contractor shall employ all possible methods and/or materials to prevent the spread of dust. Chemical materials may not be used on subgrades of areas to be seeded or planted.

3.09 CLEAN UP

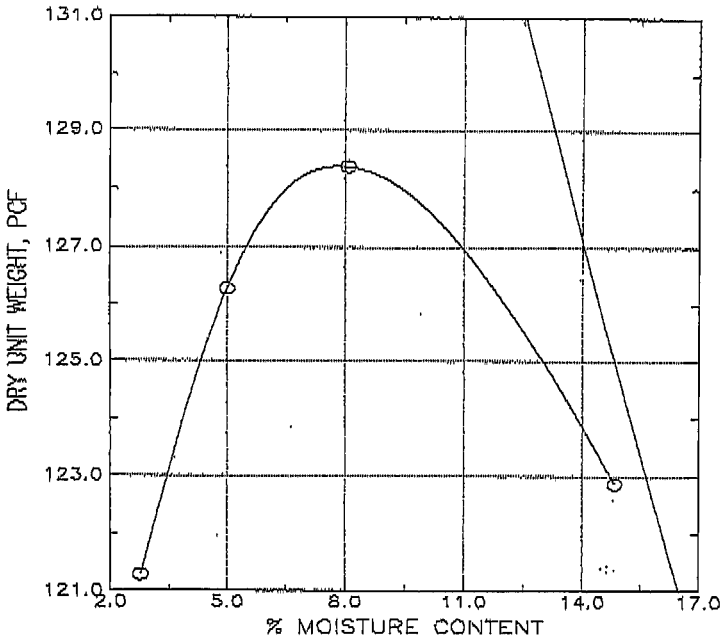
A. The Contractor shall remove all debris, construction equipment and scrap material from all areas within the limit of work prior to inspection for acceptance.

**END OF SECTION**

| MILLER ENGINEERING & TESTING, INC. | Boring No. : N/A<br>Sample No.: L040503<br>Tested by : DM/BM<br>Filename : L040503 | Project: KEITH MIDDLE SCHOOL<br>Project No. : 04.169.NH<br>Location: MIX STOCKPILE # 2<br>Date : Tue Jun 22 2004 |
|---|---|---|

# PROCTOR–GRADATION TEST RESULTS

COMPACTION



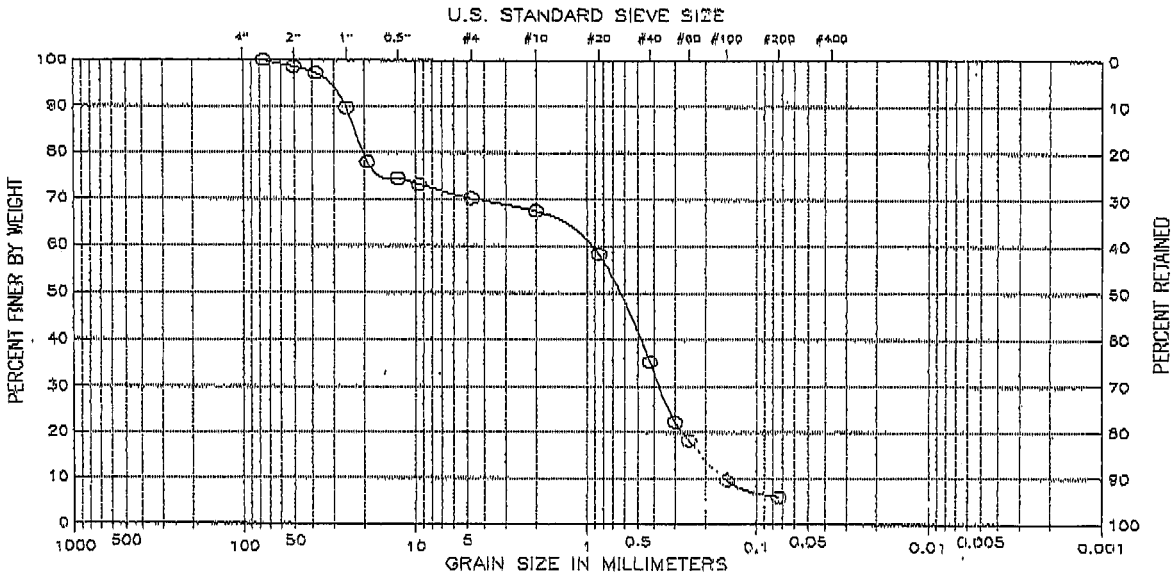

Sample Description :
MIX STOCKPILE # 2

Compaction Test Designation : ASTM D1557–D

Maximum Dry Density : 128.4 PCF

Optimum Moisture Content : 7.9 %

GRAIN SIZE DISTRIBUTION




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

UNIFIED SOIL CLASSIFICATION SYSTEM

Figure 1

Clean Granular Fill

Fri Jun 18 10:33:42 2004



GEOTECHNICAL LABORATORY TEST DATA

Project : KEITH MIDDLE SCHOOL
Project No. : 04.169.NH
Boring No. : N/A
Sample No. : L040503
Location : MIX STOCKPILE # 2
Soil Description : MIX STOCKPILE # 2
Remarks : ASAP

Depth : N/A
Test Date : 6-18-04
Test Method : ASTM

Filename : L040503
Elevation : N/A
Tested by : DM/BM
Checked by : BC

COARSE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (lb) | Cumulative Weight Retained (lb) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| 6" | | | | | 100 | 100 |
| 3" | 3.000 | 76.20 | 11.10 | 11.10 | 100 | |
| 2" | 2.000 | 50.80 | 11.80 | 11.80 | 99 | |
| 1.5" | 1.500 | 38.10 | 11.80 | 12.50 | 97 | |
| 1" | 1.000 | 25.40 | 14.90 | 16.30 | 90 | |
| 0.75" | 0.752 | 19.10 | 17.10 | 22.30 | 78 | |
| 0.5" | 0.500 | 12.70 | 12.60 | 24.00 | 75 | 50 - 85 |
| 0.375" | 0.375 | 9.52 | 11.80 | 24.70 | 73 | |
| #4 | 0.187 | 4.75 | 12.60 | 26.20 | 70 | 40 - 75 |

Total Weight of Sample = 61.7
Tare Weight = 11.1

FINE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (gm) | Cumulative Weight Retained (gm) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| #10 | 0.079 | 2.00 | 13.30 | 13.30 | 68 | |
| #20 | 0.033 | 0.85 | 47.60 | 60.90 | 58 | |
| #40 | 0.017 | 0.43 | 116.60 | 177.50 | 35 | |
| #50 | 0.012 | 0.30 | 65.50 | 243.00 | 22 | 8 - 28 |
| #60 | 0.010 | 0.25 | 20.30 | 263.30 | 18 | |
| #100 | 0.006 | 0.15 | 44.00 | 307.30 | 10 | |
| #200 | 0.003 | 0.07 | 18.50 | 325.80 | 6 | 0 - 8 |
| Pan | | | 30.30 | 356.10 | 0 | |

Total Weight of Sample = 356.1
Tare Weight = 0
Moisture Content = 0

D85 : 22.6736 mm
D60 : 1.0054 mm
D50 : 0.6645 mm
D30 : 0.3695 mm
D15 : 0.2060 mm
D10 : 0.1534 mm

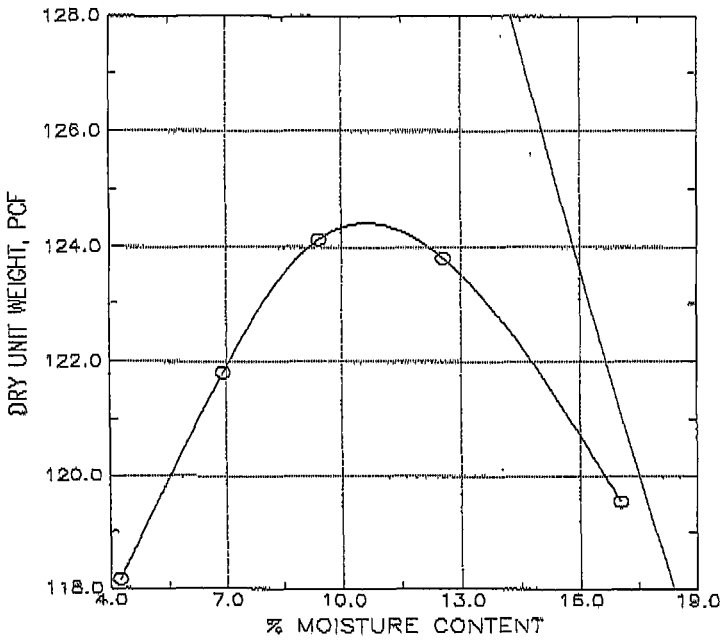
Soil Classification

ASTM Group Symbol : N/A
ASTM Group Name : N/A
AASHTO Group Symbol : A-1-b(0)
AASHTO Group Name : Stone Fragments, Gravel and Sand

| MILLER ENGINEERING & TESTING, INC. | Boring No. : N/A<br>Sample No: L040418B<br>Tested by : DM/BM<br>Filename : L040418B | Project: KEITH MIDDLE SCHOOL<br>Project No. : 04.169.NH<br>Location: KINGSTON PIT MIX 4 TO 1 WITH 3/4 INCH STONE<br>Date : Wed Jun 02 2004 |
|---|---|---|

# PROCTOR–GRADATION TEST RESULTS

COMPACTION




Sample Description :
GRADED FILL

Compaction Test Designation : ASTM D1557–C

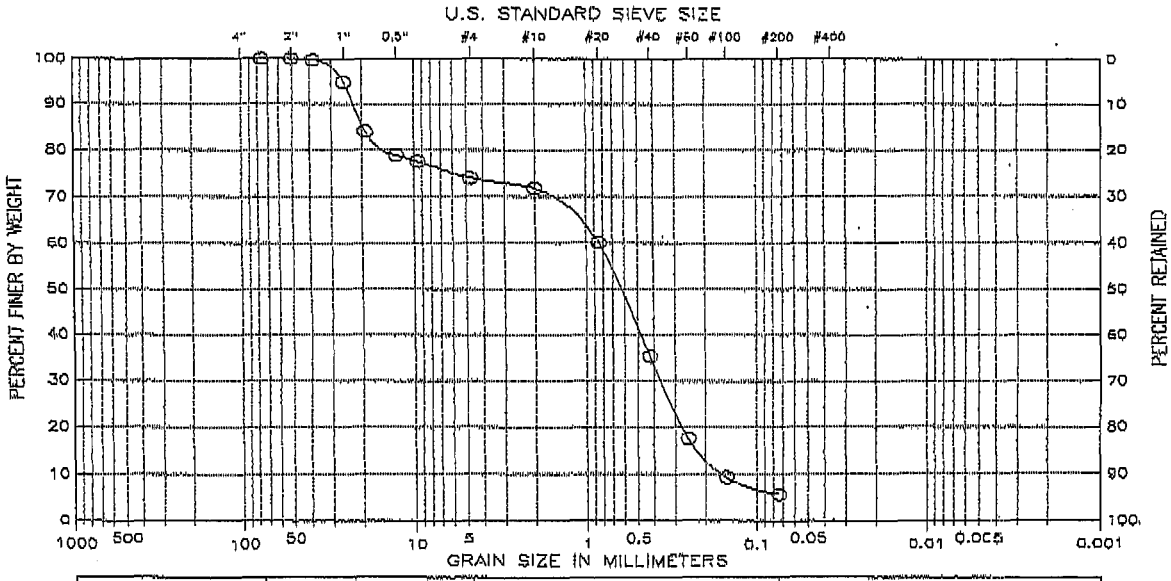
Maximum Dry Density : 124.4 PCF

Optimum Moisture Content : 10.6 %

CORRECTED MAXIMUM DRY DENSITY: 129.2 PCF

CORRECTED OPTIMUM MOISTURE CONTENT: 8.9 %

GRAIN SIZE DISTRIBUTION




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

UNIFIED SOIL CLASSIFICATION SYSTEM

Figure 1

Select Granular Fill

Tue Jun 01 08:37:20 2004



# GEOTECHNICAL LABORATORY TEST DATA

Project : KEITH MIDDLE SCHOOL
Project No. : 04.169.NH
Boring No. : N/A
Sample No. : L040418B
Location : KINGSTON PIT MIX 4 TO 1 WITH 3/4 INCH STONE
Soil Description : GRADED FILL
Remarks : ASAP

Depth : N/A
Test Date : 6-1-04
Test Method : ASTM

Filename : L040418B
Elevation : N/A
Tested by : DM/BM
Checked by : BC

## COARSE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (lb) | Cumulative Weight Retained (lb) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| 6" | | | | | 100 | 100 |
| 3" | 3.000 | 76.20 | 11.90 | 11.90 | 100 | |
| 2" | 2.000 | 50.80 | 11.90 | 11.90 | 100 | |
| 1.5" | 1.500 | 38.10 | 12.10 | 12.10 | 100 | |
| 1" | 1.000 | 25.40 | 15.40 | 15.60 | 95 | |
| 0.75" | 0.752 | 19.10 | 19.50 | 23.20 | 84 | |
| 0.5" | 0.500 | 12.70 | 15.50 | 26.80 | 79 | 50 - 85 |
| 0.375" | 0.375 | 9.52 | 12.90 | 27.80 | 77 | |
| #4 | 0.187 | 4.75 | 14.40 | 30.30 | 74 | 40 - 75 |

Total Weight of Sample = 82.5
Tare Weight = 11.9

## FINE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (gm) | Cumulative Weight Retained (gm) | Percent Finer (%) | | |
|---|---|---|---|---|---|---|---|
| #10 | 0.079 | 2.00 | 10.10 | 10.10 | 72 | | |
| #20 | 0.033 | 0.85 | 54.80 | 64.90 | 60 | | |
| #40 | 0.017 | 0.43 | 115.20 | 180.10 | 35 | 21 | 8 - 28 |
| #60 | 0.010 | 0.25 | 82.50 | 262.60 | 18 | | |
| #100 | 0.006 | 0.15 | 38.90 | 301.50 | 9 | | |
| #200 | 0.003 | 0.07 | 16.80 | 318.30 | 6 | | 0 - 8 |
| Pan | | | 26.00 | 344.30 | 0 | | |

Total Weight of Sample = 344.3
Tare Weight = 0
Moisture Content = 0

D85 : 19.6155 mm
D60 : 0.8500 mm
D50 : 0.6423 mm
D30 : 0.3630 mm
D15 : 0.2140 mm
D10 : 0.1576 mm

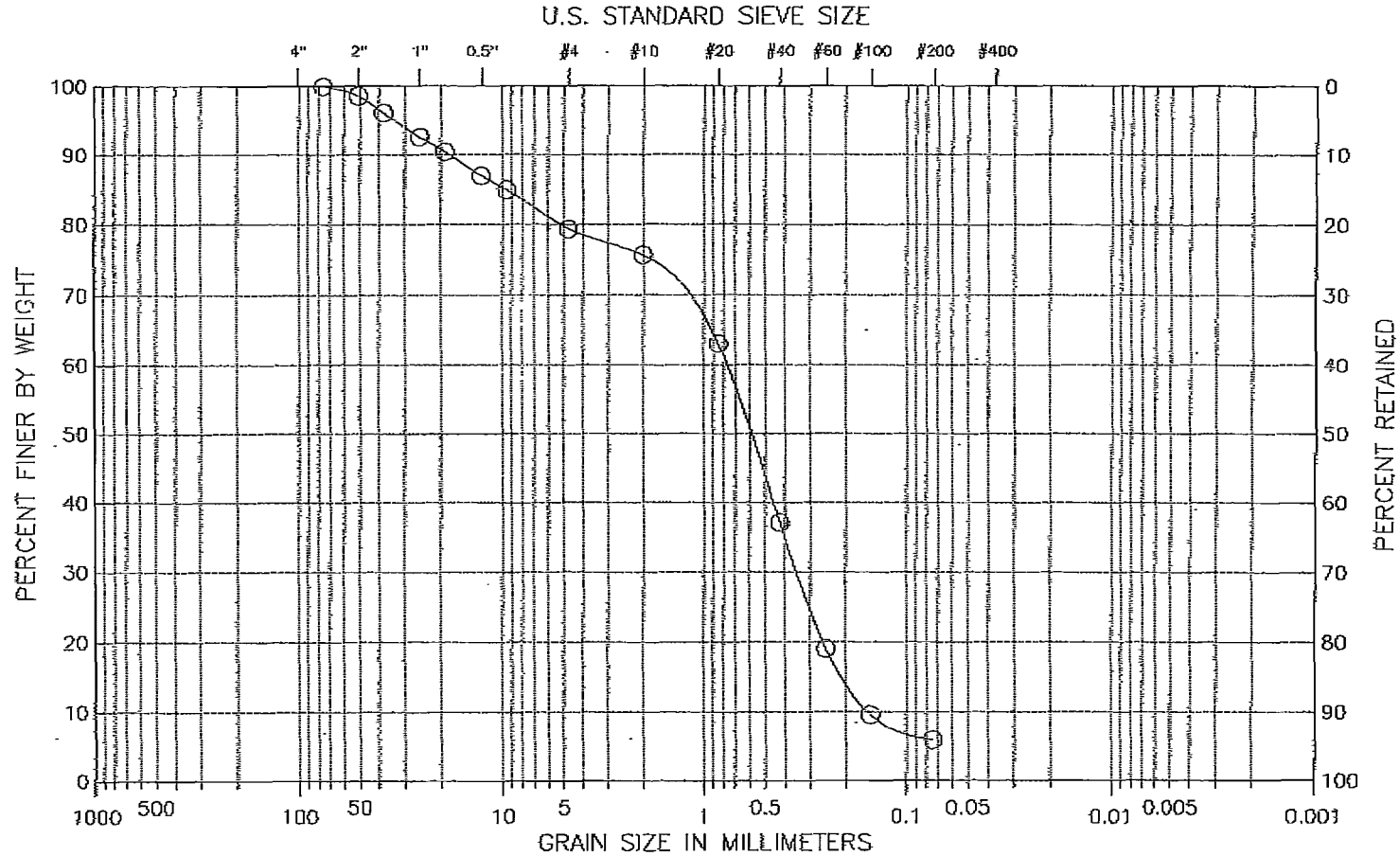
Soil Classification
ASTM Group Symbol : N/A
ASTM Group Name : N/A
AASHTO Group Symbol : A-1-b(0)
AASHTO Group Name : Stone Fragments, Gravel and Sand

# GRAIN SIZE DISTRIBUTION - AGGREGATE GRADING

MILLER ENGINEERING & TESTING, INC.

Boring No. : N/A
Sample No: L040418A
Tested by : DM/BM
Filename : L040418A

Project : KEITH MIDDLE SCHOOL
Project No.: 04.169.NH
Location: KINGSTON PIT SAMPLED FROM ON SITE STOCKPILE
Date : Tue Jun 01 2004




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

Classification :
()
Visual Description :
GRADED FILL

Remarks :
ASAP

Figure 1

# Attachment G

Phase II Specification
02900 - Lawns

**SECTION 02900**

**LAWNS**

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Bidding requirements, Contract Forms, General and Supplementary Conditions and Division I, General Requirements are hereby made a part of this Section.

1.02 DESCRIPTION OF WORK

A. The scope of work consists of all materials, equipment, labor and services required for all Lawns and Planting work, including all items incidental thereto, as specified herein and as shown on the Drawings.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Carefully examine all of the Contract Documents for requirements that affect the work of this section.

B. Other specification sections that directly relate to the work of this section include, but are not limited to the following:

1. Section 02010 - Subsurface Investigation
2. Section 02100 - Site Preparation
3. Section 02200 - Earthwork
4. Section 02285 - Site Assessment, Stockpiling and Disposal of Excavated Soil
5. Section 02500 - Paving and Surfacing
6. Section 02700 - Site Utilities

1.04 REFERENCE SPECIFICATIONS

A. ASTM. - American Society for Testing and Materials.

B. AASHTO. - American Association of State Highway and Transportation Officials.

C. SSHB. - Standard Specifications for Highways and Bridges, the Commonwealth of Massachusetts, Department of Public Works, latest edition.

D. AOAC - Association of Official Agriculture Chemists

1.05 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.06 SUBMITTALS

A. Comply with pertinent provisions of Section 01340.

B. Test Reports - Submit the following reports:

1. Loam analysis (furnished from off-site sources)
   a. Mechanical gradation (textural or sieve analysis) as per USDA Soil Classification System
   b. Organic Matter Content

c. pH
d. Soluble Salts, Nitrogen (including Nitrate Nitrogen, Ammonium Nitrogen), Phosphorous, Potassium, Sulfate, Calcium, Magnesium, Aluminum, and Ferric Iron concentrations
e. Heavy metal concentrations including Boron, Cadmium, Zinc, Chromium, Copper, Lead, Manganese, and Nickel

2. Seed analysis
   a. Name and address of Supplier
   b. Source of origin and dates of harvest for each type of seed
   c. Seed mix composition and proportion, indicating named varieties by percent, percent germination, purity, and percent crop seed, percent inert matter, and percent weed seed content
   d. Estimated number of seeds per pound of each type of seed in the mix

3. Fertilizer, lime and superphosphate amendment analyses

C. Samples - submit the following samples:

1. Loam (from off-site sources)

2. Organic Material Amendments (as required) – Compost, Peat Moss, Humus

D. Maintenance Schedule

1.07 PREPARATION AND INSPECTION OF AREAS TO BE SEEDED

A. All areas to be seeded shall be inspected by the Contractor before starting work. Any defects, such as incorrect grading, etc., shall be reported to the Architect prior to beginning this work. The commencement of work by the Contractor shall indicate acceptance of the areas to be seeded, and he shall assume full responsibility for the work of this Section.

1.08 SAMPLES, TESTS AND INSPECTIONS

A. Samples of all loam to be used shall be submitted to the Architect for approval and to determine whether or not it meets the requirements specified. At the time of submission, the Contractor will take representative soil samples of the loam, and tests shall be made by a State or commercial soil testing laboratory using methods approved by the Association of Official Agricultural Chemists (AOAC) or the State Agricultural Experiment Station. The Contractor shall select the testing laboratory with the approval of the Owner and bear all costs for soil testing. No loam may be installed until specific approval of samples has been given by the Architect.

B. <u>Seed Analysis</u> - Prior to the time of sowing the seed mixture, certification shall be submitted to the Architect for approval from the supplier certifying that the seed was obtained for this Contract and stating the formula of the mixture.

1.09 GUARANTEE AND CERTIFICATION OF ACCEPTABILITY

A. <u>Guarantee</u> – Seeded areas shall be guaranteed by the Contractor until Certification of Acceptability is given by the Architect and shall be alive and in satisfactory growth at the end of the guarantee period except for damage resulting from causes beyond the responsibility of the Contractor.

B. Certification of Acceptability

1. Inspection to determine completion of the work under this section will be made at the conclusion of the maintenance period upon written notice requesting such inspection submitted by the Contractor at least five (5) days prior to the anticipated date. The condition of landscaping will be

noted and determination made by the Architect whethermaintenance shall continue in any part.

2. After inspection by the Architect, the Contractor will be notified in writing by the Architect of acceptability of all work of this Section or if there are any deficiencies of the requirements for completion of the work. Maintenance or other work remainingto be done shall be subject to re-inspection before being certified acceptable.

1.10 CLEAN UP

A. Any soil or similar material which has been brought onto paved areas by hauling operations or otherwise shall be removed promptly, keeping these areas clean at all times.

B. Upon completion of work under this Section, all excess stones, debris and soil resulting from work under this Section which have not previously been cleaned up shall be cleaned up and removed from the project site.

**PART 2 - PRODUCTS**

2.01 LOAM AND ADMIXTURES

A. Loam to be furnished.

1. The Contractor shall furnish and placeloam in accordance with the Drawings and Specifications and as directed by the Architect.

2. Material shall consist of fertile friable natural loam topsoil, free from subsoil, obtained from naturally well-drained areas that have never been stripped. It shall be removed to a depth of one (1) foot or less if subsoil is encountered. Loam shall be of uniform quality, free from hard clods, stiff clay, hardpan, sods, partially disintegrated stone, lime, cement, ashes, slag, concrete, tar residues, tarred paper, boards, chips, sticks or any other undesirable material.

3. Loam shall contain between 5.5 and 7.5 per centorganic matter determined by loss on ignition of moisture-free sample dried in accordance with the current method of the Association of Official Agricultural Chemists. The acidity range shall be pH 5.0 to pH 7.0 inclusive, adjusted for plants which require low soil pH. The mechanical analysis of the soil shall be as follows:

| Passing | Retained On | Percentage |
|---|---|---|
| 1" screen | -- | 100% |
| 1" screen | sieve (sand) | 49% - 60% |
| #100 U.S.S. mesh sieve | (very fine sand, silt and clay) | 40% - 60% |

4. The Contractor shall furnish representative samples of all the loam proposed for use to the Architect for approval. The Contract Price shall include inspection and laboratory charges. No loam shall be delivered to the site prior to the approval of samples by the Architect, but such approval shall not constitute the final acceptance. The Architect reserves the right to reject on or after delivery any material that does not, in his opinion, meet these Specifications.

5. The Architect reserves the right to reject loam in which more than sixty (60) per cent of the material passing No. One Hundred (100) U.S.S. meshsieve consists of clay as determined by the Bouyoucus Hydrometer or by the Decantation Method. All percentages are to be based on dry weight of sample. If the Architect directs, loam that varies only slightly from the Specifications may be made acceptable by such corrections as the Architect deems necessary.

B. LIME, FERTILIZER AND RELATED SOIL AMENDMENTS

1. Lime shall be an approved agricultural limestone, uniform in compostion, containing at least fifty (50) percent total oxides (calcium oxide and magnesium oxide). The material will be ground to such fineness that fifty (50) per cent will pass through a one-hundred (100) mesh sieve and ninety (90) per cent will pass through a twenty (20) mesh sieve. Coarser material shall be acceptable provided specific rates of application are increased proportionately on the basis of quantities passing the one-hundred (100) mesh sieve.

2. Superphosphate shall contain twenty (20) percent available phosphoric acid.

3. Fertilizer shall be a complete, standard commercial fertilizer and shall conform to the applicable state fertilizer laws. It shall be uniform in composition, dry and free flowing and shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer which becomes caked or otherwise damaged, making it unsuitable for use, will not be accepted. At least fifty(50) per cent by weight of the nitrogen contents of the fertilizer shall be Urea-form or derived from organic materials and contain no less than three (3) percent water soluble Nitrogen.

6. Water used in this work shall be furnished by the Contractor and will be suitable for irrigation and free from ingredients harmful to plant life. Hose and other watering equipment required for the work shall be furnished by the Contractor.

7. Manure shall be well-rotted, unleached stable manure not less than eight (8) months old and not more than two (2) years old. It shall be free from sawdust, shavings or refuse of any kind and shall not contain over twenty-five (25) per cent of straw. Furnish information to the Architect as to the kind of disinfectant or chemicals, if any, that may have been used in storage of, or otherwise in connection with, the manure. No manure may be used until found satisfactory after sampling and testing. A composition of peat humus or peat moss to which has been incorporated dehydrated manure, such as Bovung or Spurzon in the proportion of one hundred (100) pounds of dehydrated manure per cubic yard or peat, may be substituted for manure as specified above.

8. Humus shall be ground or shredded natve peat one hundred (100) per cent organic that will have been stockpiled for at least one (1) year prior to its use. Sample shall be submitted to the Architect for approval prior to installation.

2.02 SEED

A. Seed mixture shall be fresh, clean, new crop seed. Seed may be mixed by an approved method on the site or may be mixed by the dealer. If the seed is mixed on the site, each variety shall be delivered in the original containers that shall bear the dealer 's guaranteed statement of the composition of the mixture and the percentage of purity of each variety.

B. Seed shall be composed of the following varieties that shall be mixed in the proportions and shall test to minimum percentages and germination specified:

1. Slope Seed Mix

| Common Name | Proportion By Weight |
|---|---|
| Clemfine Tall Fescue | 55% |
| Nassan Kentucky Bluegrass | 20% |
| Palmer Perennial Ryegrass | 10% |
| Alsihi Clover | 5% |
| Streaker Redtop | 5% |
| Poa trivialis | 5% |

2. Lawn Seed Mix

| Botanical Name | Common Name | Proportion By Weight | %P | %G |
|---|---|---|---|---|
| Festuca rubra commutata | Chewings Fescue | 30% | 98 | 85 |
| Poa pratensis 'Merion' | Merion Bluegrass | 15% | 87 | 85 |
| Lolium perenne 'Manhattan' | Manhattan Perennial Ryegrass | 15% | 93 | 90 |
| Agrostis tenuis | Highland Colonial Bentgrass | 10% | 98 | 90 |
| Festuca rubra 'Pennlawn' | Pennlawn Creeping red fescue | 30% | 98 | 90 |

Application rate shall be five pounds (5#) per 1,000 square foot or 220#/acre. Seed shall be planted between April 1st and May 31st or August 16 and October 15th.

PART 3 - EXECUTION

3.01 WORKMANSHIP

A. Personnel - Seeding and planting shall be performed by personnel familiar with these operations and under the supervision of a qualified experienced foreman:

3.02 SEEDING OF LAWN AREAS

A. Time of Seeding - The Landscape Contractor shall be notified in writing by the General Contractor when other sections of the work have progressed sufficiently to commence work including placing of loam to the finished grade. Thereafter, seeding operations shall be conducted under favorable weather conditions during the next season or seasons that are normal for such work as determined by accepted practice in the locality of the project. At the option and on the full responsibility of the Contractor, seeding operations may be conducted under unseasonable conditions without additional compensation.

C. Preparation of Subgrade - The subsoil shall be graded and uniformly compacted so that it will be a true, smooth slope parallel and six (6) inches below the finished grade and free of all large stones and debris.

1. Prior to spreading of loam, the subgrade shall be loosened and mixed to a depth of four (4) inches. All stones over two (2) inches in size, all sticks and rubbish shall be removed. No heavy objects except lawn rollers shall be moved over the lawn areas after the subgrade soil has been prepared unless the subgrade soil is again graded as specified above, before topsoil is spread.

2. There must be sufficient grade stakes, as determined by the Architect, to insure correct line and grade.

D. Finish Grading - After the subgrade soil has been prepared, loam shall be spread evenly there with lazer grading equipment and lightly compacted. After the loam has been spread, it shall be carefully prepared by scarifying or harrowing and hand raking. All large stiff clods, lumps, brush, roots, stumps, litter, other foreign material and stones over one (1) inch in diameter shall be removed from the aforesaid loam and disposed of by the Contractor. The areas shall also be free of smaller stones in excessive quantities as determined by the Architect. The whole surface shall then be rolled with a hand roller weighing not more than one hundred (100) pounds per foot of width. During the rolling all depressions caused by settlement of rolling shall be filled with additional loam, and the surface shall be regraded and rolled until presenting a smooth and even finish and is up to the required grade, giving a total depth of six (6) inches of compacted loam.

Allowance for settlement shall be made.

E. Applying Superphosphate - Superphosphate shall be applied in accordance with the soil testing laboratory recommendations, or as directed by the Architect. It shall be thoroughly worked into the surface.

F. Applying Fertilizer - The commercial fertilizer shall be uniformly applied in two (2) applications in accordance with the soil testing laboratory recommendations, or as directed by the Architect. The first application shall be applied within one (1) week before seeding and harrowed into the top two (2) inches of the loam. The second application shall be applied and thoroughly watered in immediately after the first cutting of the grass at the rate of fifteen (15) pounds per one thousand (1,000) square feet. Fertilizer shall not be applied between June 15 and August 31, unless otherwise directed by the Architect.

G. Liming - Supply and spread lime in areas to be seeded in accordance with the soil test laboratory recommendations, or as directed by the Architect, at a maximum rate of one hundred (100) pounds per one thousand (1,000) square feet.

H. Seeding shall consist of soil preparation, seeding, raking, rolling, weeding, watering, soil stabilization and otherwise providing all labor and materials necessary to secure the establishment of acceptable turf.

I. Moistening the Soil - During periods of higher than optimal temperature for species being specified and after all uneveness in the soil surface has been corrected, the soil shall be lightly moistened immediately prior to seeding.

J. Sowing of Seed - Immediately before any seed is to be sown, the topsoil shall be scarified as necessary and shall be raked until the surface is smooth, friable and of uniformly fine texture. Lawn areas shall be seeded evenly with a mechanical spreader at the rate of five (5) pounds per one thousand (1,000) square feet of area, lighting raked, rolled with a two hundred (200) pound roller and watered with a fine spray. The method of seeding may be varied at the discretion of the Contractor on his responsibility to establish smooth, uniformly grassed lawn areas; however, the spray method or hydraulic seeding is not recommended. Take necessary precautions to keep the area undisturbed until the grass comes up. Between May 15 and August 15, the Contractor may sow Lolium perenne (perennial rye grass, ninety- eight (98) percent purity, ninety (90) percent germination) at the rate of one (1) pound per one thousand (1,000) square feet of area. This shall be a separate sowing executed after the sowing of the regular mixture and before the raking, rolling and watering operations.

K. All areas not otherwise developed within the limit of work shall be seeded with seed mixture at a rate of five (5) pounds of the seed mixture per one thousand (1,000) square feet of area.

L. Seed bed preparation, including lime but excluding the Superphosphate and fertilizer, shall conform to the requirements of the lawn areas.

3.03 MAINTENANCE AND REPLACEMENT

A. Maintenance shall begin immediately after each portion of area is seeded and shall continue in accordance with the following requirements:

B. The Contractor shall be held responsible for maintenance of seeded areas, including watering, weeding, and cutting for at least sixty (60) days after seeding and as much longer as is necessary to establish a uniform stand of the specified grasses and until Certification of Acceptability. No bare spots will be allowed. After the grass has been seeded, all areas and parts of areas which fail to show a uniform stand of grass, for any reason whatsoever, shall be reseeded repeatedly until all areas are covered with a satisfactory growth of grass. At the time of cutting, keep mower blades not less than two and one-half (2-1/2) inches high. Mowing intervals shall be spaced so that not more than one (1) inch of leaf blade is removed at any one time. The maintenance period shall continue after seeding

and until the seeded areas are certified acceptable by the Architect, which certification shall not be earlier than the date of substantial completion of the entire work of this Contract or as otherwise indicated on the Drawings and as specified herein.

C. Prior to Certification of Acceptability by the Architect, damage resulting from erosion, gulleys, washouts or other causes shall be repaired by filling with t opsoil, tamping, re-fertilizing and seeding by the Contractor at his own expense.

G. The Contractor's responsibility for maintenance shall cease at the time of Certification of Acceptability by the Architect.

**END OF SECTION**

# Attachment H

Storm Water Pollution
Prevention Plan

# KEITH MIDDLE SCHOOL

## Storm Water Pollution Prevention Plan

**225 Hathaway Boulevard**
**New Bedford, Massachusetts**

**September 2004**

Prepared for:
**New Bedford Public Schools**
**455 County Road**
**New Bedford, MA 02740-5194**

Prepared by: Eric A. Olson

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# Storm Water Pollution Prevention Plan

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**225 Hathaway Boulevard**
**New Bedford, MA**

Prepared for:

**New Bedford Public Schools**
**455 County Road**
**New Bedford, MA 02740-5194**

Prepared by:

**BETA Group, Inc.**
**315 Norwood Park South**
**Norwood, MA 02062**

Scientist: Eric A. Olson

Associate: Alan D. Hanscom, P.E., LSP

September 15, 2004

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ATTACHMENTS

Attachment A: **Inspection Forms** – *1) Site Stabilization Measures, 2) Erosion Controls, 3) Stabilized Construction Entrance*

Attachment B: **Date Log Sheet of Major Activities**

Attachment C: **Intended Sequence of Site Activity**

Attachment D: **NPDES General Permit for Storm Water Discharges From Construction Activities**

Attachment E: **Notice of Intent, NOI Shipment Receipt, Copy of Receipt Letter from the EPA**

Attachment F: **Maps** – *1) New Bedford North Quadrangle – Priority Habitats of Rare Species, 2) NewBedford North Quadrangle – Estimated Habitats of rare Wildlife and Certified Vernal Pools, 3) Locus Map – Large Scale, 4) Locus Map – Small Scale*

Attachment G: **Site and Construction Plans**

# KEITH MIDDLE SCHOOL
# CONSTRUCTION POLLUTION PREVENTION PLAN

| SITE DESCRIPTION | | | |
|---|---|---|---|
| Project Name and Location; (Latitude, Longitude, or Address | Keith Middle School<br>225 Hathaway Blvd.<br>New Bedford, MA 02740 | Owner Name and Address: | New Bedford Public Schools<br>455 County Road<br>New Bedford, MA 02740-5194 |
| Project Description: (Purpose and Types of Soil Disturbing Activities) | Phase II of this project will consist of earthwork for site remediation, preparation for site utilities and pile driving. Phase III will consist of site development and building construction. | | |
| Soil disturbing activities will include: Phase II - Stripping topsoil, removal and replacement of fill layer and regulated soils with clean granular fill (to a depth of 3 feet below proposed finished grade in lawn and landscape areas and 4 feet below proposed finished grade under all paved areas), installation of miscellaneous bases, concrete filled steel bollards, underground utilities including water, sewer and drainage systems, and steel piles for building support. Phase III – Construction of new Middle School building, installation of underground electric and gas services and light poles, paving of drives, parking areas and walkways, construction of permanent fencing, and installation of loam, lawns, planting and irrigation. | | | |
| Site Area: | The site is approximately 8.65 acres. | | |
| Sequence of Major Activities | | | |
| The order of activities will be as follows:<br>See Attachment C. | | | |
| Name of Receiving Waters: | The entire site drains to the adjacent Unnamed Wetland and eventually flows into the Appongansett Swamp, which is approximately one mile NW of the site (see Attachment G). | | |

## CONTROLS

Erosion and Sediment Controls are already in place.

### Stabilization Practices

Temporary Stabilization - Topsoil stockpiles and disturbed portions of the site where construction activity temporarily ceases for at least 21 days will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in that area. The temporary seed shall be Rye (grain) applied at the rate of 50 pounds per 1000 sq. ft. After seeding, each area shall be mulched with straw.

Permanent Stabilization - Disturbed portions of the site where construction activities permanently cease shall be stabilized with permanent seed no later than 14 days after the last construction activity. The permanent seed mix shall be as specified in the construction documents or as directed by the Conservation Commission.

Material stockpiles will be encompassed by plastic poly sheeting to contain any sediment from washing away from the area.

All work will be completed in accordance with the Conservation Commission's Order of Conditions DEP file No. SE49-461

### Storm Water Management

Storm water drainage will be provided by closed drainage system consisting of catch basins, manholes and two detention basins for the developed areas. The areas which are not developed will have permanent seeding or plantings.

The new drainage system was designed in accordance with the DEP Stormwater Management Policy that requires a minimum treatment efficiency of 80% removal for TSS.

## OTHER CONTROLS

Waste Disposal:

**Waste Materials**
All waste materials will be collected and stored in a metal dumpster rented from the ABC Disposal, which is a licensed solid waste management company in New Bedford, MA. The dumpster wilt meet all local Town and any State solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied as needed, and the trash will be hauled off site. No construction waste materials will be buried onsite. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer and Mr. Adams, the individual who manages the day-to-day site operations, will be responsible for seeing that these procedures are followed.

**Hazardous Waste**
All hazardous waste materials will be disposed of in the manner specified by local or State regulation or by the manufacturer. Site personnel will be instructed in these practices and Mr. Michael Adams of Wes Construction, the site health and safety officer and the individual who manages day-to-day site operations, will be responsible for seeing that these practices are followed.

**Sanitary Waste**
All sanitary waste will be collected from the portable units a minimum of once a week by the Bay-state Portable Restroom, a licensed sanitary waste management contractor, as required by local regulation.

Offsite Vehicle Tracking:

A stabilized construction entrance has been provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance will be swept daily to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be lined with waterproof plastic poly sheeting, covered with a tarpaulin and washed down before leaving the site. Additionally, weekly inspections of the stabilized construction entrance and road will be performed and logged (see Attachment A).

The road at the construction entrance is at a lower elevation than the site. During Phase I activities, seepage of vehicle wash-water onto the road occurred where the driveway meets the road. The wash-water found a conduit by moving laterally through the topsoil towards the road. A four foot deep trench was installed across the entrance to the driveway and filled with crushed stone to prevent future lateral movement of wash-water onto the road by enabling it to drain downwards into the ground. Since the installation of the trench, no seepage has occurred.

## TIMING OF CONTROLS/MEASURES

As indicated in Attachment C - Intended Sequence of Site Activities, as part of Phase I activities, the hay bales and erosion control fence and stabilized construction entrance have already been constructed. Also, the perimeter slopes along the wetland boundary have been graded and stabilized with permanent seed and grass. Additionally, as part of Phase II activities, hay bails and erosion control fence will be constructed the remaining perimeter of the site.

Areas where construction activity temporarily ceases for more than 21 days will be stabilized with temporary seed and mulch within 14 days of the last disturbance. Once construction activity ceases permanently the area will be stabilized with permanent seed.

## CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS

The City of New Bedford currently has no wetland bylaws for storm water management erosion and sediment control and is guided by the State regulations. The storm water pollution prevention plan reflects the State wetland regulations as stated in the Wetlands Protection Act 310 CMR 10.00. To ensure compliance, this plan was prepared in accordance with the Storm Water Management For Construction Activities, published by the United States Environmental Protection Agency. There are no other applicable State or Federal requirements for sediment and erosion site plans (or permits), or storm water management site plans (or permits).

## MAINTENANCE/INSPECTION PROCEDURES

### Erosion and Sediment Control Inspection and Maintenance Practices

Erosion and sediment controls have been installed along the portions of the perimeter of the site that border the wetlands. The slope has been graded, stabilized and seeded. Grass has taken and is helping to stabilize the slope and prevent erosion during storm events. The entire rest of the site is relatively level. Historically, during Phase I activities, runoff from stormwater events in these areas percolated into the ground.

These are the inspection and maintenance practices that will be used to maintain erosion and sediment controls.

- Less than one half of the site will be denuded at one time.
- All control measures will be inspected at least once each week and following any storm event of 0.5 inches or greater.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report.
- Built up sediment will be removed from silt fence when it has reached one-third the height of the fence.
- Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- Maintenance inspection reports will be made after each inspection of the Erosion Control Methods and the Site Stabilization Measures. Copies of the report forms to be completed by the inspector (see Attachment A).
- Mr. Adam's, the site health and safety officer for Wes Construction Corp., will select three individuals who will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance report.
- Personnel selected for inspection and maintenance responsibilities will receive training from Mr. Adams. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

## MAINTENANCE /INSPECTION PROCEDURES (Continued)

### Non Storm-Water Discharges

It is expected that the following non-storm water discharges will occur from the site during the construction period:

- Contaminated groundwater (from dewatering excavation),
- Non-contaminated groundwater (from dewatering excavation).

All non-storm water discharges will be directed to the on-site storage tank to be discharged into the designated on-site, above-ground, stilling basin. The stilling basin is constructed of silt fabric and allows the water to percolate back into the ground while removing any suspended solids. Solids will be removed from the basin before the design capacity is reduced by 50 percent.

## MATERIAL INVENTORY FOR POLLUTION PREVENTION PLAN

The materials or substances listed below are expected to be present onsite during construction:

- Concrete
- Steel Pilings
- Steel and PVC Pipe for Utilities
- Detergents
- Paints (enamel and latex)
- Metal Studs
- Concrete
- Tar
- Gravel
- Clean Sand for Fill
- Fertilizers
- Petroleum Based Products
- Cleaning Solvents
- Wood
- Masonry Block
- Roofing Materials

## SPILL PREVENTION

### Material Management Practices

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff.

#### Good Housekeeping

The following good housekeeping practices will be followed onsite during the construction project

- An effort will be made to store only enough products required to do the job
- All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure
- Products will be kept in their original containers with the original manufacturer's label
- Substances will not be mixed with one another unless recommended by the manufacturer
- Whenever possible, all of a product will be used up before disposing of the container
- Manufacturers' recommendations for proper use and disposal will be followed
- The site superintendent will inspect daily to ensure proper use and disposal of materials onsite.

#### Hazardous Products:

These practices are used to reduce the risks associated with hazardous materials.

- Products will be kept in original containers unless they are not re-sealable
- Original labels and material safety data will be retained; they contain important product information
- If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.

### Product Specific Practices

The following product specific practices will be followed onsite:

#### Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.

**Fertilizers:**

Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

**Paints:**

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed of according to manufacturers' instructions or State and local regulations.

**Concrete Trucks:**

Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site.

## Spill Control Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate State or local government agency, regardless of the size.
- The Health and Safety Plan will be adjusted to include measures to prevent this type of spill from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.
- Mr. Adams, the site health and safety officer responsible for the day-to-day site operations, will be the spill prevention and cleanup coordinator. He will designate at least three other site personnel who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel will be posted in the material storage area and in the office trailer onsite.

## POLLUTION PREVENTION PLAN CERTIFICATION

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed: Alan D. Hanscom

Alan D. Hanscom, P.E., LSP
Associate
BETA Group, Inc.

Date: 9/17/04

## CONTRACTOR'S CERTIFICATION

I certify under the penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

| Signature | For | Responsible for |
|---|---|---|
| Kenneth J. Vogel<br>Ken Vogel<br>Senior Project Manager<br>Date: 9/17/04 | Wes Construction Corporation<br>175 Commercial Circle<br>Dedham, MA 02026<br>(781) 326-4030 | General Contractor |

# ATTACHMENT A

# KEITH MIDDLE SCHOOL
# STORM WATER POLLUTION PREVENTION PLAN
# INSPECTION AND MAINTENANCE REPORT FORM

## EROSION CONTROLS

DATE:_____

| FROM | TO | IS PERIMETER SLOPE STABILIZED? | IS THERE EVIDENCE OF WASHOUT OR OVERTOPPING? |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

MAINTENANCE REQUIRED FOR EROSION CONTROL BARRIER:

_____

_____

_____

TO BE PERFORMED BY:_____ ON OR BEFORE:_____

**KEITH MIDDLE SCHOOL**
**STORM WATER POLLUTION PREVENTION PLAN**
**INSPECTION AND MAINTENANCE REPORT FORM**

OTHER CONTROLS
STABILIZED CONSTRUCTION ENTRANCE

| DOES MUCH SEDIMENT GET TRACKED ON TO ROAD? | IS THE GRAVEL CLEAN OR IS IT FILLED WITH SEDIMENT? | DOES ALL TRAFFIC USE THE STABILIZED ENTRANCE TO LEAVE THE SITE? | IS THE CULVERT BENEATH THE ENTRANCE WORKING? |
|---|---|---|---|
| | | | |

MAINTENANCE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCE:

_____

_____

_____

TO BE PERFORMED BY:_____ ON OR BEFORE:_____

# ATTACHMENT B

# Keith Middle School

## Date Log of Major Construction Activities

**Activities to be recorded:** **1)** When Major Grading Activities Occur, **2)** When Construction Activities Temporarily Permanently Cease, **3)** When Stabilization Measures are Initiated.

| Date | Activity |
|---|---|
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Keep an updated copy of this log with the Storm Water Pollution Prevention Plan at all times.

# ATTACHMENT C

# Intended Sequence and Timing of Site Activities
Keith Middle School, New Bedford, MA

## Past Activities

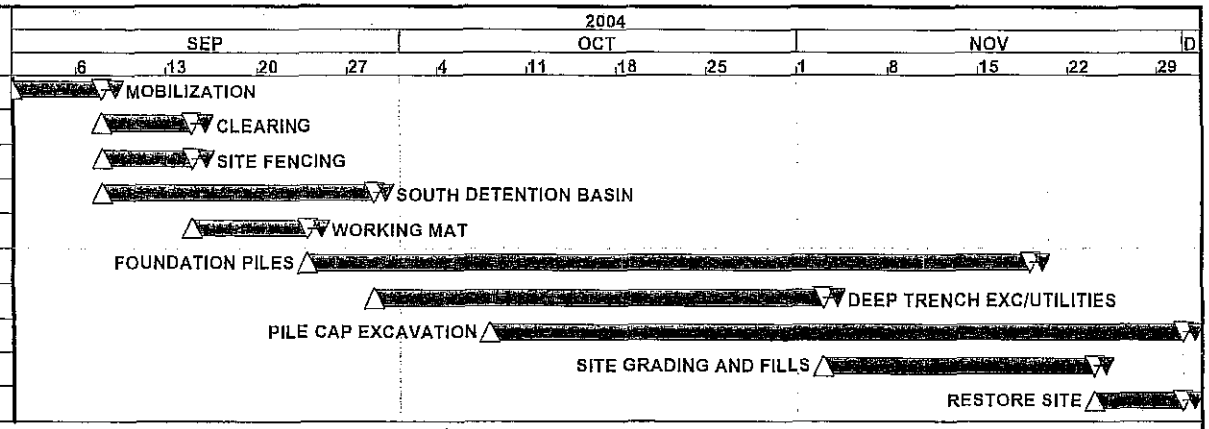
**Phase I - Site Remediation**
5/3/04 - Began installing erosion and sediment controls (silt fence, hay bails). Set up stabilized construction entrance and vehicle washing area, which is constructed of crushed stone.
5/13/04 – Completed the installation of erosion and sediment controls.
8/7/04 – Constructed 4' deep trench and filled it with crushed stone at the end of stabilized construction entrance to prevent vehicle wash water seepage through top layer of soil and onto the roadway, which is at a lower elevation.
8/24/04 - Perimeter slope construction completed and stabilized with grass seed.

## Intended Future Activities

**Phase II - Earthwork for Site Remediation, Preparation for Site Utilities, Pile Driving**
See Attached Sheet Entitled – "Keith Middle School Phase II Site PR" by Wes Construction Corp.

**Phase III - Site Development, Building Construction**
More detail will be provided when the bid process is complete. The intended completion date is September 2006.

| Total Float | Activity Description | Orig Dur | Rem Dur | % | Early Start | Early Finish |
|---|---|---|---|---|---|---|
| 1 | MOBILIZATION | 5 | 5 | 0 | 01SEP04 | 07SEP04 |
| 1 | CLEARING | 5 | 5 | 0 | 08SEP04 | 14SEP04 |
| 1 | SITE FENCING | 5 | 5 | 0 | 08SEP04 | 14SEP04 |
| 1 | SOUTH DETENTION BASIN | 15 | 15 | 0 | 08SEP04 | 28SEP04 |
| 1 | WORKING MAT | 7 | 7 | 0 | 15SEP04 | 23SEP04 |
| 1 | FOUNDATION PILES | 40 | 40 | 0 | 24SEP04 | 18NOV04 |
| 1 | DEEP TRENCH EXC/UTILITIES | 25 | 25 | 0 | 29SEP04 | 02NOV04 |
| 1 | PILE CAP EXCAVATION | 38 | 38 | 0 | 08OCT04 | 30NOV04 |
| 1 | SITE GRADING AND FILLS | 15 | 15 | 0 | 03NOV04 | 23NOV04 |
| 1 | RESTORE SITE | 5 | 5 | 0 | 24NOV04 | 30NOV04 |




| | | |
|---|---|---|
| Project Start | 01SEP04 | Early Bar |
| Project Finish | 30NOV04 | Float Bar |
| Data Date | 01SEP04 | Progress Bar |
| Run Date | 26AUG04 | Critical Activity |

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KMS2

Sheet 1 of 1

WES CONSTRUCTION CORP

KEITH MIDDLE SCHOOL PHASE II SITE PR

Classic Schedule Layout

# ATTACHMENT D

## NPDES General Permit for Storm Water Discharges From Construction Activities

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**National Pollutant Discharge Elimination System**
**General Permit for Discharges from**
**Large and Small Construction Activities**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et. seq., (hereafter CWA or the Act), as amended by the Water Quality Act of 1987, P.L. 100-4, operators of large and small construction activities that are described in Subpart 1.3 of this National Pollutant Discharge Elimination System (NPDES) general permit, except for those activities excluded from authorization of discharge in Subpart 1.3.C of this permit are authorized to discharge pollutants to waters of the United States in accordance with the conditions and requirements set forth herein. Permit coverage is required from the "commencement of construction activities" until "final stabilization" as defined in Appendix A.

This permit shall become effective on July 1, 2003.

This permit and the authorization to discharge shall expire at midnight, July 1, 2008.

Signed:

Linda M. Murphy, Director, Office of Ecosystem Protection
EPA Region 1

Kevin Bricke, Acting Director, Division of Environmental Planning and Protection
EPA Region 2

Carlos E. O'Neill, P.E., Acting Division Director, Caribbean Environmental Protection Division
EPA Region 2

John M. Capacasa, Director, Water Protection Division
EPA Region 3

Rebecca Harvey, Chief, NPDES Program Branch
EPA Region 5

Miguel I. Flores, Director, Water Quality Protection Division
EPA Region 6

Leo J. Alderman, Director, Water, Wetlands, and Pesticides Division
EPA Region 7

Stephen S. Tuber, Assistant Regional Administrator, Office of Partnerships and Regulatory Assistance
EPA Region 8

Nancy Woo, Acting Director, Water Division
EPA Region 9

Randall F. Smith, Director, Office of Water
EPA Region 10

The signatures are for the permit conditions in Parts 1 through 9 and Appendices A through G and for any additional conditions which apply to facilities located in the corresponding state, Indian country, or other area.

## PART 1: COVERAGE UNDER THIS PERMIT

### 1.1 Introduction

This Construction General Permit (CGP) authorizes storm water discharges from large and small construction activities that result in a total land disturbance of equal to or greater than one acre, where those discharges enter surface waters of the United States or a municipal separate storm sewer system (MS4) leading to surface waters of the United States subject to the conditions set forth in this permit. This permit also authorizes storm water discharges from any other construction activity designated by EPA where EPA makes that designation based on the potential for contribution to an excursion of a water quality standard or for significant contribution of pollutants to waters of the United States. This permit replaces two permits issued in 1998 (63 FR 7858, February 17, 1998 for EPA Regions 1, 2, 3, 7, 8, 9, and 10 and 63 FR 36489, July 6, 1998 for EPA Region 6). Any references to the 1998 CGP in this permit refer to those two permits.

This permit is presented in a reader-friendly, plain language format. This permit uses the terms "you" and "your" to identify the person(s) who owns or operates a "facility" or "activity" as defined in Appendix A and who must comply with the conditions of this permit. This format should allow you, the permittee and operator of a large or small construction activity, to easily locate and understand applicable requirements.

The goal of this permit is to reduce or eliminate storm water pollution from construction activity by requiring that you plan and implement appropriate pollution control practices to protect water quality.

### 1.2 Permit Area

If your large or small construction activity is located within the areas listed in Appendix B, you may be eligible to obtain coverage under this permit. Permit coverage is actually provided by legally separate and distinctly numbered permits covering each of the areas listed in Appendix B.

### 1.3 Eligibility

Permit eligibility is limited to discharges from "large" and "small" construction activity as defined in Appendix A or as otherwise designated by EPA. This general permit contains eligibility restrictions, as well as permit conditions and requirements. You may have to take certain actions to be eligible for coverage under this permit. In such cases, you must continue to satisfy those eligibility provisions to maintain permit authorization. If you do not meet the requirements that are a pre-condition to eligibility, then resulting discharges constitute unpermitted discharges. By contrast, if you do not comply with the requirements of the general permit, you may be in violation of the general permit for your otherwise eligible discharges.

#### *A. Allowable Storm Water Discharges*

Subject to compliance with the terms and conditions of this permit, you are authorized to discharge pollutants in:

1. Storm water associated with large and small construction activity as defined in Appendix A;
2. Storm water discharges designated by EPA as needing a storm water permit under 40 CFR §122.26(a)(1)(v) or §122.26(b)(15)(ii);
3. Discharges from support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided:
    a. The support activity is directly related to the construction site required to have NPDES permit coverage for discharges of storm water associated with construction activity;
    b. The support activity is not a commercial operation serving multiple unrelated construction projects by different operators, and does not operate beyond the completion of the construction activity at the last construction project it supports; and
    c. Appropriate controls and measures are identified in a Storm Water Pollution Prevention Plan (SWPPP) covering the discharges from the support activity areas; and
4. Discharges composed of allowable discharges listed in 1.3.A and 1.3.B commingled with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.

### *B. Allowable Non-Storm Water Discharges*

You are authorized for the following non-storm water discharges, provided the non-storm water component of the discharge is in compliance with Subpart 3.5 (Non-Storm Water Discharge Management):

1. Discharges from fire-fighting activities;
2. Fire hydrant flushings;
3. Waters used to wash vehicles where detergents are not used;
4. Water used to control dust in accordance with Subpart 3.4.G;
5. Potable water including uncontaminated water line flushings;
6. Routine external building wash down that does not use detergents;
7. Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used;
8. Uncontaminated air conditioning or compressor condensate;
9. Uncontaminated ground water or spring water;
10. Foundation or footing drains where flows are not contaminated with process materials such as solvents;
11. Uncontaminated excavation dewatering;
12. Landscape irrigation.

### *C. Limitations on Coverage*

1. This permit does not authorize post-construction discharges that originate from the site after construction activities have been completed and the site has achieved final stabilization, including any temporary support activity. Post-construction storm water discharges from industrial sites may need to be covered by a separate NPDES permit.
2. This permit does not authorize discharges mixed with non-storm water. This exclusion does not apply to discharges identified in Subpart 1.3.B, provided the discharges are in compliance with Subpart 3.5 (Non-Storm Water Discharge Management).
3. This permit does not authorize storm water discharges associated with construction activity that have been covered under an individual permit or required to obtain coverage under an alternative general permit in accordance with Subpart 4.2.
4. This permit does not authorize discharges that EPA, prior to authorization under this permit, determines will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. Where such a determination is made prior to authorization, EPA may notify you that an individual permit application is necessary in accordance with Subpart 4.2. However, EPA may authorize your coverage under this permit after you have included appropriate controls and implementation procedures in your SWPPP designed to bring your discharge into compliance with water quality standards.
5. *Discharging into Receiving Waters With an Approved Total Maximum Daily Load Analysis*
   a. You are not eligible for coverage under this permit for discharges of pollutants of concern to waters for which there is a total maximum daily load (TMDL) established or approved by EPA unless you incorporate into your SWPPP measures or controls that are consistent with the assumptions and requirements of such TMDL. To be eligible for coverage under this general permit, you must incorporate into your SWPPP any conditions applicable to your discharges necessary for consistency with the assumptions and requirements of such TMDL. If a specific wasteload allocation has been established that would apply to your discharge, you must incorporate that allocation into your SWPPP and implement necessary steps to meet that allocation.
   b. In a situation where an EPA-approved or established TMDL has specified a general wasteload allocation applicable to construction storm water discharges, but no specific requirements for construction sites have been identified in the TMDL, you should consult with the State or Federal TMDL authority to confirm that adherence to a SWPPP that meets the requirements of the CGP will be consistent with the approved TMDL. Where an EPA-approved or established TMDL has not

specified a wasteload allocation applicable to construction storm water discharges, but has not specifically excluded these discharges, adherence to a SWPPP that meets the requirements of the CGP will generally be assumed to be consistent with the approved TMDL. If the EPA-approved or established TMDL specifically precludes such discharges, the operator is not eligible for coverage under the CGP.

6. *Endangered and Threatened Species and Critical Habitat Protection*

   a. Coverage under this permit is available only if your storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities, as defined in Appendix A, are not likely to jeopardize the continued existence of any species that are federally-listed as endangered or threatened ("listed") under the Endangered Species Act (ESA) or result in the adverse modification or destruction of habitat that is federally-designated as critical under the ESA ("critical habitat").

   b. You are not eligible to discharge if the storm water discharges, allowable non-storm water discharges, or storm water discharge-related activities would cause a prohibited "take" of federally-listed endangered or threatened species (as defined under section 3 of the ESA and 50 CFR 17.3), unless such takes are authorized under sections 7 or 10 of the ESA.

   c. Determining Eligibility: You must use the process in Appendix C (ESA Review Procedures) to determine eligibility *PRIOR* to submittal of the Notice of Intent (NOI). You must meet one or more of the following six criteria (A-F) for the entire term of coverage under the permit:

Criterion A. No federally-listed threatened or endangered species or their designated critical habitat are in the project area as defined in Appendix C; or

Criterion B. Formal consultation with the Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the ESA has been concluded and that consultation:

i. Addressed the effects of the project's storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat, and
ii. The consultation resulted in either:

a. Biological opinion finding no jeopardy to federally-listed species or destruction/adverse modification of federally-designated critical habitat, or

b. written concurrence from the Service(s) with a finding that the storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities are not likely to adversely affect federally-listed species or federally-designated critical habitat; or

Criterion C. Informal consultation with the Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the ESA has been concluded and that consultation:

i. Addressed the effects of the project's storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat, and
ii. The consultation resulted in either:

a. Biological opinion finding no jeopardy to federally-listed species or destruction/adverse modification of federally-designated critical habitat, or

b. written concurrence from the Service(s) with a finding that the storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities are not likely to adversely affect federally-listed species or federally-designated critical habitat; or

Criterion D. The construction activities are authorized through the issuance of a permit under section 10 of the ESA, and that authorization addresses the effects of the storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities on federally-listed species and federally-designated critical habitat; or

Criterion E. Storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities are not likely to adversely affect any federally-listed

threatened or endangered species or result in the destruction or adverse modification of federally-designated critical habitat; or

Criterion F. The project's storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities were already addressed in another operator's valid certification of eligibility under Criteria A-E which included your construction activities and there is no reason to believe that federally-listed species or federally-designated critical habitat not considered in the prior certification may be present or located in the project area. By certifying eligibility under this criterion, you agree to comply with any measures or controls upon which the other operator's certification was based.

You must comply with any applicable terms, conditions, or other requirements developed in the process of meeting the eligibility requirements of the criteria in this section to remain eligible for coverage under this permit. Such terms and conditions must be documented and incorporated into your SWPPP.

7. Historic Properties

*[Reserved]*

You are reminded that you must comply with applicable state, tribal and local laws concerning the protection of historic properties and places.

### 1.4 Waivers for Certain Small Construction Activities

Three scenarios exist under which small construction activities (see definition in Appendix A) may be waived from the NPDES permitting requirements detailed in this general permit. These exemptions are predicated on certain criteria being met and proper notification procedures being followed. Details of the waiver options and procedures for requesting a waiver are provided in Appendix D.

## PART 2: AUTHORIZATION FOR DISCHARGES OF STORM WATER FROM CONSTRUCTION ACTIVITY

To obtain coverage under this general permit, you, the operator, must prepare and submit a complete and accurate Notice of Intent (NOI), as described in this Part. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage.

### 2.1 Authorization to Discharge Date

This permit is effective as of the publication date in the Federal Register and is effective for five years, expiring at midnight on the anniversary of publication in the fifth year.

A. If you submit an NOI during the first 90 days after the issuance date of this permit you are authorized to discharge storm water from construction activities under the terms and conditions of this permit seven (7) calendar days after submittal to EPA of a complete and accurate NOI (i.e., 7 days from date of postmark), except as noted in Subpart 2.1.C.

B. If you submit an NOI after the first 90 days of this permit and prior to the expiration date of this permit, you are authorized to discharge storm water from construction activities under the terms and conditions of this permit seven (7) calendar days after acknowledgment of receipt of your complete NOI is posted on EPA's NPDES website ***http://www.epa.gov/npdes/stormwater/cgp***, except as noted in Subpart 2.1.C.

C. EPA may delay your authorization based on eligibility considerations of Subpart 1.3 (e.g., ESA concerns). In these instances, you are not authorized for coverage under this permit until you receive notice from EPA of your eligibility.

### 2.2 Notice of Intent Contents

A. You must use the NOI form provided in Appendix E (or a photocopy thereof) and available at **www.epa.gov/npdes/stormwater/cgp**. If EPA makes other NOI forms available (either directly, by public notice, or by making information available on the Internet), you may take advantage of any of those options to satisfy the NOI use requirements of this Subpart.

B. You must provide the following information on the NOI form:

1. The applicable permit number for which you are requesting coverage (See Appendix B);

2. Operator name, address, telephone number, and Employer Identification Number (EIN) as established by the U.S. Internal Revenue Service;
3. Project/Site name, address, county or similar governmental subdivision, and latitude/longitude of your construction project or site;
4. Whether your site is located in Indian country and if so, the name of the Reservation, if applicable;
5. Whether the SWPPP has been prepared in advance of filing of this NOI and the location where the applicable SWPPP may be viewed;
6. Name of the water(s) of the U.S. into which your site discharges;
7. Indication whether your discharge is consistent with the assumptions and requirements of applicable EPA approved or established TMDLs;
8. Estimated dates of commencement of construction activity and final stabilization (i.e., project start and completion dates);
9. Total acreage (to the nearest quarter acre) to be disturbed for which you are requesting permit coverage;
10. Whether any federally-listed threatened or endangered species, or federally-designated critical habitat are in your project area to be covered by this permit, and the basis for certifying eligibility for permit coverage based on the instructions in Appendix C;
11. A certification statement, signed and dated by an authorized representative as defined in Appendix G, Section 11, and the name and title of that authorized representative.

### 2.3 Submission Deadlines

A. *New Projects:* To obtain coverage under this permit, you must submit a complete and accurate NOI and be authorized consistent with Subpart 2.1 prior to your commencement of construction activities.

B. *Permitted Ongoing Projects (only applicable for first 90 days after this permit is issued):* If you previously received authorization to discharge for your project under the 1998 CGP and you wish to continue coverage under this permit:

1. Except as noted in 2.3.B.2, you must:
    1. Submit an NOI within 90 days of the issuance date of this permit, and
    2. Until you are authorized under this permit consistent with Subpart 2.1, comply with the terms and conditions of the 1998 CGP under which you were previously authorized.
2. If you meet the termination of coverage requirements in accordance with Subpart 5.1 within 90 days of the issuance date of this permit (e.g., construction will be finished and final stabilization achieved) you must:
    1. Submit an NOT consistent with the 2003 CGP using the NOT form provided in Appendix F, and
    2. Until coverage is no longer required, comply with the terms and conditions of the 1998 CGP under which you were previously authorized.

C. *Unpermitted Ongoing Projects (only applicable for first 90 days after this permit is issued):* If you previously did not receive authorization to discharge for your project under the 1998 CGP and you wish to obtain coverage under this permit:

1. Except as noted in 2.3.C.2, you must:
    1. Submit an NOI within 90 days of the issuance date of this permit, and
    2. Until you are authorized under this permit consistent with Subpart 2.1, comply with an interim Storm Water Pollution Prevention Plan (SWPPP) consistent with the 1998 CGP.
2. If you meet the termination of coverage requirements in accordance with Subpart 5.1 within 90 days of the issuance date of this permit (e.g., construction will be finished and final stabilization achieved) you must comply with an interim Storm Water Pollution Prevention Plan (SWPPP) consistent with the 1998 CGP until permit coverage is no longer required.

D. *Late Notifications:* Operators are not prohibited from submitting NOIs after initiating clearing, grading, excavation activities, or other construction activities. When a late NOI is submitted, authorization for discharges occurs consistent with Subpart 2.1. The Agency reserves the right to take enforcement action for any unpermitted discharges or permit noncompliance that occur between the commencement of construction and discharge authorization.

### 2.4 Where to Submit

A. Except as noted in Subpart 2.3.B, you must send your complete and accurate NOI to EPA at one of the following addresses:

For Regular U.S. Mail Delivery:
EPA Storm Water Notice Processing Center
Mail Code 4203M
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:
EPA Storm Water Notice Processing Center
Room 7420
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

B. In lieu of Subpart 2.4.A, when available, you may submit your NOI using EPA's electronic NOI system (i.e., eNOI) as detailed at www.epa.gov/npdes/stormwater/cgp.

## PART 3: STORM WATER POLLUTION PREVENTION PLANS (SWPPPS)

### 3.1 Storm Water Pollution Prevention Plan Framework

A. A SWPPP must be prepared prior to submission of an NOI as required in Part 2. At least one SWPPP must be developed for each construction project covered by this permit and such SWPPP must be prepared in accordance with good engineering practices.

B. The SWPPP must:

1. Identify all potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges from the construction site;
2. Describe practices to be used to reduce pollutants in storm water discharges from the construction site; and
3. Assure compliance with the terms and conditions of this permit.

C. Once a definable area has been finally stabilized, you may mark this on your SWPPP and no further SWPPP or inspection requirements apply to that portion of the site (e.g., earth-disturbing activities around one of three buildings in a complex are done and the area is finally stabilized, one mile of a roadway or pipeline project is done and finally stabilized, etc).

D. You must implement the SWPPP as written from commencement of construction activity until final stabilization is complete.

### 3.2 Requirements for Different Types of Operators

You may meet one or both of the operational control components in the definition of operator found in Appendix A. Subpart 3.2.C applies to all permittees having control over only a portion of a construction site.

A. If you have operational control over construction plans and specifications, you must ensure that:

1. The project specifications meet the minimum requirements of this Subpart and all other applicable permit conditions;
2. The SWPPP indicates the areas of the project where the operator has operational control over project specifications, including the ability to make modifications in specifications;
3. All other permittees implementing portions of the SWPPP (or their own SWPPP) who may be impacted by a change to the construction plan are notified of such changes in a timely manner; and
4. The SWPPP indicates the name of the party(ies) with day-to-day operational control of those activities necessary to ensure compliance with the SWPPP or other permit conditions.

B. If you have operational control over day-to-day activities, you must ensure that:

1. The SWPPP meets the minimum requirements of this Subpart and identifies the parties responsible for implementation of control measures identified in the plan;
2. The SWPPP indicates areas of the project where you have operational control over day-to-day activities;
3. The SWPPP indicates the name of the party(ies) with operational control over project specifications (including the ability to make modifications in specifications).

C. If you have operational control over only a portion of a larger project (e.g., one of four homebuilders in a subdivision), you are responsible for compliance with all applicable terms and conditions of this permit as it relates to your activities on your portion of the construction site, including protection of endangered species, critical habitat, and historic properties, and implementation of best management practices (BMPs) and other controls required by the SWPPP. You must ensure either directly or through coordination with other permittees, that your activities do not render another party's pollution control ineffective. You must either implement your portion of a common SWPPP or develop and implement your own SWPPP.

For more effective coordination of BMPs and opportunities for cost sharing, a cooperative effort by the different operators at a site to prepare and participate in a comprehensive SWPPP is encouraged. Individual operators at a site may, but are not required to, develop separate SWPPPs that cover only their portion of the project provided reference is made to other operators at the site. In instances where there is more than one SWPPP for a site, cooperation between the permittees is encouraged to ensure the storm water discharge controls and other measures are consistent with one another (e.g., provisions to protect listed species and critical habitat).

### 3.3 Pollution Prevention Plan Contents: Site and Activity Description

A. The SWPPP must identify all operators for the project site, and the areas of the site over which each operator has control.

B. The SWPPP must describe the nature of the construction activity, including:

1. The function of the project (e.g., low density residential, shopping mall, highway, etc.);
2. The intended sequence and timing of activities that disturb soils at the site;
3. Estimates of the total area expected to be disturbed by excavation, grading, or other construction activities, including dedicated off-site borrow and fill areas; and
4. A general location map (e.g., USGS quadrangle map, a portion of a city or county map, or other map) with enough detail to identify the location of the construction site and waters of the United States within one mile of the site.

C. The SWPPP must contain a legible site map, showing the entire site, identifying:

1. Direction(s) of storm water flow and approximate slopes anticipated after major grading activities;
2. Areas of soil disturbance and areas that will not be disturbed;
3. Locations of major structural and nonstructural BMPs identified in the SWPPP;
4. Locations where stabilization practices are expected to occur;
5. Locations of off-site material, waste, borrow or equipment storage areas;
6. Locations of all waters of the United States (including wetlands);
7. Locations where storm water discharges to a surface water; and
8. Areas where final stabilization has been accomplished and no further construction-phase permit requirements apply.

D. The SWPPP must describe and identify the location and description of any storm water discharge associated with industrial activity other than construction at the site. This includes storm water discharges from dedicated asphalt plants and dedicated concrete plants, that are covered by this permit.

### 3.4 Pollution Prevention Plan Contents: Controls to Reduce Pollutants

A. The SWPPP must include a description of all pollution control measures (i.e., BMPs) that will be implemented as part of the construction activity to control pollutants in storm water discharges. For each major activity identified in the project description the SWPPP must clearly describe appropriate control measures, the general sequence during the construction process in which the measures will be implemented, and which operator is responsible for the control measure's implementation.

B. The SWPPP must include a description of interim and permanent stabilization practices for the site, including a schedule of when the practices will be implemented. Site plans should ensure that existing vegetation is preserved where possible and that disturbed portions of the site are stabilized. Use of impervious surfaces for stabilization should be avoided.

C. The following records must be maintained as part of the SWPPP:

   1. Dates when major grading activities occur;
   2. Dates when construction activities temporarily or permanently cease on a portion of the site; and
   3. Dates when stabilization measures are initiated.

D. The SWPPP must include a description of structural practices to divert flows from exposed soils, retain/detain flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Placement of structural practices in floodplains must be avoided to the degree practicable.

E. The SWPPP must include a description of all post-construction storm water management measures that will be installed during the construction process to control pollutants in storm water discharges after construction operations have been completed. Structural measures should be placed on upland soils to the degree practicable. Such measures must be designed and installed in compliance with applicable federal, local, state or tribal requirements.

F. The SWPPP must describe measures to prevent the discharge of solid materials, including building materials, to waters of the United States, except as authorized by a permit issued under section 404 of the CWA.

G. The SWPPP must describe measures to minimize, to the extent practicable, off-site vehicle tracking of sediments onto paved surfaces and the generation of dust.

H. The SWPPP must include a description of construction and waste materials expected to be stored on-site with updates as appropriate. The SWPPP must also include a description of controls, including storage practices, to minimize exposure of the materials to storm water, and spill prevention and response practices.

I. The SWPPP must include a description of pollutant sources from areas other than construction (including storm water discharges from dedicated asphalt plants and dedicated concrete plants), and a description of controls and measures that will be implemented at those sites to minimize pollutant discharges.

### 3.5 Non-Storm Water Discharge Management

The SWPPP must identify all allowable sources of non-storm water discharges listed in Subpart 1.3.B of this permit, except for flows from fire fighting activities, that are combined with storm water discharges associated with construction activity at the site. Non-storm water discharges should be eliminated or reduced to the extent feasible. The SWPPP must identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

### 3.6 Maintenance of Controls

A. All erosion and sediment control measures and other protective measures identified in the SWPPP must be maintained in effective operating condition. If site inspections required by Subpart 3.10 identify BMPs that are not operating effectively, maintenance must be performed as soon as possible and before the next storm event whenever practicable to maintain the continued effectiveness of storm water controls.

B. If existing BMPs need to be modified or if additional BMPs are necessary for any reason, implementation must be completed before the next storm event whenever practicable. If implementation before the next storm event is impracticable, the situation must be documented in the SWPPP and alternative BMPs must be implemented as soon as possible.

C. Sediment from sediment traps or sedimentation ponds must be removed when design capacity has been reduced by 50 percent.

### 3.7 Documentation of Permit Eligibility Related to Endangered Species

The SWPPP must include documentation supporting a determination of permit eligibility with regard to Endangered Species, including:

A. Information on whether federally-listed endangered or threatened species, or federally-designated critical habitat may be in the project area;

B. Whether such species or critical habitat may be adversely affected by storm water discharges or storm water discharge-related activities from the project;

C. Results of the Appendix C listed species and critical habitat screening determinations;

D. Confirmation of delivery of NOI to EPA or to EPA's electronic NOI system. This may include an overnight, express or registered mail receipt acknowledgment; or electronic acknowledgment from EPA's electronic NOI system.

E. Any correspondence for any stage of project planning between the U.S. Fish and Wildlife Service (FWS), EPA, the U.S. National Marine Fisheries Service (NMFS), or others and you regarding listed species and critical habitat, including any notification that delays your authorization to discharge under this permit;

F. A description of measures necessary to protect federally-listed endangered or threatened species, or federally-designated critical habitat. The permittee must describe and implement such measures to maintain eligibility for coverage under this permit.

### 3.8 Copy of Permit Requirements

Copies of this permit and of the signed and certified NOI form that was submitted to EPA must be included in the SWPPP. Also, upon receipt, a copy of the letter from the EPA Storm Water Notice Processing Center notifying you of their receipt of your administratively complete NOI must also be included as a component of the SWPPP.

### 3.9 Applicable State, Tribal, or Local Programs

The SWPPP must be consistent with all applicable federal, state, tribal, or local requirements for soil and erosion control and storm water management, including updates to the SWPPP as necessary to reflect any revisions to applicable federal, state, tribal, or local requirements for soil and erosion control.

### 3.10 Inspections

A. Inspections must be conducted in accordance with one of the two schedules listed below. You must specify in your SWPPP which schedule you will be following.

   1. At least once every 7 calendar days, OR
   2. At least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.

B Inspection frequency may be reduced to at least once every month if:

   1. The entire site is temporarily stabilized,
   2. Runoff is unlikely due to winter conditions (e.g., site is covered with snow, ice, or the ground is frozen), or
   3. Construction is occurring during seasonal arid periods in arid areas and semi-arid areas.

C. A waiver of the inspection requirements is available until one month before thawing conditions are expected to result in a discharge if all of the following requirements are met:

   1. The project is located in an area where frozen conditions are anticipated to continue for extended periods of time (i.e., more than one month);
   2. Land disturbance activities have been suspended; and
   3. The beginning and ending dates of the waiver period are documented in the SWPPP.

D. Inspections must be conducted by qualified personnel (provided by the operator or cooperatively by multiple operators). "Qualified personnel" means a person knowledgeable in the principles and practice of erosion and sediment controls who possesses the skills to assess conditions at the construction site that could impact

storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the construction activity.

E. Inspections must include all areas of the site disturbed by construction activity and areas used for storage of materials that are exposed to precipitation. Inspectors must look for evidence of, or the potential for, pollutants entering the storm water conveyance system. Sedimentation and erosion control measures identified in the SWPPP must be observed to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to waters of the United States, where accessible. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.

F. Utility line installation, pipeline construction, and other examples of long, narrow, linear construction activities may limit the access of inspection personnel to the areas described in Subpart 3.10.E above. Inspection of these areas could require that vehicles compromise temporarily or even permanently stabilized areas, cause additional disturbance of soils, and increase the potential for erosion. In these circumstances, controls must be inspected on the same frequencies as other construction projects, but representative inspections may be performed. For representative inspections, personnel must inspect controls along the construction site for 0.25 mile above and below each access point where a roadway, undisturbed right-of-way, or other similar feature intersects the construction site and allows access to the areas described above. The conditions of the controls along each inspected 0.25 mile segment may be considered as representative of the condition of controls along that reach extending from the end of the 0.25 mile segment to either the end of the next 0.25 mile inspected segment, or to the end of the project, whichever occurs first.

G. For each inspection required above, you must complete an inspection report. At a minimum, the inspection report must include:

1. The inspection date;
2. Names, titles, and qualifications of personnel making the inspection;
3. Weather information for the period since the last inspection (or since commencement of construction activity if the first inspection) including a best estimate of the beginning of each storm event, duration of each storm event, approximate amount of rainfall for each storm event (in inches), and whether any discharges occurred;
4. Weather information and a description of any discharges occurring at the time of the inspection;
5. Location(s) of discharges of sediment or other pollutants from the site;
6. Location(s) of BMPs that need to be maintained;
7. Location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location;
8. Location(s) where additional BMPs are needed that did not exist at the time of inspection; and
9. Corrective action required including any changes to the SWPPP necessary and implementation dates.

A record of each inspection and of any actions taken in accordance with this Part must be retained as part of the SWPPP for at least three years from the date that permit coverage expires or is terminated. The inspection reports must identify any incidents of non-compliance with the permit conditions. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the construction project or site is in compliance with the SWPPP and this permit. The report must be signed in accordance with Appendix G, Section 11 of this permit.

### 3.11 Maintaining an Updated Plan

A. The SWPPP, including the site map, must be amended whenever there is a change in design, construction, operation, or maintenance at the construction site that has or could have a significant effect on the discharge of pollutants to the waters of the United States that has not been previously addressed in the SWPPP.

B. The SWPPP must be amended if during inspections or investigations by site staff, or by local, state, tribal or federal officials, it is determined that the discharges the SWPPP is ineffective in eliminating or significantly minimizing pollutants in storm water discharges from the construction site.

C. Based on the results of an inspection, the SWPPP must be modified as necessary to include additional or modified BMPs designed to correct problems identified. Revisions to the SWPPP must be completed within

seven (7) calendar days following the inspection. Implementation of these additional or modified BMPs must be accomplished as described in Subpart 3.6.B.

### 3.12 Signature, Plan Review and Making Plans Available

A. A copy of the SWPPP (including a copy of the permit), NOI, and acknowledgement letter from EPA must be retained at the construction site (or other location easily accessible during normal business hours to EPA, a state, tribal or local agency approving sediment and erosion plans, grading plans, or storm water management plans; local government officials; the operator of a municipal separate storm sewer receiving discharges from the site; and representatives of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service) from the date of commencement of construction activities to the date of final stabilization. If you have day-to-day operational control over SWPPP implementation, you must have a copy of the SWPPP available at a central location on-site for the use of all those identified as having responsibilities under the SWPPP whenever they are on the construction site. If an on-site location is unavailable to store the SWPPP when no personnel are present, notice of the plan's location must be posted near the main entrance at the construction site.

B. A sign or other notice must be posted conspicuously near the main entrance of the construction site. If displaying near the main entrance is infeasible, the notice can be posted in a local public building such as the town hall or public library. The sign or other notice must contain the following information:

   1. A copy of the completed Notice of Intent as submitted to the EPA Storm Water Notice Processing Center; and

   2. If the location of the SWPPP or the name and telephone number of the contact person for scheduling SWPPP viewing times has changed (i.e., is different than that submitted to EPA in the NOI), the current location of the SWPPP and name and telephone number of a contact person for scheduling viewing times.

   For linear projects, the sign or other notice must be posted at a publicly accessible location near the active part of the construction project (e.g., where a pipeline project crosses a public road).

C. SWPPPs must be made available upon request by EPA; a state, tribal or local agency approving sediment and erosion plans, grading plans, or storm water management plans; local government officials; the operator of a municipal separate storm sewer receiving discharges from the site; and representatives of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service to the requestor. The copy of the SWPPP that is required to be kept on-site or locally available must be made available, in its entirety, to the EPA staff for review and copying at the time of an on-site inspection.

D. All SWPPPs must be signed and certified in accordance with Appendix G, Section 11.

### 3.13 Management Practices

A. All control measures must be properly selected, installed, and maintained in accordance with any relevant manufacturer specifications and good engineering practices. If periodic inspections or other information indicates a control has been used inappropriately, or incorrectly, the operator must replace or modify the control for site situations as soon as practicable.

B. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts.

C. Litter, construction debris, and construction chemicals that could be exposed to storm water must be prevented from becoming a pollutant source in storm water discharges.

D. Except as provided below, stabilization measures must be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.

   1. Where stabilization by the 14th day is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practicable.

   2. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 14 days, temporary stabilization measures do not have to be initiated on that portion of the site.

3. In arid, semiarid, and drought-stricken areas where initiating perennial vegetative stabilization measures is not possible within 14 days after construction activity has temporarily or permanently ceased, final vegetative stabilization measures must be initiated as soon as practicable.

E. A combination of sediment and erosion control measures are required to achieve maximum pollutant removal.

1. Sediment Basins: For common drainage locations that serve an area with 10 or more acres disturbed at one time, a temporary (or permanent) sediment basin that provides storage for a calculated volume of runoff from the drainage area from a 2-year, 24-hour storm, or equivalent control measures, must be provided where attainable until final stabilization of the site. Where no such calculation has been performed, a temporary (or permanent) sediment basin providing 3,600 cubic feet of storage per acre drained, or equivalent control measures, must be provided where attainable until final stabilization of the site. When computing the number of acres draining into a common location, it is not necessary to include flows from offsite areas and flows from on-site areas that are either undisturbed or have undergone final stabilization where such flows are diverted around both the disturbed area and the sediment basin. In determining whether installing a sediment basin is attainable, the operator may consider factors such as site soils, slope, available area on-site, etc. In any event, the operator must consider public safety, especially as it relates to children, as a design factor for the sediment basin, and alternative sediment controls must be used where site limitations would preclude a safe design.
2. For drainage locations which serve 10 or more disturbed acres at one time and where a temporary sediment basin or equivalent controls is not attainable, smaller sediment basins and/or sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions).
3. For drainage locations serving less than 10 acres, smaller sediment basins and/or sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions) of the construction area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm or 3,600 cubic feet of storage per acre drained is provided.

F. Velocity dissipation devices must be placed at discharge locations and along the length of any outfall channel to provide a non-erosive flow velocity from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., no significant changes in the hydrological regime of the receiving water).

### 3.14 Documentation of Permit Eligibility Related to Total Maximum Daily Loads

The SWPPP must include documentation supporting a determination of permit eligibility with regard to waters that have an EPA-established or approved TMDL, including:

A. Identification of whether your discharge is identified, either specifically or generally, in an EPA-established or approved TMDL and any associated allocations, requirements, and assumptions identified for your discharge;

B. Summaries of consultation with State or Federal TMDL authorities on consistency of SWPPP conditions with the approved TMDL, and

C. Measures taken by you to ensure that your discharge of pollutants from the site is consistent with the assumptions and requirements of the EPA-established or approved TMDL, including any specific wasteload allocation that has been established that would apply to your discharge.

See section 1.3.C.5 for further information on determining permit eligibility related to TMDLs.

## PART 4: SPECIAL CONDITIONS, MANAGEMENT PRACTICES AND OTHER NON-NUMERIC LIMITATIONS

### 4.1 Continuation of the Expired General Permit

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedure Act and remain in force and effect. If you were granted permit coverage prior to the expiration date, you will automatically remain covered by the continued permit until the earliest of:

A. Reissuance or replacement of this permit, at which time you must comply with the conditions of the new permit to maintain authorization to discharge; or

B. Your submittal of a Notice of Termination; or

C. Issuance of an individual permit for the project's discharges; or

D. A formal permit decision by EPA to not reissue this general permit, at which time you must seek coverage under an alternative general permit or an individual permit.

### 4.2 Requiring an Individual Permit or an Alternative General Permit

A. EPA may require you to apply for and/or obtain either an individual NPDES permit or an alternative NPDES general permit. Any interested person may petition EPA to take action under this paragraph. If EPA requires you to apply for an individual NPDES permit, EPA will notify you in writing that a permit application is required. This notification will include a brief statement of the reasons for this decision and an application form. In addition, if you are an existing permittee covered under this permit, the notice will set a deadline to file the application, and will include a statement that on the effective date of issuance or denial of the individual NPDES permit or the alternative general permit as it applies to you, coverage under this general permit will automatically terminate. Applications must be submitted to EPA at the applicable EPA Regional offices listed in Appendix B of this permit. EPA may grant additional time to submit the application upon your request. If you are covered under this permit and you fail to submit in a timely manner an individual NPDES permit application as required by EPA, then the applicability of this permit to you is automatically terminated at the end of the day specified by EPA as the deadline for application submittal.

B. You may request to be excluded from the coverage of this general permit by applying for an individual permit. In such a case, you must submit an individual application in accordance with the requirements of 40 CFR §122.26(c)(1)(ii), with reasons supporting the request, to EPA at the applicable EPA Regional office listed in Appendix B of this permit. The request may be granted by issuance of an individual permit or an alternative general permit if your reasons are adequate to support the request.

C. When an individual NPDES permit is issued to you, who are otherwise subject to this permit, or you are authorized to discharge under an alternative NPDES general permit, the applicability of this permit to you is automatically terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. If you, who are otherwise subject to this permit, are denied an individual NPDES permit or an alternative NPDES general permit, the applicability of this permit to you is automatically terminated on the date of such denial, unless otherwise specified by EPA.

### 4.3 Releases in Excess of Reportable Quantities

The discharge of hazardous substances or oil in storm water discharges from the construction site must be prevented or minimized in accordance with the SWPPP. This permit does not relieve you of the federal reporting requirements of 40 CFR Part 110, 40 CFR Part 117 and 40 CFR Part 302 relating to spills or other releases of oils or hazardous substances.

Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117 or 40 CFR Part 302, occurs during a 24-hour period:

- you must provide notice to the National Response Center (NRC) (800–424–8802; in the Washington, DC, metropolitan area call 202–426–2675) in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117 and 40 CFR Part 302 as soon as site staff have knowledge of the discharge; and
- you must modify the SWPPP as required under Subpart 3.11 within 7 calendar days of knowledge of the release to: provide a description of the release, the circumstances leading to the release, and the date of the release. Plans must identify measures to prevent the reoccurrence of such releases and to respond to such releases.

### 4.4 Spills

This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill.

### 4.5 Attainment of Water Quality Standards After Authorization

A. You must select, install, implement and maintain BMPs at your construction site that minimize pollutants in the discharge as necessary to meet applicable water quality standards. In general, except in situations explained in Subpart 4.5.B below, your SWPPP developed, implemented, and updated consistent with Part 3.0 is considered as stringent as necessary to ensure that your discharges do not cause or contribute to an excursion above any applicable water quality standard.

B. At any time after authorization, EPA may determine that your storm water discharges may cause, have reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. If such a determination is made, EPA will require you to:

   i. Develop a supplemental BMP action plan describing SWPPP modifications in accordance with Subpart 3.11 to address adequately the identified water quality concerns;

   ii. Submit valid and verifiable data and information that are representative of ambient conditions and indicate that the receiving water is attaining water quality standards; or

   iii. Cease discharges of pollutants from construction activity and submit an individual permit application according to Subpart 4.2.

   All written responses required under this part must include a signed certification consistent with Appendix G, Section 11.

## PART 5: TERMINATION OF COVERAGE

### 5.1 Requirements

You may only submit a Notice of Termination (NOT) after one or more of the following conditions have been met:

A. Final stabilization has been achieved on all portions of the site for which you are responsible;

B. Another operator has assumed control according to Appendix G, Section 11.C over all areas of the site that have not been finally stabilized;

C. Coverage under an individual or alternative general NPDES permit has been obtained; or

D. For residential construction only, temporary stabilization has been completed and the residence has been transferred to the homeowner.

The NOT must be submitted within 30 days of one of the above conditions being met. Authorization to discharge terminates at midnight of the day the NOT is signed.

### 5.2 Submitting a Notice of Termination

It is your responsibility to submit a complete and accurate Notice of Termination (NOT), using the form provided in Appendix F (or a photocopy thereof) available at www.epa.gov/npdes/stormwater/cgp. If EPA notifies dischargers (either directly, by public notice, or by making information available on the Internet) of other NOT form options (e.g., electronic submission), you may take advantage of those options to satisfy the requirements of Part 5.

A. The Notice of Termination must include the following information:

   1. The NPDES permit tracking number for the storm water discharge;

   2. The basis for submission of the NOT, including: final stabilization has been achieved on all portions of the site for which the permittee is responsible; another operator/permittee has assumed control over all areas of the site that have not been finally stabilized; coverage under an alternative NPDES permit has been obtained; or, for residential construction only, temporary stabilization has been completed and the residence has been transferred to the homeowner;

   3. You, the operator's name, address, telephone number and your organization's Employer Identification Number (EIN) as established by the U.S. Internal Revenue Service;

   4. The name of the project and address (or a description of location if no street address is available) of the construction site for which the notification is submitted; and

   5. A certification statement, signed and dated by an authorized representative as defined in Appendix G, Section 11 and the name and title of that authorized representative.

### 5.3 Where to Submit

A. All NOTs must be submitted to one of the following addresses:

For Regular U.S. Mail Delivery:
EPA Storm Water Notice Processing Center
Mail Code 4203M
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:
EPA Storm Water Notice Processing Center
Room 7420
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

B. In lieu of Subpart 5.3.A, you can submit your NOT to EPA using EPA's electronic system (i.e., eNOI), when available. Check www.epa.gov/npdes/stormwater/cgp for updates.

## PART 6: RETENTION OF RECORDS

Copies of the SWPPP and all documentation required by this permit, including records of all data used to complete the NOI to be covered by this permit, must be retained for at least three years from the date that permit coverage expires or is terminated. This period may be extended by request of EPA at any time.

## PART 7: REOPENER CLAUSE

### 7.1 Procedures for Modification or Revocation

Permit modification or revocation will be conducted according to 40 CFR §122.62, §122.63, §122.64 and §124.5.

### 7.2 Water Quality Protection

If there is evidence indicating that the storm water discharges authorized by this permit cause, have the reasonable potential to cause or contribute to an excursion above any applicable water quality standard, you may be required to obtain an individual permit in accordance with Part 4.5 of this permit, or the permit may be modified to include different limitations and/or requirements.

### 7.3 Timing of Permit Modification

EPA may elect to modify the permit prior to its expiration (rather than waiting for the new permit cycle) to comply with any new statutory or regulatory requirements, such as for effluent limitation guidelines, that may be promulgated in the course of the current permit cycle.

## PART 8: STANDARD PERMIT CONDITIONS

The federal regulations require that the Standard Conditions provisioned at 40 CFR §122.41 be applied to all NPDES permits. You are required to comply with those Standard Conditions, details of which are provided in Appendix G.

## PART 9: PERMIT CONDITIONS APPLICABLE TO SPECIFIC STATES, INDIAN COUNTRY, OR TERRITORIES

The provisions of this Part provide modifications or additions to the applicable conditions of this permit to reflect specific additional conditions required as part of the state or tribal CWA Section 401 certification process, or the Coastal Zone Management Act (CZMA) certification process, or as otherwise established by the permitting authority. The specific additional revisions and requirements only apply to activities in those specific states, Indian country, and federal facilities. States, Indian country, and federal facilities not included in this Part do not have any modifications or additions to the applicable conditions of this permit.

State Coastal Zone Management Act (CZMA) certification was not received from Massachusetts in time for that state to be included in this permit. As such, large construction activities in Massachusetts covered under the 1998 CGP will continue to be covered under that permit. EPA will reissue the CGP for Massachusetts for large and small construction activities at a later date, and will include any state-specific modifications or additions as part of the State's CZMA certification process.

A. Region 1

1. MAR100000: Commonwealth of Massachusetts, except Indian country

   a. State Water Quality Statutes, Regulations, and Policies:

      i. You must comply with the Massachusetts Clean Waters Act (Ch. 21, ss. 23-56).

      ii. You must comply with the conditions in 314 CMR 4.00 - Surface Water Quality Standards.

      iii. You must comply with the conditions in 314 CMR 3.00 - Surface Water Discharge Permit Program.

      iv. You must comply with the Wetlands Protection Act, Ch. 131, s. 40 and its regulations, 310 CMR 10.00 and any order of Conditions issued by a Conservation Commission or a Superseding Order of Conditions issued by the Massachusetts Department of Environmental Protection.

   b. Department of Environmental Protection Storm Water Management Policy:

      i. You must comply with the Massachusetts Storm Water Management Policy, March 1997 and applicable Storm Water Performance Standards, as prescribed by state regulations promulgated under the authority of the Massachusetts Clean Waters Act, MGL Ch. 21, ss. 23-56 and the Wetlands Protection Act Ch. 131, s. 40.

   c. Other State Environmental Laws, Regulations, Policies:

      i. You must comply with the Massachusetts Endangered Species Act [MESA] (MGL Ch. 313A and regulations at 321 CMR 10.00) and any actions undertaken to comply with this storm water permit, shall not result in non-compliance with the MESA.

      ii. You must not conduct activities under this permit that will interfere with implementation of mosquito control work conducted in accordance with Chapter 252 including, s. 5A thereunder and DEP Guideline Number BRP G01-02, West Nile Virus Application of Pesticides to Wetland Resource Areas and Buffer Zones, and Public Water Systems.

   d. Other Department Directives:

      i. The Department may require you to perform water quality monitoring during the permit term if monitoring is necessary for the protection of public health or the environment as designated under the authority at 314 CMR 3.00.

      ii. The Department may require you to provide measurable verification of the effectiveness of BMPs and other control measures in your management program, including water quality monitoring.

      iii. The Department has determined that compliance with this permit does not protect you from enforcement actions deemed necessary by the Department under its associated regulations to address an imminent threat to the public health or a significant adverse environmental impact which results in a violation of the Massachusetts Clean Waters Act, Ch. 21, ss. 26-53.

      iv. The Department reserves the right to modify the 401 Water Quality Certification if any changes, modifications or deletions are made to the general permit. In addition, the Department reserves the right to add and/or alter the terms and conditions of its 401 Water Quality Certification to carry out its responsibilities during the term of this permit with respect to water quality, including any revisions to 314 CMR 4.00, Surface Water Quality Standards.

   e. Permit Compliance

      i. Should any violation of the Massachusetts Surface Water Quality Standards (314 CMR 4.00) or the conditions of this certification occur, the Department will direct you to correct the violations(s). The Department has the right to take any action as authorized by the General Laws of the Commonwealth to address the violation of this permit or the MA Clean Waters Act and the regulations promulgated thereunder. Substantial civil and criminal penalties are authorized under MGL Ch. 21, s. 42 for discharging into Massachusetts' waters in violation of an order or permit issued by this Department. This certification does not relieve the you of the duty to comply with other applicable Massachusetts statutes and regulations.

2. NHR100000: State of New Hampshire

   a. If you disturb 100,000 square feet or more of contiguous area, you must also apply for a "Significant Alteration of the Terrain Permit from DES pursuant to RSA 485-A:17 and Env-Ws 415. This requirement

applies to the disturbances of only 50,000 square feet when construction occurs within the protected shoreline (see RSA 483-B and Env-Ws 1400).

b. You must determine that any excavation dewatering discharges are not contaminated before they will be authorized as an allowable non-storm water discharge under this permit (see Subpart 1.3.B). The water is considered uncontaminated if there is no groundwater contamination within 1,000 feet of the discharge. Information on groundwater contamination can be generated over the Internet via the NHDES web site www.des.state.nh.us (One Stop Data Retrieval, Onestop Master Site Table). The web site also provides E-mail access to an NHDES Site Remediation Contact to answer questions about using the Web site.

c. You must treat any uncontaminated excavation dewatering discharges as necessary to remove suspended solids and turbidity. The discharges must be sampled at a location prior to mixing with storm water at least once per week during weeks when discharges occur. The samples must be analyzed for total suspended solids (TSS) and must meet monthly average and maximum daily TSS limitations of 50 milligrams per liter (mg/L) and 100 mg/L, respectively. TSS (a.k.a. Residue, Nonfilterable) analysis and sampling must be performed in accordance with Tables IB (parameter, units and method) and II (required containers, preservation techniques and holding times) in 40 CFR 136.3 (see: http://www.access.gpo.gov/nara/cfr/waisidx_02/40cfr136_02.html). Records of any sampling and analysis must be maintained and kept with the SWPPP for at least three years after final site stabilization.

d. During site design and preparation of the storm water pollution prevention plan (SWPPP), you must consider opportunities for groundwater recharge using on-site infiltration. The SWPPP must include a description of any on-site infiltration that will be installed as a post construction storm water management measure (see Subpart 3.4.E) or reasons for not employing such measures. For design considerations for infiltration measures see the September 2001 DES publication titled "Managing Storm Water as a Valuable Resource" which is available online at: www.des.state.nh.us/StormWater/construction.htm. Loss of annual recharge to groundwater should be minimized through the use of infiltration measures wherever feasible.

B. Region 2

1. NYR10000I: Indian country within the State of New York

St. Regis Mohawk Territory at Akwesasne

a. NOIs shall also be submitted to the St. Regis Mohawk Tribe, Environment Division, at the same time they are submitted to EPA, at the following address:

St. Regis Mohawk Tribe, Environment Division
412 State Route 37
Akwesasne, NY 13655
Attn: Clean Water Program Manager.

b. In addition, Storm Water Pollution Prevention Plans (and any updates or amendments thereto) must be submitted to the Environment Division and to the Tribal Historic Preservation Officer at least thirty (30) days in advance of corresponding Notices of Intent. This will allow the Environment Division and the THPO to make an informed determination as to whether any proposed discharges might adversely impact the quality of its surface or groundwater, or disturb sites of historic or cultural significance to the Tribe that may be listed, or eligible to be listed, on the National Register of Historic Places.

c. Within 10 days of the inspection required under Subpart 3.10.G of this permit, the permittee shall provide a copy of the Inspection Report to the Environment Division.

C. Region 6

1. NMR150000: The State of New Mexico, except Indian country

*NOTE: Conditions in the New Mexico Environment Department (NMED) certification of the permit resulted in permit requirements adding further restrictions on eligibility for discharges to Outstanding National Resource Waters (ONRWs), expanding on requirements for pollution prevention plans, and limiting options provided in the permit related to inspection frequency and final stabilization.*

a. In addition to all other provisions of this permit, operators who intend to obtain authorization under this permit for all new storm water discharges must satisfy the conditions in Subpart 9.C.1.a.i, unless a TMDL has been established for the receiving stream which specifies a waste load allocation (WLA) for

construction storm water discharges or the receiving stream is a Tier 3 water, in which case Subpart 9.C.1.a.ii applies.

i. The operator must include a Sediment Control Plan (SCP) as a part of the Storm Water Pollution Prevention Plan (SWPPP). The SCP must include site-specific interim and permanent stabilization, managerial, and structural solids, erosion, and sediment control BMPs and/or other controls that are designed to prevent an increase in the sediment yield and flow velocity from pre-construction, undisturbed conditions. This applies to discharges both during construction and after construction operations have been completed. The SCP must identify, and document the rationale for selecting these BMPs and/or other controls. The SCP must also describe design specifications, construction specifications, maintenance schedules (including a long term maintenance plan), criteria for inspections, as well as expected performance and longevity of the BMPs. Using appropriate soil loss prediction models (such as SEDCAD 4.0, RUSLE, SEDIMONT II, MULTISED, etc.), the operator(s) must demonstrate, and include documentation in the SCP, that implementation of the site-specific practices will result in sediment yields that will not be greater than the sediment yield levels from pre-construction, undisturbed conditions. The SCP must be prepared in accordance with good engineering practices and certified by a registered professional engineer. The operator(s) must design, implement, and maintain BMPs in the manner specified in the SCP and the SWPPP.

ii. Operators are not eligible to obtain authorization under this permit for all new storm water discharges to outstanding national resource waters (ONRWs) (also referred to as "Tier 3: waters). According to the Antidegradation Policy at Paragraph 3 of Subsection A of 20.6.4.8 NMAC, in part, "ONRWs may include, but are not limited to, surface waters of the state within national and state monuments, parks, wildlife refuges, waters of exceptional recreational or ecological significance, and waters identified under the Wild and Scenic Rivers Act." No ONRWs exist at the time this permit is being finalized; however, during the term of the permit, if a receiving water is designated as an ONRW, the operator must obtain an individual permit for storm water discharges from large and small construction activities.

b. Storm water discharges associated with industrial activity to Clean Water Act section 303(d) waters as well as all other "waters of the State" that the New Mexico Environment Department, Surface Waters Quality Bureau (SWQB) has determined to be or may reasonably be expected to be contributing to a violation of a water quality standard and/or that do not comply with the applicable anti-degradation provisions of the State's WQS are not authorized by this permit.

*Note: Upon receipt of this determination, NMED anticipates that, within a reasonable period of time, EPA will notify the general permittee to apply for and obtain an individual NPDES permit for these discharges per 40 CFR Part 122.28(b)(3).*

c. Inspections required under Subpart 3.10 must be conducted at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. The option for inspections at least once per 7 calendar days is not available. The Inspection Waivers provided in Parts 3.10.B and C still apply.

d. Permittees can not use temporary erosion controls as described in item 3 of the Appendix A definition of "Final Stabilization"as a method for final stabilization under the permit.

e. Signed copies of discharge monitoring reports, individual permit applications, and all other reports required by the permit to be submitted, shall also be sent to:

Program Manager
Point Source Regulation Section
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, NM 87502

2. NMR15000I: Indian country within the State of New Mexico, except Navajo Reservation Lands that are covered under Arizona permit AZR10000I and Ute Mountain Reservation Lands that are covered under Colorado permit COR10000I

a. *Pueblo of Acoma* The following conditions apply only to discharges on the Pueblo of Acoma.

i. A copy of the storm water pollution prevention plan, Notice of Intent, and Notice of Termination must be submitted to the Haaku Water Office at the address below. The pollution prevention plan must be submitted to the Pueblo at least thirty (30) days in advance of submitting the Notice of Intent to EPA.

HAAKU WATER OFFICE
Pueblo of Acoma
P.O. Box 309
Pueblo of Acoma, NM 87034

b. *Pueblo of Isleta* The following conditions apply only to discharges on the Pueblo of Isleta.

i. Subpart 1.3.C.4, (Eligibility, Limitations on Coverage) first sentence, is revised to read: "This permit does not authorize discharges that EPA or the Pueblo of Isleta, prior to authorization under this permit, determines will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard or impairment of a designated use of receiving waters."

ii. Subpart 2.4. (Where to Submit) is amended to add the following section (2.4.C):

C. Copies of all Notices of Intent submitted to EPA must also be sent concurrently to the Pueblo of Isleta at the following address. Discharges are not authorized by this permit unless an accurate and complete Notice of Intent has been submitted to the Pueblo of Islet

| Regular U.S. Mail Delivery | OR | Overnight/Express Mail Delivery |
|---|---|---|
| Environment Department<br>Pueblo of Isleta<br>P.O. Box 1270<br>Isleta, NM 87022 | | Environment Department<br>Building L<br>11000 Broadway, SE<br>Albuquerque, NM 87105 |

iii. Part 2 (Authorizations for Discharges of Storm Water from Construction Activity), second sentence, is amended to read: " Discharges are not authorized if your NOI is incomplete or inaccurate, if you failed to submit a copy of the NOI to the Pueblo of Isleta, or if you were never eligible for permit coverage.

iv. Subpart 3.4. (Pollution Prevention Plan Contents: Controls to Reduce Pollutants), section A, last sentence, is amended to read: "For each major activity identified in the project description the SWPPP must clearly describe appropriate control measures, the general sequence during the construction process in which the measures will be implemented, and which operator is responsible for the control measure's implementation and maintenance."

v. Subpart 3.8 (Copy of Permit Requirements), first sentence, is revised to read "Copies of this permit and of the signed and certified NOI form that was submitted to the Pueblo of Isleta and EPA must be included in the SWPPP."

vi. Subpart 3.10.(Inspections), section A is revised to read "Inspections must be conducted at least once every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater."

vii. Subpart 3.10. (Inspections), section G, last paragraph, is amended to add: "Copies of inspection reports that identify incidents of noncompliance shall be sent to Pueblo of Isleta at the address listed in Subpart 2.4.C." (See above)

viii. Subpart 3.12. (Signature, Plan Review and Making Plans Available), section A, first sentence is amended to read: "A copy of the SWPPP (including a copy of the permit) must be retained at the construction site (or other location easily accessible during normal business hours to the Pueblo of Isleta's Environmental Department, EPA, a state, tribal or local agency approving sediment and erosion plans, grading plans, or storm water management plans; local government officials; the operator of a municipal separate storm sewer receiving discharges from the site; and representatives of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service) from the date of commencement of construction activities to the date of final stabilization."

ix. Subpart 3.12. (Signature, Plan Review and Making Plans Available), section C. is amended to read: "SWPPPs must be made available upon request by EPA; representatives of the Pueblo of Isleta Environment Department, a state, tribal or local agency approving sediment and erosion plans, grading plans, or storm water management plans; local government officials; the operator of a municipal separate storm sewer receiving discharges from the site; and representatives of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service to the requestor. The copy of the

SWPPP that is required to be kept on-site or locally available must be made available, in its entirety, to the EPA staff and the Pueblo of Isleta's Environment Department staff for review and copying at the time of an on-site inspection.

x. Subpart 3.13. (Management Practices), section A is amended to add: "Erosion and sediment controls shall be designed to retain sediment on-site."

xi. Subpart 4.3 (Releases in Excess of Reportable Quantities), first bullet is amended to read: "you must provide notice to the Pueblo of Isleta Environment Department (505-869-5748) and the National Response Center (NRC) (800–424–8802; in the Washington, DC, metropolitan area call 202–426–2675) in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117 and 40 CFR Part 302 as soon as site staff have knowledge of the discharge; and"

xii. Subpart 4.5 (Attainment of Water Quality Standards After Authorization), is amended to add the following fourth bullet:

"You must provide the Pueblo of Isleta, at the address listed in Subpart 2.4.C, with a copy of the EPA notification, the supplemental action plan, data and certification required by EPA."

xiii. Subpart 5.3. (Where to Submit) is amended to add the following section (5.3.C):

C. Copies of all Notices of Termination submitted to EPA must also be sent concurrently to the Pueblo of Isleta at the following address.

| Regular U.S. Mail Delivery | OR | Overnight/Express Mail Delivery |
|---|---|---|
| Environment Department<br>Pueblo of Isleta<br>P.O. Box 1270<br>Isleta, NM 87022 | | Environment Department<br>Building L<br>11000 Broadway, SE<br>Albuquerque, NM 87105 |

xiv. Any correspondence, other than NOIs and NOTs, with the Pueblo of Isleta concerning storm water discharges authorized by this permit shall sent one of the addresses in Subpart 5.3.C (see above).

xv. Appendix G, Section 9, first sentence is amended to read:

"You must allow the Pueblo of Isleta's Environment Department, EPA, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:"

xvi. Appendix G, Section 12, subsections A, B, C, F, G and H are amended to require that when you must notify EPA of an event (e.g., planned changes, anticipated noncompliance, transfers, required reporting due to potential adverse effects or environmental impacts or other noncompliance matters), the Pueblo of Isleta must also be notified.

xvii. Parties wishing to apply for an Equivalent Analysis Waiver (see Appendix D, Section C) must provide a copy of the waiver analysis to the Pueblo of Isleta at the address specified in Subpart 5.3.C (See above) at the time it is submitted to EPA.

c. *Pueblo of San Juan.* The following conditions apply only to discharges on the Pueblo of San Juan.

i. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) must be provided to the Pueblo at the time it is provided to the Environmental Protection Agency, at the following address:

Office of Environmental Affairs
Pueblo of San Juan
P.O. Box 717
San Juan, NM 87566

ii. Appendix G, Section 10 (Monitoring and records), item D is amended to add:

"All monitoring must be conducted in accordance with the Pueblo of San Juan's Quality Assurance Project Plan."

d. *Pueblo of Sandia.* The following conditions apply only to discharges on the Pueblo of Sandia.

i. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) must be provided to the Pueblo at the same time it is submitted to the Environmental Protection Agency.

Environment Department
Pueblo of Sandia
Box 6008
Bernalillo, NM 87004

ii. The Storm Water Pollution Prevention Plan must be available to tribal environmental personnel upon request.

iii. You must telephone the Pueblo of Sandia Environment Department at (505) 867-4533 of any noncompliance that may endanger human health or the environment within ten (10) hours of becoming aware of the circumstance.

e. *Santa Clara Pueblo.* The following conditions apply only to discharges on the Santa Clara Pueblo.

i. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) must be provided to the Santa Clara Pueblo Office of Environmental Affairs at the same time it is submitted to the Environmental Protection Agency.

Santa Clara Pueblo
Office of Environmental Affairs
One Knee Street
P.O. Box 580
Espanola, NM 87532

f. *Pueblo of Tesuque* The following conditions apply only to discharges on the Pueblo of Tesuque.

i. A copy of the storm water pollution prevention plan, Notice of Intent, and Notice of Termination must be submitted to the Pueblo of Tesuque Environment Department at the address below. The Notice of Intent and the Notice of Termination must be submitted at the same time they are submitted to EPA. The pollution prevention plan must be submitted before the project begins. Phone: 505- 983-2667 FAX: 505-982-2331

Pueblo of Tesuque
Environment Department
Rt. 42, Box 360-T
Santa Fe, NM 87506

3. OKR15000F: Discharges in the State of Oklahoma that are not under the authority of the Oklahoma Department of Environmental Quality, including activities associated with oil and gas exploration, drilling, operations, and pipelines (includes SIC Groups 13 and 46, and SIC codes 492 and 5171), and point source discharges associated with agricultural production, services, and silviculture (includes SIC Groups 01, 02, 07, 08, 09).

a. Subpart 1.3.C. (Limitations on Coverage) is modified to add paragraphs 8 and 9 as follows:

"8. For activities located within the watershed of any Oklahoma Scenic River, including the Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork, Little Lee Creek, and Big Lee Creek or an water or watershed designated "ORW" (Outstanding Resource Water) in Oklahoma's Water Quality Standards, this permit may only be used to authorize discharges from temporary construction activities. Discharges from ongoing activities such as sand and gravel mining or any other mineral mining are not authorized.

9. Activities located within the watershed of any Oklahoma Scenic River, including the Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork, Little Lee Creek, and Big Lee Creek or an water or watershed designated "ORW" (Outstanding Resource Water) in Oklahoma's Water Quality Standards, this permit may not be used to authorize discharges from concrete or asphalt batch plants."

D. Region 8

1. MTR10000I: Indian country within the State of Montana

a. Confederated Salish and Kootenai Tribes of the Flathead Nation. The following conditions apply only for projects on the Flathead Indian Reservation:

i. The permittee must send the SWPPP to the Tribes at least 30 days before construction starts. The 30 day period will give Tribal staff time to become familiar with the project site, prepare for construction inspections and determine compliance with Tribal water quality standards, as required by the Tribe's Water Quality Management Ordinance 89B (1990) and Surface Water Quality Standards & Antidegradation Policy (1995). Copies of the SWPPP should be sent to the following address:

Confederated Salish and Kootenai Tribes
Natural Resources Department
Department Head
P.O. Box 278
Pablo, MT 59855

ii. Before submitting the Notice of Termination, permittees must clearly demonstrate to an appointed tribal staff person during an on-site inspection that requirements for site stabilization have been met and all temporary erosion control structures removed. The staff person performing the on-site inspection will be determined by the Environmental Protection Division Manager. The staff person will draft a short letter stating the stabilization requirements have been met to add to the permittees Notice of Termination submission to EPA.

iii. The permittee must send a copy of the Notice of Intent (NOI) and the Notice of Termination (NOT) to the Tribes at the same time that the NOI and NOT is sent to EPA. Copies of the NOI and NOT should be sent to the address above.

b. Fort Peck Tribes - Assiniboine & Sioux. The following conditions apply only for projects within the Fort Peck Indian Reservation:

i. The permittee must send a copy of the Notice of Intent (NOI) and the Notice of Termination (NOT) to the Tribes at the same time that the NOI and NOT is sent to EPA. Copies of the NOI and NOT should be sent to the following address:

Deb Madison
Environmental Program Manager
Fort Peck Assiniboine & Sioux Tribes
P.O. Box 1027
Poplar, MT 59255

E. Region 9

1. ASR100000: The Island of American Samoa

a. Discharges authorized by the general permit shall meet all applicable American Samoa water quality standards.

b. Permittees discharging under the general permit shall comply with all conditions of the permit.

2. AZR10000I: Indian country lands within the State of Arizona, including Navajo Reservation lands in New Mexico and Utah

a. White Mountain Apache Tribe. The following condition applies only for projects on the White Mountain Apache Reservation: All NOIs for proposed storm water discharge coverage shall be provided to the following address:

Tribal Environmental Planning Office
P.O. Box 2109
Whiteriver, AZ 85941

3. NIR100000: Commonwealth of the Northern Mariana Islands (CNMI)

a. An Earthmoving and Erosion Control Permit shall be obtained from the CNMI DEQ prior to any construction activity covered under the NPDES general permit.

b. All conditions and requirements set forth in the USEPA NPDES general permit for discharges from large and small construction must be complied with.

c. A SWPPP for storm water discharges from construction activity must be approved by the Director of the CNMI DEQ prior to the submission of the NOI to USEPA. The CNMI address for the submittal of the SWPPP for approval is:

Commonwealth of the Northern Mariana Islands
Office of the Governor
Director, Division of Environmental Quality (DEQ)
P.O. Box 501304 C.K.
Saipan, MP 96950-1304

d. An NOI to be covered by the general permit for discharges from large and small construction sites must be submitted to CNMI DEQ (use above address) and USEPA, Region 9, in the form prescribed by USEPA, accompanied by a SWPPP approval letter from CNMI DEQ.

e. The NOI must be postmarked seven (7) calendar days prior to any storm water discharges and a copy must be submitted to the Director of CNMI DEQ (use above address) no later than seven (7) calendar days prior to any stormwater discharges.

f. Copies of all monitoring reports required by the NPDES general permit must be submitted to CNMI DEQ (use above address).

g. In accordance with section 10.3(h) and (i) of the CNMI water quality standards, CNMI DEQ reserves the right to deny coverage under the general permit and to require submittal of an application for an individual NPDES permit based on a review of the NOI or other information made available to the Director.

F. Region 10

1. AKR100000: The State of Alaska, except Indian country

a. Operators of construction projects disturbing five or more acres occurring outside the Municipality of Anchorage must submit a copy of the Storm Water Pollution Prevention Plan (SWPPP) and a copy of the Notice of Intent (NOI) to the State of Alaska Department of Environmental Conservation (ADEC) for review, and shall be accompanied by the state-required fee of $400. Submittal of the SWPPP and the NOI to the ADEC should be made at the same time the NOI is submitted to the EPA.

b. Operators of publicly-funded projects disturbing five or more acres occurring within the Municipality of Anchorage must submit a copy of the SWPPP and a copy of the NOI to the ADEC for review, and shall be accompanied by the state-required fee of $400. Submittal of the SWPPP and the NOI to the ADEC should be made at the same time the NOI is submitted to the EPA.

c. Operators of construction projects disturbing at least one acre and less than five acres must submit a copy of the NOI to the ADEC at the same time it is submitted to the EPA.

d. Storm Water Pollution Prevention Plans and Notices of Intent must be submitted to ADEC at the following address:

Alaska Department of Environmental Conservation
Water Quality Permitting/Storm Water
555 Cordova Street
Anchorage, Alaska 99501

e. Operators of private construction projects disturbing one or more acres within the Municipality of Anchorage shall submit a copy of the Storm Water Pollution Prevention Plan to the Municipality at the following address:

Municipality of Anchorage, Office of Planning Development and Public Works
4700 S. Bragaw Street
P.O. Box 196650
Anchorage, Alaska 99519-6650

f. Submittal of the SWPPP to the Municipality of Anchorage should be made before or at the same time the NOI is submitted to the EPA and the ADEC and shall be accompanied by any Municipality-required fee.

2. IDR100000: The State of Idaho, except Indian country

   a. Any construction related storm water discharges to impaired water bodies on Idaho's Clean Water Act (CWA) Section 303(d) list with EPA-approved Total Maximum Daily Loads (TMDL) must be consistent with any load allocations established by the applicable TMDL.

   b. No net increase of listed pollutants is allowed in any construction related storm water discharges to an impaired water body considered "high priority" as included on Idaho's CWA Section 303(d) list that does not yet have an EPA-approved TMDL.

   c. If a TMDL has not been established for an impaired water body considered "medium priority" or "low priority" as included on Idaho's CWA Section 303(d) list, BMPs shall be employed as necessary to prohibit further impairment of the designated or existing beneficial uses.

   d. Only BMPs authorized by the appropriate designated agency as defined in the Idaho Water Quality Standards and Wastewater Treatment Requirements (IDAPA 58.01.02 et seq.), or otherwise approved by the Idaho Department of Environmental Quality, will be allowed.

   e. Use of the "Equivalent Analysis Waiver" in Addendum D is not authorized.

   f. Operators may contact the Idaho Department of Environmental Quality regional office nearest the construction activity for more information about impaired waterways:

Boise Regional Office:
1445 N. Orchard
Boise ID 83706-2239
Tel: (208)373-0550
Fax: (208)373-0287

Cascade Satellite Office:
109 N. Main St., PO Box 247
Cascade, ID 83611
Tel: (208)382-6808
Fax: (208)382-3327

Coeur d'Alene Regional Office:
2110 Ironwood Parkway
Coeur d'Alene ID 83814
Tel: (208)769-1422
Fax: (208)769-1404

Grangeville Satellite Office:
300 W. Main
Grangeville ID 83530
Tel: (208)983-0808
Fax: (208)983-2873

Idaho Falls Regional Office:
900 N. Skyline, Suite B
Idaho Falls, ID 83402
Tel: (208)528-2650
Fax: (208)528-2695

Lewiston Regional Office:
1118 "F" Street
Lewiston, ID 83501
Tel: (208)799-4370
Toll Free: 1-877-541-3304
Fax: (208)799-3451

Pocatello Regional Office:
444 Hospital Way #300
Pocatello ID 83201
Tel: (208)236-6160
Fax: (208)236-6168

Twin Falls Regional Office:
601 Pole Line Road, Suite 2
Twin Falls, ID 83301
Tel: (208)736-2190
Fax: (208)736-2194

3. ORR10000I: Indian country within the State of Oregon, except Fort McDermitt Reservation lands (see Region 9):

   a. Confederated Tribes of the Umatilla Indian Reservation. The following conditions apply only for projects within the exterior boundaries of the Umatilla Indian Reservation:

      i. The operator shall be responsible for achieving compliance with the Confederated Tribes of the Umatilla Indian Reservation's (CTUIR) Water Quality Standards.

      ii. The operator shall submit all Erosion Control and/or Storm Water Pollution Prevention Plans to the CTUIR Water Resources Program for review and approval by the Department of Natural Resources Director prior to submitting the Notice of Intent to EPA and prior to beginning any discharge activities.

      iii. The operator shall contact the CTUIR Tribal Historic Preservation Office (THPO) prior to beginning any construction activities to determine whether a cultural resource survey of the project area or other investigation is required. All cultural resource fieldwork must be conducted by qualified personnel and documented using Oregon Reporting Standards. The resulting report must be submitted to the THPO for concurrence at least 30 days before any ground disturbing work can occur at the site. The operator must obtain THPO concurrence in the form of a letter, which (if necessary) will include any measures that must be taken to prevent or mitigate adverse effects to potentially eligible historic properties, prior to any ground disturbing work.

      iv. The operator shall submit copies of the Notice of Intent to the CTUIR Water Resources Program and the CTUIR Tribal Historic Preservation Office at the same time it is submitted to EPA.

v. Erosion Control and Storm Water Pollution Prevention Plans and Notices of Intent shall be submitted to:

Confederated Tribes of the Umatilla Indian Reservation
Water Resources Program
P.O. Box 638
Pendleton, OR 97801
(541) 276-3447

Confederated Tribes of the Umatilla Indian Reservation
Cultural Resources Protection Program
Tribal Historic Preservation Office
P.O. Box 638
Pendleton, OR 97801
(541) 276-3629

b. Confederated Tribes of Warm Springs. The following conditions apply only for projects on the Warm Springs Indian Reservation:

i. All activities covered by this NPDES general permit occurring within a designated riparian buffer zone as established in Ordinance 74 (Integrated Resource Management Plan or IRMP) must be reviewed, approved and permitted through the Tribe's Hydraulic Permit Application process, including payment of any applicable fees.

ii. All activities covered by this NPDES general permit must follow all applicable land management and resource conservation requirements specified in the IRMP.

iii. Operators of activities covered by this NPDES general permit must submit a Storm Water Pollution Prevention Plan to the Tribe's Water Control Board at the following address for approval at least 30 days prior to beginning construction activity:

Chair, Warm Springs Water Control Board
P.O. Box C
Warm Springs, Oregon 97761

4. WAR10000F: Federal Facilities in the State of Washington, except those located on Indian Country

The following conditions apply to stormwater discharges from all permitted construction sites which disturb one acre or more and which discharge to surface waters (40 CFR part 122.26(b)(14)(x) and 122.26 (b)(15)):

a. Discharges must not cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC), sediment management standards (Chapter 173-204 WAC), ground water quality standards (Chapter 173-200 WAC), and human health-based criteria in the National Toxics Rule (Federal Register, Vol. 57, No. 246, Dec. 22, 1992, pages 60848-60923). Discharges that are not in compliance with these standards are not authorized.

b. You must apply all known available and reasonable methods of prevention, control and treatment (AKART), including the preparation and implementation of an adequate Stormwater Pollution Prevention Plan (SWPPP), with all appropriate BMPs installed and maintained in accordance with the SWPPP and the terms and conditions of this permit.

c. Stormwater BMPs must be properly designed, constructed, maintained and operated to:

i. Prevent pollution of state waters and protect water quality, including compliance with applicable state water quality standards;

ii. Satisfy state requirements for all known available and reasonable methods of prevention, control and treatment (AKART) of wastes (including construction stormwater runoff) prior to discharge to waters of the state; and

iii. Satisfy the federal technology-based treatment requirements under 40 CFR part 125.3.

d. You must document the technical basis for the design criteria used to select and design your stormwater management BMPs. You must document within your Stormwater Pollution Prevention Plan (SWPPP) how stormwater BMPs were selected, the pollutant removal performance expected from the BMP being selected, the technical basis (scientific, technical studies, and/or modeling) which support the performance claims for the BMPs being selected, and an assessment of how the selected BMP will

comply with state water quality standards, satisfy the state AKART requirements, and satisfy the federal technology-based treatment requirements.

If you choose to follow the stormwater management practices contained in stormwater technical manuals approved by Washington State, including the proper selection, implementation and maintenance of appropriate BMPs, you are presumed to have satisfied this demonstration requirement and do not need to include within the SWPPP the technical basis which support the performance claims for the BMPs being used. The SWPPP must include a reference to the manual used. Approved stormwater technical manuals include:

i. Stormwater Management Manual for Western Washington, August 2001, for sites west of the crest of the Cascade Mountains;

ii. Stormwater Management Manual for Eastern Washington, (completion expected in the fall of 2003) for sites east of the crest of the Cascade Mountains; or

iii. Other equivalent stormwater management guidance documents approved by Ecology.

e. Stormwater discharges from construction sites which disturb 5 acres or more (40 CFR part 122.26(b)(14)(x)) and which discharge to surface waters listed as impaired by the state under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, and/or phosphorus are subject to an effluent limitation that is equal to the applicable water quality standards at the point of discharge. If impairment is due to turbidity and/or fine sediment, the turbidity at the point of discharge shall not exceed the background (upstream) turbidity of the receiving water.

i. Effluent limitations apply to direct discharges to listed waterbodies as well as indirect discharges via a stormwater conveyance system.

ii. All references and requirements associated with Section 303(d) of the Clean Water Act shall use the most current listing by Ecology of impaired waters that exists at the time of application for coverage under this permit

f. Stormwater discharges from construction sites which disturb 5 acres or more (40 CFR part 122.26(b)(14)(x)) and which discharge to surface waters for which there is a total maximum daily load (TMDL) allocation or other control plan that addresses sediment (including turbidity, fine sediment, total suspended solids or siltation), high pH, or phosphorus must be consistent with the requirements in the approved TMDL or applicable control plan. Control plans may be total maximum daily load (TMDL) determinations, restrictions for the protection of endangered species, ground water management plans, or other limitations that regulate or set limits on discharges to a specific waterbody or groundwater recharge area.

Information on impaired waterways is available from the Department of Ecology web site at: http://www.ecy.wa.gov/programs/wq/stormwater. You may also contact the Department of Ecology for more information about impaired waterways at:

Mailing Address:
Department of Ecology
Stormwater Unit
PO Box 47600
Olympia, WA 98504-7600
Phone: 360-407-6000

Physical Address:
Department of Ecology
300 Desmond Drive
Lacey, WA 98503
Phone: 360-407-6000

5. WAR10000I: Indian country within the State of Washington

a. Puyallup Tribe of Indians. The following conditions apply only for projects on the Puyallup Reservation:

i. Each operator shall be responsible for achieving compliance with the Puyallup Tribe's Water Quality Standards.

ii. Each operator shall submit all Pollution Prevention Plans to the Puyallup Tribe Environmental Department for review and approval prior to beginning any discharge activities.

iii. Each operator shall submit a copy of the Notice of Intent to the Puyallup Tribal Environmental Department at the same time it is submitted to EPA.

iv. Storm Water Pollution Prevention Plans and Notices of Intent shall be submitted to:

Puyallup Tribe Natural Resources, Environmental Department
1850 Alexander Avenue
Tacoma, WA 98421

b. Confederated Tribes of the Chehalis Reservation. The following conditions apply only for projects on the Chehalis Reservation:

i. The operator shall be responsible for achieving compliance with the Chehalis Tribe's Water Quality Standards.

ii. The operator shall submit a Storm Water Pollution Prevention Plan to the Chehalis Tribe Department of Natural Resources for review and approval at least thirty (30) days prior to beginning any discharge activities.

iii. The operator shall submit a copy of the Notice of Intent to the Chehalis Tribe Department of Natural Resources at the same time it is submitted to EPA.

iv. Storm Water Pollution Prevention Plans and Notices of Intent shall be submitted to:

Chehalis Tribe Department of Natural Resources
420 Howanut Road
Oakville, WA 98568

## Appendix A - Definitions and Acronyms

### Definitions

"Arid Areas" means areas with an average annual rainfall of 0 to 10 inches.

"Best Management Practices" (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practice to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Commencement of Construction Activities" means the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction-related activities (e.g., stockpiling of fill material).

"Control Measure" as used in this permit, refers to any BMP or other method used to prevent or reduce the discharge of pollutants to waters of the United States.

"CWA" means the Clean Water Act or the Federal Water Pollution Control Act, 33 U.S.C. section 1251 et seq.

"Discharge" when used without qualification means the "discharge of a pollutant."

"Discharge of Storm Water Associated with Construction Activity" as used in this permit, refers to a discharge of pollutants in storm water from areas where soil disturbing activities (e.g., clearing, grading, or excavation), construction materials or equipment storage or maintenance (e.g., fill piles, borrow area, concrete truck washout, fueling), or other industrial storm water directly related to the construction process (e.g., concrete or asphalt batch plants) are located.

"Eligible" means qualified for authorization to discharge storm water under this general permit.

"Facility" or "Activity" means any "point source" or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

"Federal Facility" means any buildings, installations, structures, land, public works, equipment, aircraft, vessels, and other vehicles and property, owned by, or constructed or manufactured for the purpose of leasing to, the Federal government.

"Final Stabilization" means that:

1. All soil disturbing activities at the site have been completed and either of the two following criteria are met:
   a. a uniform (e.g,, evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or
   b. equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.
2. When background native vegetation will cover less than 100 percent of the ground (e.g., arid areas, beaches), the 70 percent coverage criteria is adjusted as follows: if the native vegetation covers 50 percent of the ground, 70 percent of 50 percent (0.70 X 0.50 = 0.35) would require 35 percent total cover for final stabilization. On a beach with no natural vegetation, no stabilization is required.
3. In arid and semi-arid areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:
   a. Temporary erosion control measures (e.g., degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by you,
   b. The temporary erosion control measures are selected, designed, and installed to achieve 70 percent vegetative coverage within three years.
4. For individual lots in residential construction, final stabilization means that either:
   a. The homebuilder has completed final stabilization as specified above, or

b. The homebuilder has established temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for, and benefits of, final stabilization.

5. For construction projects on land used for agricultural purposes (e.g., pipelines across crop or range land, staging areas for highway construction, etc.), final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to "water of the United States," and areas which are not being returned to their preconstruction agricultural use must meet the final stabilization criteria (1) or (2) or (3) above.

"Indian country" is defined at 40 CFR §122.2 to mean:

1. All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
2. All dependent Indian communities with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and
3. All Indian allotments, the Indian titles to which have not been extinquished, including rights-of-ways running through the same.

"Large Construction Activity" is defined at 40 CFR §122.26(b)(14)(x) and incorporated here by reference. A large construction activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than five acres of land or will disturb less than five acres of total land area but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than five acres. Large construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site.

"Municipal Separate Storm Sewer System" or "MS4" is defined at 40 CFR §122.26(b)(8) to mean a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

1. Owned and operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
2. Designed or used for collecting or conveying storm water;
3. Which is not a combined sewer; and
4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

"New Project" means the "commencement of construction activities" occurs after the effective date of this permit.

"Ongoing Project" means the "commencement of construction activities" occurs before the effective date of this permit.

"Operator" for the purpose of this permit and in the context of storm water associated with construction activity, means any party associated with a construction project that meets either of the following two criteria:

1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
2. The party has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions). This definition is provided to inform permittees of EPA's interpretation of how the regulatory definitions of "owner or operator" and "facility or activity" are applied to discharges of storm water associated with construction activity.

"Owner or operator" means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

"Permitting Authority" means the United States Environmental Protection Agency, EPA, a Regional Administrator of the Environmental Protection Agency or an authorized representative.

"Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

"Pollutant" is defined at 40 CFR §122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.

"Project Area" means:

- The areas on the construction site where storm water discharges originate and flow toward the point of discharge into the receiving waters (including areas where excavation, site development, or other ground disturbance activities occur) and the immediate vicinity. (Example: 1. Where bald eagles nest in a tree that is on or bordering a construction site and could be disturbed by the construction activity or where grading causes storm water to flow into a small wetland or other habitat that is on the site that contains listed species.)
- The areas where storm water discharges flow from the construction site to the point of discharge into receiving waters. (Example: Where storm water flows into a ditch, swale, or gully that leads to receiving waters and where listed species (such as amphibians) are found in the ditch, swale, or gully.)
- The areas where storm water from construction activities discharge into receiving waters and the areas in the immediate vicinity of the point of discharge. (Example: Where storm water from construction activities discharges into a stream segment that is known to harbor listed aquatic species.)
- The areas where storm water BMPs will be constructed and operated, including any areas where storm water flows to and from BMPs. (Example: Where a storm water retention pond would be built.)
- The areas upstream and /or downstream from construction activities discharges into a stream segment that may be affected by the said discharges. (Example: Where sediment discharged to a receiving stream settles downstream and impacts a breeding area of a listed aquatic species.)

"Receiving water" means the "Water of the United States" as defined in 40 CFR §122.2 into which the regulated storm water discharges.

"Runoff coefficient" means the fraction of total rainfall that will appear at the conveyance as runoff.

"Semi-Arid Areas" means areas with an average annual rainfall of 10 to 20 inches.

"Site" means the land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity.

"Small Construction Activity" is defined at 40 CFR §122.26(b)(15) and incorporated here by reference. A small construction activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than one (1) acre and less than five (5) acres of land or will disturb less than one (1) acre of total land area but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than one (1) acre and less than five (5) acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site.

"Storm Water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

"Storm Water Discharge-Related Activities" as used in this permit, include: activities that cause, contribute to, or result in storm water point source pollutant discharges, including but not limited to: excavation, site development, grading and other surface disturbance activities; and measures to control storm water including the siting, construction and operation of BMPs to control, reduce or prevent storm water pollution.

"Total Maximum Daily Load" or "TMDL" means the sum of the individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background. If a receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure.

"Waters of the United States" is as defined at 40 CFR §122.2.

"Wetland" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

**ACRONYMS**

BMP - Best Management Practices

CGP - Construction General Permit

CFR - Code of Federal Regulations

CWA - Clean Water Act

EPA - United States Environmental Protection Agency

ESA - Endangered Species Act

FWS - United States Fish and Wildlife Service

MS4 - Municipal Separate Storm Sewer System

MSGP - Multi-Sector General Permit

NHPA - National Historic Preservation Act

NMFS - United States National Marine Fisheries Service

NOI - Notice of Intent

NOT - Notice of Termination

NPDES - National Pollutant Discharge Elimination System

POTW - Publicly Owned Treatment Works

SHPO - State Historic Preservation Officer

SWPPP - Storm Water Pollution Prevention Plan

THPO - Tribal Historic Preservation Officer

TMDL - Total Maximum Daily Load

WQS - Water Quality Standard

## Appendix B - Permit Areas Eligible for Coverage

Permit coverage for storm water discharges from construction activity occurring within the following areas is provided by legally separate and distinctly numbered permits:

### 1. EPA Region 1: CT, MA, ME, NH, RI, VT

US EPA, Region 01
Office of Ecosystem Protection
NPDES Storm Water Program
1 Congress St, Suite 1100 (CMU)
Boston, MA 02114-2023

The States of Connecticut, Maine, Rhode Island, and Vermont are the NPDES Permitting Authority for the majority of discharges within their respective states.

| Permit No. | Areas of Coverage/Where EPA is Permitting Authority |
|---|---|
| **MAR100000** | Commonwealth of Massachusetts (except Indian country) |
| **MAR10000I** | Indian country within the State of Massachusetts |
| **CTR10000I** | Indian country within the State of Connecticut |
| **NHR100000** | State of New Hampshire |
| **RIR10000I** | Indian country within the State of Rhode Island |
| **VTR10000F** | Federal Facilities in the State of Vermont |

### 2. EPA Region 2: NJ, NY, PR, VI

For NJ, NY, and VI:

US EPA, Region 02
NPDES Storm Water Program
290 Broadway, 24th Floor
New York, NY 10007-1866

For PR:

US EPA, Region 02
Caribbean Environmental Protection Division
NPDES Storm Water Program
1492 Ponce de Leon Ave
Central Europa Building, Suite 417
San Juan, PR 00907-4127

The State of New York is the NPDES Permitting Authority for the majority of discharges within its state. The State of New Jersey and the Virgin Islands are the NPDES Permitting Authority for all discharges within their respective states.

| Permit No. | Areas of Coverage/Where EPA is Permitting Authority |
|---|---|
| **NYR10000I** | Indian country within the State of New York |
| **PRR100000** | The Commonwealth of Puerto Rico |

### 3. EPA Region 3: DE, DC, MD, PA, VA, WV

US EPA, Region 03
NPDES Storm Water Program
1650 Arch St
Philadelphia, PA 19103

The State of Delaware is the NPDES Permitting Authority for the majority of discharges within its state. Maryland, Pennsylvania, Virginia, and West Virginia are the NPDES Permitting Authority for all discharges within their respective states.

| Permit No. | Areas of Coverage/Where EPA is Permitting Authority |
|---|---|
| **DCR100000** | The District of Columbia |
| **DER10000F** | Federal Facilities in the State of Delaware |

### 4. EPA Region 4: AL, FL, GA, KY, MS, NC, SC, TN

US EPA, Region 04
Water Management Division
NPDES Storm Water Program
61 Forsyth St SW
Atlanta, GA 30303-3104

Coverage Not Available. Construction activities in Region 4 must obtain permit coverage under an alternative permit.

### 5. EPA Region 5: IL, IN, MI, MN, OH, WI

US EPA, Region 05
NPDES & Technical Support
NPDES Storm Water Program
77 W Jackson Blvd
(WN-16J)
Chicago, IL 60604-3507

The States of Michigan, Minnesota, and Wisconsin are the NPDES Permitting Authority for the majority of discharges within their respective states. The States of Illinois, Indiana, and Ohio are the NPDES Permitting Authorities for all discharges within their respective states.

| Permit No. | Areas of coverage/where EPA is Permitting Authority |
|---|---|
| **MIR10000I** | Indian country within the State of Michigan |
| **MNR10000I** | Indian country within the State of Minnesota |
| **WIR10000I** | Indian country within the State of Wisconsin, except the Sokaogon Chippewa (Mole Lake) Community. |

**6. EPA Region 6: AR, LA, OK, TX, NM (except see Region 9 for Navajo lands, and see Region 8 for Ute Mountain Reservation lands)**

US EPA, Region 06
NPDES Storm Water Program
1445 Ross Ave, Suite 1200
Dallas, TX 75202-2733

The States of Louisiana, Oklahoma, and Texas are the NPDES Permitting Authority for the majority of discharges within their respective state. The State of Arkansas is the NPDES Permitting Authority for all discharges within its respective state.

| Permit No. | Areas of coverage/where EPA is Permitting Authority |
|---|---|
| **LAR15000I** | Indian country within the State of Louisiana |
| **NMR150000** | The State of New Mexico, except Indian country |
| **NMR15000I** | Indian country within the State of New Mexico, except Navajo Reservation Lands that are covered under Arizona permit AZR10000I and Ute Mountain Reservation Lands that are covered under Colorado permit COR10000I. |
| **OKR15000I** | Indian country within the State of Oklahoma |
| **OKR15000F** | Discharges in the State of Oklahoma that are not under the authority of the Oklahoma Department of Environmental Quality, including activities associated with with oil and gas exploration, drilling, operations, and pipelines (includes SIC Groups 13 and 46, and SIC codes 492 and 5171), and point source discharges associated with agricultural production, services, and silviculture (includes SIC Groups 01, 02, 07, 08, 09). |
| **TXR15000F** | Discharges in the State of Texas that are not under the authority of the Texas Commission on Environmental Quality (formerly TNRCC), including activities associated with the exploration, development, or production of oil or gas or geothermal resources, including transportation of crude oil or natural gas by pipeline. |
| **TXR15000I** | Indian country within the State of Texas. |

**7. EPA Region 7: IA, KS, MO, NE (except see Region 8 for Pine Ridge Reservation Lands)**

US EPA, Region 07
NPDES Storm Water Program
901 N 5th St
Kansas City, KS 66101

The States of Iowa, Kansas, and Nebraska are the NPDES Permitting Authority for the majority of discharges within their respective states. The State of Missouri is the NPDES Permitting Authority for all discharges within its state.

| Permit No. | Areas of coverage/where EPA is Permitting Authority |
|---|---|
| **IAR10000I** | Indian country within the State of Iowa |
| **KSR10000I** | Indian country within the State of Kansas |
| **NER10000I** | Indian country within the State of Nebraska, except Pine Ridge Reservation lands (see Region 8) |

**8. EPA Region 8: CO, MT, ND, SD, WY, UT (except see Region 9 for Goshute Reservation and Navajo Reservation Lands), the Ute Mountain Reservation in NM, and the Pine Ridge Reservation in NE.**

US EPA, Region 08
NPDES Storm Water Program
999 18th St, Suite 300
(EPR-EP)
Denver, CO 80202-2466

The States of Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming are the NPDES Permitting Authority for the majority of discharges within their respective states.

| Permit No. | Areas of coverage/where EPA is Permitting Authority |
|---|---|
| **COR10000F** | Federal Facilities in the State of Colorado, except those located on Indian country |
| **COR10000I** | Indian country within the State of Colorado, as well as the portion of the Ute Mountain Reservation located in New Mexico |
| **MTR10000I** | Indian country within the State of Montana |
| **NDR10000I** | Indian country within the State of North Dakota, as well as that portion of the Standing Rock Reservation located in South Dakota (except for the portion of the lands within the former boundaries of the Lake Traverse Reservation which is covered under South Dakota permit SDR10000I listed below) |
| **SDR10000I** | Indian country within the State of South Dakota, as well as the portion of the Pine Ridge Reservation located in Nebraska and the portion of the lands within the former boundaries of the Lake Traverse Reservation located in North Dakota (except for the Standing Rock Reservation which is covered under North Dakota permit NDR10000I listed above) |
| **UTR10000I** | Indian country within the State of Utah, except Goshute and Navajo Reservation lands (see Region 9) |
| **WYR10000I** | Indian country within the State of Wyoming |

**9. EPA Region 9: CA, HI, NV, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Goshute Reservation in UT and NV, the Navajo Reservation in UT, NM, and AZ, the Duck Valley Reservation in ID, and the Fort McDermitt Reservation in OR.**

US EPA, Region 09
NPDES Storm Water Program
75 Hawthorne St
San Francisco, CA 94105-3901

The States of Arizona, California and Nevada are the NPDES Permitting Authority for the majority of discharges within their respective states. The State of Hawaii is the NPDES Permitting Authority for all discharges within its state.

| Permit No. | Areas of coverage/where EPA is Permitting Authority |
|---|---|
| **ASR100000** | The Island of American Samoa |
| **AZR10000I** | Indian country within the State of Arizona, as well as Navajo Reservation lands in New Mexico and Utah |
| **CAR10000I** | Indian country within the State of California |
| **GUR100000** | The Island of Guam |
| **JAR100000** | Johnston Atoll |
| **MWR100000** | Midway Island and Wake Island |
| **NIR100000** | Commonwealth of the Northern Mariana Islands |
| **NVR10000I** | Indian country within the State of Nevada, as well as the Duck Valley Reservation in Idaho, the Fort McDermitt Reservation in Oregon and the Goshute Reservation in Utah |

**10. EPA Region 10: AK, WA, ID (except see Region 9 for Duck Valley Reservation Lands), and OR (except see Region 9 for Fort McDermitt Reservation).**

US EPA, Region 10
NPDES Storm Water Program
1200 6th Ave (OW-130)
Seattle, WA 98101-1128
Phone: (206) 553-6650

The States of Oregon and Washington are the NPDES Permitting Authority for the majority of discharges within their respective states.

| Permit No. | Areas of coverage/where EPA is Permitting Authority |
|---|---|
| **AKR100000** | The State of Alaska, except Indian country |
| **AKR10000I** | Indian country within the state of Alaska |
| **IDR100000** | The State of Idaho, except Indian country |
| **IDR10000I** | Indian country within the State of Idaho, except Duck Valley Reservation lands (see Region 9) |
| **ORR10000I** | Indian country within the State of Oregon, except Fort McDermitt Reservation lands (see Region 9) |
| **WAR10000F** | Federal Facilities in the State of Washington, except those located on Indian country |
| **WAR10000I** | Indian country within the State of Washington |

**Appendix C - Endangered Species Act Review Procedures**

You must meet at least one of the six criteria in Subpart 1.3.C.6 to be eligible for coverage under this permit. You must follow the procedures in this Appendix to assess the potential effects of storm water discharges and storm water discharge-related activities on listed species and their critical habitat. When evaluating these potential effects, operators must evaluate the entire project area.

For purposes of this Appendix, the term "project area" is inclusive of the term "Action Area." Action area is defined in 50 CFR §402.02 as all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. This includes areas beyond the footprint of the construction area that may be affected by storm water discharges and storm water discharge related activities. "Project area" is defined in Appendix A.

(Operators who are eligible and able to certify eligibility under Criterion B, C, D, or F of Subpart 1.3.C.6 because of a previously issued ESA section 10 permit, a previously completed ESA section 7 consultation, or because the operator's activities were already addressed in another operator's certification of eligibility may proceed directly to Step Four.)

**Step One: Determine if Listed Threatened or Endangered Species are Present On or Near Your Project Area**

You must determine, to the best of your knowledge, whether listed species are located on or near your project area. To make this determination, you should:

- Determine if listed species are in your county or township. The local offices of the U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), and State or Tribal Heritage Centers often maintain lists of federally listed endangered or threatened species on their internet sites. Visit www.epa.gov/npdes/stormwater/cgp to find the appropriate site for your state or check with your local office. In most cases, these lists allow you to determine if there are listed species in your county or township.
- If there are listed species in your county or township, check to see if critical habitat has been designated and if that area overlaps or is near your project area.
- Contact your local FWS, NMFS, or State or Tribal Heritage Center to determine if the listed species could be found on or near your project area and if any critical habitat areas have been designated that overlap or are near your project area. Critical habitat areas maybe designated independently from the listed species for your county, so even if there are no listed species in your county or township, you must still contact one of the agencies mentioned above to determine if there are any critical habitat areas on or near your project area.

You can also find critical habitat designations and associated requirements at 50 CFR Parts 17 and 226. http://www.access.gpo.gov.

- If there are no listed species in your county or township, no critical habitat areas on or near your project area, or if your local FWS, NMFS, or State or Tribal Heritage Center indicates that listed species are not a concern in your part of the county or township, you may check box A on the Notice of Intent Form.
- If there are listed species and if your local FWS, NMFS, or State or Tribal Heritage Center indicates that these species could exist on or near your project area, you will need to do one or more of the following:
    - Conduct visual inspections: This method may be particularly suitable for construction sites that are smaller in size or located in non-natural settings such as highly urbanized areas or industrial parks where there is little or no natural habitat, or for construction activities that discharge directly into municipal storm water collection systems.
    - Conduct a formal biological survey. In some cases, particularly for larger construction sites with extensive storm water discharges, biological surveys may be an appropriate way to assess whether species are located on or near the project area and whether there are likely adverse effects to such species. Biological surveys are frequently performed by environmental consulting firms. A biological survey may in some cases be useful in conjunction with Steps Two, Three, or Four of these instructions.
    - Conduct an environmental assessment under the National Environmental Policy Act (NEPA). Such reviews may indicate if listed species are in proximity to the project area. Coverage under the CGP does not trigger such a review because the CGP does not regulate new sources (that is, dischargers subject to New Source Performance Standards under section 306 of the Clean Water Act), and is thus statutorily

exempted from NEPA. See CWA section 511(c). However, some construction activities might require review under NEPA for other reasons such as federal funding or other federal involvement in the project.

If listed threatened or endangered species or critical habitat are present in the project area, you must look at impacts to species and/or habitat when following Steps Two through Four. Note that many but not all measures imposed to protect listed species under these steps will also protect critical habitat. Thus, meeting the eligibility requirements of this CGP may require measures to protect critical habitat that are separate from those to protect listed species.

**Step Two: Determine if the Construction Activity's Storm Water Discharges or Storm Water Discharge-Related Activities Are Likely to Adversely Affect Listed Threatened or Endangered Species or Designated Critical Habitat**

To receive CGP coverage, you must assess whether your storm water discharges or storm water discharge-related activities is likely to adversely affect listed threatened or endangered species or designated critical habitat that are present on or near your project area.

Potential adverse effects from storm water discharges and storm water discharge-related activities include:

- *Hydrological.* Storm water discharges may cause siltation, sedimentation or induce other changes in receiving waters such as temperature, salinity or pH. These effects will vary with the amount of storm water discharged and the volume and condition of the receiving water. Where a storm water discharge constitutes a minute portion of the total volume of the receiving water, adverse hydrological effects are less likely. Construction activity itself may also alter drainage patterns on a site where construction occurs that can impact listed species or critical habitat.
- *Habitat.* Excavation, site development, grading, and other surface disturbance activities from construction activities, including the installation or placement of storm water BMPs, may adversely affect listed species or their habitat. Storm water may drain or inundate listed species habitat.
- *Toxicity.* In some cases, pollutants in storm water may have toxic effects on listed species.

The scope of effects to consider will vary with each site. If you are having difficulty determining whether your project is likely to adversely affect listed species or critical habitat, or one of the Services has already raised concerns to you, you must contact the appropriate office of the FWS, NMFS or Natural Heritage Center for assistance. If adverse effects are not likely, then you may check box E on the NOI form and apply for coverage under the CGP. If the discharge may adversely effect listed species or critical habitat, you must follow Step Three.

**Step Three: Determine if Measures Can Be Implemented to Avoid Adverse Effects**

If you make a preliminary determination that adverse effects are likely to occur, you can still receive coverage under Criterion E of Subpart 1.3.C.6 of the CGP if appropriate measures are undertaken to avoid or eliminate the likelihood of adverse effects prior to applying for CGP coverage. These measures may involve relatively simple changes to construction activities such as re-routing a storm water discharge to bypass an area where species are located, relocating BMPs, or by changing the "footprint" of the construction activity. You should contact the FWS and/or NMFS to see what appropriate measures might be suitable to avoid or eliminate the likelihood of adverse impacts to listed species and/or critical habitat. (See 50 CFR §402.13(b)). This can entail the initiation of informal consultation with the FWS and/or NMFS (described in more detail in Step Four).

If you adopt measures to avoid or eliminate adverse affects, you must continue to abide by those measures for the duration of the construction project and coverage under the CGP. These measures must be described in the SWPPP and are enforceable CGP conditions and/or conditions for meeting the eligibility criteria in Subpart 1.3. If appropriate measures to avoid the likelihood of adverse effects are not available, you must follow Step Four.

**Step Four: Determine if the Eligibility Requirements of Criterion B, C, D, or F of Subpart 1.3.C.6 Can Be Met**

Where adverse effects are likely, you must contact the FWS and/or NMFS. You may still be eligible for CGP coverage if any likely adverse effects can be addressed through meeting Criterion B, C, D, or F of Subpart 1.3.C.6 of the CGP. These criteria are as follows:

1. *An ESA Section 7 Consultation Is Performed for Your Activity (See Criterion B or C of Subpart 1.3.C.6 of the CGP).*

Formal or informal ESA section 7 consultation is performed with the FWS and/or NMFS that addresses the effects of your storm water discharges and storm water discharge-related activities on federally-listed and threatened

species and designated critical habitat. FWS and/or NMFS may request that consultation take place if any actions are identified that may affect listed species or critical habitat. In order to be eligible for coverage under this permit, consultation must result in a "no jeopardy opinion" or a written concurrence by the Service(s) on a finding that your storm water discharge(s) and storm water discharge-related activities are not likely to adversely affect listed species or critical habitat (For more information on consultation, see 50 CFR §402). If you receive a "jeopardy opinion," you may continue to work with the FWS and/or NMFS and your permitting authority to modify your project so that it will not jeopardize listed species or designated critical habitat.

Most consultations are accomplished through informal consultation. By the terms of this CGP, EPA has automatically designated operators as non-federal representatives for the purpose of conducting informal consultations. See Subpart 1.3.C.6 and 50 CFR §402.08 and §402.13. When conducting informal ESA section 7 consultation as a non-federal representative, you must follow the procedures found in 50 CFR Part 402 of the ESA regulations. You must notify FWS and/or NMFS of your intention and agreement to conduct consultation as a non-federal representative.

Consultation may occur in the context of another federal action at the construction site (e.g., where ESA section 7 consultation was performed for issuance of a wetlands dredge and fill permit for the project or where a NEPA review is performed for the project that incorporates a section 7 consultation). Any terms and conditions developed through consultations to protect listed species and critical habitat must be incorporated into the SWPPP. As noted above, operators may, if they wish, initiate consultation with the Services at Step Four.

Whether ESA section 7 consultation must be performed with either the FWS, NMFS or both Services depends on the listed species that may be affected by the operator's activity. In general, NMFS has jurisdiction over marine, estuaries, and anadromous species. Operators should also be aware that while formal section 7 consultation provides protection from incidental takings liability, informal consultation does not.

2. *An Incidental Taking Permit Under Section 10 of the ESA is Issued for the Operators Activity (See Criterion D of Subpart 1.3.C.6 of the CGP).*

Your construction activities are authorized through the issuance of a permit under section 10 of the ESA and that authorization addresses the effects of your storm water discharge(s) and storm water discharge-related activities on federally-listed species and designated critical habitat. You must follow FWS and/or NMFS procedures when applying for an ESA Section 10 permit (see 50 CFR §17.22(b)(1) for FWS and §222.22 for NMFS). Application instructions for section 10 permits for FWS and NMFS can be obtained by accessing the FWS and NMFS websites (http://www.fws.gov and http://www.nmfs.noaa.gov) or by contacting the appropriate FWS and NMFS regional office.

3. *You are Covered Under the Eligibility Certification of Another Operator for the Project Area (See Criterion F of Subpart 1.3.C.6 of the CGP).*

Your storm water discharges and storm water discharge-related activities were already addressed in another operator's certification of eligibility under Criteria A through E of Subpart 1.3.C.6 which also included your project area. For example, a general contractor or developer may have completed and filed an NOI for the entire project area with the necessary Endangered Species Act certifications (criteria A-E), subcontractors may then rely upon that certification and must comply with any conditions resulting from that process. By certifying eligibility under Criterion F of Subpart 1.3.C.6, you agree to comply with any measures or controls upon which the other operator's certification under Criterion B, C, or D of Subpart 1.3.C.6 was based. Certification under Criterion F of Subpart 1.3.C.6 is discussed in more detail in the Fact Sheet that accompanies this permit.

You must comply with any terms and conditions imposed under the eligibility requirements of Criterion A through F to ensure that your storm water discharges and storm water discharge-related activities are protective of listed species and/or critical habitat. Such terms and conditions must be incorporated in the project's SWPPP. If the eligibility requirements of Subpart 1.3.C.6 cannot be met, then you are not eligible for coverage under the CGP. In these instances, you may consider applying to EPA for an individual permit.

**Appendix D - Small Construction Waivers and Instructions**

These waivers are only available to storm water discharges associated with small construction activities (i.e., 1-5 acres). As the operator of a small construction activity, you may be able to qualify for a waiver in lieu of needing to obtain coverage under this general permit based on: (A) a low rainfall erosivity factor, (B) a TMDL analysis, or (C) an equivalent analysis that determines allocations for small construction sites are not needed. Each operator, otherwise needing permit coverage, must notify EPA of its intention for a waiver. It is the responsibility of those individuals wishing to obtain a waiver from coverage under this general permit to submit a complete and accurate waiver certification as described below. Where the operator changes or another is added during the construction project, the new operator must also submit a waiver certification to be waived.

A. Rainfall Erosivity Waiver

Under this scenario the small construction project's rainfall erosivity factor calculation ("R" in the Revised Universal Soil Loss Equation) is less than 5 during the period of construction activity. The operator must certify to the Permitting Authority that construction activity will occur only when the rainfall erosivity factor is less than 5. The period of construction activity begins at initial earth disturbance and ends with final stabilization. Where vegetation will be used for final stabilization, the date of installation of a stabilization practice that will provide interim non-vegetative stabilization can be used for the end of the construction period, provided the operator commits (as a condition of waiver eligibility) to periodically inspect and properly maintain the area until the criteria for final stabilization as defined in the construction general permit have been met. If use of this interim stabilization eligibility condition was relied on to qualify for the waiver, signature on the waiver with its certification statement constitutes acceptance of and commitment to complete the final stabilization process. The operator must submit a waiver certification to EPA prior to commencing construction activities.

*Note: The rainfall erosivity factor "R" is determined in accordance with Chapter 2 of Agriculture Handbook Number 703, Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE), pages 21–64, dated January 1997; United States Department of Agriculture (USDA), Agricultural Research Service.*

EPA funded a cooperative agreement with Texas A&M University to develop an online rainfall erosivity calculator. You can access the calculator from EPA's website at: www.epa.gov/npdes/stormwater/cgp. Use of the calculator allows you to determine potential eligibility for the rainfall erosivity waiver. It may also be useful in determining the time periods during which construction activity could be waived from permit coverage. You may find that moving your construction activity by a few weeks or expediting site stabilization will allow you to qualify for the waiver.

If you are the operator of the construction activity and eligible for a waiver based on low erosivity potential, you must provide the following information on the waiver certification in order to be waived from permitting requirements:

1. Name, address and telephone number of the construction site operators;
2. Name (or other identifier), address, county or similar governmental subdivision, and latitude/longitude of the construction project or site;
3. Estimated construction start and completion (i.e., final stabilization) dates, and total acreage (to the nearest quarter acre) to be disturbed;
4. The rainfall erosivity factor calculation that applies to the active construction phase at your project site; and
5. A statement, signed and dated by an authorized representative as provided in Appendix G, Subsection 11, that certifies that the construction activity will take place during a period when the value of the rainfall erosivity factor is less than five.

At the time of publication, a Low Erosivity Waiver Form is not available. If EPA does create a form, it will be noticed (either directly, by public notice, or by making information available on the Internet at www.epa.gov/npdes/stormwater/cgp.

*Note: If the R factor is 5 or greater, you cannot apply for the rainfall erosivity waiver, and must apply for permit coverage as per Subpart 2.1 of the construction general permit, unless you qualify for the Water Quality Waiver as described below.*

If your small construction project continues beyond the projected completion date given on the waiver certification, you must recalculate the rainfall erosivity factor for the new project duration. If the R factor is below five (5), you

must update all applicable information on the waiver certification and retain a copy of the revised waiver as part of the site SWPPP. The new waiver certification must be submitted prior to the projected completion date listed on the original waiver form to assure your exemption from permitting requirements is uninterrupted. If the new R factor is five (5) or above, you must submit an NOI as per Part 2.

B. TMDL Waiver

This waiver is available if EPA has established or approved a TMDL that addresses the pollutant(s) of concern and has determined that controls on storm water discharges from small construction activity are not needed to protect water quality. The pollutant(s) of concern include sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the construction activity. Information on TMDLs that have been established or approved by EPA is available from EPA online at http://www.epa.gov/owow/tmdl/ and from state and tribal water quality agencies.

If you are the operator of the construction activity and eligible for a waiver based on compliance with an EPA established or approved TMDL, you must provide the following information on the Waiver Certification form in order to be waived from permitting requirements:

1. Name, address and telephone number of the construction site operator(s);
2. Name (or other identifier), address, county or similar governmental subdivision, and latitude/longitude of the construction project or site;
3. Estimated construction start and completion (i.e., final stabilization) dates, and total acreage (to the nearest quarter acre) to be disturbed;
4. The name of the water body(s) that would be receiving storm water discharges from your construction project;
5. The name and approval date of the TMDL;
6. A statement, signed and dated by an authorized representative as provided in Appendix G, Subsection 11, that certifies that the construction activity will take place and that the storm water discharges will occur, within the drainage area addressed by the TMDL.

C. Equivalent Analysis Waiver

This waiver is available for non-impaired waters only. The operator can develop an equivalent analysis that determines allocations for his small construction site for the pollutant(s) of concern or determines that such allocations are not needed to protect water quality. This waiver requires a small construction operator to develop an equivalent analysis based on existing in-stream concentrations, expected growth in pollutant concentrations from all sources, and a margin of safety.

If you are a construction operator who wants to use this waiver, you must develop your equivalent analysis and provide the following information to be waived from permitting requirements:

1. Name, address and telephone number of the construction site operator(s);
2. Name (or other identifier), address, county or similar governmental subdivision, and latitude/longitude of the construction project or site;
3. Estimated construction start and completion (i.e., final stabilization) dates, and total acreage (to the nearest quarter acre) to be disturbed;
4. The name of the water bodies that would be receiving storm water discharges from your construction project;
5. Your equivalent analysis;
6. A statement, signed and dated by an authorized representative as provided in Appendix G, Subsection 11, that certifies that the construction activity will take place and that the storm water discharges will occur, within the drainage area addressed by the equivalent analysis.

D. Waiver Deadlines and Submissions

1. Waiver certifications must be submitted prior to commencement of construction activities.

2. If you submit a TMDL or equivalent analysis waiver request, you are not waived until EPA approves your request. As such, you may not commence construction activities until receipt of approval from EPA.
3. Late Notifications: Operators are not prohibited from submitting waiver certifications after initiating clearing, grading, excavation activities, or other construction activities. The Agency reserves the right to take enforcement for any unpermitted discharges or permit noncompliance that occur between the time construction commenced and waiver authorization is granted.

Submittal of a waiver certification is an optional alternative to obtaining permit coverage for discharges of storm water associated with small construction activity, provided you qualify for the waiver. Any discharge of storm water associated with small construction activity not covered by either a permit or a waiver may be considered an unpermitted discharge under the Clean Water Act. As mentioned above, EPA reserves the right to take enforcement for any unpermitted discharges or permit noncompliance that occur between the time construction commenced and either discharge authorization is granted or a complete and accurate waiver certification is submitted. EPA may notify any operator covered by a waiver that they must apply for a permit. EPA may notify any operator who has been in non-compliance with a waiver that they may no longer use the waiver for future projects. Any member of the public may petition EPA to take action under this provision by submitting written notice along with supporting justification.

Complete and accurate Rainfall Erosivity waiver certifications must be sent to the following address:

Regular U.S. Mail Delivery

EPA Storm Water Notice Processing Center
Mail Code 4203M
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Overnight/Express Mail Delivery

EPA Storm Water Notice Processing Center
Room 7420
U.S. EPA
1201Constitution Avenue, NW
Washington, DC 20004

Complete and accurate TMDL or equivalent analysis waiver requests must be sent to the applicable EPA Region office specified in Appendix B.

## Appendix E - Notice of Intent Form and Instructions

From the effective date of this permit, operators are to use the Notice of Intent Form contained in this Appendix to obtain permit coverage.

This Form Replaces Form 3510-9 (8-98)
Refer to the Following Pages for Instructions

Form Approved OMB Nos. 2040-0188 and 2040-0211

NPDES Form

United States Environmental Protection Agency
Washington, DC 20460

# Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under an NPDES General Permit

Submission of this Notice of Intent (NOI) constitutes notice that the party identified in Section II of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section I of this form. Submission of this NOI also constitutes notice that the party identified in Section II of this form meets the eligibility requirements of the CGP for the project identified in Section III of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Refer to the instructions at the end of this form.

## I. Permit Number

## II. Operator Information

Name:

IRS Employer Identification Number (EIN): -

**Mailing Address:**

Street:

City: State: Zip Code: -

Phone: - - Fax (optional): - -

E-mail (optional):

## III. Project/Site Information

Project/Site Name:

Project Street/Location:

City: State: Zip Code: -

County or similar government subdivision:

Latitude/Longitude (Use one of three possible formats, and specify method)

Latitude 1. __°__'__" N (degrees, minutes, seconds)
2. __°__.__' N (degrees, minutes, decimal)
3. __.____° N (decimal)

Longitude 1. ___°__'__" W (degrees, minutes, seconds)
2. ___°__.__' W (degrees, minutes, decimal)
3. ___.____° W (decimal)

Method: ☐ U.S.G.S. topographic map ☐ EPA web site ☐ GPS ☐ Other:
• If you used a U.S.G.S. topographic map, what was the scale: _____

Project Located in Indian country? ☐ Yes ☐ No
If so, name of Reservation or if not part of a Reservation, put "Not Applicable": _____

Estimated Project Start Date: / / (Month Date Year) Estimated Project Completion Date: / / (Month Date Year)

Estimated Area to be Disturbed (to the nearest quarter acre): .

## IV. SWPPP Information

Has the SWPPP been prepared in advance of filing this NOI? ☐ Yes ☐ No

Location of SWPPP for viewing: ☐ Address in Section II ☐ Address in Section III ☐ Other

If Other:

SWPPP Street: _____

City: _____

State: _____ Zip Code: _____ - _____

SWPPP Contact Information (if different than that in Section II):

Name: _____

Phone: ___ - ___ - _____ Fax (optional): ___ - ___ - _____

E-mail (optional): _____

## V. Discharge Information

Identify the name(s) of waterbodies to which you discharge. _____

_____

Is this discharge consistent with the assumptions and requirements of applicable EPA approved or established TMDL(s)?

☐ Yes ☐ No

## VI. Endangered Species Information

Under which criterion of the permit have you satisfied your ESA eligibility obligations?

☐ A ☐ B ☐ C ☐ D ☐ E ☐ F

- If you select criterion F, provide permit tracking number of operator under which you are certifying eligibility:

_____

## VII. Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: _____

Print Title: _____

Signature: _____

Date: _____

Instructions for Completing EPA Form 3510-9

**Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under an NPDES General Permit**

NPDES Form | This Form Replaces Form 3510-9 (8/98) | Form Approved OMB Nos. 2040-0188 and 2040-0211

**Who Must File an NOI Form**
Under the provisions of the Clean Water Act, as amended (33 U.S.C. 1251 et.seq.; the Act), federal law prohibits storm water discharges from certain construction activities to waters of the U.S. unless that discharge is covered under a National Pollutant Discharge Elimination System (NPDES) Permit. Operator(s) of construction sites where one or more acres are disturbed, smaller sites that are part of a larger common plan of development or sale where there is a cumulative disturbance of at least one acre, or any other site specifically designated by the Director, must submit an NOI to obtain coverage under an NPDES general permit. Each person, firm, public organization, or any other entity that meets either of the following criteria must file this form: (1) they have operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or (2) they have day-to-day operational control of those activities at the project necessary to ensure compliance with SWPPP requirements or other permit conditions. If you have questions about whether you need an NPDES storm water permit, or if you need information to determine whether EPA or your state agency is the permitting authority, refer to *www.epa.gov/npdes/stormwater/cgp* or telephone the Storm Water Notice Processing Center at (866) 352-7755.

**Where to File NOI Form**
See the applicable CGP for information on where to send your completed NOI form.

**Completing the Form**
Obtain and read a copy of the appropriate EPA Storm Water Construction General Permit for your area. To complete this form, type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks (abbreviate if necessary to stay within the number of characters allowed for each item). Use one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions on this form, refer to *www.epa.gov/npdes/stormwater/cgp* or telephone the Storm Water Notice Processing Center at (866) 352-7755. Please submit original document with signature in ink - do not send a photocopied signature.

**Section I. Permit Number**
Provide the number of the permit under which you are applying for coverage (see Appendix B of the general permit for the list of eligible permit numbers).

**Section II. Operator Information**
Provide the legal name of the person, firm, public organization, or any other entity that operates the project described in this application. An operator of a project is a legal entity that controls at least a portion of site operations and is not necessarily the site manager. Provide the employer identification number (EIN from the Internal Revenue Service; IRS), also commonly referred to as your taxpayer ID. If the applicant does not have an EIN enter "NA" in the space provided. Also provide the operator's mailing address, telephone number, fax number (optional) and e-mail address (if you would like to be notified via e-mail of NOI approval when available). Correspondence for the NOI will be sent to this address.

**Section III. Project/Site Information**
Enter the official or legal name and complete street address, including city, state, zip code, and county or similar government subdivision of the project or site. If the project or site lacks a street address, indicate the general location of the site (e.g., Intersection of State Highways 61 and 34). Complete site information must be provided for permit coverage to be granted.

The applicant must also provide the latitude and longitude of the facility either in degrees, minutes, seconds; degrees, minutes, decimal; or decimal format. The latitude and longitude of your facility can be determined in several different ways, including through the use of global positioning system (GPS) receivers, U.S. Geological Survey (U.S.G.S.) topographic or quadrangle maps, and EPA's web-based siting tools, among others. Refer to *www.epa.gov/npdes/stormwater/cgp* for further guidance on the use of these methodologies. For consistency, EPA requests that measurements be taken from the approximate center of the construction site. Applicants must specify which method they used to determine latitude and longitude. If a U.S.G.S. topographic map is used, applicants are required to specify the scale of the map used.

Indicate whether the project is in Indian country, and if so, provide the name of the Reservation. If the project is in Indian Country Lands that are not part of a Reservation, indicate "not applicable" in the space provided.

Enter the estimated construction start and completion dates using four digits for the year (i.e., 05/27/1998). Enter the estimated area to be disturbed including but not limited to: grubbing, excavation, grading, and utilities and infrastructure installation. Indicate to the nearest quarter acre. Note: 1 acre = 43,560 sq. ft.

**Section IV. SWPPP Information**
Indicate whether or not the SWPPP was prepared in advance of filing the NOI form. Check the appropriate box for the location where the SWPPP may be viewed. Provide the name,

**Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under an NPDES General Permit**

NPDES Form This Form Replaces Form 3510-9 (8/98) Form Approved OMB Nos. 2040-0188 and 2040-0211

fax number (optional), and e-mail address (optional) of the contact person if different than that listed in Section II of the NOI form.

**Section V. Discharge Information**

Enter the name(s) of receiving waterbodies to which the project's storm water will discharge. These should be the first bodies of water that the discharge will reach. (Note: If you discharge to more than one waterbody, please indicate all such waters in the space provided and attach a separate sheet if necessary.) For example, if the discharge leaves your site and travels through a roadside swale or a storm sewer and then enters a stream that flows to a river, the stream would be the receiving waterbody. Waters of the U.S. include lakes, streams, creeks, rivers, wetlands, impoundments, estuaries, bays, oceans, and other surface bodies of water within the confines of the U.S. and U.S. coastal waters. Waters of the U.S. do not include man-made structures created solely for the purpose of wastewater treatment. U.S. Geological Survey topographical maps may be used to make this determination. If the map does not provide a name, use a format such as "unnamed tributary to Cross Creek". If you discharge into a municipal separate storm sewer system (MS4), you must identify the waterbody into which that portion of the storm sewer discharges. That information should be readily available from the operator of the MS4.

Indicate whether your storm water discharges from construction activities will be consistent with the assumptions and requirements of applicable EPA approved or established TMDL(s). To answer this question, refer to *www.epa.gov/npdes/stormwater/cgp* for state- and regional-specific TMDL information related to the construction general permit. You may also have to contact your EPA regional office or state agency. If there are no applicable TMDLs or no related requirements, please check the "yes" box in the NOI form.

**Section VI. Endangered Species Information**

Indicate for which criterion (i.e., A, B, C, D, E, or F) of the permit the applicant is eligible with regard to protection of federally listed endangered and threatened species, and designated critical habitat. See Part 1.3.C.6 and Appendix C of the permit. If you select criterion F, provide the permit tracking number of the operator under which you are certifying eligibility. The permit tracking number is the number assigned to the operator by the Storm Water Notice Processing Center after EPA acceptance of a complete NOI.

**Section VII. Certification Information**

All applications, including NOIs, must be signed as follows:

*For a corporation:* By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

*For a partnership or sole proprietorship:* By a general partner or the proprietor, respectively; or

*For a municipality, state, federal, or other public agency:* By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

Include the name and title of the person signing the form and the date of signing. An unsigned or undated NOI form will not be considered eligible for permit coverage.

**Paperwork Reduction Act Notice**

Public reporting burden for this application is estimated to average 3.7 hours. This estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Chief, Information Policy Branch 2136, U.S. Environmental Protection, Agency, 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460. Include the OMB control number on any correspondence. Do not send the completed form to this address.

## Appendix F - Notice of Termination Form and Instructions

From the effective date of this permit, operators are to use the Notice of Termination Form contained in this Appendix to terminate permit coverage.

This Form Replaces Form 3517-7 (8-98)
Refer to the Following Page for Instructions

Form Approved OMB Nos. 2040-0086 and 2040-0211

NPDES Form

EPA

United States Environmental Protection Agency
Washington, DC 20460

**Notice of Termination (NOT) of Coverage Under an NPDES General Permit for Storm Water Discharges Associated with Construction Activity**

Submission of this Notice of Termination constitutes notice that the party identified in Section II of this form is no longer authorized to discharge storm water associated with construction activity under the NPDES program from the site identified in Section III of this form. All necessary information must be included on this form. Refer to the instructions at the end of this form.

## I. Permit Information

NPDES Storm Water General Permit Tracking Number: _____

Reason for Termination (Check only one):

- ☐ Final stabilization has been achieved on all portions of the site for which you are responsible.
- ☐ Another operator has assumed control, according to Appendix G, Section 11.C of the CGP, over all areas of the site that have not been finally stabilized.
- ☐ Coverage under an alternative NPDES permit has been obtained.
- ☐ For residential construction only, temporary stabilization has been completed and the residence has been transferred to the homeowner.

## II. Operator Information

Name: _____

IRS Employer Identification Number (EIN): ___ - _____

**Mailing Address:**

Street: _____

City: _____ State: ___ Zip Code: _____ - ____

Phone: ___ - ___ - _____ Fax (optional): ___ - ___ - _____

E-mail (optional): _____

## III. Project/Site Information

Project/Site Name: _____

Project Street/Location: _____

City: _____ State: ___ Zip Code: _____ - ____

County or similar government subdivision: _____

## IV. Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: _____

Print Title: _____

Signature: _____

Date: _____

Instructions for Completing EPA Form 3510-13

**Notice of Termination (NOT) of Coverage Under an NPDES General Permit for Storm Water Discharges Associated with Construction Activity**

NPDES Form This Form Replaces Form 3517-7 (8-98) Form Approved OMB Nos. 2040-0086 and 2040-0211

**Who May File an NOT Form**

Permittees who are presently covered under the EPA-issued National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity may submit an NOT form when final stabilization has been achieved on all portions of the site for which you are responsible; another operator has assumed control in accordance with Appendix G, Section 11.C of the General Permit over all areas of the site that have not been finally stabilized; coverage under an alternative NPDES permit has been obtained; or for residential construction only, temporary stabilization has been completed and the residence has been transferred to the homeowner.

"Final stabilization" means that all soil disturbing activities at the site have been completed and that a uniform perennial vegetative cover with a density of at least 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed. See "final stabilization" definition in Appendix A of the Construction General Permit for further guidance where background native vegetation covers less than 100 percent of the ground, in arid or semi-arid areas, for individual lots in residential construction, and for construction projects on land used for agricultural purposes.

**Completing the Form**

Type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions about this form, refer to *www.epa.gov/npdes/stormwater/cgp* or telephone the Storm Water Notice Processing Center at (866) 352-7755. Please submit original document with signature in ink - do not send a photocopied signature.

**Section I. Permit Number**

Enter the existing NPDES Storm Water General Permit Tracking Number assigned to the project by EPA's Storm Water Notice Processing Center. If you do not know the permit tracking number, refer to *www.epa.gov/npdes/stormwater/cgp* or contact the Storm Water Notice Processing Center at (866) 352-7755.

Indicate your reason for submitting this Notice of Termination by checking the appropriate box. Check only one:

*Final stabilization has been achieved on all portions of the site for which you are responsible.*

*Another operator has assumed control according to Appendix G, Section 11.C over all areas of the site that have not been finally stabilized.*

*Coverage under an alternative NPDES permit has been obtained.*

*For residential construction only, if temporary stabilization has been completed and the residence has been transferred to the homeowner.*

**Section II. Operator Information**

Provide the legal name of the person, firm, public organization, or any other entity that operates the project described in this application and is covered by the permit tracking number identified in Section I. The operator of the project is the legal entity that controls the site operation, rather than the site manager. Provide the employer identification number (EIN from the Internal Revenue Service; IRS). If the applicant does not have an EIN enter "NA" in the space provided. Enter the complete mailing address and telephone number of the operator. *Optional:* enter the fax number and e-mail address of the operator.

**Section III. Project/Site Information**

Enter the official or legal name and complete street address, including city, state, zip code, and county or similar government subdivision of the project or site. If the project or site lacks a street address, indicate the general location of the site (e.g., intersection of State Highways 61 and 34). Complete site information must be provided for termination of permit coverage to be valid.

**Section IV. Certification Information**

All applications, including NOIs, must be signed as follows:

*For a corporation*: By a responsible corporate officer. For the purpose of this Part, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

*For a partnership or sole proprietorship:* By a general partner or the proprietor, respectively; or

*For a municipality, state, federal, or other public agency:* By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

Include the name and title of the person signing the form and the date of signing. An unsigned or undated NOT form will not be considered valid termination of permit coverage.

**Paperwork Reduction Act Notice**

Public reporting burden for this application is estimated to average 0.5 hours per notice, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form including any suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, 2136, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Include the OMB number on any correspondence. Do not sent the completed form to this address.

## Appendix G - Standard Permit Conditions

### STANDARD PERMIT CONDITIONS

### 1. Duty To Comply

You must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

A. You must comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

B. The Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. §2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. §3701 note) (currently $27,500 per day for each violation).

   The Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

C. Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Pursuant to 40 CFR Part 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. §2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. §3701 note) (currently $11,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $27,500). Pursuant to 40 CFR Part 19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. §2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. §3701 note) (currently $11,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $137,500).

### 2. Duty to Reapply

If you wish to continue an activity regulated by this permit after the expiration date of this permit, you must apply for and obtain a new permit.

**3. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for you in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**4. Duty to Mitigate**

You must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

**5. Proper Operation and Maintenance**

You must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by you to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by you only when the operation is necessary to achieve compliance with the conditions of this permit.

**6. Permit Actions**

This permit may be modified, revoked and reissued, or terminated for cause. Your filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

**7. Property Rights**

This permit does not convey any property rights of any sort, or any exclusive privileges.

**8. Duty to Provide Information**

You must furnish to EPA, within a reasonable time, any information which EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. You must also furnish to EPA upon request, copies of records required to be kept by this permit.

**9. Inspection and Entry**

You must allow EPA, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

A. Enter upon your premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

D. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

**10. Monitoring and Records**

A. Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

B. You must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of EPA at any time.

C. Records of monitoring information must include:

1. The date, exact place, and time of sampling or measurements;
2. The individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed

4. The individual(s) who performed the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

D. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in the permit.

E. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

**11. Signatory Requirements**

A. All applications, including NOIs, must be signed as follows:

1. For a corporation: By a responsible corporate officer. For the purpose of this Part, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
2. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or
3. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

B. All reports required by this permit, including SWPPPs, must be signed by a person described in Appendix G, Subsection 11.A above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described in Appendix G, Subsection 11.A;
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
3. The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.

C. Changes to Authorization. If an authorization under Subpart 2.1 is no longer accurate because a different operator has responsibility for the overall operation of the construction site, a new NOI satisfying the requirements of Subpart 2.1 must be submitted to EPA prior to or together with any reports, information, or applications to be signed by an authorized representative. The change in authorization must be submitted within the time frame specified in Subpart 2.2, and sent to the address specified in Subpart 2.3.

D. Any person signing documents required under the terms of this permit must include the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is,

to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

E. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

**12. Reporting Requirements**

A. Planned changes. You must give notice to EPA as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR §122.29(b); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR §122.42(a)(1).

B. Anticipated noncompliance. You must give advance notice to EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

C. Transfers. This permit is not transferable to any person except after notice to EPA. EPA may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (See 40 CFR §122.61; in some cases, modification or revocation and reissuance is mandatory.)

D. Monitoring reports. Monitoring results must be reported at the intervals specified elsewhere in this permit.

1. Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by EPA for reporting results of monitoring of sludge use or disposal practices.
2. If you monitor any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by EPA.
3. Calculations for all limitations which require averaging of measurements must use an arithmetic mean.

E. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.

F. Twenty-four hour reporting.

1. You must report any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time you become aware of the circumstances. A written submission must also be provided within five days of the time you become aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
2. The following shall be included as information which must be reported within 24 hours under this paragraph.
   a. Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR §122.41(g).)
   b. Any upset which exceeds any effluent limitation in the permit
   c. Violation of a maximum daily discharge limitation for any of the pollutants listed by EPA in the permit to be reported within 24 hours. (See 40 CFR §122.44(g).)

3. EPA may waive the written report on a case-by-case basis for reports under Appendix G, Subsection 12.F.2 if the oral report has been received within 24 hours.

G. Other noncompliance. You must report all instances of noncompliance not reported under Appendix G, Subsections 12.D, 12.E, and 12.F, at the time monitoring reports are submitted. The reports must contain the information listed in Appendix G, Subsection 12.F.

H. Other information. Where you become aware that you failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Permitting Authority, you must promptly submit such facts or information.

**13. Bypass**

A. Definitions.

1. Bypass means the intentional diversion of waste streams from any portion of a treatment facility

2. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

B. Bypass not exceeding limitations. You may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Appendix G, Subsections 13.C and 13.D.

C. Notice–

1. Anticipated bypass. If you know in advance of the need for a bypass, you must submit prior notice, if possible at least ten days before the date of the bypass.

2. Unanticipated bypass. You must submit notice of an unanticipated bypass as required in Appendix G, Subsection 12.F (24-hour notice).

D. Prohibition of bypass.

1. Bypass is prohibited, and EPA may take enforcement action against you for bypass, unless:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. You submitted notices as required under Appendix G, Subsection 13.C.

2. EPA may approve an anticipated bypass, after considering its adverse effects, if EPA determines that it will meet the three conditions listed above in Appendix G, Subsection 13.D.1.

**14. Upset**

A. Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond your reasonable control. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

B. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Appendix G, Subsection 14.C are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

C. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that you can identify the cause(s) of the upset;

2. The permitted facility was at the time being properly operated; and

3. You submitted notice of the upset as required in Appendix G, Subsection 12.F.2.b(24 hour notice).
4. You complied with any remedial measures required under Appendix G, Section 4.

D. Burden of proof. In any enforcement proceeding, you, as the one seeking to establish the occurrence of an upset, has the burden of proof.

# ATTACHMENT E

This Form Replaces Form 3510-9 (8-98)
Refer to the Following Pages for Instructions

Form Approved OMB Nos. 2040-0188 and 2040-0211

NPDES Form

EPA

United States Environmental Protection Agency
Washington, DC 20460

**Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under an NPDES General Permit**

Submission of this Notice of Intent (NOI) constitutes notice that the party identified in Section II of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section I of this form. Submission of this NOI also constitutes notice that the party identified in Section II of this form meets the eligibility requirements of the CGP for the project identified in Section III of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Refer to the instructions at the end of this form.

**I. Permit Number**

MAR100000

**II. Operator Information**

Name: WES CONSTRUCTION CORPORATION

IRS Employer Identification Number (EIN): 04 - 2077178

**Mailing Address:**

Street: 175 COMMERCIAL CIRCLE

City: DEDHAM State: MA Zip Code: 02026 -

Phone: 781 - 326 - 4030 Fax (optional): 781 - 326 - 9957

E-mail (optional): WESGC@VERIZON.NET

**III. Project/Site Information**

Project/Site Name: KEITH MIDDLE SCHOOL

Project Street/Location: 225 HATHAWAY BOULEVARD

City: NEW BEDFORD State: MA Zip Code: 02740 -

County or similar government subdivision: BRISTOL

Latitude/Longitude (Use one of three possible formats, and specify method)

Latitude
1. 41° 38' 43" N (degrees, minutes, seconds)
2. ___° ___.___' N (degrees, minutes, decimal)
3. 41.6454° N (decimal)

Longitude
1. 070° 56' 56" W (degrees, minutes, seconds)
2. ___° ___.___' W (degrees, minutes, decimal)
3. -70.9488° W (decimal)

Method: ☐ U.S.G.S. topographic map ☐ EPA web site ☐ GPS ☑ Other:
• If you used a U.S.G.S. topographic map, what was the scale: GEOSEARCH.COM

Project Located in Indian country? ☐ Yes ☑ No
If so, name of Reservation or if not part of a Reservation, put "Not Applicable": _____

Estimated Project Start Date: 09 / 20 / 2004 (Month / Date / Year) Estimated Project Completion Date: 12 / 30 / 2004 (Month / Date / Year)

Estimated Area to be Disturbed (to the nearest quarter acre): 0007.50

## IV. SWPPP Information

Has the SWPPP been prepared in advance of filing this NOI? ☑ Yes ☐ No

Location of SWPPP for viewing: ☐ Address in Section II ☐ Address in Section III ☑ Other

If Other:

SWPPP Street: 315 NORWOOD PARK SOUTH

City: NORWOOD

State: MA Zip Code: 02062 -

SWPPP Contact Information (if different than that in Section II):

Name: ALAN HANSCOM, PE, LSP

Phone: 781 - 255 - 1982 Fax (optional): 781 - 255 - 1974

E-mail (optional): AHANSCOM@BETA-INC.COM

## V. Discharge Information

Identify the name(s) of waterbodies to which you discharge. UNNAMED TRIBUTARY TO THE APPONAGANSETT SWAMP.

Is this discharge consistent with the assumptions and requirements of applicable EPA approved or established TMDL(s)?

☑ Yes ☐ No

## VI. Endangered Species Information

Under which criterion of the permit have you satisfied your ESA eligibility obligations?

☑ A ☐ B ☐ C ☐ D ☐ E ☐ F

- If you select criterion F, provide permit tracking number of operator under which you are certifying eligibility:

## VII. Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: ALAN D. HANSCOM, P.E., LSP

Print Title: ASSOCIATE

Signature:

Date: 9/15/2004

## Shipment Receipt

(Keep this for your records.)

**Transaction Date** 15 Sep 2004

**Address Information**

| **Ship To:** | **Shipper:** | **Ship From:** |
|---|---|---|
| U.S. E.P.A. | BETA Group | BETA Group |
| 202 272 0167 | ERIC OLSON | Diane Letendre |
| STORM WATER PROCESSING CENTER | 781 255 1982 | 781 255 1982 |
| 1201 CONSTITUTION AVENUE, NW | 315 Norwood Park South | 315 Norwood Park South |
| ROOM 7420 | 2nd Floor | 2nd Floor |
| WASHINGTON DC 20004-3302 | Norwood MA 02062 | Norwood MA 02062 |

**Shipment Information**

| | |
|---|---|
| **Service:** | UPS Ground Service |
| Guaranteed By: | End of Day, Fri. 17 Sep. 2004 |

**Shipping:** ..... 3.81

**Package Information**

**Package 1 of 1**

| | |
|---|---|
| Tracking Number: | 1ZF178410396080170 |
| Package Type: | Your Packaging |
| Dimensions: | 9 x 12 x 1 in. |
| Actual Weight: | 1.0 lbs |
| Billable Weight: | 1.0 lbs |
| Reference#1: | J #: 2685 / T-108 |

**Billing Information**

| | | |
|---|---|---|
| **Payment Method:** | Bill Sender: F17841 | |
| **Total:** | **All Shipping Charges in USD** | **3.81** |

Note: The displayed rate is for reference purposes and does not include applicable taxes.

* For delivery and guarantee information, see the UPS Service Guide. To speak to a customer service representative, call 1-800-PICK-UPS for domestic services and 1-800-782-7892 for international services.

**Responsibility for Loss or Damage**

Unless a greater value is recorded in the declared value field as appropriate for the UPS shipping system used, the shipper agrees that the released value of each package covered by this receipt is no greater than $100, which is a reasonable value under the circumstances surrounding the transportation. UPS does not accept for transportation and shipper's requesting service through the Internet are prohibited from shipping packages with a value of more than $50,000. The maximum liability per package assumed by UPS shall not exceed $100, regardless of the purchase of insurance for protection in excess of $100. The maximum liability per package assumed by the applicable insurance company shall not exceed $50,000 (less $100). Claims not made within nine months after delivery of the package (six months for international shipments), or in the case of failure to make delivery, nine months after a reasonable time for delivery has elapsed (six months for international shipments), shall be deemed waived. The entry of a C.O.D. amount is not a declaration of value for insurance purposes. All checks or other negotiable instruments tendered in payment of C.O.D.'s will be accepted by UPS at shipper's risk. UPS shall not be liable for any special, incidental, or consequential damages.

# ATTACHMENT F

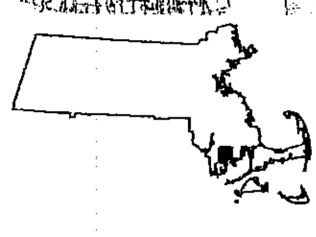
# PRIORITY HABITATS OF RARE SPECIES

**For species protected under MA Endangered Species Act regulations (321 CMR 10)**
**Note: NOT equivalent to Significant Habitat**

Effective October 1, 1999 through December 31, 2001
Produced by the Natural Heritage & Endangered Species Program, MA Division of Fisheries & Wildlife

0.5 0 0.5 1 Miles

See County Index Maps to locate adjacent quadrangles



NEW BEDFORD NORTH QUAD

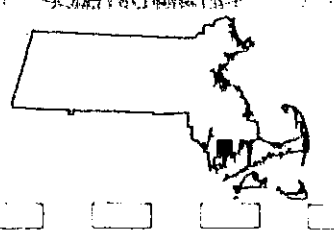
# ESTIMATED HABITATS OF RARE WILDLIFE AND CERTIFIED VERNAL POOLS

**For use with the MA Wetlands Protection Act regulations (310 CMR 10)**

Effective October 1, 1999 through December 31, 2001
Produced by the Natural Heritage & Endangered Species Program, MA Division of Fisheries & Wildlife

0.5 0 0.5 1 Miles

See County Index Maps to locate adjacent quadrangles



NEW BEDFORD NORTH QUAD

# ATTACHMENT G

**THIS ATTACHMENT ALSO CONTAINS A CD-ROM AND IS AVAILABLE FOR VIEWING AT:**

**CITY OF NEW BEDFORD PUBLIC LIBRARY**
**613 PLEASANT STREET**
**NEW BEDFORD, MA 02740**

**CONTACT NUMBERS**
PHONE: (508)991-6275
FAX: (508)979-1481

**SCHEDULE OF HOURS**
MONDAY -THURSDAY
9:00AM - 9:00PM
FRIDAY & SATURDAY
9:00AM - 5:00PM

**CLOSED SUNDAY & HOLIDAYS**
**HANDICAPPED ACCESSIBLE**

# Attachment I

---

Documentation of Compliance wit Contract Specifications (Sand Cone Density Test Records on CD-ROM)

**UTS Of Massachusetts Inc.**
**"The Construction Testing People"**

## *LETTER OF TRANSMITTAL – SOIL TESTING RESULTS*

***SAMPLE NO.*** 966

**PROJECT:** Keith Middle School Phase III **DATE:** 3/03/2005
**LOCATION:** New Bedford, MA **PROJECT NO.** 9415

**Sample Submitted By**
☐ UTS Representative: **Date Submitted:** 3/02/05
☒ Other: Justin of G.A. Cline + Sons Inc.

**SOURCE OF SAMPLE**
☐ On-Site Existing @ Location:
☒ Off-Site Borrow from: Cape Cod Aggregate

**PROPOSED USE:** Backfill

**MATERIAL SUBMITTED AS**
☒ *Structural/Granular Fill:*
☐ *Ordinary Borrow:* MHD M1.01.0 *(Shall be approved by the Architect)*
☐ *Gravel Borrow:* MHD M1.03.0 *Type:* A – B – C
☐ *Processed Gravel for Base Course:* MHD M1.03.1
☐ *Sand Borrow:* MHD M1.04.0 *Type:* A – B
☐ *Reclaimed Pavement Borrow for Base Course:* MHD M1.13.0
☐ *Crushed Stone:* MHD M2.01.0
☐ *Dense Graded Crushed Stone for Base Course:* MHD M2.01.7
☐ *Common Borrow:*
☐ *Drainage Fill:*
☐ *Other:*

**REQUESTED TESTING**
☐ *Gradation Analysis*
☒ *Wash Sieve Analysis*
☒ *Modified Proctor*
☐ *Atterberg Limits*
☐ *Permeability*
☐ *Other:*

**MATERIAL CLASSIFICATION:** Sand with Gravel

**PROJECT SPECIFICATION CONFORMANCE RESULTS**
☒ Does conform: Section 02200-4 (c) Clean Granular Fill
☐ Does **NOT** conform... *Basis:*
☐ Marginally does not conform... *Basis:*

* *We suggest the suitability of this soil be reviewed for approval by the Architect and Engineers-of-Record.*

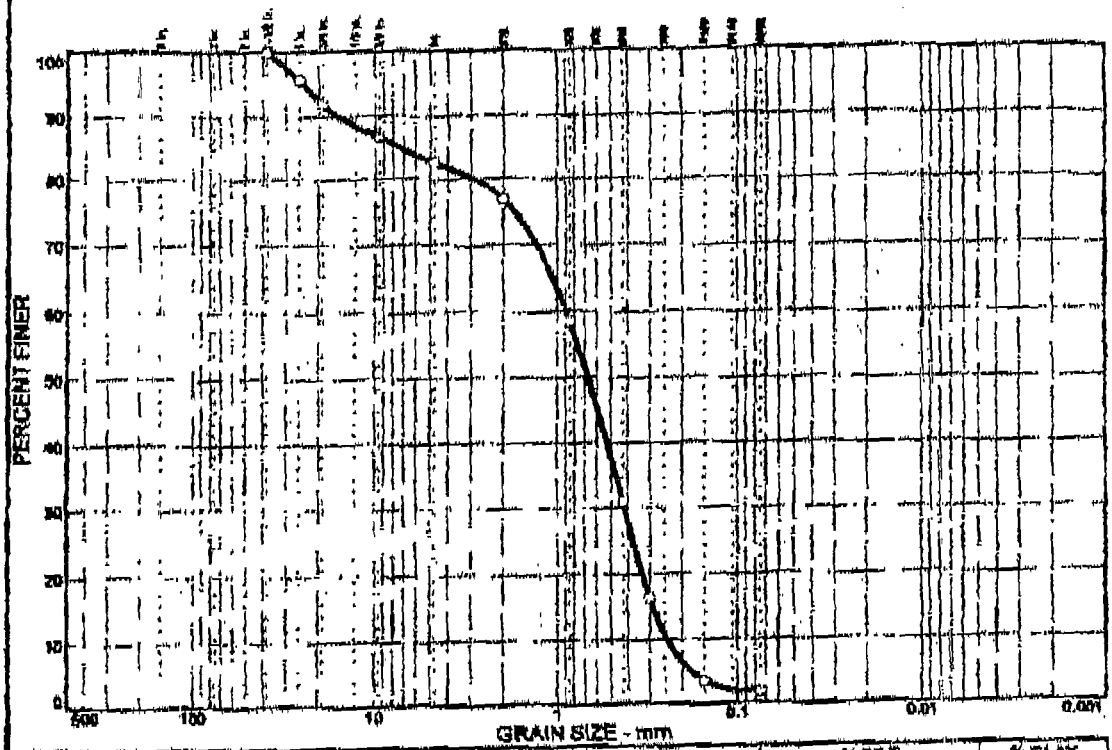
☐ No Specification provided to our office.
☐ Specifications provided to our office but sample not submitted to a specific use.
☐ Sample submitted without indication of intended use and without Specifications.

☐ ***REMARKS:***

John C. McCarthy
*Geotechnical Dept. Mgr.*

5 Richardson Lane, Stoneham, Massachusetts 02180 (781) 438-7755 Fax (781) 438-6216

# Particle Size Distribution Report




| % COBBLES | % GRAVEL | % SAND | % SILT | % CLAY |
|---|---|---|---|---|
| 0.0 | 17.5 | 80.7 | 1.8 | |

| SIEVE SIZE | PERCENT FINER | SPEC.* PERCENT | PASS? (X=NO) |
|---|---|---|---|
| 1-1/2 in. | 100.0 | | |
| 1 in. | 95.7 | | |
| 3/4 in. | 92.0 | | |
| 3/8 in. | 86.6 | | |
| #4 | 82.5 | | |
| #10 | 76.9 | | |
| #20 | 58.6 | | |
| #40 | 30.0 | | |
| #60 | 15.4 | | |
| #100 | 3.5 | | |
| #200 | 1.8 | | |

* (no specification provided)

**Material Description**

F-M SAND, LITTLE GRAVEL, TRACE SILT

**Atterberg Limits**

PL= LL= PI=

**Coefficients**

$D_{85}$= 7.35 $D_{60}$= 0.555 $D_{50}$= 0.464
$D_{30}$= 0.417 $D_{15}$= 0.288 $D_{10}$= 0.240
$C_u$= 3.70 $C_c$= 0.81

**Classification**

USCS= SP AASHTO=

**Remarks**

Sample No.: 966 Source of Sample: CAPE COD AGGREGATE Date: 3/01/2005
Location: Elev./Depth:

UTS OF MASSACHUSETTS, INC.

Client: AGOSTINI CONSTRUCTION
Project: KEITH MIDDLE SCHOOL PHASE III, NEW BEDFORD, MA
Project No: 9415 Figure 966

G. A. CLIMO & SON, INC
5 MAHONEY AVENUE
STOUGHTON, MA 02072
TEL: 1-781- 344- 4406
FAX 1-781- 344- 2250

# FACSIMILE TRANSMITTAL SHEET

| | | | |
|---|---|---|---|
| TO: | Richard Reuter | FROM: | JUSTIN LOCKE |
| FAX NUMBER: | 401-436-9737 | DATE: | 3/4/2005 |
| COMPANY: | Agostini Construction | TOTAL NO. OF PAGES INCLUDING COVER: | 6 |
| PHONE NUMBER: | | | |
| RE: | Keith Middle School | CC: | |

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY

NOTES / COMMENTS Submittal 03 Granular Fill Cape Resources Co

RECEIVED
MAR 24 2005
MOUNT VERNON GROUP, INC.
NEW BEDFORD, MA

AGOSTINI CONSTRUCTION CO., INC.

G. A Climo & Son Inc.
5 Mahoney Avenue
Stoughton, MA 02072

PHONE:(781) 344 - 4406
FAX: (781) 344 - 2250

MAR 08 2005
02200 - 003A
REVIEWED FOR SUBMISSION
BY _____

# SUBMITTAL

| | |
|---|---|
| PROJECT: | Keith Middle School |
| LOCATION: | New Bedford, MA |
| CONTRACT NO.: | Phase III Project 29995.03 |
| DATE: | 3/3/2005 |
| SUBMITTAL NO.: | 03 |
| SECTION: | # 02200 |
| PRODUCT TYPE: | Sample of Clean Granular Fill 02200-4-C. Product Provided by Cape Cod Resources Co. |
| LOCATION IN PROJECT: | Section 02200 and Addendum # 12 |

RECEIVED
MAR 24 2005
MOUNT VERNON GROUP, INC.
NEW BEDFORD, MA

It is hereby certified that the items (material) (equipment) (article) shown and marked in this submittal are those to be incorporated into Project # 20005.03, is in compliance with the contract drawings and specifications, can be installed in allocated spaces, and are submitted for Agostini Construction Co, Inc. Approval

Certified by _____ Dated:
Justin C. Looke

# Agostini Construction Company, Inc.

243 Narragansett Park Drive
East Providence, RI 02916

Phone: 401-435-4848
Fax: 401-438-9737

**SUBMITTAL NO. 02200-003A**
**PACKAGE NO: 02200**

**TITLE:** Clean Fill para 2.01C Option III
**PROJECT:** Keith Middle School
**DRAWING:**
**STATUS:** OPN
**BIC:** MTVERN

**REQUIRED START:**
**REQUIRED FINISH:**
**DAYS HELD:** 0
**DAYS ELAPSED:** 1
**DAYS OVERDUE:** 0

| RECEIVED FROM | | SENT TO | | RETURNED BY | | FORWARDED TO | |
|---|---|---|---|---|---|---|---|
| GACLIMO | AC | MTVERN | AA | MTVERN | AA | GACLIMO | AC |

| Revision No. | Description / Remarks | Received | Sent | Returned | Forwarded | Status | Copies | Prints | Drawing Date | Held | Elapsed |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 001 | Clean Fill para 2.01C Option III<br>Sample #966 from Cape Cod Resources Co., Inc. | 3/7/2005 | 3/8/2005 | | | OPN | 0 | 6 | | 0 | 1 |

Expediter®

# Agostini Construction Company, Inc.

**TRANSMITTAL**
**No. 00144**

243 Narragansett Park Drive
East Providence, RI 02916

**Phone:** 401-435-4848
**Fax:** 401-431-0049

**PROJECT:** Keith Middle School

**DATE:** 3/8/05

**TO:** Mount Vernon Group
[illegible]
New Bedford, MA 02740

**REF:** Clean Fill para 2.01C
Option III

**ATTN:** Al Amaral

| WE ARE SENDING | SUBMITTED FOR | ACTION TAKEN |
|---|---|---|
| ☑ Shop Drawings | ☑ Approval | ☐ Approved as Submitted |
| ☐ Letter | ☐ Your Use | ☐ Approved as Noted |
| ☐ Prints | ☐ As Requested | ☐ Returned After Loan |
| ☐ Change Order | ☐ Review and Comment | ☐ Resubmit |
| ☐ Plans | | ☐ Submit |
| ☐ Samples | SUMMARY | ☐ Returned |
| ☐ Specifications | ☐ Attached | ☐ Returned for Corrections |
| ☑ Other: Made from Submittal | ☑ Separate Cover Via: [illegible] | ☐ Due Date: |

| ITEM | PACKAGE | SUBMITTAL | DRAWING | REV | ITEM NO. | COPIES | DATE | DESCRIPTION | STATUS |
|---|---|---|---|---|---|---|---|---|---|
| SUB | 02200 | 02200-003A | | 001 | | 6 | 3/8/05 | Title: Clean Fill para 2.01C Option III<br>Desc: Clean Fill para 2.01C Option III | OPN |

**Remarks:** For review and approval.

RECEIVED
MAR 0 9 2005
MOUNT VERNON GROUP, INC.
NEW BEDFORD, MA

CC: 02200

**Signed:** Kathleen Labouliere
Kathleen Labouliere

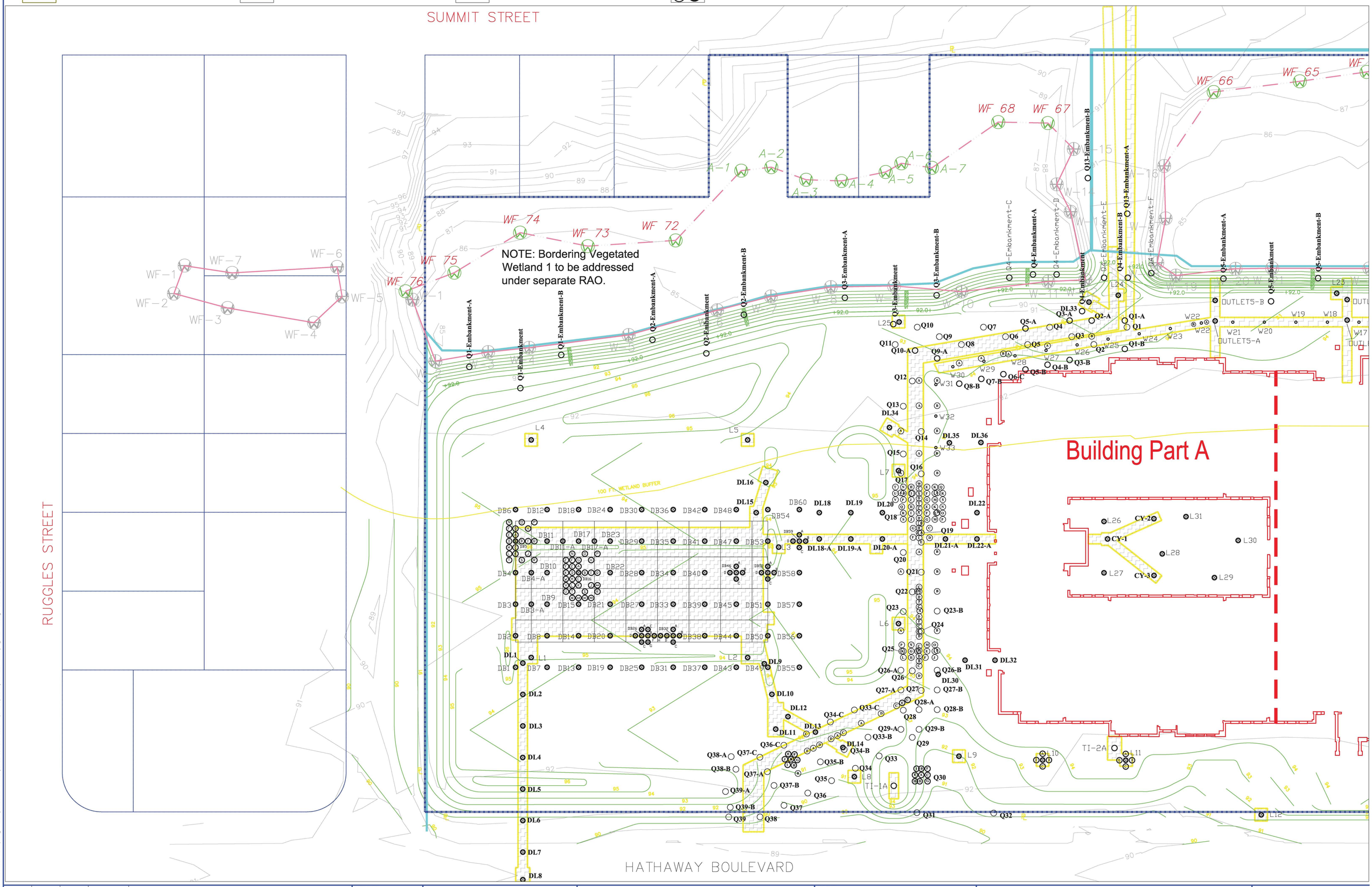
Expedition

**Figure 1.1**

Sample Location Plan
South Side

LEGEND

| | |
|---|---|
| EXISTING ELEVATION | EXCAVATION AREA |
| PROPOSED FINAL ELEVATION | BUILDING FOOTPRINT |
| PROPERTY LINE | WETLANDS LINE |
| SECURITY FENCE | SAMPLE LOCATION |




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

# McCoy Field

New Bedford, Massachusetts


BETA Group, Inc.
Engineers•Scientists•Planners
315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com


SCALE: 1" = 20'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request Rev. 1

## Figure 1.1 Rev. 1

## Sample Location Plan - South Side

JOB 02685

FILE NO. Figure 1.dwg

PLOT DATE June 2005

SHEET

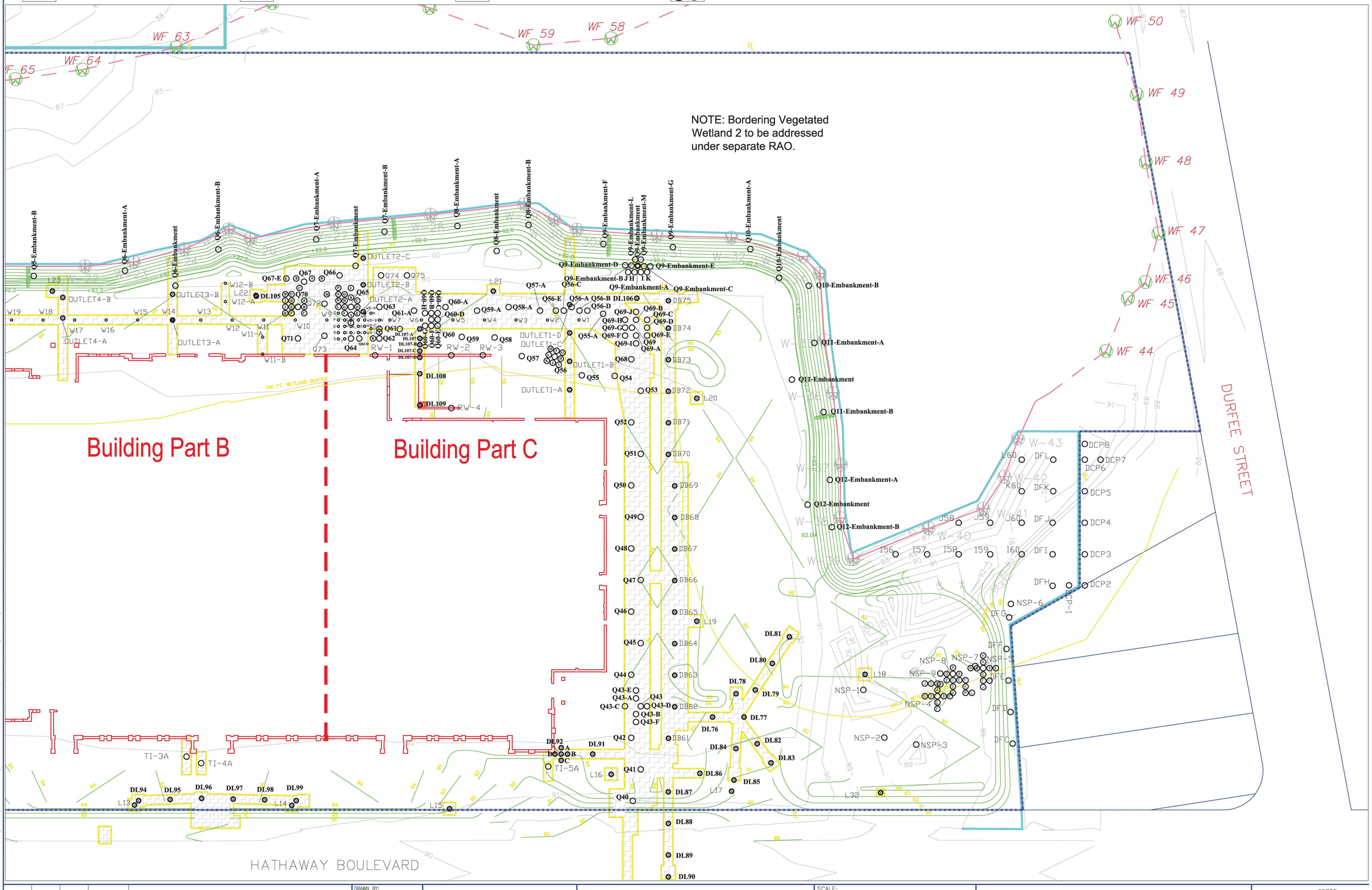
J:\Projects\2600s\2685 – New Bedford Sampling Plan\AutoCad Files\Risk-based Cleanup Request\School Site\Figure 1.dwg Jun. 27, 2005 9:34am

**Figure 1.2**

Sample Location Plan
North Side

LEGEND

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 92 | EXISTING ELEVATION | | EXCAVATION AREA | PL | PROPERTY LINE | W | WETLANDS LINE |
| 92 | PROPOSED FINAL ELEVATION | | BUILDING FOOTPRINT | | SECURITY FENCE | | SAMPLE LOCATION |




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

# McCoy Field

New Bedford, Massachusetts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Engineers·Scientists·Planners
315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com


SCALE: 1" = 20'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request Rev. 1

## Figure 1.2 Rev. 1

## Sample Location Plan - North Side

JOB 02685

FILE NO. Figure 1.dwg

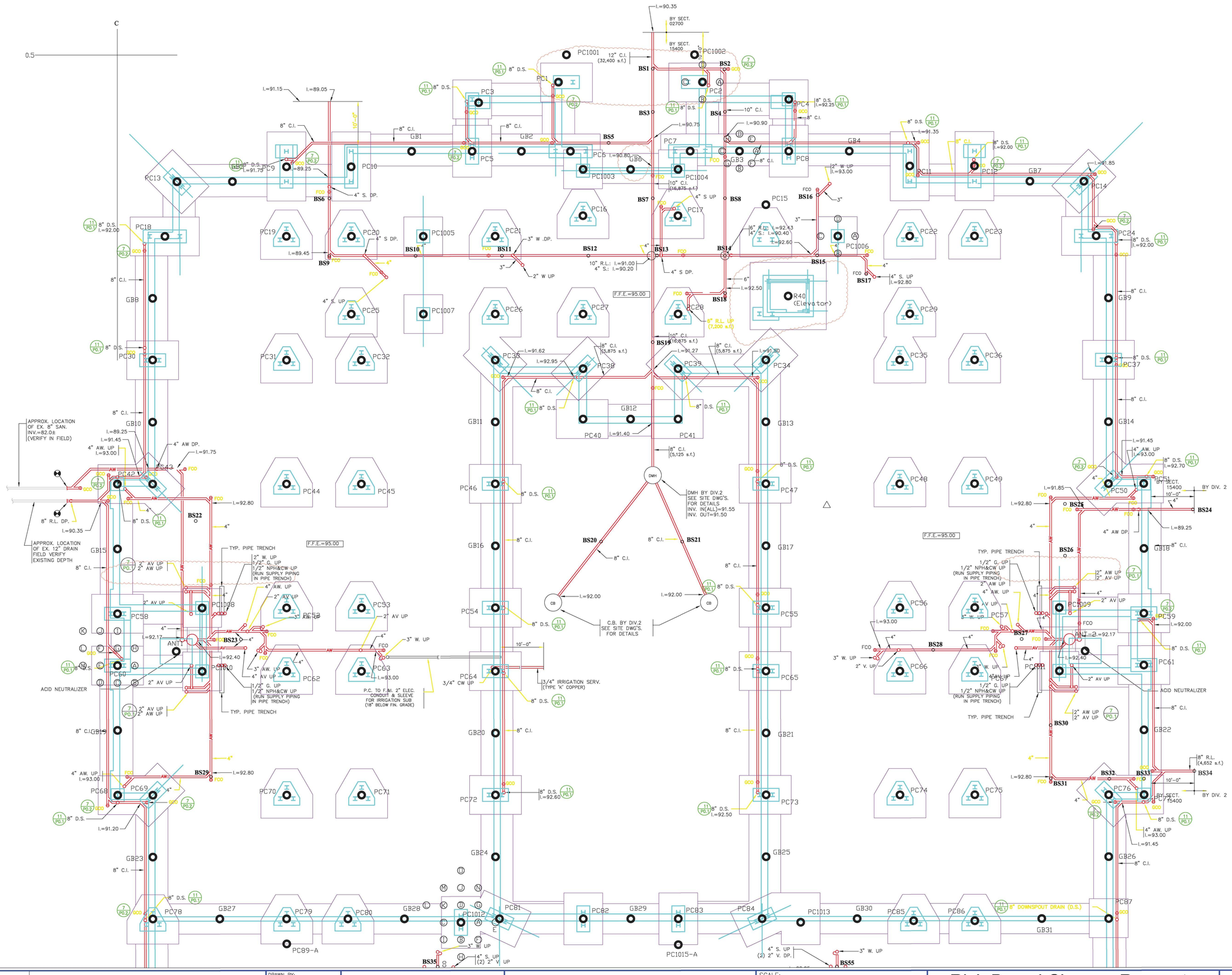
PLOT DATE June 2005

SHEET

J:\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\Risk-based Cleanup Request\School Site\Figure 1.dwg Jun. 27, 2005 9:31am

**Figure 1.3**

Building Part A
Pile Caps, Grade Beams &
Utilities




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

**BETA Group, Inc.**
Engineers•Scientists•Planners

315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com

**McCoy Field**
New Bedford, Massachusetts

SCALE:
1/8" = 1'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

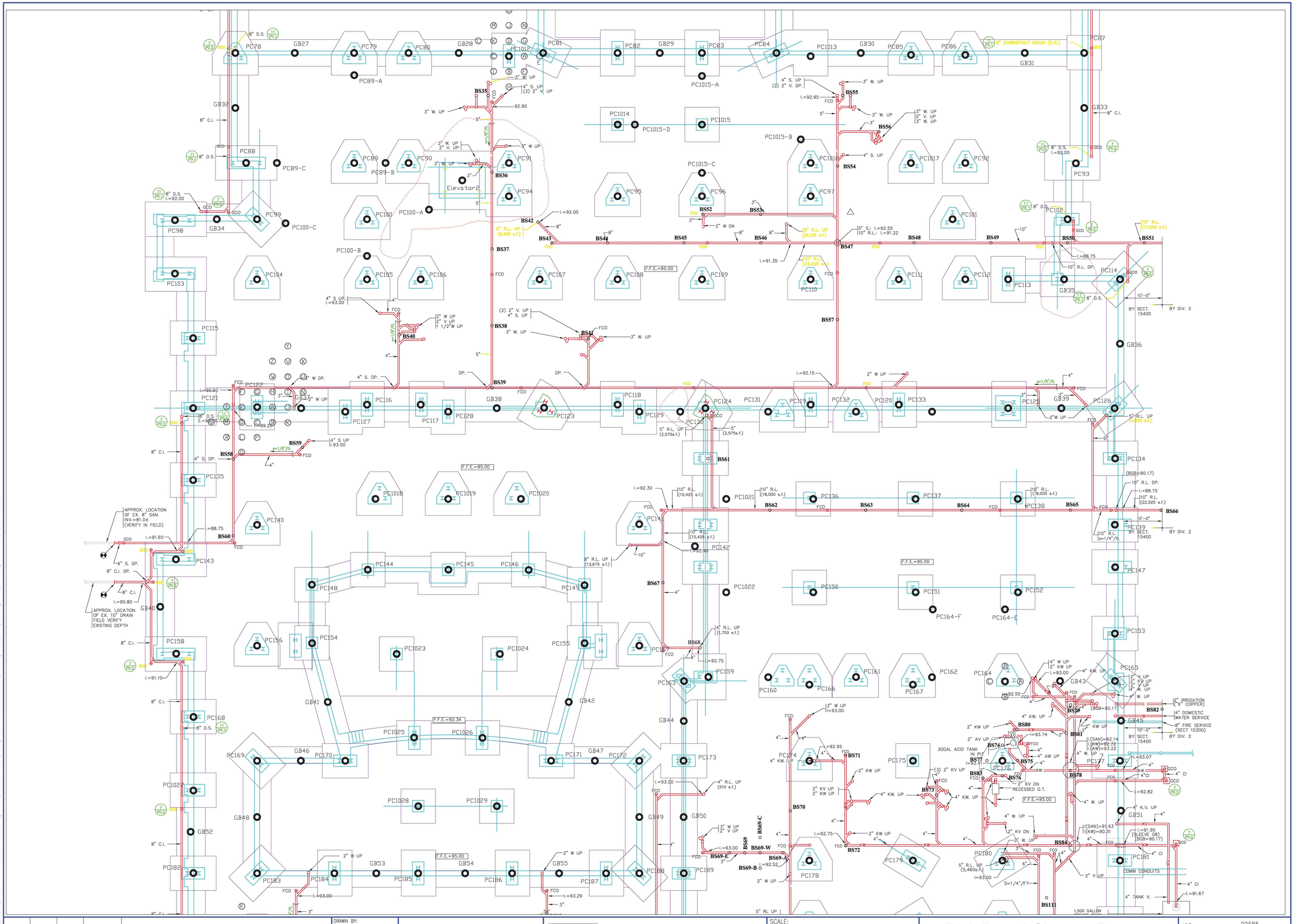
# Risk-Based Cleanup Request
## Figure 1.3
### Building Part A
Pile Caps, Grade Beams & Utilities

JOB 02685
FILE NO. Building Footprint.dwg
PLOT DATE June 2005
SHEET

\\BETA-MA2\Share\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\McCoy Site Characterization\Building Footprint\Building Footprint.dwg Jun 27, 2005 9:38am

**Figure 1.4**

Building Part B
Pile Caps, Grade Beams &
Utilities




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

**BETA Group, Inc.**
Engineers·Scientists·Planners

315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com

**McCoy Field**
New Bedford, Massachusetts

SCALE: 1/8" = 1'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request
## Figure 1.4
### Building Part B
Pile Caps, Grade Beams & Utilities

JOB 02685

FILE NO. Building Footprint.dwg

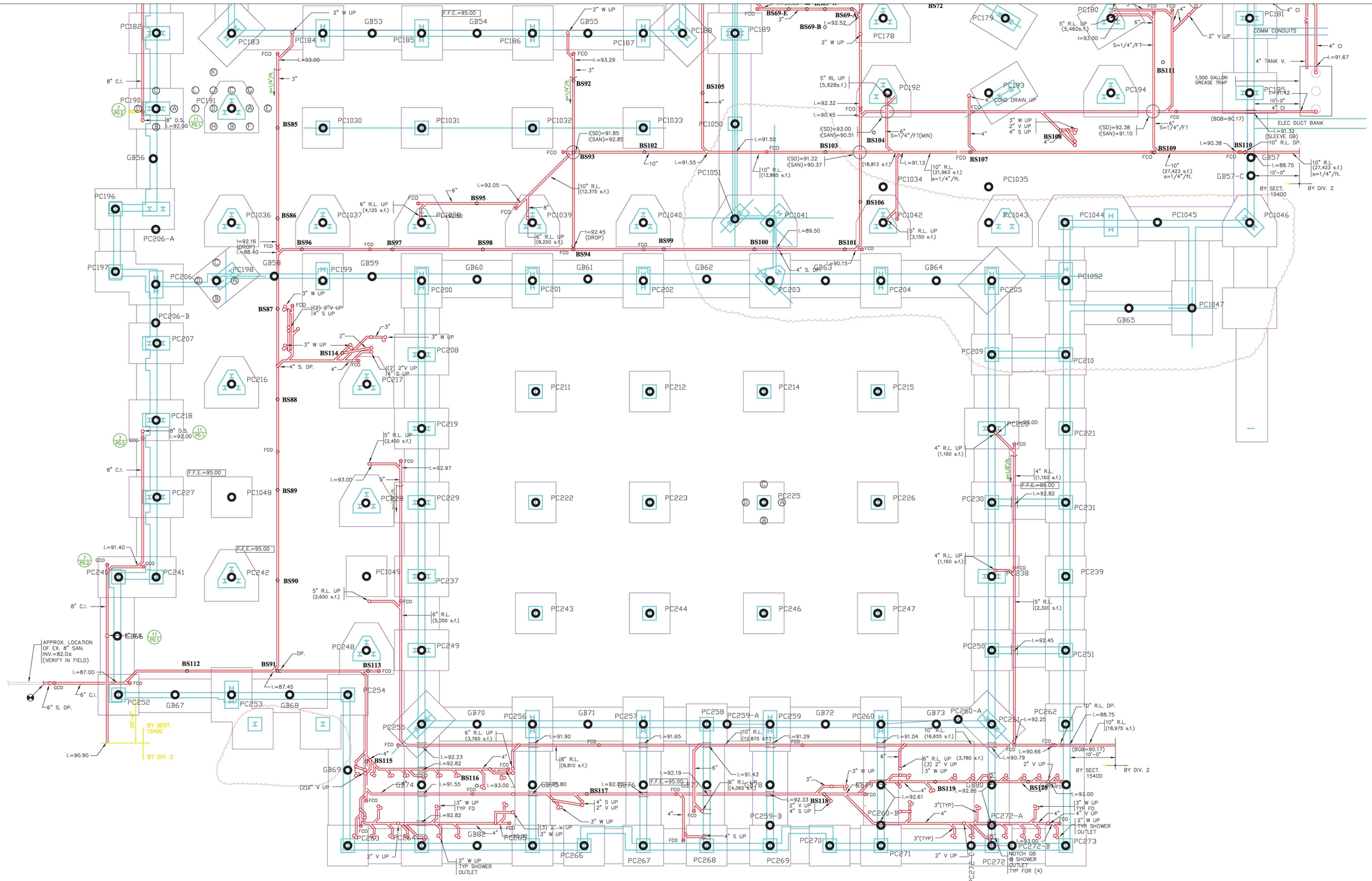
PLOT DATE June 2005

SHEET

\\BETA-MA2\Share\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\McCoy Site Characterization\Building Footprint\Building Footprint.dwg Jun. 27, 2005 9:39am

**Figure 1.5**

Building Part C
Pile Caps, Grade Beams &
Utilities




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:


BETA Group, Inc.
Engineers·Scientists·Planners
315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com


**McCoy Field**
New Bedford, Massachusetts

SCALE: 1/8" = 1'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request
## Figure 1.5
### Buidling Part C
Pile Caps, Grade Beams & Utilities

JOB 02685
FILE NO. Building Footprint.dwg
PLOT DATE June 2005
SHEET

\\BETA-MA2\Share\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\McCoy Site Characterization\Building Footprint\Building Footprint.dwg Jun 27, 2005 9:40am

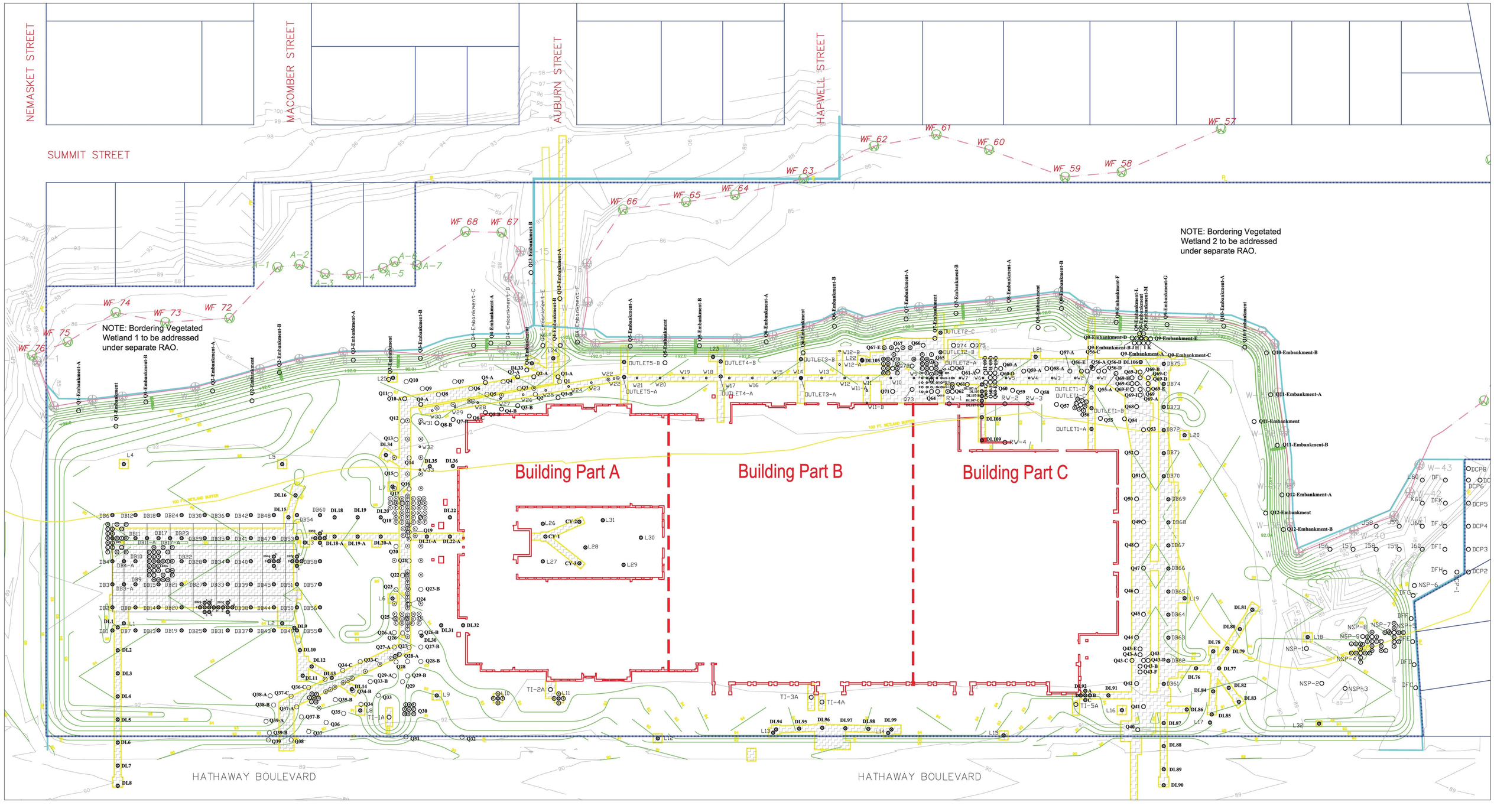
**Figure 1.6**

Landscaped Area Samples

LEGEND

| | |
|---|---|
| EXISTING ELEVATION | EXCAVATION AREA |
| PROPOSED FINAL ELEVATION | BUILDING FOOTPRINT |
| PROPERTY LINE | WETLANDS LINE |
| SECURITY FENCE | LANDSCAPED AREA SAMPLE |

NOTE: Alpha-numeric grid corresponds to Landscaped Area samples. For example, sample A1-0.5-3' coincides with grid intersection (A, 1).




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

# McCoy Field

New Bedford, Massachusetts

BETA Group, Inc.
Engineers•Scientists•Planners
315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com

SCALE: 1" = 30'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request

## Figure 1.6

## Landscaped Area Samples

JOB 02685

FILE NO. Figure 1.dwg

PLOT DATE June 2005

SHEET

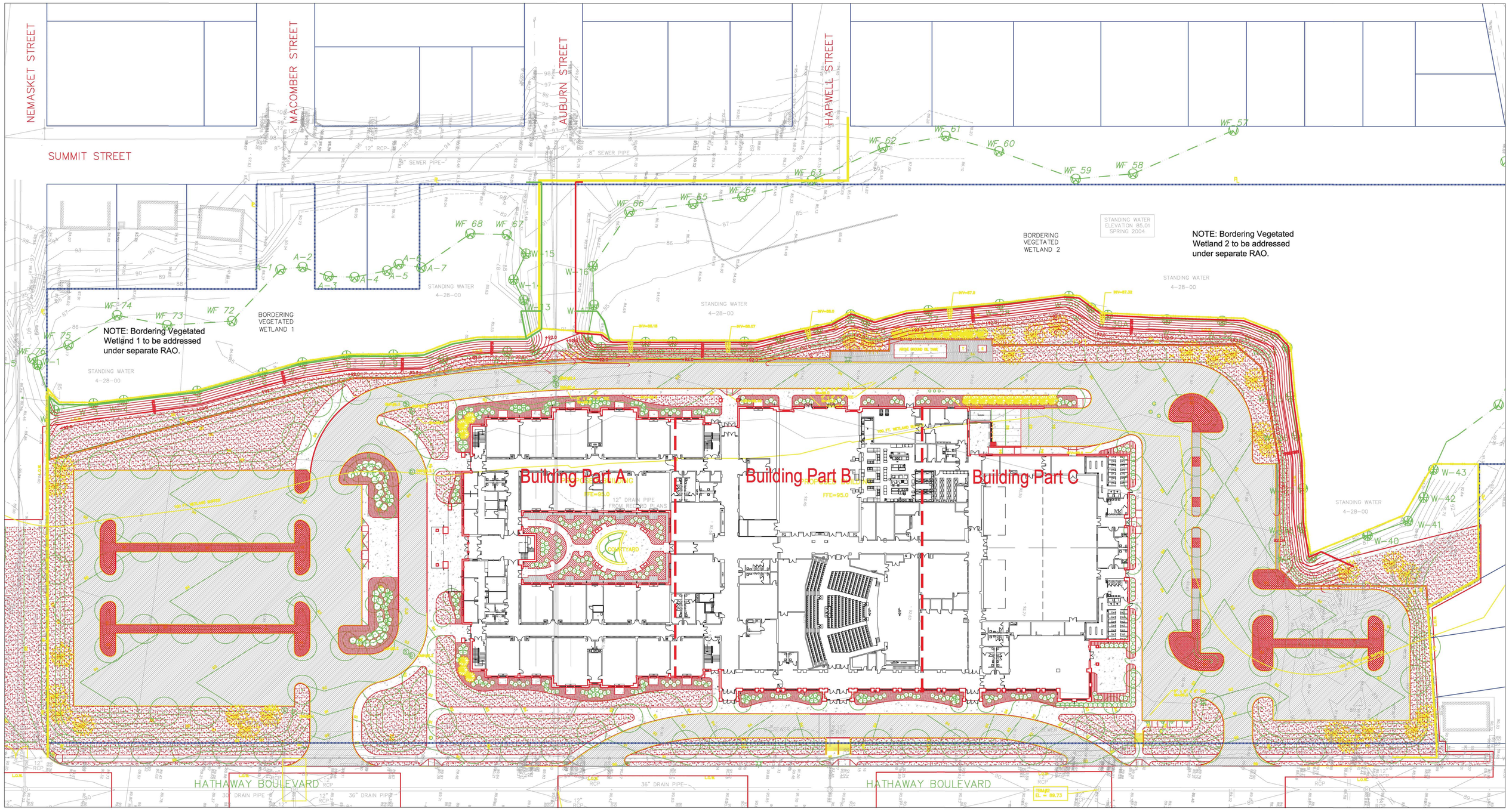
J:\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\Risk-based Cleanup Request\School Site\Figure 1.dwg Jun. 27, 2005 11:59am

**Figure 2**

Land Use Plan

LEGEND

- EXISTING ELEVATION
- PROPOSED FINAL ELEVATION
- LANDSCAPED AREA
- PAVED AREA
- PAVED AREA
- TREES




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

# McCoy Field

New Bedford, Massachusetts

BETA Group, Inc.
Engineers • Scientists • Planners
315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com

SCALE: 1" = 30'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request

## Figure 2

## Land Use Plan

JOB 02685

FILE NO. Figure 2 – Land Use.dw

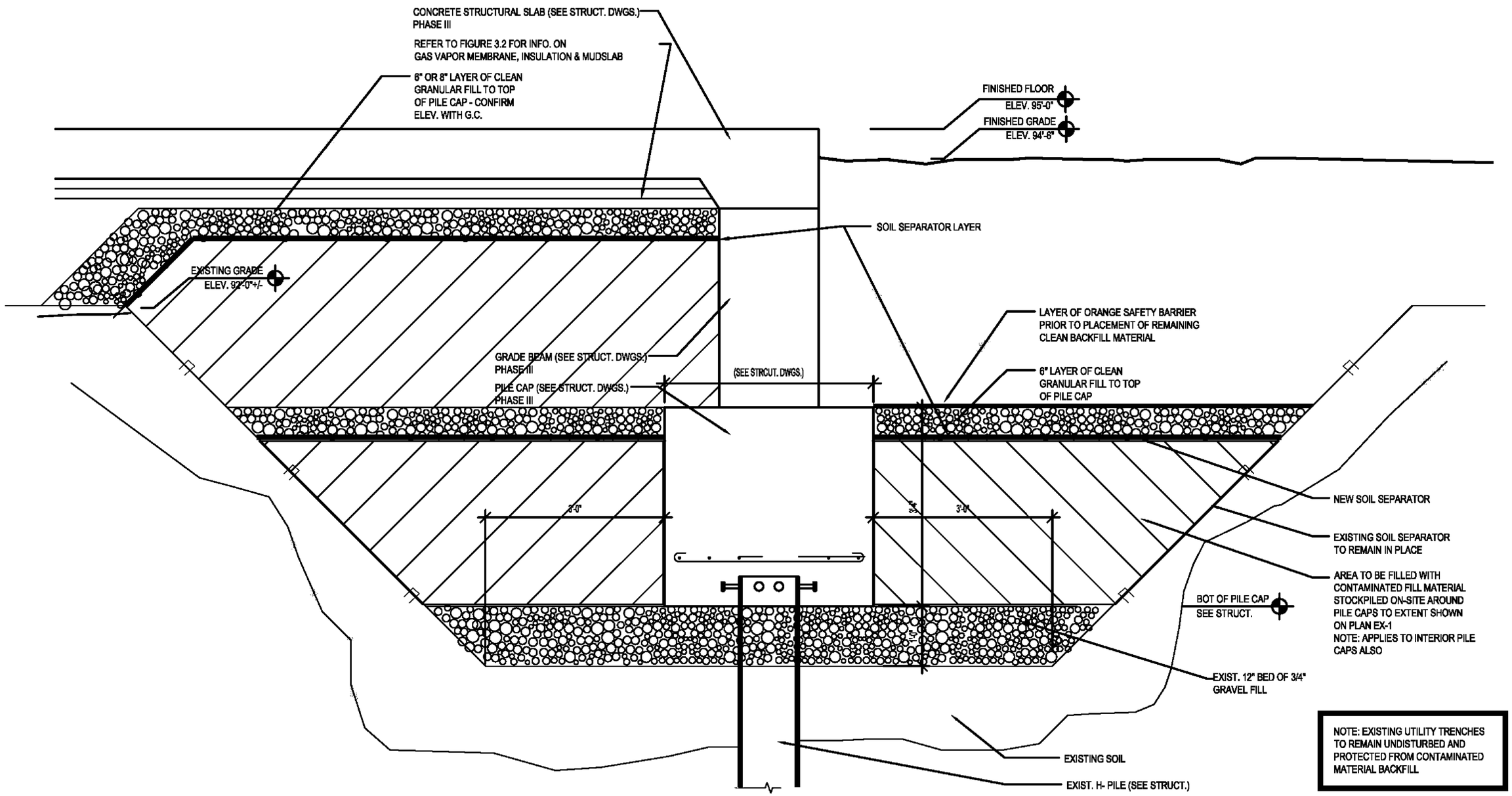
PLOT DATE June 2005

SHEET

J:\Projects\2600s\2685 – New Bedford Sampling Plan\AutoCad Files\Risk-based Cleanup Request\School Site\Figure 2 – Land Use.dwg Jun. 27, 2005 9:42am

**Figure 3.1**

Typical Backfill Detail for
Pile Caps and Grade Beams




BETA Group, Inc.
Engineers · Scientists · Planners

315 Norwood Park South
Norwood, MA 02062 781.255.1982
email: BETA@BETA-inc.com

**McCoy Field**

New Bedford, Massachusetts

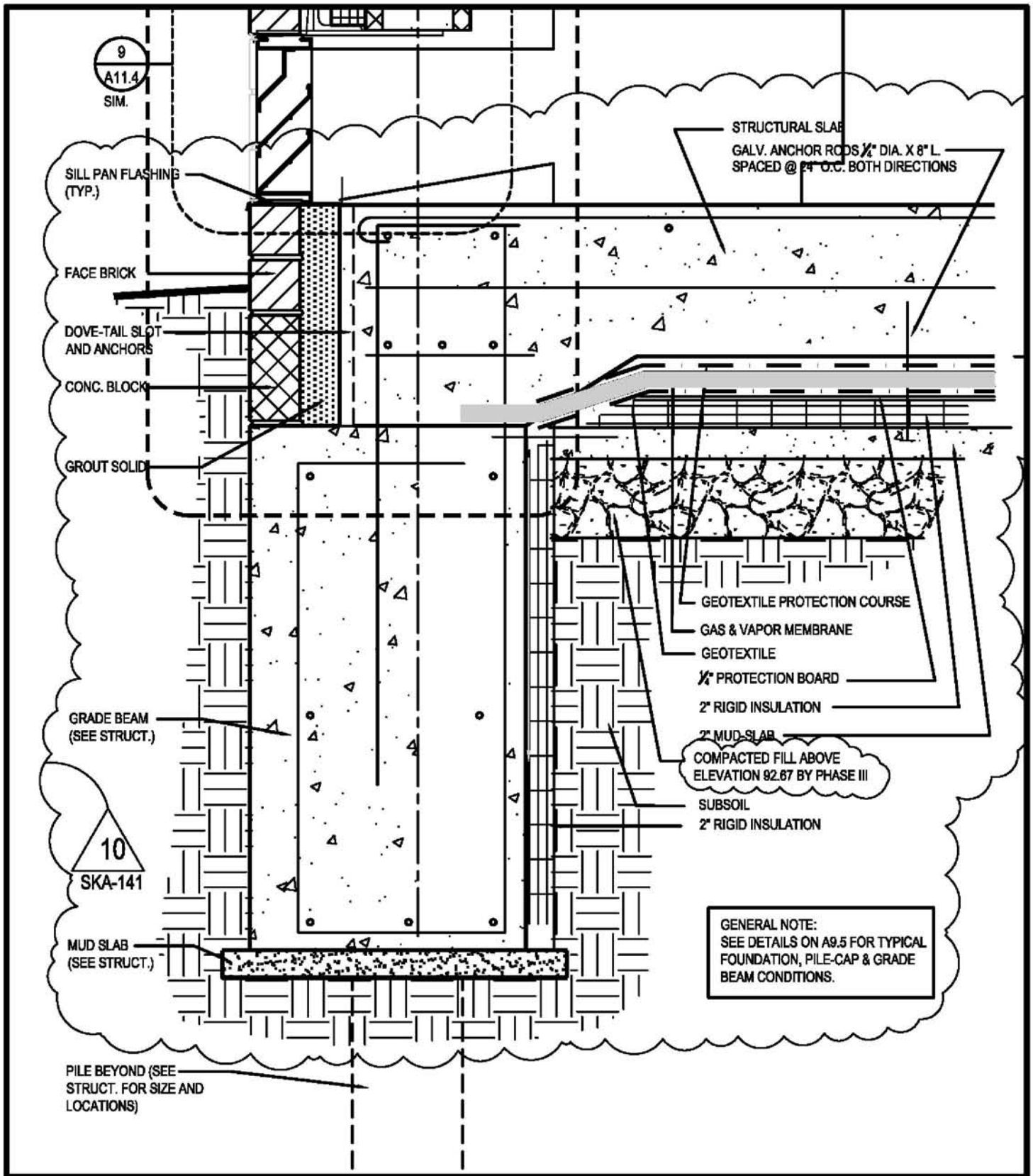
Scale: 1" = 20'

# Figure 3.1

## Typical Backfill Detail for Pile Caps and Grade Beams

**Figure 3.2**

Detail on Gas Vapor Membrane, Insulation & Mudslab




BETA Group, Inc.
Engineers • Scientists • Planners
315 Norwood Park South
Norwood, MA 02062 781.255.1982
email: BETA@BETA-inc.com

**McCoy Field**
New Bedford, Massachusetts

Scale: N.T.S.

# Figure 3.2

**Detail on Gas Vapor Membrane, Insulation & Mudslab**

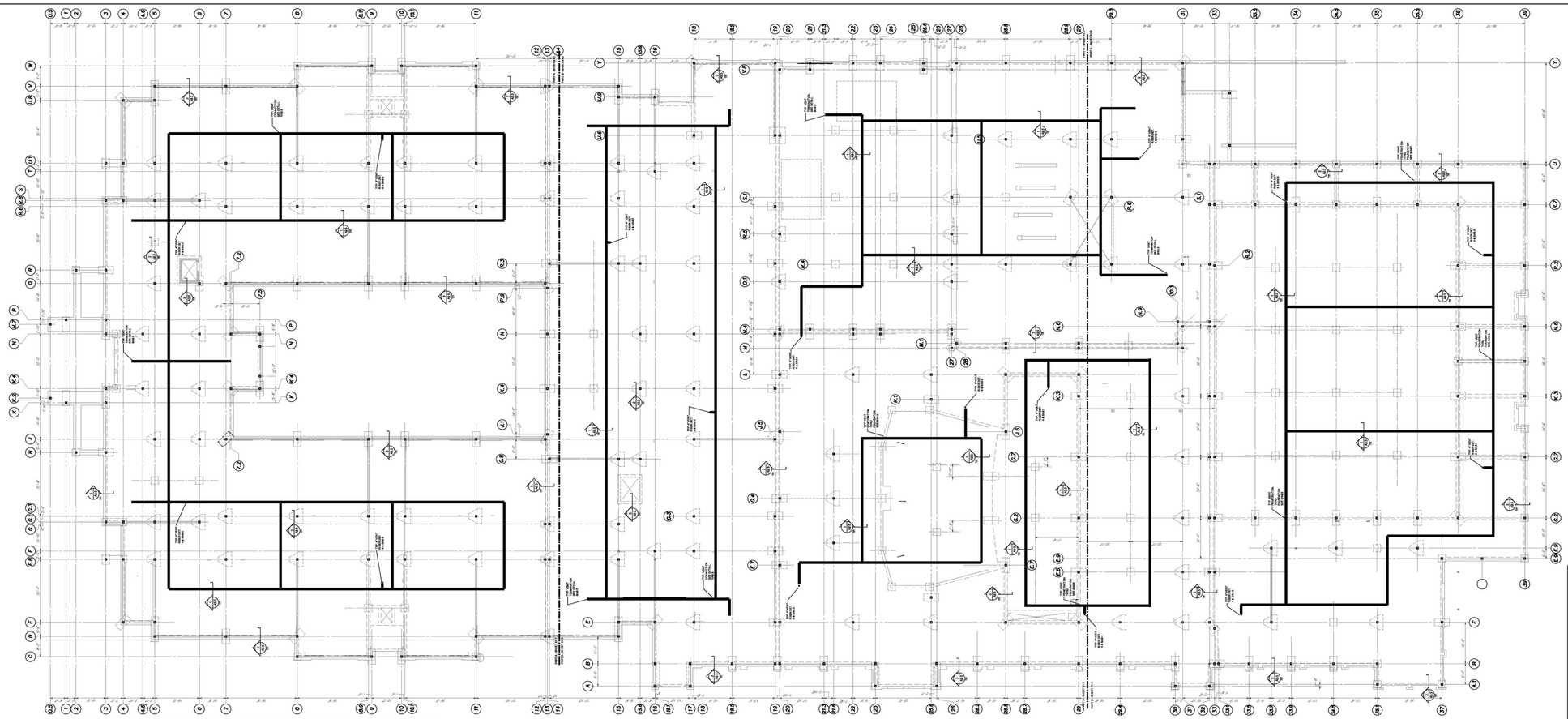
**(refer to Figure 3.1)**

**Figure 4**

Gas Vapor Barrier &
Venting Plan Details

# FIGURE 4

Figure 4 – Gas Vapor Barrier & Venting Plan Details – Hardcopy only (extracted from Phase III Contract Documents A9.5). See BETA hardcopy of Risk-Based Cleanup Request. Above "title block" was taped over A9.5 and copied.



## UNDER SLAB GAS VAPOR MEMBRANE & VENTING PLAN

1" = 20'-0"

NOTES:

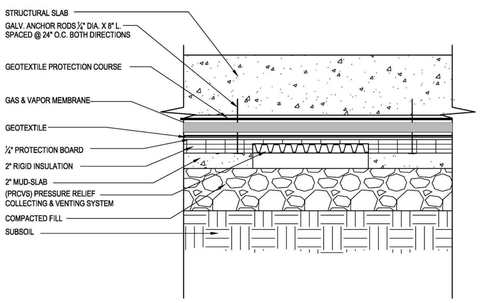
1. THIS PLAN IS A DIAGRAMMATIC REPRESENTATION OF A POTENTIAL VENTING LAYOUT & RISER LOCATION PLAN. FINAL COORDINATION & LAYOUT TO BE INCLUDED AS PART OF THE SUBMITTAL PROCESS AND APPROVED BY THE ARCHITECT.

2. A VENT RISER IS TO BE PROVIDED FOR EVERY 7500 S.F. OF UNDER SLAB AREA. THIS CONTRACTOR TO LEAVE A 6" STUB ABOVE THE F.IN. FLR. FOR CONTINUATION THRU THE ROOF BY PLUMBING SUB-CONTRACTOR.

3. FOR PILE CAP & GRADE BEAM LAYOUT & DETAILS REFER TO STRUCTURAL DRAWINGS S1.1 THRU S1.3.

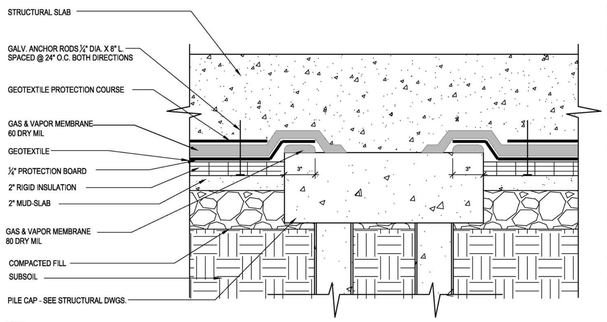
4. FOR BELOW SLAB PLUMBING LAYOUT REFER TO DRAWINGS P1.1 THRU P1.3.

5. A COMPLETE GAS MEMBRANE & VENTING SYSTEM INSTALLATION TO BE PERFORMED BY DIV. 07100.




## MEMBRANE & VENT DETAIL (1)

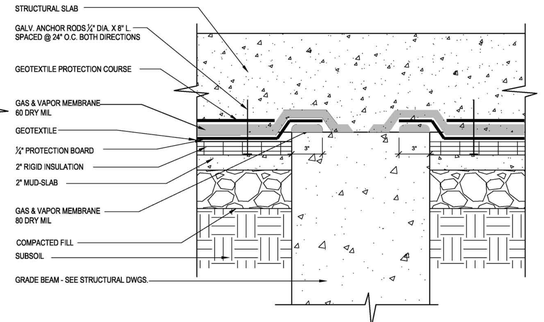
1 1/2" = 1'-0" TYPICAL




NOTE:
BRING THE MEMBRANE 3" ONTO THE PILE CAP, THE GEOTEXTILE IS THEN ENCAPSULATED IN THE MEMBRANE

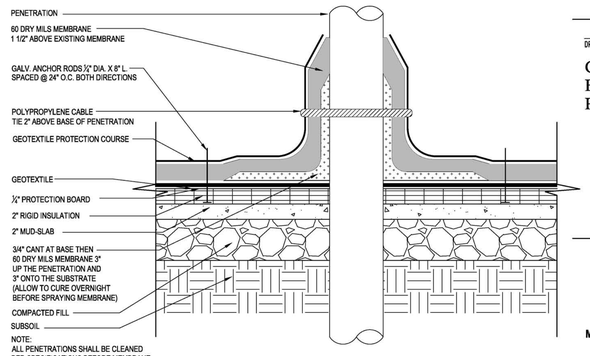
## MEMBRANE AT PILE CAP (2)

1 1/2" = 1'-0" TYPICAL




## MEMBRANE AT GRADE BEAM (3)

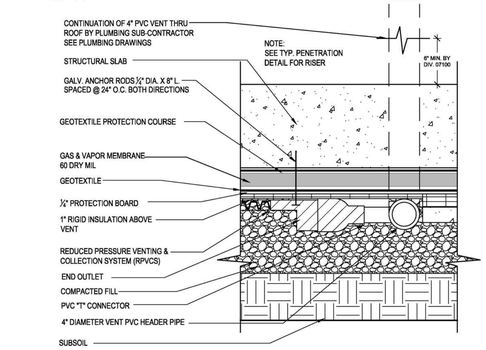
1 1/2" = 1'-0" TYPICAL




NOTE:
ALL PENETRATIONS SHALL BE CLEANED PER SPECIFICATIONS BEFORE MEMBRANE IS APPLIED. DETAIL SHOWN PRIOR TO PLACEMENT OF SLAB.

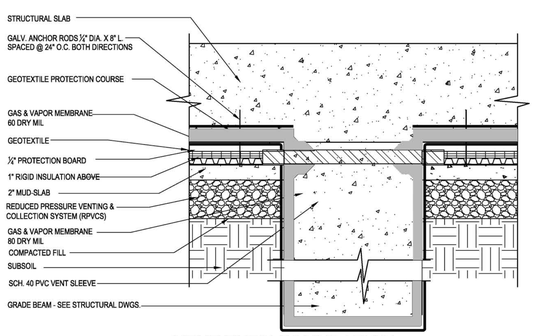
## TYPICAL PENETRATION (4)

1 1/2" = 1'-0" TYPICAL



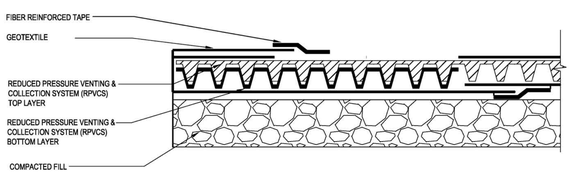

## VENT CONNECTION TO HEADER PIPE & RISER (5)

1 1/2" = 1'-0" TYPICAL



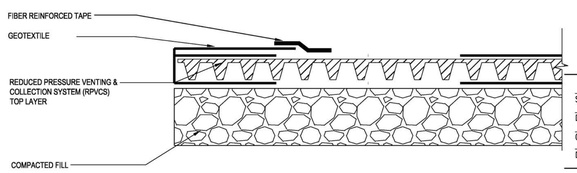

## VENT THRU FOUNDATION (6)

1 1/2" = 1'-0" TYPICAL




## (RPVCS) VENT CONNECTION (7)

1 1/2" = 1'-0" TYPICAL




## (RPVCS) VENT TERMINATION (8)

1 1/2" = 1'-0" TYPICAL

CONSULTANTS

REVISIONS

20005.00
PROJECT NUMBER

KEITH MIDDLE SCHOOL
New Bedford, Ma.

DRAWING TITLE
GAS VAPOR BARRIER & VENTING PLAN & DETAILS


Mount Vernon Group Architects, Inc.
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Woburn, Massachusetts 01801

781 937 9720 T
781 937 9728 F
info@mvgarchitects.com E


SEAL

SCALE AS NOTED
DRAWN BY
CHECKED
DATE

DRAWING NUMBER
A9.5

Xref G:\Projects\20005-NewBedford-KeithMS\Drawings\4.0.0-ConsDocs\4.1.0-Architectural\BLOCKS\DATE.dwg

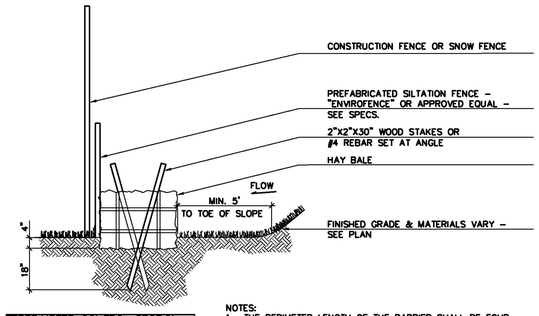
**Figure 5**

Paved Area Cross Section

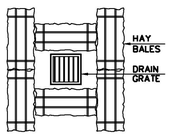
Draft Risk-Based Cleanup Request

# FIGURE 5

Figure 5 – Paved Area Cross-Sections – Hardcopy only (extracted from Phase III Contract Documents L6). See BETA hardcopy of Risk-Based Cleanup Request. Above "title block" was taped over L6 and copied.



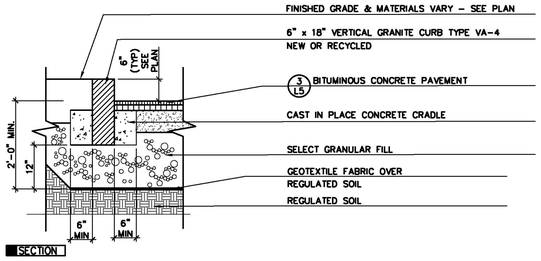

PERIMETER CONTROL SECTION




PLAN AT DRAINAGE INLETS

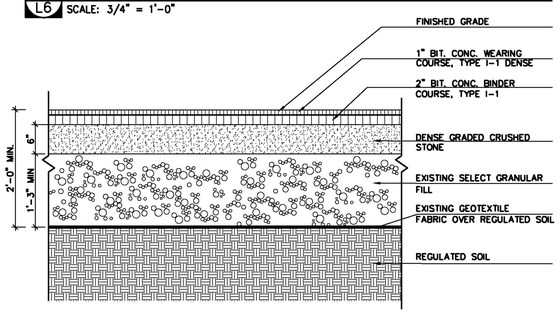
NOTES:
1. THE PERIMETER LENGTH OF THE BARRIER SHALL BE FOUR TIMES THE PERIMETER LENGTH OF THE DRAINAGE INLET. THE TOP OF THE BARRIER SHALL BE LEVEL AND UNIFORM FOR THIS LENGTH.
2. THE BARRIER SHALL BE INSTALLED IMMEDIATELY AFTER THE INLETS ARE INSTALLED AND MAINTAINED UNTIL THE AREA IS PAVED OR TURF HAS BEEN ESTABLISHED.
3. WHERE STAKING IS NOT PRACTICAL, BALES TO BE TIED TOGETHER TO PREVENT MOVEMENT OR OPENINGS IN THE BARRIER.
4. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALE.
5. EACH BALE SHALL BE IMBEDDED IN THE SOIL A MINIMUM OF 4".
6. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOSLY LAID BALE TO FORCE BALES TOGETHER.
7. INSPECTION SHALL BE MADE FREQUENTLY AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
8. REMOVE ALL SEDIMENT PRIOR TO REMOVING HAYBALES.

## 1 EROSION CONTROL
L6 SCALE: N.T.S.



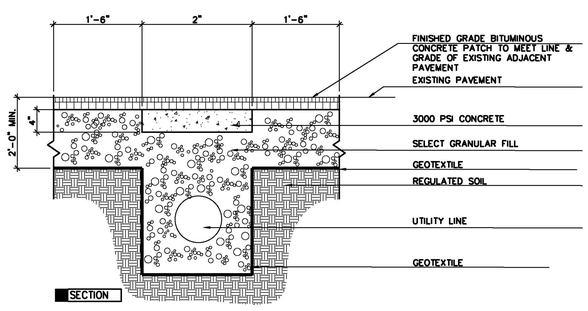

SECTION

## 2 VERTICAL GRANITE CURB
L6 SCALE: 3/4" = 1'-0"



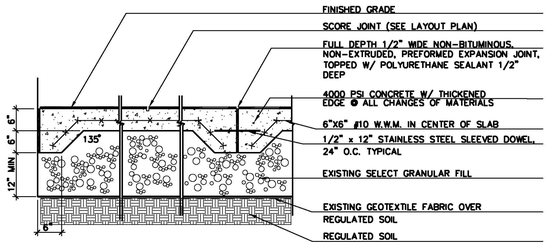

SECTION

## 3 BITUMINOUS CONCRETE ROADWAY PAVEMENT
L6 SCALE: 1"=1'-0"




SECTION

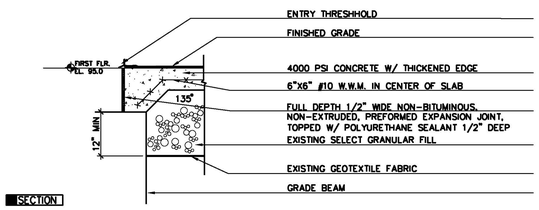
## 4 BITUMINOUS CONCRETE ROADWAY REPAIR
L6 SCALE: 1" = 1'-0"




SECTION

NOTES:
1. PROVIDE EXPANSION JOINTS WHEREVER CONCRETE PAVING MEETS VERTICAL AND HORIZANTAL MASONRY SURFACES, AND NOT MORE THAN 30' OC IN ANY DIRECTION.
2. CONCRETE SHALL BE BROOM FINISHED, PERPENDICULAR TO THE DIRECTION OF TRAVEL, OR AS DIRECTED BY THE ARCHITECT.

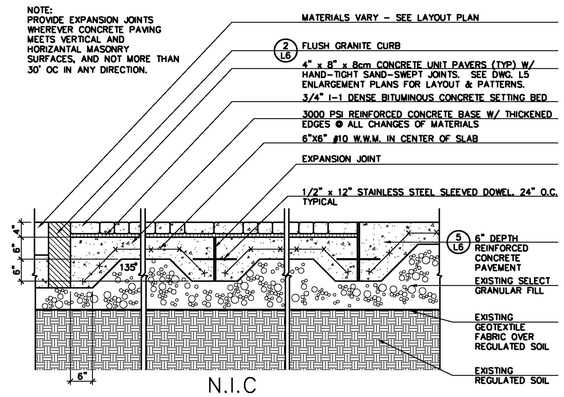
## 5 CONCRETE PAVING/JOINT TREATMENT
L6 SCALE: 3/4" = 1'-0"




SECTION

## 6 CONC. PAVING / JOINT TREATMENT @ DOOR THRESHOLD
L6 SCALE: 3/4" = 1'-0"

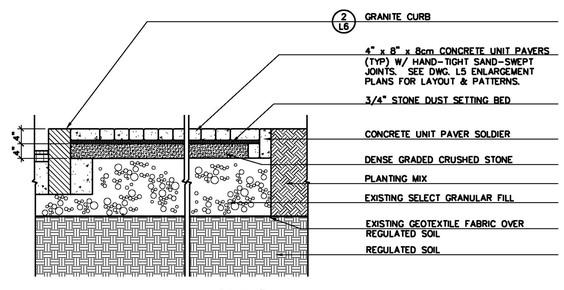
NOTE:
PROVIDE EXPANSION JOINTS WHEREVER CONCRETE PAVING MEETS VERTICAL AND HORIZANTAL MASONRY SURFACES, AND NOT MORE THAN 30' OC IN ANY DIRECTION.




N.I.C

SECTION

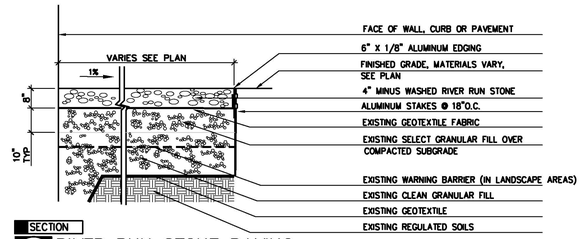
## 7 CONCRETE UNIT PAVERS ON CONCRETE BASE
L6 SCALE: 3/4"=1'-0"




N.I.C

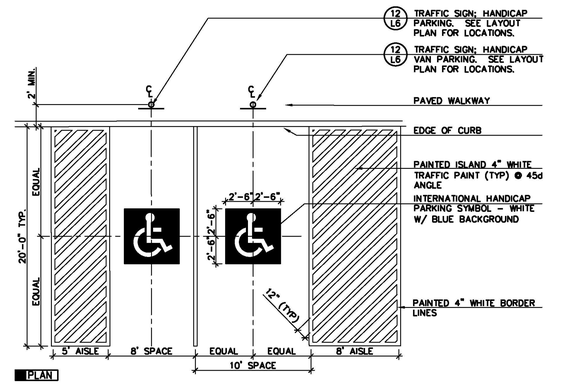
SECTION

## 8 DRY LAID CONCRETE UNIT PAVERS
L6 SCALE: 3/4"=1'-0"



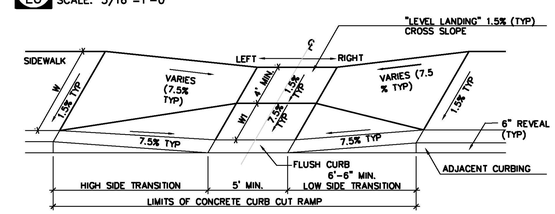

SECTION

## 9 RIVER RUN STONE PAVING
L6 SCALE: 1/2"=1'-0"




PLAN

## 10 HANDICAP PARKING SPACES
L6 SCALE: 3/16"=1'-0"




| ROADWAY PROFILE GRADE | HIGH SIDE TRANSITION LENGTH ROUNDED LENGTH 0.1 m (4") |
|---|---|
| % G | ENGLISH UNITS |
| 0 | 6'-6" |
| 0.00 1 0.01 | 7'-6" |
| 2 | 9'-0" |
| 0.02 | 11'-0" |
| 0.03 | 14'-0" |
| 0.04 0.04 | 15'-0" MAX. |

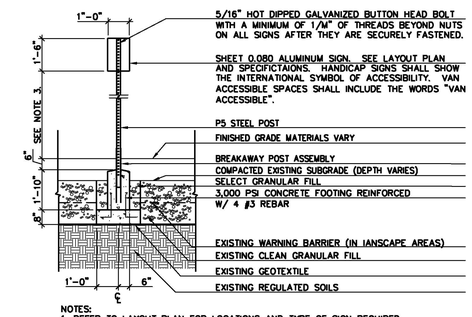
LEGEND

HSL=HIGH SIDE FRONT TRANSITION LENGTH
W=SIDEWALK WIDTH
W1=PERPENDICULAR RAMP LENGTH

NOTES:
1. HANDICAP CURB CUT RAMP SLOPE AND SIDE SLOPES (TRANSITIONS) SHALL NOT EXCEED 1:12. (8.0 % MAXIMUM, 7.5% PREFERRED). SLOPES MAY BE FLATTER THAN 1:12 WHERE REQUIRED BY ADJACENT CONDITIONS. "LEVEL LANDINGS" AND ALL RAMP CROSS SLOPES SHALL NOT EXCEED 1.6% (1.5% PREFFERED).
2. WHERE ROAD PROFILES EXCEED 4%, CURB TRANSITION LENGTHS SHALL BE 15'.
3. HANDICAP CURB CUT RAMPS SHALL NOT BE LOCATED BEHIND STOP LINES.
4. FIXED OBJECTS (E.G., UTILITY POLES, HYDRANTS, ETC.) SHALL NOT ENCROACH ON ANY PART OF HANDICAP CURB CUT RAMPS, INCLUDING TRANSITION SLOPES.
5. CROSSWALK HANDICAP CURB CUT RAMPS SHALL NOT BE LOCATED OUTSIDE OF THE CROSSWALK (EXCLUDING CURB TRANSITIONS). RAMP ENTRANCES SHALL BE CENTERED IN THE CROSSWALK WHENEVER POSSIBLE.
6. HANDICAP CURB CUT RAMP ENTRANCES SHALL MEET FLUSH WITH ADJACENT ROADWAY PAVEMENT.
7. THE LINE OF RAMP SURFACE SLOPES SHALL BE STRAIGHT AND SHALL NOT HAVE DEVIATIONS GREATER THAN 1/4".

ISOMETRIC

## 11 HANDICAP CURB CUT RAMP
L6 SCALE: N.T.S.




NOTES:
1. REFER TO LAYOUT PLAN FOR LOCATIONS AND TYPE OF SIGN REQUIRED.
2. ALL SIGNS SHALL BE INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
3. HEIGHT FOR HANDICAPPED PARKING AND HANDICAPPED VAN PARKING SHALL BE 5'-0"; HEIGHT FOR ALL OTHER TRAFFIC SIGNS SHALL BE 7'-0" MINIMUM.

SECTION

## 12 TRAFFIC SIGN
L6 SCALE: 3/8" = 1'-0"

CONSULTANTS


Moriece & Gary
Landscape Architects
Fifty-Six Roland Street
Charlestown, MA 02129
Tel. 617/776-7600 Fax 617/776-1075
EMail: bgary@mgary.com


| REVISIONS | |
|---|---|
| | |
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| | |
| | |
| | |
| | |
| | |
| | |
| | |
| ENTIRE DWG. | 5/13/05 |
| 1 ENTIRE DWG. | 12/13/04 |

20005.00

PROJECT NUMBER

KEITH MIDDLE SCHOOL
New Bedford, MA
PHASE III

DRAWING TITLE

SITE DETAILS


MVG
MOUNT VERNON GROUP ARCHITECTS
Mount Vernon Group Architects, Inc.
20 Cabot Road
Woburn, Massachusetts 01801
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781 937 9728 F
info@mvgarchitects.com E

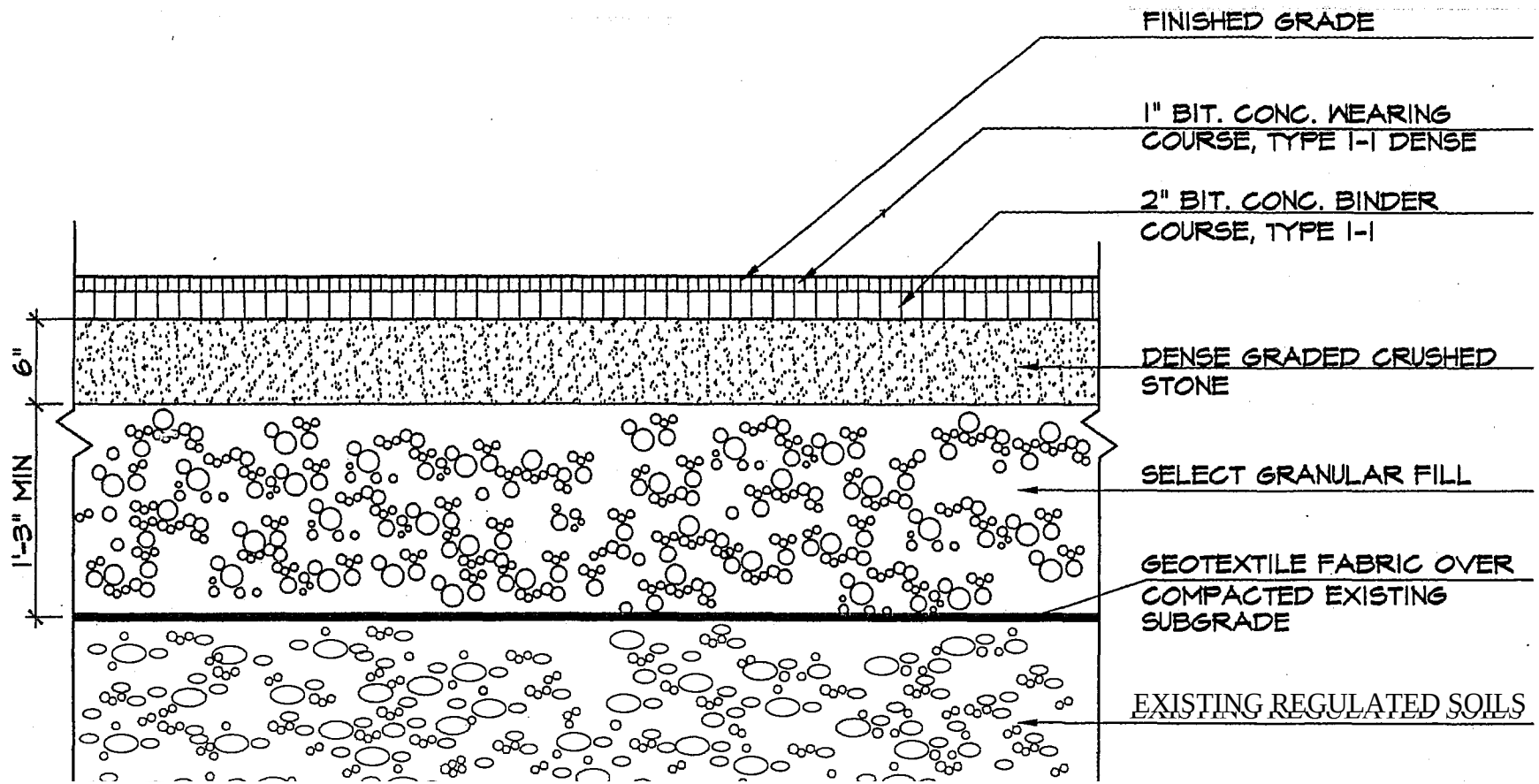

SEAL

| | |
|---|---|
| SCALE | AS NOTED |
| DRAWN BY | PAT |
| CHECKED | BWG/JAM |
| DATE | OCTOBER 6, 2004 |

DRAWING NUMBER

L6

Draft Risk-Based Cleanup Request
FIGURE 5 Section 3/L6 Revision 1




SECTION

3 / L6

# BITUMINOUS CONCRETE ROADWAY PAVEMENT

SCALE: 1"=1'-0"


Draft Risk-Based Cleanup Request
FIGURE 5 Section 3/L6 Revision 1

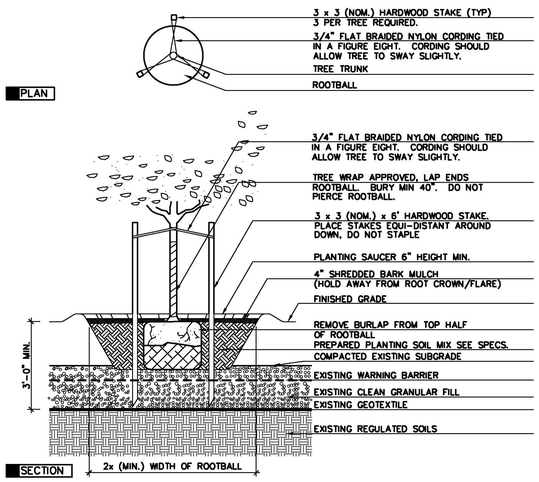
**Figure 6**

Landscaped Area
Cross Section

Draft Risk-Based Cleanup Request

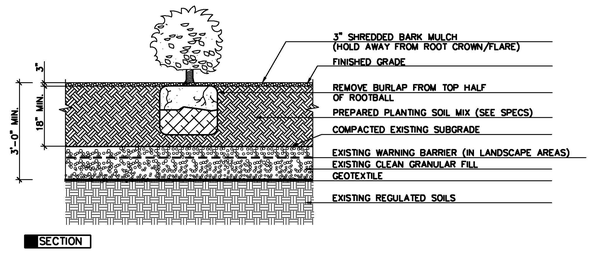
# FIGURE 6

Figure 4 – Landscaped Area Cross-Sections – Hardcopy only (extracted from Phase III Contract Documents L9). See BETA hardcopy of Risk-Based Cleanup Request. Above "title block" was taped over L9 and copied.

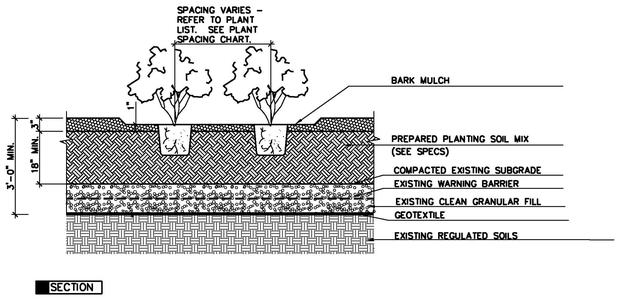



NOTES:
1. DO NOT CUT MAIN LEADER.
2. REMOVE ALL TWINE, ROPES & TAGS FROM TREE BRANCHES & TRUNK.
3. PLANT TREE SO THAT TRUNK/ ROOT FLARE JUNCTION IS 1-2" ABOVE FINISHED GRADE.

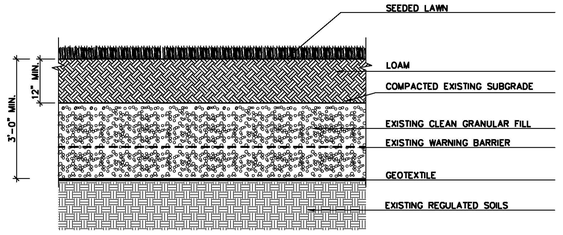
## 1 / L9 DECIDUOUS TREE PLANTING AND STAKING
SCALE: N.T.S



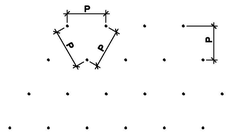

## 3 / L9 SHRUB PLANTING
SCALE: N.T.S.




## 5 / L9 PERENNIAL / GROUNDCOVER PLANTING
SCALE: N.T.S.




## 4 / L9 LAWN SEEDING
SCALE: N.T.S.




FOR USE WHEN PLANTS ARE TO BE SPACED EQUIDISTANT FROM ONE ANOTHER AS SHOWN

R=ROW SPACING
P=PLANT SPACING

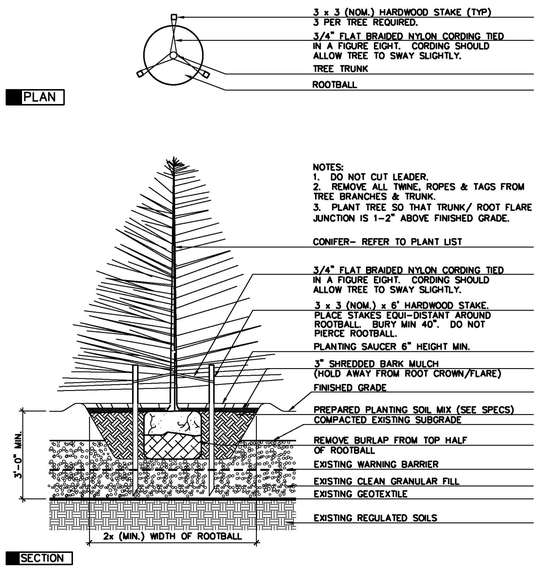
NO. OF PLANTS =AREA/AREA PER PLANT

AREA PER PLANT = R X P

| SPACING "P" | ROW "R" | NO. OF PLANTS | AREA UNIT |
|---|---|---|---|
| 6" O.C. | 5.20" | 4.61 | 1 SQ. FT. |
| 8" O.C. | 6.96" | 2.80 | |
| 10" O.C. | 8.66" | 1.66 | |
| 12" O.C. | 10.40" | 1.15 | |
| 15" O.C. | 13.00" | 7.38 | 10 SQ. FT. |
| 18" O.C. | 15.60" | 5.12 | |
| 24" O.C. | 20.80" | 2.90 | |
| 30" O.C. | 26.00" | 1.85 | |
| 36" O.C. | 30.00" | 1.28 | |

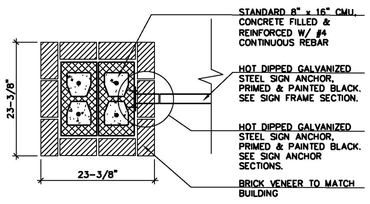
| SPACING "P" | ROW "R" | NO. OF PLANTS | AREA UNIT |
|---|---|---|---|
| 4' O.C. | 3.46' | 7.25 | 100 SQ. FT. |
| 5' O.C. | 4.33' | 4.61 | |
| 6' O.C. | 5.20' | 3.20 | |
| 8' O.C. | 6.93' | 1.80 | |
| 10' O.C. | 8.66' | 1.16 | 1,000 SQ. FT. |
| 12' O.C. | 10.40' | 8.00 | |
| 15' O.C. | 13.00' | 5.15 | |
| 20' O.C. | 17.30' | 2.88 | |
| 25' O.C. | 21.65' | 1.85 | |
| 30' O.C. | 26.00' | 1.29 | |
| 40' O.C. | 34.60' | 7.22 | 10,000 SQ. FT. |

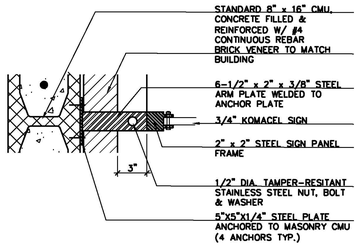
## 6 / L9 PLANT SPACING CHART
SCALE: N.T.S.

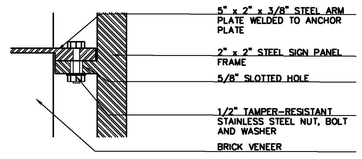


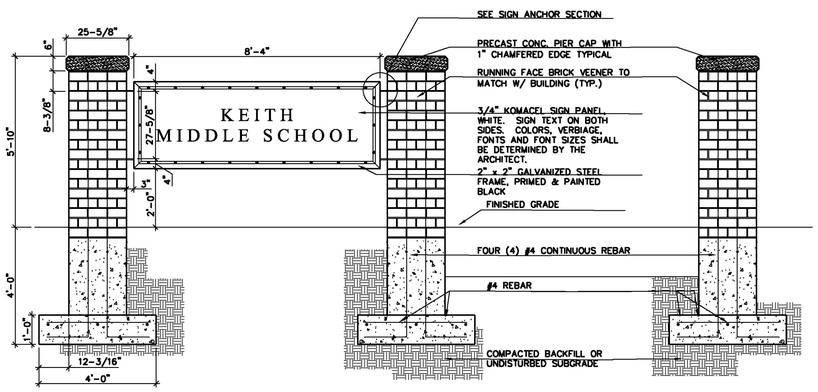

NOTES:
1. DO NOT CUT LEADER.
2. REMOVE ALL TWINE, ROPES & TAGS FROM TREE BRANCHES & TRUNK.
3. PLANT TREE SO THAT TRUNK/ ROOT FLARE JUNCTION IS 1-2" ABOVE FINISHED GRADE.

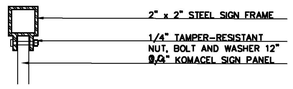
## 2 / L9 CONIFEROUS TREE PLANTING AND STAKING
SCALE: N.T.S




NOTES:
1. SUBMIT SHOP DRAWINGS FOR ALL COMPONENTS INCLUDING SIGN AND FRAME FOR APPROVAL BY THE ARCHITECT.
2. REINFORCEMENT SHALL MAINTAIN 2" CLEARANCE FROM ALL CONCRETE FACES.
3. CONSTRUCTION OF BRICK PIER MASONRY SHALL CLOSELY MATCH CONSTRUCTION OF BUILDING EXTERIOR WALLS.
4. SIGN COLORS, VERBIAGE, FONTS AND FONT SIZES SHALL BE DETERMINED BY THE ARCHITECT.
5. ALL SIGN FRAME HARDWARE SHALL BE TAMPER-RESISTANT.
6. ALL EXPSOED STEEL SIGN FRAME MEMBERS SHALL BE HOT-DIPPED GALVANIZED, PRIMED & PAINTED BLACK.
7. REFER TO SPECIFICATION SECTION 05500 MISC. METALS FOR SIGN FRAME AND 09900 FOR FINISH PAINT.
8. MASONRY PIERS SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH SPECIFICATION SECTION 04200 UNIT MASONRY.

## 6 / L9 SCHOOL IDENTIFICATION SIGN
SCALE: AS NOTED


CONSULTANTS
Moriece & Gary
Landscape Architects
Fifty-Six Roland Street
Charlestown, MA 02129
Tel: 617/776-7600 Fax 617/776-1075
EMail: bgary@mgary.com


| REVISIONS | |
|---|---|
| | |
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| | |
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| | |
| | |
| | |
| | |
| | |
| ENTIRE DWG. | 5/13/05 |
| 10 SKL-12 | 12/13/04 |
| 4 SKL-2 | 11/01/04 |

PROJECT NUMBER
20005.00

KEITH MIDDLE SCHOOL
New Bedford, MA
PHASE III

DRAWING TITLE
SITE DETAILS


MVG
MOUNT VERNON GROUP ARCHITECTS
Mount Vernon Group Architects, Inc.
20 Cabot Road
Woburn, Massachusetts 01801
781 937 9720 T
781 937 9728 F
info@mvgarchitects.com E


SEAL

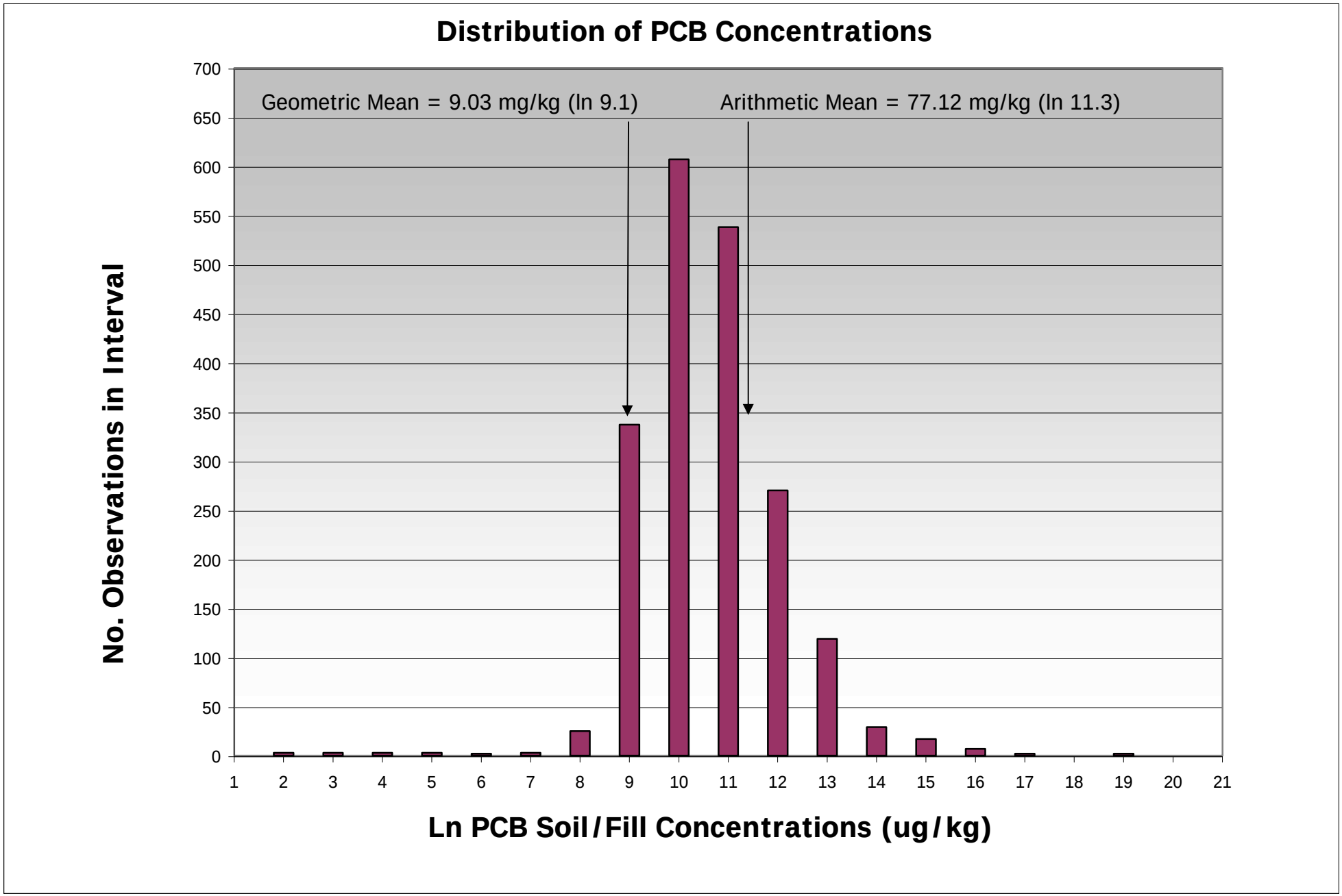
| | |
|---|---|
| SCALE | AS NOTED |
| DRAWN BY | PAT |
| CHECKED | BWG/JAM |
| DATE | OCTOBER 6, 2004 |

DRAWING NUMBER
L9

## Figure 7

Distribution of PCB Concentrations

**Figure 7**


Distribution of PCB Concentrations
Geometric Mean = 9.03 mg/kg (ln 9.1)
Arithmetic Mean = 77.12 mg/kg (ln 11.3)
No. Observations in Interval
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
Ln PCB Soil/Fill Concentrations (ug/kg)

**THIS ATTACHMENT CONSISTS OF HARD COPY (PAPER) PLAN AND IS AVAILABLE FOR VIEWING AT:**

**CITY OF NEW BEDFORD PUBLIC LIBRARY**
**613 PLEASANT STREET**
**NEW BEDFORD, MA 02740**

**CONTACT NUMBERS**
PHONE: (508)991-6275
FAX: (508)979-1481

**SCHEDULE OF HOURS**
MONDAY -THURSDAY
9:00AM - 9:00PM
FRIDAY & SATURDAY
9:00AM - 5:00PM

**CLOSED SUNDAY & HOLIDAYS**
**HANDICAPPED ACCESSIBLE**

**Figure 8**

Hay Bales and Silt Fence
(Phase III Contract
Drawing EX.1)

Draft Risk-Based Cleanup Request

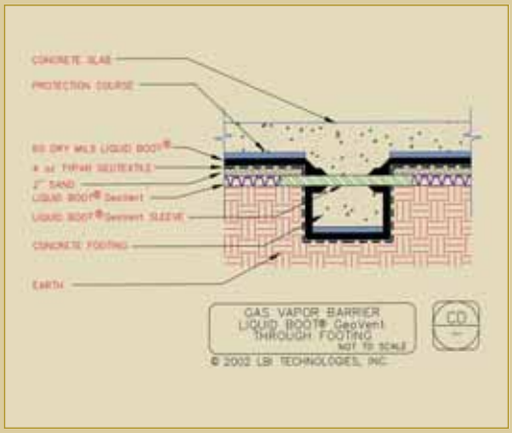
# FIGURE 8

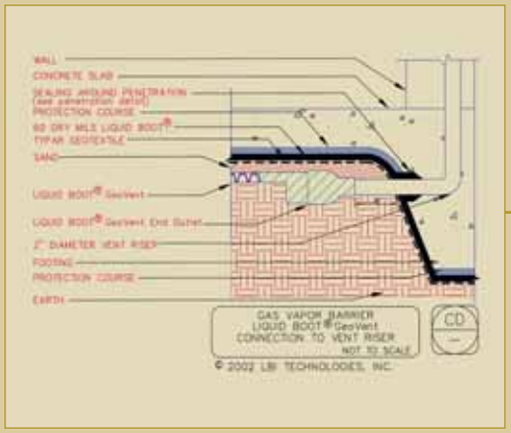
Figure 8 – Hay Bales and Silt Fence – Hardcopy only (extracted from Phase III Contract Documents EX1). See BETA hardcopy of Risk-Based Cleanup Request. Above “title block” was taped over EX1 and copied.

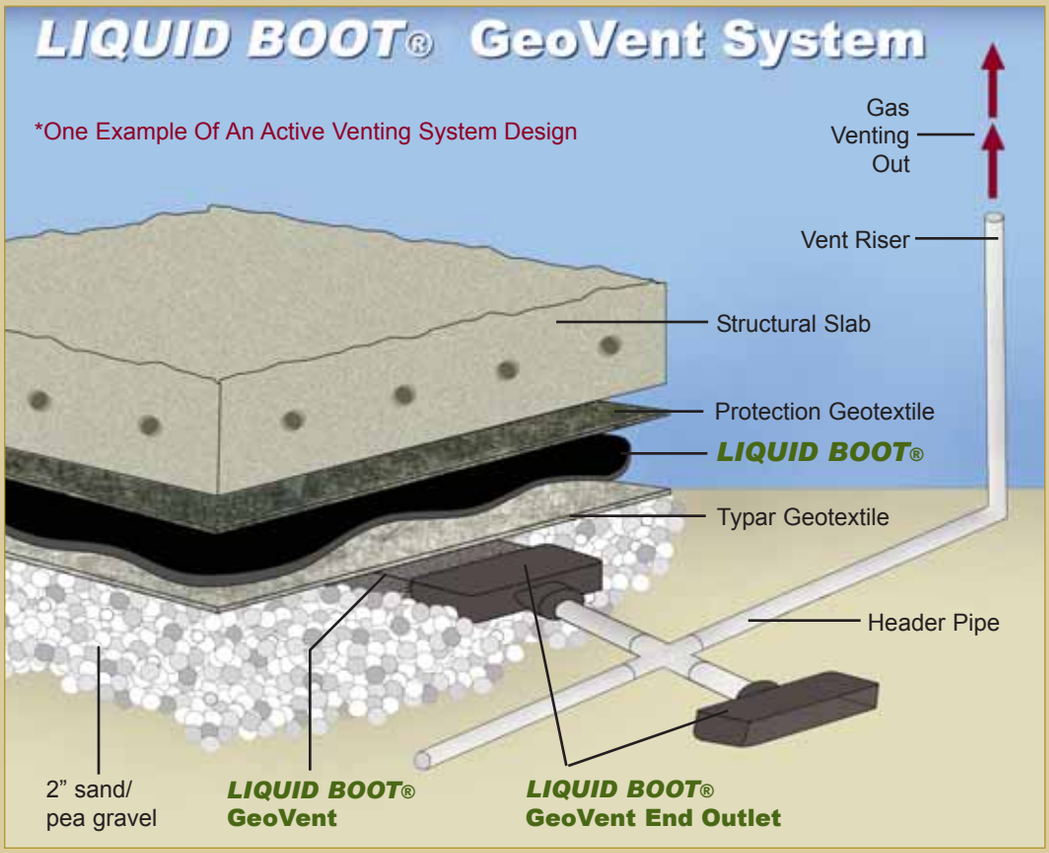
**Figure 9**

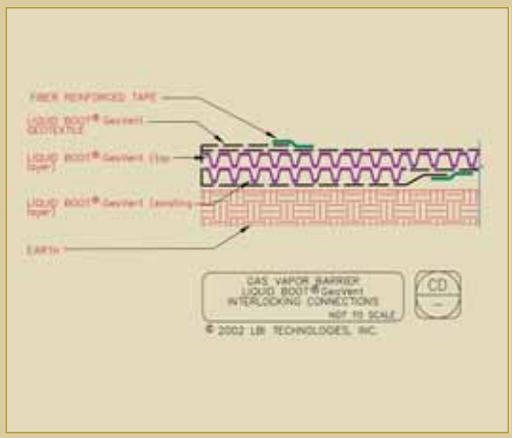
Geovent – PVC Vent and
PVC Header Pipe Connection

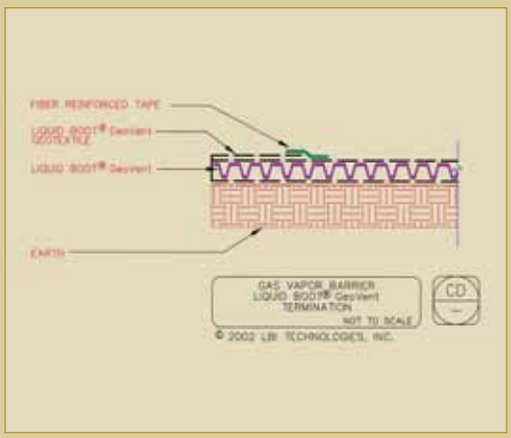
# LIQUID BOOT® GeoVent



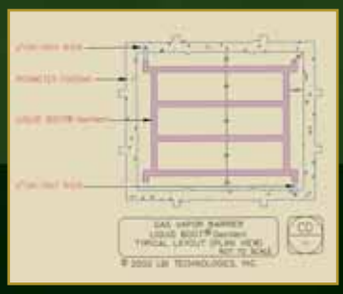




**LBI's Technical Experts Will Design Your Membrane and Venting System with Custom Details & Specifications.**

LBI has worked with architects, environmental engineers and contractors in the design of thousands of various membrane systems. For custom CAD details and specifications, contact your ***LIQUID BOOT®*** representative or e-mail us at lbi@liquidboot.com



## warranty:

Contact LBI Technologies, Inc. for complete details regarding ***LIQUID BOOT®*** warranty at:

Ph | 714.384.0111

e-mail | lbi@liquidboot.com

web | www.liquidboot.com



**Draft Risk-Based Cleanup Request**
**FIGURE 9**

**M E M O R A N D U M**

| | | | |
|---|---|---|---|
| **TO:** | Laura Casey | cc: | 11.1126.1000.001.01<br>Jim Buchert |
| **FROM:** | Diane Sinkowski | | |
| **DATE:** | May 19, 2005 | | |
| **SUBJECT:** | Review of Risk Assessment Calculations for the Risk-Based Cleanup Request for the School Site at McCoy Field, New Bedford, Massachusetts | | |

Per your technical directives (May 5 and 9, 2005), the response to comments and revised calculations provided in the two memoranda submitted to EPA Region 1 regarding the McCoy Field site: Alan D. Hanscom, BETA Group, Inc. to Kimberly Tisa, EPA, Region 1 (May 2, 2005) and Cyndee Fuller, ESS Group, Inc., to Al Hanscom, BETA Group, "Revision of Risk-based Air Concentrations for PCBs and comparison with MADEP air guidance" (May 9, 2005), have been reviewed. Additionally, previously submitted PCB risk assessments were reviewed in order to determine whether the indoor air exposure pathway or action levels were calculated or evaluated. Versar's responses to the technical directives are provided below.

Please feel free to contact me if you have any questions.

**Technical Directive, May 9, 2005:**

1. *Please review past PCB risk assessments to see if indoor air exposure or action levels were ever evaluated or calculated. If they were evaluate or calculated, please provide the levels.*

   One PCB risk assessment, Columbus Bearing Facility, Columbus, Ohio (August 2002), calculated indoor air PCB vapor concentrations using a method similar to that for the McCoy Field risk assessment (equations from Johnson and Ettinger and the American Society for Testing and Materials (ASTM) were utilized in the calculations). Risks were estimated based on the calculated concentrations, however, no action levels were calculated for PCB air concentrations at the Columbus Bearing Facility. Inhalation risks from PCBs and dioxin were calculated for the risk assessment performed for the Transformer Room of the Utility Plant at the University of Massachusetts (August 2000), but the PCB and dioxin air concentrations were based on measured air concentrations and no action levels were calculated.

2. *Please run the Johnson and Ettinger model using a risk of 10-6 and 10-7.*

Versar is temporarily holding off on performing the modeling, per e-mail from Kim Tisa, Region 1, on May 12, 2005.

**Technical Directive, May 5, 2005:** *Please review the responses and determine if Versar's comments from April 14, 2005 have been adequately addressed .*

**<u>May 2, 2005, Memorandum (Alan D. Hanscom, BETA Group, Inc. to Kimberly Tisa, EPA, Region 1)</u>**

**General Comment - Calculation of PCB Concentrations**
Please provide additional information regarding the PCB soil exposure point concentration (EPC) of 94.5 mg/kg used to calculate the indoor air concentrations. Attachment C of the *Risk-Based Cleanup Request* (March 21, 2005) identifies different sampling areas, but it is not clear which areas and samples were considered when choosing the 94.5 mg/kg value. The May 2nd memorandum indicates that 94.5 mg/kg PCB concentration is the maximum detected soil concentration remaining at the site. However, Page 8 of 18 of the *Cleanup Request* indicates that the maximum measured total PCB concentration was 46,500 mg/kg, but when looking at results in Attachment C, there appear to be numerous samples that are higher than the EPC. The risk assessment information should clearly indicate what data are used for the indoor air calculation.

**Comments #3(a) - Related to Formulas and Accuracy of RBAC Calculation (Current Worker Exposure)**

**Table 2, Calculation of Alternate Air Dust Concentration (May 2, 2005, memorandum)**

In Table 2, the soil screening level (SSL) equation is rearranged and a particulate emission factor (PEF) is calculated for a target risk. This target PEF is then used to calculate a target respirable particulate concentration (i.e., $PM_{10}$ - particulate matter with an aerodynamic diameter $\leq 10$ μm) and the measured total suspended particulate air concentration is compared to the target value. The PEF calculation for a target cancer risk of $1x10^{-6}$, shown in Table 2, incorrectly uses an averaging time, AT, of 1 year; for carcinogenic risk, AT should be equal to 70 years. The air concentration based on a target non-carcinogenic risk should also be calculated.

Since the PCB soil concentrations and the particulate air concentration related to the construction work is known, it would be preferable to compare a target PCB air concentration to the actual PCB air concentration. Table 1 shows the measured air dust concentrations taken during the clean corridor work. This data (which was not included in previous submissions) should be used with the measured PCB soil concentrations from the corridor area to calculate the PCB air concentration during the clean corridor work. The value can then be compared to the target PCB air concentration associated with the target cancer and non-cancer risks. The PCB air concentration would be based on total suspended particulate instead of the $PM_{10}$ or respirable

particulate air concentration, but, if the PCB air concentration is below the target concentration, then the respirable amount of PCBs in the air would be well within the limit.

The PCB air concentration may be derived by the following equation:

$$EPC_{air} = PM_{10} \text{ x } (C_{soil} \text{ x } CF)$$

where:

$EPC_{air}$ = Exposure point concentration ($mg_{PCBs}/m^3_{air}$);
$PM_{10}$ = Particulate matter with an aerodynamic diameter $\leq$10 µm (µg/$m^3_{air}$)
$C_{soil}$ = PCB soil concentration ($mg_{PCBs}/kg_{soil}$);
CF = Conversion factor ($10^{-9}$ kg/µg).

Thus, for the clean corridor PCB soil concentration, $C_{soil}$, of 46.6 mg/kg, and the particulate air concentration of 460 µg/$m^3_{air}$, the PCB air concentration during construction would be $2.1 \text{x} 10^{-6}$ mg/$m^3$.

Solving for a target PCB concentration, based on a target cancer risk of $1 \text{x} 10^{-6}$:

$$EPC_{air} \text{ (PCBs)} = \frac{TR \text{ x } AT \text{ x } CF}{UR \text{ x } ET \text{ x } EF \text{ x } ED} = \frac{\left(1\text{x}10^{-6}\right) \text{ x } (70 \text{ yr}) \text{ x } \left(8760 \ \frac{hr}{yr}\right)}{0.57 \left(\frac{mg}{m^3}\right)^{-1} \text{ x } \left(8 \ \frac{hr}{d}\right) \text{ x } \left(250 \ \frac{d}{yr}\right) \text{ x } (1 \text{ yr})}$$

$$EPC_{air} \text{ (PCBs)} = 5.4\text{x}10^{-4} \ \frac{mg}{m^3} \text{ or } 0.54 \ \frac{\mu g}{m^3}$$

The same calculation should be performed for a target non-cancer risk (i.e., hazard quotient), 0.1 is assumed for this example:

$$EPC_{air} \text{ (PCBs)} = \frac{TR \text{ x } AT \text{ x } CF \text{ x } RfC}{ET \text{ x } EF \text{ x } ED} = \frac{(0.1) \text{ x } (1 \text{ yr}) \text{ x } \left(8760 \ \frac{hr}{yr}\right) \text{ x } \left(7 \text{ x } 10^{-5} \frac{mg}{m^3}\right)}{\left(8 \ \frac{hr}{d}\right) \text{ x } \left(250 \ \frac{d}{yr}\right) \text{ x } (1 \text{ yr})}$$

$$EPC_{air} \text{ (PCBs)} = 3.1\text{x}10^{-5} \ \frac{mg}{m^3} \text{ or } 0.031 \ \frac{\mu g}{m^3}$$

Thus, the calculations demonstrate that the PCB air concentrations associated with total suspended particulates were below the target PCB concentrations associated with respirable particulates or $PM_{10}$ (i.e., the amount of respirable particulates would be less than the total suspended particulates, so, the target concentration is easily met).

**Comment #3(c) - Related to Henry's Law Constant for Aroclor 1254 and Evaluation of PCBs for Indoor Air Intrusion**

**Table 3-1, Calculation of indoor inhalation of PCBs volatilized from soil (May 2, 2005, memorandum)**

As noted in the May 9, 2005, memorandum, a unit risk value of 0.1 $(mg/m^3)^{-1}$ should have been used in the risk calculations instead of the unit risk of 2.0 $(mg/m^3)^{-1}$. The revised cancer risk for indoor inhalation of volatilized PCBs (shown in Table 3-1), using the unit risk of 0.1 $(mg/m^3)^{-1}$, would be $9.6 \times 10^{-10}$ instead of $1.5 \times 10^{-7}$:

$$\text{Cancer risk} = \frac{(\text{Cair}) \times (\text{EF}) \times (\text{ED}) \times (\text{EP}) \times (\text{CF})}{(\text{AP})} \times \text{UR}$$

$$\text{Cancer risk} = \frac{(9.44 \times 10^{-7}\ \frac{mg}{m^3}) \times (250 \frac{d}{yr}) \times (25\ yr) \times (1.14 \times 10^{-4}\ \frac{yr}{hr})}{(70\ yr)} \times 0.1\ (\frac{mg}{m^3})^{-1}$$

$$\text{Cancer risk} = 9.6 \times 10^{-10}$$

The calculated HQ of 0.003 is correct. The placement of an engineering barrier would result in even lower risks than the calculated risks (above).

Because children will be spending time in the building, risk calculations, similar to those performed for adults, should be performed for children. The May 9, 2005, memorandum indicates that risk estimates for children would be expected to be similar to those for adults, based on their similar inhalation rate to body weight ratios, 0.29 and 0.31, respectively. However, it is helpful to see the actual values, so the cancer risk and HQ for children inhaling PCBs evaporated from the soil were calculated as follows:

$$\text{Cancer risk} = \frac{(\text{Cair}) \times (\text{IR}) \times (\text{EF}) \times (\text{ED}) \times (\text{EP})}{(\text{BW}) \times (\text{AP})} \times \text{SF}$$

$$\text{Cancer risk} = \frac{(9.44 \times 10^{-7}\ \frac{mg}{m^3}) \times (13.5\ \frac{m^3}{d}) \times (\frac{1\ d}{24\ hr}) \times (8 \frac{hr}{d}) \times (250 \frac{d}{yr}) \times (2\ yr)}{(50.6\ kg) \times (70\ yr) \times (365\ \frac{d}{yr})} \times 0.4\ (\frac{mg}{kg - d})^{-1}$$

$$\text{Cancer risk} = 6.57 \times 10^{-10}$$

And non-cancer risk would be calculated as follows:

$$\text{Non-cancer risk} = \frac{(C_{air}) \times (IR) \times (EF) \times (ED) \times (EP)}{(BW) \times (AP)} \times \frac{1}{RfD}$$

$$\text{Non-cancer risk} = \frac{(9.44\text{x}10^{-7}\ \frac{mg}{m^3}) \times (13.5\ \frac{m^3}{d}) \times (\frac{1\ d}{24\ hr}) \times (8\frac{hr}{d}) \times (250\frac{d}{yr}) \times (2\ yr)}{(50.6\ kg) \times (2\ yr) \times (365\ \frac{d}{yr})} \times \frac{1}{7\text{x}10^{-5}\ (\frac{mg}{kg-d})}$$

$$\text{Non-cancer risk} = 8.21\text{x}10^{-4}$$

In this calculation, it was assumed that the children were 7th and 8th graders (middle school grades), from 12 to 14 years of age. The assumed inhalation rate of 13.5 $m^3$/d is taken from Table 5-23 of the *Exposure Factors Handbook* (EPA, 1997). The value is the average inhalation rate for males (15 $m^3$/d) and females (12 $m^3$/d), 12-14 years of age. The body weight was based on the average body weight for 12 to 14 year olds from Table 7-3 of the *Exposure Factors Handbook*. The exposure frequency of 8 hours per day and the exposure duration of 250 days per year are conservative assumptions since students may only spend about 6 hours per day and less than 200 days per year at school.

**Table 3-5, Summary of Site Input Variables (May 2, 2005, memorandum)**

Generally, the assumed variables are consistent with or similar to EPA or ASTM default values. However, the areal fraction of cracks in foundation, $\eta$, assumed to be 0.0002 $cm^2/cm^2$, was taken from EPA's *Users Guide for Evaluating Subsurface Vapor Intrusion into Buildings* (EPA, 2003) and is the default for a basement house. From the information provided in the Risk-Based Cleanup Request (BETA Group, March 21, 2005), it is not apparent that a basement is planned for the building. If the building will be a slab-on-grade structure, then the default value of 0.0038 $cm^2/cm^2$ for $\eta$ should be used from the EPA reference.

**May 9, 2005, Memorandum**

Please provide a basis for choosing a Hazard Index of 0.2 to determine a non-carcinogenic action level.

## Ymane Bouramia

**From:** Barbara Laughlin
**Sent:** Monday, June 27, 2005 9:14 AM
**To:** Ymane Bouramia
**Subject:** FW: Supplemental EPA Review Comments

-----Original Message-----
**From:** Alan Hanscom
**Sent:** Monday, May 16, 2005 12:36 PM
**To:** Kimberly Tisa (tisa.kimberly@epa.gov)
**Cc:** Jackie Huggins; Scott Alfonse (ScottA@ci.new-bedford.ma.us); Evan Warner (ewarner@mvgarchitects.com); Cyndee Fuller(cfuller@essgroup.com); 'Al Amaral'
**Subject:** Supplemental EPA Review Comments

As discussed last Thursday, the following additional review comments have been provided by EPA:

1. Risk Assessment Memo dated May 9, 2005 - Attachment A, not "Appendix A" - provided with original submittal - **RESOLVED**
2. Vent stack locations with respect to HVAC Units - We will provide site plan indicated locations of vents and HVAC units.
3. Analyses for Asbestos - No overt signs of asbestos containing materials (to be documented).
4. RBCR Attachment D did not contain CD of analytical results - Two CDs to be provided.

All requested information will be submitted on Tuesday, May 17th. Please call me with any further questions.

***Alan D. Hanscom, P.E., LS***
***Associate***
***BETA Group, Inc.***
***315 Norwood Park South***
***Norwood, Massachusetts 02062***
*Tel: 781/255-1982*
*Fax: 781/255-1974*
*Cell: 617/699-1878*

## Ymane Bouramia

**From:** Barbara Laughlin
**Sent:** Monday, June 27, 2005 9:14 AM
**To:** Ymane Bouramia
**Subject:** FW: Supplemental EPA Review Comments

---

**From:** Alan Hanscom
**Sent:** Monday, June 27, 2005 8:59 AM
**To:** Barbara Laughlin
**Subject:** FW: Supplemental EPA Review Comments

FYI...

-----Original Message-----
**From:** Alan Hanscom
**Sent:** Thursday, May 12, 2005 10:07 AM
**To:** Kimberly Tisa (tisa.kimberly@epa.gov)
**Cc:** Scott Alfonse (ScottA@ci.new-bedford.ma.us); Jackie Huggins; Al Amaral (AAmaral@mvgarchitects.com); 'Evan Warner'; Jacqueline Coucci (jcoucci@ci.new-bedford.ma.us); (gerard.martin@state.ma.us)
**Subject:** Supplemental EPA Review Comments

Kim,

The purpose of this e-mail is to document the items discussed during the conference telephone conversation on May 11, 2005 at 2:30 PM with you, Yoon-Jean Choi, Jackie Huggins and me. The supplemental comments were in response to letter dated April 29, 2005 regarding technical design for the engineered cap proposed for the McCoy Field School Site, as originally presented in the Risk-Based Cleanup Request Revision 1, dated May 3, 2005.

1. BETA's response letter to Mr. Choi's April 5, 2005 Memorandum, in the responses to General Comment # 3 and Specific Comment # 5 (1), should clarify that "Engineers" are responsible for directing “excavation, removal, segregation, handling, temporary stockpiling, loading, transportation, and offsite management of the fill layer and unsuitable subgrade soils”.
2. Attachment G, Specification 02200, Earthwork, 3.04 Fills, Backfills and Compaction is not clear as to which density test is being performed (sand cone or in-place density). Specify test method and frequency.
3. Provide documentation (test records, approved shop drawings) that contract document specifications have been met to-date.
4. Revise Risk-Based Cleanup Request Rev.1 Section 3.3.1 (Building Footprint) to clarify that the thickness of the spray-on gas vapor barrier will be 60 mils, and that 80 dry mils will be used only to effect a vapor tight seal at the joint of the adherence geotextile and grade beams/pile caps. The gas vapor barrier (60 dry mil) will then

completely cover the joint.

5. Suggest the following revisions to Figure 4:

   - Extend the geotextile protection course so that it covers the 3" overlap of the gas vapor barrier (60 dry mil) and the grade beam/pile cap.
   - Correct labeling deficiencies (i.e. In Details 2 and 3, geotextile is not labeled and arrow from compacted fill label is not pointing to the right place).

6. Provide shop drawing or technical datasheet for LBI Technologies Ultrashield G-1000 in Attachment B.
7. Review text of Risk-Based Cleanup Request, the attachments, and figures for consistency, especially with respect to specifications for cap design.

Please call either Jackie or me with any changes to the above. Otherwise, we will prepare a formal response and submit it to you ASAP.

***Alan D. Hanscom, P.E., LS***
***Associate***
***BETA Group, Inc.***
***315 Norwood Park South***
***Norwood, Massachusetts 02062***
*Tel: 781/255-1982*
*Fax: 781/255-1974*
*Cell: 617/699-1878*

# CITY OF NEW BEDFORD
# MASSACHUSETTS

DEPARTMENT OF ENVIRONMENTAL STEWARDSHIP
133 WILLIAM STREET
NEW BEDFORD, MA 02740
(508) 991-6188
FAX (508) 961-3045 TYY: (508) 979-1661

**FREDERICK M. KALISZ, JR.**
**MAYOR**


May 10, 2005

Ms. Kimberly Tisa (CPT)
PCB Coordinator
U.S. Environmental Protection Agency
One Congress St. Suite 1100
Boston, MA 02114-2023

RE: Risk Based Cleanup Request, McCoy Field, New Bedford, MA

Dear Ms. Tisa:

I would like to clarify that the Risk Based Cleanup Request submitted by Beta Group Inc. was prepared for the City of New Bedford, not the New Bedford School Department. As the City's representative on this project, I am requesting that all cover letters, correspondence and approvals be addressed to me at the address above.

I apologize for any confusion. Please contact me at (508) 979-1487 if you have any questions.

Sincerely,

Scott Alfonse
Director

cc: Alan Hanscom, Beta Engineering, Inc.
Lawrence Oliveira, New Bedford School Department

## 5.0 WRITTEN CERTIFICATION

Pursuant to §761.61(a)(3)(i)(E), Scott Alfonse, as a representative of the City of New Bedford and the party conducting the cleanup, hereby certifies that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file at:

BETA Group, Inc.
315 Norwood Park South
Norwood, MA 02062

And are available for EPA inspection.

City of New Bedford

Director of Environmental Stewardship

5/9/05
Date

401 Wampanoag Trail, Suite 400
East Providence, Rhode Island 02915
p 401.434.5560
f 401.434.8158

**MEMORANDUM**

TO: Al Hanscom, BETA Group, Inc. DATE: May 9, 2005

FROM: Cyndee Fuller, ESS Group, Inc.

SUBJECT: Revision of Risk-based Air Concentrations for PCBs and comparison with MADEP air guidance. PROJECT NO.: B345-000

COPY TO: Dave Billo, BETA Group, Inc.

This memorandum contains revised risk-based air concentrations (RBACs) for PCBs provided to you in a memo dated May 2, 2005 and replaces those previously calculated values. The revised RBACs presented herein consider non-carcinogenic health effects in additional to carcinogenic health effects and apply the unit risk value of 0.1 [$(mg/m^3)^{-1}$] rather than 2 [$(mg/m^3)^{-1}$] (which was incorrect). This memo also compares the results with MADEP threshold effects exposure limits (TELs), allowable ambient limits (AALs), and allowable threshold concentrations (ATCs).

RBACs are based on an occupational exposure within the school (8 hours per day, 250 days per year, for 25 years). This represents exposure of an adult worker, who is likely to experience the longest exposure in the school. On a cubic meter per kilogram body weight basis, the intake of students is similar to the intake of adults, but students will typically only be exposed for three years.[1] The first RBAC is an action level set at the lower concentration associated with an excess lifetime cancer risk (ELCR) of $1x10^{-6}$ or a non-carcinogenic hazard index (HI) of 0.2. This value is intended to be used as a cautionary value to identify the need for more frequent sampling. The second RBAC is the maximum acceptable air concentration that should not be exceeded for any extended time period, set at the lower concentration associated with an ELCR of $1x10^{-5}$ or a non-carcinogenic HI of 1.0. The values are calculated in Attachment A and summarized below:

| RBAC Type | RBAC ($\mu g/m^3$) |
|---|---|
| Action Level (ELCR = $1x10^{-6}$) | 0.12 |
| Action Level (HI of 0.2) | 0.06 |
| Maximum Acceptable Level (ELCR = $1x10^{-5}$) | 1.2 |
| Maximum Acceptable Level (HI = 1) | 0.3 |

An action level of 0.06 $\mu g/m^3$ and a maximum acceptable level of 0.3 $\mu g/m^3$ are the lowest values. Both are based on non-carcinogenic effects.

Massachusetts has issued several air guidance values for PCBs; including TELs, AAL, and ATCs. The basis of these values is described in the table on the following page and compared with the proposed RBACs.

[1] The average inhalation rate and body weight of youth between the ages of 9 and 14 is 13.5 $m^3$/day and 44 kg, resulting in a $m^3$/kg ratio of 13.5/44 = 0.31. The typical values for inhalation rate and body weight of adults gives a similar ratio: 20 $m^3$/day/70 kg = 0.29 (U.S. EPA 1997).

| Value | Air Concentration ($\mu g/m^3$) | Basis |
|---|---|---|
| Threshold effects exposure limit (TEL) | 0.003 | Based on non-carcinogenic (threshold) effects, using a "most appropriate occupational level" of 0.001 $mg/m^3$ (obtained from NIOSH) to which uncertainty factors were applied, adjusted to account for exposure differences between workers and children, and allowing only 20% of the acceptable exposure (MADEP 1990). |
| Allowable Threshold Concentration (ATC) | 0.02 | Five times TEL (i.e., removing 20% relative source contribution) (MADEP 1995). |
| Allowable Ambient Limit (AAL) | 0.0005 | Based on a $1x10^{-6}$ ELCR, assuming continuous exposure and using an old unit risk value of 0.0022 $[(mg/m^3)^{-1}]$ (MADEP 1990). |
| **Proposed Risk-based Air Concentrations** | | |
| Proposed Action Level | 0.06 | Based on a non-cancer effects at a hazard index of 0.2; assuming exposure 8 hours per day, 250 days per year, for 25 years, using a calculated reference concentration of 0.00007 $mg/m^3$, extrapolated from oral reference dose of 0.00002 mg/kg-dy assuming a 70 kilogram adult body weight and a 20 $m^3$/day inhalation rate. |
| Proposed Maximum Acceptable Level | 0.3 | Based on a non-cancer effects at a hazard index of 1.0; assuming exposure 8 hours per day, 250 days per year, for 25 years, using a calculated reference concentration of 0.00007 $mg/m^3$, extrapolated from oral reference dose of 0.00002 mg/kg-dy assuming a 70 kilogram adult body weight and a 20 $m^3$/day inhalation rate. |

The TEL and ATC are based on occupational exposure limits and the AAL is based on an outdated toxicity value for PCBs (which were revised in 1997), making these values unsuitable for use at the Site. In addition, all are based on continuous exposure, whereas receptors at the school will be exposed intermittently.

## References

MADEP (1990). The Chemical Health Effects Assessment Methodology and The Method To Derive Allowable Ambient Limits. February.

MADEP (1995). Massachusetts Allowable Threshold Concentrations (ATCs). December.

U.S. EPA (1997). Exposure Factors Handbook, Volume I. EPA/600/P-95/002Fa, August.

# Risk-Based Cleanup Request

**Revision 1**

**School Site at McCoy Field**
**New Bedford, Massachusetts**
**RTN 4-15685**

**May 3, 2005**

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**ATTACHMENTS**

A Draft Notice of Activity and Use Limitation Revision 1
B Keith Middle School - Phase II Project Manual
Specification 02200 – Earthwork (separation fabric, coated separation fabric)
Keith Middle School - Phase III Project Manual
Specification 07133 – Gas Vapor Barrier (vapor barrier, adherence geotextile)
Shop Drawings and Data Sheets
Separation Fabric Technical Data Sheet – Mirafi 600X
Coated Separation Fabric Shop Drawing – Mirafi MCF-1212
Adherence Geotextile Technical Data Sheet – Mirafi 1100N
Warning Barrier Shop Drawing – LW1100 Dig Barrier
C Tabulated PCB Analytical Results
D Laboratory Analytical Reports (provided on CD-ROM); L0211201 Backup
E Long-term Cap Monitoring Plan Revision 1
F Environmental Monitoring Plan Revision 1
G Keith Middle School - Phase III Project Manual
Specification 02200 - Earthwork (backfill materials)
Keith Middle School - Phase III Project Manual
Phase II Specification 02900 - Lawns
H Storm Water Pollution Prevention Plan

# 1.0 EXECUTIVE SUMMARY

## 1.1 Purpose of Submission

This document constitutes a Risk-Based Cleanup Request under 40 CFR 761.61(c) for polychlorinated biphenyl (PCB) remediation waste within the portion of the McCoy Field Site (the "Site") hereinafter referred to as the School Site. The School Site is bounded by a security fence, as shown in Figure 2, and encompasses landscaped areas, paved areas, and areas within the building footprint. The "Site Wetlands", also illustrated on Figure 2, will be addressed in a separate risk-based cleanup request.

The School Site is the construction site for the New Keith Middle School, and therefore will be considered a high occupancy area. If a self-implementing cleanup were to be conducted under §761.61(a)(4)(i)(A), a cleanup level for bulk PCB remediation waste of ≤1 ppm would be required without further conditions; waste at concentrations >1 ppm and ≤10 ppm would be allowed to remain in areas covered with a cap meeting the requirements of paragraphs (a)(7) and (a)(8). Since engineered controls and an Activity and Use Limitation (AUL), will be implemented to limit exposure, this Risk-Based Cleanup Request is being submitted with the goal of allowing PCB remediation waste to remain at the School Site. Consistent with Massachusetts Contingency Plan requirements, all soil containing PCB concentrations =100 ppm encountered during excavation activities has been delineated, excavated, and managed off-Site.

## 1.2 Site Background

The property formerly known as McCoy Field (the Site), previously a recreational field occupied by three soccer fields, is the construction site for the New Keith Middle School. The Site is bounded by Hathaway Boulevard to the east, Durfee Street to the north, Summit Street to the west, and Ruggles Street to the south (Figure 2). Much of the material underlying the former soccer fields is relocated fill material from the current high school location (east of the Site, across Hathaway Boulevard), where historic dumping and burning activities were reportedly performed prior to construction of the high school in the early 1970s. In or around 1994, the PCB-contaminated debris was spread across the Site and graded for the purposes of athletic field construction. The waste was covered with a sand/gravel leveling course and topsoil prior to construction of the soccer fields. The maximum depth of waste at the Site is 14 feet. As a result, the following distinct horizons are present at the Site:

- Topsoil;
- Sand/gravel layer;
- Fill material;
- Native organic silt; and,
- Native glacial till.

Embankments mark the edge of the fill placement along the northern and western boundaries of the filled area. These embankments lead down to deciduous wood swamp wetland areas where fill material was not historically placed. However, constituents from the fill material have migrated to the wetland area from environmental processes such as

wind erosion and surface water runoff. A separate risk-based cleanup request will be submitted for the "Site Wetlands".

### 1.3 Cleanup Plan

In order to limit potential exposure associated with future School Site activities, the accessibility of all PCB remediation waste at the School Site will be limited by means of being located:

1) Under the building footprint, two feet beneath the gas vapor barrier and venting system;
2) Beneath three feet of clean fill in landscaped (unpaved) areas; or
3) Beneath a minimum of two feet of clean granular fill in paved areas.

Clean corridors have been or will be established for all Site utilities to facilitate worker safety during installation and future maintenance.

An Activity and Use Limitation (AUL) will be placed on the School Site because the Method 3 Risk Characterization performed pursuant to the Massachusetts Contingency Plan (310 CMR 40.0990) relies on limited exposure potential to achieve a level of No Significant Risk. The AUL will require maintenance of three feet of clean soil in landscaped areas and two feet of granular materials in paved areas. Excavation will be limited to within clean corridors, unless otherwise approved by a Massachusetts Licensed Site Professional (LSP), and shall be performed by only authorized personnel. A Draft AUL is included as Attachment A.

At the request of EPA, a warning barrier has been placed at all landscaped areas of the School Site, not including paved areas or the building footprint.

### 1.4 Human Health Risk Characterization

Human receptors anticipated to be present at the future Keith Middle School include the following:

- Students
- School employees
- Visitors
- Municipal employees (such as persons from public works, the water department, etc.)

The exposure management barriers and activity and use limitation (AUL) to be established at the school will prevent students, school employees, and visitors from contacting underlying fill material and will also prohibit soil disturbance activities by municipal workers or similar groups without the explicit involvement of a Massachusetts Licensed Site Professional (LSP). Therefore, the exposure pathway to students, school employees, visitors, or municipal workers to fill underlying exposure management barriers is incomplete.

Intrusion into fill material underneath the exposure management barriers could only result from unintended and/or unauthorized breaching of the exposure management barriers. To contact in-place fill material, a person would need to:

- Penetrate the building foundation;
- Dig through three feet of clean material in landscaped areas; or
- Dig through paving and a minimum of two feet of granular materials (including the warning barrier).

It is considered highly unlikely that such activities would be performed by Site personnel. Awareness training of maintenance staff will be provided by BETA.

# 2.0 SITE BACKGROUND

## 2.1 Site History and Setting

BETA Group, Inc. (BETA) has been retained by the City of New Bedford School Department to provide licensed site professional services related to the development of the New Keith Middle School at the location of the current McCoy Field (the "Site"). McCoy Field consists of approximately seven acres of land on the west side of Hathaway Boulevard, opposite New Bedford High School. Polychlorinated biphenyl (PCB)-contaminated burn debris from a former City burn dump was placed at the Site in the late 1960s/early 1970s. In or around 1994, PCB-contaminated debris was spread across the Site and graded for the purposes of athletic field construction.

Pre-construction investigations of McCoy Field revealed the presence of Reportable Concentrations (RCs) of several contaminants in soil, including lead, barium, PCBs and other semivolatile organic compounds (SVOCs). Initial subsurface investigations conducted in April 2000 by Miller Engineering & Testing, Inc. (Miller) identified four distinct horizons in soil in the playing field: surface soil, a gravel layer, fill (ash & C&D wastes), and native soil. For the purpose of characterizing the soil for disposal, BETA grouped the gravel layer with the fill layer, and separated the native soil into the organic silt layer and the glacial till layer. Previous sampling efforts established that the surface soil is suitable for on-site reuse; therefore, no samples were collected from the surface soil layer.

PCB analytical results from samples collected in March 2004 identified PCB concentrations at ≥50 ppm at the Site. Based on these results and past Site activities, PCB-contaminated materials meet the definition of a *PCB remediation waste*, as defined under federal PCB regulations at 40 CFR 761.3. *PCB remediation waste* is regulated under the Toxic Substances Control Act (TSCA) and the PCB regulations at 40 CFR Part 761. The PCB regulations require disposal of *PCB remediation waste* at ≥50 ppm in a TSCA-permitted disposal facility or a RCRA hazardous waste landfill; *PCB remediation waste* at <50 ppm may be disposed of in a state-approved non-hazardous waste landfill.

In accordance with a Consent Agreement and Final Order (CAFO) between EPA and the City of New Bedford (the City), the City has conducted sampling and removed the PCB-impacted soil located in the proposed utility corridors and in the vicinity of the proposed building pile caps and grade beams at the Site. The CAFO also required development of a Work Plan that details the work. Revision 2 of the EPA Work Plan was appended to the CAFO executed by the EPA on May 21, 2004.

Since the original CAFO addressed only soil located in the utility corridors and in the vicinity of the proposed building pile caps and grade beams at the Site, the CAFO was amended on October 25, 2004 to encompass sampling and removal to be addressed under Revision 3 of the EPA Work Plan. The scope of work at the Site was expanded by Revision 3 of the EPA Work Plan, submitted on November 5, 2004, to include sampling and removal of PCB-impacted soil for installation of the elevator shaft, acid neutralization tanks, AST foundation, light stanchions, detention basins, drain lines, water line, landscaped areas, wetlands, and the neighboring properties in the vicinity of Durfee Street and Nemasket Street.

As part of the school construction project, an initial site preparation contract (Phase I) was prepared and awarded for construction of clean corridors, installation of subsurface utilities, and stabilization of the embankment along the northern and western perimeter of the existing soccer fields. Phase I Work was observed by BETA staff from approximately May 6, 2004 through November 16, 2004. Work to be completed under the Phase II contract includes excavation and management of soil in the location of proposed utility corridors, building pile caps and grade beams, AST foundation, light stanchions, detention basins, drain lines, water line, and landscaped areas. All necessary off-site management options are provided for under Phase I and Phase II construction contracts. In accordance with the provisions of the EPA Work Plan, BETA conducted extensive in-situ sampling from February 2004 through February 2005 to characterize soil and assess off-site management options. Phase I activities are complete and Phase II activities are in the final stages of completion.

BETA Group, Inc. has consulted with EPA and DEP concerning the submittal of this Risk-Based Cleanup Request for the School Site separate from a request for the cleanup of the Site Wetlands. The intent in submitting a separate request for the School Site is to help expedite approval for this portion of the Site, so as not to delay construction of the New Keith Middle School.

### 2.2 Nature of Contamination

Activities conducted to date under the EPA Work Plan (last revised November 5, 2004) include sampling and removal of PCB-impacted soil for installation of clean utility corridors, building pile caps and grade beams, elevator shafts, acid neutralization tanks, AST foundation, light stanchions, detention basins, drain lines, water line, landscaped areas, and for stabilization of the embankments abutting the Site Wetlands. Sample locations are shown on Figures 1.1 through 1.6. Tabulated PCB analytical results are included as Attachment C. For each area of the School Site (i.e. Landscaped Area, Pile Caps, Grade Beams, etc.) the samples are divided into the following categories:

- Characterization samples – these samples were collected to characterize soil to be excavated for off-site disposal. Characterization samples are representative of soil that was disposed off-site.
- Delineation samples – these samples were collected either to narrow down the limits of PCB remediation waste > 50 ppm in order to limit disposal cost or to determine the extent of soil requiring removal due to exceedance of an Upper Concentration Limit. Delineation samples are representative of soil that was disposed off-site.
- Confirmation/Remaining samples – these samples are representative of soil remaining at the Site beneath the engineered barriers discussed in Section 3.3. Confirmation/Remaining samples fall into the following categories:
    1. Samples collected as delineation samples which marked the edge of a delineation;
    2. Samples collected as characterization samples for material that did not end up requiring excavation;
    3. Samples collected as characterization samples for material that was excavated and then used as backfill either in the building footprint or in light stanchion excavations.

Laboratory analytical results are provided on CD-ROM as Attachment D.

### 2.2.1 Soil/Fill

Pre-construction investigations at the Site identified the presence of constituents in fill material at concentrations above Massachusetts Department of Environmental Protection (MADEP) Reportable Concentrations (RCs).

Based on investigations conducted in the fill area of the Site between 2000 and the present, constituents present in soil/fill material that will remain on-Site underneath exposure management barriers include PCBs, lead, barium, and several semi-volatile organic compounds. A complete list of all contaminants of concern is included in Table 1.

Volatile organic compounds (VOCs) were detected in soil/fill material infrequently and at low concentrations. Of the twelve VOCs detected, eleven are petroleum-related compounds. Maximum detected concentrations of all individual VOCs, as well as the combined concentration of C9-C10 aromatic compounds, are below their applicable MCP Method 1 S-3 soil standards (i.e., S-3/GW-2 and/or S-3/GW-3).

Numerous semi-volatile organic compounds (SVOCs) were detected; the majority (18) are either polycyclic aromatic hydrocarbons (PAHs) or phthalic acid esters.[1] Six PAHs were detected at maximum and/or arithmetic mean concentrations above their applicable Method 1 S-3 soil standards. Several additional SVOCs were detected in soil/fill, but were detected infrequently (in 1% or less of samples) and at concentrations below their applicable Method 1 S-3 soil standard or U.S. EPA Region 9 preliminary remedial goal (PRG) for industrial soil. Benzidine was detected once, at a concentration above its U.S. EPA Region 9 PRG for industrial soil.

Polychlorinated biphenyls (PCBs) were detected in about 77% of the soil samples analyzed. PCBs were typically reported as Aroclor-1254; in about one percent of the samples, PCBs were reported as Aroclor-1248 and in less than 1% of samples as Aroclor-1260, -1262, or -1268. Total PCB concentrations ranged from less than detectable to a maximum of 46,500 mg/kg. The arithmetic mean of the detections (i.e., not including the non-detected results) was 77.12 mg/kg; however, this concentration is skewed by the anomalously high maximum value. The median concentration is 8.09 mg/kg and the geometric mean concentration is 9.03 mg/kg. Figure 7 presents a distribution histogram of log-normalized PCB detections; the apparent normal distribution of the log-normalized data suggest that the data follow a log-normal distribution and that the geometric mean may be more representative of the central tendency of the data. The 90th percentile concentration of the PCB detection data set is 51.2 mg/kg.

Eight RCRA metals were detected in Site soil/fill material: arsenic (95% of samples); barium (100%); cadmium (89%), total chromium (100%), lead

(~100%), mercury (89%), selenium (3%), and silver (37%). Maximum detected concentrations of cadmium, total chromium, mercury, selenium, and silver were below their respective Method 1 S-3 soil standards. While maximum detected concentrations of arsenic and barium exceeded their respective Method 1 S-3 soil standards, their arithmetic mean concentrations were below their respective Method 1 S-3 soil standards. Both the maximum detected and arithmetic mean concentrations of lead exceeded its Method 1 S-3 soil standard.

The attached Table 3 summarizes analytical data for chlorinated dibenzo-p-dioxins and dibenzofurans (CDDs/CDFs) for soil/fill samples collected from the McCoy Field Site. Eight samples, including two duplicates, were collected. A variety of CDDs/CDFs were detected; the highest concentrations were hepta- and octa-substituted dioxins and furans.

Each reported sample concentration of an individual CDD/CDF was converted to a 2,3,7,8-tetrachlorodibenzo-p-dioxin toxicity equivalent (2378-TCDD TEq) using the WHO-98 scheme, as recommended in the draft dioxin reassessment documents (U.S. EPA 2000).[2] 2378-TCDD TEqs for each CDD/CDF in a sample were then summed to derive a total 2378-TCDD TEq for the sample. In the eight samples, total 2378-TCDD TEq concentrations ranged from 11.7 pg/g (parts per trillion) to 54.8 pg/g. All total 2378-TCDD TEqs, while above Method 1 soil standards, were below the MCP upper concentration limit of 200 pg/g.

### 2.2.2 Groundwater

Sampling of temporary observation wells at four locations on the School Site identified only non-detect and trace levels of heavy metals, VOCs, SVOCs, PAHs and EPH compounds. A summary of analytical results is presented in Table 3. Reference is made to Figures 1.1 and 1.2 for locations of the temporary monitoring wells.

No further groundwater sampling has been performed; however, three monitoring wells are proposed in the Draft Environmental Monitoring Plan (Attachment F).

### 2.2.3 Soil Gas

This section summarizes the evaluation of soil gas results from McCoy Field in New Bedford. The soil gas results, summarized in Table 5, were evaluated for the potential to adversely impact indoor air or an overlying building with no vapor barrier due to vapor diffusion into the building. The conclusion of the evaluation is that no significant risk to human health is posed by measured soil gas concentrations.

The evaluation was conducted using a component of the Johnson & Ettinger (1991) model; specifically, through calculating a steady state indoor air attenuation coefficient ($\alpha$), that describes the reduction in concentration when soil gas intrudes and distributes inside of a building. Average detected soil gas concentrations of each constituent (with a few exceptions, noted below) were combined with this attenuation coefficient and with an intake factor describing the intermittent exposure of an on-Site worker (assessed for 8 hours per day, 250 days

per year, 25 years)[3] to derive an indoor air exposure point concentration. The exposure point concentration was then combined with the constituent's appropriate inhalation toxicity value (either a reference concentration for non-carcinogenic constituents or an inhalation unit risk value for carcinogenic constituents) to quantify potential health risks. Constituent-specific non-carcinogenic hazard indices and cancer risks were each summed among all constituents to derive an overall Hazard Index of 0.02 and excess lifetime cancer risk of $6x10^{-7}$. These values are below the maximum acceptable Hazard Index of 1.0 and excess lifetime cancer risk of $1x10^{-5}$ adopted by MADEP. This indicates that inhalation exposure to constituents detected in soil gas will not pose a significant risk to human health. The many conservative approaches applied in the evaluation, as well as the fact that the building will have a vapor barrier, suggest that actual exposures, if any, will be significantly less than those estimated.

A few constituents detected in soil gas could not be assessed either because of the lack of toxicity values or chemical property data to estimate an attenuation factor. These constituents were: ethanol, propylene, 2-bromopentane, cyclopentanone, limonene, dimethyl disulfide, and trans-decahydronaphthalene. The latter five were each detected in one soil gas sample only; ethanol and propylene were detected more frequently.

Calculations of attenuation coefficients, exposure concentrations, and hazard/risk levels are presented on Tables 5 and 6. All input values are presented and referenced on these tables.

### 2.3 Sampling Procedures

The EPA Work Plan outlines the sampling procedures followed for this Site.

### 2.4 Data Validation and Usability

Samples collected for disposal characterization were routinely analyzed for PCBs, metals, and SVOCs. Originally, the soil was also characterized with respect to parameters such as VOCs, corrosivity, and ignitability; however, it was determined that only PCBs, metals, and SVOCs were significant to disposal considerations. Whenever a metal was detected in excess of 20 times its respective toxicity characteristic level, Toxicity Characteristic Leaching Procedure (TCLP) analysis was conducted. Lead was the only metal for which TCLP analysis resulted in an exceedance of the regulatory limit. In these instances, the material was stabilized for lead and a confirmatory sample was analyzed prior to excavation and disposal. A small hotspot (9 tons) of fill material contained PAHs at concentrations exceeding Upper Concentration Limits (UCLs). Although the PAH concentrations exceeded UCLs, the concentrations were within the acceptance limits of the non-hazardous waste landfill. Since PCBs presented the most significant disposal considerations, data validation was focused on PCB analytical results.

### 2.4.1 Technical Holding Times

All soil samples were extracted within the 14-day limit, except those samples that were held for analyses, pending receipt of the initial sample results. In some cases (less than 10%), samples analyzed for delineation purposes were extracted over 14 days after sample collection. Given that the primary objective was to characterize soil for disposal purposes at above or below 50 ppm, we do not believe that such holding time exceedances compromise the decisions made regarding off-site soil management.

### 2.4.2 Surrogate Recoveries

Initial problems were encountered with surrogate recoveries for PCB soil results, due to dilutions necessary to detect higher concentrations of PCBs. This issue was addressed with EPA personnel early in the waste characterization process, and the problem was rectified by assessing surrogate recoveries on straight runs, not on the 100X dilutions necessary for some soil samples.

### 2.4.3 Matrix Spike/Matrix Spike Duplicates

Both analytical laboratories used for this project (New England Testing Laboratories, Inc. and Alpha Analytical, Inc.) were provided with matrix spikes and matrix spike duplicates in accordance with the Work Plan. Over the course of the project, we observed significant variations in the analytical results, including respect to relative percent differences up to 300% in some cases. We had several discussions with laboratory personnel, risk assessors, and EPA technical staff to help reconcile higher than expected RPDs and identified the following complicating factors:

- Due to the heterogeneity of the soil samples (i.e. the percentage of glass, organics, and other deleterious materials), securing a representative sample that could be replicated in the laboratory was difficult at best.
- The laboratory reported the detection of (what appeared to be) fragments of capacitor paper that likely contributed to higher than actual PCB concentrations.

Recognizing that there were significant variations in the results and matrix factors beyond our control, we implemented the following conservative approach:

1) Where PCB concentrations exceeding 50 ppm were detected, we directed over-excavation of the area to sample locations (in each direction) where results less than 50 ppm were detected.
2) When the laboratory suspected the presence of non-1254 Aroclor PCBs, we either proceeded with homologue analysis by Method 680 or simply assumed the sample contained a PCB concentration > 50 ppm and disposed of the remediation waste accordingly; and,
3) Where duplicate sample results were available, disposal decisions were based upon the higher detected concentration.

### 2.4.4 Method Blanks

Ottawa sand samples were run through all extraction and clean-up steps to confirm that the analytical instruments were free from contamination. The frequency was one per 20 samples or for each discrete run with the instrument. In virtually all method blanks, results for PCB analysis were non-detect.

# 3.0 CLEANUP PLAN

## 3.1 Schedule

Construction of the pile caps and grade beams is underway. The construction contract has provisions for installation of a permeable soil cap, construction of the building slab (with gas vapor barrier), and installation of granular materials and pavement that will comprise the "exposure management barrier".

Final construction of all components of the exposure management barrier is expected to be completed by August 31, 2006.

## 3.2 Disposal Technology

Fill material requiring excavation, disposal and/or on-site reuse has been handled in accordance with the EPA Work Plan.

## 3.3 Engineered Controls

In areas where fill remains at the School Site, the following engineering controls (exposure management barriers) and institutional controls (Activity and Use Limitation) will be implemented during or subsequent to construction activities:

### 3.3.1 Building Footprint

To protect on-site workers that will work on pile caps and grade beams (within the building footprint), the following provisions have been implemented. Upon completion of a pile cap(s), PCB remediation waste will be placed by appropriately trained workers into the remaining pile cap excavation area to a depth of six inches below the top of the pile cap. A geotextile barrier fabric be installed directly over the waste and then covered with a minimum of six inches of clean granular fill material. Non-OSHA-trained workers will then be permitted to perform grade beam form work.

Upon completion of grade beams, additional PCB remediation waste will be backfilled in the area of the grade beam to a depth of approximately two feet below the bottom of the building slab. A geotextile barrier fabric will be installed directly over the waste material and then six to eight inches of clean granular fill material will be placed on top of the fabric. Next, a geotextile fabric will be placed and a gas vapor barrier and passive venting system will be installed. A total of eight passive vent pipes have been provided for in the Phase III Contract Documents, as indicated on Drawing A9.5 (Figure 4).

To effect a vapor tight seal between the grade beams and the adherence geotextile, 80 dry mils of the gas vapor membrane will be applied as shown in Figure 4 Typical 3. The gas vapor membrane will be applied above the grade beams using a spray-on technology prior to pouring of the concrete slab. Refer to Attachment B for gas vapor barrier technical specifications. Refer to Figures 3.1 and 3.2 for a depiction of the sub slab and slab construction details.

### 3.3.2 Utility Corridors

Clean utility corridors are being created to prevent exposure of future construction or utility workers to fill material remaining at the Site. In these corridors, fill has been removed, properly disposed off-Site in accordance with the EPA Work Plan and applicable state and federal regulations, and replaced with clean granular material. The specification for backfill materials included in the Contract Documents is included as Attachment G.

### 3.3.3 Landscaped Areas

In landscaped areas outside of the new building footprint (see Figure 6):

- Fill material will be removed as necessary to make room for three feet of clean material beneath final grade;
- Separation geotextile will be placed over the remaining fill;
- A 12” +/- layer of granular material will be placed over the separation geotextile;
- Warning barrier will be placed;
- A 2’ +/- layer of granular material will be placed over the warning barrier to create a minimum of 3’ of granular material over the separation fabric; and,
- Landscaping will be established over the granular material.

### 3.3.4 Paved Areas

In developed areas outside of the new building footprint (see Figure 5):

- Fill material will be removed as necessary to make room for 2 feet of clean material beneath the paved surface;
- Separation geotextile will be placed over the remaining fill;
- A minimum of 15 inches of granular material will be placed over the separation geotextile; and
- 6 inches of crushed stone will be placed over the granular material.
- A minimum of 3 inches of pavement will be placed over the crushed stone.

### 3.3.5 Embankment

Embankments (edges of fill material) have been stabilized at a slope of 2:1 to 3:1 with three feet of clean soil overlying in-place contaminated material. The same geotextile fabric and warning barrier described above have been or will be installed at all of the stabilized embankment areas.

### 3.3.6 Long-term Monitoring and Maintenance

A Long-term Cap Monitoring Plan is included as Attachment E. An Environmental Monitoring Plan addressing indoor air and groundwater monitoring is included as Attachment F.

## 3.4 Activity and Use Limitation

An Activity and Use Limitation (AUL) will be placed on the property to require maintenance of the building slab, paved surfaces, and landscaped areas discussed above

and to prevent penetration of these features without the oversight by a Massachusetts Licensed Site Professional (LSP). A Draft AUL is included as Attachment A.

# 4.0 HUMAN HEALTH RISK CHARACTERIZATION

This Section presents a qualitative risk characterization for the School Site and its future use as the New Keith Middle School. The objective of the human health risk characterization is to assess if Site conditions after development pose a potential health risk to humans.

## 4.1 Hazard Identification

### 4.1.1 Constituents of Concern

Constituents of concern (COCs) for the human health risk characterization include the following:

- Acenaphthene
- Acenaphthylene
- Anthracene
- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(g,h,i)perylene
- Benzo(k)fluoranthene
- Chrysene
- Dibenzo(a,h)anthracene
- Dibenzofuran
- Fluoranthene
- Fluorene
- Indeno(1,2,3-cd)pyrene
- 2-Methylnaphthalene
- Naphthalene
- Phenanthrene
- Pyrene
- PCBs (as Aroclor 1254)
- Total petroleum hydrocarbons
- Arsenic
- Barium
- Lead

The rationale for excluding other detected constituents is presented on Table 1.

### 4.1.2 Environmental Fate and Transport Characteristics

The Environmental Monitoring Plan included as Attachment E includes provisions for monitoring transport of COCs by solubilization and volatilization.

**Solubilization**

Table 2 summarizes chemical properties that describe the potential environmental fate and transport of the COCs and ranks them according to tendency to solubilize in water, volatilize, and desorb from soil particles. The majority of the COCs are slightly soluble or not soluble, very slightly volatile or non-volatile, and slightly or hardly mobile or immobile. This indicates that these COCs have a very low migration potential and will be easily contained within the exposure management barriers.

A few COCs are listed as readily soluble (acenaphthylene, 2-methylnaphthalene, and naphthalene), slightly volatile (2-methylnaphthalene, and naphthalene) and moderately mobile (naphthalene). However, these constituents currently meet Method 1 S-3 soil standards; in fact, the maximum detected concentration of these COCs meet their most stringent applicable Method 1 soil standard

(acenaphthylene: 100 mg/kg; 2-methylnaphthalene: 500 mg/kg; naphthalene: 200 mg/kg).

COCs in the fill material are not expected to adversely impact groundwater, and consequently not expected to migrate to the wetlands.

**Volatilization**

As discussed in Section 2.2.3, soil gas results were evaluated for the potential to adversely impact indoor air or an overlying building with no vapor barrier due to vapor diffusion into the building. The conclusion of the evaluation is that no significant risk to human health is posed by measured soil gas concentrations.

The gas vapor barrier to be installed across the entire building footprint will provide further protection against exposure to COCs through volatilization.

**Erosion**

Due to the engineered barriers (soil cap, asphalt cap, building), which will be maintained in accordance with the Activity and Use Limitation, no fill material will be present at the ground surface. Therefore, surface runoff will not be a migration pathway.

Furthermore, the Storm Water Pollution Prevention Plan (Attachment H) incorporates storm water management, stabilization practices, erosion and sediment control, and spill prevention. Hay bales and silt fences are in place, as shown in Figure 5 (detail 1/L6), along the toe of the entire embankment, Hathaway Boulevard, and other resource areas as shown in Figure 8.

Similarly, the engineered barriers will preclude the potential for entrainment of contaminated soil in the air. During construction activities in which contaminated material is exposed to the air, dust monitoring activities are conducted in accordance with the Soil Management and Dust Monitoring Section of the Work Plan as well as Work Plan Attachment O (Proposed Waste and Regulated Soil Removal Plan).

### 4.2 Exposure Assessment

Human receptors potentially present at the future Keith Middle School include the following:

- Students
- School employees
- Visitors
- Municipal employees (such as persons from public works, the water department, etc.)

The exposure management barriers and activity and use limitation (AUL) to be established at the school will prevent students, school employees, and visitors from regularly contacting underlying fill material and will also prohibit soil disturbance

activities by municipal workers or similar groups. Therefore, exposure to students, school employees, visitors, or municipal workers to fill underlying exposure management barriers is incomplete.

Intrusion into fill material underneath the exposure management barriers could only result from unintended breaching of the exposure management barriers or from prohibited activities by unauthorized persons on the Site. To contact in-place fill material, a person would need to dig through the building foundation, three feet of clean material, or paving and two feet of clean material; a gravel layer; and a geotextile fabric layer. This scenario is considered highly unlikely.

**Current Worker Exposure**

ESS Group, Inc. (ESS) revised risk-based air concentrations (RBACs) for PCBs in inhalable particles in air, protective of on-Site construction workers and off-site residents. The approach and assumptions used to derive the RBACs, including all risk calculations are documented in a letter dated May 17, 2004. The conclusion of the assessment is that a concentration of 404 µg inhalable particles per $m^3$ air is protective of both receptor groups and both potential carcinogenic and non-carcinogenic health risks. Soil management and dust monitoring procedures are discussed further in the EPA Work Plan.

To limit the exposure of form workers under the current construction contract, coated geotextile fabric was installed directly over the waste and then covered with a minimum of six inches of clean granular fill material before non-OSHA-trained workers were permitted to perform grade beam form work.

**Future Student-Teacher Exposure**

Future developed portions of the Site, including the new school, and landscaped, parking, and associated open areas, will be managed by engineered barriers and structures and supporting land use restrictions as discussed in Section 3 above. These features will prevent students, school employees, or others from contacting underlying fill material and will prohibit soil disturbance activities. Therefore, exposure to people on future developed portions of the Site will be incomplete and is not assessed quantitatively.

**Future Worker Exposure**

Clean corridors have been established for utility installation and repair. Unless otherwise approved by a Massachusetts LSP, the AUL will limit excavation to within clean corridors to be performed by only authorized personnel.

### 4.3 Risk Characterization

The exposure management barriers to be established at the future Keith Middle School will effectively prevent potential human receptors from contacting COCs present in the in-place fill material. The properties of the COCs indicate that the COCs will be effectively controlled by the exposure management barriers. The AUL will provide a framework for ensuring that the exposure management barriers will be maintained and that persons are responsible for Site management. Based on these factors, future

exposure of people to COCs present in the in-place fill material underneath the exposure management barriers is incomplete, and no health risks are posed.

## 5.0 WRITTEN CERTIFICATION

Pursuant to §761.61(a)(3)(i)(E), Scott Alfonse, as a representative of the City of New Bedford and the party conducting the cleanup, hereby certifies that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file at:

BETA Group, Inc.
315 Norwood Park South
Norwood, MA 02062

And are available for EPA inspection.

City of New Bedford

Director of Environmental Stewardship

5/9/05
Date

## 6.0 REFERENCES

CIS Envirofate Database as referenced in
http://www.dep.state.pa.us/physicalproperties/_cgi-bin/CPP_Search.idc

CRC Handbook of Chemistry and Physics as referenced in
http://www.dep.state.pa.us/physicalproperties/ _cgi-bin/CPP_Search.idc

Groundwater Chemicals Desk Reference as referenced in
http://www.dep.state.pa.us/physicalproperties/ _cgi-bin/CPP_Search.idc

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U.S. EPA (1998). 40 CFR 761.61. "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions." *Code of Federal Regulations*.

U.S. EPA (1994). ChemDat8 Users Guide. EPA453/C-94-080B, November.

U.S. EPA (1991). Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors. OSWER Directive 9285.6-03, March.

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[1] Acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, benzo(g,h,i)perylene, chrysene, dibenzo(a,h)anthracene, dibenzofuran, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, naphthalene, phenanthrene, pyrene and the phthalic acid esters butylbenzylphthalate, di-n-butylphthalate, and bis(2-ethylhexyl)phthalate.

[2] The analytical laboratory also converted the reported concentrations to 2378-TCDD TEqs, but used an earlier toxicity equivalency scheme, so reported slightly different numbers.

[3] Conventional exposure parameters for an adult worker (U.S. EPA 1991); who is anticipated to have the longest exposure duration of users of the future building. This will also be protective of exposure of typical students.

**REFER TO LISTED CONSTITUENTS OF CONCERN OUTLINED IN THE TEXT.**

## Table 1

Summary of Detected Constituents in Fill Material

## Table 2

Properties of Constituents of Concern

**TABLE 2 Revision 1**
**PROPERTIES OF CONSTITUENTS OF CONCERN**
**McCoy Field**
**New Bedford, Massachusetts**

| Constituent | Water Solubility (S) (mg/L) | | Relative Solubility[6] | Vapor Pressure (VP) (atm) | | Henry's Law Constant (H) ($cm^3/cm^3$) | | Relative Volatility [7] | Log Organic Carbon/Water Partition Coefficient (Log $K_{oc}$) ($cm^3/g$) | | Relative Mobility [8] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 3.8 | [1] | Moderately soluble | 1.50E-05 | [1] | 4.91E-03 | [1] | very slightly volatile | 3.4 | [1] | slightly mobile |
| Acenaphthylene | 16.1 | [1] | Readily soluble | 4.09E-05 | [1] | 3.39E-03 | [1] | very slightly volatile | 3.4 | [1] | slightly mobile |
| Anthracene | 0.045 | [1] | Not soluble | 7.68E-07 | [1] | 1.60E-03 | [1] | very slightly volatile | 3.9 | [1] | slightly mobile |
| Benzo(a)anthracene | 0.011 | [1] | Not soluble | 5.98E-09 | [1] | 2.34E-04 | [1] | very slightly volatile | 5.0 | [1] | hardly mobile |
| Benzo(a)pyrene | 0.0038 | [1] | Not soluble | 2.10E-10 | [1] | 1.86E-05 | [1] | non-volatile | 5.1 | [1] | immobile |
| Benzo(b)fluoranthene | 0.0015 | [1] | Not soluble | 6.67E-08 | [1] | 6.46E-06 | [9] | non-volatile | 4.9 | [1] | hardly mobile |
| Benzo(g,h,i)perylene | 0.0003 | [1] | Not soluble | 2.22E-10 | [1] | 3.03E-05 | [1] | non-volatile | 5.5 | [1] | immobile |
| Benzo(k)fluoranthene | 0.0008 | [1] | Not soluble | 4.07E-11 | [1] | 6.46E-06 | [1] | non-volatile | 5.1 | [1] | immobile |
| Chrysene | 0.0015 | [1] | Not soluble | 1.06E-09 | [1] | 1.80E-04 | [1] | very slightly volatile | 4.9 | [1] | hardly mobile |
| Dibenzo(a,h)anthracene | 0.0005 | [1] | Not soluble | 1.33E-08 | [1] | 3.07E-06 | [1] | non-volatile | 5.7 | [1] | immobile |
| Dibenzofuran | 6.56 | [2] | Moderately soluble | 3.46E-06 | [3] | 4.50E-03 | [2] | very slightly volatile | 3.9 | [4] | slightly mobile |
| Fluoranthene | 0.26 | [1] | Slightly soluble | 8.61E-08 | [1] | 4.17E-04 | [1] | very slightly volatile | 4.4 | [1] | hardly mobile |
| Fluorene | 1.9 | [1] | Moderately soluble | 7.06E-06 | [1] | 3.19E-03 | [1] | very slightly volatile | 3.6 | [1] | slightly mobile |
| Indeno(1,2,3-cd)pyrene | 0.062 | [1] | Not soluble | 1.00E-09 | [1] | 2.07E-11 | [1] | non-volatile | 5.9 | [1] | immobile |
| 2-Methylnaphthalene | 25 | [1] | Readily soluble | 1.11E-04 | [1] | 2.07E-02 | [1] | slightly volatile | 3.3 | [1] | slightly mobile |
| Naphthalene | 31 | [1] | Readily soluble | 3.63E-04 | [1] | 1.74E-02 | [1] | slightly volatile | 2.9 | [1] | moderately mobile |
| Phenanthrene | 1.1 | [1] | Moderately soluble | 1.12E-06 | [1] | 1.31E-03 | [1] | very slightly volatile | 3.9 | [1] | slightly mobile |
| Pyrene | 0.132 | [1] | Slightly soluble | 1.17E-07 | [1] | 3.71E-04 | [1] | very slightly volatile | 4.4 | [1] | hardly mobile |
| PCBs (as Aroclor 1254) | 0.01 | [5] | Not soluble | 1.16E-07 | [5] | 1.55E-01 | [5] | very slightly volatile | 6.0 | [5] | immobile |
| Total petroleum hydrocarbons | Mixture | | | | | | | | | | |
| Arsenic | NA | | varies | NA | | NA | | non-volatile | NA | | varies |
| Barium | NA | | varies | NA | | NA | | non-volatile | NA | | varies |
| Lead | NA | | varies | NA | | NA | | non-volatile | NA | | varies |

NA = Not applicable or not available.

1. Total Petroleum Hydrocarbon Criteria Working Group (1998). Composition of Petroleum Mixtures. Amherst Scientific Publishing.
2. CRC Handbook of Chemistry and Physics as referenced in http://www.dep.state.pa.us/physicalproperties/_cgi-bin/CPP_Search.idc
3. Groundwater Chemicals Desk Reference as referenced in http://www.dep.state.pa.us/physicalproperties/_cgi-bin/CPP_Search.idc
4. CIS Envirofate Database as referenced in http://www.dep.state.pa.us/physicalproperties/_cgi-bin/CPP_Search.idc
5. U.S. EPA (1998). Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities, Peer Review Draft. EPA-530-D-98-001A, July.
6. Solubility relative ranking [FAO (2000). Assessing Soil Contamination - a Reference Manual.

| Solubility (mg/L at 20 °C) | Classification |
|---|---|
| <0.10 | Not soluble |
| 0.1–1 | Slightly soluble |
| 1–10 | Moderately soluble |
| 10–100 | Readily soluble |
| >100 | Highly soluble |

7. Volatility relative ranking (source)

| VP (atm) | | H ($cm^3/cm^3$) | |
|---|---|---|---|
| < 0.001 | and | < 5E-05 | non-volatile |
| < 0.001 | and | 5E-03 < H < 5E-05 | very slightly volatile |
| < 0.001 | and | 5E-01 < H < 5E-03 | slightly volatile |

8. Mobility relative ranking [FAO (2000). Assessing Soil Contamination - a Reference Manual]

| Log $K_{oc}$ | Classification |
|---|---|
| <1 | Highly mobile |
| 1–2 | Mobile |
| 2–3 | Moderately mobile |
| 3–4 | Slightly mobile |
| 4–5 | Hardly mobile |
| >5 | Immobile |

9. Assumed same as benzo(k)fluoranthene.

## Table 3

Summary of Soil Analyses for Chlorinated Dibenzo-p-dioxins and Dibenzofurans

**TABLE 3**
**SUMMARY OF SOIL ANALYSES FOR**
**CHLORINATED DIBENZO-P-DIOXINS AND DIBENZOFURANS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample ID | 2,3,7,8-TCDD pg/g | | | 1,2,3,7,8-PeCDD pg/g | | | 1,2,3,4,7,8-HxCDD pg/g | | | 1,2,3,6,7,8-HxCDD pg/g | | 1,2,3,7,8,9-HxCDD pg/g | | 1,2,3,4,6,7,8-HpCDD pg/g | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDD $TEF_{DFP}$-$WHO_{98}$ ---> | 1 | | TEQ | 1 | | TEQ | 0.1 | | TEQ | 0.1 | TEQ | 0.1 | TEQ | 0.01 | TEQ |
| Q4-A & B | 0.2 | U | 0.1 | 0.3 | U | 0.15 | 1.4 | J | 0.14 | 6.2 | 0.62 | 5.2 | 0.52 | 117 | 1.17 |
| Q16 A & B | *0.8* | J | 0.8 | 2.2 | J | 2.2 | 3.4 | J | 0.34 | 16.8 | 1.68 | 10.2 | 1.02 | 629 | 6.29 |
| Q24 A & B | 1.4 | J | 1.4 | 3.6 | J | 3.6 | 6.7 | | 0.67 | 44.2 | 4.42 | 23.5 | 2.35 | 1,790 | 17.9 |
| Q37 A, B, &C | *0.68* | J | 0.68 | 2.1 | J | 2.1 | 3.6 | J | 0.36 | 9.3 | 0.93 | 9 | 0.9 | 237 | 2.37 |
| Duplicate 11 | 2.8 | | 2.8 | 6 | | 6 | 5.2 | | 0.52 | 34.1 | 3.41 | 24.1 | 2.41 | 1,310 | 13.1 |
| Duplicate 13 | 0.95 | J | 0.95 | 3.2 | J | 3.2 | 2.6 | J | 0.26 | 9 | 0.9 | 7.9 | 0.79 | 146 | 1.46 |
| Q6-Embankment A & B | 0.66 | J | 0.66 | 2.5 | J | 2.5 | 2.3 | J | 0.23 | 8 | 0.8 | 7 | 0.7 | 129 | 1.29 |
| Q11-Embankment A & | 0.4 | J | 0.4 | 1.8 | J | 1.8 | 2.2 | J | 0.22 | 5.8 | 0.58 | 6 | 0.6 | 106 | 1.06 |
| Arithmetic Mean Concentration [1] | | | 0.97 | | | 2.69 | | | 0.34 | | 1.67 | | 1.16 | | 5.58 |
| Maximum Detected Concentration | | | 2.8 | | | 6 | | | 0.67 | | 4.42 | | 2.41 | | 17.9 |
| Method 1 S-1 Soil standard [2] | | | 4 | | | 4 | | | 4 | | 4 | | 4 | | 4 |
| Method 1 S-2 Soil standard [2] | | | 6 | | | 6 | | | 6 | | 6 | | 6 | | 6 |
| Method 1 S-3 Soil standard [2] | | | 20 | | | 20 | | | 20 | | 20 | | 20 | | 20 |
| Upper Concentration Limit [3] | | | 200 | | | 200 | | | 200 | | 200 | | 200 | | 200 |

pg/g = picrograms per grams (parts per trillion).
U = Undetected at quantitation limit presented.
J = Estimated below calibration range.
C = Value reported from confirmatory analysis.
D = Value reported from dilution analysis.
X = Interference from diphenyl ethers.
TEF = Toxicity equivalency factor.
TEQ = Toxicity equivalents.
TCDD=Tetrachlorodibenzo-p-dioxin.
TCDF = Tetrachlorodibenzofuran.
PeCDD = Pentachlorodibenzo-p-dioxin.
PeCDF = Pentachlorodibenzofuran.
HxCDD = Hexachlorodibenzo-p-dioxin.
HxCDF = Hexachlorodibenzofuran.
HpCDD = Heptachlorodibenzo-p-dioxin.
HpCDF = Heptachlorodibenzofuran.
OCDD = Octachlorodibenzo-p-dioxin.
OCDF = Octachlorodibenzofuran.
Value in italics = Estimated maximum possible concentration (EMPC).
1. Non-detections included at 1/2 quantitation limit.
2. 310 CMR 40.0975(a), (b), (c).
3. 310 CMR 40.0996(7).

**TABLE 3**
**SUMMARY OF SOIL ANALYSES FOR**
**CHLORINATED DIBENZO-P-DIOXINS AND DIBENZOFURANS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample ID | 1,2,3,4,6,7,8,9-OCDD pg/g | | | 2,3,7,8-TCDF pg/g | | | 1,2,3,7,8-PeCDF pg/g | | | 2,3,4,7,8-PeCDF pg/g | | 1,2,3,4,7,8-HxCDF pg/g | | 1,2,3,6,7,8-HxCDF pg/g | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDD $TEF_{DFP}$-$WHO_{98}$ ---> | 0.0001 | | TEQ | 0.1 | | TEQ | 0.05 | | TEQ | 0.5 | TEQ | 0.1 | TEQ | 0.1 | TEQ |
| Q4-A & B | 1,260 | | 0.126 | 8.2 | C | 0.82 | 0.1 | U | 0.0025 | 14.7 | 7.35 | 93.7 | 9.37 | 33.3 | 3.33 |
| Q16 A & B | 4,690 | D | 0.469 | 11.1 | C | 1.11 | 0.1 | U | 0.0025 | 11.5 | 5.75 | 36.5 | 3.65 | 17 | 1.7 |
| Q24 A & B | 12,160 | D | 1.216 | 15.7 | C | 1.57 | 0.1 | U | 0.0025 | 16.3 | 8.15 | 44.2 | 4.42 | 18.9 | 1.89 |
| Q37 A, B, &C | 3,020 | | 0.302 | 5.2 | C | 0.52 | 0.08 | U | 0.002 | 5.6 | 2.8 | 23.7 | 2.37 | 9.9 | 0.99 |
| Duplicate 11 | 10,210 | D | 1.021 | 18.4 | C | 1.84 | 0.2 | U | 0.005 | 19.3 | 9.65 | 51.9 | 5.19 | 22.2 | 2.22 |
| Duplicate 13 | 1,400 | | 0.14 | 13 | C | 1.3 | 0.1 | U | 0.0025 | 17.6 | 8.8 | 34.4 | 3.44 | 16.8 | 1.68 |
| Q6-Embankment A & B | 1,190 | | 0.119 | 11.2 | C | 1.12 | 0.6 | U | 0.015 | 9.9 | 4.95 | 29.6 | 2.96 | 13.5 | 1.35 |
| Q11-Embankment A & | 1,640 | | 0.164 | 5.3 | C | 0.53 | 0.05 | U | 0.00125 | 5.8 | 2.9 | 11.4 | 1.14 | 6.2 | 0.62 |
| Arithmetic Mean Concentration [1] | | | 0.44 | | | 1.10 | | | 0.004 | | 6.29 | | 4.07 | | 1.72 |
| Maximum Detected Concentration | | | 1.22 | | | 1.84 | | | 0.015 | | 9.65 | | 9.37 | | 3.33 |
| Method 1 S-1 Soil standard [2] | | | 4 | | | 4 | | | 4 | | 4 | | 4 | | 4 |
| Method 1 S-2 Soil standard [2] | | | 6 | | | 6 | | | 6 | | 6 | | 6 | | 6 |
| Method 1 S-3 Soil standard [2] | | | 20 | | | 20 | | | 20 | | 20 | | 20 | | 20 |
| Upper Concentration Limit [3] | | | 200 | | | 200 | | | 200 | | 200 | | 200 | | 200 |

pg/g = picrograms per grams (parts per trillion).
U = Undetected at quantitation limit presented.
J = Estimated below calibration range.
C = Value reported from confirmatory analysis.
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X = Interference from diphenyl ethers.
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HxCDD = Hexachlorodibenzo-p-dioxin.
HxCDF = Hexachlorodibenzofuran.
HpCDD = Heptachlorodibenzo-p-dioxin.
HpCDF = Heptachlorodibenzofuran.
OCDD = Octachlorodibenzo-p-dioxin.
OCDF = Octachlorodibenzofuran.
Value in italics = Estimated maximum possible concentration (EMPC).
1. Non-detections included at 1/2 quantitation limit.
2. 310 CMR 40.0975(a), (b), (c).
3. 310 CMR 40.0996(7).

**TABLE 3**
**SUMMARY OF SOIL ANALYSES FOR**
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**McCoy Field**
**New Bedford, Massachusetts**

| Sample ID | 2,3,4,6,7,8-HxCDF pg/g | | 1,2,3,7,8,9-HxCDF pg/g | | | 1,2,3,4,6,7,8-HpCDF pg/g | | 1,2,3,4,7,8,9-HpCDF pg/g | | 1,2,3,4,6,7,8,9-OCDF pg/g | | Sample Total TCDD pg/g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDD $TEF_{DFP}$-$WHO_{98}$ ---> | 0.1 | TEQ | 0.1 | | TEQ | 0.01 | TEQ | 0.01 | TEQ | 0.0001 | TEQ | |
| Q4-A & B | 19.1 | 1.91 | *5.8* | X | 0.58 | 76.3 | 0.763 | 27.3 | 0.273 | 156 | 0.0156 | 27.2 |
| Q16 A & B | 16.4 | 1.64 | *7.5* | X | 0.75 | 172 | 1.72 | 12.1 | 0.121 | 276 | 0.0276 | 29.3 |
| Q24 A & B | 20.2 | 2.02 | *8.6* | X | 0.86 | 346 | 3.46 | 20.3 | 0.203 | 1,320 | 0.132 | 54.3 |
| Q37 A, B, &C | 8.4 | 0.84 | *4.2* | XJ | 0.42 | 99.7 | 0.997 | 8.2 | 0.082 | 220 | 0.022 | 16.7 |
| Duplicate 11 | 22.4 | 2.24 | *10.4* | X | 1.04 | 310 | 3.1 | 18.2 | 0.182 | 628 | 0.0628 | 54.8 |
| Duplicate 13 | 20.9 | 2.09 | *10.9* | X | 1.09 | 108 | 1.08 | 8.5 | 0.085 | 128 | 0.0128 | 27.3 |
| Q6-Embankment A & B | 14.8 | 1.48 | *10.1* | X | 1.01 | 88.8 | 0.888 | 6.2 | 0.062 | 100 | 0.01 | 20.1 |
| Q11-Embankment A & | 8.5 | 0.85 | *3.8* | XJ | 0.38 | 45.6 | 0.456 | 3.3 J | 0.033 | 58.4 | 0.00584 | 11.7 |
| Arithmetic Mean Concentration [1] | | 1.63 | | | 0.77 | | 1.56 | | 0.13 | | 0.036 | 30.2 |
| Maximum Detected Concentration | | 2.24 | | | 1.09 | | 3.46 | | 0.27 | | 0.132 | 54.8 |
| Method 1 S-1 Soil standard [2] | | 4 | | | 4 | | 4 | | 4 | | 4 | 4 |
| Method 1 S-2 Soil standard [2] | | 6 | | | 6 | | 6 | | 6 | | 6 | 6 |
| Method 1 S-3 Soil standard [2] | | 20 | | | 20 | | 20 | | 20 | | 20 | 20 |
| Upper Concentration Limit [3] | | 200 | | | 200 | | 200 | | 200 | | 200 | 200 |

pg/g = picrograms per grams (parts per trillion).
U = Undetected at quantitation limit presented.
J = Estimated below calibration range.
C = Value reported from confirmatory analysis.
D = Value reported from dilution analysis.
X = Interference from diphenyl ethers.
TEF = Toxicity equivalency factor.
TEQ = Toxicity equivalents.
TCDD=Tetrachlorodibenzo-p-dioxin.
TCDF = Tetrachlorodibenzofuran.
PeCDD = Pentachlorodibenzo-p-dioxin.
PeCDF = Pentachlorodibenzofuran.
HxCDD = Hexachlorodibenzo-p-dioxin.
HxCDF = Hexachlorodibenzofuran.
HpCDD = Heptachlorodibenzo-p-dioxin.
HpCDF = Heptachlorodibenzofuran.
OCDD = Octachlorodibenzo-p-dioxin.
OCDF = Octachlorodibenzofuran.
Value in italics = Estimated maximum possible concentration (EMPC).

1. Non-detections included at 1/2 quantitation limit.
2. 310 CMR 40.0975(a), (b), (c).
3. 310 CMR 40.0996(7).

## Table 4

Results of Groundwater Analysis
Samples Collected 10-31-02

# McCoy Field
# Results of Groundwater Analysis
# Samples Collected October 31, 2002

| Parameter | Method 1 Groundwater | | Sample Location | | | |
|---|---|---|---|---|---|---|
| | GW-3 | Units | TB/OW-22 | TB/OW-2 | TB/OW-18 | TB/OW-6 |
| **Total Metals** | | | | | | |
| Antimony, Total | 300 | ug/l | ND | ND | ND | ND |
| Arsenic, Total | 400 | ug/l | ND | ND | ND | ND |
| Barium, Total | 30000 | ug/l | 260 | 80 | 140 | 1300 |
| Beryllium, Total | 50 | ug/l | ND | ND | ND | ND |
| Cadmium, Total | 10 | ug/l | ND | ND | ND | ND |
| Chromium, Total | 2000 | ug/l | ND | ND | ND | ND |
| Lead, Total | 30 | ug/l | ND | ND | ND | ND |
| Nickel, Total | 80 | ug/l | ND | ND | ND | ND |
| Selenium, Total | 80 | ug/l | ND | ND | ND | ND |
| Silver, Total | 7 | ug/l | ND | ND | ND | ND |
| Thallium, Total | 400 | ug/l | ND | ND | ND | ND |
| Vanadium, Total | 2000 | ug/l | ND | ND | 10 | ND |
| Zinc, Total | 900 | ug/l | ND | ND | ND | ND |
| **Volatile Organic Compounds (VOCs)-8260** | | | | | | |
| Benzene | 7000 | ug/l | ND | ND | ND | 0.76 |
| Toluene | 50000 | ug/l | 1.7 | 1.8 | 1.4 | 1.9 |
| Ethylbenzene | 4000 | ug/l | ND | ND | ND | ND |
| Vinyl chloride | 40000 | ug/l | ND | ND | ND | ND |
| Methyl tert butyl ether | 50000 | ug/l | 1.1 | ND | ND | ND |
| Total Xylenes | 50000 | ug/l | ND | ND | ND | ND |
| Hexachlorobutadiene | 90 | ug/l | ND | ND | ND | ND |
| Naphthalene | 6000 | ug/l | 2.5 | ND | ND | 6.5 |
| **Semi-Volatile Organic Compounds (SVOCs)-8270** | | | | | | |
| Hexachlorobenzene | 40 | ug/l | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | 8000 | ug/l | ND | ND | ND | ND |
| Hexachlorobutadiene | 90 | ug/l | ND | ND | ND | ND |
| Benzo(a)anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(a)pyrene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(b)fluoranthene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 3000 | ug/l | ND | ND | ND | ND |
| Chrysene | 3000 | ug/l | ND | ND | ND | ND |
| Dibenzo(a,h)anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Indeno(1,2,3-cd)pyrene | 3000 | ug/l | ND | ND | ND | ND |
| Pentachlorophenol | 80 | ug/l | ND | ND | ND | ND |
| **Polycyclic Aromatic Hydrocarbons (PAHs)-8270M** | | | | | | |
| Acenaphthene | 5000 | ug/l | ND | ND | ND | ND |
| Fluoranthene | 200 | ug/l | ND | ND | ND | ND |
| Naphthalene | 6000 | ug/l | ND | ND | ND | 3.6 |
| Benzo(a)anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(a)pyrene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(b)fluoranthene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 3000 | ug/l | ND | ND | ND | ND |
| Chrysene | 3000 | ug/l | ND | ND | ND | ND |
| Acenaphthylene | 3000 | ug/l | ND | ND | ND | ND |
| Anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(ghi)perylene | 3000 | ug/l | ND | ND | ND | ND |

**McCoy Field**
**Results of Groundwater Analysis**
**Samples Collected October 31, 2002**

| Parameter | Method 1 Groundwater | | Sample Location | | | |
|---|---|---|---|---|---|---|
| | GW-3 | Units | TB/OW-22 | TB/OW-2 | TB/OW-18 | TB/OW-6 |
| Fluorene | 3000 | ug/l | ND | ND | ND | ND |
| Phenanthrene | 50 | ug/l | ND | ND | ND | ND |
| Dibenzo(a,h)anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Indeno(1,2,3-cd)Pyrene | 3000 | ug/l | ND | ND | ND | ND |
| Pyrene | 3000 | ug/l | ND | ND | ND | ND |
| 2-Methylnaphthalene | 3000 | ug/l | ND | ND | ND | ND |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | |
| Aroclor 1221 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1232 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1242/1016 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1248 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1254 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1260 | 0.3 | ug/l | ND | ND | ND | ND |
| **Extractable Petroleum Hydrocarbons (EPH)** | | | | | | |
| C9-C18 Aliphatics | 20000 | ug/l | ND | ND | ND | ND |
| C19-C36 Aliphatics | 20000 | ug/l | ND | ND | ND | ND |
| C11-C22 Aromatics, Unadjusted | 30000 | ug/l | ND | ND | ND | ND |

ND-not detected.

# Table 5

Evaluation of Soil Gas Concentrations

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | Conversion Factor[1] | SG-1 | | SG-2 | | SG-3 | | SG-4 | | SG-5 | | SG-6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [(mg/m³)/(ppb$_v$)] | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ |
| Acetone | 2.4 | 4.8 | 11.4 | 5.4 | 12.9 | 15 | 35.7 | 9.6 | 22.8 | 13 | 30.9 | ND | ND |
| Benzene | 3.2 | 0.6 | 2 | 1.6 | 5.1 | 0.9 | 2.7 | ND | ND | ND | ND | 8.5 | 27.1 |
| 1,3-Butadiene | 2.2 | ND | ND | 10 | 22.1 | 9.5 | 21 | ND | ND | 34 | 75.1 | 233 | 515 |
| 2-Butanone (MEK) | 3.0 | ND | ND | 2 | 5.9 | ND | ND | 3 | 8.9 | ND | ND | 88 | 260 |
| Carbon Disulfide | 3.1 | 1.1 | 3.4 | 1.2 | 3.7 | ND | ND | ND | ND | ND | ND | 0.6 | 2.0 |
| Chloromethane | 2.1 | 0.6 | 1.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Cyclohexane | 3.4 | 2.6 | 8.9 | ND | ND | ND | ND | ND | ND | ND | ND | 31 | 107 |
| cis-1,2-Dichloroethene | 4.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 12 | 47.6 |
| trans-1,2-Dichloroethene | 4.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.2 | 8.8 |
| Dichlorodifluoromethane | 5.0 | 0.7 | 3.3 | 0.6 | 3 | ND | ND | ND | ND | ND | ND | 17 | 84.2 |
| Ethanol | 1.9 | ND | ND | 81 | 153 | 144 | 272 | 615 | 1,162 | ND | ND | ND | ND |
| Ethylbenzene | 4.3 | ND | ND | ND | ND | 0.9 | 3.8 | ND | ND | ND | ND | 3.2 | 13.9 |
| 4-Ethyltoluene | 4.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.8 | 3.9 |
| Heptane | 4.1 | 9.6 | 39.4 | 41 | 168 | 86 | 353 | 274 | 1,123 | ND | ND | 13 | 53.3 |
| Hexane | 3.5 | 5.2 | 18.4 | ND | ND | ND | ND | ND | ND | ND | ND | 63 | 222 |
| Methy tert-Butyl Ether | 3.6 | ND | ND | 2.6 | 9.4 | ND | ND | ND | ND | 2.9 | 10.4 | ND | ND |
| 4-Methyl-2-pentanone (MIBK) | 4.1 | ND | ND | 5 | 20.5 | 8.6 | 35.3 | ND | ND | ND | ND | ND | ND |
| Propene | 1.7 | 158 | 272 | 21 | 36.1 | 38 | 65.4 | ND | ND | ND | ND | 1,031 | 1,774 |
| Tetrachloroethene | 6.8 | ND | ND | 0.9 | 6.3 | 9.7 | 65.8 | 3.5 | 23.7 | ND | ND | ND | ND |
| Toluene | 3.8 | 8.8 | 33.2 | 35 | 132 | 83 | 313 | 107 | 403 | ND | ND | 8.1 | 30.5 |
| Trichloroethene | 5.4 | ND | ND | 1.6 | 8.6 | ND | ND | ND | ND | ND | ND | 7.7 | 41.3 |
| 1,2,4-Trimethylbenzene | 4.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.2 | 5.9 |
| Vinyl Chloride | 2.6 | 2.9 | 7.4 | ND | ND | ND | ND | ND | ND | ND | ND | 93 | 238 |
| Xylenes (total) | 4.3 | ND | ND | 1.8 | 7.8 | 3.5 | 15.2 | ND | ND | ND | ND | 11.1 | 48.2 |
| **C5-C8 aliphatic hydrocarbons** | | | | | | | | | | | | | |
| 2-Methyl-1-pentene | 3.4 | ND | ND | 7.2 | 24.8 | 12 | 41.3 | ND | ND | ND | ND | ND | ND |
| Isobutane | 2.4 | 21 | 49.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Pentane | 3.0 | 4.8 | 14.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Methylpentane | 3.5 | 9.9 | 34.9 | ND | ND | 7.9 | 27.8 | 27 | 95.2 | ND | ND | ND | ND |
| 3-Methylpentane | 3.5 | ND | ND | ND | ND | 11 | 38.8 | ND | ND | ND | ND | ND | ND |
| 3,3-Dimethylpentane | 4.1 | 3.5 | 14.3 | 19 | 77.9 | 26 | 106.6 | 82 | 336.1 | ND | ND | ND | ND |
| 2-Methylhexane | 4.1 | 10 | 41.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,3-Dimethylpentane | 4.1 | 12 | 49.2 | 52 | 213.1 | 82 | 336.1 | 264 | 1082.0 | ND | ND | 13 | 53.3 |
| 3-Ethylpentane | 4.1 | ND | ND | 32 | 131.2 | 52 | 213.1 | 163 | 668.1 | ND | ND | ND | ND |
| 2,3,4-Trimethylpentane | 4.7 | 7.9 | 36.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1-Heptene | 4.0 | 5.1 | 20.5 | 21 | 84.3 | 33 | 132.5 | 103 | 413.6 | ND | ND | ND | ND |
| Methylcyclohexane | 4.0 | 22 | 88.4 | 79 | 317.3 | 131 | 526.1 | 407 | 1634.5 | ND | ND | ND | ND |
| 2-Methylheptane | 4.7 | 2.9 | 13.5 | ND | ND | 13 | 60.7 | 36 | 168.1 | ND | ND | ND | ND |
| 2,5-Dimethylhexane | 4.7 | ND | ND | 6.5 | 30.8 | ND | ND | ND | ND | ND | ND | ND | ND |
| 1-Octene | 4.6 | ND | ND | 7.3 | 33.5 | ND | ND | 39 | 178.8 | ND | ND | ND | ND |
| 1,2,4-Trimethylcyclopentane | 4.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 11 | 50.5 |
| 2,4-Dimethylpentane | 4.1 | ND | ND | ND | ND | 36 | 147.5 | ND | ND | ND | ND | ND | ND |
| 4-Methyl-1-hexene | 4.0 | ND | ND | ND | ND | ND | ND | 42 | 168.6 | ND | ND | ND | ND |
| 2,4-Dimethylhexane | 4.7 | ND | ND | ND | ND | ND | ND | 22 | 102.8 | ND | ND | ND | ND |
| 3-Methyl-hexane | 4.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dimethylcyclohexane | 4.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 17 | 78.0 |
| ***TOTAL*** | | | 362.8 | | 912.8 | | 1630.6 | | 4847.8 | | 0.0 | | 181.8 |

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | SG-7 | | SG-8 | | SG-9 | | SG-10 | | Average Detected Concentration (excluding non-detections) |
|---|---|---|---|---|---|---|---|---|---|
| | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $\mu g/m^3$ |
| Acetone | ND | ND | 6.1 | 14.5 | 40 | 95.2 | 3.8 | 9 | 29.1 |
| Benzene | 0.8 | 2.4 | ND | ND | 2.2 | 7 | 0.7 | 2.2 | 6.9 |
| 1,3-Butadiene | 68 | 150 | 3.9 | 8.6 | 36 | 79.6 | 6.0 | 13.3 | 111 |
| 2-Butanone (MEK) | ND | ND | ND | ND | 11 | 32.5 | 1.6 | 4.7 | 62.3 |
| Carbon Disulfide | 1.7 | 5.3 | ND | ND | 5.8 | 18 | ND | ND | 6.5 |
| Chloromethane | ND | ND | 0.7 | 1.4 | 0.7 | 1.5 | 0.7 | 1.4 | 1.4 |
| Cyclohexane | ND | ND | ND | ND | 4.6 | 15.8 | ND | ND | 43.8 |
| cis-1,2-Dichloroethene | 1.4 | 5.6 | ND | ND | 6.9 | 27.4 | ND | ND | 26.9 |
| trans-1,2-Dichloroethene | ND | ND | ND | ND | 0.9 | 3.5 | ND | ND | 6.1 |
| Dichlorodifluoromethane | 0.7 | 3.6 | 0.7 | 3.2 | ND | ND | 0.5 | 2.6 | 16.6 |
| Ethanol | ND | ND | 51 | 96.4 | 114 | 215 | 220 | 416 | 386 |
| Ethylbenzene | 0.7 | 3.0 | ND | ND | 0.9 | 4 | 1.1 | 4.8 | 5.9 |
| 4-Ethyltoluene | ND | ND | ND | ND | ND | ND | ND | ND | 3.9 |
| Heptane | 36 | 148 | 25 | 103 | 71 | 291 | 99.0 | 406 | 298 |
| Hexane | 8.7 | 30.7 | 0.9 | 3.2 | 6.4 | 22.6 | 4.1 | 14.5 | 52 |
| Methy tert-Butyl Ether | ND | ND | ND | ND | 2.1 | 7.6 | ND | ND | 9.1 |
| 4-Methyl-2-pentanone (MIBK) | ND | ND | 3.4 | 13.9 | ND | ND | 12.0 | 49.2 | 29.7 |
| Propene | 296 | 509 | ND | ND | 202 | 348 | ND | ND | 501 |
| Tetrachloroethene | 6.6 | 44.7 | ND | ND | ND | ND | ND | ND | 35.1 |
| Toluene | 42 | 158 | 37 | 139 | 75 | 283 | 123 | 464 | 217 |
| Trichloroethene | 2.1 | 11.3 | ND | ND | 2.0 | 10.7 | ND | ND | 18 |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | 1.2 | 5.9 | ND | ND | 5.9 |
| Vinyl Chloride | 8.6 | 22 | ND | ND | 13.0 | 33.3 | ND | ND | 75.2 |
| Xylenes (total) | 3.2 | 13.9 | 1.5 | 6.5 | 4.0 | 17.4 | 4.7 | 20.4 | 18.5 |
| **C5-C8 aliphatic hydrocarbons** | | | | | | | | | |
| 2-Methyl-1-pentene | ND | ND | ND | ND | 12 | 41.3 | ND | ND | |
| Isobutane | ND | ND | ND | ND | ND | ND | ND | ND | |
| Pentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2-Methylpentane | ND | ND | ND | ND | 13 | 45.8 | ND | ND | |
| 3-Methylpentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 3,3-Dimethylpentane | 14 | 57.4 | 9.5 | 38.9 | ND | ND | ND | ND | |
| 2-Methylhexane | ND | ND | ND | ND | 63 | 258.2 | ND | ND | |
| 2,3-Dimethylpentane | 40 | 163.9 | 30 | 123.0 | 60 | 245.9 | ND | ND | |
| 3-Ethylpentane | 27 | 110.7 | 19 | 77.9 | 41 | 168.0 | ND | ND | |
| 2,3,4-Trimethylpentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 1-Heptene | 17 | 68.3 | 12 | 48.2 | 25 | 100.4 | ND | ND | |
| Methylcyclohexane | 72 | 289.1 | ND | ND | 104 | 417.7 | ND | ND | |
| 2-Methylheptane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2,5-Dimethylhexane | ND | ND | 4.7 | 22.2 | 10 | 47.3 | ND | ND | |
| 1-Octene | 8.2 | 37.6 | ND | ND | 11 | 50.4 | ND | ND | |
| 1,2,4-Trimethylcyclopentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2,4-Dimethylpentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 4-Methyl-1-hexene | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2,4-Dimethylhexane | ND | ND | 14 | 65.4 | ND | ND | ND | ND | |
| 3-Methyl-hexane | ND | ND | 60 | 245.9 | ND | ND | ND | ND | |
| trans-1,2-Dimethylcyclohexane | ND | ND | ND | ND | ND | ND | ND | ND | |
| ***TOTAL*** | | 727.0 | | 621.5 | | 1,375 | | ND | 1,184 |

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | Indoor Air Attenuation Coefficient ($\alpha$)[2] (unitless) | Non-Cancer Intake Factor[4] (unitless) | Non-Cancer Exposure Point Concentration[13] $\mu g/m^3$ | Inhalation Reference Concentration ($mg/m^3$) | Non-Cancer Hazard Index[14] (unitless) | Cancer Intake Factor[5] (unitless) | Cancer Exposure Point Concentration[13] ($\mu g/m^3$) | Cancer Inhalation Unit Risk [$(mg/m^3)^{-1}$] | Excess Lifetime Cancer Risk[15] (unitless) | Background Indoor Air Concentration[3] ($\mu g/m^3$) |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 8.92E-04 | 2.28E-01 | 0.0059 | 3 [7] | 0.000002 | -- | -- | -- | -- | 27 |
| Benzene | 7.67E-04 | 2.28E-01 | 0.0012 | 0.03 [6] | 0.00004 | 8.15E-02 | 0.0004 | 0.0078 [6] | 3E-09 | 21 |
| 1,3-Butadiene | 1.11E-03 | 2.28E-01 | 0.0281 | 0.002 [6] | 0.01 | 8.15E-02 | 0.01 | 0.03 [6] | 3E-07 | 1.5 [10] |
| 2-Butanone (MEK) | 1.35E-04 | 2.28E-01 | 0.0019 | 5 [6] | 0.0000004 | -- | -- | -- | -- | 42 [10] |
| Carbon Disulfide | 8.28E-04 | 2.28E-01 | 0.0012 | 0.7 [6] | 0.000002 | -- | -- | -- | -- | -- |
| Chloromethane | 8.97E-04 | 2.28E-01 | 0.0003 | 0.09 [6] | 0.000003 | -- | -- | -- | -- | 1.5 [10] |
| Cyclohexane | 7.49E-04 | 2.28E-01 | 0.0075 | 6 [6] | 0.000001 | -- | -- | -- | -- | 8.0 |
| cis-1,2-Dichloroethene | 7.01E-04 | 2.28E-01 | 0.0043 | 0.035 [7] | 0.0001 | -- | -- | -- | -- | 4.1 [10] |
| trans-1,2-Dichloroethene | 6.86E-04 | 2.28E-01 | 0.0010 | 0.07 [7] | 0.00001 | -- | -- | -- | -- | -- |
| Dichlorodifluoromethane | 6.64E-04 | 2.28E-01 | 0.0025 | 0.2 [7] | 0.00001 | -- | -- | -- | -- | 1.7 [10] |
| Ethanol | 8.90E-04 | 2.28E-01 | 0.0784 | NA | -- | -- | -- | -- | -- | -- |
| Ethylbenzene | 7.08E-04 | 2.28E-01 | 0.0010 | 1 [6] | 0.000001 | -- | -- | -- | -- | 9.6 |
| 4-Ethyltoluene | 6.11E-04 | 2.28E-01 | 0.0005 | 0.05 [11] | 0.00001 | -- | -- | -- | -- | -- |
| Heptane | 6.60E-04 | 2.28E-01 | 0.0449 | 0.2 [12] | 0.0002 | -- | -- | -- | -- | -- |
| Hexane | 1.05E-03 | 2.28E-01 | 0.0125 | 0.2 [6] | 0.00006 | -- | -- | -- | -- | -- |
| Methy tert-Butyl Ether | 1.64E-04 | 2.28E-01 | 0.0003 | 3 [6] | 0.0000001 | -- | -- | -- | -- | -- |
| 4-Methyl-2-pentanone (MIBK) | 7.08E-04 | 2.28E-01 | 0.0048 | 3 [6] | 0.000002 | -- | -- | -- | -- | -- |
| Propene | 1.19E-03 | 2.28E-01 | 0.1358 | NA | -- | -- | -- | -- | -- | -- |
| Tetrachloroethene | 6.93E-04 | 2.28E-01 | 0.0056 | 0.035 [7] | 0.0002 | 8.15E-02 | 0.002 | 0.0552 [8] | 1E-07 | 11 |
| Toluene | 7.63E-04 | 2.28E-01 | 0.0378 | 0.4 [6] | 0.00009 | -- | -- | -- | -- | 28.6 |
| Trichloroethene | 7.27E-04 | 2.28E-01 | 0.0030 | 0.035 [7] | 0.00009 | 8.15E-02 | 0.001 | 0.11 [7] | 1E-07 | 4.5 |
| 1,2,4-Trimethylbenzene | 6.30E-04 | 2.28E-01 | 0.0008 | 0.006 [7] | 0.0001 | -- | -- | -- | -- | 5.4 |
| Vinyl Chloride | 8.35E-04 | 2.28E-01 | 0.0143 | 0.1 [6] | 0.0001 | 8.15E-02 | 0.005 | 0.0088 [6] | 5E-08 | 0.03 |
| Xylenes (total) | 7.35E-04 | 2.28E-01 | 0.0031 | 0.1 [6] | 0.00003 | -- | -- | -- | -- | 72.4 |
| **C5-C8 aliphatic hydrocarbons** | | | | | | | | | | |
| 2-Methyl-1-pentene | | | | | | | | | | |
| Isobutane | | | | | | | | | | |
| Pentane | | | | | | | | | | |
| 2-Methylpentane | | | | | | | | | | |
| 3-Methylpentane | | | | | | | | | | |
| 3,3-Dimethylpentane | | | | | | | | | | |
| 2-Methylhexane | | | | | | | | | | |
| 2,3-Dimethylpentane | | | | | | | | | | |
| 3-Ethylpentane | | | | | | | | | | |
| 2,3,4-Trimethylpentane | | | | | | | | | | |
| 1-Heptene | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | |
| 2-Methylheptane | | | | | | | | | | |
| 2,5-Dimethylhexane | | | | | | | | | | |
| 1-Octene | | | | | | | | | | |
| 1,2,4-Trimethylcyclopentane | | | | | | | | | | |
| 2,4-Dimethylpentane | | | | | | | | | | |
| 4-Methyl-1-hexene | | | | | | | | | | |
| 2,4-Dimethylhexane | | | | | | | | | | |
| 3-Methyl-hexane | | | | | | | | | | |
| trans-1,2-Dimethylcyclohexane | | | | | | | | | | |
| ***TOTAL*** | 7.32E-04 | 2.28E-01 | 0.1978 | 0.2 [7] | 0.001 | -- | -- | -- | -- | 85 [9] |

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | Conversion Factor[1] | SG-1 | | SG-2 | | SG-3 | | SG-4 | | SG-5 | | SG-6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [(mg/m$^3$)/(ppb$_v$)] | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ |
| **C9-C12 aliphatic hydrocarbons** | | | | | | | | | | | | | |
| Decane | 5.8 | ND | ND | 3.3 | 19.2 | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-Dimethylheptane | 5.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 7.6 | 39.9 |
| 2,6-Dimethylheptane | 5.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 16 | 83.9 |
| 1,2,4-Trimethylcyclohexane | 5.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 19 | 98.1 |
| 1-Methyl-4-(1-methylethyl)cyclohexane | 5.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 22 | 126.2 |
| 1,1,2,3-Tetramethylcyclohexane | 5.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 59 | 340.8 |
| 4-Methyldecane | 6.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 24 | 153.4 |
| 3-Methylnonane | 5.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 3-Ethyl-2-methylheptane | 5.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| ***TOTAL*** | | | ND | | 19.2 | | ND | | ND | | ND | | 842.3 |
| **Miscellaneous** | | | | | | | | | | | | | |
| 2-Bromopentane | 6.2 | ND | ND | 4.5 | 27.8 | ND | ND | ND | ND | ND | ND | ND | ND |
| Cyclopentanone | 3.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Limonene | 5.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dimethyl disulfide | 3.9 | ND | ND | ND | ND | ND | ND | ND | ND | 150 | 578 | ND | ND |
| trans-Decahydronaphthalene | 5.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 16 | 90.5 |
| **OVERALL TOTAL** | | | | | | | | | | | | | |

ppb$_v$ = parts per billion by volume.
µg/m$^3$ = micrograms per cubic meter.
ND = Not detected.
NC = Not calculated.
NA = Not available.
1. NIOSH Pocket Guide to Chemical Hazards or calculated as: [(mg/m$^3$)/(ppm) = MW/24.45].
2. Calculated values; see following spreadsheet.
3. Shah and Singh (1988). Environ. Sci. Technol. Vol. 22, No. 12, 1381-1388.
4. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/25 yr
5. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/70 yr
6. U.S. EPA (2005) IRIS (www.epa.gov/iris).
7. U.S. EPA (2005) Region 9 preliminary remediation goal tables.
8. MADEP (undated) Documentation For the Cancer Inhalation Unit Risk Value for Tetrachloroethylene.
9. MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.
10. Value is 75th %-tile outdoor concentration.
11. Value for C9-C10 aromatic hydrocarbons (R7).
12. No value available;value for hexane applied.
13. (Avg soil gas conc)(atten. coeff.)(intake factor).
14. (Exposure Conc) / (1000)(Reference Conc).
15. (Exposure Conc)(Unit Risk)/(1000).

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | SG-7 | | SG-8 | | SG-9 | | SG-10 | | Average Detected Concentration (excluding non-detections) |
|---|---|---|---|---|---|---|---|---|---|
| | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $\mu g/m^3$ |
| **C9-C12 aliphatic hydrocarbons** | | | | | | | | | |
| Decane | 23 | 133.9 | ND | ND | ND | ND | ND | ND | |
| 2,4-Dimethylheptane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2,6-Dimethylheptane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 1,2,4-Trimethylcyclohexane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 1-Methyl-4-(1-methylethyl)cyclohexane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 1,1,2,3-Tetramethylcyclohexane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 4-Methyldecane | 26 | 166.2 | ND | ND | ND | ND | ND | ND | |
| 3-Methylnonane | 9.4 | 54.6 | ND | ND | ND | ND | ND | ND | |
| 3-Ethyl-2-methylheptane | 9.5 | 55.3 | ND | ND | ND | ND | ND | ND | |
| ***TOTAL*** | | 410.0 | | ND | | ND | | ND | 424 |
| **Miscellaneous** | | | | | | | | | |
| 2-Bromopentane | ND | ND | ND | ND | ND | ND | ND | ND | 28 |
| Cyclopentanone | ND | ND | 4.3 | 14.8 | ND | ND | ND | ND | 15 |
| Limonene | ND | ND | ND | ND | 3.6 | 20.1 | ND | ND | 20 |
| Dimethyl disulfide | ND | ND | ND | ND | ND | ND | ND | ND | 578 |
| trans-Decahydronaphthalene | ND | ND | ND | ND | ND | ND | ND | ND | 90 |
| **OVERALL TOTAL** | | | | | | | | | |

$ppb_v$ = parts per billion by volume.
$\mu g/m^3$ = micrograms per cubic meter.
ND = Not detected.
NC = Not calculated.
NA = Not available.
1. NIOSH Pocket Guide to Chemical Hazards or calculated as: [$(mg/m^3)/(ppm) = MW/24.45$].
2. Calculated values; see following spreadsheet.
3. Shah and Singh (1988). Environ. Sci. Technol. Vol. 22, No. 12, 1381-1388.
4. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/25 yr
5. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/70 yr
6. U.S. EPA (2005) IRIS (www.epa.gov/iris).
7. U.S. EPA (2005) Region 9 preliminary remediation goal tables.
8. MADEP (undated) Documentation For the Cancer Inhalation Unit Risk Value for Tetrachloroethylene.
9. MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.
10. Value is 75th %-tile outdoor concentration.
11. Value for C9-C10 aromatic hydrocarbons (R7).
12. No value available;value for hexane applied.
13. (Avg soil gas conc)(atten. coeff.)(intake factor).
14. (Exposure Conc) / (1000)(Reference Conc).
15. (Exposure Conc)(Unit Risk)/(1000).

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | Indoor Air Attenuation Coefficient ($\alpha$)[2] (unitless) | Non-Cancer Intake Factor[4] (unitless) | Non-Cancer Exposure Point Concentration[13] $\mu g/m^3$ | Inhalation Reference Concentration ($mg/m^3$) | Non-Cancer Hazard Index[14] (unitless) | Cancer Intake Factor[5] (unitless) | Cancer Exposure Point Concentration[13] ($\mu g/m^3$) | Cancer Inhalation Unit Risk [$(mg/m^3)^{-1}$] | Excess Lifetime Cancer Risk[15] (unitless) | Background Indoor Air Concentration[3] ($\mu g/m^3$) |
|---|---|---|---|---|---|---|---|---|---|---|
| **C9-C12 aliphatic hydrocarbons** | | | | | | | | | | |
| Decane | | | | | | | | | | |
| 2,4-Dimethylheptane | | | | | | | | | | |
| 2,6-Dimethylheptane | | | | | | | | | | |
| 1,2,4-Trimethylcyclohexane | | | | | | | | | | |
| 1-Methyl-4-(1-methylethyl)cyclohexane | | | | | | | | | | |
| 1,1,2,3-Tetramethylcyclohexane | | | | | | | | | | |
| 4-Methyldecane | | | | | | | | | | |
| 3-Methylnonane | | | | | | | | | | |
| 3-Ethyl-2-methylheptane | | | | | | | | | | |
| ***TOTAL*** | 6.82E-04 | 2.28E-01 | 0.0660 | 0.2 [7] | 0.0003 | -- | -- | -- | -- | 90 [9] |
| **Miscellaneous** | | | | NA | -- | -- | -- | -- | -- | |
| 2-Bromopentane | NC | | | NA | -- | -- | -- | -- | -- | -- |
| Cyclopentanone | NC | | | NA | -- | -- | -- | -- | -- | -- |
| Limonene | NC | | | NA | -- | -- | -- | -- | -- | -- |
| Dimethyl disulfide | 7.71E-04 | | | NA | -- | -- | -- | -- | -- | -- |
| trans-Decahydronaphthalene | NC | | | NA | -- | -- | -- | -- | -- | -- |
| **OVERALL TOTAL** | | **Hazard Index =** | | | **0.02** | **Cancer Risk =** | | | **6E-07** | |

$ppb_v$ = parts per billion by volume.
$\mu g/m^3$ = micrograms per cubic meter.
ND = Not detected.
NC = Not calculated.
NA = Not available.
1. NIOSH Pocket Guide to Chemical Hazards or calculated as: [$(mg/m^3)/(ppm)$ = MW/24.45].
2. Calculated values; see following spreadsheet.
3. Shah and Singh (1988). Environ. Sci. Technol. Vol. 22, No. 12, 1381-1388.
4. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/25 yr
5. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/70 yr
6. U.S. EPA (2005) IRIS (www.epa.gov/iris).
7. U.S. EPA (2005) Region 9 preliminary remediation goal tables.
8. MADEP (undated) Documentation For the Cancer Inhalation Unit Risk Value for Tetrachloroethylene.
9. MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.
10. Value is 75th %-tile outdoor concentration.
11. Value for C9-C10 aromatic hydrocarbons (R7).
12. No value available;value for hexane applied.
13. (Avg soil gas conc)(atten. coeff.)(intake factor).
14. (Exposure Conc) / (1000)(Reference Conc).
15. (Exposure Conc)(Unit Risk)/(1000).

## Table 6

Calculation of Steady State Indoor Air Attenuation Coefficients

**TABLE 6**
**CALCULATION OF STEADY STATE INDOOR AIR ATTENUATION COEFFICIENTS**
**McCoy Field**
**New Bedford, Massachusetts**

**Main Equation**

Eq 1

$$\alpha = \frac{\left[\frac{D_s^{eff} A_B}{Q_{bldg} L_{SG}}\right] \cdot \mathrm{EXP}\left[\frac{Q_{soil} L_{crack}}{D_{crack}^{eff} A_{crack}}\right]}{\left[\exp\left(\frac{Q_{soil} L_{crack}}{D_{crack}^{eff} A_{crack}}\right) + \left(\frac{D_s^{eff} A_B}{Q_{bldg} L_{SG}}\right) + \left(\frac{D_s^{eff} A_B}{Q_{soil} L_{SG}}\right)\left[\exp\left(\frac{Q_{soil} L_{crack}}{D_{crack}^{eff} A_{crack}}\right) - 1\right]\right]}$$

or:

Eq 2

$$\text{as}\left(\frac{Q_{soil} \cdot L_{crack}}{D_{crack}^{eff} \cdot A_{crack}}\right) \rightarrow \infty, \alpha \rightarrow \left(\frac{\frac{D_s^{eff} \cdot A_B}{Q_{bldg} \cdot L_{SG}}}{\left(\frac{D_s^{eff} \cdot A_B}{Q_{soil} \cdot L_{SG}}\right) + 1}\right)$$

Equation 1 will not compute if this state is reached; Equation 2 must be u

where:

| | |
|---|---|
| $\alpha$ = | Steady state attenuation coefficient (unitless) |
| $D^{eff}_s$ = | Effective diffusivity in vadose zone soils ($cm^2/s$) (Calculated below) |
| $A_B$ = | Area of enclosed space below grade ($cm^2$) |
| $Q_{bldg}$ = | Building ventilation rate ($cm^3/sec$) (calculated below) |
| $L_{SG}$ = | Depth to soil gas source (cm) |
| $Q_{soil}$ = | Flow rate of soil gas into enclosed space ($cm^3/s$) |
| $L_{crack}$ = | Enclosed space foundation thickness (cm) |
| $D^{eff}_{crack}$ = | Effective diffusivity through soil-filled foundation cracks ($cm^2/s$) (Calculated below) |
| $A_{crack}$ = | Area of cracks ($cm^2$) ( = $A_B$ x $\eta$) |

| Constituent | $D^{eff}_S$ ($cm^2/s$) | $A_B$ ($cm^2$) | $Q_{bldg}$ ($cm^3/s$) | $L_{SG}$ (cm) | $Q_{soil}$ ($cm^3/s$) | $L_{crack}$ (cm) | $D^{eff}_{crack}$ ($cm^2/s$) | $A_{crack}$ ($cm^2$) | $\alpha$ (Eq 1) (unitless) |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.25E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.25E-02 | 185 | 8.92E-04 |
| Benzene | 8.88E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.88E-03 | 185 | #NUM! |
| 1,3-Butadiene | 2.51E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 2.51E-02 | 185 | 1.11E-03 |
| 2-Butanone (MEK) | 8.30E-04 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.30E-04 | 185 | #NUM! |
| Carbon Disulfide | 1.05E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.05E-02 | 185 | 8.28E-04 |
| Chloromethane | 1.27E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.27E-02 | 185 | 8.97E-04 |
| Cyclohexane | 8.47E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.47E-03 | 185 | #NUM! |
| cis-1,2-Dichloroethene | 7.43E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.43E-03 | 185 | #NUM! |
| trans-1,2-Dichloroethene | 7.14E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.14E-03 | 185 | #NUM! |
| Dichlorodifluoromethane | 6.71E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 6.71E-03 | 185 | #NUM! |
| Ethanol | 1.25E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.25E-02 | 185 | 8.90E-04 |
| Ethylbenzene | 7.57E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.57E-03 | 185 | #NUM! |
| 4-Ethyltoluene | 5.82E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 5.82E-03 | 185 | #NUM! |
| Heptane | 6.65E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 6.65E-03 | 185 | #NUM! |
| Hexane | 2.02E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 2.02E-02 | 185 | 1.05E-03 |
| Methy tert-Butyl Ether | 1.03E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.03E-03 | 185 | #NUM! |
| 4-Methyl-2-pentanone | 7.58E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.58E-03 | 185 | #NUM! |
| Propene | 3.37E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 3.37E-02 | 185 | 1.19E-03 |
| Tetrachloroethene | 7.27E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.27E-03 | 185 | #NUM! |
| Toluene | 8.78E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.78E-03 | 185 | #NUM! |
| Trichloroethene | 7.98E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.98E-03 | 185 | #NUM! |
| 1,2,4-Trimethylbenzene | 6.12E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 6.12E-03 | 185 | #NUM! |
| Vinyl Chloride | 1.07E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.07E-02 | 185 | 8.35E-04 |
| Xylenes (total) | 8.15E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.15E-03 | 185 | #NUM! |
| C5-C8 aliphatic hydrocarbons | 8.08E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.08E-03 | 185 | #NUM! |
| C9-C12 aliphatic hydrocarbons | 7.07E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.07E-03 | 185 | #NUM! |
| Dimethyl disulfide | 8.99E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.99E-03 | 185 | #NUM! |

**TABLE 6**
**CALCULATION OF STEADY STATE INDOOR AIR ATTENUATION COEFFICIENTS**
**McCoy Field**
**New Bedford, Massachusetts**

$$Q_{bldg} = L_b\ W_b\ H_b\ ER$$

where:

$Q_{bldg}$ = Building ventilation rate ($cm^3/s$)
$L_b$ = Length of building (cm)
$W_b$ = Width of building (cm)
$H_b$ = Height of building (cm)
ER = Air exchange rate ($sec^{-1}$)

| Constituent | $L_b$ (cm) | $W_b$ (cm) | $H_b$ (cm) | ER ($sec^{-1}$) | $Q_{bldg}$ ($cm^3/s$) |
|---|---|---|---|---|---|
| All | 961 | 961 | 488 | 0.000125 | 5.63E+04 |

$$D^{eff}{}_s = D_{air} \cdot \left( \frac{\theta_{as}{}^{3.33}}{\theta_T{}^2} \right) + D_{wat} \cdot \left( \frac{1}{H} \right) \left( \frac{\theta_{ws}{}^{3.33}}{\theta_T{}^2} \right)$$

where:

$D^{eff}{}_s$ = Effective diffusivity through vadose zone soil and soil-fillied foundation cracks ($D^{eff}{}_{crack}$) ($cm^2/s$)
$D_{air}$ = Diffusion coefficient in air ($cm^2/s$)
$D_{wat}$ = Diffusion coefficient in water ($cm^2/s$)
H = Henry's Law Constant ($cm^3/cm^3$)
$\theta_{as}$ = Air content in vadose zone soil ($cm^3/cm^3$)
$\theta_{ws}$ = Water content in vadose zone soil ($cm^3/cm^3$)
$\theta_T$ = Total soil porosity ($cm^3/cm^3$)

**From subsurface (H at 10 °C)**

| Constituent | $D_{air}$ ($cm^2/s$) | $D_{wat}$ ($cm^2/s$) | $\theta_{as}$ ($cm^3/cm^3$) | $\theta_{ws}$ ($cm^3/cm^3$) | $\theta_T$ ($cm^3/cm^3$) | H ($cm^3/cm^3$) | $D^{eff}{}_s/D^{eff}{}_{crack}$ ($cm^2/s$) |
|---|---|---|---|---|---|---|---|
| Acetone | 1.24E-01 | 1.14E-05 | 0.28 | 0.10 | 0.387 | 1.59E-03 | 1.25E-02 |
| Benzene | 8.80E-02 | 9.80E-06 | 0.28 | 0.10 | 0.387 | 2.27E-01 | 8.88E-03 |
| 1,3-Butadiene | 2.49E-01 | 1.08E-05 | 0.28 | 0.10 | 0.387 | 3.01E+00 | 2.51E-02 |
| 2-Butanone (MEK) | 8.08E-03 | 9.80E-06 | 0.28 | 0.10 | 0.387 | 2.29E-03 | 8.30E-04 |
| Carbon Disulfide | 1.04E-01 | 1.00E-05 | 0.28 | 0.10 | 0.387 | 1.24E+00 | 1.05E-02 |
| Chloromethane | 1.26E-01 | 6.50E-06 | 0.28 | 0.10 | 0.387 | 3.61E-01 | 1.27E-02 |
| Cyclohexane | 8.39E-02 | 9.10E-06 | 0.28 | 0.10 | 0.387 | 7.84E+00 | 8.47E-03 |
| cis-1,2-Dichloroethene | 7.36E-02 | 1.13E-05 | 0.28 | 0.10 | 0.387 | 1.67E-01 | 7.43E-03 |
| trans-1,2-Dichloroethene | 7.07E-02 | 1.19E-05 | 0.28 | 0.10 | 0.387 | 3.84E-01 | 7.14E-03 |
| Dichlorodifluoromethane | 6.65E-02 | 9.92E-06 | 0.28 | 0.10 | 0.387 | 1.40E+01 | 6.71E-03 |
| Ethanol | 1.23E-01 | 1.24E-05 | 0.28 | 0.10 | 0.387 | 1.20E-03 | 1.25E-02 |
| Ethylbenzene | 7.50E-02 | 7.80E-06 | 0.28 | 0.10 | 0.387 | 3.22E-01 | 7.57E-03 |
| 4-Ethyltoluene | 5.76E-02 | 7.80E-06 | 0.28 | 0.10 | 0.387 | 2.02E-01 | 5.82E-03 |
| Heptane | 6.59E-02 | 7.59E-06 | 0.28 | 0.10 | 0.387 | 8.41E+01 | 6.65E-03 |
| Hexane | 2.00E-01 | 7.77E-06 | 0.28 | 0.10 | 0.387 | 6.82E+01 | 2.02E-02 |
| Methy tert-Butyl Ether | 1.02E-02 | 1.05E-05 | 0.28 | 0.10 | 0.387 | 2.56E-02 | 1.03E-03 |
| 4-Methyl-2-pentanone | 7.50E-02 | 7.80E-06 | 0.28 | 0.10 | 0.387 | 5.64E-03 | 7.58E-03 |
| Propene | 3.34E-01 | 1.19E-05 | 0.28 | 0.10 | 0.387 | 1.65E+01 | 3.37E-02 |
| Tetrachloroethene | 7.20E-02 | 8.20E-06 | 0.28 | 0.10 | 0.387 | 7.53E-01 | 7.27E-03 |
| Toluene | 8.70E-02 | 8.60E-06 | 0.28 | 0.10 | 0.387 | 2.72E-01 | 8.78E-03 |
| Trichloroethene | 7.90E-02 | 9.10E-06 | 0.28 | 0.10 | 0.387 | 4.20E-01 | 7.98E-03 |
| 1,2,4-Trimethylbenzene | 6.06E-02 | 7.92E-06 | 0.28 | 0.10 | 0.387 | 2.52E-01 | 6.12E-03 |
| Vinyl Chloride | 1.06E-01 | 1.23E-05 | 0.28 | 0.10 | 0.387 | 1.10E+00 | 1.07E-02 |
| Xylenes (total) | 8.07E-02 | 1.00E-05 | 0.28 | 0.10 | 0.387 | 2.12E-01 | 8.15E-03 |
| C5-C8 aliphatic hydrocarbons | 8.00E-02 | 1.00E-05 | 0.28 | 0.10 | 0.387 | 5.40E+01 | 8.08E-03 |
| C9-C12 aliphatic hydrocarbons | 7.00E-02 | 1.00E-05 | 0.28 | 0.10 | 0.387 | 6.50E+01 | 7.07E-03 |
| Dimethyl disulfide | 8.34E-02 | 1.01E-05 | 0.28 | 0.10 | 0.387 | 6.14E-05 | 8.99E-03 |

**TABLE 6**
**CALCULATION OF STEADY STATE INDOOR AIR ATTENUATION COEFFICIENTS**
**McCoy Field**
**New Bedford, Massachusetts**

**Input Variables**

| Variable | Notation | Value | Units | Reference |
|---|---|---|---|---|
| Total soil porosity | $\theta_T$ | 0.387 | $cm^3/cm^3$ | Representative of sandy loam (U.S. EPA 2003) |
| Bulk soil density | $\rho_s$ | 1.62 | $g/cm^3$ | Representative of sandy loam (U.S. EPA 2003) |
| Water content in vadose zone soils | $\theta_{ws}$ | 0.103 | $cm^3/cm^3$ | Representative of sandy loam (U.S. EPA 2003) |
| Air content in vadose zone soils | $\theta_{as}$ | 0.284 | $cm^3/cm^3$ | $\theta_T - \theta_{WS}$. |
| Building air exchange rate | ER | 0.000125 | $s^{-1}$ | MADEP (2004). |
| Enclosed space height | $L_B$, $H_b$ | 488 | cm | MADEP (2004). |
| Foundation thickness | $L_{crack}$ | 15 | cm | MADEP (2004). |
| Areal fraction of cracks in foundatio | $\eta$ | 0.0002 | $cm^2/cm^2$ | U.S. EPA (2003). |
| Building length | $L_b$ | 961 | cm | MADEP (2004). |
| Building width | $W_b$ | 961 | cm | MADEP (2004). |
| Area of building | $A_B$ | 9.24E+05 | $cm^2$ | Equals $L_b$ x $W_b$. |
| Flow rate of soil gas | $Q_{soil}$ | 83.3 | $cm^3/s$ | U.S. EPA (2003). |
| Depth of soil gas measurement | $L_{SG}$ | 91 | cm | 3 feet (below cover) |

U.S. EPA (2003). Users Guide for Evaluating Subsurface Vapor Intrusion Into Buildings. June.
MADEP (2004). Proposed Revised Method 1 Numerical Standards and supporting documentation (September).

| Constituent | Henry's Law Constant H ($cm^3/cm^3$) | | Diffusion Coefficient in Air $D_{air}$ ($cm^2/s$) | | Diffusion Coefficient in Water $D_{wat}$ ($cm^2/s$) | |
|---|---|---|---|---|---|---|
| Acetone | 1.59E-03 | [1] | 1.24E-01 | [1] | 1.14E-05 | [1] |
| Benzene | 2.27E-01 | [1] | 8.80E-02 | [1] | 9.80E-06 | [1] |
| 1,3-Butadiene | 3.01E+00 | [1] | 2.49E-01 | [1] | 1.08E-05 | [1] |
| 2-Butanone (MEK) | 2.29E-03 | [1] | 8.08E-03 | [1] | 9.80E-06 | [1] |
| Carbon Disulfide | 1.24E+00 | [1] | 1.04E-01 | [1] | 1.00E-05 | [1] |
| Chloromethane | 3.61E-01 | [1] | 1.26E-01 | [1] | 6.50E-06 | [1] |
| Cyclohexane | 7.84E+00 | [2] | 8.39E-02 | [2] | 9.10E-06 | [2] |
| cis-1,2-Dichloroethene | 1.67E-01 | [1] | 7.36E-02 | [1] | 1.13E-05 | [1] |
| trans-1,2-Dichloroethene | 3.84E-01 | [1] | 7.07E-02 | [1] | 1.19E-05 | [1] |
| Dichlorodifluoromethane (Freon 12 | 1.40E+01 | [1] | 6.65E-02 | [1] | 9.92E-06 | [1] |
| Ethanol | 1.20E-03 | [3] | 1.23E-01 | [3] | 1.24E-05 | [3] |
| Ethylbenzene | 3.22E-01 | [1] | 7.50E-02 | [1] | 7.80E-06 | [1] |
| 4-Ethyltoluene | 2.02E-01 | [2] | 5.76E-02 | [2] | 7.80E-06 | [3] |
| Heptane | 8.41E+01 | [2] | 6.59E-02 | [2] | 7.59E-06 | [2] |
| Hexane | 6.82E+01 | [1] | 2.00E-01 | [1] | 7.77E-06 | [1] |
| Methy tert-Butyl Ether | 2.56E-02 | [1] | 1.02E-02 | [1] | 1.05E-05 | [1] |
| 4-Methyl-2-pentanone (MIBK) | 5.64E-03 | [1] | 7.50E-02 | [1] | 7.80E-06 | [1] |
| Propene | 1.65E+01 | [3] | 3.34E-01 | [3] | 1.19E-05 | [3] |
| Tetrachloroethene | 7.53E-01 | [1] | 7.20E-02 | [2] | 8.20E-06 | [1] |
| Toluene | 2.72E-01 | [1] | 8.70E-02 | [1] | 8.60E-06 | [1] |
| Trichloroethene | 4.20E-01 | [1] | 7.90E-02 | [1] | 9.10E-06 | [1] |
| 1,2,4-Trimethylbenzene | 2.52E-01 | [1] | 6.06E-02 | [1] | 7.92E-06 | [1] |
| Vinyl Chloride | 1.10E+00 | [1] | 1.06E-01 | [1] | 1.23E-05 | [1] |
| Xylenes (total) | 2.12E-01 | [1] | 8.07E-02 | [2] | 1.00E-05 | [1] |
| C5-C8 aliphatic hydrocarbons | 5.40E+01 | [4] | 8.00E-02 | [4] | 1.00E-05 | [4] |
| C9-C12 aliphatic hydrocarbons | 6.50E+01 | [4] | 7.00E-02 | [4] | 1.00E-05 | [4] |
| Dimethyl disulfide | 6.14E-05 | [3] | 8.34E-02 | [3] | 1.01E-05 | [3] |

1. U.S. EPA (2003). Users Guide for Evaluating Subsurface Vapor Intrusion into Buildings. June
2. TPHCWG (1998). Composition of Petroleum Mixtures. Amherst Scientific Publishing. November.
3. U.S. EPA (1994). ChemDat8 Users Guide. EPA453/C-94-080B, November.
4. MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.

**TABLE 6**
**CALCULATION OF STEADY STATE INDOOR AIR ATTENUATION COEFFICIENTS**
**McCoy Field**
**New Bedford, Massachusetts**

used.

| α (Eq 2) (unitless) |
|---|
| 8.92E-04 |
| 7.67E-04 |
| 1.11E-03 |
| 1.35E-04 |
| 8.28E-04 |
| 8.97E-04 |
| 7.49E-04 |
| 7.01E-04 |
| 6.86E-04 |
| 6.64E-04 |
| 8.90E-04 |
| 7.08E-04 |
| 6.11E-04 |
| 6.60E-04 |
| 1.05E-03 |
| 1.64E-04 |
| 7.08E-04 |
| 1.19E-03 |
| 6.93E-04 |
| 7.63E-04 |
| 7.27E-04 |
| 6.30E-04 |
| 8.35E-04 |
| 7.35E-04 |
| 7.32E-04 |
| 6.82E-04 |
| 7.71E-04 |

# Attachment A

Draft Notice of Activity and Use Limitation (AUL)

DRAFT

Revision: 1
Last Revised: 5-02-05

**Form 1075**

NOTICE OF ACTIVITY AND USE LIMITATION
M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: McCoy Field/Keith Middle School
DEP Release Tracking No.(s): 4-0015824, 4-0015685

This Notice of Activity and Use Limitation ("Notice") is made as of this _____ day of _____, 20___, by the City of New Bedford, 133 William Street, New Bedford, Bristol County, Massachusetts, together with his/her/its/their successors and assigns (collectively "Owner").

W I T N E S S E T H:

WHEREAS, the City of New Bedford, is the owner(s) in fee simple of those certain parcel of land located at 70 Hathaway Boulevard in New Bedford, Bristol County, Massachusetts with the buildings and improvements thereon, pursuant to a deed recorded with the Bristol County Registry of Deeds in Book 849, Page 329 and Book 885, Page 401;

WHEREAS, said parcels of land, which is more particularly bounded and described in Exhibit A, attached hereto and made a part hereof ("Property") is subject to this Notice of Activity and Use Limitation. The Property is shown on a plan recorded in the Bristol County Registry of Deeds in Plan Book _____, Plan _____;

WHEREAS, a portion of the Property ("Portion of the Property") is subject to this Notice of Activity and Use Limitation. The Portion of the Property is more particularly bounded and described in Exhibit A-1, attached hereto and made a part hereof. The Portion of the Property is shown on a plan recorded with the _____ County Registry of Deeds in Plan Book _____, Plan_____, and/or on a sketch plan attached hereto and filed herewith for registration;

WHEREAS, the Portion of the Property comprises part of a disposal site as the result of a release of oil and/or hazardous material. Exhibit B is a sketch plan showing the relationship of the Portion of the Property subject to this Notice of Activity and Use Limitation to the boundaries of said disposal site existing within the limits of the Property and to the extent such boundaries have been established. Exhibit B is attached hereto and made a part hereof; and

WHEREAS, one or more response actions have been selected for the Portion of the Disposal Site in accordance with M.G.L. c. 21E ("Chapter 21E") and the Massachusetts Contingency Plan, 310 CMR 40.0000 ("MCP"). Said response actions are based upon (a) the restriction of human access to and contact with oil and/or hazardous material in soil and/or (b) the restriction of certain activities occurring in, on, through, over or under the Portion of the Property. The basis for such restrictions is set forth in an Activity and Use Limitation Opinion ("AUL Opinion"), dated _____, (which is attached hereto as Exhibit C and made a part hereof);

NOW, THEREFORE, notice is hereby given that the activity and use limitations set forth in said AUL Opinion are as follows:

1. Activities and Uses Consistent with the AUL Opinion. The AUL Opinion provides that a condition of No Significant Risk to health, safety, public welfare or the environment exists for any foreseeable period of time (pursuant to 310 CMR 40.0000) so long as any of the following activities and uses occur on the Portion of the Property:

(i) Use of the Property for a school, including the presence of all existing school buildings and facilities and associated landscaping, parking lots, and sidewalks;

(ii) Occupancy by students, teachers, staff, and visitors for all normally anticipated school-related activities including classroom education, physical education, daily food service; and use of paved areas for parking lots and sidewalks;

(iii) Normally anticipated ancillary school building and Property uses such as public meetings, assemblies, fund raising events, cultural activities, and adult education;

(iv) Maintenance of landscaped areas and lawns, including filling of burrowing animal holes and placement and removal of mulch or other surficial aesthetic enhancement or erosion control materials;

(v) Planting or removal within the landscaped areas of ornamental vegetation such as trees, shrubs, flowers, groundcover, etc. Such ornamental vegetation shall be selected from those species that are known to have shallow root systems that would not be expected under normal conditions to cause roots to penetrate the geotextile fabric barrier located at 3 feet below grade in the landscaped areas. No excavation for planting or removal of vegetation in the landscaped areas shall extend beyond two feet below existing grade;

(vi) Interior or exterior building maintenance that does not impact soil;

(vii) Maintenance, including replacement, of exterior surface materials such as asphalt paving, concrete paving, or sidewalks, such that removal of such surfaces is limited to the material to be replaced and the underlying soil is not significantly disturbed (six inches deep or less below bottom of surface being removed) and where the surface material is immediately repaired or replaced with a comparable barrier;

(viii) Installation of fencing where fence posts are installed in post holes of two feet deep or less;

(xi) Extending concrete or asphalt pavement over current landscaped areas;

(x) Erection or placement of temporary structures or tents that do not require soil excavation. Where stakes are required to stabilize a tent, such stakes shall not be driven more than two feet into the ground;

(xi) Excavation for short-term maintenance or repair of existing subsurface utilities where such excavation is confined to the corridor of clean backfill that has been demarcated by geotextile fabric/orange warning polyethylene sheeting;

(xii) Any other public, commercial, or industrial activities and uses that do not cause and/or result in the direct

contact with, disturbance of, and/or relocation of the contaminated soil, the top of which is currently located at depths of two to four feet below current surface grade;

(xiii) Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare or the environment than the activities and uses set forth in this Paragraph; and

(xiv) Such other activities and uses not identified in Paragraph 2 as being Activities and Uses Inconsistent with the AUL.

2. Activities and Uses Inconsistent with the AUL Opinion. Activities and uses which are inconsistent with the objectives of this Notice of Activity and Use Limitation, and which, if implemented at the Portion of the Property, may result in a significant risk of harm to health, safety, public welfare or the environment or in a substantial hazard, are as follows:

(i) Excavation to a depth greater than three feet in landscaped areas without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(ii) Excavation to a depth greater than two feet beneath paved areas without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(iii) Removal of building floor slab such that soil is exposed or groundwater is allowed to enter building without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(iv) Penetration or breaching of the vapor barrier beneath the building floor without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(v) Any excavation beneath building floors without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(vi) Activities that result, or could result, in compromising the structural integrity of concrete floors, asphalt pavement, or concrete pavement;

(vii) Activities that result, or could result, in the erosion of soil in any unpaved area,

(viii) Removal of any soil from landscaped areas without immediate replacement with clean soil to current surface grade;

(ix) Planting of food crops in site soil for human or animal consumption does not include enclosed planters filled with off-site soil;

(x) Any other public, commercial, or industrial activities or uses that result in the direct contact with, disturbance of, and/or relocation of the contaminated soil, the top of which is currently located at depths of two to four feet below current surface grade; and

(xi) Any other activities or uses that cause or have the potential to cause exposure to contaminated soil beneath the building foundation(s), or beneath clean soil and/or paving in the exterior of the building(s).

3. Obligations and Conditions Set Forth in the AUL Opinion. If applicable, obligations and/or conditions to be undertaken and/or maintained at the Portion of the Property to maintain a condition of No Significant Risk as set forth in the AUL Opinion shall include the following:

(i) Maintain all asphalt pavement, concrete pavement, and sidewalks such that the integrity of each is not compromised;

(ii) Maintain all interior building floors such that the integrity of each is not compromised;

(iii) Perform semi-annual inspections and associated record keeping activities to confirm that the pavement is being properly maintained to prevent exposure;

(iv) Maintain all landscaped areas such that soil erosion is prevented;

(v) A Soil Management Plan must be prepared by an LSP and implemented prior to the commencement of any activity which is likely to disturb contaminated soil the top of which is located at two to four feet below surface grade within the AUL area. The Soil Management Plan should describe appropriate soil excavation, handling, storage, transport, and disposal procedures and include a description of the engineering controls and air monitoring procedures necessary to ensure that workers and receptors in the vicinity are not affected by fugitive dust or particles. On-Site workers must be informed of the requirements of the soil management plan, and the Plan must be available on-site throughout the course of the project;

(vi) A Health and Safety Plan must be prepared by a certified Industrial Hygienist or other qualified individual sufficiently trained in worker health and safety requirements and implemented prior to the commencement of any activity which is likely to disturb contaminated soil the top of which is located at two to four feet below surface grade within the AUL area. The Health and Safety Plan should specify the type of personal protection (i.e., clothing, respirators), engineering controls, and environmental monitoring necessary to prevent worker exposures to contaminated soil through dermal contact, ingestion, and/or inhalation. Workers must be informed of the requirements of the Health and Safety Plan, and the plan must be available on-site throughout the course of the project; and

(vii) The contaminated soil the top of which is located at two to four feet below surface grade within the AUL area must remain at depth and may not be relocated, unless such activity is first appropriately evaluated by an LSP who renders an Opinion that states that such relocation is consistent with maintaining a condition of No Significant Risk.

4. Proposed Changes in Activities and Uses. Any proposed changes in activities and uses at the Portion of the

Property which may result in higher levels of exposure to oil and/or hazardous material than currently exist shall be evaluated by an LSP who shall render an Opinion, in accordance with 310 CMR 40.1080 *et seq*., as to whether the proposed changes will present a significant risk of harm to health, safety, public welfare or the environment. Any and all requirements set forth in the Opinion to meet the objective of this Notice shall be satisfied before any such activity or use is commenced.

5. Violation of a Response Action Outcome. The activities, uses and/or exposures upon which this Notice is based shall not change at any time to cause a significant risk of harm to health, safety, public welfare, or the environment or to create substantial hazards due to exposure to oil and/or hazardous material without the prior evaluation by an LSP in accordance with 310 CMR 40.1080 *et seq*., and without additional response actions, if necessary, to achieve or maintain a condition of No Significant Risk or to eliminate substantial hazards.

If the activities, uses, and/or exposures upon which this Notice is based change without the prior evaluation and additional response actions determined to be necessary by an LSP in accordance with 310 CMR 40.1080 *et seq*., the owner or operator of the Portion of the Property subject to this Notice at the time that the activities, uses and/or exposures change, shall comply with the requirements set forth in 310 CMR 40.0020.

6. Incorporation Into Deeds, Mortgages, Leases, and Instruments of Transfer. This Notice shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer, whereby an interest in and/or a right to use the Property or a portion thereof is conveyed.

Owner hereby authorizes and consents to the filing and recordation and/or registration of this Notice, said Notice to become effective when executed under seal by the undersigned LSP, and recorded and/or registered with the appropriate Registry(ies) of Deeds and/or Land Registration Office(s).

DRAFT

Revision: 1
Last Revised: 5-02-05

WITNESS the execution hereof under seal this _____ day of _____, 20____.

_____
, for the City of New Bedford

COMMONWEALTH OF MASSACHUSETTS

_____, ss _____, 20___

Then personally appeared the above-named _____ and acknowledged the foregoing instrument to be [his][her] free act and deed before me,

Notary Public:
My Commission Expires:

The undersigned LSP hereby certifies that he executed the aforesaid Activity and Use Limitation Opinion attached hereto as Exhibit C and made a part hereof and that in his Opinion this Notice of Activity and Use Limitation is consistent with the terms set forth in said Activity and Use Limitation Opinion.

Date:_____

_____
[Name of LSP]

[LSP SEAL ]

COMMONWEALTH OF MASSACHUSETTS

_____, ss _____, 20__

Then personally appeared the above named _____ and acknowledged the foregoing instrument to be [his][her] free act and deed before me,

Notary Public:
My Commission Expires:

[If recorded land] Upon recording, return to:
Mr. Scott Alfonse
Brownfields Coordinator
City of New Bedford
133 William Street
New Bedford, MA 02740

# Attachment B

Specification 02200
Earthwork

**SECTION 02200**

**EARTHWORK**

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

A. Bidding requirements, Contract Forms, General and Supplementary Conditions and Division I, General Requirements are hereby made a part of this Section. The Order of Conditions, DEP File No. SE 49-461, No. SE49-475 and all Amendments issued by the New Bedford Conservation Commission, is included in this contract in Section 00200 – Information Available to Bidders.

### 1.02 DESCRIPTION OF WORK

A. ***This project represents the final Phase of a three-phase project. Phase 1 consisted of the excavation and management of regulated soils for the installation of a portion of the project's subsurface utility system. Phase two completed the installation of the subsurface utility system, capping of the regulated soils and the shaping of the subgrades for the Phase III contract as shown on the Plans and specifications.*** The scope of work consists of all materials, equipment, labor and services required for all Earthwork work, including all items incidental thereto, as specified herein and as shown on the Drawings. The following work shall be included:

1. Surplus material shall be removed from the site. No burning on the site shall be permitted.

2. Excavating, filling, trenching and backfilling of all description required for the construction of walls, building structures, utility structures, utilities, pavements, seeded areas and site improvements. Provide all additional fill materials as required and specified herein. Refer to Sections on Heating, Plumbing, Electrical and Structural for other excavation.

3. Pumping and/or bailing necessary to maintain excavated spaces free from water from any source whatsoever.

4. Provide graded materials, as specified, for fills, base courses and backfills as required.

5. Protect all existing utilities, roads, pavements, lawns, planting and other improvements from damage due to construction. Install fencing and safety devices or controls as necessary.

6. Dust control and clean up.

B. The project site is part of a disposal site under the Massachusetts Contingency Plan (MCP) that has received "Special Project" designation by the Department of Environmental Protection. Under recent environmental contracts, near-surface contaminated soil has been removed in the vicinity of the Work, to significantly reduce the potential for exposure of workers to contaminated soil. However, in the event that excavation becomes necessary that could result in worker exposure to "suspect" contaminated subsurface soil, or off-site management of same, the CONTRACTOR must notify the ARCHITECT prior to proceeding with any subsurface excavations.

### 1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Carefully examine all of the Contract Documents for requirements which effect the work of this section.

B. Other specifications sections, which directly relate to the work of this section include, but are not limited to, the following:

1. Section 00200 – Information Available To Bidders
2. Section 02100 - Site Preparation
3. Section 02500 - Paving and Surfacing
4. Section 02665 - Water System
5. Section 02800 - Site Improvements
6. Section 02810 - Irrigation
7. Section 02900 - Lawns and Planting
8. Section 03300 – Cast-In-Place Concrete
9. Section 15300 – Plumbing
10. Section 15400 – Fire Protection
11. Section 16000 - Electrical

1.04 REFERENCE STANDARDS

A. Definitions and Reference Standards:

1. ASTM: Specifications of the American Society for Testing and Materials.

2. AASHTO: American Association of State Highway and Transportation Officials.

3. ACI: American Concrete Institute.

4. Building Code: Commonwealth of Massachusetts State Building Code, latest edition.

5. EPA: Environmental protection Agency.

6. DEP: Department of Environmental Protection.

7. SSHB: Standard Specifications for Highways and Bridges, the Commonwealth of Massachusetts, Mass. Highway Department, latest edition.

1.05 BENCHMARKS AND ENGINEERING

A. Lines and grade work in accordance with Drawings and Specifications shall be laid out by a registered Civil Engineer or Surveyor employed by the Contractor. The Contractor shall establish permanent benchmarks, to which access can easily be had during the progress of the work. The Contractor shall maintain all established bounds and benchmarks and replace, as directed, any that may be disturbed or destroyed. The selection of the registered Civil Engineer or Surveyor shall be subject to the Architect's approval. The General Contractor shall pay all costs of the services of the Civil Engineer or Surveyor.

B. The Contractor shall verify dimensions and elevations on the ground and report any discrepancies immediately to the Architect. Any discrepancies not reported prior to construction shall not be the basis for claims for extra compensation.

C. An As-Built Plan of work completed in the Phase I and II contracts shall be provided to the Contractor in .DWG format.

1.06 SUBSURFACE INFORMATION

A. The Architect shall issue As-Built Drawings indicating the extent of regulated soils that have been removed covered with a geotextile soil separator, warning barrier and brought up to Phase III subgrades with compacted, clean granular fill.

B. The Owner assumes no responsibility for the Contractor's failure to make his own site investigation regarding the character of the soil or subsurface conditions, which may be encountered during the performance of the work. (See Section 00200 – Information Available To Bidders.)

1.07 FINISHED GRADES

A. The words "finished grades" as used herein mean the required final grade elevations indicated on the Drawings. Where not otherwise indicated, areas outside of buildings shall be given uniform slopes between points, for which finished grades are shown, or between such points and existing grade except that vertical curves or roundings shall be provided at abrupt changes in slope.

1.08 GRADES AND ELEVATIONS

A. The Drawings indicate, in general, the alignment and finished grade elevations and sewer, drain, water and underground electric invert grades. The Architect, however, may make such adjustments in grades and alignment as are found necessary in order to avoid interference and to adapt the piping to other special conditions encountered.

1.09 PROTECTION

A. All rules and regulations governing the respective utilities shall be observed in executing all work under this Section. All work shall be executed in such a manner as to prevent any damage to existing buildings, clean corridors, streets, curbs, paving, service utility lines, structures and adjoining property. Monuments and benchmarks shall be carefully maintained and, if disturbed or destroyed, replaced as directed.

B. The Contractor shall furnish all facilities and materials necessary to prevent the earth at the bottom of excavation from becoming frozen or unsuitable to receive footings, foundations or other load bearing units.

C. The Contractor, under this Section, shall provide at his own expense adequate pumping and drainage facades to keep the excavation sufficiently dry as not to affect adversely the quality or time of placement of concrete or other materials to be installed in the excavated areas.

D. The Contractor shall assume full responsibility for damages caused by him or his Subcontractor's equipment and personnel to the existing geotextile soil separator and warning barrier, buildings and grounds as well as adjoining private property.

E. The work of this Section shall be performed in such a manner as to cause no interference with access by the Subcontractors or other Contractors to all portions of the site as is necessary for the normal conduct of their work.

**PART 2 - PRODUCTS**

A. Crushed Stone:

1. Crushed stone to be placed under and around sewer and storm drain pipes as shown on the Drawings and as specified shall be washed graded free of organic materials three-quarter (3/4) inch to one-half (1/2)-inch size. Gradation shall conform to SSHB., Section M2.01.3 as follows:

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 1- inch | | 100% |
| 3/4 inches | 90% | 100% |
| 1/2 inch | 10% | 50% |

| | | |
|---|---|---|
| 3/8 inch | 0% | 20% |
| #4 | 0% | 5% |

2. Crushed stone drive aprons as shown on the Drawings and as specified shall be washed graded free of organic materials two (2) inches to one-half (1/2)-inch size. Gradation shall conform to SSHB., Section M2.01.1 as follows:

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 2 inch | 100% | - |
| 1-1/2 inches | 95% | 50% |
| 1 inch | 35% | 70% |
| 3/4 inch | 0% | 25% |

B. Select Granular Fill: Gravel base as called for on the Drawings, for foundations, bases and miscellaneous site improvements, as specified shall consist of a well graded sand and gravel, free from deleterious matter, loam and clay, meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 8 inches | 100% | |
| 3 inches | 70% | 100% |
| 1/2 inches | 40% | 90% |
| No. 4 | 25% | 80% |
| No. 10 | 15% | 70% |
| No. 40 | 5% | 40% |
| No. 200 | 0% | 12% |

C. Clean Granular Fill: Fill up to subgrade in landscaped areas, shall consist of a well-graded sand and gravel borrow, free from deleterious matter, loam and clay meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 8 inches | 100% | |
| 3 inches | 70% | 100% |
| 1/2 inches | 40% | 100% |
| No. 4 | 25% | 100% |
| No. 10 | 15% | 95% |
| N0. 40 | 10% | 70% |
| No. 200 | 0% | 15% |

D. Bedding Sand: Bedding sand for concrete unit pavers shall be clean, washed natural or manufactured concrete sand meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 3/8 inches | 100% | |
| No. 4 | 95% | 100% |
| No. 8 | 85% | 100% |
| N0. 16 | 50% | 85% |
| No. 30 | 25% | 60% |
| N0. 50 | 10% | 30% |
| No. 100 | 2% | 10% |

E. Joint Sand: Joint sand for concrete unit pavers shall be clean, washed natural or manufactured concrete sand meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| No. 4 | 100% | % |
| No. 8 | 95% | 100% |
| N0. 16 | 70% | 100% |
| No. 30 | 40% | 75% |
| N0. 50 | 10% | 35% |
| No. 100 | 2% | 15% |
| No. 200 | 0% | 10% |

F. Material falling within the above Specifications, encountered during the excavation, shall be stored in segregated stockpiles for reuse. All material shall be tested and subject to approval by the Architect.

G. Sand: Sand for water and gas line pipe bedding shall be, clean masons sand.

## PART 3 – EXECUTION

### 3.01 EXCAVATION

A. General:

1. Excavate all materials to the elevations, dimensions and form as shown on the Drawings and as specified for the construction of building structures, utility structures, utilities, site improvements and other structures necessary for the completion of the building, utilities and site work. All unsuitable materials within the indicated and specified limits shall be excavated and removed. Any quantities involving an extra or other adjustment of the Contract Price shall be subject to measurement verification and approval by the Architect prior to the excavation and removal of such materials. Unsuitable materials shall include the following:

   a. Regulated soils
   b. Pavements, utility structures, building foundations and other man made structures.
   c. Peat, organic silt and other organic materials subject to decomposition, consolidation or decay.
   d. Miscellaneous fill including sand, gravel, cinders, ash, glass, wood, metal and ledge.
   e. Ledge or boulders except as specified for fills herein.

2. **The Architect will provide the Contractor with an as-built drawing showing the extent of regulated soil remediation, location and inverts of all utilities pile locations and elevations installed in the Phase 1 & 2 Contracts.** The Contractor shall obtain, from the proper authorities, locations of all other utilities within the scope of this work so that there will be no damage done to such utilities. Neither the Owner nor the Architect will be responsible for any such damage, and the Contractor shall restore any structure or utility so damaged without additional compensation. Written notifications to the appropriate utility agencies shall be made at least ten (10) days prior to the commencement of any work.

3. Excess Material: Suitable excavated material, which is required for fill, and backfill shall be separately stockpiled as directed by the Architect. All surplus fill other than that required to complete the intent of the Contract shall become the property of the Contractor and shall be disposed of off the property by the General Contractor. All excavated materials, which, in the

opinion of the Architect, are not suitable for, fill or backfill shall be removed and disposed of off the property.

4. Any unsanitary conditions encountered, such as broken sewer mains or uncovered garbage, shall be corrected or removed entirely as directed by the Architect.

B. Excavation for Building Structures:

1. Refer to Structural and Mechanical Drawings and notes thereon which may affect work under this Section.

2. Excavation shall be performed to elevations and dimensions indicated or specified, plus sufficient space to permit erection of forms and shoring, drains, masonry and the inspection of foundations.

3. Bottoms of excavations shall be protected from frost. Foundations, footings or slabs shall not be placed on frozen ground. The Contractor shall shore and brace excavations, protect all slopes and earth banks and provide sheet piling necessary to prevent cave-ins. Shoring and piling shall be removed before backfiliing is completed but not unto permanent supports are in place. Excavation of earth and/or rock beyond indicated or authorized limits shall be refilled with select granular fill compacted to ninety-five (95) percent of the maximum dry density at optimum moisture content as specified herein or concrete as required by the Architect at no additional cost to the Owner.

4. The Contractor shall control the grading around the building so that the ground shall be pitched in order to prevent water from running into the excavated areas of the building or prevent damage to other structures. The Contractor shall furnish all pumping required to keep excavated areas clear of water during construction. Water shall not be conducted onto adjacent property.

5. Excavate to subgrade for concrete slabs, including utility trenches, and footings. Compact subgrade to ninety-five (95) percent of maximum dry density as determined by the Modified Proctor Compaction Test.

6. Make final excavations by hand or using smooth-bladed equipment to avoid disturbance and the formation of ridges, which would be left by a bucket with teeth.

7. Repair or replace geotextile soil separator and warning barrier as required.

8. Prevent water accumulation on bearing surfaces, to reduce the possibility of softening of the subgrade soils.

9. The subgrade soils must be examined in the field by the Architect.

10. The bearing surface should be cleared of all loose and disturbed soil before any footings are placed. Prior to placing forms or reinforcing steel, the cleared area beneath the footings should be compacted with at least four coverage's of a vibratory plate compactor weighing at least 200 pounds imparting at least 5,000 pounds dynamic force.

C. Fill for Site Improvements:

1. Fill to the lines and grades shown on the Drawings and as specified to obtain the subgrades for the following items of work:

   a. Concrete slabs on grade - to twelve (12) inches below underside of slab.
   b. Bituminous concrete road and parking pavement - to twenty-four (24) inches below finished grades.
   c. Concrete paving - to twelve (12) inches below underside of paving.

d. Granite curb - to six (6) inches below and parallel to the underside of curb.
e. Seeded areas - to eighteen (18) inches below finished grade.
f. Shrub bed areas - to twenty-four (24) inches below finished grades.
g. Unspecified improvements - to bottom elevation of item plus ample working space on all sides.

D. Excavation for Utilities and Utility Structures:

1. Excavate to the lines and grades shown on the Drawings and as specified herein to obtain the subgrade for the following items of work:

a. Utility structures - to grades shown on the Drawings. Remove by excavating all unsuitable materials from under drainage structures and backfill with clean granular fill compacted in place to subgrades.
b. Excavation for structures and other accessories shall have twelve (12) inch minimum and twenty-four (24) inch maximum clearance on all sides.
c. All utility lines - to twelve (12) inches below bottom of utility lines or structures.
d. Trench for water pipe shall provide a minimum of five (5) feet of cover above top of pipe.
e. Unless otherwise shown, provide separate trenches for each utility. Lay all piping in open trenches except where tunneling is required. Excavation for structures and other accessories shall have twelve (12) inch minimum and twenty-four (24) inch maximum clearance on all sides.
f. Grade the bottom of trenches evenly to have a constant pitch in the direction of flow and to insure a uniform compacted thickness of selected material as called for.

2. Existing services and utilities encountered shall be immediately repaired, protected and maintained in use until relocation of same has been completed or be cut and capped where directed or be prepared for connections when so required.

## 3.03 PROTECTION SHORING AND DEWATERING

A. Protect open excavations with fencing, warning lights and other suitable safeguards.

B. Shore and brace excavations as required so as to maintain them secure and provide sheet piling to prevent cave-ins. Under Phases 1&2 Regulated soils for have been mitigated by removing the regulated soils and replacing them with clean granular fill so as to provide clean corridors for all below grade improvements. Remove shoring and piling before backfilling is completed and as specified herein.

C. Frost Protection: Make no excavations to the full depth indicated when freezing temperature may be expected unless the footing or slabs can be poured immediately after the excavation has been completed. Protect the bottoms as excavated from frost, if placing of concrete is delayed, with straw, tarpaulins or temporary heat until footings or slabs are poured and backfill is placed.

D. Provide all pumps and pumping facilities, including a well point system as necessary with attendants, to keep all excavations free from water from whatever source at all times, when work is in progress or when necessary for protection and integrity of the work in place. Trenches shall be kept water-free during jointing and for sufficient time thereafter to allow the jointing material to become fully set and completely resistant to water penetration.

E. Maintain ground water in the bearing soil strata at a safe level at all times by methods, which prevent loss of fines or other disturbances to these strata. If the methods employed have not been adequate and the bearing value of the soil has been reduced, remove disturbed soil as directed and replace with compacted graded gravel or concrete at no expense to the Owner.

F. Any ditching required to keep the site free from water during construction is the responsibility of the Contractor and will be repaired, topsoiled and seeded before completion of work.

## 3.04 FILLS. BACKFILLS AND COMPACTION

A. Samples and Testing:

1. All fill material and its placement shall be subject to quality control testing. A qualified laboratory will be selected by the Owner to perform tests on materials. All costs of testing will be paid for by the Owner. Test results and laboratory recommendations shall be available to the Architect.

2. Provide samples of each fill material from the proposed source of supply including on-site sources. Allow sufficient time for testing and evaluation of results before material is needed. Submit samples from alternate source if required.

3. Architect will be sole and final judge of suitability of all material.

4. The laboratory will determine maximum dry density and optimum water content in accordance with ASTM D1557, Method D and the in-place density in accordance with ASTM D1556.

5. Tests of material as delivered may be made from time to time. Materials in question may not be used, pending test results. Tests of compacted materials will be made regularly. Remove rejected materials and replace with new, whether in stockpiles or in place.

6. Cooperate with laboratory in obtaining field samples of in-place materials after compaction. Furnish incidental field labor in connection with these tests.

B. Placing Fills and Compacting

1. Fill material shall be placed in horizontal layers not exceeding six (6) inches under the building and all pavements and nine (9) inch layers in lawn areas. Each layer shall be compacted to the percentage of maximum dry density specified for the particular type of fill and at a water content equal to optimum water content plus or minus two (2) percent. The maximum dry density and optimum water content shall be as specified herein.

2. Areas to be filled or backfilled shall be free of construction debris, refuse, compressible or decayable materials and standing water. Do not place fill when fill materials or layers below it are frozen. Proofroll excavated ground surfaces under the proposed building and paved areas using a vibratory drum compactor or other heavy equipment prior to placing specified base course material.

3. Notify the Architect when excavation is ready for inspection. Filling and backfilling shall not be started until conditions have been approved by the Architect.

4. Before backfilling against walls, the permanent structures must be completed and sufficiently aged to attain strength required to resist backfill pressures without damage. Temporary bracing will not be permitted except by written permission from the Architect. When filling on both sides of a wall or pier, place fill simultaneously on each side. Correct any damage to the structure caused by backfilling operations at no cost to the Owner

5. In confined areas adjacent to footings and foundation walls and in utility trenches beneath floor slab, the fill shall be compacted with hand operated vibration tampers. The maximum lift thickness shall be four (4) inches. The degree of compaction attained shall be equivalent to that attained in the adjacent open areas where heavy rolling equipment is used.

6. After the subgrade under concrete slabs and paved areas has been shaped to line, grade and cross-sections, it shall be rolled with an approved power roller weighing not less than six (6) tons until thoroughly compacted. This operation shall include any reshaping, refilling or wetting

required to obtain proper compaction. Any areas, which subsequently settle, shall be refilled to true subgrade and properly compacted.

7. In freezing weather, a layer of fill shall not be left in an uncompacted state at the close of a day's operations. Prior to terminating operations for the day, the final layer of fill, after compaction, shall be rolled with a smooth-wheeled roller to eliminate ridges of soil left by tractors, trucks and compaction equipment.

C. Placing Select Granular Fills

1. Select granular fills, as specified herein above, shall be provided as follows:

   a. As gravel base course under all pavements unless otherwise called for.
   b. As gravel under and/or around footings curbs as shown on the Drawings or specified unless otherwise called for.

2. Place gravel in six (6) inch maximum layers; fill and compact each layer to ninety-five (95) percent maximum dry density.

D. Placing Clean Granular Fills

1. Clean granular fill material as specified shall be placed under pavements and utilities up to subgrades as specified.

2. Fills shall be placed in layers of a maximum six (6) inch compacted thickness up to subgrade. Compaction shall be to ninety-five (95) percent of maximum dry density as specified.

E. Deficiency of Fill Materials:

1. Provide required additional fill materials as specified if a sufficient quantity of suitable materials is not available from the required excavation on the project site at no additional cost to the Owner. Where water content of the fill must be adjusted to meet this Specification, the fill shall be thoroughly disked to insure uniform distribution of any water added.

F. Fill and Backfill for Utilities:

1. Backfill trenches only after pipe has been inspected, tested and locations of pipes and appurtenances have been recorded. Each pipe section shall be laid on a twelve-(12) inch minimum bed of crushed stone as specified herein above. In addition the water line shall be set in a six-(6) inch bed of sand. Bed shall be shaped by means of hand shovels to give full and continuous support to the lower one-third (1/3) of each pipe. Backfill by hand around pipe, and for a depth of twelve (12) inches above pipe, use sand or crushed stone and tamp firmly in layers not exceeding six (6) inches in thickness. Take care not to disturb the pipe. Compact the remainder of the backfill thoroughly with a rammer of suitable weight or with an approved mechanical tamper to achieve compaction of ninety-five (95) percent as specified.

2. Trenches and utility structures shall be backfilled with greatest care; only the suitable materials taken from the excavation shall be used. Any additional fill materials required for backfilling to subgrades shall be graded fill or ordinary fill as specified. Backfill shall be compacted to ninety-five (95) percent as specified. No mud, frozen earth or stone more than six (6) inches in greatest diameter or other objectionable material shall be used for refilling. Any selected material required for filling, in addition to earth from trench excavation, shall be furnished and placed by the Contractor.

3.05 UTILITY SERVICES LINES

A. Electrical, telephone, cable TV and gas services shall be as specified under other Sections. The excavating, trenching and backfilling for these utilities and other pertinent structures shall be done under this Section.

B. Trenches for utility lines shall be excavated of all peat, silt and other materials, which the Architect deems not stable and backfilled as called for in paragraph 3.04, H to form a stable foundation for laying the utility lines.

3.06 SUBGRADE PREPARATION

A. Bring all areas to required subgrade levels as specified and as determined from the Drawings.

B. Maintain all subgrades for site improvements in satisfactory condition, protected against traffic and properly drained, until the surface improvement is placed. In areas to receive pavement or other surface materials, at top and bottom of embankments, along swales and elsewhere, place sufficient grade stakes to facilitate checking the subgrade levels. Correct all irregularities, compacting thoroughly any fill materials.

C. Check all manhole covers, grates, valve boxes and similar structures for correct elevation and position and make, or have made, any necessary adjustments in such structures.

D. All subgrades must be inspected and approved by the Architect before paving, loaming or other site improvements are made.

3.07 WARNING TAPE OVER BURIED GAS. ELECTRIC. CABLE TV. TELEPHONE

A. Provide and install plastic warning tape over all buried gas, electric and water lines as specified.

B. Warning tape shall be installed according to Manufacturer's recommendations and a minimum of twelve (12) inches below finished grades.

3.08 DUST CONTROL

A. The Contractor shall employ all possible methods and/or materials to prevent the spread of dust. Chemical materials may not be used on subgrades of areas to be seeded or planted.

3.09 CLEAN UP

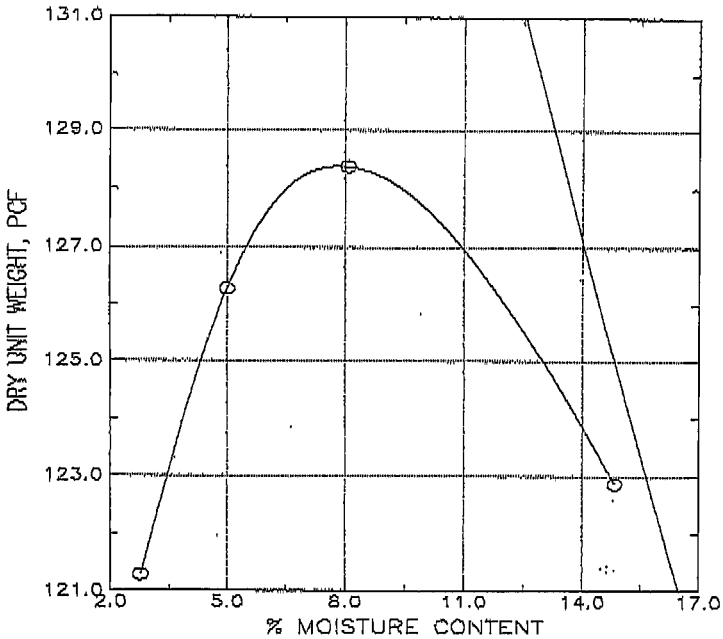
A. The Contractor shall remove all debris, construction equipment and scrap material from all areas within the limit of work prior to inspection for acceptance.

**END OF SECTION**

| MILLER ENGINEERING & TESTING, INC. | Boring No. : N/A<br>Sample No.: L040503<br>Tested by : DM/BM<br>Filename : L040503 | Project: KEITH MIDDLE SCHOOL<br>Project No. : 04.169.NH<br>Location: MIX STOCKPILE # 2<br>Date : Tue Jun 22 2004 |
|---|---|---|

# PROCTOR–GRADATION TEST RESULTS

COMPACTION



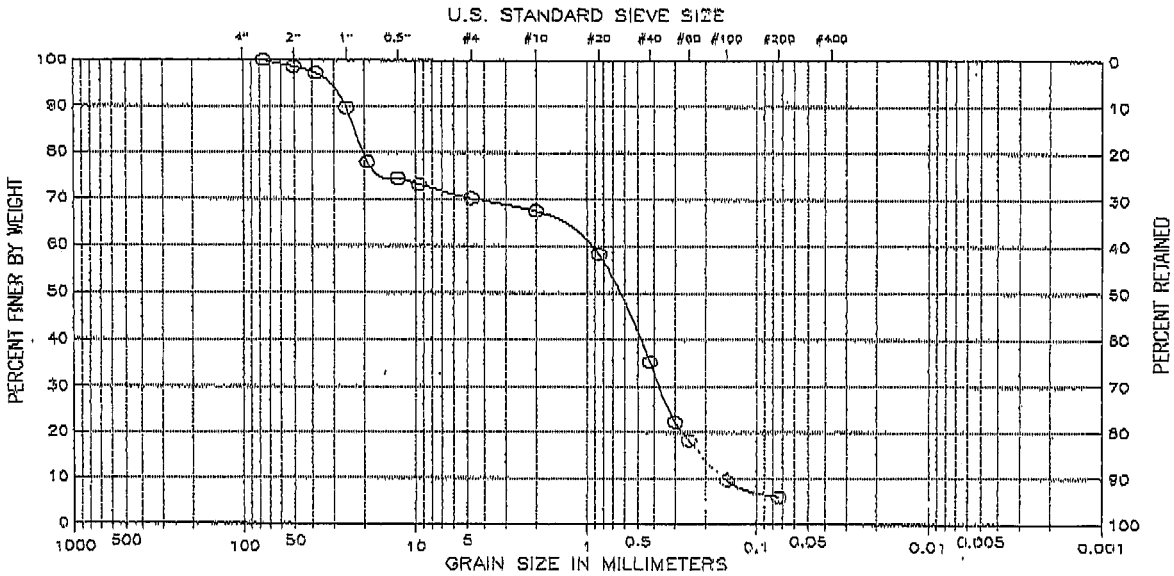

Sample Description :
MIX STOCKPILE # 2

Compaction Test Designation : ASTM D1557–D

Maximum Dry Density : 128.4 PCF

Optimum Moisture Content : 7.9 %

GRAIN SIZE DISTRIBUTION




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

UNIFIED SOIL CLASSIFICATION SYSTEM

Figure 1

Clean Granular Fill

Fri Jun 18 10:33:42 2004



GEOTECHNICAL LABORATORY TEST DATA

Project : KEITH MIDDLE SCHOOL
Project No. : 04.169.NH
Boring No. : N/A
Sample No. : L040503
Location : MIX STOCKPILE # 2
Soil Description : MIX STOCKPILE # 2
Remarks : ASAP

Depth : N/A
Test Date : 6-18-04
Test Method : ASTM

Filename : L040503
Elevation : N/A
Tested by : DM/BM
Checked by : BC

COARSE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (lb) | Cumulative Weight Retained (lb) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| 6" | | | | | 100 | 100 |
| 3" | 3.000 | 76.20 | 11.10 | 11.10 | 100 | |
| 2" | 2.000 | 50.80 | 11.80 | 11.80 | 99 | |
| 1.5" | 1.500 | 38.10 | 11.80 | 12.50 | 97 | |
| 1" | 1.000 | 25.40 | 14.90 | 16.30 | 90 | |
| 0.75" | 0.752 | 19.10 | 17.10 | 22.30 | 78 | |
| 0.5" | 0.500 | 12.70 | 12.60 | 24.00 | 75 | 50 - 85 |
| 0.375" | 0.375 | 9.52 | 11.80 | 24.70 | 73 | |
| #4 | 0.187 | 4.75 | 12.60 | 26.20 | 70 | 40 - 75 |

Total Weight of Sample = 61.7
Tare Weight = 11.1

FINE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (gm) | Cumulative Weight Retained (gm) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| #10 | 0.079 | 2.00 | 13.30 | 13.30 | 68 | |
| #20 | 0.033 | 0.85 | 47.60 | 60.90 | 58 | |
| #40 | 0.017 | 0.43 | 116.60 | 177.50 | 35 | |
| #50 | 0.012 | 0.30 | 65.50 | 243.00 | 22 | 8 - 28 |
| #60 | 0.010 | 0.25 | 20.30 | 263.30 | 18 | |
| #100 | 0.006 | 0.15 | 44.00 | 307.30 | 10 | |
| #200 | 0.003 | 0.07 | 18.50 | 325.80 | 6 | 0 - 8 |
| Pan | | | 30.30 | 356.10 | 0 | |

Total Weight of Sample = 356.1
Tare Weight = 0
Moisture Content = 0

D85 : 22.6736 mm
D60 : 1.0054 mm
D50 : 0.6645 mm
D30 : 0.3695 mm
D15 : 0.2060 mm
D10 : 0.1534 mm

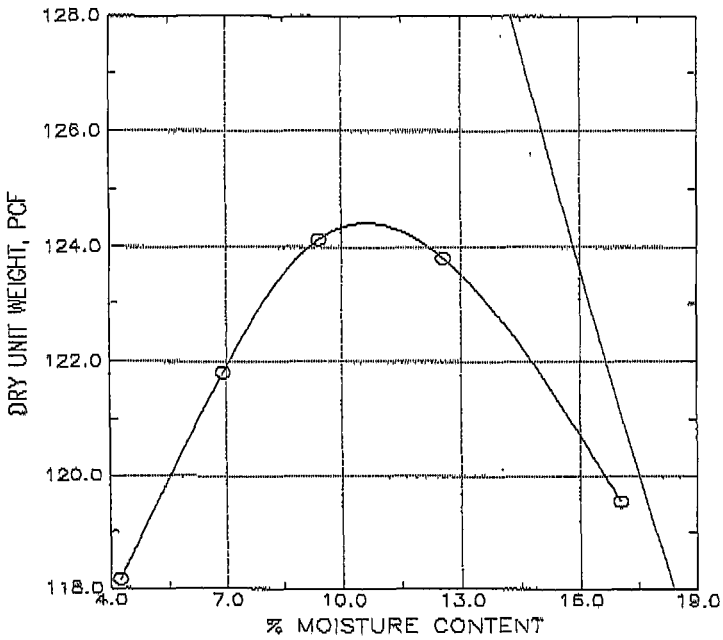
Soil Classification

ASTM Group Symbol : N/A
ASTM Group Name : N/A
AASHTO Group Symbol : A-1-b(0)
AASHTO Group Name : Stone Fragments, Gravel and Sand

| MILLER ENGINEERING & TESTING, INC. | Boring No. : N/A<br>Sample No: L040418B<br>Tested by : DM/BM<br>Filename : L040418B | Project: KEITH MIDDLE SCHOOL<br>Project No. : 04.169.NH<br>Location: KINGSTON PIT MIX 4 TO 1 WITH 3/4 INCH STONE<br>Date : Wed Jun 02 2004 |
|---|---|---|

# PROCTOR–GRADATION TEST RESULTS

COMPACTION




Sample Description :
GRADED FILL

Compaction Test Designation : ASTM D1557–C

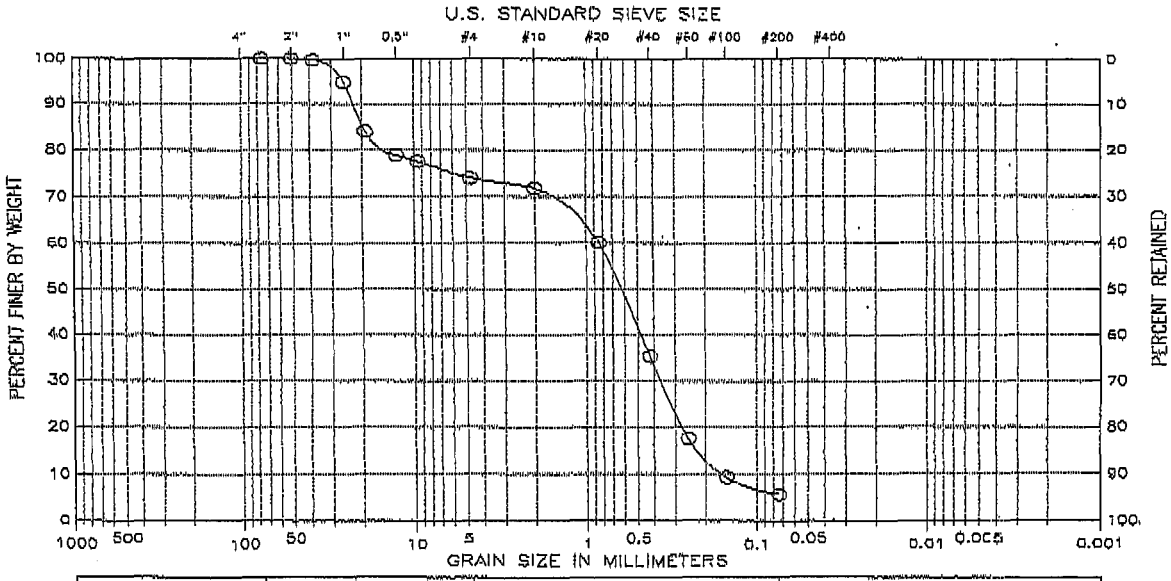
Maximum Dry Density : 124.4 PCF

Optimum Moisture Content : 10.6 %

CORRECTED MAXIMUM DRY DENSITY: 129.2 PCF

CORRECTED OPTIMUM MOISTURE CONTENT: 8.9 %

GRAIN SIZE DISTRIBUTION




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

UNIFIED SOIL CLASSIFICATION SYSTEM

Figure 1

Select Granular Fill

Tue Jun 01 08:37:20 2004



# GEOTECHNICAL LABORATORY TEST DATA

Project : KEITH MIDDLE SCHOOL
Project No. : 04.169.NH
Boring No. : N/A
Sample No. : L040418B
Location : KINGSTON PIT MIX 4 TO 1 WITH 3/4 INCH STONE
Soil Description : GRADED FILL
Remarks : ASAP

Depth : N/A
Test Date : 6-1-04
Test Method : ASTM

Filename : L040418B
Elevation : N/A
Tested by : DM/BM
Checked by : BC

## COARSE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (lb) | Cumulative Weight Retained (lb) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| 6" | | | | | 100 | 100 |
| 3" | 3.000 | 76.20 | 11.90 | 11.90 | 100 | |
| 2" | 2.000 | 50.80 | 11.90 | 11.90 | 100 | |
| 1.5" | 1.500 | 38.10 | 12.10 | 12.10 | 100 | |
| 1" | 1.000 | 25.40 | 15.40 | 15.60 | 95 | |
| 0.75" | 0.752 | 19.10 | 19.50 | 23.20 | 84 | |
| 0.5" | 0.500 | 12.70 | 15.50 | 26.80 | 79 | 50 - 85 |
| 0.375" | 0.375 | 9.52 | 12.90 | 27.80 | 77 | |
| #4 | 0.187 | 4.75 | 14.40 | 30.30 | 74 | 40 - 75 |

Total Weight of Sample = 82.5
Tare Weight = 11.9

## FINE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (gm) | Cumulative Weight Retained (gm) | Percent Finer (%) | | |
|---|---|---|---|---|---|---|---|
| #10 | 0.079 | 2.00 | 10.10 | 10.10 | 72 | | |
| #20 | 0.033 | 0.85 | 54.80 | 64.90 | 60 | | |
| #40 | 0.017 | 0.43 | 115.20 | 180.10 | 35 | 21 | 8 - 28 |
| #60 | 0.010 | 0.25 | 82.50 | 262.60 | 18 | | |
| #100 | 0.006 | 0.15 | 38.90 | 301.50 | 9 | | |
| #200 | 0.003 | 0.07 | 16.80 | 318.30 | 6 | | 0 - 8 |
| Pan | | | 26.00 | 344.30 | 0 | | |

Total Weight of Sample = 344.3
Tare Weight = 0
Moisture Content = 0

D85 : 19.6155 mm
D60 : 0.8500 mm
D50 : 0.6423 mm
D30 : 0.3630 mm
D15 : 0.2140 mm
D10 : 0.1576 mm

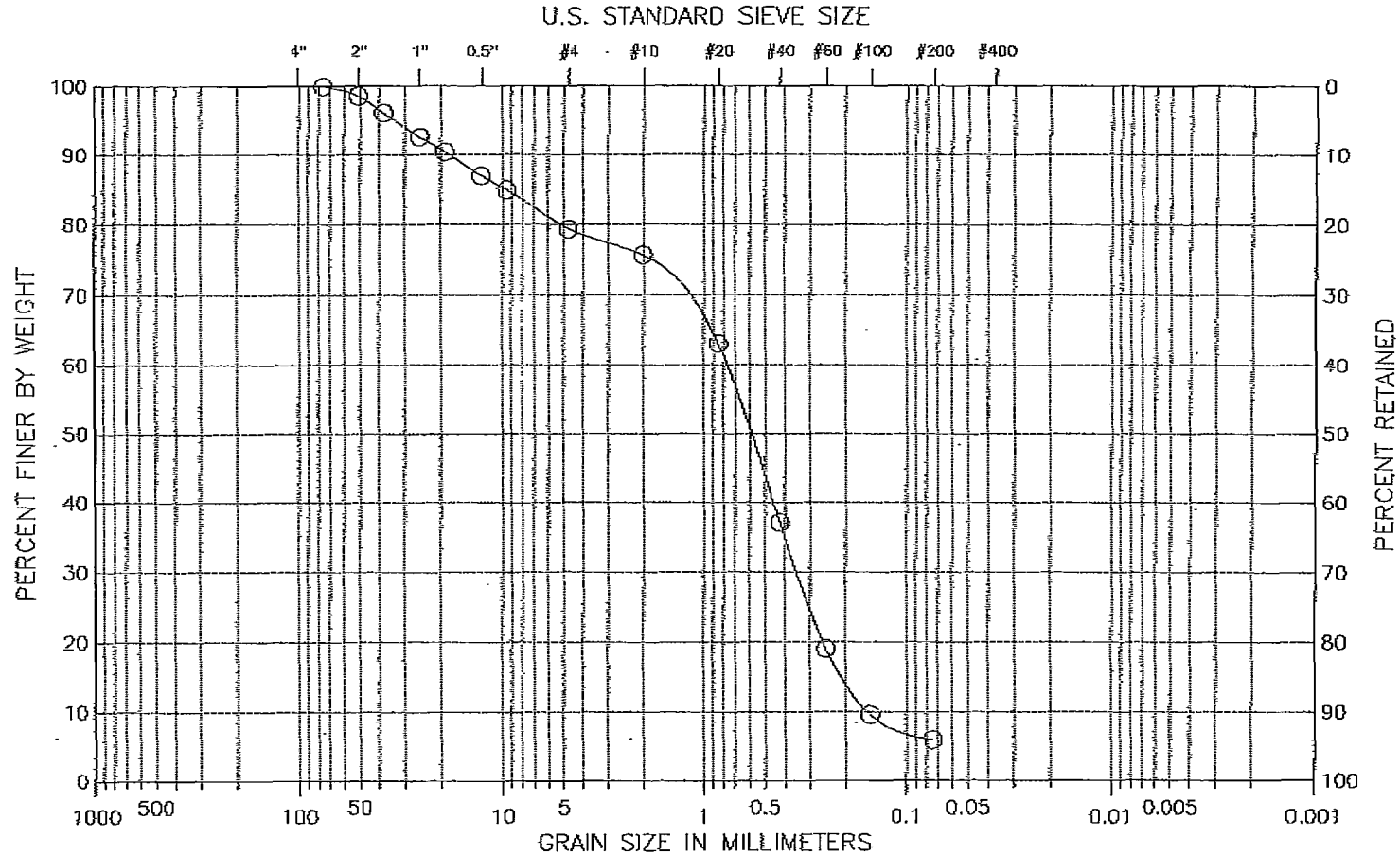
Soil Classification
ASTM Group Symbol : N/A
ASTM Group Name : N/A
AASHTO Group Symbol : A-1-b(0)
AASHTO Group Name : Stone Fragments, Gravel and Sand

# GRAIN SIZE DISTRIBUTION - AGGREGATE GRADING

MILLER ENGINEERING & TESTING, INC.

Boring No. : N/A
Sample No: L040418A
Tested by : DM/BM
Filename : L040418A

Project : KEITH MIDDLE SCHOOL
Project No.: 04.169.NH
Location: KINGSTON PIT SAMPLED FROM ON SITE STOCKPILE
Date : Tue Jun 01 2004




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

Classification :
()
Visual Description :
GRADED FILL

Remarks :
ASAP

Figure 1

# Attachment B

Specification 07133
Gas Vapor Barrier

**SECTION 07133**

**GAS VAPOR BARRIER**

## PART 1 - GENERAL

### 1.01 FILED SUB-BID REQUIREMENTS

A. This Section 07133 – GAS VAPOR BARRIER is part of filed sub-bid for Division 7 – Waterproofing, Damproofing and Caulking. Refer to Section 07100 – Waterproofing, Damproofing, and Caulking.

B. Specific information relating to bidders is set forth in the Contract Documents, under the heading "Instructions To Bidders" and the attention of bidders is directed thereto.

C. The work to be done under this Section is shown on Drawings numbered: EX1, L1.1 & L1.2, L2.1 & L2.2, L3.1 & L3.2, L4.1 & L4.2, L5, L6, L7, L8 & L9, SU1.1 & SU1.2, SU2, CR.1, CR.2, A0.1 thru A0.3, A1.1 thru A1.9, A2.1 thru A2.3, A3.1 thru A3.9, A4.1 thru A4.5, A5.1 thru A5.8, A6.1 thru 6.21, A7.1 thru A7.7, A8.1 thru A8.5, A9.1 & A9.2, A10.1 thru A10.4, A11.1 thru A11.4, A12.1 thru A12.6, A13.1 thru A13.3, K1.1, PL.1 thru PL.3, S0.1 thru S0.4, S1.1 thru S1.13, S2.1 thru S2.3, COMLEG, COM1.1, COM1.2, COM1.3, COM1.4, COM1.5, COM1.6, COM1.7, COM1.8, TC2.01, TC2.02, TC2.03, TC2.04, TC2.05. E0.1, E0.2, E0.3, E0.4, E0.5, E0.6, E0.7, E0.8, E0.9, E1.1, E1.2, E1.3, E1.4, E1.5, E1.6, E1.7, E1.8, E2.1, E2.2, E2.3, E2.4, E2.5, E2.6, E2.7, E2.8, E3.1, E3.2, E3.3, E3.4, E3.5, E3.6, E3.7, E3.8, E3.9, P0.1, P0.2, P0.3, P1.1, P1.2, P1.3, P1.4, P1.5, P1.6, P1.7, P1.8, P1.9, P1.10, P1.11, P1.12, P2.1, FP0.1, FP0.2, FP1.1, FP1.2, FP1.3, FP1.4, FP1.5, FP1.6, FP1.7, FP1.8, M1.1, M1.2, M1.3, M1.4, M1.5, M1.6, M1.7, M1.8, M1.9, M1.10, M2.1, M2.2, M2.3, M2.4, VS-1.

### 1.02 RELATED DOCUMENTS

A. All of the Contract Documents, including General and Supplementary Conditions and Division 1 General Requirements, apply to the work of this section.

### 1.03 DESCRIPTION OF WORK

A. The work of this Section consists of all labor and materials and in performing all operations in gas vapor barrier providing protection from the following gases:

1. Gas vapor barrier providing protection from the following gases:
   Methane
2. Soil vapor extraction piping and pressure relief, collection and venting system (PRCVS).

B. Related work not in this section:
1. Excavation and backfilling.
2. Parge coat on masonry to receive gas vapor barrier membrane.
3. Mortar beds or concrete toppings over gas vapor barrier membranes.
4. Latex waterproofing.
5. Damp-proofing.
6. Flashing and sheet metal.
7. Joint sealers.
8. Soil sterilant.

### 1.04 QUALITY ASSURANCE

A. Gas vapor barrier contractor/applicator shall be trained and approved by gas vapor barrier manufacturer and shall have at least 3 years experience in the work of the type required by this section.

B. A pre-installation conference shall be held prior to application of gas vapor barrier to assure substrate and installation conditions, to include general contractor, applicator, and architect/engineer.

1.05 SUBMITTALS

A. Refer to SECTION 01341 - SUBMITTALS for substitution of equipment and submittal of Shop Drawings. If apparatus or materials are substituted for those specified, and such substitution necessitates changes in or additional connections, accessories, etc. same shall be provided as the responsibility, and at the expense, of this Subcontractor.

B. Fabrication of any material or performing of any work prior to the final approval of the Submittals will be entirely at the risk of the Subcontractor. The Subcontractor is responsible for furnishing and installing materials called for in the Contract Documents, even though these materials may have been omitted from approved Submittals.

C. Product Data: Submit manufacturer's product data and installation instructions for specific application. Include standard details, certified test results, installation instructions, and recommendations for sealing penetrations.

D. Samples: Submit three labeled representative samples of the following for approval, not less than 12 by 12 inches in size:

1. Gas vapor barrier membrane material.
2. Protection Board and/or Protection Mat.
3. Prefabricated Pressure relief, collection & venting system – each component.
4. Geotextiles.

E. Shop Drawings: Submit shop drawings indicating details of construction. Include relationship with adjacent materials, sequence of installation and materials and methods for sealing penetrations. At a minimum shop drawings shall include details of the following connections, as applicable to the project:

1. Grade beams & pile caps.
2. Under slab & walls.
3. Lap joints.
4. Penetrations
5. Layout of PRCVS system and associated details.

1.06 DELIVERY, STORAGE AND HANDLING

Deliver materials to site in original unbroken packages bearing manufacturer's label showing brand, weight, volume, and batch number. Store materials at site in strict compliance with manufacturer's instructions. Do not allow materials to freeze in containers.

1.07 PROJECT CONDITIONS

A. Protect all adjacent areas not to receive gas vapor barrier. Where necessary, apply masking to prevent staining of surfaces to remain exposed wherever membrane abuts to other finish surfaces.

B. Perform work only when existing and forecasted weather conditions are within manufacturer's recommendations for the material and product used.

C. Minimum clearance of required for application of product:
- 90 degree spray wand – 2 feet.
- Conventional spray wand – 4 feet.

D. Ambient temperature shall be within manufacturer's specifications. (Greater than +32°F/+0°C).

E. All plumbing, electrical, mechanical and structural items to be under or passing through the gas vapor barrier shall be positively secured in their proper positions and appropriately protected prior to membrane application.

F. Gas vapor barrier shall be installed before placement of reinforcing steel. When not possible, all exposed reinforcing steel shall be masked by General Contractor prior to membrane application.

G. Expansion joints must be filled with a conventional waterproof expansion joint material.

H. Surface preparation shall be per manufacturer's specification.

1.08 GUARANTEE

A. Guarantee all work under this SECTION free from defects in workmanship and materials for a period of one (1) year from the date of final acceptance of the building, as set forth in the Contract. Replace any such defective work developing during this period, unless such defects are clearly the result of bad usage of equipment by others. Where such defective work results in damage to work of other SECTIONS of the Specifications, restore such work to its original condition by mechanics skilled in the affected trade.

## PART 2 PRODUCTS

2.01 GENERAL

A. All materials and equipment furnished under this SECTION shall be new, unused, first quality of a manufacturer of established reputation. Each valve, fitting, section of pipe, piece of equipment, etc., shall have cast or indelibly stamped thereon the manufacturer's name, pressure rating where applicable, type, etc. Materials shall conform to Massachusetts Code as a minimum requirement.

B. Acceptable Manufacturers

1. This specification is performance based on products as manufactured by LBI Technologies, Inc., Santa Ana, CA (714) 384-0111.

2. Alternate application: A 60 mil. vapor-protective, composite sheet membrane system composed of high-density polyethylene having a sodium-bentonite face with modified overlap area providing for non-reinforced integral seam tape within overlaps.
   a. Tremco "Paramount Paraseal GM"
   b. Poly-Flex

2.02 MATERIALS

A. Fluid applied Liquid Boot gas vapor barrier system; a single course, high build, polymer modified asphaltic emulsion. Water borne and spray applied at ambient temperatures. A minimum thickness of 60 dry mils. Non-toxic and odorless.

B. Gas vapor barrier physical properties:

| GAS VAPOR MEMBRANE | **TEST METHOD** | **VALUE** |
|---|---|---|
| Hydrogen Sulfide Gas Permeability | ASTM D1343 | None Detected |
| Benzene, Toulene, Ethylene, Xylene, Gasoline, Hexane, Perchloroethylene | ASTM D543, D412, D1434 (tested at 20,000 ppm) | Passed in gas permeability and weight change |
| Sodium Sulfate (2% water solution) | ASTM D543, D412, D143 | Passed in gas permeability and weight change |
| Acid Exposure (10% $H_2SO_4$ for 90 days) | ASTM D543 | Less than 1% weight change |
| Radon Permeability | Tested by US Dept. of | Zero permeability to Radon (222Rn) |

| | | |
|---|---|---|
| Bonded Seam Strength Tests | ASTM D6392 | Passed |
| Micro Organism Resistance (Soil Burial) average weight change, average tensile strength change, average tensile stress change, average elongation change, bonded seams, methane permeability | ASTM D4068-88 | Passed |
| Methane Permeability | ASTM 1434-82 | Passed |
| Oil Resistance Test average weight change, average tensile strength change, average tensile stress change, average elongation change, bonded seams, methane permeability | ASTM D543-87 | Passed |
| Heat Aging average tensile strength change, average tensile stress change, average elongation change, bonded seams | ASTM D4068-88 | Passed |
| Dead Load Seam Strength | City of Los Angeles | Passed |
| Environmental Stress-Cracking | ASTM D1693-78 | Passed |
| WATERPROOFING | **TEST METHOD** | VALUE |
| Soil Burial | ASTM E154-88 | Passed |
| Water Penetration Rate | ASTM D2434 | $<7.75 \times 10^{-9}$ cm/sec |
| Water Vapor Permeability | ASTM E96 | 0.24 perms |
| Water Vapor Transmission | ASTM E96 | 0.10 grains/h-ft$^2$ |
| POTABLE WATER | **TEST METHOD** | **VALUE** |
| Toxicity Test | 22 CCR 66696 | Passed. CCR Bioassay—Flathead |
| Potable Water Containment | ANSI/NSF 61 | NSF Certified for tanks >300,000 gallons |

| **GENERAL INFORMATION** | **TEST METHOD** | **VALUE** |
|---|---|---|
| Coefficient of Friction (with geotextile both sides) | ASTM D5321 | 0.72 |
| Cold Bend Test | ASTM D146 | Passed. No cracking at –25°F |
| Freeze-Thaw Resistance (100 Cycles) | ASTM A742 | Meets criteria. No spalling or disbondment |
| Accelerated Weathering and Ultraviolet Exposure | ASTM D822 | No adverse effect after 500 hours |
| Hydrostatic Head Resistance | ASTM D751 | Tested to 138 feet or 60 p.s.i |
| Elongation | ASTM D412 | 1,332% without reinforcement, 90% recovery |
| Elongation with 8oz. non-woven geotextile both sides | ASTM D751 | 100% (same as geotextile tested separately) |
| Tensile Strength | ASTM D412 | 58 p.s.i. without reinforcement |
| Tensile Strength with 8oz. non-woven geotextile both sides | ASTM D751 | 196 p.s.i. (same as geotextile tested separately) |

| | | |
|---|---|---|
| Tensile Bond Strength to Concrete | ASTM D413 | 2,556 lbs/ft$^2$ uplift force |
| Puncture Resistance with 8oz. non-woven geotextile both sides | ASTM D4833 | 286 lbs. (travel of probe = 0.756 inches) (same as geotextile tested separately) |
| Flame Spread | ASTM E108 | Class A with top coat (comparable to UL790) |
| Electric Volume Resistivity | ASTM D257 | 1.91 x $10^{10}$ ohms-cm |

C. Geotextile Fabric: Mirafi 1100N.

D. Non-woven protection course geotextile: LBI Tecnologies Ultrashield G-1000.

E. Protection Board: ¼" dense glass gold.

2.03 PRESSURE RELIEF, COLLECTION AND VENTING SYSTEM (PRCVS)

A. Liquid Boot Geovent: Low profile PRCVS consisting of a 3-dimensional vent core and wrapped with
a non-woven needle punched filter fabric. The trenchless gas collection system shall also include the following accessories for a complete installation.

1. Geovent end outlets.
2. Geovent interior foundation sleeves.
3. Geovent fabric reinforced tape.
4. Solid 4" diameter PVC pipe, sealant & fittings.

## PART 3 - EXECUTION

3.01 EXAMINATION
All surfaces to receive gas vapor barrier shall be inspected and approved by the applicator at least one day prior to commencing work.

3.02 SURFACE PREPARATION
Provide 24 inch minimum clearance out from surfaces to receive the gas vapor barrier. The application surface shall be prepared and provided to the applicator in accordance with manufacturer's specifications listed below:

A. Concrete/Shotcrete/Masonry
Concrete surfaces shall be light broom finish or smoother, free of any dirt, debris, loose material, release agents or curing compounds. Fill all voids more than 1/4 inch deep and 1/4 inch wide. Masonry joints, cold joints, and form joints shall be struck smooth.

All penetrations shall be prepared in accordance with manufacturer's specifications. Provide a 3/4 inch minimum cant of gas vapor barrier, or other suitable material as approved by manufacturer, at all horizontal to vertical transitions and other inside corners of 120° or less. **Allow to cure overnight before the application of gas vapor barrier.**

All cracks or cold joints greater than 1/16 inch must be completely grouted with non-shrink grout as approved by engineer.

Install Hardcast reinforcing tape over all cold joints, cracks and form tie holes (after holes and cracks are grouted).

B. Dirt & Gravel
The sub-grade shall be moisture conditioned and compacted to a minimum relative compaction of 90 percent. The finished surface shall be smooth, uniform, free of debris and standing water. Remove all stones or dirt clods greater than 1/4 inch. (NOTE: Aggregate sub-bases shall be rolled flat). All penetrations shall be prepared in accordance with manufacturer's specifications. All form stakes that penetrate the membrane shall be of rebar which shall be bent over and left in the slab.

Trenches shall be cut oversize to accommodate gas vapor barrier membrane and protection course with perpendicular to sloped sides and maximum obtainable compaction. Adjoining grade shall be finish graded and compacted. Excavated walls shall be vertical or sloped back, free of roots and protruding rocks.

3.03 INSTALLATION

A. Roll out geotextile on protection course over rigid insulation with the heat-rolled side facing up. Overlap seams a minimum of six inches (6"). Lay geotextile tight at all inside corners. Apply a thin (10 mil) tack coat of gas vapor barrier "A" side without catalyst within the seam overlap.

Line trenches with geotextile extending at least six inches (6") onto adjoining sub-grade if slab and footings are to be sprayed separately. Overlap seams a minimum of six inches (6"). Lay geotextile tight at all inside corners. Apply a thin (10 mil) tack coat of gas vapor barrier "A" side without catalyst within the seam overlap.

B. Refer to section 3.03.1, "Sealing Around Penetrations", for procedures to seal around penetrations.

C. Spray apply gas vapor barrier onto geotextile to an 60 mil minimum dry thickness. If a second coat is required, remove any standing water from the membrane before proceeding with the second application.

D. Do not penetrate membrane. Keep membrane free of dirt, debris and traffic until a protective cover is in place. **It is the responsibility of the General Contractor to insure that the membrane and the protection system are not penetrated.**

E. After membrane has cured and checked for proper thickness and flaws, install protection material pursuant to manufacturer's instructions.

**NOTE: All testing or inspection to be performed prior to placing protection course.**

3.03.1 SEALING AROUND PENETRATIONS

A. Clean all penetrations. All metal penetrations shall be sanded clean with emery cloth.

B. Roll out geotextile on protection course over rigid insulation with the heat-rolled side facing up, overlapping seams a minimum of six inches (6"). Cut the geotextile around penetrations so that it lays flat on the protection course. Lay geotextile tight at all inside corners. Apply a thin (10 mil) tack coat of gas vapor barrier "A" side without catalyst within the seam overlap.

C. Spray apply gas vapor barrier to surrounding areas as specified for the particular application to an 60 mil minimum dry thickness. At the base of penetration Install a minimum 3/4 inch thick membrane cant of gas vapor barrier, or other suitable material as

approved by manufacturer. Extend the membrane at 60 mil thickness up the penetration a minimum of three inches (3"). **Allow to cure overnight before proceeding to D.**

D. Spray apply gas vapor barrier membrane at a 60 mil thickness three inches (3") around the base of penetration and up the penetration, completely encapsulating the collar assembly, to a height of one and one half inches (1 1/2") minimum above the membrane as described in 3.03.1 C above.

E. Allow gas vapor barrier to cure completely before proceeding to step "F".

F. Wrap penetration with polypropylene cable tie at a point two inches (2") above the base of the penetration. Tighten the cable tie firmly so as to squeeze, but not cut, the cured membrane collar.

## 3.04 FIELD QUALITY CONTROL

**Applicators should check their own work for coverage, thickness, and all around good workmanship before calling for inspections.**

The membrane must be cured at least overnight before inspecting for dry-thickness, holes, shadow shrinkage, and any other membrane damage. If water testing is to be performed, allow the membrane to cure at least 72 hours prior to the water test.

When thickness or integrity is in question the membrane should be tested in the proper manner as described below. Areas suspected of being too thin to the touch should be measured with the gauges to determine the exact thickness.

A. Membrane may be checked for proper thickness with a blunt-nose depth gauge, taking one reading every 500 square feet. Record the readings. Mark the test area for repair, if necessary.

B. If necessary, test areas are to be patched over with gas vapor barrier to a 60 mils minimum dry thickness, extending a minimum of one inch (1") beyond the test perimeter.

C. Voids left by sampling are to be patched with geotextile overlapping the void by a minimum of two inches (2"). Apply a thin tack coat of LIQUID BOOT® under the geotextile patch. Then spray or trowel apply LIQUID BOOT® to an 60 mils minimum dry thickness, extending at least three inches (3") beyond geotextile patch.

## 3.05 PRESSURE RELIEF, COLLECTION AND VENTING SYSTEM (PRCVS)

A. Roll out Geovent per layout as approved by Architect.

B. Use prefabricated Geovent sleeves where venting is to penetrate interior foundation walls and grade beams.

C. At points of intersection, cut away geotextile to produce rectangular flaps. Interlock exposed dimple board in a Lego-like fashion. Fold flaps of geotextile in a manner so that the dimple board is covered completely. Secure geotextile folds with fiber reinforcing tape so that the geotextile is completely impermeable to sand fill.

D. Use Geovent end outlet to attach to solid 4" diameter PVC pipe at penetration through building foundation. Seal/grout piping at penetrations through foundation using approved methods.

SMOKE TESTING FOR HOLES

A. Holes or other breaches in the membrane can be detected by conducting a smoke test. This involves pumping smoke under the membrane for a specified period of time, under a specified pressure by the Engineer. Smoke testing to take place prior to installation of reinforcing bars for structural slab and upon completion of reinforcing installation.

**END OF SECTION**

# Attachment B

Specifications, Shop
Drawings, and Data Sheets

TC Mirafi _____ *TECHNICAL DATA SHEET*

# Mirafi 600X

Mirafi 600X is composed of high-tenacity polypropylene yarns, which are woven into a stable network such that the yarns retain their relative position. 600X is inert to biological degradation and resistant to naturally encountered chemicals, alkalis, and acids.

| Mechanical Properties | Test Method | Unit | Minimum Average Roll Value | |
|---|---|---|---|---|
| | | | MD | CD |
| Wide Width Tensile Strength | ASTM D 4595 | kN/m (lbs/in) | 30.6 (175) | 30.6 (175) |
| GrabTensile Strength | ASTM D 4632 | kN (lbs) | 1.40 (315) | 1.40 (315) |
| Grab Tensile Elongation | ASTM D 4632 | % | 15 | 10 |
| Trapezoid Tear Strength | ASTM D 4533 | kN (lbs) | 0.53 (120) | 0.53 (120) |
| Mullen Burst Strength | ASTM D 3786 | kPa (psi) | 4134 (600) | |
| Puncture Strength | ASTM D 4833 | kN (lbs) | 0.53 (120) | |
| Percent Open Area | COE-02215-86 | % | 1 | |
| Apparent Opening Size (AOS) | ASTM D 4751 | mm (U.S. Sieve) | 0.425 (40) | |
| Permittivity | ASTM D 4491 | $sec^{-1}$ | 0.05 | |
| Flow Rate | ASTM D 4491 | $l/min/m^2$ (gal/min/ft$^2$) | 163 (4.0) | |
| UV Resistance (at 500 hours) | ASTM D 4355 | % strength retained | 70 | |

| Physical Properties | Test Method | Unit | Typical Value | |
|---|---|---|---|---|
| Weight | ASTM D 5261 | $g/m^2$ ($oz/yd^2$) | 203 (6.0) | |
| Thickness | ASTM D 5199 | mm (mils) | 0.64 (25) | |
| Roll Dimensions (width x length) | -- | m (ft) | 3.8 x 110 (12.5 x 360) | 5.5 x 76 (18 x 250) |
| Roll Area | -- | $m^2$ ($yd^2$) | 418 (500) | 418 (500) |
| Estimated Roll Weight | -- | kg (lb) | 109 (240) | 109 (240) |

**DISCLAIMER:** TC Mirafi warrants our products to be free from defects in material and workmanship when delivered to TC Mirafi's customers and that our products meet our published specifications. Contact your local TC Mirafi Representative for detailed product specification and warranty information.

600X.DOC
Revision: 2
Date: Jan. 1, 1999

Side Slopes

Side slopes

WES CONSTRUCTION CORP.
REVIEWED BY: [illegible]
DATE: 10-08-04

TC Mirafi _____ *TECHNICAL DATA SHEET*

# Mirafi MCF-1212

Mirafi MCF-1212 is a composite structure of a woven, polyethylene fabric with polyethylene films laminated to both sides forming a monolithic sheet. MCF-1212 is highly impermeable and is inert to biological degradation and naturally encountered chemicals, alkalis and acids.

| Mechanical Properties | Test Method | Unit | Typical Roll Value |
|---|---|---|---|
| Grab Tensile Strength | ASTM D 4632 | kN (lbs) | 0.89 (200) |
| Grab Tensile Elongation | ASTM D 4632 | % | 15 |
| Trapezoid Tear Strength | ASTM D 4533 | kN (lbs) | 0.22 (50) |
| Mullen Burst Strength | ASTM D 3786 | kPa (psi) | 2960 (430) |
| Puncture Strength | ASTM D 4833 | kN (lbs) | 0.44 (100) |
| Permeability | ASTM D4491 | cm/sec | $< 10^{-4}$ |
| UV Resistance after 500 hours | ASTM D 4355 | % strength retained | > 90 |

| Physical Properties | Test Method | Unit | Typical Value |
|---|---|---|---|
| Mass/Unit Area | ASTM D 5261 | $g/m^2$ ($oz/yd^2$) | 211 (6.2) |
| Thickness | ASTM D 5199 | mm (mils) | 0.508 (20) |
| Roll Dimensions (width x length) | -- | m (ft) | 3.7 x 91.4 (12 x 300) |
| Roll Area | -- | $m^2$ ($yd^2$) | 334.4 (400) |
| Estimated Roll Weight | --- | kg (lbs) | 86 (190) |

**DISCLAIMER:** TC Mirafi warrants our products to be free from defects in material and workmanship when delivered to TC Mirafi's customers and that our products meets our published specifications. Contact your local TC Mirafi Representative for detailed product specification and warranty information.

SHOP DRAWINGS, PRODUCT DATA OR SAMPLES

APPROVAL DOES NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OR OMMISSIONS IN THE SHOP DRAWINGS, PRODUCT DATA OR SAMPLES

☑ APPROVED ☐ DISAPPROVED
☐ APPROVED AS NOTED
☐ REVISE & RESUBMIT

CHECKED BY [signature]
DATE 11/08/04

MORIECE & GARY

MIRAFI®

*TECHNICAL DATA SHEET*

# Mirafi® 1100N

Mirafi® 1100N is a nonwoven geotextile composed of polypropylene fibers, which are formed into a stable network such that the fibers retain their relative position. 1100N is inert to biological degradation and resists naturally encountered chemicals, alkalis, and acids.

| Mechanical Properties | Test Method | Unit | Minimum Average Roll Value | |
|---|---|---|---|---|
| | | | MD | CD |
| Grab Tensile Strength | ASTM D 4632 | kN (lbs) | 1.11 (250) | 1.11 (250) |
| Grab Tensile Elongation | ASTM D 4632 | % | 50 | 50 |
| Trapezoid Tear Strength | ASTM D 4533 | kN (lbs) | 0.45 (100) | 0.45 (100) |
| Mullen Burst Strength | ASTM D 3786 | kPa (psi) | 3445 (500) | |
| Puncture Strength | ASTM D 4833 | kN (lbs) | 0.69 (155) | |
| Apparent Opening Size (AOS) | ASTM D 4751 | mm (U.S. Sieve) | 0.150 (100) | |
| Permittivity | ASTM D 4491 | $sec^{-1}$ | 1.0 | |
| ~~Permeability~~ | ~~ASTM D 4491~~ | ~~cm/sec~~ | ~~0.20~~ | |
| Flow Rate | ASTM D 4491 | $l/min/m^2$ ($gal/min/ft^2$) | 3056 (75) | |
| UV Resistance (at 500 hours) | ASTM D 4355 | % strength retained | 70 | |

| Physical Properties | Test Method | Unit | Typical Value |
|---|---|---|---|
| Weight | ASTM D 5261 | $g/m^2$ ($oz/yd^2$) | 349 (10.3) |
| Thickness | ASTM D 5199 | mm (mils) | 2.5 (100) |
| Roll Dimensions (width x length) | -- | m (ft) | 4.5 x 91 (15 x 300) |
| Roll Area | -- | $m^2$ ($yd^2$) | 418 (500) |
| Estimated Roll Weight | -- | kg (lb) | 154 (339) |

**Disclaimer:** MIRAFI® Construction Products assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. MIRAFI® disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

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02200 - 003

Warning Barrier

# Tensar Earth Technologies, Inc.
# Light Weight Dig Barrier
## (LW1100 Dig Barrier)

**General Description and Applications**

The Dig Barrier product from Tensar Earth Technologies, is a cost effective visual dig barrier designed to be placed in excavations above underground utility lines, landfill cover systems, and any other damage sensitive buried structures. The highly visible orange netting serves as a warning to equipment operators when the excavation depth nears a buried structure. Therefore, unnecessary damage may be avoided.

Available in 12-foot wide rolls, Dig Barrier allows cost-effective coverage of large areas such as landfill cap systems. In addition, the product may be ordered in narrow widths (or cut on site) for placement in utility trench applications. The high-strength netting may also serve as a deterrent to burrowing animals and will not impede the flow of water. Tensar Earth Technologies specifically designed this product for cost effective use as a dig barrier.

**Roll Dimensions:**

12-ft by 2000-ft

**Weight per Roll**

Roll Weight: Approximately 332-lbs
Weight/Area: 55-gms/m$^2$ nominal

**Color**

Blaze Orange

**Material**

High Strength Polypropylene (PP) Homopolymer
Orange pigment and UV inhibitors
0.5% minimum ash pigment for up to 3-year exposed UV life

**Cell (Aperture) Size**

MD X TD: 1.0 inch X 1.0-inch nominal

**Tensile Strength**

MD X TD: 18 lbs./strand X 18 lbs./strand

**Principal Advantages Over Other Products Used as Dig Barrier**

**Versus Woven Geotextiles –**

- Less expensive
- Will not impeded the free flow of water
- Highly visible orange color versus black

**Versus Safety Fence –**

- Wider roll widths for faster, easier installation
- Stronger not reduces installation damage

**Versus Utility Warning Tape –**

- Full trench coverage
- Acts as an inexpensive insurance policy (for visual ID) when used with magnetic warning tape

SHOP DRAWING REVIEW
REVIEW IS ONLY FOR GENERAL COMPLIANCE WITH DESIGN CONCEPT
X NO EXCEPTIONS TAKEN
MAKE CORRECTIONS NOTED
AMEND AND RESUBMIT
REJECTED - SEE REMARKS
BETA GROUP, INC.
(Signature) Date 9/6/04
Checked by:

Tensar

Tensar Earth Technologies, Inc.
5883 Glenridge Drive
Atlanta, GA 30328

# Attachment C

Tabulated PCB Analytical Results

McCoy Field
Project No. 02685

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| A1-0.5-3' | 0.5-3 | 10/12/04 | 10/19/04 | 20,200 | ND | ND | ND | ND | 20,200 | ND | ND | ND |
| A2-0.5-1.9' | 0.5-1.9 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-0.5-2.5' | 0.5-2.5 | 10/12/04 | 10/20/04 | 112,000 | ND | ND | ND | ND | 112,000 | ND | ND | ND |
| A5-2.5-3.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 102,000 | ND | ND | ND | ND | 102,000 | ND | ND | ND |
| A5-3.5-4.5' | 3.5-4.5 | 12/3/04 | 12/18/04 | 114,000 | ND | ND | ND | ND | 114,000 | ND | ND | ND |
| A5-4.5-5.5' | 4.5-5.5 | 12/28/04 | 1/8/05 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| A5-A-0.5-2.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 1,600 | ND | ND | ND | ND | 1,600 | ND | ND | ND |
| A5-A-2.5-3.5' | 2.5-3.5 | 12/3/04 | 12/18/04 | 64,100 | ND | ND | ND | ND | 64,100 | ND | ND | ND |
| A5-A-3.5-4.5' | 3.5-4.5 | 12/3/04 | 12/18/04 | 3,870 | ND | ND | ND | ND | 3,870 | ND | ND | ND |
| A5-B-0.5-2.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 8,560 | ND | ND | ND | ND | 8,560 | ND | ND | ND |
| A5-B-2.5-3.5' | 2.5-3.5 | 12/3/04 | 12/18/04 | 726,000 | ND | ND | ND | ND | 726,000 | ND | ND | ND |
| A5-C-0.5-2.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 112,000 | ND | ND | ND | ND | 112,000 | ND | ND | ND |
| A5-C-2.5-3.5' | 2.5-3.5 | 12/3/04 | 12/8/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| A5-C-3.5-4.5' | 3.5-4.5 | 12/3/04 | 12/8/04 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND |
| A5-D-0.5-2.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 4,280 | ND | ND | ND | ND | 4,280 | ND | ND | ND |
| A5-D-2.5-3.5' | 2.5-3.5 | 12/3/04 | 12/8/04 | 993,000 | ND | ND | ND | ND | 993,000 | ND | ND | ND |
| A5-D-3.5-4.5' | 3.5-4.5 | 12/3/04 | 12/8/04 | 190,000 | ND | ND | ND | ND | 190,000 | ND | ND | ND |
| A5-E-0.5-2.5' | 0.5-2.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-F-0.5-2.5' | 0.5-2.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-G-0.5-2.5' | 0.5-2.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-H-2.5-3.5' | 2.5-3.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-H-3.5-4.5' | 3.5-4.5 | 12/28/04 | 1/8/05 | 472,000 | ND | ND | ND | ND | 472,000 | ND | ND | ND |
| A5-H-4.5-5.5' | 4.5-5.5 | 12/28/04 | 1/13/05 | 55,000 | ND | ND | ND | ND | 55,000 | ND | ND | ND |
| A5-I-2.5-3.5' | 2.5-3.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-I-3.5-4.5' | 3.5-4.5 | 12/28/04 | 1/8/05 | 74,100 | ND | ND | ND | ND | 74,100 | ND | ND | ND |
| A5-J-3.5-4.5' | 3.5-4.5 | 1/11/05 | 1/13/05 | 8,550 | ND | ND | ND | ND | 8,550 | ND | ND | ND |
| A5-K-3.5-4.5' | 3.5-4.5 | 1/11/05 | 1/13/05 | 18,100 | ND | ND | ND | ND | 18,100 | ND | ND | ND |
| A5-L-3.5-4.5' | 3.5-4.5 | 1/11/05 | 1/13/05 | 55,100 | ND | ND | ND | ND | 55,100 | ND | ND | ND |
| A6-0.5-1.75' | 0.5-1.75 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A7-0.5-1.6 | 0.5-1.6 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A8-0.5-1.6' | 0.5-1.6 | 10/12/04 | 10/20/04 | 4,430 | ND | ND | ND | ND | 4,430 | ND | ND | ND |
| A9-0.5-1.6' | 0.5-1.6 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A13-0.5-3.6' | 0.5-3.6 | 10/12/04 | 10/20/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| A14-0.5-4.7' | 0.5-4.7 | 10/12/04 | 10/20/04 | 12,600 | ND | ND | ND | ND | 12,600 | ND | ND | ND |
| Duplicate 159 (A14-0.5-4.7') | 0.5-4.7 | 10/12/04 | 10/19/04 | 29,500 | ND | ND | ND | ND | 29,500 | ND | ND | ND |
| A18-0.5-3.6' | 0.5-3.6 | 10/12/04 | 10/19/04 | 23,200 | ND | ND | ND | ND | 23,200 | ND | ND | ND |
| A19-0.5-3.5' | 0.5-3.5 | 10/12/04 | 10/20/04 | 40,700 | ND | ND | ND | ND | 40,700 | ND | ND | ND |
| A20-0.5-2.75' | 0.5-2.75 | 10/12/04 | 10/19/04 | 22,300 | ND | ND | ND | ND | 22,300 | ND | ND | ND |
| A21-0.5-2.6' | 0.5-2.6 | 10/12/04 | 10/20/04 | 276,000 | ND | ND | ND | ND | 276,000 | ND | ND | ND |
| A21-2.6-3.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 6,950 | ND | ND | ND | ND | 6,950 | ND | ND | ND |
| A21-A-0.5-2.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 4,200 | ND | ND | ND | ND | 4,200 | ND | ND | ND |
| A21-B-0.5-2.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 18,500 | ND | ND | ND | ND | 18,500 | ND | ND | ND |
| A21-C-0.5-2.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 6,020 | ND | ND | ND | ND | 6,020 | ND | ND | ND |
| A21-C-0.5-2.6'MS | 0.5-2.6 | 12/3/04 | 12/8/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| A21-C-0.5-2.6'MSD | 0.5-2.6 | 12/3/04 | 12/8/04 | 12,300 | ND | ND | ND | ND | 12,300 | ND | ND | ND |
| A21-D-0.5-2.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 3,130 | ND | ND | ND | ND | 3,130 | ND | ND | ND |
| A22-0.5-2.5' | 0.5-2.5 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A23-0.5-2.5' | 0.5-2.5 | 10/12/04 | 10/19/04 | 1,820 | ND | ND | ND | ND | 1,820 | ND | ND | ND |
| A24-0.5-2.6' | 0.5-2.6 | 10/12/04 | 10/19/04 | 3,560 | ND | ND | ND | ND | 3,560 | ND | ND | ND |
| A25-0.5-2.1' | 0.5-2.1 | 10/12/04 | 10/19/04 | 9,800 | ND | ND | ND | ND | 9,800 | ND | ND | ND |
| A26-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/15/04 | 40,500 | ND | ND | ND | ND | 40,500 | ND | ND | ND |
| Duplicate 160 (A26-0.5-1.5') | 0.5-1.5 | 10/14/04 | 10/19/04 | 15,600 | ND | ND | ND | ND | 15,600 | ND | ND | ND |
| A27-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/19/04 | 4,550 | ND | ND | ND | ND | 4,550 | ND | ND | ND |
| A43-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A44-0.5-1.7 | 0.5-1.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A45-0.5-2.5 | 0.5-2.5 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A46-0.5-2.1 | 0.5-2.1 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A50-0.5-2.7 | 0.5-2.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A52-0-3.5 | 0-3.5 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A53-0-3 | 0-3 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A53-0-3'MS | 0-3 | 11/11/04 | 11/17/04 | 6,200 | ND | ND | ND | ND | 6,200 | ND | ND | ND |
| A53-0-3'MSD | 0-3 | 11/11/04 | 11/17/04 | 5,870 | ND | ND | ND | ND | 5,870 | ND | ND | ND |
| A54-0-2.5 | 0-2.5 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A55-0-1 | 0-1 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A57-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A58-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A59-0-1.5 | 0-1.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A59.5-1-3' | 1-3 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A60-1-3.5 | 1-3.5 | 11/4/04 | 11/11/04 | 2,750 | ND | ND | ND | ND | 2,750 | ND | ND | ND |
| B1-0.5-1.1' | 0.5-1.1 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B8-0.5-0.6' | 0.5-0.6 | 10/12/04 | 10/20/04 | 6,190 | ND | ND | ND | ND | 6,190 | ND | ND | ND |
| B9-0.5-0.7 | 0.5-0.7 | 10/12/04 | 10/20/04 | 9,030 | ND | ND | ND | ND | 9,030 | ND | ND | ND |
| B18-0.5-2.8' | 0.5-2.8 | 10/12/04 | 10/20/04 | 55,900 | ND | ND | ND | ND | 55,900 | ND | ND | ND |
| B18-A-0.5-2.8' | 0.5-2.8 | 12/3/04 | 12/8/04 | 7,630 | ND | ND | ND | ND | 7,630 | ND | ND | ND |
| B18-B-0.5-2.8' | 0.5-2.8 | 12/3/04 | 12/8/04 | 14,100 | ND | ND | ND | ND | 14,100 | ND | ND | ND |
| B18-C-0.5-2.8' | 0.5-2.8 | 12/3/04 | 12/8/04 | 37,700 | ND | ND | ND | ND | 37,700 | ND | ND | ND |
| B18-D-0.5-2.8' | 0.5-2.8 | 12/3/04 | 12/8/04 | 6,430 | ND | ND | ND | ND | 6,430 | ND | ND | ND |
| B19-0.5-2.4' | 0.5-2.4 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B23-0.5-0.7' | 0.5-0.7 | 10/12/04 | 10/19/04 | 9,420 | ND | ND | ND | ND | 9,420 | ND | ND | ND |
| B24-0.5-1.2' | 0.5-1.2 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B25-0.5-2.1' | 0.5-1.2 | 10/12/04 | 10/19/04 | 9,320 | ND | ND | ND | ND | 9,320 | ND | ND | ND |
| B26-0.5-1.9 | 0.5-1.9 | 10/14/04 | 10/15/04 | 44,800 | ND | ND | ND | ND | 44,800 | ND | ND | ND |
| B26-0.5-1.9'MS | 0.5-1.9 | 10/14/04 | 10/15/04 | 39,500 | ND | ND | ND | ND | 39,500 | ND | ND | ND |
| B26-0.5-1.9'MSD | 0.5-1.9 | 10/14/04 | 10/15/04 | 106,000 | ND | ND | ND | ND | 106,000 | ND | ND | ND |
| B26-0.5-2.0 | 0.5-2.0 | 12/3/04 | 12/8/04 | 9,390 | ND | ND | ND | ND | 9,390 | ND | ND | ND |
| B28-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B32-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/19/04 | 1,350 | ND | ND | ND | ND | 1,350 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| B37-0.5-0.9 | 0.5-0.9 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B38-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B41-0.5-0.8 | 0.5-0.8 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B42-0.5-1.6 | 0.5-1.6 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B43-0.5-1.75 | 0.5-1.75 | 10/14/04 | 10/19/04 | 2,130 | ND | ND | ND | ND | 2,130 | ND | ND | ND |
| B44-0.5-2.4 | 0.5-2.4 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B46-0.5-1.0 | 0.5-1 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B53-0-2 | 0-2 | 11/11/04 | 11/17/04 | 1,110 | ND | ND | ND | ND | 1,110 | ND | ND | ND |
| B54-0-1 | 0-1 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B59.5-0.5-2 | 0.5-2 | 11/4/04 | 11/11/04 | 2,950 | ND | ND | ND | ND | 2,950 | ND | ND | ND |
| B60-1-3.5 | 1-3.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C1-0.5-0.6' | 0.5-0.6 | 10/12/04 | 10/19/04 | 4,560 | ND | ND | ND | ND | 4,560 | ND | ND | ND |
| C5-0.5-0.6' | 0.5-0.6 | 10/12/04 | 10/19/04 | 13,300 | ND | ND | ND | ND | 13,300 | ND | ND | ND |
| C6-0.5-1 | 0.5-1 | 10/12/04 | 10/20/04 | 14,500 | ND | ND | ND | ND | 14,500 | ND | ND | ND |
| C7-0.5-1 | 0.5-1 | 10/12/04 | 10/20/04 | 15,500 | ND | ND | ND | ND | 15,500 | ND | ND | ND |
| C8-0.5-1.25' | 0.5-1.25 | 10/12/04 | 10/20/04 | 9,340 | ND | ND | ND | ND | 9,340 | ND | ND | ND |
| C9-0.5-1.7' | 0.5-1.7 | 10/12/04 | 10/20/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| C18-0.5-2.25' | 0.5-2.25 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C19-0.5-1.3' | 0.5-1.3 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C26-0.5-1.0 | 0.5-1 | 10/14/04 | 10/19/04 | 2,160 | ND | ND | ND | ND | 2,160 | ND | ND | ND |
| C50-0.5-1.7 | 0.5-1.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C53-0-1.5 | 0-1.5 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C59.5-0.5-2 | 0.5-2 | 11/4/04 | 11/11/04 | 1,300 | ND | ND | ND | ND | 1,300 | ND | ND | ND |
| C60-1-3.5 | 1-3.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| D1-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/6/05 | 1,340 | ND | ND | ND | ND | 1,340 | ND | ND | ND |
| D5-0.5-0.8 | 0.5-0.8 | 12/28/04 | 1/6/05 | 8,220 | ND | ND | ND | ND | 8,220 | ND | ND | ND |
| D6-0.5-1.1 | 0.5-1.1 | 12/28/04 | 1/6/05 | 5,470 | ND | ND | ND | ND | 5,470 | ND | ND | ND |
| D7-0.5-1.15 | 0.5-1.15 | 12/28/04 | 1/6/05 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |
| D8-0.5-1.45 | 0.5-1.45 | 12/28/04 | 1/6/05 | 7,740 | ND | ND | ND | ND | 7,740 | ND | ND | ND |
| D9-0.5-1.9 | 0.5-1.9 | 12/28/04 | 1/6/05 | 6,050 | ND | ND | ND | ND | 6,050 | ND | ND | ND |
| D10-0.5-2.2 | 0.5-2.2 | 12/28/04 | 1/6/05 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| D10-0.5-2.2MS | 0.5-2.2 | 12/28/04 | 1/6/05 | 18,600 | ND | ND | ND | ND | 18,600 | ND | ND | ND |
| D10-0.5-2.2MSD | 0.5-2.2 | 12/28/04 | 1/6/05 | 19,400 | ND | ND | ND | ND | 19,400 | ND | ND | ND |
| D18-0.5-1.1 | 0.5-1.1 | 10/12/04 | 10/19/04 | 5,290 | ND | ND | ND | ND | 5,290 | ND | ND | ND |
| D46-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| D53-0-2 | 0-2 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| D59.5-0-2 | 0-2 | 11/4/04 | 11/12/04 | 35,435 | ND | ND | ND | ND | 35,435 | ND | ND | ND |
| D60-0-1.5 | 0-1.5 | 11/4/04 | 11/12/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| E1-0.5-0.8 | 0.5-0.8 | 12/28/04 | 1/6/05 | 1,070 | ND | ND | ND | ND | 1,070 | ND | ND | ND |
| E5-0.5-0.85 | 0.5-0.85 | 12/28/04 | 1/6/05 | 14,400 | ND | ND | ND | ND | 14,400 | ND | ND | ND |
| E6-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/6/05 | 14,300 | ND | ND | ND | ND | 14,300 | ND | ND | ND |
| E7-0.5-1.2 | 0.5-1.2 | 12/28/04 | 1/6/05 | 8,490 | ND | ND | ND | ND | 8,490 | ND | ND | ND |
| E8-0.5-1.25 | 0.5-1.25 | 12/28/04 | 1/6/05 | 3,850 | ND | ND | ND | ND | 3,850 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **RCS-1** | | | | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Turnkey Acceptance Limit** | | | | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **UCL** | | | | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| E9-0.5-1.5 | 0.5-1.5 | 12/28/04 | 1/6/05 | 6,200 | ND | ND | ND | ND | 6,200 | ND | ND | ND |
| E10-0.5-1.9 | 0.5-1.9 | 12/28/04 | 1/6/05 | 9,900 | ND | ND | ND | ND | 9,900 | ND | ND | ND |
| E13-0.5-2.4 | 0.5-2.4 | 12/28/04 | 1/8/05 | 6,700 | ND | ND | ND | ND | 6,700 | ND | ND | ND |
| Duplicate 205 (E13-0.5-2.4) | 0.5-2.4 | 12/28/04 | 1/8/05 | 6,580 | ND | ND | ND | ND | 6,580 | ND | ND | ND |
| E14-0.5-1.25 | 0.5-1.25 | 10/14/04 | 10/21/04 | 5,970 | ND | ND | ND | ND | 5,970 | ND | ND | ND |
| E15-0.5-2.5 | 0.5-2.5 | 10/14/04 | 10/21/04 | 2,800 | ND | ND | ND | ND | 2,800 | ND | ND | ND |
| E15-0.5-2.5'MS | 0.5-2.5 | 10/14/04 | 10/21/04 | 9,050 | ND | ND | ND | ND | 9,050 | ND | ND | ND |
| E15-0.5-2.5'MSD | 0.5-2.5 | 10/14/04 | 10/21/04 | 8,200 | ND | ND | ND | ND | 8,200 | ND | ND | ND |
| E47-0.5-0.6 | 0.5-0.6 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| E53-0-1 | 0-1 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| E59.5-0-2 | 0-2 | 11/4/04 | 11/12/04 | 16,800 | ND | ND | ND | ND | 16,800 | ND | ND | ND |
| F13-0.5-1.4 | 0.5-1.4 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| F14-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/21/04 | 8,250 | ND | ND | ND | ND | 8,250 | ND | ND | ND |
| F15-0.5-1 | 0.5-1 | 10/14/04 | 10/21/04 | 5,640 | ND | ND | ND | ND | 5,640 | ND | ND | ND |
| F50-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| F51-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| F59.5-0-2 | 0-2 | 11/4/04 | 11/12/04 | 21,800 | ND | ND | ND | ND | 21,800 | ND | ND | ND |
| Duplicate 187 (F59.5-0-2') | 0-2 | 11/4/04 | 11/12/04 | 40,260 | ND | ND | ND | ND | 40,260 | ND | ND | ND |
| F60-0.25-2 | 0.25-2 | 11/4/04 | 11/12/04 | 45,500 | ND | ND | ND | ND | 45,500 | ND | ND | ND |
| F,G55.25-0-1 | 0-1 | 11/11/04 | 11/17/04 | 86,400 | ND | ND | ND | ND | 86,400 | ND | ND | ND |
| F,G55.25-A-0-1' | 0-1 | 1/14/05 | 1/15/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| F,G55.25-B-0-1' | 0-1 | 1/14/05 | 1/15/05 | 2,400 | ND | ND | ND | ND | 2,400 | ND | ND | ND |
| F,G55.25-C-0-1' | 0-1 | 1/14/05 | 1/15/05 | 1,560 | ND | ND | ND | ND | 1,560 | ND | ND | ND |
| F,G55.25-D-0-1' | 0-1 | 1/14/05 | 1/15/05 | 2,020 | ND | ND | ND | ND | 2,020 | ND | ND | ND |
| G13-0.5-1.2 | 0.5-1.2 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| G14-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/21/04 | 5,830 | ND | ND | ND | ND | 5,830 | ND | ND | ND |
| G18-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 163 (G18-0.5-1.2') | 0.5-1.2 | 10/14/04 | 10/21/04 | 2,790 | ND | ND | ND | ND | 2,790 | ND | ND | ND |
| G50-0.5-1.6 | 0.5-1.6 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| G50-0.5-1.6'MS | 0.5-1.6 | 10/14/04 | 10/20/04 | 5,710 | ND | ND | ND | ND | 5,710 | ND | ND | ND |
| G50-0.5-1.6'MSD | 0.5-1.6 | 10/14/04 | 10/20/04 | 6,150 | ND | ND | ND | ND | 6,150 | ND | ND | ND |
| G51-0-1 | 0-1 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| G52-0-1 | 0-1 | 11/11/04 | 11/17/04 | 1,110 | ND | ND | ND | ND | 1,110 | ND | ND | ND |
| G53-0-1 | 0-1 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| G54-0-1 | 0-1 | 11/11/04 | 11/17/04 | 4,390 | ND | ND | ND | ND | 4,390 | ND | ND | ND |
| G59-0-2' | 0-2 | 11/4/04 | 11/11/04 | 3,250 | ND | ND | ND | ND | 3,250 | ND | ND | ND |
| G59.5-0-3.25' | 0-3.25 | 11/4/04 | 11/11/04 | 2,400 | ND | ND | ND | ND | 2,400 | ND | ND | ND |
| G59.5-0-3.25'MS | 0-3.25 | 11/4/04 | 11/11/04 | 9,610 | ND | ND | ND | ND | 9,610 | ND | ND | ND |
| G59.5-0-3.25'MSD | 0-3.25 | 11/4/04 | 11/11/04 | 8,745 | ND | ND | ND | ND | 8,745 | ND | ND | ND |
| G60-0.5-3 | 0.5-3 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| HG56.75-0-1.5 | 0-1.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H1-0.5-0.65 | 0.5-0.65 | 12/28/04 | 1/6/05 | 7,580 | ND | ND | ND | ND | 7,580 | ND | ND | ND |
| H13-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/8/05 | 3,830 | ND | ND | ND | ND | 3,830 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| H14-0.5-1.25 | 0.5-1.25 | 10/14/04 | 10/21/04 | 6,380 | ND | ND | ND | ND | 6,380 | ND | ND | ND |
| H15-0.5-1.3 | 0.5-1.3 | 10/14/04 | 10/21/04 | 5,870 | ND | ND | ND | ND | 5,870 | ND | ND | ND |
| H21-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H22-0.5-1.3 | 0.5-1.3 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H26-0.5-1 | 0.5-1 | 10/14/04 | 10/21/04 | 5,210 | ND | ND | ND | ND | 5,210 | ND | ND | ND |
| H50-0.5-1.25 | 0.5-1.25 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 162 (H50-0.5-1.25') | 0.5-1.25 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H51-0-1.5 | 0-1.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H52-0-1 | 0-1 | 11/11/04 | 11/17/04 | 18,800 | ND | ND | ND | ND | 18,800 | ND | ND | ND |
| H54-0-3 | 0-3 | 11/11/04 | 11/17/04 | 4,170 | ND | ND | ND | ND | 4,170 | ND | ND | ND |
| H55-0-3 | 0-3 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H56-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H57-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H58-0-3 | 0-3 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H59-0-2.5 | 0-2.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H59.5-0-2 | 0-2 | 11/4/04 | 11/11/04 | 8,900 | ND | ND | ND | ND | 8,900 | ND | ND | ND |
| H60-0-2.5 | 0-2.5 | 11/4/04 | 11/12/04 | 47,700 | ND | ND | ND | ND | 47,700 | ND | ND | ND |
| I1-0.5-0.7 | 0.5-0.7 | 12/28/04 | 1/6/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I13-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I14-0.5-1.25 | 0.5-1.25 | 12/28/04 | 1/8/05 | 4,200 | ND | ND | ND | ND | 4,200 | ND | ND | ND |
| I26-0.5-1.1 | 0.5-1.1 | 10/14/04 | 10/21/04 | 2,630 | ND | ND | ND | ND | 2,630 | ND | ND | ND |
| I50-0.5-1 | 0.5-1 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I51-0-1.75 | 0-1.75 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I52-0-1.75 | 0-1.75 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I56-0-1' | 0-1 | 2/16/05 | 2/17/05 | 2,150 | ND | ND | ND | ND | 2,150 | ND | ND | ND |
| I56-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I57-0-1' | 0-1 | 2/16/05 | 2/17/05 | 1,725 | ND | ND | ND | ND | 1,725 | ND | ND | ND |
| I57-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I58-0-1' | 0-1 | 2/16/05 | 2/17/05 | 420 | ND | ND | ND | ND | 420 | ND | ND | ND |
| I58-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I59-0-1' | 0-1 | 2/16/05 | 2/17/05 | 32,600 | ND | ND | ND | ND | 32,600 | ND | ND | ND |
| I59-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I60-0-1' | 0-1 | 2/16/05 | 2/17/05 | 9,450 | ND | ND | ND | ND | 9,450 | ND | ND | ND |
| I60-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J1-0.5-0.7 | 0.5-0.7 | 12/28/04 | 1/6/05 | 4,390 | ND | ND | ND | ND | 4,390 | ND | ND | ND |
| J21-0.5-1 | 0.5-1 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J26-0.5-1 | 0.5-1 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J50-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J51-0-1 | 0-1 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J52-0-0.75 | 0-0.75 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J58-0-1' | 0-1 | 2/16/05 | 2/17/05 | 760 | ND | ND | ND | ND | 760 | ND | ND | ND |
| J58-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J59-0-1' | 0-1 | 2/16/05 | 2/17/05 | 49,000 | ND | ND | ND | ND | 49,000 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| J59-1-3' | 1-3 | 2/16/05 | 2/17/05 | 490 | ND | ND | ND | ND | 490 | ND | ND | ND |
| J60-0-1' | 0-1 | 2/16/05 | 2/17/05 | 2,360 | ND | ND | ND | ND | 2,360 | ND | ND | ND |
| J60-1-3' | 1-3 | 2/16/05 | 2/17/05 | 550 | ND | ND | ND | ND | 550 | ND | ND | ND |
| K1-0.5-0.7 | 0.5-0.7 | 12/28/04 | 1/6/05 | 11,900 | ND | ND | ND | ND | 11,900 | ND | ND | ND |
| K8-0.5-0.55 | 0.5-0.65 | 12/28/04 | 1/6/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K9-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/6/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K10-0.5-1.1 | 0.5-1.1 | 12/28/04 | 1/6/05 | 3,530 | ND | ND | ND | ND | 3,530 | ND | ND | ND |
| K12-0.5-1.2 | 0.5-1.2 | 12/28/04 | 1/6/05 | 6,010 | ND | ND | ND | ND | 6,010 | ND | ND | ND |
| K13-0.5-1.7 | 0.5-1.7 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K14-0.5-1.15 | 0.5-1.15 | 12/28/04 | 1/8/05 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| K51-0-0.75 | 0-0.75 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K60-0-1' | 0-1 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K60-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| L1-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/6/05 | 1,090 | ND | ND | ND | ND | 1,090 | ND | ND | ND |
| L9-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/6/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| L10-0.5-1.1 | 0.5-1.1 | 12/28/04 | 1/6/05 | 7,170 | ND | ND | ND | ND | 7,170 | ND | ND | ND |
| L12-0.5-1 | 0.5-1 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| L13-0.5-1.5 | 0.5-1.5 | 12/28/04 | 1/8/05 | 5,020 | ND | ND | ND | ND | 5,020 | ND | ND | ND |
| L14-0.5-1.75 | 0.5-1.75 | 12/28/04 | 1/8/05 | 4,210 | ND | ND | ND | ND | 4,210 | ND | ND | ND |
| L60-0-1' | 0-1 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| L60-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| M12-0.5-0.8 | 0.5-0.8 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| M14-0.5-1.25 | 0.5-1.25 | 12/28/04 | 1/8/05 | 8,350 | ND | ND | ND | ND | 8,350 | ND | ND | ND |
| M53-0-2 | 0-2 | 11/11/04 | 11/17/04 | 4,260 | ND | ND | ND | ND | 4,260 | ND | ND | ND |
| N1-0.5-1.2 | 0.5-1.2 | 12/28/04 | 1/6/05 | 5,020 | ND | ND | ND | ND | 5,020 | ND | ND | ND |
| Duplicate 206 (N1-0.5-1.2) | 0.5-1.2 | 12/28/04 | 1/8/05 | 5,460 | ND | ND | ND | ND | 5,460 | ND | ND | ND |
| N2-0.5-1.4 | 0.5-1.4 | 12/28/04 | 1/6/05 | 4,940 | ND | ND | ND | ND | 4,940 | ND | ND | ND |
| N3-0.5-1.3 | 0.5-1.3 | 12/28/04 | 1/6/05 | 4,910 | ND | ND | ND | ND | 4,910 | ND | ND | ND |
| N4-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/6/05 | 3,250 | ND | ND | ND | ND | 3,250 | ND | ND | ND |
| N12-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| N13-0.5-1.5 | 0.5-1.5 | 12/28/04 | 1/8/05 | 3,260 | ND | ND | ND | ND | 3,260 | ND | ND | ND |
| N14-0.5-1 | 0.5-1 | 12/28/04 | 1/8/05 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| N15-0.5-1 | 0.5-1 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| N42-0.5-1.7 | 0.5-1.7 | 10/14/04 | 10/20/04 | 21,700 | ND | ND | ND | ND | 21,700 | ND | ND | ND |
| N43-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/20/04 | 1,740 | ND | ND | ND | ND | 1,740 | ND | ND | ND |
| N53-0-2.5 | 0-2.5 | 11/11/04 | 11/17/04 | 6,370 | ND | ND | ND | ND | 6,370 | ND | ND | ND |
| O13-0.5-1.1 | 0.5-1.1 | 12/28/04 | 1/8/05 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| O14-0.5-1 | 0.5-1 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| O15-0.5-1.75 | 0.5-1.75 | 12/28/04 | 1/8/05 | 14,800 | ND | ND | ND | ND | 14,800 | ND | ND | ND |
| O15-0.5-1.75MS | 0.5-1.75 | 12/28/04 | 1/8/05 | 30,500 | ND | ND | ND | ND | 30,500 | ND | ND | ND |
| O15-0.5-1.75MSD | 0.5-1.75 | 12/28/04 | 1/8/05 | 24,800 | ND | ND | ND | ND | 24,800 | ND | ND | ND |
| O42-0.5-1.6 | 0.5-1.6 | 10/14/04 | 10/20/04 | 13,000 | ND | ND | ND | ND | 13,000 | ND | ND | ND |
| O43-0.5-0.6 | 0.5-0.6 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| O53-0-3.5 | 0-3.5 | 11/11/04 | 11/17/04 | 4,300 | ND | ND | ND | ND | 4,300 | ND | ND | ND |
| P11-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/6/05 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| P13-0.5-1.0 | 0.5-1.0 | 12/28/04 | 1/8/05 | 17,900 | ND | ND | ND | ND | 17,900 | ND | ND | ND |
| P14-0.5-1.35 | 0.5-1.35 | 12/28/04 | 1/8/05 | 8,820 | ND | ND | ND | ND | 8,820 | ND | ND | ND |
| Duplicate 204 (P14-0.5-1.35) | 0.5-1.35 | 12/28/04 | 1/8/05 | 12,300 | ND | ND | ND | ND | 12,300 | ND | ND | ND |
| P15-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| P25-0.5-1.75 | 0.5-1.75 | 10/14/04 | 10/21/04 | 3,040 | ND | ND | ND | ND | 3,040 | ND | ND | ND |
| P26-0.5-1.6 | 0.5-1.6 | 10/14/04 | 10/20/04 | 8,280 | ND | ND | ND | ND | 8,280 | ND | ND | ND |
| P27-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/20/04 | 1,730 | ND | ND | ND | ND | 1,730 | ND | ND | ND |
| P28-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/20/04 | 3,460 | ND | ND | ND | ND | 3,460 | ND | ND | ND |
| P29-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/20/04 | 9,180 | ND | ND | ND | ND | 9,180 | ND | ND | ND |
| P31-0.5-1 | 0.5-1 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| P50-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/20/04 | 8,540 | ND | ND | ND | ND | 8,540 | ND | ND | ND |
| P53-0-3.5 | 0-3.5 | 11/11/04 | 11/17/04 | 3,150 | ND | ND | ND | ND | 3,150 | ND | ND | ND |
| Q53-Landscape-0-4 | 0-4 | 11/11/04 | 11/17/04 | 1,940 | ND | ND | ND | ND | 1,940 | ND | ND | ND |
| Dup 189 (Landscape Comp 15) | -- | 11/11/04 | 11/17/04 | 7,280 | ND | ND | ND | ND | 7,280 | ND | ND | ND |

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC1** | PC1-1-3' | 1-3 | 06/11/04 | 06/19/04 | 5,290 | ND | ND | ND | ND | 5,290 | ND | ND | ND |
| | PC1-3-6' | 3-6 | 06/11/04 | 06/19/04 | 16,400 | ND | ND | ND | ND | 16,400 | ND | ND | ND |
| **PC2** | PC2-1-3' | 1-3 | 06/11/04 | 06/19/04 | 41,000 | ND | ND | ND | ND | 41,000 | ND | ND | ND |
| | PC2-3-6' | 3-6 | 06/11/04 | 06/19/04 | 13,700 | ND | ND | ND | ND | 13,700 | ND | ND | ND |
| | PC2-1-3' | 1-3 | 08/25/04 | 09/07/04 | **338,000** | ND | ND | ND | ND | 338,000 | ND | ND | ND |
| | PC2-3-6' | 3-6 | 08/25/04 | 09/01/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC2-A-1-3' | 1-3 | 10/15/04 | 10/18/04 | 7,160 | ND | ND | ND | ND | 7,160 | ND | ND | ND |
| | PC2-A-3-4.75' | 3-4.75 | 10/15/04 | 10/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC2-B-1-3' | 1-3 | 10/15/04 | 10/18/04 | 39,700 | ND | ND | ND | ND | 39,700 | ND | ND | ND |
| | PC2-B-3-6' | 3-6 | 10/15/04 | 10/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC2-C-1-3' | 1-3 | 10/15/04 | 10/18/04 | 13,300 | ND | ND | ND | ND | 13,300 | ND | ND | ND |
| | PC2-C-3-6' | 3-6 | 10/15/04 | 10/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC2-C-3-6'MS | 3-6 | 10/15/04 | 10/18/04 | 6,720 | ND | ND | ND | ND | 6,720 | ND | ND | ND |
| | PC2-C-3-6'MSD | 3-6 | 10/15/04 | 10/18/04 | 5,810 | ND | ND | ND | ND | 5,810 | ND | ND | ND |
| | PC2-D-1-3' | 1-3 | 10/15/04 | 10/18/04 | 40,900 | ND | ND | ND | ND | 40,900 | ND | ND | ND |
| | PC2-D-3-6' | 3-6 | 10/15/04 | 10/18/04 | 3,950 | ND | ND | ND | ND | 3,950 | ND | ND | ND |
| **PC3** | PC3-1-3' | 1-3 | 06/11/04 | 06/19/04 | 1,790 | ND | ND | ND | ND | 1,790 | ND | ND | ND |
| | PC3-3-5.5' | 3-5.5 | 06/11/04 | 06/19/04 | 3,820 | ND | ND | ND | ND | 3,820 | ND | ND | ND |
| **PC4** | PC4-1-3' | 1-3 | 06/11/04 | 06/19/04 | 3,160 | ND | ND | ND | ND | 3,160 | ND | ND | ND |
| | PC4-3-5' | 3-5 | 06/11/04 | 06/19/04 | 2,550 | ND | ND | ND | ND | 2,550 | ND | ND | ND |
| **PC5** | PC5-1-3' | 1-3 | 06/11/04 | 06/19/04 | 16,300 | ND | ND | ND | ND | 16,300 | ND | ND | ND |
| | PC5-3-5.5' | 3-5.5 | 06/11/04 | 06/19/04 | 16,900 | ND | ND | ND | ND | 16,900 | ND | ND | ND |
| **PC6** | PC6-1-2' | 1-2 | 06/11/04 | 06/19/04 | 4,910 | ND | ND | ND | ND | 4,910 | ND | ND | ND |
| **PC7** | PC7-1-3' | 1-3 | 06/11/04 | 06/19/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| | PC7-3-5' | 3-5 | 06/11/04 | 06/19/04 | 2,370 | ND | ND | ND | ND | 2,370 | ND | ND | ND |
| **PC8** | PC8-1-4' | 1-4 | 06/11/04 | 06/19/04 | 21,500 | ND | ND | ND | ND | 21,500 | ND | ND | ND |
| **PC9** | PC9-1-3' | 1-3 | 06/11/04 | 07/03/04 | 5,300 | ND | ND | ND | ND | 5,300 | ND | ND | ND |
| | PC9-3-6' | 3-6 | 06/11/04 | 07/03/04 | 7,610 | ND | ND | ND | ND | 7,610 | ND | ND | ND |
| **PC10** | PC10-1-3' | 1-3 | 06/11/04 | 06/19/04 | 5,140 | ND | ND | ND | ND | 5,140 | ND | ND | ND |
| | Duplicate 36 (PC10-1-3') | 1-3 | 06/11/04 | 07/11/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| | PC10-3-6' | 3-6 | 06/11/04 | 06/19/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |
| | PC10-3-6'MS | 3-6 | 06/11/04 | 06/19/04 | 10,300 | ND | ND | ND | ND | 10,300 | ND | ND | ND |
| | PC10-3-6'MSD | 3-6 | 06/11/04 | 06/19/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| **PC11** | PC11-1-3' | 1-3 | 06/11/04 | 06/19/04 | 15,100 | ND | ND | ND | ND | 15,100 | ND | ND | ND |
| | PC11-3-5' | 3-5 | 06/11/04 | 06/19/04 | 42,700 | ND | ND | ND | ND | 42,700 | ND | ND | ND |
| **PC12** | PC12-1-3' | 1-3 | 06/11/04 | 06/19/04 | 33,100 | ND | ND | ND | ND | 33,100 | ND | ND | ND |
| | PC12-3-5' | 3-5 | 06/11/04 | 06/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC13** | PC13-1-3' | 1-3 | 06/11/04 | 06/19/04 | 6,150 | ND | ND | ND | ND | 6,150 | ND | ND | ND |
| | PC13-3-6' | 3-6 | 06/11/04 | 06/19/04 | 5,080 | ND | ND | ND | ND | 5,080 | ND | ND | ND |
| **PC14** | PC14-1-3' | 1-3 | 06/11/04 | 06/19/04 | 5,350 | ND | ND | ND | ND | 5,350 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC14** | PC14-3-6' | 3-6 | 06/11/04 | 06/19/04 | 3,400 | ND | ND | ND | ND | 3,400 | ND | ND | ND |
| **PC15** | PC15-1-2' | 1-2 | 06/11/04 | 06/19/04 | 9,490 | ND | ND | ND | ND | 9,490 | ND | ND | ND |
| **PC16** | PC16-1-2' | 1-2 | 06/11/04 | 06/19/04 | 1,780 | ND | ND | ND | ND | 1,780 | ND | ND | ND |
| **PC17** | PC17-1-2' | 1-2 | 06/11/04 | 06/19/04 | 22,400 | ND | ND | ND | ND | 22,400 | ND | ND | ND |
| **PC18** | PC18-1-3' | 1-3 | 06/11/04 | 07/03/04 | 8,660 | ND | ND | ND | ND | 8,660 | ND | ND | ND |
| | PC18-3-6' | 3-6 | 06/11/04 | 07/03/04 | 3,100 | ND | ND | ND | ND | 3,100 | ND | ND | ND |
| **PC19** | PC19-1-2' | 1-2 | 06/11/04 | 07/03/04 | 5,760 | ND | ND | ND | ND | 5,760 | ND | ND | ND |
| **PC20** | PC20-1-2' | 1-2 | 06/11/04 | 07/03/04 | 5,680 | ND | ND | ND | ND | 5,680 | ND | ND | ND |
| **PC21** | PC21-1-2' | 1-2 | 06/11/04 | 07/07/04 | 26,800 | ND | ND | ND | ND | 26,800 | ND | ND | ND |
| **PC22** | PC22-1-2' | 1-2 | 06/11/04 | 07/11/04 | 16,100 | ND | ND | ND | ND | 16,100 | ND | ND | ND |
| **PC23** | PC23-1-2' | 1-2 | 06/11/04 | 07/11/04 | 6,540 | ND | ND | ND | ND | 6,540 | ND | ND | ND |
| **PC24** | PC24-1-3' | 1-3 | 06/11/04 | 07/11/04 | 5,630 | ND | ND | ND | ND | 5,630 | ND | ND | ND |
| | Duplicate 38 (PC24-1-3') | 1-3 | 06/11/04 | 07/11/04 | 4,230 | ND | ND | ND | ND | 4,230 | ND | ND | ND |
| | PC24-3-6' | 3-6 | 06/11/04 | 07/11/04 | 5,580 | ND | ND | ND | ND | 5,580 | ND | ND | ND |
| | PC24-3-6'MS | 3-6 | 06/11/04 | 07/11/04 | 12,600 | ND | ND | ND | ND | 12,600 | ND | ND | ND |
| | PC24-3-6'MSDUP | 3-6 | 06/11/04 | 07/11/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| **PC25** | PC25-1-2' | 1-2 | 06/11/04 | 07/03/04 | 6,440 | ND | ND | ND | ND | 6,440 | ND | ND | ND |
| **PC26** | PC26-1-2' | 1-2 | 06/11/04 | 07/04/04 | 5,060 | ND | ND | ND | ND | 5,060 | ND | ND | ND |
| **PC27** | PC27-1-2' | 1-2 | 06/11/04 | 07/04/04 | 26,900 | ND | ND | ND | ND | 26,900 | ND | ND | ND |
| **PC28** | PC28-1-2' | 1-2 | 06/11/04 | 07/04/04 | 10,500 | ND | ND | ND | ND | 10,500 | ND | ND | ND |
| **PC29** | PC29-1-2' | 1-2 | 06/11/04 | 07/11/04 | 7,940 | ND | ND | ND | ND | 7,940 | ND | ND | ND |
| **PC30** | PC30-1-3' | 1-3 | 06/11/04 | 07/09/04 | 6,820 | ND | ND | ND | ND | 6,820 | ND | ND | ND |
| | PC30-3-6' | 3-6 | 06/11/04 | 07/09/04 | 3,950 | ND | ND | ND | ND | 3,950 | ND | ND | ND |
| **PC31** | PC31-1-2' | 1-2 | 06/11/04 | 07/04/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| **PC32** | PC32-1-2' | 1-2 | 06/11/04 | 07/04/04 | 14,400 | ND | ND | ND | ND | 14,400 | ND | ND | ND |
| **PC33** | PC33-1-3' | 1-3 | 06/11/04 | 07/04/04 | 2,740 | ND | ND | ND | ND | 2,740 | ND | ND | ND |
| | PC33-3-5.5' | 1-5.5 | 06/11/04 | 07/04/04 | 27,000 | ND | ND | ND | ND | 27,000 | ND | ND | ND |
| **PC34** | PC34-1-3' | 1-3 | 06/11/04 | 07/11/04 | 18,300 | ND | ND | ND | ND | 18,300 | ND | ND | ND |
| | PC34-3-6' | 3-6 | 06/11/04 | 07/11/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND |
| **PC35** | PC35-1-2' | 1-2 | 06/11/04 | 07/11/04 | **57,100** | ND | ND | ND | ND | 57,100 | ND | ND | ND |
| **PC36** | PC36-1-2' | 1-2 | 06/11/04 | 07/11/04 | 22,900 | ND | ND | ND | ND | 22,900 | ND | ND | ND |
| **PC37** | PC37-1-3' | 1-3 | 06/11/04 | 07/11/04 | 7,850 | ND | ND | ND | ND | 7,850 | ND | ND | ND |
| | PC37-3-6' | 3-6 | 06/11/04 | 07/11/04 | 24,300 | ND | ND | ND | ND | 24,300 | ND | ND | ND |
| **PC38** | PC38-1-3' | 1-3 | 06/11/04 | 07/04/04 | 34,600 | ND | ND | ND | ND | 34,600 | ND | ND | ND |
| | PC38-3-5' | 3-5 | 06/11/04 | 07/04/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| **PC39** | PC39-1-3' | 1-3 | 06/11/04 | 07/04/04 | 7,050 | ND | ND | ND | ND | 7,050 | ND | ND | ND |
| | PC39-1-3'MS | 1-3 | 06/11/04 | 07/04/04 | 10,300 | ND | ND | ND | ND | 10,300 | ND | ND | ND |
| | PC39-1-3'MSDUP | 1-3 | 06/11/04 | 07/04/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| | Duplicate 39 (PC39-3-6') | 3-6 | 06/11/04 | 07/11/04 | 29,000 | ND | ND | ND | ND | 29,000 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC39-3-6' | 3-6 | 06/11/04 | 07/04/04 | 21,000 | ND | ND | ND | ND | 21,000 | ND | ND | ND |
| **PC40** | PC40-1-3' | 1-3 | 06/11/04 | 07/04/04 | 1,210 | ND | ND | ND | ND | 1,210 | ND | ND | ND |
| | PC40-3-5.5' | 3-5.5 | 06/11/04 | 07/04/04 | 33,400 | ND | ND | ND | ND | 33,400 | ND | ND | ND |
| | PC40-1-4' | 1-4 | 08/25/04 | 09/01/04 | 13,100 | ND | ND | ND | ND | 13,100 | ND | ND | ND |
| | PC40-4-7' | 4-7 | 08/25/04 | 09/01/04 | 33,400 | ND | ND | ND | ND | 33,400 | ND | ND | ND |
| **PC41** | PC41-1-3' | 1-3 | 06/11/04 | 07/04/04 | 1,310 | ND | ND | ND | ND | 1,310 | ND | ND | ND |
| | PC41-3-6' | 3-6 | 06/11/04 | 07/04/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| | PC41-1-4' | 1-4 | 08/25/04 | 09/01/04 | 25,200 | ND | ND | ND | ND | 25,200 | ND | ND | ND |
| | PC41-4-7' | 4-7 | 08/25/04 | 08/31/04 | 19,300 | ND | ND | ND | ND | 19,300 | ND | ND | ND |
| **PC42** | PC42-1-3' | 1-3 | 06/11/04 | 07/11/04 | 3,180 | ND | ND | ND | ND | 3,180 | ND | ND | ND |
| | PC42-3-5' | 3-5 | 06/11/04 | 07/11/04 | **73,800** | ND | ND | ND | ND | 73,800 | ND | ND | ND |
| **PC43** | PC43-1-3' | 1-3 | 06/11/04 | 07/11/04 | 16,300 | ND | ND | ND | ND | 16,300 | ND | ND | ND |
| | PC43-3-6' | 3-6 | 06/11/04 | 07/11/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| **PC44** | PC44-1-3' | 1-3 | 08/26/04 | 09/01/04 | 5,160 | ND | ND | ND | ND | 5,160 | ND | ND | ND |
| **PC45** | PC45-1-2' | 1-2 | 06/11/04 | 07/11/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| **PC46** | PC46-1-3' | 1-3 | 06/11/04 | 07/11/04 | 21,700 | ND | ND | ND | ND | 21,700 | ND | ND | ND |
| | PC46-3-5.5' | 3-5.5 | 06/11/04 | 07/11/04 | 31,900 | ND | ND | ND | ND | 31,900 | ND | ND | ND |
| **PC47** | PC47-1-3' | 1-3 | 06/11/04 | 07/11/04 | 36,200 | ND | ND | ND | ND | 36,200 | ND | ND | ND |
| | PC47-3-6' | 3-6 | 06/11/04 | 07/11/04 | 37,000 | ND | ND | ND | ND | 37,000 | ND | ND | ND |
| **PC48** | PC48-1-2' | 1-2 | 06/11/04 | 07/11/04 | 3,630 | ND | ND | ND | ND | 3,630 | ND | ND | ND |
| **PC49** | PC49-1-2' | 1-2 | 06/11/04 | 07/11/04 | 2,690 | ND | ND | ND | ND | 2,690 | ND | ND | ND |
| **PC50** | PC50-1-3' | 1-3 | 06/11/04 | 07/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC50-3-5' | 3-5 | 06/11/04 | 07/11/04 | 3,620 | ND | ND | ND | ND | 3,620 | ND | ND | ND |
| **PC51** | PC51-1-3' | 1-3 | 6/14/04 | 7/12/04 | 7,570 | ND | ND | ND | ND | 7,570 | ND | ND | ND |
| | PC51-1-3'MS | 1-3 | 6/14/04 | 7/12/04 | 6,380 | ND | ND | ND | ND | 6,380 | ND | ND | ND |
| | PC51-1-3'MSD | 1-3 | 6/14/04 | 7/12/04 | 8,440 | ND | ND | ND | ND | 8,440 | ND | ND | ND |
| | Duplicate 40 (PC51-3-6') | 3-6 | 6/14/04 | 7/18/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND |
| | PC51-3-6' | 3-6 | 6/14/04 | 7/12/04 | 3,900 | ND | ND | ND | ND | 3,900 | ND | ND | ND |
| **PC52** | PC52-1-2' | 1-2 | 6/14/04 | 7/12/04 | 17,600 | ND | ND | ND | ND | 17,600 | ND | ND | ND |
| | PC52-3-6.5' | 3-6.5 | 8/25/04 | 8/31/04 | 5,880 | ND | ND | ND | ND | 5,880 | ND | ND | ND |
| **PC53** | PC53-1-2' | 1-2 | 6/14/04 | 7/12/04 | 4,680 | ND | ND | ND | ND | 4,680 | ND | ND | ND |
| **PC54** | PC54-1-3' | 1-3 | 6/14/04 | 7/12/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | PC54-3-6' | 3-6 | 6/14/04 | 7/12/04 | 30,000 | ND | ND | ND | ND | 30,000 | ND | ND | ND |
| **PC55** | PC55-1-3' | 1-3 | 6/14/04 | 7/12/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| | PC55-3-6' | 3-6 | 6/14/04 | 7/12/04 | 17,200 | ND | ND | ND | ND | 17,200 | ND | ND | ND |
| **PC56** | PC56-1-2' | 1-2 | 6/14/04 | 7/12/04 | 1,130 | ND | ND | ND | ND | 1,130 | ND | ND | ND |
| **PC57** | PC57-1-2' | 1-2 | 6/14/04 | 7/12/04 | 4,890 | ND | ND | ND | ND | 4,890 | ND | ND | ND |
| | PC57-3-6.5' | 3-6.5 | 8/25/04 | 9/7/04 | 38,000 | ND | ND | ND | ND | 38,000 | ND | ND | ND |
| **PC58** | PC58-1-3' | 1-3 | 6/14/04 | 7/12/04 | 15,500 | ND | ND | ND | ND | 15,500 | ND | ND | ND |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC58** | PC58-3-6' | 3-6 | 6/14/04 | 7/12/04 | 4,690 | ND | ND | ND | ND | 4,690 | ND | ND | ND |
| **PC59** | PC59-1-3' | 1-3 | 6/14/04 | 7/11/04 | 5,480 | ND | ND | ND | ND | 5,480 | ND | ND | ND |
| | PC59-3-6' | 3-6 | 6/14/04 | 7/11/04 | 3,990 | ND | ND | ND | ND | 3,990 | ND | ND | ND |
| **PC60** | PC60-1-3' | 1-3 | 6/14/04 | 7/12/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| | PC60-3-6' | 3-6 | 6/14/04 | 7/12/04 | **215,000** | ND | ND | ND | ND | 215,000 | ND | ND | ND |
| | PC60-1-3' | 1-3 | 8/25/04 | 8/31/04 | 18,900 | ND | ND | ND | ND | 18,900 | ND | ND | ND |
| | PC60-3-6' | 3-6 | 8/25/04 | 9/2/04 | 4,280 | ND | ND | ND | ND | 4,280 | ND | ND | ND |
| | PC60-6-11' | 6-11 | 9/20/04 | 9/22/04 | 33,000 | ND | ND | ND | ND | 33,000 | ND | ND | ND |
| | PC60-A-1-3' | 1-3 | 9/14/04 | 9/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-A-3-6' | 3-6 | 9/14/04 | 9/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-A-6-8' | 6-8 | 9/14/04 | 9/21/04 | 25,400 | ND | ND | ND | ND | 25,400 | ND | ND | ND |
| | PC60-B-1-3' | 1-3 | 9/14/04 | 9/21/04 | 20,100 | ND | ND | ND | ND | 20,100 | ND | ND | ND |
| | PC60-B-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-B-6-11' | 6-11 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-C-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-C-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 135 (PC60-C-3-6') | 3-6 | 9/14/04 | 9/21/04 | 20,300 | ND | ND | ND | ND | 20,300 | ND | ND | ND |
| | PC60-C-6-10' | 6-10 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-D-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-D-3-6' | 3-6 | 9/14/04 | 9/24/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | PC60-D-6-10' | 6-10 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-E-1-3' | 1-3 | 9/9/04 | 9/18/04 | 30,400 | ND | ND | ND | ND | 30,400 | ND | ND | ND |
| | PC60-E-3-6' | 3-6 | 9/9/04 | 9/18/04 | 9,160 | ND | ND | ND | ND | 9,160 | ND | ND | ND |
| | PC60-F-1-3' | 1-3 | 9/9/04 | 9/18/04 | 31,400 | ND | ND | ND | ND | 31,400 | ND | ND | ND |
| | PC60-F-3-6' | 3-6 | 9/9/04 | 9/18/04 | 17,200 | ND | ND | ND | ND | 17,200 | ND | ND | ND |
| | PC60-F-6-9' | 6-9 | 9/9/04 | 9/14/04 | **136,000** | ND | ND | ND | ND | 136,000 | ND | ND | ND |
| | PC60-G-6-11' | 6-11 | 9/20/04 | 9/22/04 | 3,420 | ND | ND | ND | ND | 3,420 | ND | ND | ND |
| | PC60-H-3-6' | 3-6 | 9/20/04 | 9/22/04 | 4,620 | ND | ND | ND | ND | 4,620 | ND | ND | ND |
| | PC60-H-6-11' | 6-11 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60 I-3-6 | 3-6 | 9/20/04 | 9/22/04 | 3,890 | ND | ND | ND | ND | 3,890 | ND | ND | ND |
| | PC60 I-6-11 | 6-11 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60 J-3-6 | 3-6 | 9/20/04 | 9/22/04 | 3,920 | ND | ND | ND | ND | 3,920 | ND | ND | ND |
| | PC60 J-6-11 | 6-11 | 9/20/04 | 9/22/04 | 4,750 | ND | ND | ND | ND | 4,750 | ND | ND | ND |
| | PC60 K-3-6 | 3-6 | 9/20/04 | 9/22/04 | 3,160 | ND | ND | ND | ND | 3,160 | ND | ND | ND |
| | PC60 K-6-11 | 6-11 | 9/20/04 | 9/22/04 | 11,600 | ND | ND | ND | ND | 11,600 | ND | ND | ND |
| | PC60 L-3-6 | 3-6 | 9/20/04 | 9/22/04 | 13,100 | ND | ND | ND | ND | 13,100 | ND | ND | ND |
| | PC60 L-6-11 | 6-11 | 9/20/04 | 9/22/04 | 23,600 | ND | ND | ND | ND | 23,600 | ND | ND | ND |
| | PC60 M-3-6 | 3-6 | 9/20/04 | 9/22/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |
| | PC60 M-6-11 | 6-11 | 9/20/04 | 9/22/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| **PC61** | PC61-1-3' | 1-3 | 6/14/04 | 7/11/04 | 6,270 | ND | ND | ND | ND | 6,270 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC61** | PC61-3-6' | 3-6 | 6/14/04 | 7/11/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| **PC62** | PC62-1-2' | 1-2 | 6/14/04 | 7/12/04 | 8,940 | ND | ND | ND | ND | 8940 | ND | ND | ND |
| | PC62-3-6.5' | 3-6.5 | 8/26/04 | 8/31/04 | 14,200 | ND | ND | ND | ND | 14200 | ND | ND | ND |
| **PC63** | PC63-1-2' | 1-2 | 6/14/04 | 7/12/04 | 6,260 | ND | ND | ND | ND | 6260 | ND | ND | ND |
| **PC64** | PC64-1-3' | 1-3 | 6/14/04 | 7/19/04 | 4,050 | ND | ND | ND | ND | 4050 | ND | ND | ND |
| | Duplicate 41 (PC63-1-3') | 1-3 | 6/14/04 | 7/18/04 | 6,660 | ND | ND | ND | ND | 6660 | ND | ND | ND |
| | PC64-3-6'MS | 3-6 | 6/14/04 | 7/19/04 | 26,000 | ND | ND | ND | ND | 26000 | ND | ND | ND |
| | PC64-3-6'MSD | 3-6 | 6/14/04 | 7/19/04 | 37,000 | ND | ND | ND | ND | 37000 | ND | ND | ND |
| | PC64-3-6' | 3-6 | 6/14/04 | 7/19/04 | 31,500 | ND | ND | ND | ND | 31500 | ND | ND | ND |
| **PC65** | PC65-1-3' | 1-3 | 6/14/04 | 7/12/04 | 18,400 | ND | ND | ND | ND | 18400 | ND | ND | ND |
| | PC65-3-6' | 3-6 | 6/14/04 | 7/12/04 | 16,700 | ND | ND | ND | ND | 16700 | ND | ND | ND |
| **PC66** | PC66-1-2' | 1-2 | 6/14/04 | 7/12/04 | 3,480 | ND | ND | ND | ND | 3480 | ND | ND | ND |
| **PC67** | PC67-1-2' | 1-2 | 6/14/04 | 7/12/04 | 24,700 | ND | ND | ND | ND | 24700 | ND | ND | ND |
| | PC67-3-6.5' | 3-6.5 | 8/25/04 | 8/31/04 | 12,300 | ND | ND | ND | ND | 12300 | ND | ND | ND |
| **PC68** | PC68-1-3' | 1-3 | 6/14/04 | 7/12/04 | 5,470 | ND | ND | ND | ND | 5470 | ND | ND | ND |
| | PC68-3-6' | 3-6 | 6/14/04 | 7/12/04 | 11,600 | ND | ND | ND | ND | 11600 | ND | ND | ND |
| **PC69** | PC69-1-3' | 1-3 | 6/14/04 | 7/12/04 | 3,690 | ND | ND | ND | ND | 3690 | ND | ND | ND |
| | PC69-3-6' | 3-6 | 6/14/04 | 7/19/04 | 6,780 | ND | ND | ND | ND | 6780 | ND | ND | ND |
| **PC70** | PC70-1-2' | 1-2 | 6/14/04 | 7/19/04 | 13,500 | ND | ND | ND | ND | 13500 | ND | ND | ND |
| **PC71** | PC71-1-2' | 1-2 | 6/14/04 | 7/19/04 | 5,880 | ND | ND | ND | ND | 5880 | ND | ND | ND |
| **PC72** | PC72-1-3' | 1-3 | 6/14/04 | 7/19/04 | 11,700 | ND | ND | ND | ND | 11700 | ND | ND | ND |
| | PC72-3-6' | 3-6 | 6/14/04 | 7/19/04 | 4,560 | ND | ND | ND | ND | 4560 | ND | ND | ND |
| **PC73** | PC73-1-3' | 1-3 | 6/14/04 | 7/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC73-3-6' | 3-6 | 6/14/04 | 7/19/04 | 3,690 | ND | ND | ND | ND | 3690 | ND | ND | ND |
| **PC74** | PC74-1-2' | 1-2 | 6/14/04 | 7/19/04 | 16,300 | ND | ND | ND | ND | 16300 | ND | ND | ND |
| **PC75** | PC75-1-2' | 1-2 | 6/14/04 | 7/18/04 | 9,100 | ND | ND | ND | ND | 9100 | ND | ND | ND |
| **PC76** | PC76-1-3' | 1-3 | 6/14/04 | 7/18/04 | **52,200** | ND | ND | ND | ND | 52200 | ND | ND | ND |
| | PC76-1-3'MS | 1-3 | 6/14/04 | 7/18/04 | 14,300 | ND | ND | ND | ND | 14300 | ND | ND | ND |
| | PC76-1-3'MSD | 1-3 | 6/14/04 | 7/18/04 | 10,100 | ND | ND | ND | ND | 10100 | ND | ND | ND |
| | Duplicate 42 (PC76-3-5.5') | 3-5.5 | 6/14/04 | 7/18/04 | 32,200 | ND | ND | ND | ND | 32200 | ND | ND | ND |
| | PC76-3-5.5' | 3-5.5 | 6/14/04 | 7/18/04 | 31,900 | ND | ND | ND | ND | 31900 | ND | ND | ND |
| **PC77** | PC77-1-3' | 1-3 | 6/14/04 | 7/18/04 | **76,100** | ND | ND | ND | ND | 76100 | ND | ND | ND |
| | PC77-3-6' | 3-6 | 6/14/04 | 7/18/04 | 7,160 | ND | ND | ND | ND | 7160 | ND | ND | ND |
| **PC78** | PC78-1-3' | 1-3 | 6/14/04 | 7/19/04 | 5,550 | ND | ND | ND | ND | 5550 | ND | ND | ND |
| | PC78-3-6' | 3-6 | 6/14/04 | 7/19/04 | 11,100 | ND | ND | ND | ND | 11100 | ND | ND | ND |
| **PC79** | PC79-1-3' | 1-3 | 6/14/04 | 7/19/04 | 5,120 | ND | ND | ND | ND | 5120 | ND | ND | ND |
| | PC79-3-6' | 3-6 | 6/14/04 | 7/19/04 | 6,120 | ND | ND | ND | ND | 6120 | ND | ND | ND |
| **PC80** | PC80-1-3' | 1-3 | 6/14/04 | 7/19/04 | 4,220 | ND | ND | ND | ND | 4220 | ND | ND | ND |
| | PC80-3-6' | 3-6 | 6/14/04 | 7/19/04 | 28,700 | ND | ND | ND | ND | 28700 | ND | ND | ND |

**NOTES:**
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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC81** | PC81-1-4.5 | 1-4.5 | 6/14/04 | 7/19/04 | 6,760 | ND | ND | ND | ND | 6760 | ND | ND | ND |
| **PC82** | PC82-1-3' | 1-3 | 6/14/04 | 7/19/04 | 12,300 | ND | ND | ND | ND | 12300 | ND | ND | ND |
| | PC82-3-6' | 3-6 | 6/14/04 | 7/19/04 | 26,900 | ND | ND | ND | ND | 26900 | ND | ND | ND |
| **PC83** | PC83-1-3' | 1-3 | 6/14/04 | 7/19/04 | 17,700 | ND | ND | ND | ND | 17700 | ND | ND | ND |
| | PC83-3-6' | 3-6 | 6/14/04 | 7/19/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| **PC84** | PC84-1-3' | 1-3 | 6/14/04 | 7/19/04 | 15,300 | ND | ND | ND | ND | 15300 | ND | ND | ND |
| | PC84-3-6' | 3-6 | 6/14/04 | 7/19/04 | 6,940 | ND | ND | ND | ND | 6940 | ND | ND | ND |
| **PC85** | PC85-1-3' | 1-3 | 6/14/04 | 7/19/04 | 14,400 | ND | ND | ND | ND | 14400 | ND | ND | ND |
| | PC85-3-6' | 3-6 | 6/14/04 | 7/19/04 | 6,280 | ND | ND | ND | ND | 6280 | ND | ND | ND |
| **PC86** | PC86-1-3' | 1-3 | 6/14/04 | 7/19/04 | 8,220 | ND | ND | ND | ND | 8220 | ND | ND | ND |
| | PC86-1-3'MS | 1-3 | 6/14/04 | 7/18/04 | 6,030 | ND | ND | ND | ND | 6030 | ND | ND | ND |
| | PC86-1-3'MSD | 1-3 | 6/14/04 | 7/18/04 | 10,100 | ND | ND | ND | ND | 10100 | ND | ND | ND |
| | Duplicate 43 (PC86-3-6') | 3-6 | 6/14/04 | 7/18/04 | 21,400 | ND | ND | ND | ND | 21400 | ND | ND | ND |
| | PC86-3-6' | 3-6 | 6/14/04 | 7/19/04 | 14,300 | ND | ND | ND | ND | 14300 | ND | ND | ND |
| **PC87** | PC87-1-3' | 1-3 | 6/14/04 | 7/18/04 | 10,100 | ND | ND | ND | ND | 10100 | ND | ND | ND |
| | PC87-3-6' | 3-6 | 6/14/04 | 7/18/04 | 9,550 | ND | ND | ND | ND | 9550 | ND | ND | ND |
| **PC88** | PC88-1-3' | 1-3 | 6/30/04 | 7/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC88-3-6.5 | 3-6.5 | 6/30/04 | 7/31/04 | 9,920 | ND | ND | ND | ND | 9920 | ND | ND | ND |
| **PC89** | PC89-1-3' | 1-3 | 6/30/04 | 7/31/04 | **94,100** | ND | ND | ND | ND | 94100 | ND | ND | ND |
| | PC89-A-1-3' | 1-3 | 11/17/04 | 11/18/04 | 6,020 | ND | ND | ND | ND | 6020 | ND | ND | ND |
| | PC89-B-1-3' | 1-3 | 11/17/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC89-C-1-3' | 1-3 | 11/17/04 | 11/18/04 | 2,160 | ND | ND | ND | ND | 2160 | ND | ND | ND |
| **PC90** | PC90-1-3' | 1-3 | 6/30/04 | 7/31/04 | 9,730 | ND | ND | ND | ND | 9730 | ND | ND | ND |
| **Elevator2** | Elevator2-1-4' | 1-4 | 11/17/04 | 11/18/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| | Elevator2-4-8' | 4-8 | 11/17/04 | 11/18/04 | 25,600 | ND | ND | ND | ND | 25600 | ND | ND | ND |
| | Elevator2-8-11' | 8-11 | 11/17/04 | 11/18/04 | 2,410 | ND | ND | ND | ND | 2410 | ND | ND | ND |
| **PC91** | PC91-1-3' | 1-3 | 6/30/04 | 7/31/04 | 3,360 | ND | ND | ND | ND | 3360 | ND | ND | ND |
| **PC92** | PC92-1-3' | 1-3 | 6/30/04 | 8/2/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| **PC93** | PC93-1-3' | 1-3 | 6/30/04 | 8/2/04 | 33,900 | ND | ND | ND | ND | 33900 | ND | ND | ND |
| | PC93-3-6.5' | 3-6.5 | 6/30/04 | 8/2/04 | 17,700 | ND | ND | ND | ND | 17700 | ND | ND | ND |
| **PC94** | PC94-1-3' | 1-3 | 6/30/04 | 8/2/04 | 2,870 | ND | ND | ND | ND | 2870 | ND | ND | ND |
| **PC95** | PC95-1-3.5' | 1-3.5 | 6/30/04 | 8/2/04 | 4,750 | ND | ND | ND | ND | 4750 | ND | ND | ND |
| **PC96** | PC96-1-3' | 1-3 | 6/30/04 | 8/2/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| **PC97** | PC97-1-3' | 1-3 | 6/30/04 | 8/2/04 | 21,000 | ND | ND | ND | ND | 21000 | ND | ND | ND |
| **PC98** | PC98-1-3' | 1-3 | 6/30/04 | 7/31/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| | PC98-3-6.5' | 3-6.5 | 6/30/04 | 7/31/04 | 6,900 | ND | ND | ND | ND | 6900 | ND | ND | ND |
| **PC99** | PC99-1-3' | 1-3 | 6/30/04 | 7/31/04 | 8,090 | ND | ND | ND | ND | 8090 | ND | ND | ND |
| | PC99-1-3'MS | 1-3 | 6/30/04 | 7/31/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| | PC99-1-3'MSD | 1-3 | 6/30/04 | 7/31/04 | 12,400 | ND | ND | ND | ND | 12400 | ND | ND | ND |
| | PC99-3-6.5' | 3-6.5 | 6/30/04 | 7/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Duplicate 45 (PC99-3-6.5') | 3-6.5 | 6/30/04 | 8/7/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC100** | PC100-1-3' | 1-3 | 6/30/04 | 8/2/04 | **70,500** | ND | ND | ND | ND | 70500 | ND | ND | ND |
| | PC100-A-1-3' | 1-3 | 11/17/04 | 11/18/04 | 2,740 | ND | ND | ND | ND | 2740 | ND | ND | ND |
| | PC100-B-1-3' | 1-3 | 11/17/04 | 11/18/04 | 6,810 | ND | ND | ND | ND | 6810 | ND | ND | ND |
| | PC100-C-1-3' | 1-3 | 11/17/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC101** | PC101-1-3' | 1-3 | 6/30/04 | 8/7/04 | 11,400 | ND | ND | ND | ND | 11400 | ND | ND | ND |
| **PC102** | PC102-1-3' | 1-3 | 6/30/04 | 8/7/04 | 13,900 | ND | ND | ND | ND | 13900 | ND | ND | ND |
| | PC102-3-6.5' | 1-3 | 6/30/04 | 8/7/04 | 4,880 | ND | ND | ND | ND | 4880 | ND | ND | ND |
| **PC103** | PC103-1-3' | 1-3 | 6/30/04 | 8/2/04 | **49,100** | ND | ND | ND | ND | 49100 | ND | ND | ND |
| | PC103-3-6.5' | 3-6.5 | 6/30/04 | 8/2/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| **PC104** | PC104-1-3' | 1-3 | 6/30/04 | 8/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC105** | PC105-1-3' | 1-3 | 6/30/04 | 8/7/04 | 33,800 | ND | ND | ND | ND | 33800 | ND | ND | ND |
| **PC106** | PC106-1-3' | 1-3 | 6/30/04 | 8/7/04 | 5,180 | ND | ND | ND | ND | 5180 | ND | ND | ND |
| **PC107** | PC107-1-3' | 1-3 | 6/30/04 | 8/7/04 | 3,410 | ND | ND | ND | ND | 3410 | ND | ND | ND |
| **PC108** | PC108-1-3.5' | 1-3 | 6/30/04 | 8/7/04 | 1,840 | ND | ND | ND | ND | 1840 | ND | ND | ND |
| **Composite** | PC1014-PC108 | -- | 6/30/04 | 8/7/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| | PC1014-PC108MS | -- | 6/30/04 | 8/7/04 | 15,200 | ND | ND | ND | ND | 15200 | ND | ND | ND |
| | PC1014-PC108MSD | -- | 6/30/04 | 8/7/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| **PC109** | PC109-1-3' | 1-3 | 7/1/04 | 8/5/04 | 5,150 | ND | ND | ND | ND | 5150 | ND | ND | ND |
| **PC110** | PC110-1-3' | 1-3 | 7/1/04 | 8/5/04 | 14,500 | ND | ND | ND | ND | 14500 | ND | ND | ND |
| **PC111** | PC111-1-3' | 1-3 | 7/1/04 | 8/7/04 | 19,400 | ND | ND | ND | ND | 19400 | ND | ND | ND |
| **PC112** | PC112-1-3' | 1-3 | 7/1/04 | 8/5/04 | 11,400 | ND | ND | ND | ND | 11400 | ND | ND | ND |
| **PC113** | PC113-1-3' | 1-3 | 7/1/04 | 8/5/04 | 16,800 | ND | ND | ND | ND | 16800 | ND | ND | ND |
| | PC113-3-6.5' | 3-6.5 | 7/1/04 | 8/5/04 | 25,600 | ND | ND | ND | ND | 25600 | ND | ND | ND |
| **PC114** | PC114-1-3' | 1-3 | 7/1/04 | 8/5/04 | 9,700 | ND | ND | ND | ND | 9700 | ND | ND | ND |
| | PC114-1-3'MS | 1-3 | 7/1/04 | 8/5/04 | 18,700 | ND | ND | ND | ND | 18700 | ND | ND | ND |
| | PC114-1-3'MSD | 1-3 | 7/1/04 | 8/5/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| | PC114-3-6' | 3-6 | 7/1/04 | 8/5/04 | 6,190 | ND | ND | ND | ND | 6190 | ND | ND | ND |
| | Duplicate 47 (PC114-3-6') | 3-6 | 7/1/04 | 8/11/04 | 6,670 | ND | ND | ND | ND | 6670 | ND | ND | ND |
| **PC115** | PC115-1-3' | 1-3 | 7/1/04 | 8/7/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| | PC115-3-6.5' | 3-6.5 | 7/1/04 | 8/7/04 | 19,800 | ND | ND | ND | ND | 19800 | ND | ND | ND |
| **PC116** | PC116-1-3' | 1-3 | 7/1/04 | 8/8/04 | 5,490 | ND | ND | ND | ND | 5490 | ND | ND | ND |
| | PC116-3-7' | 3-7 | 7/1/04 | 8/8/04 | 9,710 | ND | ND | ND | ND | 9710 | ND | ND | ND |
| **PC117** | PC117-1-3' | 1-3 | 7/1/04 | 8/8/04 | 7,660 | ND | ND | ND | ND | 7660 | ND | ND | ND |
| | PC117-3-7' | 1-3 | 7/1/04 | 8/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC118** | PC118-1-3' | 1-3 | 7/1/04 | 8/8/04 | 5,100 | ND | ND | ND | ND | 5100 | ND | ND | ND |
| | PC118-3-7' | 3-7 | 7/1/04 | 8/8/04 | 8,840 | ND | ND | ND | ND | 8840 | ND | ND | ND |
| **PC119** | PC119-1-3' | 1-3 | 7/1/04 | 8/5/04 | 9,440 | ND | ND | ND | ND | 9440 | ND | ND | ND |
| | PC119-3-6.5' | 3-6.5 | 7/1/04 | 8/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC120** | PC120-1-3' | 1-3 | 7/1/04 | 8/5/04 | 9,240 | ND | ND | ND | ND | 9240 | ND | ND | ND |
| | PC120-3-6.5' | 3-6.5 | 7/1/04 | 8/5/04 | 3,770 | ND | ND | ND | ND | 3770 | ND | ND | ND |
| **PC121** | PC121-1-3' | 1-3 | 7/1/04 | 8/8/04 | 1,510 | ND | ND | ND | ND | 1510 | ND | ND | ND |
| | PC121-3-6.5' | 3-6.5 | 7/1/04 | 8/7/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC122** | PC122-1-3' | 1-3 | 7/1/04 | 8/7/04 | 3,880 | ND | ND | ND | ND | 3880 | ND | ND | ND |
| | PC122-3-6' | 3-6 | 7/1/04 | 8/7/04 | **187,000** | ND | ND | ND | ND | 187000 | ND | ND | ND |
| | PC122-1-3' | 1-3 | 8/26/04 | 9/1/04 | 2,400 | ND | ND | ND | ND | 2400 | ND | ND | ND |
| | PC122-3-6.5' | 3-6.5 | 8/26/04 | 9/8/04 | **260,000** | ND | ND | ND | ND | 260000 | ND | ND | ND |
| | PC122-6-9' | 6-9 | 9/9/04 | 9/14/04 | **2,960,000** | ND | ND | ND | ND | 2960000 | ND | ND | ND |
| | PC122-A-1-3' | 1-3 | 9/9/04 | 9/12/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-A-3-6' | 3-6 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-A-6-9' | 6-9 | 9/9/04 | 9/13/04 | **113,000** | ND | ND | ND | ND | 113000 | ND | ND | ND |
| | PC122-B-1-3' | 1-3 | 9/9/04 | 9/12/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-B-3-6' | 3-6 | 9/9/04 | 9/12/04 | 39,700 | ND | ND | ND | ND | 39700 | ND | ND | ND |
| | PC122-B-6-9' | 6-9 | 9/9/04 | 9/12/04 | **58,500** | ND | ND | ND | ND | 58500 | ND | ND | ND |
| | PC122-C-1-3' | 1-3 | 9/9/04 | 9/12/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-C-3-6' | 3-6 | 9/9/04 | 9/12/04 | **80,200** | ND | ND | ND | ND | 80200 | ND | ND | ND |
| | PC122-C-6-9' | 6-9 | 9/9/04 | 9/12/04 | **65,800** | ND | ND | ND | ND | 65800 | ND | ND | ND |
| | PC122-D-1-3' | 1-3 | 9/9/04 | 9/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-D-3-6' | 3-6 | 9/9/04 | 9/13/04 | **702,000** | ND | ND | ND | ND | 702000 | ND | ND | ND |
| | Duplicate 131 (PC122-D-3-6') | 3-6 | 9/9/04 | 9/13/04 | **544,000** | ND | ND | ND | ND | 544000 | ND | ND | ND |
| | PC122-D-6-9' | 6-9 | 9/9/04 | 9/12/04 | **83,800** | ND | ND | ND | ND | 83800 | ND | ND | ND |
| | PC122-E-1-3' | 1-3 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-E-3-6' | 3-6 | 9/9/04 | 9/13/04 | **67,700** | ND | ND | ND | ND | 67700 | ND | ND | ND |
| | PC122-E-6-9' | 6-9 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-F-1-3' | 1-3 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-F-3-6' | 3-6 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-F-6-9' | 6-9 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-G-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-G-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-G-6-9' | 6-9 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-H-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-H-3-6' | 3-6 | 9/9/04 | 9/14/04 | **74,300** | ND | ND | ND | ND | 74300 | ND | ND | ND |
| | PC122-H-6-8.5' | 6-8.5 | 9/9/04 | 9/14/04 | 22,300 | ND | ND | ND | ND | 22300 | ND | ND | ND |
| | PC122-I-1-3' | 1-3 | 10/15/04 | 10/27/04 | 8,410 | ND | ND | ND | ND | 8410 | ND | ND | ND |
| | PC122-I-3-6' | 3-6 | 10/15/04 | 10/19/04 | **101,000** | ND | ND | ND | ND | 101000 | ND | ND | ND |
| | PC122-I-6-10.5' | 6-10.5 | 10/15/04 | 10/19/04 | 36,000 | ND | ND | ND | ND | 36000 | ND | ND | ND |
| | PC122-J-1-3' | 1-3 | 10/15/04 | 10/27/04 | 1,700 | ND | ND | ND | ND | 1700 | ND | ND | ND |
| | PC122-J-3-6' | 3-6 | 10/15/04 | 10/19/04 | **49,800** | ND | ND | ND | ND | 49800 | ND | ND | ND |
| | PC122-J-6-10.75' | 6-10.75 | 10/15/04 | 10/19/04 | 7,900 | ND | ND | ND | ND | 7900 | ND | ND | ND |
| | PC122-K-3-6' | 3-6 | 10/15/04 | 10/19/04 | 17,300 | ND | ND | ND | ND | 17300 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC122-K-6-6.25' | 6-6.25 | 10/15/04 | 10/19/04 | 32,200 | ND | ND | ND | ND | 32200 | ND | ND | ND |
| | PC122-L-1-3' | 1-3 | 10/15/04 | 10/19/04 | 9,460 | ND | ND | ND | ND | 9460 | ND | ND | ND |
| | PC122-L-3-6' | 3-6 | 10/15/04 | 10/19/04 | **1,020,000** | ND | ND | ND | ND | 1020000 | ND | ND | ND |
| | PC122-L-6-10.75' | 6-10.75 | 10/15/04 | 10/19/04 | **66,800** | ND | ND | ND | ND | 66800 | ND | ND | ND |
| | PC122-M-1-3' | 1-3 | 10/15/04 | 10/20/04 | 5,320 | ND | ND | ND | ND | 5320 | ND | ND | ND |
| | PC122-M-3-6' | 3-6 | 10/15/04 | 10/20/04 | **269,000** | ND | ND | ND | ND | 269000 | ND | ND | ND |
| | PC122-M-6-10.5' | 6-10.5 | 10/15/04 | 10/20/04 | 7,990 | ND | ND | ND | ND | 7990 | ND | ND | ND |
| | PC122-N-3-6' | 3-6 | 10/28/04 | 10/30/04 | 10,700 | ND | ND | ND | ND | 10700 | ND | ND | ND |
| | PC122-O-1-3' | 1-3 | 10/28/04 | 11/7/04 | 4,430 | ND | ND | ND | ND | 4430 | ND | ND | ND |
| | PC122-O-3-6' | 3-6 | 10/28/04 | 10/30/04 | **134,000** | ND | ND | ND | ND | 134000 | ND | ND | ND |
| | PC122-O-6-9.5' | 6-9.5 | 10/28/04 | 11/7/04 | 3,770 | ND | ND | ND | ND | 3770 | ND | ND | ND |
| | PC122-P-3-6' | 3-6 | 10/28/04 | 10/30/04 | **68,200** | ND | ND | ND | ND | 68200 | ND | ND | ND |
| | PC122-Q-3-6' | 3-6 | 10/28/04 | 10/30/04 | 25,100 | ND | ND | ND | ND | 25100 | ND | ND | ND |
| | PC122-R-3-6' | 3-6 | 10/28/04 | 10/30/04 | **89,400** | ND | ND | ND | ND | 89400 | ND | ND | ND |
| | PC122-S-3-6' | 3-6 | 10/28/04 | 10/30/04 | **62,000** | ND | ND | ND | ND | 62000 | ND | ND | ND |
| | PC122-T-3-6' | 3-6 | 10/28/04 | 10/30/04 | 5,090 | ND | ND | ND | ND | 5090 | ND | ND | ND |
| | PC122-U-3-6' | 3-6 | 11/2/04 | 11/3/04 | **60,300** | ND | ND | ND | ND | 60300 | ND | ND | ND |
| | PC122-V-1-3' | 1-3 | 11/2/04 | 11/10/04 | 14,300 | ND | ND | ND | ND | 14300 | ND | ND | ND |
| | PC122-V-3-6' | 3-6 | 11/2/04 | 11/3/04 | **127,000** | ND | ND | ND | ND | 127000 | ND | ND | ND |
| | Duplicate 180 (PC122-V-3-6') | 3-6 | 11/2/04 | 11/3/04 | **146,000** | ND | ND | ND | ND | 146000 | ND | ND | ND |
| | PC122-V-6-10' | 6-10 | 11/2/04 | 11/10/04 | 6,790 | ND | ND | ND | ND | 6790 | ND | ND | ND |
| | PC122-W-3-6' | 3-6 | 11/2/04 | 11/3/04 | 21,400 | ND | ND | ND | ND | 21400 | ND | ND | ND |
| | PC122-X-3-6' | 3-6 | 12/2/04 | 12/4/04 | 11,100 | ND | ND | ND | ND | 11100 | ND | ND | ND |
| | PC122-Y-3-6' | 3-6 | 12/2/04 | 12/4/04 | 23,100 | ND | ND | ND | ND | 23100 | ND | ND | ND |
| | PC122-Z-3-6' | 3-6 | 12/2/04 | 12/4/04 | 1,960 | ND | ND | ND | ND | 1960 | ND | ND | ND |
| **PC123** | PC123-1-3' | 1-3 | 7/1/04 | 8/8/04 | 1,280 | ND | ND | ND | ND | 1280 | ND | ND | ND |
| | PC123-3-7' | 3-7 | 7/1/04 | 8/8/04 | 9,030 | ND | ND | ND | ND | 9030 | ND | ND | ND |
| **PC124** | PC124-1-3' | 1-3 | 7/1/04 | 8/8/04 | 9,740 | ND | ND | ND | ND | 9740 | ND | ND | ND |
| | Duplicate 48 (PC124-1-3') | 1-3 | 7/1/04 | 8/11/04 | 9,360 | ND | ND | ND | ND | 9360 | ND | ND | ND |
| | PC124-3-7' | 3-7 | 7/1/04 | 8/8/04 | 3,720 | ND | ND | ND | ND | 3720 | ND | ND | ND |
| | PC124-3-7'MS | 3-7 | 7/1/04 | 8/8/04 | 6,680 | ND | ND | ND | ND | 6680 | ND | ND | ND |
| | PC124-3-7'MSD | 3-7 | 7/1/04 | 8/8/04 | 13,700 | ND | ND | ND | ND | 13700 | ND | ND | ND |
| **PC125** | PC125-1-3' | 1-3 | 7/1/04 | 8/5/04 | 8,280 | ND | ND | ND | ND | 8280 | ND | ND | ND |
| | PC125-3-6.5' | 3-6.5 | 7/1/04 | 8/5/04 | 5,050 | ND | ND | ND | ND | 5050 | ND | ND | ND |
| **PC126** | PC126-1-3' | 1-3 | 7/1/04 | 8/7/04 | 8,910 | ND | ND | ND | ND | 8910 | ND | ND | ND |
| | PC126-3-6' | 3-6 | 7/1/04 | 8/7/04 | 9,640 | ND | ND | ND | ND | 9640 | ND | ND | ND |
| **PC127** | PC127-1-3' | 1-3 | 7/1/04 | 8/8/04 | 9,670 | ND | ND | ND | ND | 9670 | ND | ND | ND |
| | PC127-3-6.5' | 3-6.5 | 7/1/04 | 8/8/04 | 23,900 | ND | ND | ND | ND | 23900 | ND | ND | ND |
| **PC128** | PC128-1-3' | 1-3 | 7/1/04 | 8/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC128-3-7' | 3-7 | 7/1/04 | 8/11/04 | 2,400 | ND | ND | ND | ND | 2400 | ND | ND | ND |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC129** | PC129-1-3' | 1-3 | 7/1/04 | 8/11/04 | 26,600 | ND | ND | ND | ND | 26600 | ND | ND | ND |
| | PC129-3-7' | 3-7 | 7/1/04 | 8/11/04 | 8,800 | ND | ND | ND | ND | 8800 | ND | ND | ND |
| **PC130** | PC130-1-3' | 1-3 | 7/1/04 | 8/11/04 | 11,400 | ND | ND | ND | ND | 11400 | ND | ND | ND |
| | PC130-3-7' | 3-7 | 7/1/04 | 8/11/04 | 6,320 | ND | ND | ND | ND | 6320 | ND | ND | ND |
| **PC131** | PC131-1-3' | 1-3 | 7/1/04 | 8/11/04 | 23,600 | ND | ND | ND | ND | 23600 | ND | ND | ND |
| | PC131-3-6.5' | 3-6.5 | 7/1/04 | 8/11/04 | 10,400 | ND | ND | ND | ND | 10400 | ND | ND | ND |
| **PC132** | PC132-1-3' | 1-3 | 7/1/04 | 8/10/04 | 9,730 | ND | ND | ND | ND | 9730 | ND | ND | ND |
| | PC132-3-6.5' | 3-6.5 | 7/1/04 | 8/10/04 | 5,420 | ND | ND | ND | ND | 5420 | ND | ND | ND |
| **PC133** | PC133-1-3' | 1-3 | 7/1/04 | 8/10/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| | PC133-3-6.5' | 3-6.5 | 7/1/04 | 8/10/04 | 8,600 | ND | ND | ND | ND | 8600 | ND | ND | ND |
| **PC134** | PC134-1-3' | 1-3 | 7/1/04 | 8/7/04 | 2,750 | ND | ND | ND | ND | 2750 | ND | ND | ND |
| | PC134-1-3'MS | 1-3 | 7/1/04 | 8/7/04 | 9,120 | ND | ND | ND | ND | 9120 | ND | ND | ND |
| | PC134-1-3'MSD | 1-3 | 7/1/04 | 8/7/04 | 6,250 | ND | ND | ND | ND | 6250 | ND | ND | ND |
| | PC134-3-6' | 3-6 | 7/1/04 | 8/7/04 | 13,100 | ND | ND | ND | ND | 13100 | ND | ND | ND |
| | Duplicate 49 (PC134-3-6') | 3-6 | 7/1/04 | 8/11/04 | 8,290 | ND | ND | ND | ND | 8290 | ND | ND | ND |
| **PC135** | PC135-1-3' | 1-3 | 7/1/04 | 8/11/04 | 5,900 | ND | ND | ND | ND | 5900 | ND | ND | ND |
| | PC135-3-6.5' | 3-6.5 | 7/1/04 | 8/11/04 | 4,790 | ND | ND | ND | ND | 4790 | ND | ND | ND |
| | PC135-1-3' | 1-3 | 8/26/04 | 9/1/04 | 13,800 | ND | ND | ND | ND | 13800 | ND | ND | ND |
| | PC135-3-6.5' | 3-6.5 | 8/26/04 | 9/1/04 | 25,000 | ND | ND | ND | ND | 25000 | ND | ND | ND |
| **PC136** | PC136-1-3' | 1-3 | 7/1/04 | 8/11/04 | 27,000 | ND | ND | ND | ND | 27000 | ND | ND | ND |
| **PC137** | PC137-1-3' | 1-3 | 7/1/04 | 8/10/04 | 24,900 | ND | ND | ND | ND | 24900 | ND | ND | ND |
| **PC138** | PC138-1-3' | 1-3 | 7/1/04 | 8/10/04 | 9,690 | ND | ND | ND | ND | 9690 | ND | ND | ND |
| **PC139** | PC139-1-3' | 1-3 | 7/1/04 | 8/7/04 | 9,800 | ND | ND | ND | ND | 9800 | ND | ND | ND |
| | PC139-3-6' | 3-6 | 7/1/04 | 8/7/04 | 10,800 | ND | ND | ND | ND | 10800 | ND | ND | ND |
| **PC140** | PC140-1-3' | 1-3 | 7/1/04 | 8/11/04 | 7,790 | ND | ND | ND | ND | 7790 | ND | ND | ND |
| **PC141** | PC141-3.5' | 1-3.5 | 7/1/04 | 8/11/04 | 12,500 | ND | ND | ND | ND | 12500 | ND | ND | ND |
| **PC142** | PC142-1-3.5' | 1-3.5 | 7/1/04 | 8/11/04 | 8,220 | ND | ND | ND | ND | 8220 | ND | ND | ND |
| | PC142-3.5-7' | 3.5-7 | 11/17/04 | 11/18/04 | 17,400 | ND | ND | ND | ND | 17400 | ND | ND | ND |
| **PC143** | PC143-1-3' | 1-3 | 7/1/04 | 8/11/04 | 8,440 | ND | ND | ND | ND | 8440 | ND | ND | ND |
| | PC143-3-6.5' | 3-6.5 | 7/1/04 | 8/11/04 | 6,140 | ND | ND | ND | ND | 6140 | ND | ND | ND |
| | PC143-1-3' | 1-3 | 8/26/04 | 9/1/04 | 2,160 | ND | ND | ND | ND | 2160 | ND | ND | ND |
| | PC143-3-6.5' | 3-6.5 | 8/26/04 | 9/1/04 | 23,500 | ND | ND | ND | ND | 23500 | ND | ND | ND |
| **PC144** | PC144-1-3' | 1-3 | 7/1/04 | 8/11/04 | 7,010 | ND | ND | ND | ND | 7010 | ND | ND | ND |
| | PC144-3-7' | 3-7 | 11/17/04 | 11/18/04 | 3,700 | ND | ND | ND | ND | 3700 | ND | ND | ND |
| **PC145** | PC145-1-3' | 1-3 | 7/1/04 | 8/11/04 | 2,490 | ND | ND | ND | ND | 2490 | ND | ND | ND |
| | PC145-3-7' | 3-7 | 11/17/04 | 11/18/04 | 3,970 | ND | ND | ND | ND | 3970 | ND | ND | ND |
| **PC146** | PC146-1-3.5' | 1-3.5 | 7/1/04 | 8/10/04 | 1,690 | ND | ND | ND | ND | 1690 | ND | ND | ND |
| | PC146-3.5-7' | 3.5-7 | 11/17/04 | 11/18/04 | 8,250 | ND | ND | ND | ND | 8250 | ND | ND | ND |
| | PC147-1-3' | 1-3 | 7/1/04 | 8/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 50 (PC147-1-3') | 1-3 | 7/1/04 | 8/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
ND = Not detected
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC147** | PC147-3-6' | 3-6 | 7/1/04 | 8/10/04 | 3,420 | ND | ND | ND | ND | 3420 | ND | ND | ND |
| | PC147-3-6'MS | 3-6 | 7/1/04 | 8/10/04 | 5,830 | ND | ND | ND | ND | 5830 | ND | ND | ND |
| | PC147-3-6'MSD | 3-6 | 7/1/04 | 8/10/04 | 5,440 | ND | ND | ND | ND | 5440 | ND | ND | ND |
| **PC148** | PC148-1-3' | 1-3 | 7/1/04 | 8/11/04 | 19,200 | ND | ND | ND | ND | 19200 | ND | ND | ND |
| | PC148-3-7' | 3-7 | 11/17/04 | 11/18/04 | 19,700 | ND | ND | ND | ND | 19700 | ND | ND | ND |
| **PC149** | PC149-1-3.5' | 1-3.5 | 7/1/04 | 8/10/04 | 26,400 | ND | ND | ND | ND | 26400 | ND | ND | ND |
| | PC149-3.5-7' | 3.5-7 | 11/17/04 | 11/18/04 | 7,170 | ND | ND | ND | ND | 7170 | ND | ND | ND |
| **PC150** | PC150-1-3' | 1-3 | 7/1/04 | 8/10/04 | 19,800 | ND | ND | ND | ND | 19800 | ND | ND | ND |
| **PC151** | PC151-1-3' | 1-3 | 7/1/04 | 8/10/04 | 2,800 | ND | ND | ND | ND | 2800 | ND | ND | ND |
| **PC152** | PC152-1-3' | 1-3 | 7/1/04 | 8/10/04 | 46,000 | ND | ND | ND | ND | 46000 | ND | ND | ND |
| **PC153** | PC153-1-3' | 1-3 | 8/25/04 | 9/2/04 | 16,500 | ND | ND | ND | ND | 16500 | ND | ND | ND |
| | PC153-3-6' | 3-6 | 8/25/04 | 9/1/04 | 4,450 | ND | ND | ND | ND | 4450 | ND | ND | ND |
| **PC154** | PC154-1-5' | 1-5 | 7/20/04 | 8/31/04 | 28,500 | ND | ND | ND | ND | 28500 | ND | ND | ND |
| | PC154-5-6.5' | 5-6.5 | 11/17/04 | 11/18/04 | 10,700 | ND | ND | ND | ND | 10700 | ND | ND | ND |
| **PC155** | PC155-1-3' | 1-3 | 7/20/04 | 8/31/04 | 5,280 | ND | ND | ND | ND | 5280 | ND | ND | ND |
| | PC155-3-5.5' | 3-5.5 | 7/20/04 | 8/31/04 | 8,830 | ND | ND | ND | ND | 8830 | ND | ND | ND |
| | PC155-5.5-7' | 5.5-7 | 11/17/04 | 11/18/04 | 9,200 | ND | ND | ND | ND | 9200 | ND | ND | ND |
| **PC156** | PC156-1-3' | 1-3 | 7/20/04 | 8/31/04 | 9,270 | ND | ND | ND | ND | 9270 | ND | ND | ND |
| **PC157** | PC157-1-3.5' | 1-3.5 | 7/20/04 | 8/14/04 | 12,500 | ND | ND | ND | ND | 12500 | ND | ND | ND |
| **PC158** | PC158-1-3' | 1-3 | 7/20/04 | 8/31/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| | PC158-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 27,800 | ND | ND | ND | ND | 27800 | ND | ND | ND |
| **PC159** | PC159-1-4' | 1-4 | 7/20/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC159-4-7' | 4-7 | 7/20/04 | 8/31/04 | 1,430 | ND | ND | ND | ND | 1430 | ND | ND | ND |
| **PC160** | PC160-1-4' | 1-4 | 7/20/04 | 8/14/04 | 1,840 | ND | ND | ND | ND | 1840 | ND | ND | ND |
| | Duplicate 51 (PC160-1-4') | 1-4 | 7/20/04 | 9/4/04 | 2,883 | ND | ND | ND | ND | 2883 | ND | ND | ND |
| | PC160-4-7' | 4-7 | 7/20/04 | 8/14/04 | 5,640 | ND | ND | ND | ND | 5640 | ND | ND | ND |
| | PC160-4-7'MS | 4-7 | 7/20/04 | 8/14/04 | 12,400 | ND | ND | ND | ND | 12400 | ND | ND | ND |
| | PC160-4-7'MSD | 4-7 | 7/20/04 | 8/13/04 | 14,200 | ND | ND | ND | ND | 14200 | ND | ND | ND |
| **PC161** | PC161-1-3' | 1-3 | 7/20/04 | 8/13/04 | 2,620 | ND | ND | ND | ND | 2620 | ND | ND | ND |
| | PC161-3-6.5' | 3-6.5 | 7/20/04 | 8/13/04 | 3,850 | ND | ND | ND | ND | 3850 | ND | ND | ND |
| **PC162** | PC162-1-3' | 1-3 | 7/20/04 | 8/31/04 | 3,910 | ND | ND | ND | ND | 3910 | ND | ND | ND |
| | PC162-3-6.5' | 3-6.5 | 7/20/04 | 8/13/04 | 2,144 | ND | ND | ND | ND | 2144 | ND | ND | ND |
| **PC163** | PC163-1-4' | 1-4 | 7/20/04 | 8/31/04 | 8,840 | ND | ND | ND | ND | 8840 | ND | ND | ND |
| | PC163-4-7' | 4-7 | 7/20/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC164-1-3' | 1-3 | 7/20/04 | 8/31/04 | **107,200** | ND | ND | ND | ND | 107200 | ND | ND | ND |
| | PC164-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 9,194 | ND | ND | ND | ND | 9194 | ND | ND | ND |
| | PC164-A-1-3' | 1-3 | 10/28/04 | 10/30/04 | 20,800 | ND | ND | ND | ND | 20800 | ND | ND | ND |
| | PC164-A-3-6.5' | 3-6.5 | 10/28/04 | 10/30/04 | 1,350 | ND | ND | ND | ND | 1350 | ND | ND | ND |
| | PC164-B-1-3' | 1-3 | 10/28/04 | 10/30/04 | 12,200 | ND | ND | ND | ND | 12200 | ND | ND | ND |
| | PC164-B-3-6.5' | 3-6.5 | 10/28/04 | 10/30/04 | 2,650 | ND | ND | ND | ND | 2650 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC164** | PC164-C-1-3' | 1-3 | 10/28/04 | 10/30/04 | 8,620 | ND | ND | ND | ND | 8620 | ND | ND | ND |
| | Duplicate 173 (PC164-C-1-3' | 1-3 | 10/28/04 | 10/30/04 | 9,840 | ND | ND | ND | ND | 9840 | ND | ND | ND |
| | PC164-C-3-6.5' | 3-6.5 | 10/28/04 | 10/30/04 | 2,260 | ND | ND | ND | ND | 2260 | ND | ND | ND |
| | PC164-C-3-6.5'MS | 3-6.5 | 10/28/04 | 10/30/04 | 2,070 | ND | ND | ND | ND | 2070 | ND | ND | ND |
| | PC164-C-3-6.5'MSD | 3-6.5 | 10/28/04 | 10/30/04 | 2,460 | ND | ND | ND | ND | 2460 | ND | ND | ND |
| | PC164-D-1-3' | 1-3 | 10/28/04 | 10/30/04 | **50,300** | ND | ND | ND | ND | 50300 | ND | ND | ND |
| | PC164-D-3-6.5' | 3-6.5 | 10/28/04 | 10/30/04 | 2,480 | ND | ND | ND | ND | 2480 | ND | ND | ND |
| | PC164-E-1-3' | 1-3 | 12/2/04 | 12/4/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| | PC164-F-1-3' | 1-3 | 12/2/04 | 12/4/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| **PC165** | PC165-1-3' | 1-3 | 8/25/04 | 9/1/04 | 5,110 | ND | ND | ND | ND | 5110 | ND | ND | ND |
| | PC165-3-6' | 3-6 | 8/25/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC166** | PC166-1-4' | 1-4 | 7/20/04 | 8/31/04 | 4,740 | ND | ND | ND | ND | 4740 | ND | ND | ND |
| | PC166-4-7' | 1-4 | 7/20/04 | 8/31/04 | 2,410 | ND | ND | ND | ND | 2410 | ND | ND | ND |
| **PC167** | PC167-1-3' | 1-3 | 7/20/04 | 8/31/04 | 4,870 | ND | ND | ND | ND | 4870 | ND | ND | ND |
| | PC167-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 3,750 | ND | ND | ND | ND | 3750 | ND | ND | ND |
| **PC168** | PC168-1-3' | 1-3 | 7/20/04 | 8/31/04 | 5,590 | ND | ND | ND | ND | 5590 | ND | ND | ND |
| | PC168-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 22,000 | ND | ND | ND | ND | 22000 | ND | ND | ND |
| **PC169** | PC169-1-3' | 1-3 | 7/20/04 | 8/31/04 | 664 | ND | ND | ND | ND | 664 | ND | ND | ND |
| | PC169-1-3'MS | 1-3 | 7/20/04 | 8/31/04 | 7,450 | ND | ND | ND | ND | 7450 | ND | ND | ND |
| | PC169-1-3'MSD | 1-3 | 7/20/04 | 8/31/04 | 6,560 | ND | ND | ND | ND | 6560 | ND | ND | ND |
| | PC169-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 19,200 | ND | ND | ND | ND | 19200 | ND | ND | ND |
| | Duplicate 52 (PC169-3-6.5') | 3-6.5 | 7/20/04 | 9/4/04 | 42,300 | ND | ND | ND | ND | 42300 | ND | ND | ND |
| **PC170** | PC170-1-4' | 1-4 | 7/20/04 | 8/31/04 | 24,600 | ND | ND | ND | ND | 24600 | ND | ND | ND |
| | PC170-4-7' | 4-7 | 7/20/04 | 8/31/04 | 11,100 | ND | ND | ND | ND | 11100 | ND | ND | ND |
| **PC171** | PC171-1-4' | 1-4 | 7/20/04 | 8/31/04 | 1,530 | ND | ND | ND | ND | 1530 | ND | ND | ND |
| | PC171-4-7' | 4-7 | 7/20/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC172** | PC172-1-4' | 1-4 | 7/20/04 | 8/31/04 | 4,660 | ND | ND | ND | ND | 4660 | ND | ND | ND |
| | PC172-4-7' | 4-7 | 7/20/04 | 8/31/04 | 8,520 | ND | ND | ND | ND | 8520 | ND | ND | ND |
| **PC173** | PC173-1-4' | 1-4 | 7/20/04 | 8/31/04 | 3,350 | ND | ND | ND | ND | 3350 | ND | ND | ND |
| | PC173-4-7' | 4-7 | 7/20/04 | 8/31/04 | 2,920 | ND | ND | ND | ND | 2920 | ND | ND | ND |
| **PC174** | PC174-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,460 | ND | ND | ND | ND | 5460 | ND | ND | ND |
| **PC175** | PC175-1-3' | 1-3 | 7/20/04 | 9/4/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| **PC176** | PC176-1-3' | 1-3 | 7/20/04 | 9/4/04 | **77,300** | ND | ND | ND | ND | 77300 | ND | ND | ND |
| **PC177** | PC177-1-3' | 1-3 | 8/25/04 | 9/1/04 | 20,100 | ND | ND | ND | ND | 20100 | ND | ND | ND |
| | PC177-3-6' | 3-6 | 8/25/04 | 9/1/04 | 4,920 | ND | ND | ND | ND | 4920 | ND | ND | ND |
| **PC178** | PC178-1-4' | 1-4 | 7/20/04 | 9/4/04 | 10,900 | ND | ND | ND | ND | 10900 | ND | ND | ND |
| | PC178-4-7' | 4-7 | 7/20/04 | 9/4/04 | 6,140 | ND | ND | ND | ND | 6140 | ND | ND | ND |
| **PC179** | PC179-1-3' | 1-3 | 7/20/04 | 9/4/04 | 7,000 | ND | ND | ND | ND | 7000 | ND | ND | ND |
| | Duplicate 54 (PC179-1-3') | 1-3 | 7/20/04 | 9/4/04 | 6,390 | ND | ND | ND | ND | 6390 | ND | ND | ND |
| | PC179-3-6.5' | 3-6.5 | 7/20/04 | 9/4/04 | 7,500 | ND | ND | ND | ND | 7500 | ND | ND | ND |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC179-3-6.5'MS | 3-6.5 | 7/20/04 | 9/4/04 | 5,520 | ND | ND | ND | ND | 5520 | ND | ND | ND |
| | PC179-3-6.5'MSD | 3-6.5 | 7/20/04 | 9/4/04 | 1,650 | ND | ND | ND | ND | 1650 | ND | ND | ND |
| **PC180** | PC180-1-4' | 1-4 | 10/28/04 | 10/30/04 | 2,340 | ND | ND | ND | ND | 2340 | ND | ND | ND |
| | PC180-4-8' | 4-8 | 10/28/04 | 10/30/04 | 2,140 | ND | ND | ND | ND | 2140 | ND | ND | ND |
| | PC180-8-10.5' | 8-10.5 | 10/28/04 | 10/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC181** | PC181-1-3' | 1-3 | 8/25/04 | 8/31/04 | 3,510 | ND | ND | ND | ND | 3510 | ND | ND | ND |
| | PC181-3-6' | 3-6 | 8/25/04 | 8/31/04 | 3,520 | ND | ND | ND | ND | 3520 | ND | ND | ND |
| **PC182** | PC182-1-3 | 1-3 | 7/21/04 | 8/17/04 | 26,400 | ND | ND | ND | ND | 26400 | ND | ND | ND |
| | PC182-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 44,700 | ND | ND | ND | ND | 44700 | ND | ND | ND |
| **PC183** | PC183-1-3' | 1-3 | 7/21/04 | 8/17/04 | 2,090 | ND | ND | ND | ND | 2090 | ND | ND | ND |
| | PC183-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | **48,300** | ND | ND | ND | ND | 48300 | ND | ND | ND |
| **PC184** | PC184-1-4' | 1-4 | 7/21/04 | 8/17/04 | 13,100 | ND | ND | ND | ND | 13100 | ND | ND | ND |
| | PC184-4-7' | 4-7 | 7/21/04 | 8/17/04 | 11,900 | ND | ND | ND | ND | 11900 | ND | ND | ND |
| **PC185** | PC185-1-4' | 1-4 | 7/21/04 | 8/17/04 | 10,700 | ND | ND | ND | ND | 10700 | ND | ND | ND |
| | PC185-4-7' | 4-7 | 7/21/04 | 8/17/04 | 1,770 | ND | ND | ND | ND | 1770 | ND | ND | ND |
| **PC186** | PC186-1-4' | 1-4 | 7/21/04 | 8/17/04 | 7,940 | ND | ND | ND | ND | 7940 | ND | ND | ND |
| | PC186-4-7' | 4-7 | 7/21/04 | 8/17/04 | 6,280 | ND | ND | ND | ND | 6280 | ND | ND | ND |
| **PC187** | PC187-1-4' | 1-4 | 7/21/04 | 8/17/04 | 3,660 | ND | ND | ND | ND | 3660 | ND | ND | ND |
| | PC187-4-7' | 4-7 | 7/21/04 | 8/17/04 | 5,620 | ND | ND | ND | ND | 5620 | ND | ND | ND |
| **PC188** | PC188-1-4' | 1-4 | 7/20/04 | 9/4/04 | 3,590 | ND | ND | ND | ND | 3590 | ND | ND | ND |
| | PC188-4-7' | 4-7 | 7/20/04 | 9/4/04 | 5,180 | ND | ND | ND | ND | 5180 | ND | ND | ND |
| **PC189** | PC189-1-4' | 1-4 | 7/20/04 | 9/4/04 | 4,540 | ND | ND | ND | ND | 4540 | ND | ND | ND |
| | Duplicate 55 (PC189-1-4') | 1-4 | 7/20/04 | 9/4/04 | 5,030 | ND | ND | ND | ND | 5030 | ND | ND | ND |
| | PC189-4-7' | 4-7 | 7/20/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC189-4-7'MS | 4-7 | 7/20/04 | 9/4/04 | 9,200 | ND | ND | ND | ND | 9200 | ND | ND | ND |
| | PC189-4-7'MSD | 4-7 | 7/20/04 | 9/4/04 | 11,000 | ND | ND | ND | ND | 11000 | ND | ND | ND |
| **PC190** | PC190-1-3' | 1-3 | 7/21/04 | 8/17/04 | 3,620 | ND | ND | ND | ND | 3620 | ND | ND | ND |
| | PC190-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | **959,000** | ND | ND | ND | ND | 959000 | ND | ND | ND |
| | PC190-6.5-10' | 6.5-10 | 9/22/04 | 9/29/04 | 4,190 | ND | ND | ND | ND | 4190 | ND | ND | ND |
| | Duplicate 141 (PC190-6.5-10') | 6.5-10 | 9/22/04 | 9/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC190-A-1-3' | 1-3 | 9/22/04 | 9/29/04 | 4,590 | ND | ND | ND | ND | 4590 | ND | ND | ND |
| | PC190-A-3-6.5' | 3-6.5 | 9/22/04 | 9/29/04 | 44,300 | ND | ND | ND | ND | 44300 | ND | ND | ND |
| | PC190-A-6.5-10' | 6.5-10 | 9/22/04 | 9/29/04 | 2,700 | ND | ND | ND | ND | 2700 | ND | ND | ND |
| | PC190-B-1-3' | 1-3 | 9/22/04 | 9/29/04 | 46,100 | ND | ND | ND | ND | 46100 | ND | ND | ND |
| | PC190-B-3-6.5' | 3-6.5 | 9/22/04 | 9/29/04 | 9,580 | ND | ND | ND | ND | 9580 | ND | ND | ND |
| | PC190-B-6.5-10' | 6.5-10 | 9/22/04 | 9/29/04 | 20,800 | ND | ND | ND | ND | 20800 | ND | ND | ND |
| | PC190-C-1-3' | 1-3 | 9/23/04 | 9/29/04 | 4,480 | ND | ND | ND | ND | 4480 | ND | ND | ND |
| | PC190-C-3-6.5' | 3-6.5 | 9/23/04 | 9/29/04 | 2,780 | ND | ND | ND | ND | 2780 | ND | ND | ND |
| | PC190-C-6.5-12' | 6.5-12 | 9/23/04 | 9/29/04 | 27,400 | ND | ND | ND | ND | 27400 | ND | ND | ND |
| | PC190-D-1-3' | 1-3 | 9/22/04 | 9/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC190-D-3-6.5' | 3-6.5 | 9/22/04 | 9/29/04 | 28,500 | ND | ND | ND | ND | 28500 | ND | ND | ND |
| | PC190-D-3-6.5'MS | 3-6.5 | 9/22/04 | 9/29/04 | 25,000 | ND | ND | ND | ND | 25000 | ND | ND | ND |
| | PC190-D-3-6.5'MSD | 3-6.5 | 9/22/04 | 9/29/04 | 33,600 | ND | ND | ND | ND | 33600 | ND | ND | ND |
| | PC190-D-6.5-10.5' | 6.5-10.5 | 9/22/04 | 9/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC191** | PC191-1-3' | 1-3 | 7/21/04 | 8/17/04 | **236,000** | ND | ND | ND | ND | 236000 | ND | ND | ND |
| | PC191-3-6' | 3-6 | 9/23/04 | 9/29/04 | 11,000 | ND | ND | ND | ND | 11000 | ND | ND | ND |
| | Duplicate 167 (PC191-3-6') | 3-6 | 10/20/04 | 10/25/04 | 19,500 | ND | ND | ND | ND | 19500 | ND | ND | ND |
| | PC191-6-10' | 6-10 | 9/23/04 | 9/29/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| | PC191-A-1-3' | 1-3 | 9/23/04 | 9/29/04 | **1,685,000** | ND | ND | ND | ND | 495000 | 1190000 | ND | ND |
| | Duplicate 142 (PC191-A-1-3') | 1-3 | 9/23/04 | 9/29/04 | **92,700** | ND | ND | ND | ND | 92700 | ND | ND | ND |
| | PC191-A-3-6' | 3-6 | 9/23/04 | 9/29/04 | **94,000** | ND | ND | ND | ND | 94000 | ND | ND | ND |
| | PC191-A-3-6'MS | 3-6 | 9/23/04 | 10/1/04 | **254,700** | ND | ND | ND | ND | 254700 | ND | ND | ND |
| | PC191-A-3-6'MSD | 3-6 | 9/23/04 | 10/1/04 | **367,000** | ND | ND | ND | ND | 367000 | ND | ND | ND |
| | PC191-B-1-3' | 1-3 | 9/23/04 | 9/29/04 | 3,800 | ND | ND | ND | ND | 3800 | ND | ND | ND |
| | PC191-B-3-6' | 3-6 | 9/23/04 | 9/29/04 | 10,400 | ND | ND | ND | ND | 10400 | ND | ND | ND |
| | PC191-C-1-3' | 1-3 | 9/23/04 | 9/29/04 | 9,380 | ND | ND | ND | ND | 9380 | ND | ND | ND |
| | PC191-C-3-6' | 3-6 | 9/23/04 | 9/29/04 | 31,100 | ND | ND | ND | ND | 31100 | ND | ND | ND |
| | PC191-D-1-3' | 1-3 | 9/23/04 | 9/29/04 | 2,860 | ND | ND | ND | ND | 2860 | ND | ND | ND |
| | PC191-D-3-6' | 3-6 | 9/23/04 | 9/29/04 | **664,000** | ND | ND | ND | ND | 664000 | ND | ND | ND |
| | PC191-E-1-3' | 1-3 | 10/15/04 | 10/20/04 | 2,020 | ND | ND | ND | ND | 2020 | ND | ND | ND |
| | PC191-E-1-3'MS | 1-3 | 10/15/04 | 10/20/04 | 6,790 | ND | ND | ND | ND | 6790 | ND | ND | ND |
| | PC191-E-1-3'MSD | 1-3 | 10/15/04 | 10/20/04 | 4,710 | ND | ND | ND | ND | 4710 | ND | ND | ND |
| | PC191-E-3-6' | 3-6 | 10/15/04 | 10/20/04 | 42,100 | ND | ND | ND | ND | 42100 | ND | ND | ND |
| | Duplicate 166 (PC191-E-3-6') | 3-6 | 10/15/04 | 10/20/04 | 36,800 | ND | ND | ND | ND | 36800 | ND | ND | ND |
| | PC191-F-1-3' | 1-3 | 10/20/04 | 10/25/04 | 5,350 | ND | ND | ND | ND | 5350 | ND | ND | ND |
| | PC191-F-3-6' | 3-6 | 10/20/04 | 10/25/04 | 16,700 | ND | ND | ND | ND | 16700 | ND | ND | ND |
| | PC191-F-6-10.5' | 6-10.5 | 10/20/04 | 10/25/04 | 26,000 | ND | ND | ND | ND | 26000 | ND | ND | ND |
| | PC191-G-1-3' | 1-3 | 10/15/04 | 10/27/04 | **78,400** | ND | ND | ND | ND | 78400 | ND | ND | ND |
| | PC191-G-3-6' | 3-6 | 10/15/04 | 10/20/04 | **57,500** | ND | ND | ND | ND | 57500 | ND | ND | ND |
| | PC191-G-6-9' | 6-9 | 10/15/04 | 10/20/04 | 29,000 | ND | ND | ND | ND | 29000 | ND | ND | ND |
| | PC191-H-1-3' | 1-3 | 10/20/04 | 10/25/04 | 15,100 | ND | ND | ND | ND | 15100 | ND | ND | ND |
| | PC191-H-3-6' | 3-6 | 10/20/04 | 10/26/04 | 19,100 | ND | ND | ND | ND | 19100 | ND | ND | ND |
| | PC191-H-6-10.5' | 6-10.5 | 10/20/04 | 10/26/04 | 3,990 | ND | ND | ND | ND | 3990 | ND | ND | ND |
| | PC191-I-1-3' | 1-3 | 10/15/04 | 10/20/04 | 7,380 | ND | ND | ND | ND | 7380 | ND | ND | ND |
| | PC191-I-3-6' | 3-6 | 10/15/04 | 10/20/04 | 6,800 | ND | ND | ND | ND | 6800 | ND | ND | ND |
| | PC191-I-6-10.75' | 6-10.75 | 10/15/04 | 10/20/04 | 2,910 | ND | ND | ND | ND | 2910 | ND | ND | ND |
| | PC191-I-1-3' | 1-3 | 10/20/04 | 10/26/04 | 7,400 | ND | ND | ND | ND | 7400 | ND | ND | ND |
| | PC191-I-3-6' | 3-6 | 10/20/04 | 10/26/04 | **67,900** | ND | ND | ND | ND | 67900 | ND | ND | ND |
| | PC191-I-6-10.75' | 6-10.75 | 10/20/04 | 10/26/04 | 7,800 | ND | ND | ND | ND | 7800 | ND | ND | ND |
| | PC191-J-1-3' | 1-3 | 10/20/04 | 10/26/04 | 4,200 | ND | ND | ND | ND | 4200 | ND | ND | ND |
| | PC191-J-3-6' | 3-6 | 10/20/04 | 10/27/04 | **786,000** | ND | ND | ND | ND | 786000 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC191-J-6-10.5' | 6-10.5 | 10/20/04 | 10/26/04 | 27,600 | ND | ND | ND | ND | 27600 | ND | ND | ND |
| | PC191-K-3-6' | 3-6 | 11/11/04 | 11/15/04 | 31,400 | ND | ND | ND | ND | 31400 | ND | ND | ND |
| | PC191-L-3-6' | 3-6 | 11/11/04 | 11/15/04 | **55,700** | ND | ND | ND | ND | 55700 | ND | ND | ND |
| | PC191-L-3-6'MS | 3-6 | 11/11/04 | 11/15/04 | 27,200 | ND | ND | ND | ND | 27200 | ND | ND | ND |
| | PC191-L-3-6'MSD | 3-6 | 11/11/04 | 11/15/04 | 16,100 | ND | ND | ND | ND | 16100 | ND | ND | ND |
| **PC192** | PC192-1-3' | 1-3 | 7/21/04 | 8/17/04 | 9,220 | ND | ND | ND | ND | 9220 | ND | ND | ND |
| | PC192-3-6.5' | 3-6.5 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC193** | PC193-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,360 | ND | ND | ND | ND | 5360 | ND | ND | ND |
| | PC193-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 2,850 | ND | ND | ND | ND | 2850 | ND | ND | ND |
| **PC194** | PC194-1-3' | 1-3 | 7/21/04 | 8/31/04 | 3,040 | ND | ND | ND | ND | 3040 | ND | ND | ND |
| | PC194-1-3' | 1-3 | 8/25/04 | 8/17/04 | 8,920 | ND | ND | ND | ND | 8920 | ND | ND | ND |
| **PC195** | PC195-1-3' | 1-3 | 8/25/04 | 8/31/04 | 2,480 | ND | ND | ND | ND | 2480 | ND | ND | ND |
| | PC195-3-6' | 3-6 | 8/25/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC196** | PC196-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,610 | ND | ND | ND | ND | 5610 | ND | ND | ND |
| | PC196-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 10,700 | ND | ND | ND | ND | 10700 | ND | ND | ND |
| | PC196-3-6.5'MS | 3-6.5 | 7/21/04 | 8/17/04 | 6,490 | ND | ND | ND | ND | 6490 | ND | ND | ND |
| | PC196-3-6.5'MSD | 3-6.5 | 7/21/04 | 8/17/04 | 7,280 | ND | ND | ND | ND | 7280 | ND | ND | ND |
| **PC197** | PC197-1-3' | 1-3 | 7/21/04 | 8/17/04 | 2,000 | ND | ND | ND | ND | 2000 | ND | ND | ND |
| | PC197-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 23,200 | ND | ND | ND | ND | 23200 | ND | ND | ND |
| **PC198** | PC198-1-3' | 1-3 | 7/21/04 | 8/17/04 | 7,580 | ND | ND | ND | ND | 7580 | ND | ND | ND |
| | PC198-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | **349,000** | ND | ND | ND | ND | 349000 | ND | ND | ND |
| | PC198-6.5-10' | 6.5-10 | 9/24/04 | 10/1/04 | 4,260 | ND | ND | ND | ND | 4260 | ND | ND | ND |
| | Duplicate 145 (PC198-6.5-10') | 6.5-10 | 9/24/04 | 10/1/04 | 43,400 | ND | ND | ND | ND | 43400 | ND | ND | ND |
| | PC198-A-1-3' | 1-3 | 9/24/04 | 10/2/04 | 4,190 | ND | ND | ND | ND | 4190 | ND | ND | ND |
| | PC198-A-3-6.5' | 3-6.5 | 9/24/04 | 10/1/04 | 13,520 | ND | ND | ND | ND | 13520 | ND | ND | ND |
| | PC198-A-6.5-9' | 6.5-9 | 9/24/04 | 10/2/04 | 1,640 | ND | ND | ND | ND | 1640 | ND | ND | ND |
| | PC198-B-1-3' | 1-3 | 9/24/04 | 10/1/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| | PC198-B-3-6.5' | 3-6.5 | 9/24/04 | 10/1/04 | 8,540 | ND | ND | ND | ND | 8540 | ND | ND | ND |
| | PC198-B-3-6.5'MS | 3-6.5 | 9/24/04 | 10/4/04 | 14,000 | ND | ND | ND | ND | 14000 | ND | ND | ND |
| | PC198-B-3-6.5'MSD | 3-6.5 | 9/24/04 | 10/4/04 | 7,760 | ND | ND | ND | ND | 7760 | ND | ND | ND |
| | PC198-B-6.5-9' | 6.5-9 | 9/24/04 | 10/1/04 | 3,750 | ND | ND | ND | ND | 3750 | ND | ND | ND |
| | PC198-C-1-3' | 1-3 | 9/24/04 | 10/1/04 | 4,430 | ND | ND | ND | ND | 4430 | ND | ND | ND |
| | PC198-C-3-6.5' | 3-6.5 | 9/24/04 | 10/1/04 | 17,700 | ND | ND | ND | ND | 17700 | ND | ND | ND |
| | PC198-C-6.5-11' | 6.5-11 | 9/24/04 | 10/1/04 | 12,300 | ND | ND | ND | ND | 12300 | ND | ND | ND |
| | PC198-D-1-3' | 1-3 | 9/24/04 | 10/1/04 | 9,160 | ND | ND | ND | ND | 9160 | ND | ND | ND |
| | PC198-D-3-6.5' | 3-6.5 | 9/24/04 | 10/1/04 | 22,600 | ND | ND | ND | ND | 22600 | ND | ND | ND |
| | PC198-D-6.5-8.5' | 6.5-8.5 | 9/24/04 | 10/1/04 | 6,430 | ND | ND | ND | ND | 6430 | ND | ND | ND |
| **PC199** | PC199-1-4' | 1-4 | 7/21/04 | 8/17/04 | 15,900 | ND | ND | ND | ND | 15900 | ND | ND | ND |
| | PC199-4-7' | 4-7 | 7/21/04 | 8/17/04 | 27,000 | ND | ND | ND | ND | 27000 | ND | ND | ND |
| **PC200** | PC200-1-4' | 1-4 | 7/21/04 | 8/17/04 | 8,330 | ND | ND | ND | ND | 8330 | ND | ND | ND |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC200** | PC200-4-7' | 4-7 | 7/21/04 | 8/17/04 | 3,080 | ND | ND | ND | ND | 3080 | ND | ND | ND |
| **PC201** | PC201-1-4' | 1-4 | 7/21/04 | 8/17/04 | 8,080 | ND | ND | ND | ND | 8080 | ND | ND | ND |
| | PC201-1-4'MS | 1-4 | 7/21/04 | 8/17/04 | 8,380 | ND | ND | ND | ND | 8380 | ND | ND | ND |
| | PC201-1-4'MSD | 1-4 | 7/21/04 | 8/17/04 | 8,220 | ND | ND | ND | ND | 8220 | ND | ND | ND |
| | PC201-4-7' | 4-7 | 7/21/04 | 8/17/04 | 9,650 | ND | ND | ND | ND | 9650 | ND | ND | ND |
| | Duplicate 57 (PC201-4-7') | 4-7 | 7/21/04 | 8/17/04 | 4,330 | ND | ND | ND | ND | 4330 | ND | ND | ND |
| **PC202** | PC202-1-4' | 1-4 | 7/21/04 | 8/17/04 | 2,060 | ND | ND | ND | ND | 2060 | ND | ND | ND |
| | PC202-4-7' | 4-7 | 7/21/04 | 8/17/04 | 3,340 | ND | ND | ND | ND | 3340 | ND | ND | ND |
| **PC203** | PC203-1-4' | 1-4 | 7/21/04 | 8/17/04 | 3,290 | ND | ND | ND | ND | 3290 | ND | ND | ND |
| | PC203-4-7' | 4-7 | 7/21/04 | 8/17/04 | 8,740 | ND | ND | ND | ND | 8740 | ND | ND | ND |
| **PC204** | PC204-1-4' | 1-4 | 7/22/04 | 8/18/04 | 3,680 | ND | ND | ND | ND | 3680 | ND | ND | ND |
| | PC204-4-7' | 4-7 | 7/22/04 | 8/18/04 | 9,810 | ND | ND | ND | ND | 9810 | ND | ND | ND |
| **PC205** | PC205-1-3' | 1-3 | 7/22/04 | 8/18/04 | 2,970 | ND | ND | ND | ND | 2970 | ND | ND | ND |
| | PC205-3-6.5' | 3-6.5 | 7/22/04 | 8/18/04 | 3,820 | ND | ND | ND | ND | 3820 | ND | ND | ND |
| **PC206** | PC206-1-3' | 1-3 | 7/22/04 | 8/20/04 | 2,300 | ND | ND | ND | ND | 2300 | ND | ND | ND |
| | PC206-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | **71,700** | ND | ND | ND | ND | 71700 | ND | ND | ND |
| | PC206-A-3-6.5' | 3-6.5 | 12/2/04 | 12/4/04 | 14,700 | ND | ND | ND | ND | 14700 | ND | ND | ND |
| | PC206-B-3-6.5' | 3-6.5 | 12/2/04 | 12/4/04 | 12,200 | ND | ND | ND | ND | 12200 | ND | ND | ND |
| | Duplicate 195 (PC206-B-3-6.5') | 3-6.5 | 12/2/04 | 12/4/04 | 13,100 | ND | ND | ND | ND | 13100 | ND | ND | ND |
| **PC207** | PC207-1-3' | 1-3 | 7/22/04 | 8/20/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| | PC207-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | 3,510 | ND | ND | ND | ND | 3510 | ND | ND | ND |
| **PC208** | PC208-1-4' | 1-4 | 7/22/04 | 8/19/04 | 39,400 | ND | ND | ND | ND | 39400 | ND | ND | ND |
| | PC208-4-7 | 4-7 | 7/22/04 | 8/19/04 | 7,210 | ND | ND | ND | ND | 7210 | ND | ND | ND |
| **PC209** | PC209-1-3' | 1-3 | 7/22/04 | 8/19/04 | 9,600 | ND | ND | ND | ND | 9600 | ND | ND | ND |
| | PC209-1-3'MS | 1-3 | 7/22/04 | 8/19/04 | 13,500 | ND | ND | ND | ND | 13500 | ND | ND | ND |
| | PC209-1-3'MSD | 1-3 | 7/22/04 | 8/19/04 | 11,900 | ND | ND | ND | ND | 11900 | ND | ND | ND |
| | PC209-3-6.5' | 3-6.5 | 7/22/04 | 8/19/04 | 11,700 | ND | ND | ND | ND | 11700 | ND | ND | ND |
| | Duplicate 59 (PC209-3-6.5') | 3-6.5 | 7/22/04 | 8/18/04 | 20,900 | ND | ND | ND | ND | 20900 | ND | ND | ND |
| **PC210** | PC210-1-3' | 1-3 | 7/22/04 | 8/19/04 | 2,260 | ND | ND | ND | ND | 2260 | ND | ND | ND |
| | PC210-3-6' | 3-6 | 7/22/04 | 8/19/04 | 4,570 | ND | ND | ND | ND | 4570 | ND | ND | ND |
| | PC210-6-9' | 6-9 | 11/17/04 | 11/23/04 | 2,650 | ND | ND | ND | ND | 2650 | ND | ND | ND |
| | Duplicate 192 (PC210-6-9') | 6-9 | 11/17/04 | 11/23/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| **PC211** | PC211-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 3,000 | ND | ND | ND | ND | 3000 | ND | ND | ND |
| **PC212** | PC212-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 19,200 | ND | ND | ND | ND | 19200 | ND | ND | ND |
| **PC213** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC214** | PC214-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 9,960 | ND | ND | ND | ND | 9960 | ND | ND | ND |
| **PC215** | PC215-1-3' | 1-3 | 7/22/04 | 8/19/04 | 3,340 | ND | ND | ND | ND | 3340 | ND | ND | ND |
| **PC216** | PC216-1-3' | 1-3 | 7/22/04 | 8/20/04 | 24,100 | ND | ND | ND | ND | 24100 | ND | ND | ND |
| **PC217** | PC217-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 4,900 | ND | ND | ND | ND | 4900 | ND | ND | ND |
| **PC218** | PC218-1-3' | 1-3 | 7/22/04 | 8/19/04 | 4,150 | ND | ND | ND | ND | 4150 | ND | ND | ND |

**NOTES:**
ND = Not detected
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC218** | PC218-3-6.5 | 3-6.5 | 7/22/04 | 8/19/04 | 8,870 | ND | ND | ND | ND | 8870 | ND | ND | ND |
| **PC219** | PC219-1-4' | 1-4 | 7/22/04 | 8/19/04 | 2,020 | ND | ND | ND | ND | 2020 | ND | ND | ND |
| | PC219-4-7' | 4-7 | 7/22/04 | 8/19/04 | 5,500 | ND | ND | ND | ND | 5500 | ND | ND | ND |
| **PC220** | PC220-1-3' | 1-3 | 7/22/04 | 8/20/04 | 1,600 | ND | ND | ND | ND | 1600 | ND | ND | ND |
| | PC220-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | 2,660 | ND | ND | ND | ND | 2660 | ND | ND | ND |
| **PC221** | PC221-1-3' | 1-3 | 7/22/04 | 8/20/04 | 8,570 | ND | ND | ND | ND | 8570 | ND | ND | ND |
| | PC221-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| **PC222** | PC222-1-3.5' | 1-3.5 | 7/22/04 | 8/20/04 | 8,870 | ND | ND | ND | ND | 8870 | ND | ND | ND |
| **PC223** | PC223-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 17,600 | ND | ND | ND | ND | 17600 | ND | ND | ND |
| **PC224** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC225** | PC225-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | **220,000** | ND | ND | ND | ND | 220000 | ND | ND | ND |
| | PC225-3.5-6 | 3.5-6 | 9/23/04 | 10/2/04 | 5,790 | ND | ND | ND | ND | 5790 | ND | ND | ND |
| | PC225-6-11 | 6-11 | 9/23/04 | 10/2/04 | 5,080 | ND | ND | ND | ND | 5080 | ND | ND | ND |
| | PC225-A-1-3.5 | 1-3.5 | 9/23/04 | 10/2/04 | 1,580 | ND | ND | ND | ND | 1580 | ND | ND | ND |
| | PC225-A 3.5-6 | 3.5-6 | 9/23/04 | 10/2/04 | 5,230 | ND | ND | ND | ND | 5230 | ND | ND | ND |
| | PC225-B-1-3.5 | 1-3.5 | 9/23/04 | 10/2/04 | 1,330 | ND | ND | ND | ND | 1330 | ND | ND | ND |
| | PC225-B-3.5-6 | 3.5-6 | 9/23/04 | 10/2/04 | 3,350 | ND | ND | ND | ND | 3350 | ND | ND | ND |
| | PC225-C-1-3.5 | 1-3.5 | 9/23/04 | 10/2/04 | 7,190 | ND | ND | ND | ND | 7190 | ND | ND | ND |
| | PC225-C-3.5-6 | 3.5-6 | 9/23/04 | 10/2/04 | 11,800 | ND | ND | ND | ND | 11800 | ND | ND | ND |
| | PC225-D-1-3.5 | 1-3.5 | 9/23/04 | 10/2/04 | 6,160 | ND | ND | ND | ND | 6160 | ND | ND | ND |
| | PC225-D-3.5-6 | 3.5-6 | 9/23/04 | 9/30/04 | 28,100 | ND | ND | ND | ND | 28100 | ND | ND | ND |
| **PC226** | PC226-1-3' | 1-3' | 7/22/04 | 8/19/04 | 12,700 | ND | ND | ND | ND | 12700 | ND | ND | ND |
| **PC227** | PC227-1-3' | 1-3 | 7/22/04 | 8/18/04 | 3,280 | ND | ND | ND | ND | 3280 | ND | ND | ND |
| | PC227-1-3'MS | 1-3 | 7/22/04 | 8/18/04 | 9,920 | ND | ND | ND | ND | 9920 | ND | ND | ND |
| | PC227-1-3'MSD | 1-3 | 7/22/04 | 8/18/04 | 9,250 | ND | ND | ND | ND | 9250 | ND | ND | ND |
| | PC227-3-6.5' | 3-6.5 | 7/22/04 | 8/18/04 | 4,130 | ND | ND | ND | ND | 4130 | ND | ND | ND |
| | Duplicate 60 (PC227-3-6.5') | 3-6.5 | 7/22/04 | 8/18/04 | 6,630 | ND | ND | ND | ND | 6630 | ND | ND | ND |
| **PC228** | PC228-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 5,068 | ND | ND | ND | ND | 5068 | ND | ND | ND |
| **PC229** | PC229-1-4' | 1-4 | 7/22/04 | 8/19/04 | 5,950 | ND | ND | ND | ND | 5950 | ND | ND | ND |
| | PC229-4-7' | 4-7 | 7/22/04 | 8/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC230** | PC230-1-4' | 1-4 | 7/22/04 | 8/20/04 | 4,660 | ND | ND | ND | ND | 4660 | ND | ND | ND |
| | PC230-4-7' | 4-7 | 7/22/04 | 8/20/04 | 15,700 | ND | ND | ND | ND | 15700 | ND | ND | ND |
| **PC231** | PC231-1-3' | 1-3 | 7/22/04 | 8/20/04 | 6,000 | ND | ND | ND | ND | 6000 | ND | ND | ND |
| | PC231-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | 3,230 | ND | ND | ND | ND | 3230 | ND | ND | ND |
| **PC232** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC233** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC234** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC235** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC236** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC237** | PC237-1-4' | 1-4 | 7/22/04 | 8/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC237** | PC237-4-7' | 4-7 | 7/22/04 | 8/19/04 | 14,800 | ND | ND | ND | ND | 14800 | ND | ND | ND |
| **PC238** | PC238-1-3' | 1-3 | 8/26/04 | 9/1/04 | 16,200 | ND | ND | ND | ND | 16200 | ND | ND | ND |
| | PC238-3-6.5' | 3-6.5 | 8/26/04 | 9/1/04 | 8,080 | ND | ND | ND | ND | 8080 | ND | ND | ND |
| **PC239** | PC239-1-3' | 1-3 | 7/22/04 | 8/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC239-3-6.5' | 3-6.5 | 7/22/04 | 8/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC240** | PC240-1-3' | 1-3 | 7/22/04 | 8/19/04 | 6,080 | ND | ND | ND | ND | 6080 | ND | ND | ND |
| | PC240-3-6.5' | 3-6.5 | 7/22/04 | 8/19/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| **PC241** | PC241-1-3' | 1-3 | 7/29/04 | 8/20/04 | 4,110 | ND | ND | ND | ND | 4110 | ND | ND | ND |
| | Duplicate 62 (PC241-1-3') | 1-3 | 7/29/04 | 8/20/04 | 1,270 | ND | ND | ND | ND | 1270 | ND | ND | ND |
| | PC241-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 5,750 | ND | ND | ND | ND | 5750 | ND | ND | ND |
| | PC241-3-6.5'MS | 3-6.5 | 7/29/04 | 8/20/04 | 7,710 | ND | ND | ND | ND | 7710 | ND | ND | ND |
| | PC241-3-6.5'MSD | 3-6.5 | 7/29/04 | 8/20/04 | 8,820 | ND | ND | ND | ND | 8820 | ND | ND | ND |
| **PC242** | PC242-1-3' | 1-3 | 7/29/04 | 8/20/04 | 13,300 | ND | ND | ND | ND | 13300 | ND | ND | ND |
| **PC243** | PC243-1-3' | 1-3 | 7/29/04 | 8/20/04 | 4,780 | ND | ND | ND | ND | 4780 | ND | ND | ND |
| **PC244** | PC244-1-3' | 1-3 | 7/29/04 | 8/20/04 | 11,900 | ND | ND | ND | ND | 11900 | ND | ND | ND |
| **PC245** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC246** | PC246-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC247** | PC247-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC248** | PC248-1-3' | 1-3 | 7/29/04 | 8/20/04 | 3,540 | ND | ND | ND | ND | 3540 | ND | ND | ND |
| **PC249** | PC249-1-4' | 1-4 | 7/29/04 | 8/20/04 | 22,700 | ND | ND | ND | ND | 22700 | ND | ND | ND |
| | PC249-4-7' | 4-7 | 7/29/04 | 8/20/04 | 14,900 | ND | ND | ND | ND | 14900 | ND | ND | ND |
| **PC250** | PC250-1-4' | 1-4 | 7/29/04 | 8/20/04 | 23,000 | ND | ND | ND | ND | 23000 | ND | ND | ND |
| | PC250-4-7' | 4-7 | 7/29/04 | 8/20/04 | 13,200 | ND | ND | ND | ND | 13200 | ND | ND | ND |
| **PC251** | PC251-1-3' | 1-3 | 7/29/04 | 8/20/04 | 2,870 | ND | ND | ND | ND | 2870 | ND | ND | ND |
| | PC251-3-6' | 3-6 | 7/29/04 | 8/20/04 | 8,700 | ND | ND | ND | ND | 8700 | ND | ND | ND |
| **PC252** | PC252-1-3' | 1-3 | 7/29/04 | 8/20/04 | 2,090 | ND | ND | ND | ND | 2090 | ND | ND | ND |
| | PC252-3-6' | 3-6 | 7/29/04 | 8/20/04 | 1,290 | ND | ND | ND | ND | 1290 | ND | ND | ND |
| **PC253** | PC253-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC253-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 4,470 | ND | ND | ND | ND | 4470 | ND | ND | ND |
| **PC254** | PC254-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC254-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 7,750 | ND | ND | ND | ND | 7750 | ND | ND | ND |
| **PC255** | PC255-1-4' | 1-4 | 7/29/04 | 8/20/04 | 9,430 | ND | ND | ND | ND | 9430 | ND | ND | ND |
| | Duplicate 63 (PC255-1-4') | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC255-4-7' | 4-7 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC255-4-7'MS | 4-7 | 7/29/04 | 8/20/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| | PC255-4-7'MSD | 4-7 | 7/29/04 | 8/20/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| **PC256** | PC256-1-4' | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC256-4-7' | 4-7 | 7/29/04 | 8/20/04 | 6,980 | ND | ND | ND | ND | 6980 | ND | ND | ND |
| **PC257** | PC257-1-4' | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC257** | PC257-4-7' | 4-7 | 7/29/04 | 8/20/04 | 2,050 | ND | ND | ND | ND | 2050 | ND | ND | ND |
| **PC258** | PC258-1-4' | 1-4 | 7/29/04 | 8/20/04 | 1,800 | ND | ND | ND | ND | 1800 | ND | ND | ND |
| | PC258-4-7' | 4-7 | 7/29/04 | 8/20/04 | 1,980 | ND | ND | ND | ND | 1980 | ND | ND | ND |
| **PC259** | PC259-1-4' | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC259-4-7' | 4-7 | 7/29/04 | 8/20/04 | **53,700** | ND | ND | ND | ND | 53700 | ND | ND | ND |
| | PC259-A-4-7' | 4-7 | 11/17/04 | 11/23/04 | 3,340 | ND | ND | ND | ND | 3340 | ND | ND | ND |
| | PC259-B-4-7' | 4-7 | 11/17/04 | 11/20/04 | 5,280 | ND | ND | ND | ND | 5280 | ND | ND | ND |
| **PC260** | PC260-1-4' | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC260-4-7' | 4-7 | 7/29/04 | 8/20/04 | **86,200** | ND | ND | ND | ND | 86200 | ND | ND | ND |
| | PC260-A-4-7' | 4-7 | 11/17/04 | 11/24/04 | 5,280 | ND | ND | ND | ND | 5280 | ND | ND | ND |
| | Duplicate 193 (PC260-A-4-7') | 4-7 | 11/17/04 | 11/24/04 | 9,450 | ND | ND | ND | ND | 9450 | ND | ND | ND |
| | PC260-B-4-7' | 4-7 | 11/17/04 | 11/20/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| **PC261** | PC261-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC261-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 2,730 | ND | ND | ND | ND | 2730 | ND | ND | ND |
| **PC262** | PC262-1-3' | 1-3 | 7/29/04 | 8/20/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| | PC262-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 6,460 | ND | ND | ND | ND | 6460 | ND | ND | ND |
| **PC263** | PC263-1-4' | 1-4 | 7/29/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC263-4-7' | 4-7 | 7/29/04 | 8/21/04 | 6,640 | ND | ND | ND | ND | 6640 | ND | ND | ND |
| **PC264** | PC264-1-4' | 1-4 | 7/29/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC264-4-7' | 4-7 | 7/29/04 | 8/21/04 | 4,010 | ND | ND | ND | ND | 4010 | ND | ND | ND |
| **PC265** | PC265-1-4' | 1-4 | 7/29/04 | 8/21/04 | 1,160 | ND | ND | ND | ND | 1160 | ND | ND | ND |
| | Duplicate 64 (PC265-1-4') | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC265-4-7' | 4-7 | 7/29/04 | 8/21/04 | 27,700 | ND | ND | ND | ND | 27700 | ND | ND | ND |
| | PC265-4-7'MS | 4-7 | 7/29/04 | 8/21/04 | 39,500 | ND | ND | ND | ND | 39500 | ND | ND | ND |
| | PC265-4-7'MSD | 4-7 | 7/29/04 | 8/21/04 | 35,100 | ND | ND | ND | ND | 35100 | ND | ND | ND |
| **PC266** | PC266-1-4' | 1-4 | 7/29/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC266-4-7' | 4-7 | 7/29/04 | 8/21/04 | 19,400 | ND | ND | ND | ND | 19400 | ND | ND | ND |
| **PC267** | PC267-1-4' | 1-4 | 7/29/04 | 8/21/04 | 3,720 | ND | ND | ND | ND | 3720 | ND | ND | ND |
| | PC267-4-7' | 4-7 | 7/29/04 | 8/21/04 | 12,000 | ND | ND | ND | ND | 12000 | ND | ND | ND |
| **PC268** | PC268-1-4' | 1-4 | 7/29/04 | 8/21/04 | 3,130 | ND | ND | ND | ND | 3130 | ND | ND | ND |
| | PC268-4-7' | 4-7 | 7/29/04 | 8/21/04 | 11,700 | ND | ND | ND | ND | 11700 | ND | ND | ND |
| **PC269** | PC269-1-4' | 1-4 | 7/29/04 | 8/20/04 | 1,940 | ND | ND | ND | ND | 1940 | ND | ND | ND |
| | PC269-4-7' | 4-7 | 7/29/04 | 8/20/04 | 6,580 | ND | ND | ND | ND | 6580 | ND | ND | ND |
| **PC270** | PC270-1-4' | 1-4 | 7/29/04 | 8/20/04 | 19,000 | ND | ND | ND | ND | 19000 | ND | ND | ND |
| | PC270-4-7' | 4-7 | 7/29/04 | 8/20/04 | 4,230 | ND | ND | ND | ND | 4230 | ND | ND | ND |
| **PC271** | PC271-1-4' | 1-4 | 7/29/04 | 8/20/04 | 1,880 | ND | ND | ND | ND | 1880 | ND | ND | ND |
| | PC271-4-7' | 4-7 | 7/29/04 | 8/21/04 | 2,000 | ND | ND | ND | ND | 2000 | ND | ND | ND |
| **PC272** | PC272-1-3' | 1-3 | 7/29/04 | 8/20/04 | **77,700** | ND | ND | ND | ND | 77700 | ND | ND | ND |
| | PC272-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| | PC272-A-1-3' | 1-3 | 11/17/04 | 11/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC272-B-1-3' | 1-3 | 11/17/04 | 11/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC272-C-1-3' | 1-3 | 11/17/04 | 11/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC273** | PC273-1-3' | 1-3 | 7/29/04 | 8/20/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| | PC273-1-3'MS | 1-3 | 7/29/04 | 8/20/04 | 13,300 | ND | ND | ND | ND | 13300 | ND | ND | ND |
| | PC273-1-3'MSD | 1-3 | 7/29/04 | 8/20/04 | 14,100 | ND | ND | ND | ND | 14100 | ND | ND | ND |
| | Duplicate 65 (PC273-1-3') | 1-3 | 7/29/04 | 8/20/04 | 29,500 | ND | ND | ND | 16700 | 12800 | ND | ND | ND |
| | PC273-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 9,670 | ND | ND | ND | ND | 9670 | ND | ND | ND |
| **PC1001** | PC1001-1-4' | 1-4 | 8/25/04 | 8/31/04 | 34,700 | ND | ND | ND | ND | 34700 | ND | ND | ND |
| | PC1001-4-7' | 4-7 | 8/25/04 | 8/31/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| | Duplicate 116 (PC1001-4-7') | 4-7 | 8/25/04 | 8/31/04 | 5,840 | ND | ND | ND | ND | 5840 | ND | ND | ND |
| **PC1002** | PC1002-1-4' | 1-4 | 8/25/04 | 8/31/04 | 22,100 | ND | ND | ND | ND | 22100 | ND | ND | ND |
| | PC1002-4-7' | 4-7 | 8/25/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1003** | PC1003-1-4' | 1-4 | 8/25/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1003-4-7' | 4-7 | 11/17/04 | 11/18/04 | 18,000 | ND | ND | ND | ND | 18000 | ND | ND | ND |
| **PC1004** | PC1004-1-4' | 1-4 | 8/25/04 | 8/31/04 | 16,200 | ND | ND | ND | ND | 16200 | ND | ND | ND |
| | PC1004-4-7' | 4-7 | 8/25/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1005** | PC1005-1-3.5' | 1-3.5 | 8/25/04 | 8/31/04 | 5,250 | ND | ND | ND | ND | 5250 | ND | ND | ND |
| **PC1006** | PC1006-1-3' | 1-3 | 8/25/04 | 9/7/04 | **468,000** | ND | ND | ND | ND | 468000 | ND | ND | ND |
| | Duplicate 117 (PC1006-1-3') | 1-3 | 8/25/04 | 8/31/04 | 12,500 | ND | ND | ND | ND | 12500 | ND | ND | ND |
| | PC1006-A-1-3' | 1-3 | 10/15/04 | 10/19/04 | 10,300 | ND | ND | ND | ND | 10300 | ND | ND | ND |
| | PC1006-A-3-5.5' | 3-5.5 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1006-B-1-3' | 1-3 | 10/15/04 | 10/19/04 | 21,200 | ND | ND | ND | ND | 21200 | ND | ND | ND |
| | PC1006-B-3-6' | 3-6 | 10/15/04 | 10/19/04 | **48,300** | ND | ND | ND | ND | 48300 | ND | ND | ND |
| | PC1006-C-1-3' | 1-3 | 10/15/04 | 10/19/04 | 8,200 | ND | ND | ND | ND | 8200 | ND | ND | ND |
| | PC1006-C-3-5.5' | 3-5.5 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1006-D-1-3' | 1-3 | 10/15/04 | 10/19/04 | 5,870 | ND | ND | ND | ND | 5870 | ND | ND | ND |
| | PC1006-D-3-4.75' | 3-4.75 | 10/15/04 | 10/19/04 | 8,620 | ND | ND | ND | ND | 8620 | ND | ND | ND |
| **PC1007** | PC1007-1-3.5' | 1-3.5 | 8/25/04 | 9/7/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1008** | PC1008-1-3' | 1-3 | 8/25/04 | 8/31/04 | 21,600 | ND | ND | ND | ND | 21600 | ND | ND | ND |
| | PC1008-3-6.5' | 3-6.5 | 8/25/04 | 9/1/04 | 10,200 | ND | ND | ND | ND | 10200 | ND | ND | ND |
| **PC1009** | PC1009-1-3' | 1-3 | 8/25/04 | 8/31/04 | 5,160 | ND | ND | ND | ND | 5160 | ND | ND | ND |
| | PC1009-3-6' | 3-6 | 8/25/04 | 8/31/04 | 25,600 | ND | ND | ND | ND | 25600 | ND | ND | ND |
| **PC1010** | PC1010-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1010-3-6.5' | 3-6.5 | 8/26/04 | 9/1/04 | 6,060 | ND | ND | ND | ND | 6060 | ND | ND | ND |
| **PC1011** | PC1011-1-3' | 1-3 | 8/25/04 | 8/31/04 | 28,600 | ND | ND | ND | ND | 28600 | ND | ND | ND |
| | PC1011-3-6' | 3-6 | 8/25/04 | 8/31/04 | 6,890 | ND | ND | ND | ND | 6890 | ND | ND | ND |
| | PC1012-1-4' | 1-4 | 8/26/04 | 8/31/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| | PC1012-4-7' | 4-7 | 8/26/04 | 9/8/04 | **127,000** | ND | ND | ND | ND | 127000 | ND | ND | ND |
| | PC1012-1-4' | 1-4 | 9/14/04 | 9/21/04 | 25,300 | ND | ND | ND | ND | 25300 | ND | ND | ND |
| | PC1012-7-10' | 7-10 | 9/14/04 | 9/24/04 | **50,700** | ND | ND | ND | ND | 50700 | ND | ND | ND |

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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC1012** | PC1012-A-1-4' | 1-4 | 9/14/04 | 9/21/04 | **53,900** | ND | ND | ND | ND | 53900 | ND | ND | ND |
| | PC1012-A-4-7' | 4-7 | 9/14/04 | 9/24/04 | 22,300 | ND | ND | ND | ND | 22300 | ND | ND | ND |
| | PC1012-A-7-10.5' | 7-10.5 | 9/14/04 | 9/24/04 | **146,000** | ND | ND | ND | ND | 146000 | ND | ND | ND |
| | PC1012-B-1-4' | 1-4 | 9/14/04 | 9/24/04 | 6,770 | ND | ND | ND | ND | 6770 | ND | ND | ND |
| | PC1012-B-4-7' | 4-7 | 9/14/04 | 9/21/04 | **142,000** | ND | ND | ND | ND | 142000 | ND | ND | ND |
| | PC1012-B-7-8' | 7-8 | 9/14/04 | 9/24/04 | 11,200 | ND | ND | ND | ND | ND | ND | ND | 11200 |
| | PC1012-C-1-4' | 1-4 | 9/14/04 | 9/24/04 | 13,800 | ND | ND | ND | ND | 13800 | ND | ND | ND |
| | PC1012-C-4-7' | 4-7 | 9/14/04 | 9/24/04 | 4,570 | ND | ND | ND | ND | 4570 | ND | ND | ND |
| | PC1012-C-7-11' | 7-11 | 9/14/04 | 9/24/04 | 6,220 | ND | ND | ND | ND | 6220 | ND | ND | ND |
| | PC1012-D-1-4' | 1-4 | 9/14/04 | 9/21/04 | 21,300 | ND | ND | ND | ND | 21300 | ND | ND | ND |
| | PC1012-D-4-7' | 4-7 | 9/14/04 | 9/24/04 | **122,000** | ND | ND | ND | ND | 122000 | ND | ND | ND |
| | PC1012-D-7-10' | 7-10 | 9/14/04 | 9/24/04 | 21,200 | ND | ND | ND | ND | 21200 | ND | ND | ND |
| | PC1012-E-4-7' | 4-7 | 10/15/04 | 10/19/04 | 13,800 | ND | ND | ND | ND | 13800 | ND | ND | ND |
| | PC1012-E-7-10' | 7-10 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-F-1-4' | 1-4 | 10/15/04 | 10/19/04 | 5,870 | ND | ND | ND | ND | 5870 | ND | ND | ND |
| | Duplicate 165 (PC1012-F-1-4') | 1-4 | 10/15/04 | 10/19/04 | 8,840 | ND | ND | ND | ND | 8840 | ND | ND | ND |
| | PC1012-F-4-7' | 4-7 | 10/15/04 | 10/19/04 | 7,390 | ND | ND | ND | ND | 7390 | ND | ND | ND |
| | PC1012-F-7-10' | 7-10 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-F-7-10'MS | 7-10 | 10/15/04 | 10/19/04 | 11,160 | ND | ND | ND | ND | 11160 | ND | ND | ND |
| | PC1012-F-7-10'MSD | 7-10 | 10/15/04 | 10/19/04 | 12,900 | ND | ND | ND | ND | 12900 | ND | ND | ND |
| | PC1012-G-1-4' | 1-4 | 10/15/04 | 10/19/04 | 10,200 | ND | ND | ND | ND | 10200 | ND | ND | ND |
| | PC1012-G-4-7' | 4-7 | 10/15/04 | 10/19/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| | PC1012-G-7-10.5' | 7-10.5 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-H-1-4' | 1-4 | 10/15/04 | 10/19/04 | 3,760 | ND | ND | ND | ND | 3760 | ND | ND | ND |
| | PC1012-H-4-7' | 4-7 | 10/15/04 | 10/19/04 | 12,900 | ND | ND | ND | ND | 12900 | ND | ND | ND |
| | PC1012-H-7-10' | 7-10 | 10/15/04 | 10/19/04 | 1,890 | ND | ND | ND | ND | 1890 | ND | ND | ND |
| | PC1012-I-1-4' | 1-4 | 10/15/04 | 10/19/04 | 2,070 | ND | ND | ND | ND | 2070 | ND | ND | ND |
| | PC1012-I-4-7' | 4-7 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-I-7-10' | 7-10 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-J-1-4' | 1-4' | 10/15/04 | 10/19/04 | **229,000** | ND | ND | ND | ND | 229000 | ND | ND | ND |
| | PC1012-J-4-7' | 4-7' | 10/16/04 | 10/19/04 | 33,500 | ND | ND | ND | ND | 33500 | ND | ND | ND |
| | PC1012-J-7-10' | 7-10' | 10/17/04 | 10/19/04 | 2,690 | ND | ND | ND | ND | 2690 | ND | ND | ND |
| | PC1012-K-1-4' | 1-4 | 10/15/04 | 10/19/04 | **136,000** | ND | ND | ND | ND | 136000 | ND | ND | ND |
| | PC1012-K-4-7' | 4-7 | 10/15/04 | 10/19/04 | **62,900** | ND | ND | ND | ND | 62900 | ND | ND | ND |
| | PC1012-K-7-10' | 7-10 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-L-1-4' | 1-4 | 11/3/04 | 11/9/04 | 4,010 | ND | ND | ND | ND | 4010 | ND | ND | ND |
| | PC1012-M-1-4' | 1-4 | 11/3/04 | 11/10/04 | 5,710 | ND | ND | ND | ND | 5710 | ND | ND | ND |
| | PC1012-N-1-4' | 1-4 | 10/28/04 | 10/30/04 | 8,910 | ND | ND | ND | ND | 8910 | ND | ND | ND |
| | Duplicate 174 (PC1012-N-1-4') | 1-4 | 10/28/04 | 10/30/04 | 7,590 | ND | ND | ND | ND | 7590 | ND | ND | ND |
| | PC1012-O-1-4' | 1-4 | 10/28/04 | 10/30/04 | 11,100 | ND | ND | ND | ND | 11100 | ND | ND | ND |
| | PC1012-O-1-4'MS | 1-4 | 10/28/04 | 10/30/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC1012-O-1-4'MSD | 1-4 | 10/28/04 | 10/30/04 | 13,200 | ND | ND | ND | ND | 13200 | ND | ND | ND |
| **PC1013** | PC1013-1-3' | 1-3 | 8/26/04 | 8/31/04 | 19,900 | ND | ND | ND | ND | 19900 | ND | ND | ND |
| | PC1013-3-6.5' | 3-6.5 | 8/26/04 | 8/31/04 | 9,760 | ND | ND | ND | ND | 9760 | ND | ND | ND |
| | Duplicate 118 (PC1013-3-6.5') | 3-6.5 | 8/26/04 | 8/31/04 | 6,550 | ND | ND | ND | ND | 6550 | ND | ND | ND |
| **PC1014** | PC1014-1-3.5' | 1-3.5 | 6/30/04 | 8/2/04 | 12,000 | ND | ND | ND | ND | 12000 | ND | ND | ND |
| **PC1015** | PC1015-1-3' | 1-3 | 6/30/04 | 8/2/04 | **68,600** | ND | ND | ND | ND | 68600 | ND | ND | ND |
| | PC1015-A-1-3' | 1-3 | 11/17/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1015-B-1-3' | 1-3 | 11/17/04 | 11/18/04 | 4,780 | ND | ND | ND | ND | 4780 | ND | ND | ND |
| | PC1015-C-1-3' | 1-3 | 11/17/04 | 11/18/04 | 2,240 | ND | ND | ND | ND | 2240 | ND | ND | ND |
| | PC1015-D-1-3' | 1-3 | 11/17/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1016** | PC1016-1-3' | 1-3 | 6/30/04 | 8/2/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| **PC1017** | PC1017-1-3' | 1-3 | 6/30/04 | 8/2/04 | 22,500 | ND | ND | ND | ND | 22500 | ND | ND | ND |
| **PC1018** | PC1018-1-3' | 1-3 | 7/1/04 | 8/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1019** | PC1019-1-3' | 1-3 | 7/1/04 | 8/11/04 | 8,580 | ND | ND | ND | ND | 8580 | ND | ND | ND |
| **PC1020** | PC1020-1-3.5' | 1-3.5 | 7/1/04 | 8/11/04 | 1,810 | ND | ND | ND | ND | 1810 | ND | ND | ND |
| **PC1021** | PC1021-1-3' | 1-3 | 7/1/04 | 8/11/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| **PC1022** | PC1022-1-3' | 1-3 | 7/1/04 | 8/11/04 | 40,000 | ND | ND | ND | ND | 40000 | ND | ND | ND |
| **PC1023** | PC1023-1-5' | 1-5 | 7/20/04 | 8/31/04 | 2,750 | ND | ND | ND | ND | 2750 | ND | ND | ND |
| **PC1024** | PC1024-1-3' | 1-3 | 7/20/04 | 8/31/04 | 23,800 | ND | ND | ND | ND | 23800 | ND | ND | ND |
| | PC1024-3-5.5 | 3-5.5 | 7/20/04 | 8/31/04 | 4,920 | ND | ND | ND | ND | 4920 | ND | ND | ND |
| **PC1025** | PC1025-1-5' | 1-5 | 7/20/04 | 8/31/04 | 7,980 | ND | ND | ND | ND | 7980 | ND | ND | ND |
| **PC1026** | PC1026-1-3' | 1-3 | 720/04 | 8/31/04 | 1,670 | ND | ND | ND | ND | 1670 | ND | ND | ND |
| | PC1026-3-5.5' | 3-5.5 | 7/20/04 | 8/31/04 | 10,100 | ND | ND | ND | ND | 10100 | ND | ND | ND |
| **PC1027** | PC1027-1-3' | 1-3 | 7/21/04 | 8/17/04 | 3,610 | ND | ND | ND | ND | 3610 | ND | ND | ND |
| | PC1027-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 30,900 | ND | ND | ND | ND | 30900 | ND | ND | ND |
| **PC1028** | PC1028-1-3' | 1-3 | 7/21/04 | 8/17/04 | 2,590 | ND | ND | ND | ND | 2590 | ND | ND | ND |
| **PC1029** | PC1029-1-3.5' | 1-3.5 | 7/21/04 | 8/17/04 | 2,630 | ND | ND | ND | ND | 2630 | ND | ND | ND |
| **PC1030** | PC1030-1-3' | 1-3 | 7/21/04 | 8/17/04 | 3,620 | ND | ND | ND | ND | 3620 | ND | ND | ND |
| **PC1031** | PC1031-1-3' | 1-3 | 7/21/04 | 8/17/04 | 2,440 | ND | ND | ND | ND | 2440 | ND | ND | ND |
| **PC1032** | PC1032-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,840 | ND | ND | ND | ND | 5840 | ND | ND | ND |
| **PC1033** | PC1033-1-3.5' | 1-3.5 | 7/21/04 | 8/17/04 | 7,370 | ND | ND | ND | ND | 7370 | ND | ND | ND |
| **PC1034** | PC1034-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,050 | ND | ND | ND | ND | 5050 | ND | ND | ND |
| **PC1035** | PC1035-1-3' | 1-3 | 7/21/04 | 8/17/04 | 11,600 | ND | ND | ND | ND | 11600 | ND | ND | ND |
| **PC1036** | PC1036-1-3' | 1-3 | 7/21/04 | 8/17/04 | 7,400 | ND | ND | ND | ND | 7400 | ND | ND | ND |
| **PC1037** | PC1037-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,980 | ND | ND | ND | ND | 5980 | ND | ND | ND |
| | Duplicate 56 (PC1037-1-3') | 1-3 | 7/21/04 | 8/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1038** | PC1038-1-3' | 1-3 | 7/21/04 | 8/17/04 | 1,500 | ND | ND | ND | ND | 1500 | ND | ND | ND |
| **PC1039** | PC1039-1-3.5' | 1-3.5 | 7/21/04 | 8/17/04 | 2,190 | ND | ND | ND | ND | 2190 | ND | ND | ND |
| **PC1040** | PC1040-1-3.5 | 1-3.5 | 7/21/04 | 8/17/04 | 16,800 | ND | ND | ND | ND | 16800 | ND | ND | ND |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC1041** | PC1041-1-3' | 1-3 | 7/21/04 | 8/17/04 | **62,300** | ND | ND | ND | ND | 62300 | ND | ND | ND |
| **PC1042** | PC1042-1-3' | 1-3 | 7/21/04 | 8/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1043** | PC1043-1-3' | 1-3 | 7/21/04 | 8/17/04 | 6,400 | ND | ND | ND | ND | 6400 | ND | ND | ND |
| **PC1044** | PC1044-1-3' | 1-3 | 7/21/04 | 8/17/04 | 4,500 | ND | ND | ND | ND | 4500 | ND | ND | ND |
| | PC1044-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 2,290 | ND | ND | ND | ND | 2290 | ND | ND | ND |
| **PC1045** | PC1045-1-4' | 1-4 | 10/28/04 | 10/30/04 | 32,900 | ND | ND | ND | ND | 32900 | ND | ND | ND |
| | PC1045-4-8' | 4-8 | 10/28/04 | 10/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1045-8-10' | 8-10 | 10/28/04 | 10/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1046** | PC1046-1-3' | 1-3 | 7/21/04 | 8/17/04 | 20,900 | ND | ND | ND | ND | 20900 | ND | ND | ND |
| | PC1046-3-6' | 3-6 | 7/21/04 | 8/17/04 | 1,320 | ND | ND | ND | ND | 1320 | ND | ND | ND |
| | PC1046-6-9' | 6-9 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1047** | PC1047-1-3' | 1-3 | 7/22/04 | 8/19/04 | 14,500 | ND | ND | ND | ND | 14500 | ND | ND | ND |
| | PC1047-3-6' | 3-6 | 7/22/04 | 8/19/04 | 46,200 | ND | ND | ND | ND | 46200 | ND | ND | ND |
| | PC1047-6-9' | 6-9 | 11/17/04 | 11/23/04 | 2,760 | ND | ND | ND | ND | 2760 | ND | ND | ND |
| **PC1048** | PC1048-1-3' | 1-3 | 7/22/04 | 8/20/04 | 2,920 | ND | ND | ND | ND | 2920 | ND | ND | ND |
| **PC1049** | PC1049-1-3' | 1-3 | 7/22/04 | 8/19/04 | 5,270 | ND | ND | ND | ND | 5270 | ND | ND | ND |
| **PC1050** | PC1050-1-4' | 1-4 | 11/17/04 | 11/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1050-4-7' | 4-7 | 11/17/04 | 11/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1051** | PC1051-1-4' | 1-4 | 11/17/04 | 11/24/04 | 4,620 | ND | ND | ND | ND | 4620 | ND | ND | ND |
| | PC1051-4-7' | 4-7 | 11/17/04 | 11/24/04 | 16,000 | ND | ND | ND | ND | 16000 | ND | ND | ND |
| **PC1052** | PC1052-1-3' | 1-3 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1052-3-6' | 3-6 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1052-6-9.5' | 6-9.5 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **ANT-1** | ANT-1-1-3' | 1-3 | 6/14/04 | 7/12/04 | 6,250 | ND | ND | ND | ND | 6250 | ND | ND | ND |
| | ANT-1-3-6' | 3-6 | 6/14/04 | 7/12/04 | 22,400 | ND | ND | ND | ND | 22400 | ND | ND | ND |
| **ANT-2** | ANT-2-1-3' | 1-3 | 6/14/04 | 7/12/04 | 6,080 | ND | ND | ND | ND | 6080 | ND | ND | ND |
| | ANT-2-3-6' | 3-6 | 6/14/04 | 7/12/04 | 6,770 | ND | ND | ND | ND | 6770 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Grade Beams
## Polychlorinated Biphenyls

| Sample ID | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| GB1-1-3' | 1-3 | 7/30/04 | 8/21/04 | 17,100 | ND | ND | ND | ND | 17,100 | ND | ND | ND |
| GB2-1-3' | 1-3 | 7/30/04 | 8/21/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| GB3-1-3' | 1-3 | 7/30/04 | 8/21/04 | **318,000** | ND | ND | ND | ND | 318,000 | ND | ND | ND |
| GB3-1-3'MS | 1-3 | 7/30/04 | 8/21/04 | 324,000 | ND | ND | ND | ND | 324,000 | ND | ND | ND |
| GB3-1-3'MSD | 1-3 | 7/30/04 | 8/21/04 | 313,000 | ND | ND | ND | ND | 313,000 | ND | ND | ND |
| GB3-3-6' | 3-6 | 9/22/04 | 9/29/04 | 2,110 | ND | ND | ND | ND | 2,110 | ND | ND | ND |
| GB3-6-9' | 6-9 | 9/22/04 | 9/29/04 | **184,100** | ND | ND | ND | ND | 80,100 | 104,000 | ND | ND |
| GB3-A-1-3' | 1-3 | 9/22/04 | 9/29/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| GB3-A-3-6' | 3-6 | 9/22/04 | 9/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-B-1-3' | 1-3 | 9/22/04 | 9/28/04 | 4,080 | ND | ND | ND | ND | 4,080 | ND | ND | ND |
| GB3-B-3-6' | 3-6 | 9/22/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-C-1-3' | 1-3 | 9/22/04 | 9/28/04 | 24,800 | ND | ND | ND | ND | 24,800 | ND | ND | ND |
| GB3-C-3-5' | 3-5 | 9/22/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-D-1-3' | 1-3 | 9/22/04 | 9/28/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| GB3-D-3-6' | 3-6 | 9/22/04 | 9/28/04 | **63,600** | ND | ND | ND | 27,300 | 36,300 | ND | ND | ND |
| GB3-E-6-7' | 6-7 | 11/2/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-F-6-7' | 6-7 | 11/2/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-G-6-7' | 6-7 | 11/2/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-H-6-7' | 6-7 | 11/2/04 | 11/3/04 | 13,100 | ND | ND | ND | ND | 13,100 | ND | ND | ND |
| GB4-1-2' | 1-2 | 7/30/04 | 8/21/04 | 16,200 | ND | ND | ND | ND | 16,200 | ND | ND | ND |
| GB5-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | 4,410 | ND | ND | ND | ND | 4,410 | ND | ND | ND |
| GB6-1-3' | 1-3 | 7/30/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB7-1-2' | 1-2 | 7/30/04 | 8/23/04 | 23,400 | ND | ND | ND | ND | 23,400 | ND | ND | ND |
| GB8-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | 2,660 | ND | ND | ND | ND | 2,660 | ND | ND | ND |
| GB9-1-2' | 1-2 | 7/30/04 | 8/21/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| GB10-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB11-1-3' | 1-3 | 7/30/04 | 8/23/04 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND |
| Duplicate 79 (GB11-1-3') | 1-3 | 7/30/04 | 8/24/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| GB12-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB13-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| GB14-1-2' | 1-2 | 7/30/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB15-1-2' | 1-2 | 7/30/04 | 8/23/04 | 2,240 | ND | ND | ND | ND | 2240 | ND | ND | ND |
| GB16-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB17-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | 1,480 | ND | ND | ND | ND | 1480 | ND | ND | ND |
| GB18-1-2' | 1-2 | 7/30/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB19-1-2' | 1-2 | 7/30/04 | 8/23/04 | 2,080 | ND | ND | ND | ND | 2080 | ND | ND | ND |
| GB20-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 36,900 | ND | ND | ND | ND | 36900 | ND | ND | ND |
| GB21-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 8,670 | ND | ND | ND | ND | 8670 | ND | ND | ND |
| GB22-1-2' | 1-2 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB23-1-2' | 1-2 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB24-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 4,150 | ND | ND | ND | ND | 4150 | ND | ND | ND |
| GB25-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 19,900 | ND | ND | ND | ND | 19900 | ND | ND | ND |

# Grade Beams
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| GB26-1-2' | 1-2 | 7/30/04 | 8/23/04 | 14,200 | ND | ND | ND | ND | 14200 | ND | ND | ND |
| GB27-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB28-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 5,540 | ND | ND | ND | ND | 5,540 | ND | ND | ND |
| GB28-1-2.5'MS | 1-2.5 | 7/30/04 | 8/23/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| GB28-1-2.5'MSD | 1-2.5 | 7/30/04 | 8/23/04 | 12,500 | ND | ND | ND | ND | 12,500 | ND | ND | ND |
| GB29-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 13,000 | ND | ND | ND | ND | 13,000 | ND | ND | ND |
| Duplicate 81 (GB29-1-2.5') | 1-2.5 | 7/30/04 | 8/24/04 | 5,390 | ND | ND | ND | ND | 5,390 | ND | ND | ND |
| GB30-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 6,400 | ND | ND | ND | ND | 6,400 | ND | ND | ND |
| GB31-1-2' | 1-2 | 7/30/04 | 8/23/04 | 9,360 | ND | ND | ND | ND | 9,360 | ND | ND | ND |
| GB32-1-2' | 1-2 | 7/30/04 | 8/24/04 | 1,580 | ND | ND | ND | ND | 1,580 | ND | ND | ND |
| GB33-1-2' | 1-2 | 7/30/04 | 8/24/04 | 25,900 | ND | ND | ND | ND | 25,900 | ND | ND | ND |
| GB34-1-2' | 1-2 | 7/30/04 | 8/24/04 | 1,320 | ND | ND | ND | ND | 1,320 | ND | ND | ND |
| GB35-1-2' | 1-2 | 7/30/04 | 8/23/04 | 13,100 | ND | ND | ND | ND | 13,100 | ND | ND | ND |
| GB35-2-6.5' | 2-6.5 | 11/17/04 | 11/18/04 | 26,600 | ND | ND | ND | ND | 26,600 | ND | ND | ND |
| GB36-1-2' | 1-2 | 7/30/04 | 8/24/04 | 8,230 | ND | ND | ND | ND | 8,230 | ND | ND | ND |
| GB37-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB38-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB39-1-2' | 1-2 | 7/30/04 | 8/23/04 | 5,630 | ND | ND | ND | ND | 5,630 | ND | ND | ND |
| GB40-1-2' | 1-2 | 7/30/04 | 8/23/04 | 1,940 | ND | ND | ND | ND | 1,940 | ND | ND | ND |
| GB41-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB42-1-3' | 1-3 | 7/30/04 | 8/24/04 | 2,150 | ND | ND | ND | ND | 2,150 | ND | ND | ND |
| GB42-1-3'MS | 1-3 | 7/30/04 | 8/24/04 | 6,680 | ND | ND | ND | ND | 6,680 | ND | ND | ND |
| GB42-1-3'MSD | 1-3 | 7/30/04 | 8/24/04 | 7,720 | ND | ND | ND | ND | 7,720 | ND | ND | ND |
| GB43-1-2' | 1-2 | 7/30/04 | 8/23/04 | 5,650 | ND | ND | ND | ND | 5,650 | ND | ND | ND |
| GB44-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB45-1-2' | 1-2 | 7/30/04 | 8/24/04 | 12,100 | ND | ND | ND | ND | 12,100 | ND | ND | ND |
| GB46-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 22,600 | ND | ND | ND | ND | 22,600 | ND | ND | ND |
| GB47-1-3' | 1-3 | 7/30/04 | 8/24/04 | 3,880 | ND | ND | ND | ND | 3,880 | ND | ND | ND |
| GB48-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 9,390 | ND | ND | ND | ND | 9,390 | ND | ND | ND |
| GB49-1-3' | 1-3 | 7/30/04 | 8/24/04 | 5,440 | ND | ND | ND | ND | 5,440 | ND | ND | ND |
| GB50-1-3' | 1-3 | 7/30/04 | 8/24/04 | 4,360 | ND | ND | ND | ND | 4,360 | ND | ND | ND |
| GB52-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 6,950 | ND | ND | ND | ND | 6,950 | ND | ND | ND |
| Duplicate 82 (GB52-1-2.5') | 1-2.5 | 7/30/04 | 8/24/04 | 5,660 | ND | ND | ND | ND | 5,660 | ND | ND | ND |
| GB53-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND |
| GB54-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 2,150 | ND | ND | ND | ND | 2,150 | ND | ND | ND |
| GB55-1-3' | 1-3 | 7/30/04 | 8/24/04 | 9,470 | ND | ND | ND | ND | 9,470 | ND | ND | ND |
| GB56-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 1,180 | ND | ND | ND | ND | 1,180 | ND | ND | ND |
| GB57-1-3' | 1-3 | 8/4/04 | 8/31/04 | **50,900** | ND | ND | ND | ND | 50,900 | ND | ND | ND |
| GB57-C-1-3' | 1-3 | 12/3/04 | 12/8/04 | 17,800 | ND | ND | ND | ND | 17,800 | ND | ND | ND |
| GB58-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB59-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB60-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 2,440 | ND | ND | ND | ND | 2,440 | ND | ND | ND |

# Grade Beams
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| Duplicate 91 (GB60-1-2.5') | 1-2.5' | 8/4/04 | 9/4/04 | 1,330 | ND | ND | ND | ND | 1,330 | ND | ND | ND |
| GB60-1-2.5'MS | 1-2.5 | 8/4/04 | 9/3/04 | 1,770 | ND | ND | ND | ND | 1,770 | ND | ND | ND |
| GB60-1-2.5'MSD | 1-2.5 | 8/4/04 | 9/3/04 | 5,840 | ND | ND | ND | ND | 5,840 | ND | ND | ND |
| GB61-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB62-1-2.5 | 1-2.5 | 8/4/04 | 9/3/04 | 2,610 | ND | ND | ND | ND | 2,610 | ND | ND | ND |
| GB63-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 6,700 | ND | ND | ND | ND | 6,700 | ND | ND | ND |
| GB64-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 2,140 | ND | ND | ND | ND | 2,140 | ND | ND | ND |
| GB65-1-2' | 1-2 | 8/26/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB66-1-2' | 1-2 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB67-1-2' | 1-2 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB68-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB69-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB70-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB71-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 5,890 | ND | ND | ND | ND | 5,890 | ND | ND | ND |
| GB72-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 7,020 | ND | ND | ND | ND | 7,020 | ND | ND | ND |
| GB73-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 9,310 | ND | ND | ND | ND | 9,310 | ND | ND | ND |
| GB74-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB75-1-3' | 1-3 | 8/4/04 | 9/4/04 | 3,310 | ND | ND | ND | ND | 3,310 | ND | ND | ND |
| Duplicate 93 (GB75-1-3') | 1-3 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB75-1-3'MS | 1-3 | 8/4/04 | 9/4/04 | 4,650 | ND | ND | ND | ND | 4,650 | ND | ND | ND |
| GB75-1-3'MSD | 1-3 | 8/4/04 | 9/4/04 | 3,620 | ND | ND | ND | ND | 3,620 | ND | ND | ND |
| GB76-1-3.5' | 1-3.5 | 12/2/04 | 12/4/04 | 1,750 | ND | ND | ND | ND | 1,750 | ND | ND | ND |
| GB77-1-3' | 1-3 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB78-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB79-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB80-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | 2,280 | ND | ND | ND | ND | 2,280 | ND | ND | ND |
| GB81-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB82-1-3' | 1-3 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

# Building Subsurface Utilities
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| BS-1-1-4' | 1-4 | 10/29/04 | 11/2/04 | 8,570 | ND | ND | ND | ND | 8,570 | ND | ND | ND |
| BS-2-1-4' | 1-4 | 10/29/04 | 11/2/04 | 8,380 | ND | ND | ND | ND | 8,380 | ND | ND | ND |
| BS-3-1-4' | 1-4 | 10/29/04 | 11/2/04 | 4,670 | ND | ND | ND | ND | 4,670 | ND | ND | ND |
| BS-4-1-4' | 1-4 | 10/29/04 | 11/2/04 | 6,040 | ND | ND | ND | ND | 6,040 | ND | ND | ND |
| BS-5-1-4' | 1-4 | 10/29/04 | 11/2/04 | 4,790 | ND | ND | ND | ND | 4,790 | ND | ND | ND |
| BS-6-1-5' | 1-5 | 10/29/04 | 11/2/04 | 2,620 | ND | ND | ND | ND | 2,620 | ND | ND | ND |
| BS-7-1-4' | 1-4 | 10/29/04 | 11/2/04 | 8,820 | ND | ND | ND | ND | 8,820 | ND | ND | ND |
| BS-8-1-3.5' | 1-3.5 | 10/29/04 | 11/2/04 | 1,770 | ND | ND | ND | ND | 1,770 | ND | ND | ND |
| BS-9-1-4.5' | 1-4.5 | 10/29/04 | 11/2/04 | 7,660 | ND | ND | ND | ND | 7,660 | ND | ND | ND |
| BS-10-1-4.5' | 1-4.5 | 10/29/04 | 11/2/04 | 5,160 | ND | ND | ND | ND | 5,160 | ND | ND | ND |
| BS-11-1-4' | 1-4 | 10/29/04 | 11/2/04 | 26,600 | ND | ND | ND | ND | 26,600 | ND | ND | ND |
| BS-12-1-4' | 1-4 | 10/29/04 | 11/2/04 | 33,400 | ND | ND | ND | ND | 33,400 | ND | ND | ND |
| BS-13-1-5' | 1-5 | 10/29/04 | 11/2/04 | 3,220 | ND | ND | ND | ND | 3,220 | ND | ND | ND |
| BS-14-1-4' | 1-4 | 10/29/04 | 11/2/04 | 12,700 | ND | ND | ND | ND | 12,700 | ND | ND | ND |
| BS-15-1-3.25' | 1-3.25 | 10/29/04 | 11/2/04 | 21,600 | ND | ND | ND | ND | 21,600 | ND | ND | ND |
| BS-16-1-3' | 1-3 | 10/29/04 | 11/2/04 | 27,800 | ND | ND | ND | ND | 27,800 | ND | ND | ND |
| BS-17-1-3' | 1-3 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-18-1-2' | 1-2 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-19-1-3.5' | 1-3.5 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-20-1-2.5' | 1-2.5 | 10/29/04 | 11/4/04 | 1,480 | ND | ND | ND | ND | 1,480 | ND | ND | ND |
| BS-21-1-2.5' | 1-2.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-22-1-2' | 1-2 | 10/29/04 | 11/4/04 | 1,250 | ND | ND | ND | ND | 1,250 | ND | ND | ND |
| BS-23-1-2' | 1-2 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-25-1-2.5' | 1-2.5 | 10/29/04 | 11/3/04 | 1,280 | ND | ND | ND | ND | 1,280 | ND | ND | ND |
| BS-26-1-3' | 1-3 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-26-1-3'MS | 1-3 | 10/29/04 | 11/3/04 | 4,930 | ND | ND | ND | ND | 4,930 | ND | ND | ND |
| BS-26-1-3'MSD | 1-3 | 10/29/04 | 11/3/04 | 4,610 | ND | ND | ND | ND | 4610 | ND | ND | ND |
| Duplicate 175 | | 10/29/04 | 11/3/04 | 1,120 | ND | ND | ND | ND | 1120 | ND | ND | ND |
| BS27-1-2' | 1-2 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-29-1-1.5' | 1-1.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-30-1-2.5' | 1-2.5 | 10/29/04 | 11/3/04 | 1,610 | ND | ND | ND | ND | 1610 | ND | ND | ND |
| BS-31-1-1.5' | 1-1.5 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-32-1-2' | 1-2 | 10/29/04 | 11/3/04 | 4,250 | ND | ND | ND | ND | 4250 | ND | ND | ND |
| BS-33-1-1.5' | 1-1.5 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-34-1-2.5' | 1-2.5 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-35-1-1.5' | 1-1.5 | 11/2/04 | 11/6/04 | 18,400 | ND | ND | ND | ND | 18400 | ND | ND | ND |
| BS-36-1-2' | 1-2 | 11/2/04 | 11/6/04 | 7,340 | ND | ND | ND | ND | 7340 | ND | ND | ND |
| BS-37-1-2.5' | 1-2.5 | 11/2/04 | 11/6/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-38-1-2.5' | 1-2.5 | 11/2/04 | 11/6/04 | 20,600 | ND | ND | ND | ND | 20,600 | ND | ND | ND |
| Duplicate 179 (BS38-1-2.5') | 1-2.5 | 11/2/04 | 11/8/04 | 11,600 | ND | ND | ND | ND | 11,600 | ND | ND | ND |
| BS-39-1-3' | 1-3 | 11/2/04 | 11/8/04 | 2,660 | ND | ND | ND | ND | 2,660 | ND | ND | ND |
| BS-40-1-1.5' | 1-1.5 | 11/2/04 | 11/8/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |

# Building Subsurface Utilities
## Polychlorinated Biphenyls

| Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| BS-41-1-1.5' | 1-1.5 | 11/2/04 | 11/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-42-1-2' | 1-2 | 11/2/04 | 11/9/04 | 5,270 | ND | ND | ND | ND | 5,270 | ND | ND | ND |
| BS-43-1-2' | 1-2 | 11/2/04 | 11/8/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND |
| BS-44-1-2.5' | 1-2.5 | 11/2/04 | 11/8/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND |
| BS-45-1-2.5' | 1-2.5 | 11/2/04 | 11/8/04 | 5,690 | ND | ND | ND | ND | 5,690 | ND | ND | ND |
| BS-46-1-2.5' | 1-2.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-47-1-3' | 1-3 | 10/29/04 | 11/4/04 | 18,600 | ND | ND | ND | ND | 18,600 | ND | ND | ND |
| BS-48-1-3.5' | 1-3.5 | 10/29/04 | 11/4/04 | 6,740 | ND | ND | ND | ND | 6,740 | ND | ND | ND |
| BS-49-1-4' | 1-4 | 10/29/04 | 11/4/04 | 13,700 | ND | ND | ND | ND | 13,700 | ND | ND | ND |
| BS-50-1-4.5' | 1-4.5 | 10/29/04 | 11/4/04 | 19,300 | ND | ND | ND | ND | 19,300 | ND | ND | ND |
| BS-51-1-5' | 1-5 | 10/29/04 | 11/4/04 | 1,570 | ND | ND | ND | ND | 1,570 | ND | ND | ND |
| BS-52-1-1.25' | 1-1.25 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-53-1-1.5' | 1-1.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-54-1-1.5' | 1-1.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-55-1-1.25' | 1-1.25 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-56-1-1.25' | 1-1.25 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-57-1-2.5' | 1-2.5 | 10/29/04 | 11/4/04 | 10,900 | ND | ND | ND | ND | 10,900 | ND | ND | ND |
| BS-58-1-4' | 1-4 | 11/2/04 | 11/8/04 | 3,700 | ND | ND | ND | ND | 3,700 | ND | ND | ND |
| Duplicate 178 (BS-58-1-4') | 1-4 | 11/2/04 | 11/8/04 | 4,980 | ND | ND | ND | ND | 4,980 | ND | ND | ND |
| BS-59-1-1.5' | 1-1.5 | 11/2/04 | 11/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-60-1-5' | 1-5 | 11/2/04 | 11/8/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| BS61-2-6' | 2-6 | 11/17/04 | 11/5/04 | 9,230 | ND | ND | ND | ND | 9,230 | ND | ND | ND |
| Duplicate 191 (BS61-2-6') | 2-6 | 11/17/04 | 11/18/04 | 6,440 | ND | ND | ND | ND | 6,440 | ND | ND | ND |
| BS-61-1-2' | 1-2 | 10/29/04 | 11/18/04 | 2,190 | ND | ND | ND | ND | 2,190 | ND | ND | ND |
| BS-62-1-2.5' | 1-2.5 | 10/29/04 | 11/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-63-1-3' | 1-3 | 10/29/04 | 11/4/04 | 7,800 | ND | ND | ND | ND | 7,800 | ND | ND | ND |
| BS-64-1-3.5' | 1-3.5 | 10/29/04 | 11/4/04 | 8,350 | ND | ND | ND | ND | 8,350 | ND | ND | ND |
| BS-65-1-4' | 1-4 | 10/29/04 | 11/4/04 | 32,500 | ND | ND | ND | ND | 32,500 | ND | ND | ND |
| BS-66-1-5' | 1-5 | 10/29/04 | 11/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-67-1-1.5' | 1-1.5 | 10/29/04 | 11/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-68-1-1.5' | 1-1.5 | 10/29/04 | 11/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-69-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | **98,800** | ND | ND | ND | ND | 98,800 | ND | ND | ND |
| BS-69-1.5-2.5' | 1.5-2.5 | 12/2/04 | 12/4/04 | 14,200 | ND | ND | ND | ND | 14,200 | ND | ND | ND |
| BS-69-E-1-1.5' | 1-1.5 | 11/11/04 | 11/15/04 | 48,000 | ND | ND | ND | ND | 48,000 | ND | ND | ND |
| BS-69-W-1-1.5' | 1-1.5 | 11/11/04 | 11/15/04 | **138,700** | ND | ND | ND | ND | 138,700 | ND | ND | ND |
| BS-69-A-1-2' | 1-2 | 11/17/04 | 11/18/04 | 32,500 | ND | ND | ND | ND | 32,500 | ND | ND | ND |
| BS-69-B-1-2' | 1-2 | 11/17/04 | 11/18/04 | 2,280 | ND | ND | ND | ND | 2,280 | ND | ND | ND |
| BS-69-C-1-2' | 1-2 | 11/17/04 | 11/18/04 | 7,700 | ND | ND | ND | ND | 7,700 | ND | ND | ND |
| BS-70-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | 20,100 | ND | ND | ND | ND | 20,100 | ND | ND | ND |
| BS-71-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-72-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | 30,600 | ND | ND | ND | ND | 30,600 | ND | ND | ND |

# Building Subsurface Utilities
## Polychlorinated Biphenyls

| Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| BS-73-1-1.5' | 1-1.5 | 11/3/04 | 11/10/04 | 2,240 | ND | ND | ND | ND | 2,240 | ND | ND | ND |
| BS-74-1-2' | 1-2 | 11/3/04 | 11/9/04 | 3,520 | ND | ND | ND | ND | 3,520 | ND | ND | ND |
| BS-75-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| BS-76-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-77-1-2' | 1-2 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-78-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-79-1-4' | 1-4 | 11/3/04 | 11/9/04 | 24,800 | ND | ND | ND | ND | 24,800 | ND | ND | ND |
| Duplicate 181 (BS79-1-4') | 1-4 | 11/3/04 | 11/9/04 | 23,600 | ND | ND | ND | ND | 23,600 | ND | ND | ND |
| BS-80-1-2' | 1-2 | 11/3/04 | 11/9/04 | 4,000 | ND | ND | ND | ND | 4,000 | ND | ND | ND |
| BS-81-1-2' | 1-2 | 11/3/04 | 11/9/04 | 13,600 | ND | ND | ND | ND | 13,600 | ND | ND | ND |
| BS-82-1-5' | 1-5 | 11/3/04 | 11/9/04 | 8,510 | ND | ND | ND | ND | 8,510 | ND | ND | ND |
| BS-83-1-1.5 | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-84-1-3.75' | 1-3.75 | 11/3/04 | 11/9/04 | 14,500 | ND | ND | ND | ND | 14,500 | ND | ND | ND |
| BS-85-1-2' | 1-2 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-86-1-2' | 1-2 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-87-1-5.5' | 1-5.5 | 11/3/04 | 11/9/04 | 4,020 | ND | ND | ND | ND | 4,020 | ND | ND | ND |
| BS-88-1-5.5' | 1-5.5 | 11/3/04 | 11/9/04 | 2,000 | ND | ND | ND | ND | 2,000 | ND | ND | ND |
| BS-89-1-6' | 1-6 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-90-1-4' | 1-4 | 11/3/04 | 11/9/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND |
| BS-90-4-7' | 4-7 | 11/3/04 | 11/9/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| Duplicate 184 (BS90-4-7') | 4-7 | 11/3/04 | 11/10/04 | 8,350 | ND | ND | ND | ND | 8,350 | ND | ND | ND |
| BS-91-1-4' | 1-4 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-91-4-6.75' | 4-6.75 | 11/3/04 | 11/9/04 | 2,650 | ND | ND | ND | ND | 2,650 | ND | ND | ND |
| BS-92-1-2' | 1-2 | 11/3/04 | 11/9/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND |
| BS-93-1-2' | 1-2 | 11/3/04 | 11/10/04 | 2,000 | ND | ND | ND | ND | 2,000 | ND | ND | ND |
| BS-94-1-4.5' | 1-4.5 | 11/3/04 | 11/10/04 | 2,700 | ND | ND | ND | ND | 2,700 | ND | ND | ND |
| BS-95-1-2' | 1-2 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-96-1-6' | 1-6 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-97-1-5.25' | 1-5.25 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 182 (BS-97-1-5.25') | 1-5.25 | 11/3/04 | 11/10/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| BS-98-1-5' | 1-5 | 11/3/04 | 11/10/04 | 5,450 | ND | ND | ND | ND | 5,450 | ND | ND | ND |
| BS-99-1-4.25' | 1-4.25 | 11/3/04 | 11/10/04 | 20,100 | ND | ND | ND | ND | 20,100 | ND | ND | ND |
| BS-100-1-4' | 1-4 | 11/3/04 | 11/9/04 | 6,190 | ND | ND | ND | ND | 6,190 | ND | ND | ND |
| BS-101-1-3.75' | 1-3.75 | 11/3/04 | 11/9/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| BS-102-1-2' | 1-2 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-103-1-2.75' | 1-2.75 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-104-1-4' | 1-4 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-105-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-106-1-4' | 1-4 | 11/3/04 | 11/9/04 | 2,180 | ND | ND | ND | ND | 2,180 | ND | ND | ND |
| BS-107-1-3.25' | 1-3.25 | 11/3/04 | 11/10/04 | 40,000 | ND | ND | ND | ND | 40,000 | ND | ND | ND |
| BS-108-1-1.75' | 1-1.75 | 11/3/04 | 11/10/04 | 3,440 | ND | ND | ND | ND | 3,440 | ND | ND | ND |
| BS-109-1-3.75' | 1-3.75 | 11/3/04 | 11/10/04 | 8,520 | ND | ND | ND | ND | 8,520 | ND | ND | ND |

## Building Subsurface Utilities
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| BS-110-1-3.75' | 1-3.75 | 11/3/04 | 11/10/04 | 18,100 | ND | ND | ND | ND | 18,100 | ND | ND | ND |
| BS-111-1-4.5' | 1-4.5 | 11/3/04 | 11/9/04 | 8,620 | ND | ND | ND | ND | 8,620 | ND | ND | ND |
| BS-112-1-4' | 1-4 | 11/3/04 | 11/10/04 | 48,000 | ND | ND | ND | ND | 48,000 | ND | ND | ND |
| BS-112-4-7' | 4-7 | 11/3/04 | 11/10/04 | 5,960 | ND | ND | ND | ND | 5,960 | ND | ND | ND |
| BS-113-1-4' | 1-4 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-113-4-7' | 4-7 | 11/3/04 | 11/10/04 | 6,670 | ND | ND | ND | ND | 6,670 | ND | ND | ND |
| BS-114-1-5' | 1-5 | 11/3/04 | 11/9/04 | 2,530 | ND | ND | ND | ND | 2,530 | ND | ND | ND |
| BS-115-1-2' | 1-2 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-116-1-2' | 1-2 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-117-1-2' | 1-2 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-118-1-1.75' | 1-1.75 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

# Utility Tie-Ins
# Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Tie-In** | **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **TI-1A** | TI-1A-1-4' | 1-4 | 10/20/04 | 10/26/04 | 21,700 | ND | ND | ND | ND | 21,700 | ND | ND | ND |
| | TI-1A-4-8' | 4-8 | 10/20/04 | 10/26/04 | 3,600 | ND | ND | ND | ND | 3,600 | ND | ND | ND |
| | TI-1A-8-11' | 8-11 | 10/20/04 | 10/26/04 | 3,720 | ND | ND | ND | ND | 3,720 | ND | ND | ND |
| **TI-2A** | TI-2A-1-4' | 1-4 | 10/20/04 | 10/26/04 | **60,900** | ND | ND | ND | ND | 60,900 | ND | ND | ND |
| | TI-2A-4-8' | 4-8 | 10/20/04 | 10/26/04 | 7,210 | ND | ND | ND | ND | 7,210 | ND | ND | ND |
| | TI-2A-8-11' | 8-11 | 10/20/04 | 10/26/04 | 2,870 | ND | ND | ND | ND | 2,870 | ND | ND | ND |
| **TI-3A** | TI-3A-1-4' | 1-4 | 10/20/04 | 10/26/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | TI-3A-4-8' | 4-8 | 10/20/04 | 10/27/04 | 44,600 | ND | ND | ND | ND | 44,600 | ND | ND | ND |
| | TI-3A-8-11' | 8-11 | 10/20/04 | 10/26/04 | 2,350 | ND | ND | ND | ND | 2,350 | ND | ND | ND |
| **TI-4A** | TI-4A-0-4' | 0-4 | 10/20/04 | 10/26/04 | 3,680 | ND | ND | ND | ND | 3,680 | ND | ND | ND |
| | TI-4A-4-8' | 4-8 | 10/20/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | TI-4A-8-9' | 8-9 | 10/20/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **TI-5A** | TI-5A-1-4' | 1-4 | 10/20/04 | 10/27/04 | **75,000** | ND | ND | ND | ND | 75,000 | ND | ND | ND |
| | TI-5A-4-8' | 4-8 | 10/20/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | TI-5A-8-9.25' | 8-9.25 | 10/20/04 | 10/26/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Q40** | Q40-2-4' | 2-4 | 5/26/04 | 6/5/04 | 1,530 | ND | ND | ND | ND | 1,530 | ND | ND | ND | ~ |
| | Q40-4-8' | 4-8 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q41** | Q41-2-4' | 2-4 | 5/26/04 | 6/5/04 | 25,900 | ND | ND | ND | ND | ND | ND | ND | 25,900 | ~ |
| | Q41-4-6' | 4-6 | 5/26/04 | 6/5/04 | 6,470 | ND | ND | ND | ND | 6,470 | ND | ND | ND | ~ |
| | Q41-6-8.5' | 6-8.5 | 5/26/04 | 6/5/04 | 1,410 | ND | ND | ND | ND | 1,410 | ND | ND | ND | ~ |
| | Q41-OS-9-10' | 9-10 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q42** | Q42-2-4' | 2-4 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q42-4-6' | 4-6 | 5/26/04 | 6/5/04 | 9,140 | ND | ND | ND | ND | 9,140 | ND | ND | ND | ~ |
| | Q42-6-8.5' | 6-8.5 | 5/26/04 | 6/5/04 | 7,570 | ND | ND | ND | ND | 7,570 | ND | ND | ND | ~ |
| | Q42-OS-9-10' | 9-10 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q43** | Q43-2-4' | 2-4 | 5/26/04 | 6/5/04 | 2,190 | ND | ND | ND | ND | 2,190 | ND | ND | ND | ~ |
| | Q43-4-6' | 4-6 | 5/26/04 | 6/11/04 | **99,000** | ND | ND | ND | ND | 99,000 | ND | ND | ND | ~ |
| | Q43-6-8.5' | 6-8.5 | 5/26/04 | 6/12/04 | **108,000** | ND | ND | ND | ND | 108,000 | ND | ND | ND | ~ |
| | Q43-OS-9-10' | 9-10 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| | Q43-A-4-6' | 4-6 | 6/30/04 | 7/31/04 | 20,300 | ND | ND | ND | ND | 20300 | ND | ND | ND | ~ |
| | Q43-A-6-9' | 6-9 | 6/30/04 | 7/31/04 | 10,200 | ND | ND | ND | ND | 10200 | ND | ND | ND | ~ |
| | Duplicate 68 (Q43-A-6-9') | 6-9 | 6/30/04 | 8/7/04 | 6,490 | ND | ND | ND | ND | 6490 | ND | ND | ND | |
| | Q43-B-4-6' | 4-6 | 6/30/04 | 7/31/04 | 4,750 | ND | ND | ND | ND | 4750 | ND | ND | ND | ~ |
| | Q43-B-6-9' | 6-9 | 6/30/04 | 7/31/04 | 4,250 | ND | ND | ND | ND | 4250 | ND | ND | ND | ~ |
| | Q43-B-6-9'MS | 6-9 | 6/30/04 | 7/31/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND | ~ |
| | Q43-B-6-9'MSD | 6-9 | 6/30/04 | 7/31/04 | 17,100 | ND | ND | ND | ND | 17100 | ND | ND | ND | ~ |
| | Q43-C-4-6' | 4-6 | 6/30/04 | 7/31/04 | 2,380 | ND | ND | ND | ND | 2380 | ND | ND | ND | ~ |
| | Q43-C-6-9' | 6-9 | 6/30/04 | 7/31/04 | 2,470 | ND | ND | ND | ND | 2470 | ND | ND | ND | ~ |
| | Q43-D-4-6' | 4-6 | 6/30/04 | 7/31/04 | 1,720 | ND | ND | ND | ND | 1720 | ND | ND | ND | ~ |
| | Q43-D-6-8.5' | 6-8.5 | 6/30/04 | 7/31/04 | 47,600 | ND | ND | ND | ND | 47600 | ND | ND | ND | ~ |
| | Q43-E-4-6' | 4-6 | 6/30/04 | 7/31/04 | **50,900** | ND | ND | ND | ND | 50900 | ND | ND | ND | ~ |
| | Q43-E-6-8.5' | 6-8.5 | 6/30/04 | 7/31/04 | 4,720 | ND | ND | ND | ND | 4720 | ND | ND | ND | ~ |
| | Q43-F-4-6' | 4-6 | 6/30/04 | 7/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q43-F-6-9.5' | 6-9.5 | 6/30/04 | 7/31/04 | 9,870 | ND | ND | ND | ND | 9870 | ND | ND | ND | ~ |
| **Q44** | Q44-1-3' | 1-3 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q44-3-6' | 3-6 | 5/26/04 | 6/5/04 | 5,880 | ND | ND | ND | ND | 5,880 | ND | ND | ND | ~ |
| | Q44-6-9' | 6-9 | 5/26/04 | 6/5/04 | 6,370 | ND | ND | ND | ND | 6,370 | ND | ND | ND | ~ |
| **Q45** | Q45-1-3' | 1-3 | 5/26/04 | 6/5/04 | 1,500 | ND | ND | ND | ND | 1,500 | ND | ND | ND | ~ |
| | Q45-3-6' | 3-6 | 5/26/04 | 6/5/04 | 3,450 | ND | ND | ND | ND | 3,450 | ND | ND | ND | ~ |
| | Q45-6-9' | 6-9 | 5/26/04 | 6/5/04 | 3,560 | ND | ND | ND | ND | 3,560 | ND | ND | ND | ~ |
| **Q46** | Q46-1-4' | 1-4 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q46-4-7' | 4-7 | 5/26/04 | 6/5/04 | 6,340 | ND | ND | ND | ND | 6,340 | ND | ND | ND | ~ |
| | Q46-4-7'MS | 4-7 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q46-4-7'MSDUP | 4-7 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Q46-7-10' | 7-10 | 5/26/04 | 6/5/04 | 7,180 | ND | ND | ND | ND | 7,180 | ND | ND | ND | ~ |
| | Q46-OS-10.5-11.5' | 10.5-11.5 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q47** | Q47-1-3' | 1-3 | 5/26/04 | 6/5/04 | 3,240 | ND | ND | ND | ND | 3,240 | ND | ND | ND | ~ |
| | Q47-3-6' | 3-6 | 5/26/04 | 6/5/04 | 3,730 | ND | ND | ND | ND | 3,730 | ND | ND | ND | ~ |
| | Q47-6-9' | 6-9 | 5/26/04 | 6/5/04 | 8,630 | ND | ND | ND | ND | 8,630 | ND | ND | ND | ~ |
| **Q48** | Q48-1-3' | 1-3 | 5/26/04 | 6/5/04 | 2,640 | ND | ND | ND | ND | 2,640 | ND | ND | ND | ~ |
| | Q48-3-6' | 3-6 | 5/26/04 | 6/5/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND | ~ |
| **Q49** | Q49-1-3' | 1-3 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q49-3-5' | 3-5 | 5/26/04 | 6/5/04 | 1,800 | ND | ND | ND | ND | 1,800 | ND | ND | ND | ~ |
| | Q49-5-8' | 5-8 | 5/26/04 | 6/5/04 | 6,730 | ND | ND | ND | ND | 6,730 | ND | ND | ND | ~ |
| | Q49-OS-9.5-10.5' | 9.5-10.5 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q50** | Q50-1-4' | 1-4 | 5/26/04 | 6/5/04 | 2,860 | ND | ND | ND | ND | 2,860 | ND | ND | ND | ~ |
| | Q50-4-7' | 4-7 | 5/26/04 | 6/5/04 | 5,310 | ND | ND | ND | ND | 5,310 | ND | ND | ND | ~ |
| | Q50-7-11' | 7-11 | 5/26/04 | 6/6/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q50-OS-11.5-12' | 11.5-12 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q51** | Q51-1-4' | 1-4 | 5/26/04 | 6/6/04 | 9,140 | ND | ND | ND | ND | 3,410 | ND | ND | 5,730 | ~ |
| | Q51-4-7' | 4-7 | 5/26/04 | 6/6/04 | 2,560 | ND | ND | ND | ND | 2,560 | ND | ND | ND | ~ |
| | Q51-7-10' | 7-10 | 5/26/04 | 6/6/04 | 1,720 | ND | ND | ND | ND | 1,720 | ND | ND | ND | ~ |
| | Q51-OS-10.5-11.5' | 10.5-11.5 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q52** | Q52-1-4' | 1-4 | 6/14/04 | 7/13/04 | 9,650 | ND | ND | ND | ND | 9,650 | ND | ND | ND | ~ |
| | Q52-4-7' | 4-7 | 6/14/04 | 7/4/04 | 4,520 | ND | ND | ND | ND | 4,520 | ND | ND | ND | ~ |
| | Duplicate 27 | | 6/14/04 | 7/13/04 | 6,240 | ND | ND | ND | ND | 6,240 | ND | ND | ND | ~ |
| | Q52-7-11' | 7-11 | 6/14/04 | 7/4/04 | 5,320 | ND | ND | ND | ND | 5,320 | ND | ND | ND | ~ |
| | Q52-OS-11.5-12' | 11.5-12 | 6/14/04 | 6/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q53** | Q53-1-4' | 1-4 | 6/14/04 | 7/4/04 | 2,940 | ND | ND | ND | ND | 2,940 | ND | ND | ND | ~ |
| | Q53-1-4'MS | 1-4 | 6/14/04 | 7/4/04 | 4,810 | ND | ND | ND | ND | 4,810 | ND | ND | ND | ~ |
| | Q53-1-4'MSD | 1-4 | 6/14/04 | 7/4/04 | 4,670 | ND | ND | ND | ND | 4,670 | ND | ND | ND | ~ |
| | Q53-4-8' | 4-8 | 6/14/04 | 7/4/04 | 1,450 | ND | ND | ND | ND | 1,450 | ND | ND | ND | ~ |
| **former Q54** | Q54-1-4' | 1-4 | 6/14/04 | 7/4/04 | 2,640 | ND | ND | ND | ND | 2,640 | ND | ND | ND | ~ |
| | Q54-4-7' | 4-7 | 6/14/04 | 7/4/04 | 1,640 | ND | ND | ND | ND | 1,640 | ND | ND | ND | ~ |
| | Q54-7-11' | 7-11 | 6/14/04 | 7/4/04 | 1,450 | ND | ND | ND | ND | 1,450 | ND | ND | ND | ~ |
| | Q54-OS-11-12' | 11-12 | 6/14/04 | 6/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **former Q55** | Q55-1-4' | 1-4 | 6/14/04 | 7/13/04 | 1,560 | ND | ND | ND | ND | 1,560 | ND | ND | ND | ~ |
| | Q55-4-8' | 4-8 | 6/14/04 | 7/4/04 | 3,710 | ND | ND | ND | ND | 3,710 | ND | ND | ND | ~ |
| | Q55-8-11' | 8-11 | 6/30/04 | 7/31/04 | 2,060 | ND | ND | ND | ND | 2,060 | ND | ND | ND | ~ |
| **former Q56** | Q56-1-4' | 1-4 | 6/17/04 | 7/30/04 | 4,580 | ND | ND | ND | ND | 4,580 | ND | ND | ND | ~ |
| | Q56-4-8' | 4-8 | 6/17/04 | 7/30/04 | 2,840 | ND | ND | ND | ND | 2,840 | ND | ND | ND | ~ |
| | Q56-8-12' | 8-12 | 6/17/04 | 7/30/04 | 1,610 | ND | ND | ND | ND | 1,610 | ND | ND | ND | ~ |
| | Q57-1-4' | 1-4 | 6/17/04 | 7/30/04 | 4,410 | ND | ND | ND | ND | 4,410 | ND | ND | ND | ~ |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **former Q57** | Q57-4-7' | 4-7 | 6/17/04 | 7/30/04 | 4,280 | ND | ND | ND | ND | 4,280 | ND | ND | ND | ~ |
| | Q57-7-10' | 7-10 | 6/17/04 | 7/30/04 | 2,690 | ND | ND | ND | ND | 2,690 | ND | ND | ND | ~ |
| | Q57-OS-10.5-12' | 10.5-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **former Q58** | Q58-1-4' | 1-4 | 6/17/04 | 7/30/04 | 5,610 | ND | ND | ND | ND | 5,610 | ND | ND | ND | ~ |
| | Q58-4-7' | 4-7 | 6/17/04 | 7/30/04 | 4,030 | ND | ND | ND | ND | 4,030 | ND | ND | ND | ~ |
| | Q58-7-11' | 7-11 | 6/17/04 | 7/30/04 | 2,040 | ND | ND | ND | ND | 2,040 | ND | ND | ND | ~ |
| **former Q59** | Q59-1-3' | 1-3 | 6/17/04 | 7/30/04 | 22,300 | ND | ND | ND | ND | 22,300 | ND | ND | ND | ~ |
| | Q59-3-6' | 3-6 | 6/17/04 | 7/30/04 | 2,810 | ND | ND | ND | ND | 2,810 | ND | ND | ND | ~ |
| | Q59-6-9' | 6-9 | 6/17/04 | 7/30/04 | 1,840 | ND | ND | ND | ND | 1,840 | ND | ND | ND | ~ |
| | Q59-OS-9.5-12' | 9.5-12 | 6/17/04 | 7/9/04 | 851 | ND | ND | ND | ND | 851 | ND | ND | ND | ~ |
| | DUPLICATE 28 | | 6/17/04 | 7/31/04 | 9,330 | ND | ND | ND | ND | 9,330 | ND | ND | ND | ~ |
| **former Q60** | Q60-1-4' | 1-4 | 6/17/04 | 7/30/04 | **217,000** | ND | ND | ND | ND | 217,000 | ND | ND | ND | ~ |
| | Q60-1-4'MS | 1-4 | 6/17/04 | 7/30/04 | 392,000 | ND | ND | ND | ND | 392,000 | ND | ND | ND | ~ |
| | Q60-1-4'MS DUP | 1-4 | 6/17/04 | 7/30/04 | 351,000 | ND | ND | ND | ND | 351,000 | ND | ND | ND | ~ |
| | Q60-4-7' | 4-7 | 6/17/04 | 7/30/04 | **80,700** | ND | ND | ND | ND | 80,700 | ND | ND | ND | ~ |
| | Q60-7-10.5' | 7-10.5 | 6/17/04 | 7/30/04 | 3,590 | ND | ND | ND | ND | 3,590 | ND | ND | ND | ~ |
| | Q60-OS-11-12' | 11-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **former Q61** | Q61-1-4' | 1-4 | 6/17/04 | 7/30/04 | 14,900 | ND | ND | ND | ND | 14,900 | ND | ND | ND | ~ |
| | Q61-4-7' | 4-7 | 6/17/04 | 7/30/04 | 3,360 | ND | ND | ND | ND | 3,360 | ND | ND | ND | ~ |
| | Q61-7-11' | 7-11 | 6/17/04 | 7/30/04 | 3,890 | ND | ND | ND | ND | 3,890 | ND | ND | ND | ~ |
| **Q55** | Q55A-1-4' | 1-4 | 7/7/04 | 8/6/04 | 8,260 | ND | ND | ND | ND | 8,260 | ND | ND | ND | ~ |
| | DUPLICATE 76 | 1-4 | 7/7/04 | 8/6/04 | 7,840 | ND | ND | ND | ND | 7,840 | ND | ND | ND | ~ |
| | Q55A-4-7' | 4-7 | 7/7/04 | 8/6/04 | 6,050 | ND | ND | ND | ND | 6,050 | ND | ND | ND | ~ |
| | Q55A-4-7'MS | 4-7 | 7/7/04 | 8/6/04 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND | ~ |
| | Q55A-4-7'MSD | 4-7 | 7/7/04 | 8/6/04 | 8,120 | ND | ND | ND | ND | 8,120 | ND | ND | ND | ~ |
| | Q55A-7-11' | 7-11 | 7/7/04 | 8/6/04 | 2,070 | ND | ND | ND | ND | 2,070 | ND | ND | ND | ~ |
| | Q55A-OS-11.5-12' | 11.5-12 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q56** | Q56A-1-4' | 1-4 | 7/7/04 | 8/6/04 | 14,900 | ND | ND | ND | ND | 14,900 | ND | ND | ND | ~ |
| | Q56A-4-7' | 4-7 | 7/7/04 | 8/6/04 | **57,500** | ND | ND | ND | ND | 57,500 | ND | ND | ND | ~ |
| | Q56A-7-10' | 7-10 | 7/7/04 | 8/6/04 | 2,750 | ND | ND | ND | ND | 2,750 | ND | ND | ND | ~ |
| | Q56A-OS-10.5-13' | 10.5-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q56-B-1-4' | 1-4 | 8/18/04 | 8/19/04 | 18,000 | ND | ND | ND | ND | 18,000 | ND | ND | ND | ~ |
| | Q56-B-4-7' | 4-7 | 8/18/04 | 8/19/04 | **62,500** | ND | ND | ND | ND | 62,500 | ND | ND | ND | ~ |
| | Q56-B-7-9.5' | 7-9.5 | 8/18/04 | 8/19/04 | 1,450 | ND | ND | ND | ND | 1,450 | ND | ND | ND | ~ |
| | Q56-C-1-4' | 1-4 | 8/18/04 | 8/19/04 | 3,930 | ND | ND | ND | ND | 3,930 | ND | ND | ND | ~ |
| | Q56-C-4-7' | 4-7 | 8/18/04 | 8/20/04 | 24,100 | ND | ND | ND | ND | 24,100 | ND | ND | ND | ~ |
| | Q56-C-7-8' | 7-8 | 8/18/04 | 8/19/04 | 1,590 | ND | ND | ND | ND | 1,590 | ND | ND | ND | ~ |
| | Q56-D-1-4' | 1-4 | 8/18/04 | 8/24/04 | 3,360 | ND | ND | ND | ND | 3,360 | ND | ND | ND | ~ |
| | Q56-D-4-7' | 4-7 | 8/18/04 | 8/24/04 | 39,600 | ND | ND | ND | ND | 39,600 | ND | ND | ND | ~ |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

## North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Q56-D-7-11' | 7-11 | 8/18/04 | 8/24/04 | 2,780 | ND | ND | ND | ND | 2,780 | ND | ND | ND | ~ |
| **Q57** | Q57A-1-4' | 1-4 | 7/7/04 | 8/6/04 | 5,760 | ND | ND | ND | ND | 5,760 | ND | ND | ND | ~ |
| | Q57A-4-7' | 4-7 | 7/7/04 | 8/7/04 | 8,000 | ND | ND | ND | ND | 8,000 | ND | ND | ND | ~ |
| | Q57A-7-10' | 7-10 | 7/7/04 | 8/7/04 | 2,320 | ND | ND | ND | ND | 2,320 | ND | ND | ND | ~ |
| | Q57A-OS-10.5-13' | 10.5-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q58** | Q58A-1-3' | 1-3 | 7/7/04 | 8/7/04 | 6,660 | ND | ND | ND | ND | 6,660 | ND | ND | ND | ~ |
| | Q58A-3-6' | 3-6 | 7/7/04 | 8/7/04 | 9,670 | ND | ND | ND | ND | 9,670 | ND | ND | ND | ~ |
| | Q58A-6-9.5' | 6-9.5 | 7/7/04 | 8/7/04 | 1,960 | ND | ND | ND | ND | 1,960 | ND | ND | ND | ~ |
| | Q58A-OS-10-12' | 10-12 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q59** | Q59A-1-3' | 1-3 | 7/7/04 | 8/7/04 | 20,000 | ND | ND | ND | ND | 20,000 | ND | ND | ND | ~ |
| | Q59A-3-6' | 3-6 | 7/7/04 | 8/7/04 | 2,280 | ND | ND | ND | ND | 2,280 | ND | ND | ND | ~ |
| | Q59A-6-9.5' | 6-9.5 | 7/7/04 | 8/7/04 | 5,090 | ND | ND | ND | ND | 5,090 | ND | ND | ND | ~ |
| | Q59A-OS-10-13' | 10-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q60** | Q60A-1-4' | 1-4 | 7/7/04 | 8/7/04 | 3,230 | ND | ND | ND | ND | 3,230 | ND | ND | ND | ~ |
| | Q60A-4-7' | 4-7 | 7/7/04 | 8/7/04 | 4,350 | ND | ND | ND | ND | 4,350 | ND | ND | ND | ~ |
| | Q60A-7-10.5' | 7-10.5 | 7/7/04 | 8/7/04 | 3,810 | ND | ND | ND | ND | 3,810 | ND | ND | ND | ~ |
| | Q60A-OS-11-12' | 11-12 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q60-B-1-4' | 1-4 | 8/18/04 | 8/20/04 | 1,960 | ND | ND | ND | ND | 1,960 | ND | ND | ND | ~ |
| | Q60-B-4-7' | 4-7 | 8/18/04 | 8/20/04 | 2,270 | ND | ND | ND | ND | 2,270 | ND | ND | ND | ~ |
| | Q60-C-1-4' | 1-4 | 8/18/04 | 8/21/04 | **82,600** | ND | ND | ND | ND | 82,600 | ND | ND | ND | ~ |
| | Duplicate 112 | 1-4 | 8/18/04 | 8/22/04 | 16,100 | ND | ND | ND | ND | 16,100 | ND | ND | ND | ~ |
| | Q60-C-4-7' | 4-7 | 8/18/04 | 8/20/04 | 1,360 | ND | ND | ND | ND | 1,360 | ND | ND | ND | ~ |
| | Q60-C-4-7'MS | 4-7 | 8/18/04 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | ~ |
| | Q60-C-4-7'MSD | 4-7 | 8/18/04 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | ~ |
| | Q60-D-1-4' | 1-4 | 8/18/04 | 8/21/04 | **73,900** | ND | ND | ND | ND | 73,900 | ND | ND | ND | ~ |
| | Q60-D-4-7' | 4-7 | 8/18/04 | 8/22/04 | **68,100** | ND | ND | ND | ND | 68,100 | ND | ND | ND | ~ |
| | Q60-E-1-4' | 1-4 | 8/18/04 | 8/20/04 | **97,100** | ND | ND | ND | ND | 97,100 | ND | ND | ND | ~ |
| | Q60-E-4-7' | 4-7 | 8/18/04 | 8/20/04 | 1,690 | ND | ND | ND | ND | 1,690 | ND | ND | ND | ~ |
| | Q60-F-1-4' | 1-4 | 8/18/04 | 8/20/04 | 29,300 | ND | ND | ND | ND | 29,300 | ND | ND | ND | ~ |
| | Q60-F-4-7' | 4-7 | 8/18/04 | 8/20/04 | 2,050 | ND | ND | ND | ND | 2,050 | ND | ND | ND | ~ |
| | Q60-G-1-4' | 1-4 | 8/18/04 | 8/20/04 | 5,910 | ND | ND | ND | ND | 5,910 | ND | ND | ND | ~ |
| | Q60-G-4-7' | 4-7 | 8/18/04 | 8/20/04 | 1,310 | ND | ND | ND | ND | 1,310 | ND | ND | ND | ~ |
| | Q60-H-1-4' | 1-4 | 8/18/04 | 8/20/04 | 1,030 | ND | ND | ND | ND | 1,030 | ND | ND | ND | ~ |
| | Q60-H-4-7' | 4-7 | 8/18/04 | 8/20/04 | 3,610 | ND | ND | ND | ND | 3,610 | ND | ND | ND | ~ |
| **Q61** | Q61A-1-4' | 1-4 | 7/7/04 | 8/7/04 | 40,200 | ND | ND | ND | ND | 40,200 | ND | ND | ND | ~ |
| | Q61A-4-8' | 4-8 | 7/7/04 | 8/7/04 | 12,800 | ND | ND | ND | ND | 12,800 | ND | ND | ND | ~ |
| | Q61A-8-12' | 8-12 | 7/7/04 | 8/7/04 | 1,910 | ND | ND | ND | ND | 1,910 | ND | ND | ND | ~ |
| | Q61A-OS-12-13' | 12-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | DUPLICATE 77 | 12-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Q62** | Q62-1-4' | 1-4 | 6/17/04 | 7/30/04 | **62,300** | ND | ND | ND | ND | 62,300 | ND | ND | ND | ~ |
| | Q62-4-7' | 4-7 | 6/17/04 | 7/30/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND | ~ |
| | Q62-7-11.5' | 7-11.5 | 6/17/04 | 7/30/04 | 2,660 | ND | ND | ND | ND | 2,660 | ND | ND | ND | ~ |
| | Q62-A-1-4' | 1-4 | 9/22/04 | 9/24/04 | **55,180** | ND | ND | ND | ND | 55,180 | ND | ND | ND | ~ |
| | Q62-A-4-7' | 4-7 | 9/22/04 | 9/24/04 | 2,400 | ND | ND | ND | ND | 2,400 | ND | ND | ND | ~ |
| | Q62-B-1-4' | 1-4 | 9/22/04 | 9/24/04 | 5,800 | ND | ND | ND | ND | 5,800 | ND | ND | ND | ~ |
| | Q62-B-4-7' | 4-7 | 9/22/04 | 9/24/04 | 4,000 | ND | ND | ND | ND | 4,000 | ND | ND | ND | ~ |
| | Q62-C-1-4' | 1-4 | 9/24/04 | 9/28/04 | 2,050 | ND | ND | ND | ND | 2,050 | ND | ND | ND | ~ |
| | Q62-C-4-7' | 4-7 | 9/24/04 | 9/28/04 | 2,060 | ND | ND | ND | ND | 2,060 | ND | ND | ND | ~ |
| | Q62-D-1-4' | 1-4 | 9/24/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q62-D-4-7' | 4-7 | 9/24/04 | 9/28/04 | **48,900** | ND | ND | ND | ND | 48,900 | ND | ND | ND | ~ |
| **Q63** | Q63-1-4' | 1-4 | 6/17/04 | 7/30/04 | 22,500 | ND | ND | ND | ND | 22,500 | ND | ND | ND | ~ |
| | Q63-4-7' | 4-7 | 6/17/04 | 7/30/04 | 1,370 | ND | ND | ND | ND | 1,370 | ND | ND | ND | ~ |
| | Q63-7-10.5' | 7-10.5 | 6/17/04 | 7/30/04 | 1,480 | ND | ND | ND | ND | 1,480 | ND | ND | ND | ~ |
| | Q63-OS-11-12' | 11-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q64** | Q64-1-4' | 1-4 | 6/17/04 | 7/31/04 | 6,890 | ND | ND | ND | ND | 6,890 | ND | ND | ND | ~ |
| | Q64-4-7' | 4-7 | 6/17/04 | 7/31/04 | 16,600 | ND | ND | ND | ND | 16,600 | ND | ND | ND | ~ |
| | Q64-7-11' | 7-11 | 6/17/04 | 7/31/04 | 7,830 | ND | ND | ND | ND | 7,830 | ND | ND | ND | ~ |
| | Q64-OS-11.5-12' | 11.5-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q65** | Q65-1-4' | 1-4 | 6/17/04 | 7/31/04 | **121,000** | ND | ND | ND | ND | 121,000 | ND | ND | ND | ~ |
| | Q65-4-7' | 4-7 | 6/17/04 | 7/31/04 | 6,950 | ND | ND | ND | ND | 6,950 | ND | ND | ND | ~ |
| | Q65-7-11' | 7-11 | 6/17/04 | 7/31/04 | 8,760 | ND | ND | ND | ND | 8,760 | ND | ND | ND | ~ |
| | Q65-OS-11.5-12' | 11.5-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-A-1-4' | 1-4 | 8/18/04 | 8/22/04 | **94,900** | ND | ND | ND | ND | 94,900 | ND | ND | ND | ~ |
| | Q65-A-4-7' | 4-7 | 8/18/04 | 8/20/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND | ~ |
| | Q65-B-1-4' | 1-4 | 8/18/04 | 8/20/04 | 9,920 | ND | ND | ND | ND | 9,920 | ND | ND | ND | ~ |
| | Q65-B-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,640 | ND | ND | ND | ND | 2,640 | ND | ND | ND | ~ |
| | Q65-C-1-4' | 1-4 | 8/18/04 | 8/19/04 | 4,510 | ND | ND | ND | ND | 4,510 | ND | ND | ND | ~ |
| | Q65-C-4-7'MS | 4-7 | 8/18/04 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | ~ |
| | Q65-C-4-7'MSD | 4-7 | 8/18/04 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | ~ |
| | Q65-C-4-7' | 4-7 | 8/18/04 | 8/19/04 | 5,960 | ND | ND | ND | ND | 5,960 | ND | ND | ND | ~ |
| | Duplicate 113 | 4-7 | 8/18/04 | 8/20/04 | 9,820 | ND | ND | ND | ND | 9,820 | ND | ND | ND | ~ |
| | Q65-D-1-4' | 1-4 | 8/18/04 | 8/20/04 | 35,100 | ND | ND | ND | ND | 35,100 | ND | ND | ND | ~ |
| | Q65-D-4-7' | 4-7 | 8/18/04 | 8/19/04 | 5,820 | ND | ND | ND | ND | 5,820 | ND | ND | ND | ~ |
| | Q65-E-1-4' | 1-4 | 8/18/04 | 8/20/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND | ~ |
| | Q65-E-4-7' | 4-7 | 8/18/04 | 8/20/04 | 3,100 | ND | ND | ND | ND | 3,100 | ND | ND | ND | ~ |
| | Q65-F-1-4' | 1-4 | 8/18/04 | 8/22/04 | 26,600 | ND | ND | ND | ND | 26,600 | ND | ND | ND | ~ |
| | Q65-F-4-7' | 4-7 | 8/18/04 | 8/20/04 | 28,300 | ND | ND | ND | ND | 28,300 | ND | ND | ND | ~ |
| | Q65-G-1-4' | 1-4 | 8/18/04 | 8/20/04 | **92,000** | ND | ND | ND | ND | 92,000 | ND | ND | ND | ~ |
| | Q65-G-4-7' | 4-7 | 8/18/04 | 8/19/04 | 3,150 | ND | ND | ND | ND | 3,150 | ND | ND | ND | ~ |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Q65-H-1-4' | 1-4 | 8/18/04 | 8/20/04 | 22,000 | ND | ND | ND | ND | 22,000 | ND | ND | ND | ~ |
| | Q65-H-4-7' | 4-7 | 8/18/04 | 8/20/04 | 2,360 | ND | ND | ND | ND | 2,360 | ND | ND | ND | ~ |
| | Q65-I-1-4' | 1-4 | 8/18/04 | 8/25/04 | 19,700 | ND | ND | ND | ND | 19,700 | ND | ND | ND | ~ |
| | Q65-I-4-7' | 4-7 | 8/18/04 | 8/25/04 | 6,230 | ND | ND | ND | ND | 6,230 | ND | ND | ND | ~ |
| | Q65-K-1-4' | 1-4 | 9/24/04 | 9/28/04 | **51,800** | ND | ND | ND | ND | 51,800 | ND | ND | ND | ~ |
| | Q65-K-4-7' | 4-7 | 9/24/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-K-7-8' | 7-8 | 10/1/04 | 10/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-L-1-4' | 1-4 | 9/24/04 | 9/28/04 | **230,000** | ND | ND | ND | ND | 230,000 | ND | ND | ND | ~ |
| | Q65-L-4-7' | 4-7 | 9/24/04 | 9/28/04 | **265,000** | ND | ND | ND | ND | 265,000 | ND | ND | ND | ~ |
| | Q65-L-7-10' | 7-10 | 10/1/04 | 10/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-M-1-4' | 1-4 | 10/1/04 | 10/4/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND | ~ |
| | Q65-M-4-7' | 4-7 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-M-7-11' | 7-11 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-N-1-4' | 1-4 | 10/1/04 | 10/4/04 | 28,500 | ND | ND | ND | ND | 28,500 | ND | ND | ND | ~ |
| | Q65-N-4-7' | 4-7 | 10/1/04 | 10/2/04 | 2,480 | ND | ND | ND | ND | 2,480 | ND | ND | ND | ~ |
| | Duplicate 152 (Q65-N-4-7') | 4-7 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-N-7-10.5' | 7-10.5 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-O-1-4' | 1-4 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-O-4-7' | 4-7 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-O-7-10' | 7-10 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q66** | Q66-1-4' | 1-4 | 6/17/04 | 7/31/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND | ~ |
| | Q66-4-8' | 4-8 | 6/17/04 | 7/31/04 | 7,330 | ND | ND | ND | ND | 7,330 | ND | ND | ND | ~ |
| | Q66-OS-11-11.5 | 11-11.5 | 6/17/04 | 7/9/04 | 601 | ND | ND | ND | ND | 601 | ND | ND | ND | ~ |
| **Q67** | Q67-1-4' | 1-4 | 6/17/04 | 7/31/04 | 5,310 | ND | ND | ND | ND | 5,310 | ND | ND | ND | ~ |
| | Q67-4-8' | 4-8 | 6/17/04 | 7/31/04 | 32,100 | ND | ND | ND | ND | 32,100 | ND | ND | ND | ~ |
| | Q67-OS-8.5-9.5 | 8.5-9.5 | 6/17/04 | 7/9/04 | 933 | ND | ND | ND | ND | 933 | ND | ND | ND | ~ |
| | Q67-C-1-4' | 1-4 | 8/19/04 | 8/26/04 | 38,300 | ND | ND | ND | ND | 38,300 | ND | ND | ND | ~ |
| | Q67-C-4-8' | 4-8 | 8/19/04 | 8/26/04 | 5,360 | ND | ND | ND | ND | 5,360 | ND | ND | ND | ~ |
| **Q68** | Q68-1-4' | 1-4 | 7/7/04 | 8/7/04 | 5,660 | ND | ND | ND | ND | 5,660 | ND | ND | ND | ~ |
| | Q68-4-7' | 4-7 | 7/7/04 | 8/7/04 | 2,870 | ND | ND | ND | ND | 2,870 | ND | ND | ND | ~ |
| | Q68-4-7'MS | 4-7 | 7/7/04 | 8/7/04 | 7,160 | ND | ND | ND | ND | 7,160 | ND | ND | ND | ~ |
| | Q68-4-7'MSD | 4-7 | 7/7/04 | 8/7/04 | 7,090 | ND | ND | ND | ND | 7,090 | ND | ND | ND | ~ |
| | Q68-7-11' | 7-11 | 7/7/04 | 8/7/04 | 4,900 | ND | ND | ND | ND | 4,900 | ND | ND | ND | ~ |
| | Q69-1-4' | 1-4 | 7/7/04 | 8/6/04 | **113,000** | ND | ND | ND | ND | 113,000 | ND | ND | ND | ~ |
| | Q69-4-7' | 4-7 | 7/7/04 | 8/6/04 | **650,000** | ND | ND | ND | ND | 650,000 | ND | ND | ND | ~ |
| | Q69-7-10.5' | 7-10.5 | 7/7/04 | 8/6/04 | 12,500 | ND | ND | ND | ND | 12,500 | ND | ND | ND | ~ |
| | Q69-OS-11-12' | 11-12 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q69-A-1-4' | 1-4 | 8/18/04 | 8/19/04 | 3,590 | ND | ND | ND | ND | 3,590 | ND | ND | ND | ~ |
| | Q69-A-4-7' | 4-7 | 8/18/04 | 8/19/04 | 3,280 | ND | ND | ND | ND | 3,280 | ND | ND | ND | ~ |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) | Method 680 Homologs (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Q69** | Q69-A-7-9.5' | 7-9.5 | 8/18/04 | 8/19/04 | 2,020 | ND | ND | ND | ND | 2,020 | ND | ND | ND | ~ |
| | Q69-B-1-4' | 1-4 | 8/18/04 | 8/19/04 | 2,780 | ND | ND | ND | ND | 2,780 | ND | ND | ND | ~ |
| | Q69-B-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,520 | ND | ND | ND | ND | 2,520 | ND | ND | ND | ~ |
| | Q69-B-7-13 | 7-13 | 8/18/04 | 8/19/04 | 1,040 | ND | ND | ND | ND | 1,040 | ND | ND | ND | ~ |
| | Q69-C-1-4' | 1-4 | 8/18/04 | 8/19/04 | 6,280 | ND | ND | ND | ND | 6,280 | ND | ND | ND | ~ |
| | Q69-C-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,260 | ND | ND | ND | ND | 2,260 | ND | ND | ND | ~ |
| | Q69-C-7-10' | 7-10 | 8/18/04 | 8/19/04 | 2,880 | ND | ND | ND | ND | 2,880 | ND | ND | ND | ~ |
| | Q69-D-1-4' | 1-4 | 8/18/04 | 8/19/04 | 2,010 | ND | ND | ND | ND | 2,010 | ND | ND | ND | ~ |
| | Q69-D-4-7' | 4-7 | 8/18/04 | 8/20/04 | 10,500 | ND | ND | ND | ND | 10,500 | ND | ND | ND | ~ |
| | Q69-D-7-10' | 7-10 | 8/18/04 | 8/19/04 | 950 | ND | ND | ND | ND | 950 | ND | ND | ND | ~ |
| | Q69-E-1-4' | 1-4 | 8/18/04 | 8/19/04 | 2,340 | ND | ND | ND | ND | 2,340 | ND | ND | ND | ~ |
| | Q69-E-4-7' | 4-7 | 8/18/04 | 8/19/04 | 22,500 | ND | ND | ND | ND | 22,500 | ND | ND | ND | ~ |
| | Q69-E-7-10' | 7-10 | 8/18/04 | 8/20/04 | 1,060 | ND | ND | ND | ND | 1,060 | ND | ND | ND | ~ |
| | Q69-F-1-4' | 1-4 | 8/18/04 | 8/19/04 | 5,690 | ND | ND | ND | ND | 5,690 | ND | ND | ND | ~ |
| | Q69-F-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,610 | ND | ND | ND | ND | 2,610 | ND | ND | ND | ~ |
| | Q69-F-7-9' | 7-9 | 8/18/04 | 8/19/04 | 2,540 | ND | ND | ND | ND | 2,540 | ND | ND | ND | ~ |
| | Q69-G-1-4' | 1-4 | 8/18/04 | 8/19/04 | 2,600 | ND | ND | ND | ND | 2,600 | ND | ND | ND | ~ |
| | Duplicate 111 | 1-4 | 8/18/04 | 8/20/04 | 4,680 | ND | ND | ND | ND | 4,680 | ND | ND | ND | ~ |
| | Q69-G-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,950 | ND | ND | ND | ND | 2,950 | ND | ND | ND | ~ |
| | Q69-G-4-7'MS | 4-7 | 8/18/04 | | | | | | | | | | | ~ |
| | Q69-G-4-7'MSD | 4-7 | 8/18/04 | | | | | | | | | | | ~ |
| | Q69-G-7-9' | 7-9 | 8/18/04 | 8/19/04 | 1,710 | ND | ND | ND | ND | 1,710 | ND | ND | ND | ~ |
| | Q69-H-1-4' | 1-4 | 8/18/04 | 8/19/04 | 3,370 | ND | ND | ND | ND | 3,370 | ND | ND | ND | ~ |
| | Q69-H-4-7' | 4-7 | 8/18/04 | 8/19/04 | 1,230 | ND | ND | ND | ND | 1,230 | ND | ND | ND | ~ |
| | Q69-H-7-13' | 7-13 | 8/18/04 | 8/19/04 | 1,680 | ND | ND | ND | ND | 1,680 | ND | ND | ND | ~ |
| **Q70** | Q70-1-4' | 1-4 | 8/19/04 | 8/23/04 | **290,000** | ND | ND | ND | ND | 290,000 | ND | ND | ND | ~ |
| | Q70-4-7' | 4-7 | 8/19/04 | 8/23/04 | 3,240 | ND | ND | ND | ND | 3,240 | ND | ND | ND | ~ |
| | Q70-7-11' | 7-11 | 8/19/04 | 8/23/04 | 1,190 | ND | ND | ND | ND | 1,190 | ND | ND | ND | ~ |
| | Q70-OS-11.5-12' | 11.5-12 | 8/19/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-A-1-4' | 1-4 | 8/25/04 | 8/27/04 | 10,300 | ND | ND | ND | ND | 10300 | ND | ND | ND | ~ |
| | Q70-A-4-7' | 4-7 | 8/25/04 | 8/27/04 | 1,080 | ND | ND | ND | ND | 1080 | ND | ND | ND | ~ |
| | Q70-B-1-4' | 1-4 | 8/25/04 | 8/27/04 | 22,800 | ND | ND | ND | ND | 22800 | ND | ND | ND | ~ |
| | Q70-B-4-7' | 4-7 | 8/25/04 | 8/27/04 | 1,480 | ND | ND | ND | ND | 1480 | ND | ND | ND | ~ |
| | Q70-C-1-4' | 1-4 | 8/25/04 | 8/27/04 | 4,400 | ND | ND | ND | ND | 4400 | ND | ND | ND | ~ |
| | Q70-C-4-7' | 4-7 | 8/25/04 | 8/27/04 | 1,730 | ND | ND | ND | ND | 1730 | ND | ND | ND | ~ |
| | Q70-D-1-4' | 1-4 | 8/25/04 | 8/27/04 | **132,000** | ND | ND | ND | ND | 132000 | ND | ND | ND | ~ |
| | Q70-D-4-7' | 4-7 | 8/25/04 | 8/27/04 | 2,070 | ND | ND | ND | ND | 2070 | ND | ND | ND | ~ |
| | Q70-E-1-4' | 1-4 | 8/25/04 | 8/27/04 | **106,000** | ND | ND | ND | ND | 106000 | ND | ND | ND | ~ |
| | Q70-E-4-7' | 4-7 | 8/25/04 | 8/27/04 | 1,340 | ND | ND | ND | ND | 1340 | ND | ND | ND | ~ |
| | Q70-F-1-4' | 1-4 | 8/25/04 | 8/30/04 | 24,000 | ND | ND | ND | ND | 24000 | ND | ND | ND | ~ |

**NOTES:**
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~ = Constituent not analyzed
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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Q70-F-4-7' | 4-7 | 8/25/04 | 8/27/04 | 2,920 | ND | ND | ND | ND | 2920 | ND | ND | ND | ~ |
| | Q70-G-1-4' | 1-4 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-G-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-H-1-4' | 1-4 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-H-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-I-1-4' | 1-4 | 9/8/04 | 9/9/04 | 3,200 | ND | ND | ND | ND | ND | ND | ND | ND | 3200 |
| | Q70-I-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-J-1-4' | 1-4 | 9/8/04 | 9/18/04 | 1,400 | ND | ND | ND | ND | ND | ND | ND | ND | 1400 |
| | Q70-J-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-K-1-4' | 1-4 | 9/8/04 | 9/9/04 | 14,000 | ND | ND | ND | ND | ND | ND | ND | ND | 14000 |
| | Duplicate 130 (Q70-K-1-4') | 1-4 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-K-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q71** | Q71-1-4' | 1-4 | 8/19/04 | 8/23/04 | 4,900 | ND | ND | ND | ND | 4,900 | ND | ND | ND | ~ |
| | Duplicate 115 (Q71-1-4') | 1-4 | 8/19/04 | 8/23/04 | 3,700 | ND | ND | ND | ND | 3,700 | ND | ND | ND | ~ |
| | Q71-4-7' | 4-7 | 8/19/04 | 8/23/04 | 2,300 | ND | ND | ND | ND | 2,300 | ND | ND | ND | ~ |
| | Q71-4-7'MS | 4-7 | 8/19/04 | | | | | | | | | | | ~ |
| | Q71-4-7'MSD | 4-7 | 8/19/04 | | | | | | | | | | | ~ |
| | Q71-7-11.5' | 7-11.5 | 8/19/04 | 8/23/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND | ~ |
| | Q71-OS-12-12.5' | 12-12.5 | 8/19/04 | 8/23/04 | ND | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ~ |
| **Q72** | Q72-1-4' | 1-4 | 9/22/04 | 9/23/04 | 7,900 | ND | ND | ND | ND | 7,900 | ND | ND | ND | ~ |
| | Q72-4-7' | 4-7 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q72-7-8.5' | 7-8.5 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q73** | Q73-1-4' | 1-4 | 9/22/04 | 9/23/04 | 13,900 | ND | ND | ND | ND | 13,900 | ND | ND | ND | ~ |
| | Q73-4-7' | 4-7 | 9/22/04 | 9/23/04 | 11,560 | ND | ND | ND | ND | 11,560 | ND | ND | ND | ~ |
| | Q73-7-11' | 7-11 | 9/22/04 | 9/23/04 | 3,500 | ND | ND | ND | ND | 3,500 | ND | ND | ND | ~ |
| **Q74** | Q74-1-4' | 1-4 | 9/22/04 | 9/23/04 | 6,740 | ND | ND | ND | ND | 6,740 | ND | ND | ND | ~ |
| | Q74-4-7' | 4-7 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q74-7-8.5' | 7-8.5 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q75** | Q75-1-4' | 1-4 | 9/22/04 | 9/23/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND | ~ |
| | Q75-4-7' | 4-7 | 9/22/04 | 9/23/04 | 25,000 | ND | ND | ND | ND | 25,000 | ND | ND | ND | ~ |
| | Q75-7-10' | 7-10 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |

**NOTES:**
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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Water Line
## Polychlorinated Biphenyls (PCBs)

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **LOCATION** | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **W1** | W1-1-3' | 1-3 | 7/2/04 | 8/13/04 | **48,200** | ND | ND | ND | ND | 48,200 | ND | ND | ND |
| | W1-3-5' | 3-5 | 7/2/04 | 8/13/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| **W2** | W2-1-3' | 1-3 | 7/2/04 | 8/13/04 | 6,230 | ND | ND | ND | ND | 6,230 | ND | ND | ND |
| | W2-3-5' | 3-5 | 7/2/04 | 8/13/04 | 1,340 | ND | ND | ND | ND | 1,340 | ND | ND | ND |
| **W3** | W3-1-3' | 1-3 | 7/2/04 | 8/13/04 | 2,280 | ND | ND | ND | ND | 2,280 | ND | ND | ND |
| | W3-3-5' | 3-5 | 7/2/04 | 8/13/04 | 1,840 | ND | ND | ND | ND | 1,840 | ND | ND | ND |
| **W4** | W4-1-3' | 1-3 | 7/2/04 | 8/13/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| | W4-1-3'MS | 1-3 | 7/2/04 | 8/13/04 | 12,200 | ND | ND | ND | ND | 12,200 | ND | ND | ND |
| | W4-1-3'MSD | 1-3 | 7/2/04 | 8/13/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | W4-3-5' | 3-5 | 7/2/04 | 8/13/04 | 1,850 | ND | ND | ND | ND | 1,850 | ND | ND | ND |
| | Duplicate 74 | 3-5 | 7/2/04 | 8/13/04 | 27,700 | ND | ND | ND | ND | 27,700 | ND | ND | ND |
| **W5** | W5-1-3' | 1-3 | 7/2/04 | 8/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W5-3-5' | 3-5 | 7/2/04 | 8/13/04 | 2,220 | ND | ND | ND | ND | 2,220 | ND | ND | ND |
| **W6** | W6-1-3' | 1-3 | 7/2/04 | 8/12/04 | 7,700 | ND | ND | ND | ND | 7,700 | ND | ND | ND |
| | W6-3-5' | 3-5 | 7/2/04 | 8/13/04 | 2,110 | ND | ND | ND | ND | 2,110 | ND | ND | ND |
| **W7** | W7-1-3' | 1-3 | 7/2/04 | 8/12/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | Duplicate 73 | 1-3 | 7/2/04 | 8/13/04 | 11,400 | ND | ND | ND | ND | 11,400 | ND | ND | ND |
| | W7-3-5' | 3-5 | 7/2/04 | 8/12/04 | 12,900 | ND | ND | ND | ND | 12,900 | ND | ND | ND |
| | W7-3-5'MS | 3-5 | 7/2/04 | 8/12/04 | 11,500 | ND | ND | ND | ND | 11,500 | ND | ND | ND |
| | W7-3-5'MSD | 3-5 | 7/2/04 | 8/12/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | W8-1-3' | 1-3 | 7/2/04 | 8/12/04 | **133,000** | ND | ND | ND | ND | 133,000 | ND | ND | ND |
| | W8-3-5' | 3-5 | 7/2/04 | 8/12/04 | **124,000** | ND | ND | ND | ND | 124,000 | ND | ND | ND |
| | W8-5-7' | 5-7 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-A-1-3' | 1-3 | 9/8/04 | 9/18/04 | 18,700 | ND | ND | ND | ND | 18,700 | ND | ND | ND |
| | W8-A-3-5' | 3-5 | 9/8/04 | 9/20/04 | 3,580 | ND | ND | ND | ND | 3,580 | ND | ND | ND |
| | W8-A-5-7' | 5-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-B-1-3' | 1-3 | 9/8/04 | 9/12/04 | **93,400** | ND | ND | ND | ND | 93,400 | ND | ND | ND |
| | W8-B-3-5' | 3-5 | 9/8/04 | 9/21/04 | **168,000** | ND | ND | ND | ND | 168,000 | ND | ND | ND |
| | W8-B-5-7' | 5-7 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-C-1-3' | 1-3 | 9/8/04 | 9/21/04 | **126,000** | ND | ND | ND | ND | 126,000 | ND | ND | ND |
| | W8-C-3-5' | 3-5 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-C-5-7' | 5-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-D-1-3' | 1-3 | 9/8/04 | 9/13/04 | 28,200 | ND | ND | ND | ND | 28,200 | ND | ND | ND |
| | W8-D-3-5' | 3-5 | 9/8/04 | 9/13/04 | **192,000** | ND | ND | ND | ND | 192,000 | ND | ND | ND |
| | W8-D-5-7' | 5-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-E-1-3' | 1-3 | 9/8/04 | 9/12/04 | **356,000** | ND | ND | ND | ND | 356,000 | ND | ND | ND |
| | W8-E-3-5' | 3-5 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-E-5-7' | 5-7 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-F-1-3' | 1-3 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-F-3-4' | 3-4 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-G-1-3' | 1-3 | 9/14/04 | 9/17/04 | **152,000** | ND | ND | ND | ND | 152,000 | ND | ND | ND |
| | W8-G-3-5' | 3-5 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

# Water Line
## Polychlorinated Biphenyls (PCBs)

| LOCATION | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **W8** | W8-H-1-3' | 1-3 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-H-3-5' | 3-5 | 9/14/04 | 9/19/04 | **1,260,000** | ND | ND | ND | ND | 1,260,000 | ND | ND | ND |
| | W8-I-1-3' | 1-3 | 9/14/04 | 9/19/04 | **2,320,000** | ND | ND | ND | ND | 2,320,000 | ND | ND | ND |
| | W8-I-3-5' | 3-5 | 9/14/04 | 9/17/04 | 28,500 | ND | ND | ND | ND | 28,500 | ND | ND | ND |
| | W8-J-1-3' | 1-3 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-J-3-5' | 3-5 | 9/14/04 | 9/17/04 | **123,000** | ND | ND | ND | ND | 123,000 | ND | ND | ND |
| | W8-J-5-7' | 5-7 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-K-1-3' | 1-3 | 9/14/04 | 9/22/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | W8-K-3-5' | 3-5 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-K-5-7' | 5-7 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-L-1-3' | 1-3 | 9/14/04 | 9/22/04 | 5,200 | ND | ND | ND | ND | 5,200 | ND | ND | ND |
| | Duplicate 137 (W8-L-1-3') | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-L-3-4' | 3-4 | 9/14/04 | 9/22/04 | 26,500 | ND | ND | ND | ND | 26,500 | ND | ND | ND |
| | W8-L-4-7' | 4-7 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-M-1-3 | 1-3 | 9/24/04 | 9/28/04 | **77,600** | ND | ND | ND | ND | 77,600 | ND | ND | ND |
| | W8-M-1-3'MS | 1-3 | 9/24/04 | 9/28/04 | 24,200 | ND | ND | ND | ND | 24,200 | ND | ND | ND |
| | W8-M-1-3'MSD | 1-3 | 9/24/04 | 9/28/04 | **53,100** | ND | ND | ND | ND | 53,100 | ND | ND | ND |
| | W8-M-3-5 | 3-5 | 9/24/04 | 9/28/04 | 20,900 | ND | ND | ND | ND | 20,900 | ND | ND | ND |
| | Duplicate 143 (W8-M-3-5') | 3-5 | 9/24/04 | 9/28/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | W8-M-5-7 | 5-7 | 9/24/04 | 9/28/04 | 2,930 | ND | ND | ND | ND | 2,930 | ND | ND | ND |
| | W8-N-1-3' | 1-3 | 9/24/04 | 9/28/04 | 2,480 | ND | ND | ND | ND | 2,480 | ND | ND | ND |
| | W8-N-3-5' | 3-5 | 9/24/04 | 9/28/04 | 2,430 | ND | ND | ND | ND | 2,430 | ND | ND | ND |
| | W8-N-5-7' | 5-7 | 9/24/04 | 9/28/04 | 2,080 | ND | ND | ND | ND | 2,080 | ND | ND | ND |
| | W8-N-5-7'MS | 5-7 | 9/24/04 | 9/28/04 | 7,970 | ND | ND | ND | ND | 7,970 | ND | ND | ND |
| | W8-N-5-7'MSD | 5-7 | 9/24/04 | 9/28/04 | 8,440 | ND | ND | ND | ND | 8,440 | ND | ND | ND |
| | W8-O-1-3' | 1-3 | 9/24/04 | 9/28/04 | **146,000** | ND | ND | ND | ND | 146,000 | ND | ND | ND |
| | W8-O-3-5' | 3-5 | 9/24/04 | 9/28/04 | 31,400 | ND | ND | ND | ND | 31,400 | ND | ND | ND |
| | W8-O-5-7' | 5-7 | 9/24/04 | 9/28/04 | 2,540 | ND | ND | ND | ND | 2,540 | ND | ND | ND |
| | W8-P-1-3' | 1-3 | 9/24/04 | 9/28/04 | 2,650 | ND | ND | ND | ND | 2,650 | ND | ND | ND |
| | W8-P-3-5' | 3-5 | 9/24/04 | 9/28/04 | **115,000** | ND | ND | ND | ND | 115,000 | ND | ND | ND |
| | W8-P-5-7' | 5-7 | 9/24/04 | 9/28/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND |
| | W8-Q-1-3' | 1-3 | 9/24/04 | 9/28/04 | **92,300** | ND | ND | ND | ND | 92,300 | ND | ND | ND |
| | W8-Q-3-5' | 3-5 | 9/24/04 | 9/28/04 | 19,100 | ND | ND | ND | ND | 19,100 | ND | ND | ND |
| | W8-Q-5-7' | 5-7 | 9/24/04 | 9/28/04 | 2,150 | ND | ND | ND | ND | 2,150 | ND | ND | ND |
| | W8-R-1-3' | 1-3 | 9/24/04 | 9/28/04 | 4,580 | ND | ND | ND | ND | 4,580 | ND | ND | ND |
| | W8-R-3-5' | 3-5 | 9/24/04 | 9/28/04 | 9,320 | ND | ND | ND | ND | 9,320 | ND | ND | ND |
| | W8-R-5-7' | 5-7 | 9/24/04 | 9/28/04 | 2,080 | ND | ND | ND | ND | 2,080 | ND | ND | ND |
| | W8-S-1-3' | 1-3 | 9/24/04 | 9/28/04 | 3,410 | ND | ND | ND | ND | 3,410 | ND | ND | ND |
| | W8-S-3-5' | 3-5 | 9/24/04 | 9/28/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| | W8-S-5-7' | 5-7 | 9/24/04 | 9/28/04 | 5,850 | ND | ND | ND | ND | 5,850 | ND | ND | ND |
| | W8-T-1-3' | 1-3 | 9/24/04 | 9/28/04 | 9,820 | ND | ND | ND | ND | 9,820 | ND | ND | ND |
| | W8-T-3-5' | 3-5 | 9/24/04 | 9/28/04 | 1,650 | ND | ND | ND | ND | 1,650 | ND | ND | ND |
| | W8-T-5-7' | 5-7 | 9/24/04 | 9/28/04 | 1,870 | ND | ND | ND | ND | 1,870 | ND | ND | ND |

# Water Line
## Polychlorinated Biphenyls (PCBs)

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **LOCATION** | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | W8-U-1-3' | 1-3 | 9/24/04 | 9/28/04 | **119,000** | ND | ND | ND | ND | 119,000 | ND | ND | ND |
| | W8-U-3-5' | 3-5 | 9/24/04 | 9/28/04 | 2,070 | ND | ND | ND | ND | 2,070 | ND | ND | ND |
| | W8-U-5-7' | 5-7 | 9/24/04 | 9/28/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND |
| **W9** | W9-1-3' | 1-3 | 7/2/04 | 8/12/04 | 11,400 | ND | ND | ND | ND | 11,400 | ND | ND | ND |
| | W9-3-5' | 3-5 | 7/2/04 | 8/12/04 | 3,950 | ND | ND | ND | ND | 3,950 | ND | ND | ND |
| **W10** | W10-1-3' | 1-3 | 7/2/04 | 8/12/04 | 12,500 | ND | ND | ND | ND | 12,500 | ND | ND | ND |
| | W10-3-5' | 3-5 | 7/2/04 | 8/12/04 | 6,640 | ND | ND | ND | ND | 6,640 | ND | ND | ND |
| **W11** | W11-1-3' | 1-3 | 7/2/04 | 8/18/04 | 3,700 | ND | ND | ND | ND | 3,700 | ND | ND | ND |
| | W11-3-5' | 3-5 | 7/2/04 | 8/12/04 | 2,010 | ND | ND | ND | ND | 2,010 | ND | ND | ND |
| | W11-A-1-4' | 1-4 | 9/20/04 | 9/22/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| | W11-A-4-8' | 4-8 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W11-A-8-10' | 8-10 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W11-B-1-4' | 1-4 | 9/20/04 | 9/22/04 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| | W11-B-4-8' | 4-8 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W11-B-8-9' | 8-9 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **W12** | W12-1-3' | 1-3 | 7/2/04 | 8/18/04 | 5,640 | ND | ND | ND | ND | 5,640 | ND | ND | ND |
| | W12-3-5' | 3-5 | 7/2/04 | 8/18/04 | 11,600 | ND | ND | ND | ND | 11,600 | ND | ND | ND |
| | W12-A-1-4' | 1-4 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 140 (W12-A-1-4') | 1-4 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W12-A-4-8' | 4-8 | 9/22/04 | 9/23/04 | 3,100 | ND | ND | ND | ND | 3,100 | ND | ND | ND |
| | W12-A-4-8'MS | 4-8 | 9/22/04 | 9/23/04 | 6,840 | ND | ND | ND | ND | 6,840 | ND | ND | ND |
| | W12-A-4-8'MSD | 4-8 | 9/22/04 | 9/23/04 | 10,650 | ND | ND | ND | ND | 10,650 | ND | ND | ND |
| | W12-A-8-11' | 8-11 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W12-B-1-4' | 1-4 | 9/22/04 | 9/23/04 | 4,500 | ND | ND | ND | ND | 4,500 | ND | ND | ND |
| | W12-B-4-8' | 4-8 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W12-B-8-9.5' | 8-9.5 | 9/22/04 | 9/23/04 | 4,500 | ND | ND | ND | ND | 4,500 | ND | ND | ND |
| **W13** | W13-1-3' | 1-3 | 7/2/04 | 8/18/04 | 8,420 | ND | ND | ND | ND | 8,420 | ND | ND | ND |
| | W13-3-5' | 3-5 | 7/2/04 | 8/18/04 | 14,800 | ND | ND | ND | ND | 14,800 | ND | ND | ND |
| **W14** | W14-1-3' | 1-3 | 7/2/04 | 8/18/04 | 6,850 | ND | ND | ND | ND | 6,850 | ND | ND | ND |
| | W14-3-5' | 3-5 | 7/2/04 | 8/18/04 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| **W15** | W15-1-3' | 1-3 | 7/2/04 | 8/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W15-3-5' | 3-5 | 7/2/04 | 8/18/04 | 8,540 | ND | ND | ND | ND | 8,540 | ND | ND | ND |
| **W16** | W16-1-3' | 1-3 | 7/2/04 | 7/27/04 | 4,190 | ND | ND | ND | ND | 4,190 | ND | ND | ND |
| | W16-3-5' | 3-5 | 7/2/04 | 7/27/04 | 7,580 | ND | ND | ND | ND | 7,580 | ND | ND | ND |
| **W17** | W17-1-3' | 1-3 | 7/2/04 | 8/12/04 | 8,930 | ND | ND | ND | ND | 8,930 | ND | ND | ND |
| | W17-3-5' | 3-5 | 7/2/04 | 8/12/04 | 5,970 | ND | ND | ND | ND | 5,970 | ND | ND | ND |
| **W18** | W18-1-3' | 1-3 | 7/2/04 | 8/12/04 | 7,960 | ND | ND | ND | ND | 7,960 | ND | ND | ND |
| | Duplicate 70 | 1-3 | 7/2/04 | 8/13/04 | 1,750 | ND | ND | ND | ND | 1,750 | ND | ND | ND |
| | W18-3-5' | 3-5 | 7/2/04 | 8/12/04 | 5,990 | ND | ND | ND | ND | 5,990 | ND | ND | ND |
| **W19** | W19-1-3' | 1-3 | 7/2/04 | 8/12/04 | 12,800 | ND | ND | ND | ND | 12,800 | ND | ND | ND |
| | W19-1-3'MS | 1-3 | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | W19-1-3'MSD | 1-3 | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |

McCoy Field
Project No. 02685

## Water Line
## Polychlorinated Biphenyls (PCBs)

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **LOCATION** | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | W19-3-5' | 3-5 | 7/2/04 | 8/12/04 | 25,700 | ND | ND | ND | ND | 25,700 | ND | ND | ND |
| **W20** | W20-1-3' | 1-3 | 7/2/04 | 8/12/04 | 7,240 | ND | ND | ND | ND | 7,240 | ND | ND | ND |
| | W20-3-5' | 3-5 | 7/2/04 | 8/12/04 | 2,940 | ND | ND | ND | ND | 2,940 | ND | ND | ND |
| **W21** | W21-1-3' | 1-3 | 7/2/04 | 8/12/04 | 5,970 | ND | ND | ND | ND | 5,970 | ND | ND | ND |
| | W21-3-5' | 3-5 | 7/2/04 | 8/12/04 | 7,530 | ND | ND | ND | ND | 7,530 | ND | ND | ND |
| **W22** | W22-1-4' | 1-4 | 7/7/04 | 8/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W22-4-8' | 4-8 | 7/7/04 | 8/13/04 | **69,800** | ND | ND | ND | ND | 69,800 | ND | ND | ND |
| | W22-A-1-4' | 1-4 | 9/14/04 | 9/20/04 | **77,200** | ND | ND | ND | ND | 77,200 | ND | ND | ND |
| | W22-A-4-8' | 4-8 | 9/14/04 | 9/20/04 | **54,200** | ND | ND | ND | ND | 54,200 | ND | ND | ND |
| | W22-B-1-4' | 1-4 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W22-B-4-8' | 4-8 | 9/14/04 | 9/23/04 | **78,600** | ND | ND | ND | ND | 78,600 | ND | ND | ND |
| | W22-C-1-4' | 1-4 | 9/14/04 | 9/23/04 | 9,930 | ND | ND | ND | ND | 9,930 | ND | ND | ND |
| | W22-C-4-8' | 4-8 | 9/14/04 | 9/23/04 | 15,000 | ND | ND | ND | ND | 15,000 | ND | ND | ND |
| | W22-D-1-4' | 1-4 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W22-D-4-8' | 4-8 | 9/14/04 | 9/23/04 | 37,000 | ND | ND | ND | ND | 37,000 | ND | ND | ND |
| **W23** | W23-1-4' | 1-4 | 7/7/04 | 8/13/04 | 4,410 | ND | ND | ND | ND | 4,410 | ND | ND | ND |
| | W23-4-8' | 4-8 | 7/7/04 | 8/13/04 | 21,900 | ND | ND | ND | ND | 21,900 | ND | ND | ND |
| | Duplicate 78 | 4-8 | 7/7/04 | 8/13/04 | 27,300 | ND | ND | ND | ND | 27,300 | ND | ND | ND |
| **W24** | W24-1-4' | 1-4 | 7/7/04 | 8/13/04 | 7,680 | ND | ND | ND | ND | 7,680 | ND | ND | ND |
| | W24-4-8' | 4-8 | 7/7/04 | 8/13/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| **W25** | W25-1-4' | 1-4 | 7/7/04 | 8/13/04 | 3,900 | ND | ND | ND | ND | 3,900 | ND | ND | ND |
| | W25-4-8' | 4-8 | 7/7/04 | 8/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **W26** | W26-1-4' | 1-4 | 7/7/04 | 8/13/04 | 23,500 | ND | ND | ND | ND | 23,500 | ND | ND | ND |
| | W26-1-4'MS | 1-4 | 7/7/04 | 8/13/04 | 26,200 | ND | ND | ND | ND | 26,200 | ND | ND | ND |
| | W26-1-4'MSD | 1-4 | 7/7/04 | 8/13/04 | 26,400 | ND | ND | ND | ND | 26,400 | ND | ND | ND |
| | W26-4-8' | 4-8 | 7/7/04 | 8/13/04 | 5,570 | ND | ND | ND | ND | 5,570 | ND | ND | ND |
| **W27** | W27-1-4' | 1-4 | 7/7/04 | 8/13/04 | 8,660 | ND | ND | ND | ND | 8,660 | ND | ND | ND |
| | W27-4-8' | 4-8 | 7/7/04 | 8/13/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| **W28** | W28-1-4' | 1-4 | 7/7/04 | 8/13/04 | 2,140 | ND | ND | ND | ND | 2,140 | ND | ND | ND |
| | W28-4-8' | 4-8 | 7/7/04 | 8/13/04 | 3,120 | ND | ND | ND | ND | 3,120 | ND | ND | ND |
| **W29** | W29-1-4' | 1-4 | 7/7/04 | 8/13/04 | 5,460 | ND | ND | ND | ND | 5,460 | ND | ND | ND |
| | W29-4-8' | 4-8 | 7/7/04 | 8/13/04 | 6,440 | ND | ND | ND | ND | 6,440 | ND | ND | ND |
| **W30** | W30-1-4' | 1-4 | 7/7/04 | 8/13/04 | 5,750 | ND | ND | ND | ND | 5,750 | ND | ND | ND |
| | W30-4-8' | 4-8 | 7/7/04 | 8/13/04 | 2,110 | ND | ND | ND | ND | 2,110 | ND | ND | ND |
| **W31** | W31-1-4' | 1-4 | 7/7/04 | 8/7/2004 | 8,000 | ND | ND | ND | ND | 8,000 | ND | ND | ND |
| | W31-4-8' | 4-8 | 7/7/04 | 8/7/04 | 6,290 | ND | ND | ND | ND | 6,290 | ND | ND | ND |
| **W32** | W32-1-4' | 1-4 | 7/7/04 | 8/7/04 | 26,600 | ND | ND | ND | ND | 26,600 | ND | ND | ND |
| | W32-4-7.5' | 4-7.5 | 7/7/04 | 8/7/04 | 2,040 | ND | ND | ND | ND | 2,040 | ND | ND | ND |
| **W33** | W33-1-4' | 1-4 | 7/7/04 | 8/7/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | W33-4-6.5' | 4-6.5 | 7/7/04 | 8/7/04 | 7,840 | ND | ND | ND | ND | 7,840 | ND | ND | ND |
| W16-W21 | | ~ | 7/2/04 | 8/12/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |

McCoy Field
Project No. 02685

# North Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB61** | DB61-2.5-4' | 2.5-4 | 8/5/04 | 9/8/04 | 20,400 | ND | ND | ND | ND | 20,400 | ND | ND | ND |
| | DB61-4-8' | 4-8 | 8/5/04 | 9/8/04 | 1,380 | ND | ND | ND | ND | 1,380 | ND | ND | ND |
| | DB61-8-11' | 8-11 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB62** | DB62-2.5-4' | 2.5-4 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB62-4-8' | 4-8 | 8/5/04 | 9/8/04 | 14,800 | ND | ND | ND | ND | 14,800 | ND | ND | ND |
| | DB62-8-9.5' | 8-9.5 | 8/5/04 | 9/8/04 | 5,130 | ND | ND | ND | ND | 5,130 | ND | ND | ND |
| **DB63** | DB63-1-3' | 1-3 | 8/5/04 | 9/8/04 | 1,660 | ND | ND | ND | ND | 1,660 | ND | ND | ND |
| | DB63-3-6' | 3-6 | 8/5/04 | 9/8/04 | 2,370 | ND | ND | ND | ND | 2,370 | ND | ND | ND |
| | DB63-6-9' | 6-9 | 8/5/04 | 9/8/04 | 2,860 | ND | ND | ND | ND | 2,860 | ND | ND | ND |
| **DB64** | DB64-1-4' | 1-4 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB64-4-8' | 4-8 | 8/5/04 | 9/8/04 | 7,150 | ND | ND | ND | ND | 7,150 | ND | ND | ND |
| | DB64-8-12' | 8-12 | 8/5/04 | 9/8/04 | 3,110 | ND | ND | ND | ND | 3,110 | ND | ND | ND |
| **DB65** | DB65-1-4' | 1-4 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB65-4-7' | 4-7 | 8/5/04 | 9/8/04 | 4,560 | ND | ND | ND | ND | 4,560 | ND | ND | ND |
| | DB65-4-7'MS | 4-7 | 8/5/04 | 9/8/04 | 15,000 | ND | ND | ND | ND | 15,000 | ND | ND | ND |
| | DB65-4-7'MSD | 4-7 | 8/5/04 | 9/8/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |
| | DB65-7-10.5' | 7-10.5 | 8/5/04 | 9/8/04 | 9,310 | ND | ND | ND | ND | 9,310 | ND | ND | ND |
| | Duplicate 95 | 7-10.5 | 8/5/04 | 9/8/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND |
| **DB66** | DB66-1-4' | 1-4 | 8/5/04 | 9/7/04 | 1,450 | ND | ND | ND | ND | 1,450 | ND | ND | ND |
| | DB66-4-8' | 4-8 | 8/5/04 | 9/8/04 | 18,000 | ND | ND | ND | ND | 18,000 | ND | ND | ND |
| | DB66-8-12' | 8-12 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB67** | DB67-1-4' | 1-4 | 8/5/04 | 9/7/04 | 4,720 | ND | ND | ND | ND | 4,720 | ND | ND | ND |
| | DB67-4-7' | 4-7 | 8/5/04 | 9/7/04 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| | DB67-7-10.5' | 7-10.5 | 8/5/04 | 9/7/04 | 9,530 | ND | ND | ND | ND | 9,530 | ND | ND | ND |
| **DB68** | DB68-1-4' | 1-4 | 8/5/04 | 9/7/04 | 1,490 | ND | ND | ND | ND | 1,490 | ND | ND | ND |
| | DB68-4-8' | 4-8 | 8/5/04 | 9/7/04 | 6,110 | ND | ND | ND | ND | 6,110 | ND | ND | ND |
| | DB68-8-11' | 8-11 | 8/5/04 | 9/7/04 | 6,830 | ND | ND | ND | ND | 6,830 | ND | ND | ND |
| **DB69** | DB69-1-4' | 1-4 | 8/5/04 | 9/7/04 | 5,040 | ND | ND | ND | ND | 5,040 | ND | ND | ND |
| | DB69-4-8' | 4-8 | 8/5/04 | 9/7/04 | 3,010 | ND | ND | ND | ND | 3,010 | ND | ND | ND |
| | DB69-8-11.5' | 8-11.5 | 8/5/04 | 9/7/04 | 4,760 | ND | ND | ND | ND | 4,760 | ND | ND | ND |
| **DB70** | DB70-1-4' | 1-4 | 8/5/04 | 9/7/04 | 4,090 | ND | ND | ND | ND | 4,090 | ND | ND | ND |
| | DB70-4-7' | 4-7 | 8/5/04 | 9/7/04 | 1,410 | ND | ND | ND | ND | 1,410 | ND | ND | ND |
| | DB70-7-11' | 7-11 | 8/5/04 | 9/7/04 | 3,560 | ND | ND | ND | ND | 3,560 | ND | ND | ND |
| **DB71** | DB71-1-4' | 1-4 | 8/5/04 | 9/4/04 | 6,690 | ND | ND | ND | ND | 6,690 | ND | ND | ND |
| | DB71-4-8' | 4-8 | 8/5/04 | 9/4/04 | 3,070 | ND | ND | ND | ND | 3,070 | ND | ND | ND |
| | DB71-4-8'MS | 4-8 | 8/5/04 | 9/7/04 | 7,440 | ND | ND | ND | ND | 7,440 | ND | ND | ND |
| | DB71-4-8'MSD | 4-8 | 8/5/04 | 9/7/04 | 6,021 | ND | ND | ND | ND | 6,021 | ND | ND | ND |
| | DB71-8-12' | 8-12 | 8/5/04 | 9/4/04 | 2,250 | ND | ND | ND | ND | 2,250 | ND | ND | ND |
| | Duplicate 96 | 8-12 | 8/5/04 | 9/8/04 | 2,740 | ND | ND | ND | ND | 2,740 | ND | ND | ND |
| **DB72** | DB72-1-4' | 1-4 | 8/5/04 | 9/4/04 | 9,290 | ND | ND | ND | ND | 9,290 | ND | ND | ND |
| | DB72-4-7' | 4-7 | 8/5/04 | 9/4/04 | 4,330 | ND | ND | ND | ND | 4,330 | ND | ND | ND |
| | DB72-7-10' | 7-10 | 8/5/04 | 9/4/04 | 2,420 | ND | ND | ND | ND | 2,420 | ND | ND | ND |
| | DB73-1-4' | 1-4 | 8/5/04 | 9/4/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |

McCoy Field
Project No. 02685

## North Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB73** | DB73-4-8' | 4-8 | 8/5/04 | 9/4/04 | 1,440 | ND | ND | ND | ND | 1,440 | ND | ND | ND |
| | DB73-8-11' | 8-11 | 8/5/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB74** | DB74-1-4' | 1-4 | 8/5/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB74-4-7' | 4-7 | 8/5/04 | 9/4/04 | 3,420 | ND | ND | ND | ND | 3,420 | ND | ND | ND |
| | DB74-7-10' | 7-10 | 8/5/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB75** | DB75-1-4' | 1-4 | 8/5/04 | 9/4/04 | 4,910 | ND | ND | ND | ND | 4910 | ND | ND | ND |
| | DB75-4-8' | 4-8 | 8/5/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

# South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB1** | DB 1-1-4' | 1-4 | 8/3/04 | 8/25/04 | 6,630 | ND | ND | ND | ND | 6,630 | ND | ND | ND |
| **DB2** | DB 2-1-4' | 1-4 | 8/3/04 | 8/25/04 | 2,300 | ND | ND | ND | ND | 2,300 | ND | ND | ND |
| **DB3** | DB 3-1-4' | 1-4 | 8/3/04 | 8/28/04 | 10,400 | ND | ND | ND | ND | 10,400 | ND | ND | ND |
| | DB3-1-4'MS | 1-4 | 8/3/04 | 9/10/04 | 9,220 | ND | ND | ND | ND | 9,220 | ND | ND | ND |
| | DB3-1-4'MSD | 1-4 | 8/3/04 | 8/28/04 | 8,500 | ND | ND | ND | ND | 8,500 | ND | ND | ND |
| | DB3-A-3-6' | 3-6 | 8/25/04 | 10/26/04 | **78,500** | ND | ND | ND | 55,800 | 22,700 | ND | ND | ND |
| | DB3-A-6-9' | 6-9 | 8/25/04 | 10/26/04 | **53,400** | ND | ND | ND | 23,900 | 29,500 | ND | ND | ND |
| | Duplicate 172 (DB3-A-6-9') | 6-9 | 8/25/04 | 10/26/04 | 35,000 | ND | ND | ND | 23,000 | 12,000 | ND | ND | ND |
| | DB3-A-9-10.5' | 9-10.5 | 8/25/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB4** | DB 4-1-4' | 1-4 | 8/3/04 | 8/28/04 | 4,620 | ND | ND | ND | ND | 4,620 | ND | ND | ND |
| | Duplicate 86 | 1-4 | 8/3/04 | 8/28/04 | 5,510 | ND | ND | ND | ND | 5,510 | ND | ND | ND |
| | DB4-A-3-6' | 3-6 | 8/25/04 | 10/26/04 | 28,200 | ND | ND | ND | 16,600 | 11,600 | ND | ND | ND |
| | DB4-A-6-9' | 6-9 | 8/25/04 | 10/26/04 | 43,600 | ND | ND | ND | 31,200 | 12,400 | ND | ND | ND |
| | DB4-A-9-11' | 9-11 | 8/25/04 | 10/26/04 | 32,400 | ND | ND | ND | 19,900 | 12,500 | ND | ND | ND |
| **DB5** | DB 5-1-4' | 1-4 | 8/3/04 | 8/28/04 | **64,000** | ND | ND | ND | 36,800 | 27,200 | ND | ND | ND |
| | DB5-A-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-A-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-A-6-10' | 6-10 | 9/14/04 | 9/20/04 | **67,800** | ND | ND | ND | ND | 67,800 | ND | ND | ND |
| | DB5-B-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-B-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-B-6-10' | 6-10 | 9/14/04 | 9/20/04 | **113,000** | ND | ND | ND | ND | 113,000 | ND | ND | ND |
| | DB5-B-10-13' | 10-13 | 9/14/04 | 9/23/04 | 11,500 | ND | ND | ND | ND | 11,500 | ND | ND | ND |
| | DB5-C-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-C-3-6' | 3-6 | 9/14/04 | 9/20/04 | **79,700** | ND | ND | ND | ND | 79,700 | ND | ND | ND |
| | DB5-C-6-11.5' | 6-11.5 | 9/14/04 | 9/23/04 | 5,390 | ND | ND | ND | ND | 5,390 | ND | ND | ND |
| | DB5-D-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-D-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-D-6-11.5' | 6-11.5 | 9/14/04 | 9/23/04 | 12,900 | ND | ND | ND | ND | 12,900 | ND | ND | ND |
| | DB5-E-1-3' | 1-3 | 9/29/04 | 9/30/04 | 5,610 | ND | ND | ND | ND | 5,610 | ND | ND | ND |
| | DB5-E-3-6' | 3-6 | 9/29/04 | 9/30/04 | 5,920 | ND | ND | ND | ND | 5,920 | ND | ND | ND |
| | DB5-E-6-10' | 6-10 | 9/29/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-E-10-12' | 10-12 | 9/29/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-F-1-3' | 1-3 | 9/29/04 | 9/30/04 | 11,300 | ND | ND | ND | ND | 11,300 | ND | ND | ND |
| | DB5-F-3-6' | 3-6 | 9/29/04 | 9/30/04 | **49,100** | ND | ND | ND | 29,100 | 20,000 | ND | ND | ND |
| | DB5-F-6-10' | 6-10 | 9/29/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-F-10-11.5' | 10-11.5 | 9/29/04 | 9/30/04 | 1,820 | ND | ND | ND | ND | 1,820 | ND | ND | ND |
| | DB5-G-1-3' | 1-3 | 9/30/04 | 10/7/04 | 4,100 | ND | ND | ND | ND | 4,100 | ND | ND | ND |
| | DB5-G-3-6' | 3-6 | 9/30/04 | 10/7/04 | **60,100** | ND | ND | ND | 21,600 | 38,500 | ND | ND | ND |
| | DB5-G-6-10.5 | 6-10.5 | 9/30/04 | 10/7/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-H-1-3' | 1-3 | 9/30/04 | 9/30/04 | 36,800 | ND | ND | ND | 18,600 | 18,200 | ND | ND | ND |
| | DB5-H-3-6' | 3-6 | 9/30/04 | 9/30/04 | 33,800 | ND | ND | ND | ND | 33,800 | ND | ND | ND |
| | DB5-H-6-10' | 6-10 | 9/30/04 | 9/30/04 | 6,960 | ND | ND | ND | ND | 6,960 | ND | ND | ND |
| | DB5-H-10-12' | 10-12 | 9/30/04 | 9/30/04 | 4,170 | ND | ND | ND | ND | 4,170 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB5-I-1-3' | 1-3 | 9/30/04 | 9/30/04 | 8,870 | ND | ND | ND | ND | 8,870 | ND | ND | ND |
| | DB5-I-3-6' | 3-6 | 9/30/04 | 9/30/04 | 12,200 | ND | ND | ND | ND | 12,200 | ND | ND | ND |
| | DB5-I-6-10' | 6-10 | 9/30/04 | 9/30/04 | 19,900 | ND | ND | ND | ND | 19,900 | ND | ND | ND |
| | DB5-I-10-11.5' | 10-11.5 | 9/30/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-J-1-3' | 1-3 | 9/30/04 | 9/30/04 | 6,900 | ND | ND | ND | ND | 6,900 | ND | ND | ND |
| | DB5-J-3-6' | 3-6 | 9/30/04 | 9/30/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | DB5-J-6-10' | 6-10 | 9/30/04 | 9/30/04 | 15,200 | ND | ND | ND | ND | 15,200 | ND | ND | ND |
| | DB5-J-10-11.5' | 10-11.5 | 9/30/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-K-1-3' | 1-3 | 9/30/04 | 9/30/04 | 13,600 | ND | ND | ND | ND | 13,600 | ND | ND | ND |
| | DB5-K-3-6' | 3-6 | 9/30/04 | 9/30/04 | 5,420 | ND | ND | ND | ND | 5,420 | ND | ND | ND |
| | DB5-K-6-10' | 6-10 | 9/30/04 | 9/30/04 | 27,600 | ND | ND | ND | ND | 27,600 | ND | ND | ND |
| | DB5-K-10-12' | 10-12 | 9/30/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-L-1-3' | 1-3 | 9/30/04 | 9/30/04 | 7,740 | ND | ND | ND | ND | 7,740 | ND | ND | ND |
| | DB5-L-1-3'MS | 1-3 | 9/30/04 | 9/30/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | DB5-L-1-3'MSD | 1-3 | 9/30/04 | 9/30/04 | 17,200 | ND | ND | ND | ND | 17,200 | ND | ND | ND |
| | DB5-L-3-6' | 3-6 | 9/30/04 | 9/30/04 | 8,440 | ND | ND | ND | ND | 8,440 | ND | ND | ND |
| | Duplicate 147 (DB5-L-3-6') | 3-6 | 9/30/04 | 9/30/04 | 5,770 | ND | ND | ND | ND | 5,770 | ND | ND | ND |
| | DB5-L-6-10' | 6-10 | 9/30/04 | 9/30/04 | 7,240 | ND | ND | ND | ND | 7,240 | ND | ND | ND |
| | DB5-L-10-11.5' | 10-11.5 | 9/30/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-M-1-3' | 1-3 | 9/29/04 | 9/30/04 | 8,470 | ND | ND | ND | ND | 8,470 | ND | ND | ND |
| | DB5-M-3-6' | 3-6 | 9/29/04 | 9/30/04 | **70,600** | ND | ND | ND | 24,000 | 46,600 | ND | ND | ND |
| | DB5-M-6-10' | 6-10 | 9/29/04 | 9/30/04 | 38,600 | ND | ND | ND | 15,500 | 23,100 | ND | ND | ND |
| | DB5-M-10-12' | 10-12 | 9/29/04 | 9/30/04 | 1,520 | ND | ND | ND | ND | 1,520 | ND | ND | ND |
| **DB6** | DB 6-1-4' | 1-4 | 8/3/04 | 8/28/04 | 2,500 | ND | ND | ND | ND | 2,500 | ND | ND | ND |
| **DB7** | DB 7-1-4' | 1-4 | 8/3/04 | 8/25/04 | 8,840 | ND | ND | ND | ND | 8,840 | ND | ND | ND |
| **DB8** | DB 8-1-3' | 1-3 | 8/3/04 | 8/25/04 | 8,180 | ND | ND | ND | ND | 8,180 | ND | ND | ND |
| | DB 8-3-6' | 3-6 | 8/3/04 | 8/25/04 | 7,490 | ND | ND | ND | ND | 7,490 | ND | ND | ND |
| | DB 8-6-9' | 6-9 | 8/3/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB9** | DB 9-1-3' | 1-3 | 8/3/04 | 8/28/04 | 1,370 | ND | ND | ND | ND | 1,370 | ND | ND | ND |
| | DB 9-3-6' | 3-6 | 8/3/04 | 8/28/04 | 8,470 | ND | ND | ND | ND | 8,470 | ND | ND | ND |
| | DB 9-6-9' | 6-9 | 8/3/04 | 8/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB 9-6-9'MS | 6-9 | 8/3/04 | 8/28/04 | 9,250 | ND | ND | ND | ND | 9,250 | ND | ND | ND |
| | DB 9-6-9'MSD | 6-9 | 8/3/04 | 8/28/04 | 7,590 | ND | ND | ND | ND | 7,590 | ND | ND | ND |
| **DB10** | DB 10-1-3' | 1-3 | 8/4/04 | 8/28/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DB 10-3-6' | 3-6 | 8/4/04 | 8/28/04 | 45,000 | ND | ND | ND | ND | 45,000 | ND | ND | ND |
| | Duplicate 83 | 3-6 | 8/4/04 | 8/28/04 | 6,940 | ND | ND | ND | ND | 6,940 | ND | ND | ND |
| | DB 10-6-9' | 6-9 | 8/4/04 | 8/28/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| **DB11** | DB 11-1-3' | 1-3 | 8/4/04 | 9/3/04 | 5,800 | ND | ND | ND | ND | 5,800 | ND | ND | ND |
| | DB 11-3-6' | 3-6 | 8/4/04 | 9/3/04 | 6,630 | ND | ND | ND | ND | 6,630 | ND | ND | ND |
| | DB 11-3-6'MS | 3-6 | 8/4/04 | 9/3/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| | DB 11-3-6'MSD | 3-6 | 8/4/04 | 9/3/04 | 12,800 | ND | ND | ND | ND | 12,800 | ND | ND | ND |
| | DB 11-6-9' | 6-9 | 8/4/04 | 9/3/04 | 4,590 | ND | ND | ND | ND | 4,590 | ND | ND | ND |
| | Duplicate 90 (DB11-6-9') | 6-9 | 8/4/04 | 9/4/04 | 2,020 | ND | ND | ND | ND | 2,020 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | DB11-A-9-11' | 9-11 | 8/25/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB12** | DB12-1-4' | 1-4 | 8/4/04 | 9/3/04 | 23,900 | ND | ND | ND | ND | 23,900 | ND | ND | ND |
| **DB13** | DB13-1-4' | 1-4 | 8/3/04 | 8/25/04 | 4,620 | ND | ND | ND | ND | 4,620 | ND | ND | ND |
| **DB14** | DB14-1-3' | 1-3 | 8/3/04 | 8/26/04 | 21,100 | ND | ND | ND | ND | 21,100 | ND | ND | ND |
| | DB14-3-6' | 3-6 | 8/3/04 | 8/26/04 | 7,820 | ND | ND | ND | ND | 7,820 | ND | ND | ND |
| | DB14-6-9' | 6-9 | 8/3/04 | 8/26/04 | 1,190 | ND | ND | ND | ND | 1,190 | ND | ND | ND |
| **DB15** | DB15-1-3' | 1-3 | 8/3/04 | 8/28/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | DB15-3-6' | 3-6 | 8/3/04 | 8/28/04 | 31,400 | ND | ND | ND | ND | 31,400 | ND | ND | ND |
| | DB15-6-9' | 6-9 | 8/3/04 | 8/28/04 | 29,600 | ND | ND | ND | ND | 29,600 | ND | ND | ND |
| | DB16-1-3' | 1-3 | 8/4/04 | 8/28/04 | 32,700 | ND | ND | ND | 12,500 | 20,200 | ND | ND | ND |
| | DB16-3-6' | 3-6 | 8/4/04 | 8/28/04 | **65,000** | ND | ND | ND | 29,000 | 36,000 | ND | ND | ND |
| | DB16-6-9' | 6-9 | 8/4/04 | 8/28/04 | **148,000** | ND | ND | ND | 72,200 | 75,800 | ND | ND | ND |
| | DB16-A-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-A-3-6' | 3-6 | 9/14/04 | 9/23/04 | 24,200 | ND | ND | ND | ND | 24,200 | ND | ND | ND |
| | DB16-A-6-10' | 6-10 | 9/14/04 | 9/18/04 | **66,200** | ND | ND | ND | ND | 66,200 | ND | ND | ND |
| | DB16-B-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-B-3-6' | 3-6 | 9/14/04 | 9/24/04 | 25,300 | ND | ND | ND | ND | 25,300 | ND | ND | ND |
| | DB16-B-6-10' | 6-10 | 9/14/04 | 9/18/04 | **169,000** | ND | ND | ND | ND | 169,000 | ND | ND | ND |
| | DB16-C-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-C-3-6' | 3-6 | 9/14/04 | 9/19/04 | **70,900** | ND | ND | ND | ND | 70,900 | ND | ND | ND |
| | DB16-C-6-11' | 6-11 | 9/14/04 | 9/23/04 | 27,300 | ND | ND | ND | ND | 27,300 | ND | ND | ND |
| | DB16-D-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-D-3-6' | 3-6 | 9/14/04 | 9/23/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | DB16-D-6-10' | 6-10 | 9/14/04 | 9/23/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| | DB16-E-1-3' | 1-3 | 9/30/04 | 10/4/04 | 9,140 | ND | ND | ND | ND | 9,140 | ND | ND | ND |
| | DB16-E-3-6' | 3-6 | 9/30/04 | 10/4/04 | **102,000** | ND | ND | ND | ND | 102,000 | ND | ND | ND |
| | DB16-E-6-10' | 6-10 | 9/30/04 | 10/4/04 | 27,200 | ND | ND | ND | ND | 27,200 | ND | ND | ND |
| | DB16-E-10-12' | 10-12 | 9/30/04 | 10/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-F-1-3' | 1-3 | 9/30/04 | 10/1/04 | 7,600 | ND | ND | ND | ND | 7,600 | ND | ND | ND |
| | DB16-F-3-6' | 3-6 | 9/30/04 | 10/1/04 | 15,600 | ND | ND | ND | ND | 15,600 | ND | ND | ND |
| | DB16-F-6-10' | 6-10 | 9/30/04 | 10/1/04 | 46,800 | ND | ND | ND | ND | 46,800 | ND | ND | ND |
| | DB16-F-10-11.5' | 10-11.5 | 9/30/04 | 10/1/04 | 6,200 | ND | ND | ND | ND | 6,200 | ND | ND | ND |
| | DB16-G-1-3' | 1-3 | 9/30/04 | 10/1/04 | 8,730 | ND | ND | ND | ND | 8,730 | ND | ND | ND |
| | DB16-G-3-6' | 3-6 | 9/30/04 | 10/1/04 | 23,400 | ND | ND | ND | ND | 23,400 | ND | ND | ND |
| | DB16-G-6-10.5' | 6-10.5 | 9/30/04 | 10/1/04 | 37,300 | ND | ND | ND | ND | 37,300 | ND | ND | ND |
| | DB16-H-1-3' | 1-3 | 9/30/04 | 10/1/04 | 13,700 | ND | ND | ND | ND | 13,700 | ND | ND | ND |
| | DB16-H-3-6' | 3-6 | 9/30/04 | 10/1/04 | **178,000** | ND | ND | ND | ND | 178,000 | ND | ND | ND |
| | DB16-H-6-10' | 6-10 | 9/30/04 | 10/1/04 | 25,100 | ND | ND | ND | ND | 25,100 | ND | ND | ND |
| | DB16-H-10-11.5' | 10-11.5 | 9/30/04 | 10/1/04 | **59,300** | ND | ND | ND | ND | 59,300 | ND | ND | ND |
| | DB16-I-1-3' | 1-3 | 9/30/04 | 10/1/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DB16-I-3-6' | 3-6 | 9/30/04 | 10/1/04 | 26,100 | ND | ND | ND | ND | 26,100 | ND | ND | ND |
| | DB16-I-6-10' | 6-10 | 9/30/04 | 10/1/04 | 47,300 | ND | ND | ND | ND | 47,300 | ND | ND | ND |
| | DB16-I-10-11.5' | 10-11.5 | 9/30/04 | 10/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB16** | DB16-J-1-3' | 1-3 | 9/30/04 | 10/1/04 | 16,400 | ND | ND | ND | ND | 16,400 | ND | ND | ND |
| | DB16-J-3-6' | 3-6 | 9/30/04 | 10/1/04 | 14,800 | ND | ND | ND | ND | 14,800 | ND | ND | ND |
| | DB16-J-6-10' | 6-10 | 9/30/04 | 10/1/04 | **66,800** | ND | ND | ND | ND | 66,800 | ND | ND | ND |
| | DB16-J-10-11' | 10-11 | 9/30/04 | 10/1/04 | 47,600 | ND | ND | ND | ND | 47,600 | ND | ND | ND |
| | DB16-K-1-3' | 1-3 | 9/30/04 | 10/1/04 | 21,800 | ND | ND | ND | ND | 21,800 | ND | ND | ND |
| | DB16-K-3-6' | 3-6 | 9/30/04 | 10/1/04 | 38,200 | ND | ND | ND | ND | 38,200 | ND | ND | ND |
| | DB16-K-6-10' | 6-10 | 9/30/04 | 10/1/04 | 44,800 | ND | ND | ND | ND | 44,800 | ND | ND | ND |
| | DB16-K-10-11.75' | 10-11.75 | 9/30/04 | 10/1/04 | 18,200 | ND | ND | ND | ND | 18,200 | ND | ND | ND |
| | DB16-L-1-3' | 1-3 | 9/30/04 | 10/1/04 | 7,700 | ND | ND | ND | ND | 7,700 | ND | ND | ND |
| | Duplicate 149 (DB16-L-1-3') | 1-3 | 9/30/04 | 10/1/04 | 2,890 | ND | ND | ND | ND | 2,890 | ND | ND | ND |
| | DB16-L-3-6' | 3-6 | 9/30/04 | 10/1/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DB16-L-6-10' | 6-10 | 9/30/04 | 10/1/04 | **131,000** | ND | ND | ND | ND | 131,000 | ND | ND | ND |
| | DB16-L-10-11' | 10-11 | 9/30/04 | 10/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-M-1-3' | 1-3 | 9/30/04 | 10/1/04 | 5,830 | ND | ND | ND | ND | 5,830 | ND | ND | ND |
| | DB16-M-3-6' | 3-6 | 9/30/04 | 10/1/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| | DB16-M-6-10' | 6-10 | 9/30/04 | 10/1/04 | 34,100 | ND | ND | ND | ND | 34,100 | ND | ND | ND |
| | DB16-M-10-12' | 10-12 | 9/30/04 | 10/1/04 | **60,800** | ND | ND | ND | ND | 60,800 | ND | ND | ND |
| | DB16-N-1-3' | 1-3 | 9/30/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB16-N-3-6' | 3-6 | 9/30/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB16-N-6-10' | 6-10 | 9/30/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB16-N-10-11.5' | 10-11.5 | 9/30/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB16-O-1-3' | 1-3 | 9/30/04 | 10/6/04 | 29,100 | ND | ND | ND | ND | 29,100 | ND | ND | ND |
| | DB16-O-3-6' | 3-6 | 9/30/04 | 10/6/04 | 37,300 | ND | ND | ND | ND | 37,300 | ND | ND | ND |
| | DB16-O-6-10' | 6-10 | 9/30/04 | 10/6/04 | 39,900 | ND | ND | ND | ND | 39,900 | ND | ND | ND |
| | DB16-P-1-3' | 1-3 | 9/30/04 | 10/6/04 | 13,600 | ND | ND | ND | ND | 13,600 | ND | ND | ND |
| | DB16-P-3-6' | 3-6 | 9/30/04 | 10/6/04 | 13,700 | ND | ND | ND | ND | 13,700 | ND | ND | ND |
| | DB16-P-6-10' | 6-10 | 9/30/04 | 10/6/04 | 18,800 | ND | ND | ND | ND | 18,800 | ND | ND | ND |
| | DB16-P-10-12.5' | 10-12.5 | 9/30/04 | 10/6/04 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| | DB16-Q-1-3' | 1-3 | 9/30/04 | 10/6/04 | 15,000 | ND | ND | ND | ND | 15,000 | ND | ND | ND |
| | DB16-Q-3-6' | 3-6 | 9/30/04 | 10/6/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | DB16-Q-6-10' | 6-10 | 9/30/04 | 10/6/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DB16-Q-10-11.5' | 10-11.5 | 9/30/04 | 10/6/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-R-1-3' | 1-3 | 10/1/04 | 10/2/04 | 7,860 | ND | ND | ND | ND | 7,860 | ND | ND | ND |
| | DB16-R-3-6' | 3-6 | 10/1/04 | 10/2/04 | 8,970 | ND | ND | ND | ND | 8,970 | ND | ND | ND |
| | DB16-R-6-10' | 6-10 | 10/1/04 | 10/2/04 | 24,700 | ND | ND | ND | ND | 24,700 | ND | ND | ND |
| | DB16-R-10-11' | 10-11 | 10/1/04 | 10/2/04 | 25,700 | ND | ND | ND | ND | 25,700 | ND | ND | ND |
| | DB16-S-1-3' | 1-3 | 10/1/04 | 10/2/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | DB16-S-3-6' | 3-6 | 10/1/04 | 10/2/04 | 40,100 | ND | ND | ND | ND | 40,100 | ND | ND | ND |
| | DB16-S-6-10' | 6-10 | 10/1/04 | 10/4/04 | **88,500** | ND | ND | ND | ND | 88,500 | ND | ND | ND |
| | DB16-S-10-13.5' | 10-13.5 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-T-1-3' | 1-3 | 9/30/04 | 10/6/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| | DB16-T-3-6' | 3-6 | 9/30/04 | 10/7/04 | **136,000** | ND | ND | ND | ND | 136,000 | ND | ND | ND |
| | DB16-T-6-10' | 6-10 | 9/30/04 | 10/7/04 | **131,000** | ND | ND | ND | ND | 131,000 | ND | ND | ND |
| | DB16-T-10-11' | 10-11 | 9/30/04 | 10/6/04 | 34,000 | ND | ND | ND | ND | 34,000 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **RCS-1** | | | | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Turnkey Acceptance Limit** | | | | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **UCL** | | | | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-U-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-U-3-6' | 3-6 | 10/8/04 | 10/13/04 | **81,500** | ND | ND | ND | 39,700 | 41,800 | ND | ND | ND |
| DB16-U-6-10.5' | 6-10.5 | 10/8/04 | 10/11/04 | 7,080 | ND | ND | ND | ND | 7,080 | ND | ND | ND |
| DB16-V-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-V-3-6' | 3-6 | 10/8/04 | 10/13/04 | 6,220 | ND | ND | ND | ND | 6,220 | ND | ND | ND |
| DB16-V-6-10' | 6-10 | 10/8/04 | 10/11/04 | 2,020 | ND | ND | ND | ND | 2,020 | ND | ND | ND |
| DB16-V-10-13' | 10-13 | 10/8/04 | 10/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB16-W-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-W-3-6' | 3-6 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-W-6-10.5' | 6-10.5 | 10/8/04 | 10/11/04 | 22,600 | ND | ND | ND | 11,500 | 11,100 | ND | ND | ND |
| DB16-X-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-X-3-6' | 3-6 | 10/8/04 | 10/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB16-X-6-10' | 6-10 | 10/8/04 | 10/11/04 | 41,100 | ND | ND | ND | 17,300 | 23,800 | ND | ND | ND |
| DB16-Y-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-Y-3-6' | 3-6 | 10/8/04 | 10/11/04 | **393,000** | ND | ND | ND | 148,000 | 245,000 | ND | ND | ND |
| DB16-Y-6-10' | 6-10 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-Z-1-3' | 1-3 | 10/8/04 | 10/11/04 | 6,610 | ND | ND | ND | ND | 6,610 | ND | ND | ND |
| DB16-Z-3-6' | 3-6 | 10/8/04 | 10/11/04 | 11,900 | ND | ND | ND | ND | 11,900 | ND | ND | ND |
| DB16-Z-6-11' | 6-11 | 10/8/04 | 10/11/04 | 14,300 | ND | ND | ND | ND | 14,300 | ND | ND | ND |
| DB16-AA-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AA-3-6' | 3-6 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AA-6-10' | 6-10 | 10/8/04 | 10/11/04 | 11,900 | ND | ND | ND | ND | 11,900 | ND | ND | ND |
| DB16-AA-6-10'MS | 6-10 | 10/8/04 | 10/11/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| DB16-AA-6-10'MSD | 6-10 | 10/8/04 | 10/11/04 | 20,700 | ND | ND | ND | ND | 20,700 | ND | ND | ND |
| DB16-AA-10-13' | 10-13 | 10/8/04 | 10/11/04 | 6,790 | ND | ND | ND | ND | 6,790 | ND | ND | ND |
| Duplicate 156 (DB16-AA-10-13') | 10-13 | 10/8/04 | 10/11/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| DB16-AB-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AB-3-6' | 3-6 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AB-6-10' | 6-10 | 10/8/04 | 10/11/04 | 9,990 | ND | ND | ND | ND | 9,990 | ND | ND | ND |
| DB16-AB-10-11.75' | 10-11.75 | 10/8/04 | 10/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB16-AC-1-3' | 1-3 | 10/8/04 | 10/13/04 | 4,940 | ND | ND | ND | ND | 4,940 | ND | ND | ND |
| DB16-AC-3-6' | 3-6 | 10/8/04 | 10/13/04 | **71,700** | ND | ND | ND | ND | 71,700 | ND | ND | ND |
| DB16-AC-6-10' | 6-10 | 10/8/04 | 10/11/04 | **98,900** | ND | ND | ND | 51,200 | 47,700 | ND | ND | ND |
| DB16-AC-10-13' | 10-13 | 10/8/04 | 10/11/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| DB16-AD-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AD-3-6' | 3-6 | 10/8/04 | 10/13/04 | 4,910 | ND | ND | ND | ND | 4,910 | ND | ND | ND |
| DB16-AD-6-10' | 6-10 | 10/8/04 | 10/11/04 | 31,100 | ND | ND | ND | 15,200 | 15,900 | ND | ND | ND |
| DB16-AD-10-12' | 10-12 | 10/8/04 | 10/11/04 | 1,560 | ND | ND | ND | ND | 1,560 | ND | ND | ND |
| DB16-AE-1-3' | 1-3 | 10/8/04 | 10/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB16-AE-3-6' | 3-6 | 10/8/04 | 10/11/04 | **53,300** | ND | ND | ND | 21,100 | 32,200 | ND | ND | ND |
| DB16-AE-6-10' | 6-10 | 10/8/04 | 10/11/04 | **71,500** | ND | ND | ND | 36,000 | 35,500 | ND | ND | ND |
| DB16-AE-10-13' | 10-13 | 10/8/04 | 10/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB17-1-3' | 1-3 | 8/4/04 | 8/29/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB17** | DB17-3-6' | 3-6 | 8/4/04 | 8/29/04 | 14,200 | ND | ND | ND | ND | 14,200 | ND | ND | ND |
| | DB17-6-9' | 6-9 | 8/4/04 | 8/29/04 | 34,300 | ND | ND | ND | ND | 34,300 | ND | ND | ND |
| | DB17-A-9-10.5' | 9-11 | 8/25/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB17-A-9-10.5'MS | 9-11 | 8/25/04 | 10/26/04 | 11,300 | ND | ND | ND | ND | 11,300 | ND | ND | ND |
| | DB17-A-9-10.5'MSD | 9-11 | 8/25/04 | 10/26/04 | 9,970 | ND | ND | ND | ND | 9,970 | ND | ND | ND |
| **DB18** | DB18-1-4' | 1-4 | 8/4/04 | 9/3/04 | 19,500 | ND | ND | ND | ND | 19,500 | ND | ND | ND |
| **DB19** | DB19-1-4' | 1-4 | 8/3/04 | 8/25/04 | 7,830 | ND | ND | ND | ND | 7,830 | ND | ND | ND |
| **DB20** | DB20-1-3' | 1-3 | 8/3/04 | 8/26/04 | 4,900 | ND | ND | ND | ND | 4,900 | ND | ND | ND |
| | DB20-3-6' | 3-6 | 8/3/04 | 8/26/04 | 38,100 | ND | ND | ND | 23,500 | 14,600 | ND | ND | ND |
| | DB20-6-9' | 6-9 | 8/3/04 | 8/26/04 | 2,490 | ND | ND | ND | ND | 2,490 | ND | ND | ND |
| **DB21** | DB21-1-3' | 1-3 | 8/3/04 | 8/27/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | DB21-3-6' | 3-6 | 8/3/04 | 8/27/04 | 5,910 | ND | ND | ND | ND | 5,910 | ND | ND | ND |
| | DB21-6-9' | 6-9 | 8/3/04 | 8/27/04 | 17,100 | ND | ND | ND | ND | 17,100 | ND | ND | ND |
| **DB22** | DB22-1-3' | 1-3 | 8/4/04 | 8/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB22-3-6' | 3-6 | 8/4/04 | 8/28/04 | 6,300 | ND | ND | ND | ND | 6,300 | ND | ND | ND |
| | DB22-6-9' | 6-9 | 8/4/04 | 8/28/04 | 6,790 | ND | ND | ND | ND | 6,790 | ND | ND | ND |
| **DB23** | DB23-1-3' | 1-3 | 8/4/04 | 8/29/04 | 22,000 | ND | ND | ND | ND | 22,000 | ND | ND | ND |
| | DB23-3-6' | 3-6 | 8/4/04 | 8/29/04 | 5,010 | ND | ND | ND | ND | 5,010 | ND | ND | ND |
| | DB23-6-9' | 6-9 | 8/4/04 | 8/29/04 | 3,360 | ND | ND | ND | ND | 3,360 | ND | ND | ND |
| **DB24** | DB24-1-4' | 1-4 | 8/4/04 | 9/3/04 | 23,500 | ND | ND | ND | ND | 23,500 | ND | ND | ND |
| **DB25** | DB25-1-4' | 1-4 | 8/3/04 | 8/25/04 | 10,900 | ND | ND | ND | ND | 10,900 | ND | ND | ND |
| **DB26** | DB26-1-3' | 1-3 | 8/3/04 | 8/26/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| | DB26-3-6' | 3-6 | 8/3/04 | 8/26/04 | **53,200** | ND | ND | ND | 17,700 | 35,500 | ND | ND | ND |
| | DB26-6-9' | 6-9 | 8/3/04 | 8/26/04 | 44,400 | ND | ND | ND | 21,500 | 22,900 | ND | ND | ND |
| | DB26-A-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-A-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-A-6-8' | 6-8 | 9/9/04 | 9/20/04 | 20,900 | ND | ND | ND | ND | 20,900 | ND | ND | ND |
| | DB26-B-1-3' | 1-3 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-B-3-6' | 3-6 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-B-6-9' | 6-9 | 9/9/04 | 9/20/04 | 27300* | ND | ND | ND | ND | 27300* | ND | ND | ND |
| | Duplicate 132 (DB26-B-6-9') | 6-9 | 9/9/04 | 9/20/04 | 25500* | ND | ND | ND | ND | 25500* | ND | ND | ND |
| | DB26-C-1-3' | 1-3 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-C-3-6' | 3-6 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-C-6-9' | 6-9 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-D-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-D-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-D-6-9' | 6-9 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-E-3-6' | 3-6 | 9/22/04 | 9/23/04 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| | DB26-E-6-13' | 6-13 | 9/22/04 | 9/23/04 | 10,000 | ND | ND | ND | ND | 10,000 | ND | ND | ND |
| | DB26-F-3-6' | 3-6 | 9/22/04 | 9/23/04 | 4,130 | ND | ND | ND | ND | 4,130 | ND | ND | ND |
| | DB26-F-6-13' | 6-13 | 9/22/04 | 9/23/04 | 7,810 | ND | ND | ND | ND | 7,810 | ND | ND | ND |
| | DB26-G-3-6' | 3-6 | 9/22/04 | 9/23/04 | 5,410 | ND | ND | ND | ND | 5,410 | ND | ND | ND |
| | DB26-G-6-12.5' | 6-12.5 | 9/22/04 | 9/23/04 | 2,410 | ND | ND | ND | ND | 2,410 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | DB26-H-3-6' | 3-6 | 9/22/04 | 9/23/04 | 8,160 | ND | ND | ND | ND | 8,160 | ND | ND | ND |
| | DB26-H-6-11' | 6-11 | 9/22/04 | 9/23/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| **DB27** | DB27-1-3' | 1-3 | 8/3/04 | 8/27/04 | 3,980 | ND | ND | ND | ND | 3,980 | ND | ND | ND |
| | DB27-3-6' | 3-6 | 8/3/04 | 8/27/04 | 3,390 | ND | ND | ND | ND | 3,390 | ND | ND | ND |
| | DB27-6-9' | 6-9 | 8/3/04 | 8/27/04 | 2,200 | ND | ND | ND | ND | 2,200 | ND | ND | ND |
| **DB28** | DB28-1-3' | 1-3 | 8/3/04 | 8/28/04 | 2,500 | ND | ND | ND | ND | 2,500 | ND | ND | ND |
| | DB28-3-6' | 3-6 | 8/3/04 | 8/28/04 | 7,130 | ND | ND | ND | ND | 7,130 | ND | ND | ND |
| | Duplicate 85 | 3-6 | 8/3/04 | 8/28/04 | 2,200 | ND | ND | ND | ND | 2,200 | ND | ND | ND |
| | DB28-6-9' | 6-9 | 8/3/04 | 9/9/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| | DB28-6-9'MS | 6-9 | 8/3/04 | 9/10/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| | DB28-6-9'MSD | 6-9 | 8/3/04 | 8/28/04 | 10,000 | ND | ND | ND | ND | 10,000 | ND | ND | ND |
| **DB29** | DB29-1-3' | 1-3 | 8/4/04 | 8/29/04 | 6,350 | ND | ND | ND | ND | 6,350 | ND | ND | ND |
| | DB29-3-6' | 3-6 | 8/4/04 | 8/29/04 | 3,870 | ND | ND | ND | ND | 3,870 | ND | ND | ND |
| | DB29-6-9' | 6-9 | 8/4/04 | 8/29/04 | 2,470 | ND | ND | ND | ND | 2,470 | ND | ND | ND |
| **DB30** | DB30-1-4' | 1-4 | 8/4/04 | 9/3/04 | 9,450 | ND | ND | ND | ND | 9,450 | ND | ND | ND |
| **DB31** | DB31-1-4' | 1-4 | 8/3/04 | 8/25/04 | 7,010 | ND | ND | ND | ND | 7,010 | ND | ND | ND |
| **DB32** | DB32-1-3' | 1-3 | 8/3/04 | 8/26/04 | **51,180** | ND | ND | ND | 46,300 | 4,880 | ND | ND | ND |
| | DB32-3-6' | 3-6 | 8/3/04 | 8/26/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | DB32-6-9' | 6-9 | 8/3/04 | 8/26/04 | 40,500 | ND | ND | ND | ND | 40,500 | ND | ND | ND |
| | DB32-A-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-A-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-B-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-B-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-C-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-C-3-6' | 3-6 | 9/9/04 | 9/14/04 | 24,800 | ND | ND | ND | ND | 24,800 | ND | ND | ND |
| | DB32-D-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-D-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB33** | DB33-1-3' | 1-3 | 8/3/04 | 8/27/04 | 3,030 | ND | ND | ND | ND | 3,030 | ND | ND | ND |
| | DB33-3-6' | 3-6 | 8/3/04 | 8/27/04 | 3,810 | ND | ND | ND | ND | 3,810 | ND | ND | ND |
| | DB33-6-9' | 6-9 | 8/3/04 | 8/27/04 | 3,930 | ND | ND | ND | ND | 3,930 | ND | ND | ND |
| **DB34** | DB34-1-3' | 1-3 | 8/4/04 | 8/28/04 | 1,620 | ND | ND | ND | ND | 1,620 | ND | ND | ND |
| | DB34-3-6' | 3-6 | 8/4/04 | 8/28/04 | 5,970 | ND | ND | ND | ND | 5,970 | ND | ND | ND |
| | DB34-6-9' | 6-9 | 8/4/04 | 9/10/04 | 2,390 | ND | ND | ND | ND | 2,390 | ND | ND | ND |
| **DB35** | DB35-1-3' | 1-3 | 8/4/04 | 8/29/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| | DB35-3-6' | 3-6 | 8/4/04 | 8/29/04 | 25,400 | ND | ND | ND | ND | 25,400 | ND | ND | ND |
| | DB35-6-9' | 6-9 | 8/4/04 | 8/29/04 | 6,150 | ND | ND | ND | ND | 6,150 | ND | ND | ND |
| **DB36** | DB36-1-4' | 1-4 | 8/4/04 | 9/3/04 | 5,860 | ND | ND | ND | ND | 5,860 | ND | ND | ND |
| **DB37** | DB37-1-4' | 1-4 | 8/3/04 | 8/25/04 | 32,100 | ND | ND | ND | ND | 32,100 | ND | ND | ND |
| **DB38** | DB38-1-3' | 1-3 | 8/3/04 | 8/26/04 | 2,460 | ND | ND | ND | ND | 2,460 | ND | ND | ND |
| | DB38-3-6' | 3-6 | 8/3/04 | 8/26/04 | 26,500 | ND | ND | ND | ND | 26,500 | ND | ND | ND |
| | Duplicate 84 | 3-6 | 8/3/04 | 9/10/04 | 17,100 | ND | ND | ND | ND | 17,100 | ND | ND | ND |
| | DB38-6-9' | 6-9 | 8/3/04 | 8/26/04 | 5,250 | ND | ND | ND | ND | 5,250 | ND | ND | ND |
| | DB39-1-3' | 1-3 | 8/3/04 | 8/26/04 | 5,670 | ND | ND | ND | ND | 5,670 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB39** | DB39-3-6' | 3-6 | 8/3/04 | 8/26/04 | 13,000 | ND | ND | ND | ND | 13,000 | ND | ND | ND |
| | DB39-6-9' | 6-9 | 8/3/04 | 8/26/04 | 5,940 | ND | ND | ND | ND | 5,940 | ND | ND | ND |
| **DB40** | DB40-1-3' | 1-3 | 8/4/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB40-3-6' | 3-6 | 8/4/04 | 8/28/04 | 5,100 | ND | ND | ND | ND | 5,100 | ND | ND | ND |
| | DB40-6-9' | 6-9 | 8/4/04 | 9/10/04 | 14,600 | ND | ND | ND | ND | 14,600 | ND | ND | ND |
| **DB41** | DB41-1-3' | 1-3 | 8/4/04 | 9/10/04 | 19,700 | ND | ND | ND | ND | 19,700 | ND | ND | ND |
| | DB41-3-6' | 3-6 | 8/4/04 | 8/28/04 | 6,820 | ND | ND | ND | ND | 6,820 | ND | ND | ND |
| | DB41-6-9' | 6-9 | 8/4/04 | 8/28/04 | 9,970 | ND | ND | ND | ND | 9,970 | ND | ND | ND |
| **DB42** | DB42-1-4' | 1-4 | 8/4/04 | 9/3/04 | 7,910 | ND | ND | ND | ND | 7,910 | ND | ND | ND |
| **DB43** | DB43-1-4' | 1-4 | 8/3/04 | 8/25/04 | 36,700 | ND | ND | ND | ND | 36,700 | ND | ND | ND |
| **DB44** | DB44-1-3' | 1-3 | 8/3/04 | 8/26/04 | 1,460 | ND | ND | ND | ND | 1,460 | ND | ND | ND |
| | DB44-3-6' | 3-6 | 8/3/04 | 8/26/04 | 38,200 | ND | ND | ND | ND | 38,200 | ND | ND | ND |
| | DB44-6-9' | 6-9 | 8/3/04 | 8/26/04 | 29,000 | ND | ND | ND | ND | 29,000 | ND | ND | ND |
| **DB45** | DB45-1-3' | 1-3 | 8/3/04 | 8/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB45-3-6' | 3-6 | 8/3/04 | 8/26/04 | 17,700 | ND | ND | ND | ND | 17,700 | ND | ND | ND |
| | DB45-3-6'MS | 3-6 | 8/3/04 | 8/26/04 | 21,900 | ND | ND | ND | ND | 21,900 | ND | ND | ND |
| | DB45-3-6'MSD | 3-6 | 8/3/04 | 8/26/04 | 20,700 | ND | ND | ND | ND | 20,700 | ND | ND | ND |
| | DB45-6-9' | 6-9 | 8/3/04 | 8/26/04 | 3,770 | ND | ND | ND | ND | 3,770 | ND | ND | ND |
| | Duplicate 87 | 6-9 | 8/3/04 | 8/28/04 | 9,650 | ND | ND | ND | ND | 9,650 | ND | ND | ND |
| **DB46** | DB46-1-4' | 1-3 | 9/8/04 | 9/12/04 | **87,400** | ND | ND | ND | ND | 87,400 | ND | ND | ND |
| | DB46-4-7' | 3-6 | 9/8/04 | 9/20/04 | 18,000 | ND | ND | ND | ND | 18,000 | ND | ND | ND |
| | DB46-7-10' | 6-9 | 9/8/04 | 9/20/04 | 4,280 | ND | ND | ND | ND | 4,280 | ND | ND | ND |
| | DB46 A-1-3 | 1-3 | 9/20/04 | 9/20/04 | 26,300 | ND | ND | ND | ND | 26,300 | ND | ND | ND |
| | DB46 A-3-6 | 3-6 | 9/20/04 | 9/20/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |
| | Duplicate 138 (DB46-A-3-6') | 3-6 | 9/20/04 | 9/20/04 | 14,300 | ND | ND | ND | ND | 14,300 | ND | ND | ND |
| | DB46 A-6-10.5 | 6-10.5 | 9/20/04 | 9/20/04 | 4,170 | ND | ND | ND | ND | 4,170 | ND | ND | ND |
| | DB46 A-6-10.5MS | 6-10.5 | 9/20/04 | 9/20/04 | 8,000 | ND | ND | ND | ND | 8,000 | ND | ND | ND |
| | DB46 A-6-10.5MSD | 6-10.5 | 9/20/04 | 9/20/04 | 9,910 | ND | ND | ND | ND | 9,910 | ND | ND | ND |
| | DB46 B-1-3 | 1-3 | 9/20/04 | 9/20/04 | 7,680 | ND | ND | ND | ND | 7,680 | ND | ND | ND |
| | DB46 B-3-6 | 3-6 | 9/20/04 | 9/20/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| | DB46 B-6-10 | 6-10 | 9/20/04 | 9/20/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |
| | DB46 C-1-3 | 1-3 | 9/20/04 | 9/20/04 | 7,320 | ND | ND | ND | ND | 7,320 | ND | ND | ND |
| | DB46 C-3-6 | 3-6 | 9/20/04 | 9/20/04 | 12,900 | ND | ND | ND | ND | 12,900 | ND | ND | ND |
| | DB46 C-6-10 | 6-10 | 9/20/04 | 9/20/04 | 9,270 | ND | ND | ND | ND | 9,270 | ND | ND | ND |
| | DB46 D-1-3 | 1-3 | 9/20/04 | 9/20/04 | 19 | ND | ND | ND | ND | 19 | ND | ND | ND |
| | DB46 D-3-6 | 3-6 | 9/20/04 | 9/20/04 | 12,800 | ND | ND | ND | ND | 12,800 | ND | ND | ND |
| | DB46 D-6-10 | 6-10 | 9/20/04 | 9/20/04 | 5,000 | ND | ND | ND | ND | 5,000 | ND | ND | ND |
| **DB47** | DB47-1-4' | 1-4 | 9/8/04 | 9/20/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | DB47-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB47-7-10.5' | 7-10.5 | 9/8/04 | 9/22/04 | 4,640 | ND | ND | ND | ND | 4,640 | ND | ND | ND |
| **DB48** | DB48-1-4' | 1-4 | 9/8/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB49** | DB49-1-4' | 1-4 | 8/3/04 | 8/25/04 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND |
| | DB50-1-3' | 1-3 | 8/3/04 | 8/26/04 | 22,800 | ND | ND | ND | ND | 22,800 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB50** | DB50-3-6' | 3-6 | 8/3/04 | 8/26/04 | 1,910 | ND | ND | ND | ND | 1,910 | ND | ND | ND |
| | DB50-6-9' | 6-9 | 8/3/04 | 8/26/04 | 4,150 | ND | ND | ND | ND | 4,150 | ND | ND | ND |
| **DB51** | DB51-1-3' | 1-3 | 8/3/04 | 8/26/04 | 3,500 | ND | ND | ND | ND | 3,500 | ND | ND | ND |
| | DB51-3-6' | 3-6 | 8/3/04 | 8/26/04 | 3,750 | ND | ND | ND | ND | 3,750 | ND | ND | ND |
| | DB51-6-9' | 6-9 | 8/3/04 | 8/26/04 | 8,910 | ND | ND | ND | ND | 8,910 | ND | ND | ND |
| **DB52** | DB52-1-4' | 1-4 | 9/8/04 | 9/18/04 | 7,560 | ND | ND | ND | ND | 7,560 | ND | ND | ND |
| | DB52-4-7' | 4-7 | 9/8/04 | 9/9/04 | 23,400 | ND | ND | ND | ND | 23,400 | ND | ND | ND |
| | Duplicate 128 (DB52-4-7') | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-7-10.5' | 7-10.5 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-A-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-A-3-6' | 3-6 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-A-6-10' | 6-10 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 136 (DB52-A-6-10') | 6-10 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-B-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-B-3-6' | 3-6 | 9/14/04 | 9/24/04 | 32,500 | ND | ND | ND | ND | 32,500 | ND | ND | ND |
| | DB52-B-6-10' | 6-10 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-C-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-C-3-6' | 3-6 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-C-6-9.5' | 6-9.5 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-D-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-D-3-6' | 3-6 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-D-6-9.5' | 6-9.5 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB53** | DB53-1-4' | 1-4 | 9/8/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB53-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB53-7-10' | 7-10 | 9/8/04 | 9/20/04 | 7,350 | ND | ND | ND | ND | 7,350 | ND | ND | ND |
| **DB54** | DB54-1-4' | 1-4 | 9/8/04 | 9/20/04 | 34,200 | ND | ND | ND | ND | 34,200 | ND | ND | ND |
| **DB55** | DB55-1-4' | 1-4 | 8/3/04 | 8/25/04 | 6,960 | ND | ND | ND | ND | 6,960 | ND | ND | ND |
| **DB56** | DB56-1-4' | 1-4 | 8/3/04 | 8/26/04 | 2,940 | ND | ND | ND | ND | 2,940 | ND | ND | ND |
| **DB57** | DB57-1-4' | 1-4 | 8/3/04 | 8/26/04 | 7,860 | ND | ND | ND | ND | 7,860 | ND | ND | ND |
| **DB58** | DB58-1-4' | 1-4 | 9/8/04 | 9/22/04 | 15,400 | ND | ND | ND | ND | 15,400 | ND | ND | ND |
| **DB59** | DB59-1-4' | 1-4 | 9/8/04 | 9/13/04 | **96,200** | ND | ND | ND | ND | 96,200 | ND | ND | ND |
| | DB59-4-6' | 4-6 | 12/2/04 | 12/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB59-6-10.5' | 6-10.5 | 12/2/04 | 12/4/04 | 8,810 | ND | ND | ND | ND | 8,810 | ND | ND | ND |
| | DB59 A-1-3 | 1-3 | 9/20/04 | 9/20/04 | 9,510 | ND | ND | ND | ND | 9,510 | ND | ND | ND |
| | DB59 A-3-6 | 3-6 | 9/20/04 | 9/20/04 | 32,200 | ND | ND | ND | ND | 32,200 | ND | ND | ND |
| | DB59 A-6-10.5 | 6-10.5 | 9/20/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB59 B-1-3 | 1-3 | 9/20/04 | 9/20/04 | 28,800 | ND | ND | ND | ND | 28,800 | ND | ND | ND |
| | DB59 B-3-6 | 3-6 | 9/20/04 | 9/20/04 | 5,100 | ND | ND | ND | ND | 5,100 | ND | ND | ND |
| | DB59 B-6-10.5 | 6-10.5 | 9/20/04 | 9/20/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |
| | DB59 C-1-3 | 1-3 | 9/20/04 | 9/20/04 | 22,900 | ND | ND | ND | ND | 22,900 | ND | ND | ND |
| | DB59 C-3-6 | 3-6 | 9/20/04 | 9/20/04 | 8,630 | ND | ND | ND | ND | 8,630 | ND | ND | ND |
| | DB59 C-6-10 | 6-10 | 9/20/04 | 9/20/04 | 22,200 | ND | ND | ND | ND | 22,200 | ND | ND | ND |
| | DB59 D-1-3 | 1-3 | 9/20/04 | 9/20/04 | 14,900 | ND | ND | ND | ND | 14,900 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB59 D-3-6 | 3-6 | 9/20/04 | 9/20/04 | 9,910 | ND | ND | ND | ND | 9,910 | ND | ND | ND |
| | DB59 D-6-10.5 | 6-10.5 | 9/20/04 | 9/20/04 | 12,600 | ND | ND | ND | ND | 12,600 | ND | ND | ND |
| **DB60** | DB60-1-4' | 1-4 | 9/8/04 | 9/20/04 | 28,500 | ND | ND | ND | ND | 28,500 | ND | ND | ND |
| | DB8-Comp | 1-9 | 8/3/04 | 8/25/04 | 4,250 | ND | ND | ND | ND | 4,250 | ND | ND | ND |
| | DB14-Comp | 1-9 | 8/3/04 | 8/26/04 | 9,080 | ND | ND | ND | ND | 9,080 | ND | ND | ND |
| | DB20-Comp | 1-9 | 8/3/04 | 8/26/04 | 3,160 | ND | ND | ND | ND | 3,160 | ND | ND | ND |
| | DB26-Comp | 1-9 | 8/3/04 | 8/26/04 | **65,700** | ND | ND | ND | 35,500 | 30,200 | ND | ND | ND |
| | DB32-Comp | 1-9 | 8/3/04 | 8/26/04 | 15,200 | ND | ND | ND | ND | 15,200 | ND | ND | ND |
| | DB38-Comp | 1-9 | 8/3/04 | 8/26/04 | 27,000 | ND | ND | ND | ND | 27,000 | ND | ND | ND |
| | DB44-Comp | 1-9 | 8/3/04 | 8/26/04 | 19,600 | ND | ND | ND | ND | 19,600 | ND | ND | ND |
| | DB50-Comp | 1-9 | 8/3/04 | 8/26/04 | 5,900 | ND | ND | ND | ND | 5,900 | ND | ND | ND |
| | Comp-DB23, 29, 35-1-3' | 1-3 | 8/4/04 | 8/29/04 | 5,890 | ND | ND | ND | ND | 5,890 | ND | ND | ND |
| | Comp-DB23, 29, 35-3-6' | 3-6 | 8/4/04 | 8/29/04 | 6,210 | ND | ND | ND | ND | 6,210 | ND | ND | ND |
| | Comp-DB23, 29, 35-6-9' | 6-9 | 8/4/04 | 8/29/04 | 4,500 | ND | ND | ND | ND | 4,500 | ND | ND | ND |
| | Comp DB 51, 45, 39-1-3' | 1-3 | 8/3/04 | 8/27/04 | 2,520 | ND | ND | ND | ND | 2,520 | ND | ND | ND |
| | Comp DB 51, 45, 39-3-6' | 3-6 | 8/3/04 | 8/27/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | Comp DB 51, 45, 39-6-9' | 6-9 | 8/3/04 | 8/27/04 | 8,470 | ND | ND | ND | ND | 8,470 | ND | ND | ND |
| | Comp DB 33, 27, 21-1-3' | 1-3 | 8/3/04 | 8/27/04 | 1,990 | ND | ND | ND | ND | 1,990 | ND | ND | ND |
| | Comp DB 33, 27, 21-3-6' | 3-6 | 8/3/04 | 8/27/04 | 1,760 | ND | ND | ND | ND | 1,760 | ND | ND | ND |
| | Comp DB 33, 27, 21-6-9' | 6-9 | 8/3/04 | 8/27/04 | **67,200** | ND | ND | ND | ND | 67,200 | ND | ND | ND |
| | Comp DB 34, 40, 41-1-3' | 1-3 | 8/3/04 | 8/28/04 | 7,320 | ND | ND | ND | ND | 7,320 | ND | ND | ND |
| | Comp DB 34, 40, 41-3-6' | 3-6 | 8/3/04 | 9/10/04 | 6,300 | ND | ND | ND | ND | 6,300 | ND | ND | ND |
| | Duplicate 88 | 3-6 | 8/3/04 | 8/28/04 | 10,300 | ND | ND | ND | ND | 10,300 | ND | ND | ND |
| | Comp DB 34, 40, 41-6-9' | 6-9 | 8/3/04 | 8/28/04 | 3,700 | ND | ND | ND | ND | 3,700 | ND | ND | ND |
| | Comp DB 11 & 17-1-3' | 1-3 | 8/4/04 | 9/3/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| | Comp DB 11 & 17-3-6' | 3-6 | 8/4/04 | 9/3/04 | 5,780 | ND | ND | ND | ND | 5,780 | ND | ND | ND |
| | Comp DB 11 & 17-6-9' | 6-9 | 8/4/04 | 9/3/04 | 6,710 | ND | ND | ND | ND | 6,710 | ND | ND | ND |
| | Comp DB 30, 36, 42-1-4' | 1-4 | 8/4/04 | 9/3/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| | Comp DB 12, 18, 24-1-4' | 1-4 | 8/4/04 | 9/3/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | Duplicate 89 (Comp DB 12, 18, 24-1-4') | 1-4 | 8/4/04 | 9/4/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | Comp DB 12, 18, 24-1-4'MS | 1-4 | 8/4/04 | 9/3/04 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| | Comp DB 12, 18, 24-1-4'MSD | 1-4 | 8/4/04 | 9/3/04 | 22,100 | ND | ND | ND | ND | 22,100 | ND | ND | ND |
| | Comp DB 10, 15, 9-1-3' | 1-3 | 8/3/04 | 8/28/04 | 16,900 | ND | ND | ND | ND | 16,900 | ND | ND | ND |
| | Comp DB 10, 15, 9-3-6' | 3-6 | 8/3/04 | 8/28/04 | 8,010 | ND | ND | ND | ND | 8,010 | ND | ND | ND |
| | Comp DB 10, 15, 9-6-9' | 6-9 | 8/3/04 | 8/28/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| | Comp DB 3&4-1-4' | 1-4 | 8/3/04 | 8/28/04 | 7,850 | ND | ND | ND | ND | 7,850 | ND | ND | ND |
| | Comp DB 5&6-1-4' | 1-4 | 8/3/04 | 8/28/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | Comp DB 16, 22, 28-1-3' | 1-3 | 8/3/04 | 9/10/04 | 5,650 | ND | ND | ND | ND | 5,650 | ND | ND | ND |
| | Comp DB 16, 22, 28-3-6' | 3-6 | 8/3/04 | 8/28/04 | 8,660 | ND | ND | ND | ND | 8,660 | ND | ND | ND |
| | Comp DB 16, 22, 28-6-9' | 6-9 | 8/3/04 | 8/28/04 | 6,320 | ND | ND | ND | ND | 6,320 | ND | ND | ND |

McCoy Field
Project No. 02685

# Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DL1** | DL1-1-4' | 1-4 | 8/10/04 | 9/9/04 | 6,380 | ND | ND | ND | ND | 6,380 | ND | ND | ND |
| | DL1-4-7' | 4-7 | 8/10/04 | 9/9/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | DL1-7-10' | 7-10 | 8/10/04 | 9/9/04 | 5,980 | ND | ND | ND | ND | 5,980 | ND | ND | ND |
| **DL2** | DL2-1-4' | 1-4 | 8/10/04 | 9/9/04 | 19,700 | ND | ND | ND | ND | 19,700 | ND | ND | ND |
| | DL2-4-7' | 4-7 | 8/10/04 | 9/9/04 | 7,190 | ND | ND | ND | ND | 7,190 | ND | ND | ND |
| | DL2-7-11' | 7-11 | 8/10/04 | 9/9/04 | 3,680 | ND | ND | ND | ND | 3,680 | ND | ND | ND |
| **DL3** | DL3-1-4' | 1-4 | 8/10/04 | 9/9/04 | 17,800 | ND | ND | ND | ND | 17,800 | ND | ND | ND |
| | Duplicate 97 (DL3-1-4') | 1-4 | 8/10/04 | 9/9/04 | 10,400 | ND | ND | ND | ND | 10,400 | ND | ND | ND |
| | DL3-4-7' | 4-7 | 8/10/04 | 9/9/04 | 12,200 | ND | ND | ND | ND | 12,200 | ND | ND | ND |
| | DL3-4-7' MS | 4-7 | 8/10/04 | 9/9/04 | 17,100 | ND | ND | ND | ND | 17,100 | ND | ND | ND |
| | DL3-4-7' MSD | 4-7 | 8/10/04 | 9/9/04 | 67,600 | ND | ND | ND | ND | 67,600 | ND | ND | ND |
| | DL3-7-11 | 7-11 | 8/10/04 | 9/9/04 | 2,060 | ND | ND | ND | ND | 2,060 | ND | ND | ND |
| **DL4** | DL4-1-3' | 1-3 | 8/10/04 | 9/9/04 | 23,500 | ND | ND | ND | ND | 23,500 | ND | ND | ND |
| | DL4-5-7' | 5-7 | 8/10/04 | 9/9/04 | 2,240 | ND | ND | ND | ND | 2,240 | ND | ND | ND |
| | DL4-10-11.5 | 10-11.5 | 8/10/04 | 9/9/04 | 13,000 | ND | ND | ND | ND | 13,000 | ND | ND | ND |
| **DL5** | DL5-1-5' | 1-5 | 8/10/04 | 9/9/04 | 3,080 | ND | ND | ND | ND | 3,080 | ND | ND | ND |
| | DL5-5-11 | 5-11 | 8/10/04 | 9/9/04 | 1,830 | ND | ND | ND | ND | 1,830 | ND | ND | ND |
| **DL6** | (no sample collected - clean backfill - located over current sewer line) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL7** | (no sample collected - clean backfill - located on Hathaway Boulevard.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL8** | (no sample collected - clean backfill - located on Hathaway Boulevard.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL9** | DL9-1-4' | 1-4 | 8/10/04 | 9/9/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DL9-4-7' | 4-7 | 8/10/04 | 9/9/04 | 4,380 | ND | ND | ND | ND | 4,380 | ND | ND | ND |
| | DL9-7-10' | 7-10 | 8/10/04 | 9/9/04 | 11,500 | ND | ND | ND | ND | 11,500 | ND | ND | ND |
| **DL10** | DL10-1-4' | 1-4 | 8/11/04 | 9/13/04 | 7,220 | ND | ND | ND | ND | 7,220 | ND | ND | ND |
| | DL10-4-8' | 4-8 | 8/11/04 | 9/23/04 | 14,000 | ND | ND | ND | ND | 14,000 | ND | ND | ND |
| | Duplicate 99 (DL10-4-8') | 4-8 | 8/11/04 | 9/9/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DL10-8-11.5' | 8-11.5 | 8/11/04 | 9/23/04 | 2,220 | ND | ND | ND | ND | 2,220 | ND | ND | ND |
| | DL10-1-4'MS | 1-4 | 8/11/04 | 9/23/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | DL10-1-4'MSD | 1-4 | 8/11/04 | 9/23/04 | 16,600 | ND | ND | ND | ND | 16,600 | ND | ND | ND |
| **DL11** | DL11-1-4' | 1-4 | 8/11/04 | 9/13/04 | 21,140 | ND | ND | ND | ND | 21,140 | ND | ND | ND |
| | DL11-4-7' | 4-7 | 8/11/04 | 9/23/04 | 12,600 | ND | ND | ND | ND | 12,600 | ND | ND | ND |
| | DL11-7-11' | 7-11 | 8/11/04 | 9/23/04 | 9,500 | ND | ND | ND | ND | 9,500 | ND | ND | ND |
| **DL12** | DL12-1-4' | 1-4 | 8/11/04 | 9/23/04 | 11,400 | ND | ND | ND | ND | 11,400 | ND | ND | ND |
| | DL12-4-8' | 4-8 | 8/11/04 | 9/23/04 | 18,600 | ND | ND | ND | ND | 18,600 | ND | ND | ND |
| | DL12-8-11.5' | 8-11.5 | 8/11/04 | 9/13/04 | 25,000 | ND | ND | ND | ND | 25,000 | ND | ND | ND |
| **DL13** | (no sample collected - clean backfill - located in South Corridor) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL14** | DL14-1-4' | 1-4 | 8/11/04 | 9/13/04 | 6,500 | ND | ND | ND | ND | 6,500 | ND | ND | ND |
| | DL14-4-8' | 4-8 | 8/11/04 | 9/23/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | DL14-8-12' | 8-12 | 8/11/04 | 9/14/04 | 4,400 | ND | ND | ND | ND | 4,400 | ND | ND | ND |

McCoy Field
Project No. 02685

# Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DL15** | DL15-1-4' | 1-4 | 12/2/04 | 12/4/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DL15-4-8' | 4-8 | 12/2/04 | 12/4/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| | DL15-8-11' | 8-11 | 12/2/04 | 12/4/04 | 4,610 | ND | ND | ND | ND | 4,610 | ND | ND | ND |
| **COMP** | Duplicate 100 (DL16-DL22 Medium) | -- | 8/11/04 | 9/9/04 | 5,770 | ND | ND | ND | ND | 5,770 | ND | ND | ND |
| **DL16** | DL16-1-4' | 1-4 | 8/11/04 | 9/15/04 | 20,200 | ND | ND | ND | ND | 20,200 | ND | ND | ND |
| | DL16-4-8' | 4-8 | 8/11/04 | 9/15/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| **DL17** | (no sample collected due to proximity to DB59 - use DB59 data) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL18** | DL18-1-3' | 1-3 | 8/11/04 | 9/15/04 | 5,100 | ND | ND | ND | ND | 5,100 | ND | ND | ND |
| | DL18-3-6' | 3-6 | 8/11/04 | 9/15/04 | 3,330 | ND | ND | ND | ND | 3,330 | ND | ND | ND |
| | DL18-A-1-4' | 1-4 | 12/2/04 | 12/4/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | DL18-A-4-8' | 4-8 | 12/2/04 | 12/4/04 | 4,270 | ND | ND | ND | ND | 4,270 | ND | ND | ND |
| | DL18-A-8-10' | 8-10 | 12/2/04 | 12/4/04 | 9,300 | ND | ND | ND | ND | 9,300 | ND | ND | ND |
| **DL19** | DL19-1-3' | 1-3 | 8/11/04 | 9/15/04 | 4,000 | ND | ND | ND | ND | 4,000 | ND | ND | ND |
| | DL19-3-6' | 3-6 | 8/11/04 | 9/15/04 | 8,400 | ND | ND | ND | ND | 8,400 | ND | ND | ND |
| | DL19-A-1-4 | 1-4 | 12/2/04 | 12/4/04 | 11,300 | ND | ND | ND | ND | 11,300 | ND | ND | ND |
| | DL19-A-1-4'MS | 1-4 | 12/2/04 | 12/4/04 | 34,500 | ND | ND | ND | ND | 34,500 | ND | ND | ND |
| | DL19-A-1-4'MSD | 1-4 | 12/2/04 | 12/4/04 | 20,500 | ND | ND | ND | ND | 20,500 | ND | ND | ND |
| | DL19-A-4-8' | 4-8 | 12/2/04 | 12/4/04 | 11,600 | ND | ND | ND | ND | 11,600 | ND | ND | ND |
| | Duplicate 194 (DL19-A-4-8') | 4-8 | 12/2/04 | 12/4/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| | DL19-A-8-11' | 8-11 | 12/2/04 | 12/4/04 | 6,900 | ND | ND | ND | ND | 6,900 | ND | ND | ND |
| **DL20** | DL20-1-3' | 1-3 | 8/11/04 | 9/23/04 | 21,000 | ND | ND | ND | ND | 21,000 | ND | ND | ND |
| | DL20-1-3'MS | 1-3 | 8/11/04 | 9/23/04 | 17,900 | ND | ND | ND | ND | 17,900 | ND | ND | ND |
| | DL20-1-3'MSD | 1-3 | 8/11/04 | 9/23/04 | 21,000 | ND | ND | ND | ND | 21,000 | ND | ND | ND |
| | DL20-3-6' | 3-6 | 8/11/04 | 9/15/04 | 5,825 | ND | ND | ND | ND | 5,825 | ND | ND | ND |
| | DL20-A-1-4' | 1-4 | 10/22/04 | 10/29/04 | 7,760 | ND | ND | ND | ND | 7,760 | ND | ND | ND |
| | DL20-A-4-8' | 4-8 | 10/22/04 | 10/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL20-A-8-9' | 8-9 | 10/22/04 | 10/29/04 | 7,200 | ND | ND | ND | ND | 7,200 | ND | ND | ND |
| **DL21** | DL21-A-1-4' | 1-4 | 10/22/04 | 10/29/04 | 4,170 | ND | ND | ND | ND | 4,170 | ND | ND | ND |
| | DL21-A-4-8' | 4-8 | 10/22/04 | 10/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL21-A-8-8.5' | 8-8.5 | 10/22/04 | 10/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL22** | DL22-1-3' | 1-3 | 8/11/04 | 9/23/04 | 26,000 | ND | ND | ND | ND | 26,000 | ND | ND | ND |
| | DL22-3-6' | 3-6 | 8/11/04 | 9/15/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL22-A-1-4' | 1-4 | 12/2/04 | 12/4/04 | 5,560 | ND | ND | ND | ND | 5,560 | ND | ND | ND |
| | DL22-A-4-8' | 4-8 | 12/2/04 | 12/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL22-A-8-9' | 8-9 | 10/22/04 | 10/29/04 | 2,030 | ND | ND | ND | ND | 2,030 | ND | ND | ND |
| | DL22-A-8-9.5' | 8-9.5 | 12/2/04 | 12/4/04 | 1,930 | ND | ND | ND | ND | 1,930 | ND | ND | ND |
| **DL23** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL24** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL25** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL26** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL27** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL28** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |

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Project No. 02685

# Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DL29** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL30** | DL30-1-4' | 1-4 | 8/11/04 | 9/13/04 | 26,300 | ND | ND | ND | ND | 26,300 | ND | ND | ND |
| | DL30-4-8' | 4-8 | 8/11/04 | 9/13/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | DL30-8-11.5' | 8-11.5 | 8/11/04 | 9/13/04 | 5,000 | ND | ND | ND | ND | 5,000 | ND | ND | ND |
| **DL31** | DL31-1-4' | 1-4 | 8/11/04 | 9/23/04 | 22,850 | ND | ND | ND | ND | 22,850 | ND | ND | ND |
| | DL31-4-7' | 4-7 | 8/11/04 | 9/13/04 | 12,300 | ND | ND | ND | ND | 12,300 | ND | ND | ND |
| | DL31-7-11' | 7-11 | 8/11/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL32** | DL32-1-4' | 1-4 | 8/11/04 | 9/13/04 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| | DL32-4-7' | 4-7 | 8/11/04 | 9/13/04 | 3,000 | ND | ND | ND | ND | 3,000 | ND | ND | ND |
| | DL32-7-11' | 7-11 | 8/11/04 | 9/13/04 | 3,800 | ND | ND | ND | ND | 3,800 | ND | ND | ND |
| **DL33** | DL33-1-3' | 1-3 | 8/11/04 | 9/3/04 | 7,575 | ND | ND | ND | ND | 7,575 | ND | ND | ND |
| | DL33-3-6' | 3-6 | 8/11/04 | 9/3/04 | 6,340 | ND | ND | ND | ND | 6,340 | ND | ND | ND |
| **DL34** | DL34-1-4' | 1-4 | 8/11/04 | 9/3/04 | 10,840 | ND | ND | ND | ND | 10,840 | ND | ND | ND |
| | DL34-4-8' | 4-8 | 8/11/04 | 9/3/04 | 8,730 | ND | ND | ND | ND | 8,730 | ND | ND | ND |
| **DL35** | DL35-1-4' | 1-4 | 8/11/04 | 9/3/04 | 33,800 | ND | ND | ND | ND | 33,800 | ND | ND | ND |
| | DL36-4-8' | 4-8 | 8/11/04 | 9/3/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| **DL36** | DL36-1-4' | 1-4 | 8/11/04 | 9/3/04 | 8,600 | ND | ND | ND | ND | 8,600 | ND | ND | ND |
| | DL36-4-8' | 4-8 | 8/11/04 | 9/3/04 | 4,650 | ND | ND | ND | ND | 4,650 | ND | ND | ND |
| **COMP** | DUPLICATE 121 (DL76-86 Medium) | -- | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **NOTE: There is no DL37 through DL75** | | | | | | | | | | | | | |
| **DL76** | DL76-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL76-3-6' | 3-6 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL76-6-9' | 6-9 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL77** | DL77-1-3' | 1-3 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL77-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL77-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL78** | DL78-1-4' | 1-4 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL78-4-7' | 4-7 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL78-7-10' | 7-10 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL79** | DL79-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL79-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL79-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL80** | DL80-1-4' | 1-4 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 119 (DL80-1-4') | 1-4 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL80-4-8.5' | 4-8.5 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL81** | DL81-1-5' | 1-5 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 120 (DL81-1-5') | 1-5 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL82** | DL82-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL82-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL82-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL83** | DL83-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL83-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

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# Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | DL83-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL84** | DL84-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL84-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL84-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL85** | DL85-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL85-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL85-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL86** | DL86-1-4' | 1-4 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL86-4-7' | 4-7 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL86-7-11' | 7-11 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL87** | DL87-1-4' | 1-4 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL87-4-7' | 4-7 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL87-7-11' | 7-11 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL88** | (no sample collected - clean backfill - located over current sewer line) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL89** | (no sample collected - clean backfill - located on Hathaway Boulevard.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL90** | (no sample collected - clean backfill - located on Hathaway Boulevard.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL91** | DL91-1-4' | 1-4 | 10/22/04 | 10/29/04 | 4,000 | ND | ND | ND | ND | 4,000 | ND | ND | ND |
| | DL91-4-8' | 4-8 | 10/22/04 | 10/29/04 | 7,730 | ND | ND | ND | ND | 7,730 | ND | ND | ND |
| | DL91-8-10' | 8-10 | 10/22/04 | 10/29/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND |
| **DL92** | DL92-1-4' | 1-4 | 8/26/04 | 9/2/04 | **212,000** | ND | ND | ND | ND | 212,000 | ND | ND | ND |
| | DL92-4-8.5' | 4-8.5 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL92-A-1-4' | 1-4 | 10/22/04 | 10/29/04 | 12,100 | ND | ND | ND | ND | 12,100 | ND | ND | ND |
| | DL92-A-4-8' | 4-8 | 10/22/04 | 10/29/04 | 7,020 | ND | ND | ND | ND | 7,020 | ND | ND | ND |
| | DL92-A-8-9.5' | 8-9.5 | 10/22/04 | 10/29/04 | 4,360 | ND | ND | ND | ND | 4,360 | ND | ND | ND |
| | DL92-B-1-4' | 1-4 | 10/22/04 | 10/29/04 | 38,500 | ND | ND | ND | ND | 38,500 | ND | ND | ND |
| | DL92-B-4-8' | 4-8 | 10/22/04 | 10/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL92-B-8-10' | 8-10 | 10/22/04 | 10/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL92-C-1-4' | 1-4 | 10/22/04 | 10/29/04 | **94,500** | ND | ND | ND | ND | 94,500 | ND | ND | ND |
| | Duplicate 169 (DL92-C-1-4') | 1-4 | 10/22/04 | 10/29/04 | **52,800** | ND | ND | ND | ND | 52,800 | ND | ND | ND |
| | DL92-C-4-8' | 4-8 | 10/22/04 | 10/28/04 | 3,260 | ND | ND | ND | ND | 3,260 | ND | ND | ND |
| | DL92-C-8-9.75' | 8-9.75 | 10/22/04 | 10/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL92-D-1-4' | 1-4 | 10/22/04 | 10/28/04 | 24,900 | ND | ND | ND | ND | 24,900 | ND | ND | ND |
| | DL92-D-4-8' | 4-8 | 10/22/04 | 10/28/04 | 4,910 | ND | ND | ND | ND | 4,910 | ND | ND | ND |
| | DL92-D-8-9.5' | 8-9.5 | 10/22/04 | 10/29/04 | 2,320 | ND | ND | ND | ND | 2,320 | ND | ND | ND |
| **DL93** | (no sample collected due to proximity to DB75 - use DB75 data) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL94** | (no sample collected - clean backfill.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL95** | (consistently hit refusal while drilling in this area.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DL96-1-3' | 1-3 | 9/9/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

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# Drain Lines
## Polychlorinated Biphenyls

| | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL96** | (no sample collected beyond 3' bgs - clean backfill.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL97** | DL97-1-2' | 1-2 | 9/9/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | (no sample collected beyond 2' bgs - clean backfill.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL98** | DL98-1-4' | 1-4 | 9/9/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | (no sample collected beyond 4' bgs - clean backfill.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL99** | DL99-1-4' | 1-4 | 9/9/04 | 9/16/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 134 (DL99-1-4') | 1-4 | 9/9/04 | 9/16/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL99-4-7' | 4-7 | 9/9/04 | 9/16/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL99-7-10' | 7-10 | 9/9/04 | 9/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL100** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL101** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL102** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL103** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL104** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL105** | DL105-1-3 | 1-3 | 9/20/04 | 9/22/04 | 3,590 | ND | ND | ND | ND | 3,590 | ND | ND | ND |
| | DL105-3-6 | 3-6 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL105-6-8.5 | 6-8.5 | 9/20/04 | 9/22/04 | 3,210 | ND | ND | ND | ND | 3,210 | ND | ND | ND |
| **DL106** | DL106-1-3 | 1-3 | 9/20/04 | 9/22/04 | 2,890 | ND | ND | ND | ND | 2,890 | ND | ND | ND |
| | DL106-3-6 | 3-6 | 9/20/04 | 9/22/04 | 2,300 | ND | ND | ND | ND | 2,300 | ND | ND | ND |
| | DL106-6-8 | 6-8 | 9/20/04 | 9/22/04 | 1,330 | ND | ND | ND | ND | 1,330 | ND | ND | ND |
| **DL107** | DL107-1-3 | 1-3 | 9/20/04 | 9/22/04 | **63,700** | ND | ND | ND | ND | 63,700 | ND | ND | ND |
| | DL107-3-6 | 3-6 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL107-6-10 | 6-10 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 139 | | 9/20/04 | 9/22/04 | 5,430 | ND | ND | ND | ND | 5,430 | ND | ND | ND |
| | MS-DL107-6-10 | 6-10 | 9/20/04 | 9/22/04 | 6,960 | ND | ND | ND | ND | 6,960 | ND | ND | ND |
| | MSD-DL107-6-10 | 6-10 | 9/20/04 | 9/22/04 | 7,990 | ND | ND | ND | ND | 7,990 | ND | ND | ND |
| | DL107-A-1-3' | 1-3 | 9/24/04 | 9/28/04 | 4,620 | ND | ND | ND | ND | 4,620 | ND | ND | ND |
| | DL107-A-3-6' | 3-6 | 9/24/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL107-A-6-10.25' | 6-10.25 | 10/1/04 | 10/4/04 | 2,940 | ND | ND | ND | ND | 2,940 | ND | ND | ND |
| | DL107-B-1-3' | 1-3 | 9/24/04 | 9/28/04 | 8,420 | ND | ND | ND | ND | 8,420 | ND | ND | ND |
| | DL107-B-3-6' | 3-6 | 9/24/04 | 9/28/04 | **109,000** | ND | ND | ND | ND | 109,000 | ND | ND | ND |
| | DL107-B-6-10' | 6-10 | 10/1/04 | 10/4/04 | 6,260 | ND | ND | ND | ND | 6,260 | ND | ND | ND |
| | DL107-C-1-3' | 1-3 | 10/1/04 | 10/4/04 | **56,300** | ND | ND | ND | ND | 56,300 | ND | ND | ND |
| | DL107-C-3-6' | 3-6 | 10/1/04 | 10/4/04 | 2,990 | ND | ND | ND | ND | 2,990 | ND | ND | ND |
| | DL107-C-6-10' | 6-10 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL107-D-1-3' | 1-3 | 10/1/04 | 10/6/04 | 15,900 | ND | ND | ND | ND | 15,900 | ND | ND | ND |
| | DL107-D-3-6' | 3-6 | 10/1/04 | 10/6/04 | 4,630 | ND | ND | ND | ND | 4,630 | ND | ND | ND |
| | DL107-D-6-10' | 6-10 | 10/1/04 | 10/6/04 | 2,260 | ND | ND | ND | ND | 2,260 | ND | ND | ND |
| **DL108** | DL108-1-3 | 1-3 | 9/20/04 | 9/22/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| | DL108-3-6 | 3-6 | 9/20/04 | 9/22/04 | 4,660 | ND | ND | ND | ND | 4,660 | ND | ND | ND |

## Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | DL108-6-10 | 6-10 | 9/20/04 | 9/22/04 | 3,930 | ND | ND | ND | ND | 3,930 | ND | ND | ND |
| **DL109** | DL109-1-3 | 1-3 | 9/20/04 | 9/22/04 | 9,070 | ND | ND | ND | ND | 9,070 | ND | ND | ND |
| | DL109-3-6 | 3-6 | 9/20/04 | 9/22/04 | 3,920 | ND | ND | ND | ND | 3,920 | ND | ND | ND |
| | DL109-6-10 | 6-10 | 9/20/04 | 9/22/04 | 5,400 | ND | ND | ND | ND | 5,400 | ND | ND | ND |
| **CY-1** | CY-1-1-3' | 1-3 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 158 (CY-1-1-3') | 1-3 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | CY-1-3-6' | 3-6 | 10/12/04 | 10/20/04 | 43,600 | ND | ND | ND | ND | 43,600 | ND | ND | ND |
| | CY-1-6-10' | 6-10 | 10/12/04 | 10/20/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| **CY-2** | CY-2-1-3' | 1-3 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | CY-2-3-6' | 3-6 | 10/12/04 | 10/20/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | CY-2-6-10' | 6-10 | 10/12/04 | 10/20/04 | 21,600 | ND | ND | ND | ND | 21,600 | ND | ND | ND |
| **CY-3** | CY-3-1-3' | 1-3 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | CY-3-3-6' | 3-6 | 10/12/04 | 10/20/04 | 41,600 | ND | ND | ND | ND | 41,600 | ND | ND | ND |
| | CY-3-6-10' | 6-10 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

# ROOF DRAIN OUTLETS
## Polychlorinated Biphenyls

| LOCATION | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **OUTLET 1** | OUTLET 1-A-1-2.5' | 1-2.5 | 7/2/04 | 7/26/04 | 14,300 | ND | ND | ND | ND | 14,300 | ND | ND | ND |
| | OUTLET 1-B-0.5-2.5' | 0.5-2.5 | 7/2/04 | 7/26/04 | 18,000 | ND | ND | ND | ND | 18,000 | ND | ND | ND |
| | OUTLET 1-C-0-2.5' | 0-2.5 | 7/2/04 | 7/27/04 | 21,200 | ND | ND | ND | ND | 21,200 | ND | ND | ND |
| | OUTLET 1-D-0-2' | 0-2 | 7/2/04 | 7/27/04 | 6,460 | ND | ND | ND | ND | 6,460 | ND | ND | ND |
| | OUTLET 1 A+B+C+D | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **OUTLET 2** | OUTLET 2-A-1-2' | 1-2 | 7/2/04 | 7/26/04 | 16,900 | ND | ND | ND | ND | 16,900 | ND | ND | ND |
| | OUTLET 2-B-0-1' | 0-1 | 7/2/04 | 7/26/04 | 5,560 | ND | ND | ND | ND | 5,560 | ND | ND | ND |
| | OUTLET 2-C-0-1' | 0-1 | 7/2/04 | 7/26/04 | 3,620 | ND | ND | ND | ND | 3,620 | ND | ND | ND |
| | OUTLET 2-A+B+C | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **OUTLET 3** | OUTLET 3-A-1-2.5' | 1-2.5 | 7/2/04 | 7/26/04 | 6,810 | ND | ND | ND | ND | 6,810 | ND | ND | ND |
| | OUTLET 3-AB-0-2' | 0-2 | 7/2/04 | 7/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | OUTLET 3-A+B | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | OUTLET 3-C-1-3' | 1-3 | 10/8/04 | 10/14/04 | 2,080 | ND | ND | ND | ND | 2,080 | ND | ND | ND |
| **OUTLET 4** | OUTLET 4-A-1-2.5' | 1-2.5 | 7/2/04 | 7/26/04 | 3,830 | ND | ND | ND | ND | 3,830 | ND | ND | ND |
| | OUTLET 4-B-0-2' | 0-2 | 7/2/04 | 7/26/04 | 4,240 | ND | ND | ND | ND | 4,240 | ND | ND | ND |
| | OUTLET 4-A+B | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | OUTLET 4-C-1-4' | 1-4 | 10/8/04 | 10/14/04 | 1,220 | ND | ND | ND | ND | 1,220 | ND | ND | ND |
| | OUTLET 4 SP | ~ | 7/30/04 | 8/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **OUTLET 5** | OUTLET 5-A-1-2.5' | 1-2.5 | 7/2/04 | 7/26/04 | 1,530 | ND | ND | ND | ND | 1,530 | ND | ND | ND |
| | OUTLET 5-B-0-2' | 0-2 | 7/2/04 | 7/26/04 | 3,420 | ND | ND | ND | ND | 3,420 | ND | ND | ND |
| | OUTLET 5-A+B | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | OUTLET 5-C-1-4' | 1-4 | 10/8/04 | 10/12/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | OUTLET 5 SP | ~ | 7/29/04 | 7/31/04 | 2,220 | ND | ND | ND | ND | 2,220 | ND | ND | ND |

McCoy Field
Project No. 02685

# Lights
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **L1** | L1-1-4' | 1-4 | 8/17/04 | 8/21/04 | 3,640 | ND | ND | ND | ND | 3,640 | ND | ND | ND |
| | L1-4-7' | 4-7 | 8/17/04 | 8/25/04 | 2,920 | ND | ND | ND | ND | 1,770 | 1,150 | ND | ND |
| | L1-7-11' | 7-11 | 8/17/04 | 8/21/04 | 2,100 | ND | ND | ND | ND | 2,100 | ND | ND | ND |
| **L4** | L4-1-4' | 1-4 | 8/17/04 | 8/23/04 | 287 | ND | ND | ND | ND | 287 | ND | ND | ND |
| | L4-4-8' | 4-8 | 8/17/04 | 8/21/04 | 26,200 | ND | ND | ND | ND | 26,200 | ND | ND | ND |
| | L4-8-12' | 8-12 | 8/17/04 | 8/24/04 | 92 | ND | ND | ND | ND | 92 | ND | ND | ND |
| **L5** | L5-1-4' | 1-4 | 8/17/04 | 8/21/04 | 1,580 | ND | ND | ND | ND | 1,580 | ND | ND | ND |
| | Duplicate 104 (L5-1-4') | 1-4 | 8/17/04 | 8/25/04 | 17,000 | ND | ND | ND | ND | 17,000 | ND | ND | ND |
| | L5-4-7' | 4-7 | 8/17/04 | 8/21/04 | 12,500 | ND | ND | ND | ND | 12,500 | ND | ND | ND |
| | L5-7-10' | 7-10 | 8/17/04 | 8/23/04 | 552 | ND | ND | ND | ND | 552 | ND | ND | ND |
| **Flagpole** | FLAGPOLE-1-3' | 1-3 | 8/17/04 | 8/21/04 | 4,140 | ND | ND | ND | ND | 4,140 | ND | ND | ND |
| | FLAGPOLE-3-6' | 3-6 | 8/17/04 | 8/21/04 | 3,960 | ND | ND | ND | ND | 3,960 | ND | ND | ND |
| | FLAGPOLE-6-9' | 6-9 | 8/17/04 | 8/23/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| **L6** | L6-1-4' | 1-4 | 11/17/04 | 11/23/04 | 35,800 | ND | ND | ND | ND | 35,800 | ND | ND | ND |
| | L6-4-8' | 4-8 | 11/17/04 | 11/24/04 | **73,900** | ND | ND | ND | ND | 73,900 | ND | ND | ND |
| | L6-8-9.5' | 8-9.5 | 11/17/04 | 11/23/04 | 10,500 | ND | ND | ND | ND | 10,500 | ND | ND | ND |
| **L7** | L7-1-4' | 1-4 | 11/17/04 | 11/23/04 | 7,010 | ND | ND | ND | ND | 7,010 | ND | ND | ND |
| | L7-4-8' | 4-8 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L7-8-9' | 8-9 | 11/17/04 | 11/23/04 | 2,360 | ND | ND | ND | ND | 2,360 | ND | ND | ND |
| **L8** | L8-1-3' | 1-3 | 8/17/04 | 8/21/04 | 3,810 | ND | ND | ND | ND | 3810 | ND | ND | ND |
| | L8-3-6' | 3-6 | 8/17/04 | 8/25/04 | 13,500 | ND | ND | ND | ND | 13500 | ND | ND | ND |
| | L8-6-9' | 6-9 | 8/17/04 | 8/21/04 | 961 | ND | ND | ND | ND | 961 | ND | ND | ND |
| **L9** | L9-1-4' | 1-4 | 8/17/04 | 8/21/04 | 1,670 | ND | ND | ND | ND | 1670 | ND | ND | ND |
| | L9-4-7' | 4-7 | 8/17/04 | 8/21/04 | 1,240 | ND | ND | ND | ND | 1240 | ND | ND | ND |
| | L9-7-10' | 7-10 | 8/17/04 | 8/23/04 | 3,320 | ND | ND | ND | ND | 1610 | 1710 | ND | ND |
| **L10** | L10-1-3' | 1-3 | 8/17/04 | 8/23/04 | 1,080 | ND | ND | ND | ND | 1080 | ND | ND | ND |
| | L10-3-6' | 3-6 | 8/17/04 | 8/25/04 | **1,020,000** | ND | ND | ND | ND | 1020000 | ND | ND | ND |
| | Duplicate 106 (L10-3-6') | 3-6 | 8/17/04 | 8/21/04 | **178,000** | ND | ND | ND | ND | 178,000 | ND | ND | ND |
| | L10-6-9' | 6-9 | 8/17/04 | 8/24/04 | 23,500 | ND | ND | ND | ND | 23500 | ND | ND | ND |
| | L10-A-3-6' | 3-6 | 12/3/04 | 12/8/04 | 10,000 | ND | ND | ND | ND | 10000 | ND | ND | ND |
| | L10-B-3-6' | 3-6 | 12/3/04 | 12/8/04 | 9,530 | ND | ND | ND | ND | 9530 | ND | ND | ND |
| | L10-C-3-6' | 3-6 | 12/3/04 | 12/8/04 | 3,520 | ND | ND | ND | ND | 3520 | ND | ND | ND |
| | L10-D-3-6' | 3-6 | 12/3/04 | 12/8/04 | **73,500** | ND | ND | ND | ND | 73500 | ND | ND | ND |
| **L11** | L11-1-3' | 1-3 | 8/17/04 | 8/24/04 | 13,100 | ND | ND | ND | ND | 13100 | ND | ND | ND |
| | L11-3-6' | 3-6 | 8/17/04 | 8/23/04 | 2,220 | ND | ND | ND | ND | 2220 | ND | ND | ND |
| | L11-6-9.5' | 6-9.5 | 8/17/04 | 8/23/04 | **113,000** | ND | ND | ND | ND | 113,000 | ND | ND | ND |
| | L11-A-6-10' | 6-10 | 12/3/04 | 12/8/04 | 3,450 | ND | ND | ND | ND | 3,450 | ND | ND | ND |
| | Duplicate 196 (L11-A-6-10') | 6-10 | 12/3/04 | 12/8/04 | 5,410 | ND | ND | ND | ND | 5,410 | ND | ND | ND |
| | L11-B-6-11' | 6-11 | 12/2/04 | 12/4/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Lights
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | L11-C-6-10' | 6-10 | 12/3/04 | 12/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L11-C-6-10'MS | 6-10 | 12/3/04 | 12/8/04 | 8,110 | ND | ND | ND | ND | 8,110 | ND | ND | ND |
| | L11-C-6-10'MSD | 6-10 | 12/3/04 | 12/8/04 | 8,790 | ND | ND | ND | ND | 8,790 | ND | ND | ND |
| | L11-D-6-9.5' | 6-9.5 | 12/2/04 | 12/4/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| **L12** | L12-1-4' | 1-4 | 8/17/04 | 8/24/04 | **54,500** | ND | ND | ND | ND | 54,500 | ND | ND | ND |
| | L12-4-7' | 4-7 | 8/17/04 | 8/24/04 | 3,630 | ND | ND | ND | ND | 3,630 | ND | ND | ND |
| | L12-7-10' | 7-10 | 8/17/04 | 8/24/04 | 21,700 | ND | ND | ND | ND | 21,700 | ND | ND | ND |
| **L13** | L13-1-4' | 1-4 | 8/17/04 | 8/23/04 | 2,350 | ND | ND | ND | ND | 2,350 | ND | ND | ND |
| | L13-4-8' | 4-8 | 8/17/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L13-8-12' | 8-12 | 8/17/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **L14** | L14-1-4' | 1-4 | 8/17/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L14-4-8' | 4-8 | 8/17/04 | 8/24/04 | 95 | ND | ND | ND | ND | 95 | ND | ND | ND |
| | L14-8-12' | 8-12 | 8/17/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **L15** | L15-1-4' | 1-4 | 8/17/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L15-4-8' | 4-8 | 8/17/04 | 8/24/04 | 1,100 | ND | ND | ND | ND | 1,100 | ND | ND | ND |
| | L15-8-12' | 8-12 | 8/17/04 | 8/24/04 | 492 | ND | ND | ND | ND | 492 | ND | ND | ND |
| **L16** | L16-1-4' | 1-4 | 8/17/04 | 8/21/04 | 2,120 | ND | ND | ND | ND | 2,120 | ND | ND | ND |
| | L16-4-8' | 4-8 | 8/17/04 | 8/21/04 | 4,370 | ND | ND | ND | ND | 4,370 | ND | ND | ND |
| **L17** | L17-1-4' | 1-4 | 8/19/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L17-4-7' | 4-7 | 8/19/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L17-7-10' | 7-10 | 8/19/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **L18** | L18-0-4' | 0-4 | 12/3/04 | 12/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L18-4-5' | 4-5 | 12/3/04 | 12/8/04 | 1,210 | ND | ND | ND | ND | 1,210 | ND | ND | ND |
| **L19** | L19-1-4' | 1-4 | 8/19/04 | 8/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 107 (L19-1-4') | 1-4 | 8/19/04 | 8/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L19-4-7' | 4-7 | 8/19/04 | 8/26/04 | 3,120 | ND | ND | ND | ND | 3,120 | ND | ND | ND |
| | L19-7-11' | 7-11 | 8/19/04 | 8/26/04 | 3,260 | ND | ND | ND | ND | 3,260 | ND | ND | ND |
| **L20** | L20-1-4' | 1-4 | 8/19/04 | 8/26/04 | 2,300 | ND | ND | ND | ND | 2,300 | ND | ND | ND |
| | L20-4-7' | 4-7 | 8/19/04 | 8/26/04 | 5,530 | ND | ND | ND | ND | 5,530 | ND | ND | ND |
| | L20-7-11' | 7-11 | 8/19/04 | 8/26/04 | 1,970 | ND | ND | ND | ND | 1,970 | ND | ND | ND |
| **L21** | L21-1-4' | 1-4 | 8/19/04 | 8/26/04 | 2,820 | ND | ND | ND | ND | 2,820 | ND | ND | ND |
| | L21-4-7' | 4-7 | 8/19/04 | 8/26/04 | 1,900 | ND | ND | ND | ND | 1,900 | ND | ND | ND |
| | L21-7-10.5' | 7-10.5 | 8/19/04 | 8/26/04 | 1,420 | ND | ND | ND | ND | 1,420 | ND | ND | ND |
| **L22** | L22-1-4' | 1-4 | 8/19/04 | 8/26/04 | 792 | ND | ND | ND | ND | 792 | ND | ND | ND |
| | L22-4-7' | 4-7 | 8/19/04 | 8/26/04 | 5,160 | ND | ND | ND | ND | 5,160 | ND | ND | ND |
| | L22-7-11.5' | 7-11.5 | 8/19/04 | 8/27/04 | 2,520 | ND | ND | ND | ND | 2,520 | ND | ND | ND |
| **L23** | L23-1-4' | 1-4 | 8/19/04 | 8/26/04 | 2,010 | ND | ND | ND | ND | 2,010 | ND | ND | ND |
| | L23-4-8' | 4-8 | 8/19/04 | 8/26/04 | 22,200 | ND | ND | ND | ND | 22,200 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Lights
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | L23-8-12' | 8-12 | 8/19/04 | 8/26/04 | 1,220 | ND | ND | ND | ND | 1,220 | ND | ND | ND |
| **L24** | L24-1-4' | 1-4 | 8/19/04 | 8/26/04 | 4,470 | ND | ND | ND | ND | 4,470 | ND | ND | ND |
| | L24-4-7' | 4-7 | 8/19/04 | 8/26/04 | 3,780 | ND | ND | ND | ND | 3,780 | ND | ND | ND |
| | L24-7-9' | 7-9 | 8/19/04 | 8/26/04 | 21,400 | ND | ND | ND | ND | 21,400 | ND | ND | ND |
| **L25** | L25-1-4' | 1-4 | 8/19/04 | 8/26/04 | **69,800** | ND | ND | ND | ND | 69,800 | ND | ND | ND |
| | L25-4-7' | 4-7 | 8/19/04 | 8/26/04 | 19,900 | ND | ND | ND | ND | 19,900 | ND | ND | ND |
| | L25-7-10' | 7-10 | 8/19/04 | 8/26/04 | 3,490 | ND | ND | ND | ND | 3,490 | ND | ND | ND |
| **L26** | L26-1-4' | 1-4 | 8/19/04 | 8/27/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | L26-4-8' | 4-8 | 8/19/04 | 8/27/04 | 9,150 | ND | ND | ND | ND | 9,150 | ND | ND | ND |
| | L26-8-12' | 8-12 | 8/19/04 | 8/27/04 | 6,210 | ND | ND | ND | ND | 6,210 | ND | ND | ND |
| **L27** | L27-1-4' | 1-4 | 8/19/04 | 8/27/04 | 5,650 | ND | ND | ND | ND | 5,650 | ND | ND | ND |
| | L27-4-8.5' | 4-8.5 | 8/19/04 | 8/27/04 | 26,300 | ND | ND | ND | ND | 26,300 | ND | ND | ND |
| **L28** | L28-1-3' | 1-3 | 8/19/04 | 8/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DUPLICATE 110 (L28-1-3') | 1-3 | 8/19/04 | 8/26/04 | 629 | ND | ND | ND | ND | 629 | ND | ND | ND |
| | L28-3-6' | 3-6 | 8/19/04 | 8/27/04 | 40,200 | ND (8770) | ND (8770) | ND (8770) | ND (8770) | 40,200 | ND (8770) | ND (8770) | ND (8770) |
| | L28-6-9.5' | 6-9.5 | 8/19/04 | 8/27/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| **L29** | L29-1-4' | 1-4 | 8/19/04 | 8/27/04 | 43,600 | ND (9260) | ND (9260) | ND (9260) | ND (9260) | 43,600 | ND (9260) | ND (9260) | ND (9260) |
| | L29-4-8' | 4-8 | 8/19/04 | 8/27/04 | 1,460 | ND | ND | ND | ND | 1,460 | ND | ND | ND |
| | L29-8-11' | 8-11 | 8/19/04 | 8/27/04 | **49,000** | ND (9800) | ND (9800) | ND (9800) | ND (9800) | 49,000 | ND (9800) | ND (9800) | ND (9800) |
| **L30** | L30-1-4' | 1-4 | 8/19/04 | 8/27/04 | 34,900 | ND | ND | ND | ND | 34,900 | ND | ND | ND |
| | L30-4-8' | 4-8 | 8/19/04 | 8/26/04 | 4,460 | ND | ND | ND | ND | 4,460 | ND | ND | ND |
| | L30-8-11' | 8-11 | 8/19/04 | 8/27/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **L31** | L31-1-4' | 1-4 | 8/19/04 | 8/26/04 | 7,300 | ND | ND | ND | ND | 7,300 | ND | ND | ND |
| | L31-4-8' | 4-8 | 8/19/04 | 8/27/04 | **48,900** | ND (8660) | ND (8660) | ND (8660) | ND (8660) | 48,900 | ND (8660) | ND (8660) | ND (8660) |
| | L31-8-12' | 8-12 | 8/19/04 | 8/27/04 | 20,700 | ND | ND | ND | ND | 20,700 | ND | ND | ND |
| **L32** | Clean backfill from installation of nearby fire hydrant | | | | | | | | | | | | |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Sidewalk
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| Sidewalk-1-1.25-2' | 1.25-2 | 10/28/04 | 10/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-2-1.5-2' | 1.5-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-3-1-2' | 1-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-4-0.25-2' | 0.25-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-5-0.5-2' | 0.5-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-6-0.5-2' | 0.5-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

## North Stockpiles
## Polychlorinated Biphenyls

| | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| North SP-1 | 9/23/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| North SP-2 | 9/23/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| North SP-3 | 9/23/04 | 9/30/04 | 29,100 | ND | ND | ND | ND | 29,100 | ND | ND | ND |
| North SP-4 | 9/23/04 | 9/30/04 | **46,500,000** | ND | ND | ND | ND | 46,500,000 | ND | ND | ND |
| NSP-4-0-1' | 12/9/04 | 12/13/04 | **377,000** | ND | ND | ND | ND | 377,000 | ND | ND | ND |
| NSP-4-1-2' | 12/9/04 | 12/18/04 | 9,380 | ND | ND | ND | ND | 9,380 | ND | ND | ND |
| NSP-4-A-0-1' | 12/9/04 | 12/13/04 | **4,300,000** | ND | ND | ND | ND | 4,300,000 | ND | ND | ND |
| NSP-4-A-1-2' | 12/9/04 | 12/18/04 | **450,000** | ND | ND | ND | ND | 450,000 | ND | ND | ND |
| NSP-4-A-2-3' | 1/11/05 | 1/13/05 | 35,100 | ND | ND | ND | ND | 35,100 | ND | ND | ND |
| NSP-4-B-0-1' | 12/9/04 | 12/13/04 | **102,000** | ND | ND | ND | ND | 102,000 | ND | ND | ND |
| NSP-4-B-1-2' | 12/9/04 | 12/18/04 | 11,500 | ND | ND | ND | ND | 11,500 | ND | ND | ND |
| NSP-4-C-0-1' | 12/9/04 | 12/13/04 | **1,210,000** | ND | ND | ND | ND | 1,210,000 | ND | ND | ND |
| NSP-4-C-1-2' | 12/9/04 | 12/18/04 | 3,450 | ND | ND | ND | ND | 3,450 | ND | ND | ND |
| NSP-4-D-0-1' | 12/9/04 | 12/13/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| NSP-4-D-1-2' | 12/9/04 | 1/15/05 | 38,300 | ND | ND | ND | ND | 38,300 | ND | ND | ND |
| NSP-4-E-0-1' | 12/9/04 | 12/18/04 | **78,900** | ND | ND | ND | ND | 78,900 | ND | ND | ND |
| NSP-4-F-0-1' | 12/9/04 | 12/18/04 | 24,700 | ND | ND | ND | ND | 24,700 | ND | ND | ND |
| NSP-4-H-0-1' | 12/9/04 | 12/18/04 | **630,000** | ND | ND | ND | ND | 630,000 | ND | ND | ND |
| NSP-4-H-1-2' | 1/11/05 | 1/13/05 | **2,290,000** | ND | ND | ND | ND | 2,290,000 | ND | ND | ND |
| NSP-4-H-2-3' | 1/11/05 | 1/15/05 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| NSP-4-I-0-1' | 1/11/05 | 1/13/05 | 8,350 | ND | ND | ND | ND | 8,350 | ND | ND | ND |
| NSP-4-I-1-2' | 1/11/05 | 1/13/05 | **72,800** | ND | ND | ND | ND | 72,800 | ND | ND | ND |
| North SP-5 | 9/23/04 | 9/30/04 | **2,190,000** | ND | ND | ND | ND | 2,190,000 | ND | ND | ND |
| NSP-5-0-1' | 12/9/04 | 12/13/04 | **321,000** | ND | ND | ND | ND | 321,000 | ND | ND | ND |
| NSP-5-1-2' | 12/9/04 | 12/18/04 | 33,600 | ND | ND | ND | ND | 33,600 | ND | ND | ND |
| NSP-5-A-0-1' | 12/9/04 | 12/13/04 | 21,800 | ND | ND | ND | ND | 21,800 | ND | ND | ND |
| NSP-5-B-0-1' | 12/9/04 | 12/13/04 | **70,400** | ND | ND | ND | 37,100 | ND | ND | 33,300 | ND |
| NSP-5-C-0-1' | 12/9/04 | 12/13/04 | 7,770 | ND | ND | ND | ND | 7,770 | ND | ND | ND |
| NSP-5-D-0-1' | 12/9/04 | 12/13/04 | 4,050 | ND | ND | ND | ND | 4,050 | ND | ND | ND |
| NSP-5-F-0-1' | 12/9/04 | 1/15/05 | **332,000** | ND | ND | ND | ND | 332,000 | ND | ND | ND |
| NSP-5-F-1-2' | 12/9/04 | 1/15/05 | 40,300 | ND | ND | ND | ND | 23,700 | ND | 16,600 | ND |
| NSP-5-G-0-1' | 12/9/04 | 1/15/05 | 4,060 | ND | ND | ND | ND | 4,060 | ND | ND | ND |
| NSP-5-G-1-2' | 12/9/04 | 1/15/05 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND |
| NSP-5-I-0-1' | 1/19/05 | 1/20/05 | 8,930 | ND | ND | ND | ND | 8,930 | ND | ND | ND |
| NSP-5-J-0-1' | 1/19/05 | 1/20/05 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| NSP-6-0-1' | 12/9/04 | 12/13/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| North SP-6 | 9/23/04 | 9/30/04 | 2,040 | ND | ND | ND | ND | 2,040 | ND | ND | ND |
| North SP-7 | 10/29/04 | 11/4/04 | 34,700 | ND | ND | ND | ND | 34,700 | ND | ND | ND |
| North SP-8 | 10/29/04 | 11/4/04 | **865,000** | ND | ND | ND | ND | 865,000 | ND | ND | ND |
| NSP-8-A-0-1' | 11/11/04 | 11/15/04 | **74,760** | ND | ND | ND | ND | 74,760 | ND | ND | ND |
| NSP-8-A-0-1' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-A-1-2' | 11/11/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-A-2-3' | 11/11/04 | 11/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

## North Stockpiles
## Polychlorinated Biphenyls

| | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| NSP-8-B-0-1' | 11/11/04 | 11/15/04 | 28,100 | ND | ND | ND | ND | 28,100 | ND | ND | ND |
| NSP-8-B-0-1' | 12/9/04 | 12/13/01 | **589,000** | ND | ND | ND | ND | 589,000 | ND | ND | ND |
| NSP-8-B-1-2' | 11/11/04 | 11/18/04 | 3,280 | ND | ND | ND | ND | 3,280 | ND | ND | ND |
| NSP-8-B-2-3' | 11/11/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-B-3-4' | 11/11/04 | 11/18/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| NSP-8-B-4-5' | 11/11/04 | 11/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-C-0-1' | 12/9/04 | 12/13/04 | **989,000** | ND | ND | ND | ND | 989,000 | ND | ND | ND |
| NSP-8-C-0-1' | 11/11/04 | 11/15/04 | **32,760,000** | ND | ND | ND | ND | 32,760,000 | ND | ND | ND |
| Duplicate 188 | 11/11/04 | 11/15/04 | **37,890,000** | ND | ND | ND | ND | 37,890,000 | ND | ND | ND |
| NSP-8-C-1-2' | 11/11/04 | 11/18/04 | **3,450,000** | ND | ND | ND | ND | 3,450,000 | ND | ND | ND |
| NSP-8-C-2-3' | 11/11/04 | 11/18/04 | **201,000** | ND | ND | ND | ND | 201,000 | ND | ND | ND |
| NSP-8-C-3-4' | 11/11/04 | 11/18/04 | **139,000** | ND | ND | ND | ND | 139,000 | ND | ND | ND |
| NSP-8-C-4-5' | 11/11/04 | 11/22/04 | **62,100** | ND | ND | ND | ND | 62,100 | ND | ND | ND |
| NSP-8-D-0-1' | 11/11/04 | 11/15/04 | 37,300 | ND | ND | ND | ND | 37,300 | ND | ND | ND |
| NSP-8-D-1-2' | 11/11/04 | 11/18/04 | 3,070 | ND | ND | ND | ND | 3,070 | ND | ND | ND |
| NSP-8-D-2-3' | 11/11/04 | 11/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-E-0-1' | 12/9/04 | 12/13/04 | **626,000** | ND | ND | ND | ND | 626,000 | ND | ND | ND |
| NSP-8-E-1-2' | 12/9/04 | 12/10/04 | 4,400 | ND | ND | ND | ND | 4,400 | ND | ND | ND |
| NSP-8-E-2-3' | 12/9/04 | 12/10/04 | 7,190 | ND | ND | ND | ND | 7,190 | ND | ND | ND |
| NSP-8-E-3-4' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-F-0-1' | 12/9/04 | 12/18/04 | **307,000** | ND | ND | ND | ND | 307,000 | ND | ND | ND |
| NSP-8-F-1-2' | 1/11/05 | 1/13/05 | **153,000** | ND | ND | ND | ND | 153,000 | ND | ND | ND |
| NSP-8-F-2-3' | 1/11/05 | 1/15/05 | 1,920 | ND | ND | ND | ND | 1,920 | ND | ND | ND |
| NSP-8-G-0-1' | 12/9/04 | 12/13/04 | **78,500** | ND | ND | ND | ND | 78,500 | ND | ND | ND |
| NSP-8-G-1-2' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-G-2-3' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-G-3-4' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 197 (NSP-8-H-1-2') | 12/3/04 | 7/30/04 | 5,990 | ND | ND | ND | ND | 5,990 | ND | ND | ND |
| NSP-8-I-0-1' | 12/9/04 | 12/13/04 | **55,000** | ND | ND | ND | ND | 55,000 | ND | ND | ND |
| NSP-8-I-1-2' | 12/9/04 | 12/10/04 | 2,110 | ND | ND | ND | ND | 2,110 | ND | ND | ND |
| NSP-8-I-2-3' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-I-3-4' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-K-0-1' | 1/11/05 | 1/13/05 | **95,200** | ND | ND | ND | ND | 95,200 | ND | ND | ND |
| Duplicate 214 (NSP-8-K-0-1') | 1/11/05 | 1/13/05 | **2,250,000** | ND | ND | ND | ND | 2,250,000 | ND | ND | ND |
| NSP-8-K-1-2' | 1/11/05 | 1/15/05 | 3,180 | ND | ND | ND | ND | 3,180 | ND | ND | ND |
| NSP-8-M-0-1' | 1/26/05 | 1/27/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| North SP-9 | 10/29/04 | 11/4/04 | 5,840 | ND | ND | ND | ND | 5,840 | ND | ND | ND |

McCoy Field
Project No. 02685

# Durfee Fence
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| DFA-0-1' | 0-1 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1020) | ND | ND | ND |
| DFA-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1030) | ND | ND | ND |
| DFA-2-3' | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1000) | ND | ND | ND |
| DFA-3-4' | 3-4 | 11/4/04 | 11/10/04 | 2,070 | ND | ND | ND | ND | 2,070 | ND | ND | ND |
| DFA-4-5' | 4-5 | 11/4/04 | 11/10/04 | 2,260 | ND | ND | ND | ND | 2,260 | ND | ND | ND |
| DFA-5-6' | 5-6 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1270) | ND | ND | ND |
| DFA-6-7' | 6-7 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (2550) | ND | ND | ND |
| DFB-0-1' | 0-1 | 11/4/04 | 11/10/04 | 1,340 | ND | ND | ND | ND | 1,340 | ND | ND | ND |
| DFB-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1050) | ND | ND | ND |
| DFB-2-3' | 2-3 | 11/4/04 | 11/10/04 | 2,690 | ND | ND | ND | ND | 2,690 | ND | ND | ND |
| DFB-3-4' | 3-4 | 11/4/04 | 11/10/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |
| DFB-4-5' | 4-5 | 11/4/04 | 11/10/04 | 1,730 | ND | ND | ND | ND | 1,730 | ND | ND | ND |
| DFB-5-6' | 5-6 | 11/4/04 | 11/10/04 | 19,710 | ND | ND | ND | ND | 2,610 | ND | ND | 17,100 |
| DFB-6-7' | 6-7 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (3590) | ND | ND | ND |
| DFC-0-1' | 0-1 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1060) | ND | ND | ND |
| DFC-1-2' | 1-2 | 11/4/04 | 11/10/04 | 1,880 | ND | ND | ND | ND | 1,880 | ND | ND | ND |
| DFC-2-3' | 2-3 | 11/4/04 | 11/10/04 | 10,400 | ND | ND | ND | ND | 10,400 | ND | ND | ND |
| Duplicate 186 | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1290) | ND | ND | ND |
| DFC-3-4' | 3-4 | 11/4/04 | 11/10/04 | 2,030 | ND | ND | ND | ND | 2,030 | ND | ND | ND |
| DFC-4-5' | 4-5 | 11/4/04 | 11/10/04 | 14,210 | ND | ND | ND | ND | 14,210 | ND | ND | ND |
| DFD-0-1' | 0-1 | 11/4/04 | 11/10/04 | 2,340 | ND | ND | ND | ND | 2,340 | ND | ND | ND |
| DFD-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1130) | ND | ND | ND |
| DFD-2-3' | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1180) | ND | ND | ND |
| DFD-3-4' | 3-4 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1330) | ND | ND | ND |
| Duplicate 185 | 3-4 | 11/4/04 | 11/10/04 | 1,590 | ND | ND | ND | ND | 1,590 | ND | ND | ND |
| DFE-0-1' | 0-1 | 11/4/04 | 11/10/04 | 2,950 | ND | ND | ND | ND | 2,950 | ND | ND | ND |
| DFE-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1120) | ND | ND | ND |
| DFE-2-3' | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1150) | ND | ND | ND |
| DFE-3-4' | 3-4 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1310) | ND | ND | ND |
| DFF-0-0.5' | 0-0.5 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1230) | ND | ND | ND |
| DFF-0.5-1.5' | 0.5-1.5 | 11/4/04 | 11/10/04 | 2,050 | ND | ND | ND | ND | 2,050 | ND | ND | ND |
| DFF-1.5-2.5' | 1.5-2.5 | 11/4/04 | 11/10/04 | 3,490 | ND | ND | ND | ND | 3,490 | ND | ND | ND |
| DFF-2.5-3.5' | 2.5-3.5 | 11/4/04 | 11/10/04 | 4,410 | ND | ND | ND | ND | 4,410 | ND | ND | ND |
| DFF-3.5-4.5' | 3.5-4.5 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFG-0-1' | 0-1 | 11/4/04 | 11/10/04 | 2,060 | ND | ND | ND | ND | 2,060 | ND | ND | ND |
| DFG-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1170) | ND | ND | ND |
| DFG-2-3' | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1140) | ND | ND | ND |
| DFG-3-4' | 3-4 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1150) | ND | ND | ND |
| DFG-4-5' | 4-5 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1100) | ND | ND | ND |
| DFG-5-6' | 5-6 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1040) | ND | ND | ND |
| DFH-0-1.5' | 0-1.5 | 11/4/04 | 11/10/04 | 1,580 | ND | ND | ND | ND | 1,580 | ND | ND | ND |
| DFH-1.5-3' | 1.5-3 | 2/16/05 | 2/18/05 | 359 | ND | ND | ND | ND | 359 | ND | ND | ND |

McCoy Field
Project No. 02685

## Durfee Fence
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| DFH-1.5-3'MS | 1.5-3 | 2/16/05 | 2/18/05 | 792 | ND | ND | ND | ND | 792 | ND | ND | ND |
| DFH-1.5-3'MSD | 1.5-3 | 2/16/05 | 2/18/05 | 695 | ND | ND | ND | ND | 695 | ND | ND | ND |
| DFI-0-0.5' | 0-0.5 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1130) | ND | ND | ND |
| DFI-0.5-3' | 0.5-3 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 215 (DFI-0.5-3') | 0.5-3 | 2/16/05 | 2/18/05 | 353 | ND | ND | ND | ND | 353 | ND | ND | ND |
| DFJ-0-0.75' | 0-0.75 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1280) | ND | ND | ND |
| DFJ-0.75-3' | 0.75-3 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFK-0-1' | 0-1 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFK-1-3' | 1-3 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFL-0-1' | 0-1 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFL-1-3' | 1-3 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

ND = Not detected
~ = Constituent not analyzed
Gray shaded values indicate that the Turnkey Acceptance Limit has been exceeded.
Black shaded values indicate that the Upper Concentration Limit (UCL) has been exceeded.

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# Attachment D

Laboratory Analytical
Reports on CD-ROM

# Attachment E

Long-term Cap Monitoring Plan

# ATTACHMENT E

## Long-Term Cap Monitoring Plan

### Background

The fate and transport characteristics of the contaminants of concern (polychlorinated biphenyls (PCBs), heavy metals (primarily lead and barium) and polynuclear aromatic hydrocarbons (PAHs)) have been evaluated and the following apply:

- All COCs are relatively insoluble in water;
- All COCs are only minimally volatile; and
- Direct contact, adsorption and/or ingestion are the only significant pathway for human exposure.

Therefore, by installing engineered barriers and eliminating direct exposure to contaminated media, the risk to human health and the environment can be substantially eliminated.

The engineered barriers must be maintained in accordance with the following monitoring plan, to keep the contaminated fill layer isolated from human and environmental receptors:

1) The new Keith Middle School has been constructed on steel H-piles, with the base of the concrete floor of the school at or near grade. The floor consists of a minimum of six inches of poured-in-place reinforced concrete. Prior to placement of the concrete floor, an impermeable elastomeric gas membrane ("LIQUID BOOT®") was applied beneath the floor, as an added precaution to prevent migration of any volatile gases into the building. In addition, a passive vent system has been installed to vent any accumulated gases to the atmosphere.

2) Portions of exterior areas of the school facility are landscaped. All landscaped areas were constructed by removing site soil to a minimum depth of 3 feet below final grade, placing a geotextile fabric to demarcate the limits of excavation and to separate residual PCB-impacted soil from clean fill, backfilling with a 6 to 12-inch base of imported clean crushed stone, placing an orange polyethylene mesh warning barrier, followed by imported clean sandy gravel and topsoil to achieve finished grade.

3) The remaining exterior site areas are asphalt or concrete paved. Asphalt has been placed at a minimum thickness of three inches on top of at least two feet of imported crushed stone sub-base underlain by a geotextile fabric. The concrete sidewalks have a minimum thickness of six inches, also on top of two feet of imported clean crushed sub-base, gravel and geotextile fabric.

In combination, the purpose of these three barriers is to prevent human exposure and erosion, and represent the cap for the school facility in accordance with the requirements of 40 CFR 761.61(a)(7).

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## Cap Maintenance

The following activities are required to maintain the integrity of the cap. In the event that activities prohibited in this section must be undertaken, a Massachusetts Licensed Site Professional must be involved to direct and oversee the activities.

A. Maintain all asphalt pavement, concrete pavement, and sidewalks such that the integrity of each is not compromised.

   1) If replacement of asphalt surfaces, concrete pavements and/or sidewalks is required, it shall be limited to the material to be replaced such that the underlying soil is not significantly disturbed (six inches deep or less below bottom of surface being removed) and the surface material is immediately (within 72 hours) repaired or replaced with a comparable barrier.

   2) No excavation shall be performed to a depth greater than two feet beneath paved areas.

B. Maintain all interior building floors such that the integrity of each is not compromised. This shall include a prohibition against any of the following activities, except as provided for above:

   1) Removal of building floor slab that would expose underlying contaminated soil (Note that a minimum of one foot of clean compacted granular fill directly underlies the concrete slab.);

   2) Any penetration or breaching of the vapor barrier beneath the building floor;

   3) Any excavation beneath building floors; and/or

   4) Any such activities that result, or could result, in compromising the structural integrity of building floors, asphalt pavement, or concrete pavement.

C. Maintain all landscaped areas such that soil erosion or other exposure of contaminated fill is prevented. This shall include a prohibition against any of the following activities, except as provided for above:

   1. If vegetation is to be planted or removed, excavation and/or removal of existing root systems shall not extend beyond two feet below existing grade.

   2) Prohibition against any excavation to a depth greater than three feet in landscaped areas.

**ATTACHMENT E**

3) Prohibition against any activities that result, or could result, in the erosion of soil in any unpaved area.

4) Prohibition against planting any deep-rooted vegetation (i.e., with roots typically extending greater than three feet below grade).

5) Any removal of overburden soil that reduces the depth of clean fill over the residual PCB-impacted soil to less than three feet.

**Cap Inspections**

Perform semi-annual inspections and associated record keeping activities to confirm that the cap is being properly maintained to prevent exposure. Particular attention is drawn to the following best management practices:

- Any damage to the cap, whatever the cause, must be repaired immediately to substantially restore the cap to its original design condition.
- Performance of frequent and short watering of landscape vegetation to encourage shallow root growth is recommended.
- Any deep-rooted indigenous species identified during routine inspections shall be immediately removed.

**Deed Restriction**

The above requirements will be recorded on the property in a Notice of Activity and Use Limitation (AUL) at the Bristol County Registry of Deeds. The AUL will be prepared and filed within 60 days of completion of cleanup activity, as required in 40 CFR 761.61(8)(i), in accordance with the requirements of the Massachusetts Contingency Plan 310 CMR 40.0000. The AUL will be maintained, and the Cap Monitoring Plan will continue to be implemented, in perpetuity, or until such time as additional response actions allow the modification or removal of the AUL and Cap Monitoring Plan in accordance with all applicable laws and regulations in force at the time.

**Soil Management Plan**

A Soil Management Plan must be prepared by a Massachusetts Licensed Site Professional (LSP) and implemented prior to the commencement of any activity which is likely to disturb contaminated soil, the top of which is located at two to four feet below surface grade within the AUL area. The Soil Management Plan should describe appropriate soil excavation, handling, storage, transport, and disposal procedures and include a description of the engineering controls and air monitoring procedures necessary to ensure that workers and receptors in the vicinity are not affected by fugitive dust or particles. On-Site workers must be informed of the requirements of the soil management plan, and the Plan must be available on-site throughout the course of the project.

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## Health and Safety Plan

A Health and Safety Plan must be prepared by a certified Industrial Hygienist or other qualified individual sufficiently trained in worker health and safety requirements and implemented prior to the commencement of any activity which is likely to disturb contaminated soil, the top of which is located at two to four feet below surface grade within the AUL area. The Health and Safety Plan should specify the type of personal protection (i.e., clothing, respirators), engineering controls, and environmental monitoring (if any) necessary to prevent worker exposures to contaminated soil through dermal contact, ingestion, and/or inhalation. Workers must be informed of the requirements of the Health and Safety Plan, and the plan must be available on-site throughout the course of the project.

# ATTACHMENT E – Cap Monitoring Log Sheet

**Inspection Date: _____ Inspection By: _____**

**Use this inspection form to document quarterly inspections. If unacceptable conditions are observed, complete form again immediately after repairs are completed.**

**A. Asphalt Surfaces** - observe asphalt for cracking, holes, asphalt removed during construction, other damage.

**All asphalt surfaces acceptable?** ☐ **YES** ☐ **NO**

If no, describe unacceptable asphalt:

Location _____

Condition _____

_____

_____

Describe any repairs to asphalt conducted since previous inspection: _____

_____

_____

**All repairs adequate?** ☐ **YES** ☐ **NO**

**B. Concrete Surfaces** - observe concrete for cracking, holes, concrete removed during construction, other damage.

**All concrete surfaces acceptable?** ☐ **YES** ☐ **NO**

If no, describe unacceptable concrete:

Location _____

Condition _____

_____

_____

Describe any repairs to concrete conducted since previous inspection: _____

_____

_____

**All repairs adequate?** ☐ **YES** ☐ **NO**

**C. Landscaping** - observe landscaping for erosion, animal holes, excavation, vegetation health.

**All landscaped areas acceptable?** ☐ **YES** ☐ **NO**

If no, describe unacceptable conditions:

Location _____

**ATTACHMENT E – Cap Monitoring Log Sheet**

Condition _____

_____

_____

Describe any repairs to landscaping conducted since previous inspection: _____

_____

_____

**All repairs adequate?** ☐ **YES** ☐ **NO**

# Attachment F

Environmental Monitoring Plan

# ATTACHMENT F

## Environmental Monitoring Plan

### Background

The results of soil gas sampling performed in 2002 under the location of the current School building were evaluated for the potential to adversely impact indoor air, assuming that no vapor barrier was installed. The conclusion was that *no significant risk* to human health is posed by the measured soil gas concentrations. Nevertheless, the City and the School Department decided to install a vapor barrier as an added layer of protection against intrusion of any gases that may accumulate under the building.

Comprehensive review of the fate and transport characteristics of the contaminants of concern was also performed as part of the assessment of corrective actions. The contaminants were ranked according to tendency to solubilize in water, volatilize, and desorb from soil particles. The majority of the contaminants are only slightly soluble, very slightly volatile or non-volatile, and slightly or hardly mobile or immobile. This indicates that these contaminants have a very low migration potential, and that installation of an exposure management barrier is an appropriate response action to manage risk at the site.

Given the fate and transport characteristics of the contaminants of concern, it is not likely that either indoor air or groundwater will be adversely impacted at the site. However, considering the potential receptors are children who could be potentially exposed for an extended period of time, the environmental monitoring activities will be implemented.

### 1.0 INDOOR AIR MONITORING

Indoor air monitoring will be performed as part of a long term environmental monitoring plan for the New Keith Middle School. The indoor air sampling will be conducted in conformance with current industry standards and good engineering practices, based on the Massachusetts Department of Environmental Protection policy entitled "Indoor Air Sampling and Evaluation Guide" WSC Policy #02-430 dated April 2002.

### 1.1 Air Sampling Procedures

The concentrations of potential airborne contaminants within the school building will be monitored on a semi-annual basis.

- **August Sampling Event**

  Air samples will be collected in early August with the goal of collecting the samples in a Summa canister (or equivalent), performing laboratory analyses, evaluating the data, and communicating the results to school officials at least two weeks prior to the start of each school year. This goal of this sampling event is to assess indoor air conditions during the warmer weather, when the formation of volatile gases, if any, is greatest. Also, at that time, the school will likely experience lower than normal air exchanges, since the doors and windows of the school building will be mostly closed and air handling

**ATTACHMENT F**

equipment being generally inactive. In addition, the use of air sampling equipment will not interfere with normal school activities.

- **December Sampling Event**

  The second sampling event will occur during the December school vacation. The goal of this sampling event is to obtain a "worst-case" air sample, during the period when the school will have experienced lower than normal air exchanges. During the winter vacation, the doors and windows will be mostly closed and the heating equipment will be in operation. Frozen ground surrounding the school could also contribute to a buildup of volatile organic gases beneath the school ground and result in the increased potential for gas migration into the building.

## 1.2 Sample Locations

One indoor air sample will be collected from each of the three school building sections (A, B and C). Each location will be selected to be representative of portions of the school building normally occupied by students and teachers. An LSP retained by the School Department will perform a Site inspection prior to each sampling event to select the indoor air sampling locations. Sample locations may be changed between each sampling event. Samples will normally be collected at the height of the normal breathing zone.

## 1.3 Analytical Parameters

At each sampling event, air samples will be collected and analyzed for the following parameters:

1. Volatile Organic Compounds (VOCs) by EPA Method TO-14A - Standard laboratory precleaned and evacuated passivated SUMMA canisters will be used to collect 24-hour composite samples.
2. Polychlorinated Biphenyls (PCB) by NIOSH Method 5503 – Personal sampling pumps will be used to draw sample air through florisil tubes to collect 24-hour composite samples.

Changes based on technical justification may be made in the specific sample collection intervals and/or substitutions be made by equal or improved sampling and/or analytical methods upon review and approval of LSP-of-Record.

## 1.4 Quality Assurance/Quality Control

At one indoor location, a duplicate VOC and PCB sample will be collected to verify precision. At least one VOC and PCB sample will be collected using the same methods from immediately outside of the building (typically at a roof top location) to provide comparative background results. One laboratory prepped and evacuated SUMMA canister and one unopened florisil tube will be transported from the laboratory to the field and back to the laboratory without being used. These blank samples will be laboratory analyzed as field blanks.

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## 1.5 Action Levels

### 1.5.1 PCBs in Indoor Air

Two risk-based air concentrations (RBACs) for PCBs in the gaseous phase within the school have been calculated. Both RBACs are based on an occupational exposure within the school (8 hours per day, 250 days per year, for 25 years, since this represents the longest likely exposure in the school), and are based on the potential carcinogenic effects of PCBs [using U.S. EPA's cancer unit risk value of 2 $(mg/m^3)^{-1}$].

- The first RBAC is an Action Level set at a target excess lifetime cancer risk of $1x10^{-6}$. This Action Level is intended to be used as an initial indicator that PCB concentrations above background levels have been detected and that investigation as to the source of PCBs is warranted.
- The second RBAC is the maximum acceptable air concentration that should not be exceeded for any extended time period, using a target excess lifetime cancer risk of $1x10^{-5}$. Since long-term, rather than short-term, exposure is of concern, the maximum acceptable air concentration could be exceeded over the short-term and still result in acceptable risk levels. Use of this value as the maximum acceptable air concentration is considered conservative.

The two values are calculated in Attachment A and summarized below:

| RBAC for PCBs in air | RBAC ($\mu g/m^3$) |
|---|---|
| Action Level ($1x10^{-6}$) | 0.006 |
| Maximum Acceptable Level ($1x10^{-5}$) | 0.06 |

#### 1.5.1.1 PCB Results Exceeding Action Levels

Any indoor air result with an analyte concentration exceeding 0.006 $\mu g/m^3$ will be cause to initiate a follow-up assessment. At a minimum, such assessment shall consist of a visual inspection of the sample location area for potential indoor air contaminant sources and immediate resampling of the subject location. The laboratory results of this sampling shall be verbally reported to school officials within 72 hours and reported in writing within seven days. The follow up assessment may also include interviews with site personnel to help identify any previously undocumented site activities that may have occurred during sample collection, consultation with the analytical laboratory to confirm the validity of the result, or any other appropriate tasks to determine the source of the elevated indoor air detection.

If the follow-up assessment determines that the previously detected elevated level(s) persist, the LSP will develop a contingent assessment, monitoring, and corrective action plan for submittal to school officials, DEP, and EPA within 30 days.

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If the follow up assessment determines that the previously detected elevated level(s) are either no longer present above 0.006 $\mu g/m^3$ or were anomalous or incorrect results, no further assessment will be required and the sampling program will return to its regular schedule.

### 1.5.2 Volatile Organic Compounds (VOCs)

The VOC results of each indoor air sample will be evaluated by comparison to a combination of the contemporary outdoor air sample and the DEP Threshold Effects Exposure Limits (TELs) and Allowable Ambient Limits (AALs) for Ambient Air currently in effect. The 1995 TELs and AALs are attached.

#### 1.5.2.1 Results Exceeding VOC Background

Any indoor air result with an analyte concentration exceeding TELs or AALs will cause a follow-up assessment to be performed. At a minimum, the assessment shall consist of visual inspection of the sample location for potential indoor air contaminant sources and immediate resampling of the subject location. The assessment may also include interviews with site personnel to identify any previously undocumented site activities that may have occurred during sample collection, consultation with the analytical laboratory, or any other appropriate tasks to determine the source of the elevated indoor air detection.

The VOC results of each indoor air sample will also be compared to the corresponding background (outdoor) air sample. Any indoor air result with an analyte concentration exceeding the outdoor sample result by 50 percent or more will cause a follow up assessment to be performed. At a minimum, such assessment will consist of a visual inspection of the sample location for potential indoor air contaminant sources and immediate resampling of the subject location, along with a corresponding outdoor background sample. The follow-up assessment may also include interviews with site personnel to identify any previously undocumented site activities that may have occurred during sample collection, consultation with the analytical laboratory to confirm the validity of the result, or any other appropriate tasks to determine the source of the elevated indoor air detection.

If the follow-up assessment determines that the contaminant levels of the second sampling event are either no longer present above TELs, AALs, 150% of contemporary outdoor concentrations, or were anomalous or incorrect results, no further assessment will be required and the sampling program will return to its regular schedule.

If the follow up sampling and analysis confirms the presence of level(s) above TELs, AALs, or 150% of outdoor concentrations, the laboratory data will be submitted by the LSP-of-Record to a toxicologist/risk assessor for evaluation in accordance with section 9.0 Health Risk Assessment Under the MCP of the DEP policy “Indoor Air Sampling and Evaluation Guide” for further assessment. The LSP-of-Record will develop a contingent assessment, monitoring, and corrective action plan for submittal to school officials, DEP, and EPA within 30 days.

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## 1.6 Reporting

Except as specified elsewhere in this Monitoring Plan, analytical results shall be provided verbally to school official(s) within 10 days of sample collection.

Except as specified elsewhere in this Monitoring Plan, within 30 days after completion of each sampling event, a written summary report presenting sampling methods, analytical methods (including description and justification for any changes to the above methods), analytical results, any deviations from the standard sampling or analytical methods, and a discussion of the implications of the analytical results will be provided to school officials and EPA.

## 2.0 GROUNDWATER MONITORING

Two groundwater monitoring wells will be installed along the western edge and one groundwater monitoring well will be installed along the southern edge of the school facility to serve as downgradient groundwater monitoring points. The wells will be constructed of two-inch diameter polyvinyl chloride riser pipe and screen. The wells will be installed with 10 feet of screen intersecting the average annual elevation of the water table. Groundwater samples will be collected from each well in the spring and fall. Samples will be collected using low flow sampling in accordance EPA Region I Low Stress (low flow) Purging and Sampling Procedure for the Collection of Ground Water Samples from Monitoring Wells, dated July 30, 1996, which is incorporated by reference in this document. Water quality parameters (pH, temperature, specific conductance, dissolved oxygen, oxidation-reduction potential, and turbidity) will be monitored during well purging with samples collected upon stabilization (generally < 5 percent fluctuation) of all parameters.

At each sampling event, samples will be collected and analyzed for the following parameters:

1. Volatile Organic Compounds (VOCs) by EPA Method 8260B
2. Polychlorinated Biphenyls (PCB) by EPA Method 8081
3. Dissolved Resource Conservation and Recovery Act metals

Substitutions may be made by equal or improved sampling and/or analytical methods.

## 2.1 Action Levels

The results of each groundwater sample will be evaluated by comparison to the Massachusetts Contingency Plan (310 CMR 40.0000) GW-2 and GW-3 standards. Any groundwater result with an analyte concentration exceeding their respective GW-2 or GW-3 standard will be cause for a follow-up assessment to be performed. Such assessment shall consist of reporting of the detection to DEP within 120 days and either:

(1) A Phase I Initial Site Investigation in accordance with the scope presented at 310 CMR 40.0483;

(2) A Method 3 Risk Assessment in accordance with 310 CMR 40.0990; or

**ATTACHMENT F**

(3) Other response actions determined by EPA and the LSP-of-Record retained by the City of New Bedford School Department to be protective of human health and the environment.

## 2.2 Reporting

Except as specified elsewhere in this Monitoring Plan, analytical results shall be verbally transmitted to school official(s) within 10 days of sample collection.

Within 30 days after completion of each sampling event, a summary report presenting sampling methods, analytical methods (including description and justification for any changes to the above methods), analytical results, any deviations from the standard sampling or analytical methods, and a discussion of the implications of the analytical results will be provided to school officials and EPA.

# Attachment G

Specification 02200 – Earthwork (backfill materials)

**SECTION 02200**

**EARTHWORK**

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

A. Bidding requirements, Contract Forms, General and Supplementary Conditions and Division I, General Requirements are hereby made a part of this Section. The Order of Conditions, DEP File No. SE 49-461, No. SE49-475 and all Amendments issued by the New Bedford Conservation Commission, is included in this contract in Section 00200 – Information Available to Bidders.

### 1.02 DESCRIPTION OF WORK

A. ***This project represents the final Phase of a three-phase project. Phase 1 consisted of the excavation and management of regulated soils for the installation of a portion of the project's subsurface utility system. Phase two completed the installation of the subsurface utility system, capping of the regulated soils and the shaping of the subgrades for the Phase III contract as shown on the Plans and specifications.*** The scope of work consists of all materials, equipment, labor and services required for all Earthwork work, including all items incidental thereto, as specified herein and as shown on the Drawings. The following work shall be included:

1. Surplus material shall be removed from the site. No burning on the site shall be permitted.

2. Excavating, filling, trenching and backfilling of all description required for the construction of walls, building structures, utility structures, utilities, pavements, seeded areas and site improvements. Provide all additional fill materials as required and specified herein. Refer to Sections on Heating, Plumbing, Electrical and Structural for other excavation.

3. Pumping and/or bailing necessary to maintain excavated spaces free from water from any source whatsoever.

4. Provide graded materials, as specified, for fills, base courses and backfills as required.

5. Protect all existing utilities, roads, pavements, lawns, planting and other improvements from damage due to construction. Install fencing and safety devices or controls as necessary.

6. Dust control and clean up.

B. The project site is part of a disposal site under the Massachusetts Contingency Plan (MCP) that has received "Special Project" designation by the Department of Environmental Protection. Under recent environmental contracts, near-surface contaminated soil has been removed in the vicinity of the Work, to significantly reduce the potential for exposure of workers to contaminated soil. However, in the event that excavation becomes necessary that could result in worker exposure to "suspect" contaminated subsurface soil, or off-site management of same, the CONTRACTOR must notify the ARCHITECT prior to proceeding with any subsurface excavations.

### 1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Carefully examine all of the Contract Documents for requirements which effect the work of this section.

B. Other specifications sections, which directly relate to the work of this section include, but are not limited to, the following:

1. Section 00200 – Information Available To Bidders
2. Section 02100 - Site Preparation
3. Section 02500 - Paving and Surfacing
4. Section 02665 - Water System
5. Section 02800 - Site Improvements
6. Section 02810 - Irrigation
7. Section 02900 - Lawns and Planting
8. Section 03300 – Cast-In-Place Concrete
9. Section 15300 – Plumbing
10. Section 15400 – Fire Protection
11. Section 16000 - Electrical

1.04 REFERENCE STANDARDS

A. Definitions and Reference Standards:

1. ASTM: Specifications of the American Society for Testing and Materials.

2. AASHTO: American Association of State Highway and Transportation Officials.

3. ACI: American Concrete Institute.

4. Building Code: Commonwealth of Massachusetts State Building Code, latest edition.

5. EPA: Environmental protection Agency.

6. DEP: Department of Environmental Protection.

7. SSHB: Standard Specifications for Highways and Bridges, the Commonwealth of Massachusetts, Mass. Highway Department, latest edition.

1.05 BENCHMARKS AND ENGINEERING

A. Lines and grade work in accordance with Drawings and Specifications shall be laid out by a registered Civil Engineer or Surveyor employed by the Contractor. The Contractor shall establish permanent benchmarks, to which access can easily be had during the progress of the work. The Contractor shall maintain all established bounds and benchmarks and replace, as directed, any that may be disturbed or destroyed. The selection of the registered Civil Engineer or Surveyor shall be subject to the Architect's approval. The General Contractor shall pay all costs of the services of the Civil Engineer or Surveyor.

B. The Contractor shall verify dimensions and elevations on the ground and report any discrepancies immediately to the Architect. Any discrepancies not reported prior to construction shall not be the basis for claims for extra compensation.

C. An As-Built Plan of work completed in the Phase I and II contracts shall be provided to the Contractor in .DWG format.

1.06 SUBSURFACE INFORMATION

A. The Architect shall issue As-Built Drawings indicating the extent of regulated soils that have been removed covered with a geotextile soil separator, warning barrier and brought up to Phase III subgrades with compacted, clean granular fill.

B. The Owner assumes no responsibility for the Contractor's failure to make his own site investigation regarding the character of the soil or subsurface conditions, which may be encountered during the performance of the work. (See Section 00200 – Information Available To Bidders.)

1.07 FINISHED GRADES

A. The words "finished grades" as used herein mean the required final grade elevations indicated on the Drawings. Where not otherwise indicated, areas outside of buildings shall be given uniform slopes between points, for which finished grades are shown, or between such points and existing grade except that vertical curves or roundings shall be provided at abrupt changes in slope.

1.08 GRADES AND ELEVATIONS

A. The Drawings indicate, in general, the alignment and finished grade elevations and sewer, drain, water and underground electric invert grades. The Architect, however, may make such adjustments in grades and alignment as are found necessary in order to avoid interference and to adapt the piping to other special conditions encountered.

1.09 PROTECTION

A. All rules and regulations governing the respective utilities shall be observed in executing all work under this Section. All work shall be executed in such a manner as to prevent any damage to existing buildings, clean corridors, streets, curbs, paving, service utility lines, structures and adjoining property. Monuments and benchmarks shall be carefully maintained and, if disturbed or destroyed, replaced as directed.

B. The Contractor shall furnish all facilities and materials necessary to prevent the earth at the bottom of excavation from becoming frozen or unsuitable to receive footings, foundations or other load bearing units.

C. The Contractor, under this Section, shall provide at his own expense adequate pumping and drainage facades to keep the excavation sufficiently dry as not to affect adversely the quality or time of placement of concrete or other materials to be installed in the excavated areas.

D. The Contractor shall assume full responsibility for damages caused by him or his Subcontractor's equipment and personnel to the existing geotextile soil separator and warning barrier, buildings and grounds as well as adjoining private property.

E. The work of this Section shall be performed in such a manner as to cause no interference with access by the Subcontractors or other Contractors to all portions of the site as is necessary for the normal conduct of their work.

**PART 2 - PRODUCTS**

A. Crushed Stone:

1. Crushed stone to be placed under and around sewer and storm drain pipes as shown on the Drawings and as specified shall be washed graded free of organic materials three-quarter (3/4) inch to one-half (1/2)-inch size. Gradation shall conform to SSHB., Section M2.01.3 as follows:

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 1- inch | | 100% |
| 3/4 inches | 90% | 100% |
| 1/2 inch | 10% | 50% |

| | | |
|---|---|---|
| 3/8 inch | 0% | 20% |
| #4 | 0% | 5% |

2. Crushed stone drive aprons as shown on the Drawings and as specified shall be washed graded free of organic materials two (2) inches to one-half (1/2)-inch size. Gradation shall conform to SSHB., Section M2.01.1 as follows:

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 2 inch | 100% | - |
| 1-1/2 inches | 95% | 50% |
| 1 inch | 35% | 70% |
| 3/4 inch | 0% | 25% |

B. Select Granular Fill: Gravel base as called for on the Drawings, for foundations, bases and miscellaneous site improvements, as specified shall consist of a well graded sand and gravel, free from deleterious matter, loam and clay, meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 8 inches | 100% | |
| 3 inches | 70% | 100% |
| 1/2 inches | 40% | 90% |
| No. 4 | 25% | 80% |
| No. 10 | 15% | 70% |
| No. 40 | 5% | 40% |
| No. 200 | 0% | 12% |

C. Clean Granular Fill: Fill up to subgrade in landscaped areas, shall consist of a well-graded sand and gravel borrow, free from deleterious matter, loam and clay meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 8 inches | 100% | |
| 3 inches | 70% | 100% |
| 1/2 inches | 40% | 100% |
| No. 4 | 25% | 100% |
| No. 10 | 15% | 95% |
| N0. 40 | 10% | 70% |
| No. 200 | 0% | 15% |

D. Bedding Sand: Bedding sand for concrete unit pavers shall be clean, washed natural or manufactured concrete sand meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 3/8 inches | 100% | |
| No. 4 | 95% | 100% |
| No. 8 | 85% | 100% |
| N0. 16 | 50% | 85% |
| No. 30 | 25% | 60% |
| N0. 50 | 10% | 30% |
| No. 100 | 2% | 10% |

E. Joint Sand: Joint sand for concrete unit pavers shall be clean, washed natural or manufactured concrete sand meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| No. 4 | 100% | % |
| No. 8 | 95% | 100% |
| N0. 16 | 70% | 100% |
| No. 30 | 40% | 75% |
| N0. 50 | 10% | 35% |
| No. 100 | 2% | 15% |
| No. 200 | 0% | 10% |

F. Material falling within the above Specifications, encountered during the excavation, shall be stored in segregated stockpiles for reuse. All material shall be tested and subject to approval by the Architect.

G. Sand: Sand for water and gas line pipe bedding shall be, clean masons sand.

## PART 3 – EXECUTION

### 3.01 EXCAVATION

A. General:

1. Excavate all materials to the elevations, dimensions and form as shown on the Drawings and as specified for the construction of building structures, utility structures, utilities, site improvements and other structures necessary for the completion of the building, utilities and site work. All unsuitable materials within the indicated and specified limits shall be excavated and removed. Any quantities involving an extra or other adjustment of the Contract Price shall be subject to measurement verification and approval by the Architect prior to the excavation and removal of such materials. Unsuitable materials shall include the following:

   a. Regulated soils
   b. Pavements, utility structures, building foundations and other man made structures.
   c. Peat, organic silt and other organic materials subject to decomposition, consolidation or decay.
   d. Miscellaneous fill including sand, gravel, cinders, ash, glass, wood, metal and ledge.
   e. Ledge or boulders except as specified for fills herein.

2. **The Architect will provide the Contractor with an as-built drawing showing the extent of regulated soil remediation, location and inverts of all utilities pile locations and elevations installed in the Phase 1 & 2 Contracts.** The Contractor shall obtain, from the proper authorities, locations of all other utilities within the scope of this work so that there will be no damage done to such utilities. Neither the Owner nor the Architect will be responsible for any such damage, and the Contractor shall restore any structure or utility so damaged without additional compensation. Written notifications to the appropriate utility agencies shall be made at least ten (10) days prior to the commencement of any work.

3. Excess Material: Suitable excavated material, which is required for fill, and backfill shall be separately stockpiled as directed by the Architect. All surplus fill other than that required to complete the intent of the Contract shall become the property of the Contractor and shall be disposed of off the property by the General Contractor. All excavated materials, which, in the

opinion of the Architect, are not suitable for, fill or backfill shall be removed and disposed of off the property.

4. Any unsanitary conditions encountered, such as broken sewer mains or uncovered garbage, shall be corrected or removed entirely as directed by the Architect.

B. Excavation for Building Structures:

1. Refer to Structural and Mechanical Drawings and notes thereon which may affect work under this Section.

2. Excavation shall be performed to elevations and dimensions indicated or specified, plus sufficient space to permit erection of forms and shoring, drains, masonry and the inspection of foundations.

3. Bottoms of excavations shall be protected from frost. Foundations, footings or slabs shall not be placed on frozen ground. The Contractor shall shore and brace excavations, protect all slopes and earth banks and provide sheet piling necessary to prevent cave-ins. Shoring and piling shall be removed before backfiliing is completed but not unto permanent supports are in place. Excavation of earth and/or rock beyond indicated or authorized limits shall be refilled with select granular fill compacted to ninety-five (95) percent of the maximum dry density at optimum moisture content as specified herein or concrete as required by the Architect at no additional cost to the Owner.

4. The Contractor shall control the grading around the building so that the ground shall be pitched in order to prevent water from running into the excavated areas of the building or prevent damage to other structures. The Contractor shall furnish all pumping required to keep excavated areas clear of water during construction. Water shall not be conducted onto adjacent property.

5. Excavate to subgrade for concrete slabs, including utility trenches, and footings. Compact subgrade to ninety-five (95) percent of maximum dry density as determined by the Modified Proctor Compaction Test.

6. Make final excavations by hand or using smooth-bladed equipment to avoid disturbance and the formation of ridges, which would be left by a bucket with teeth.

7. Repair or replace geotextile soil separator and warning barrier as required.

8. Prevent water accumulation on bearing surfaces, to reduce the possibility of softening of the subgrade soils.

9. The subgrade soils must be examined in the field by the Architect.

10. The bearing surface should be cleared of all loose and disturbed soil before any footings are placed. Prior to placing forms or reinforcing steel, the cleared area beneath the footings should be compacted with at least four coverage's of a vibratory plate compactor weighing at least 200 pounds imparting at least 5,000 pounds dynamic force.

C. Fill for Site Improvements:

1. Fill to the lines and grades shown on the Drawings and as specified to obtain the subgrades for the following items of work:

   a. Concrete slabs on grade - to twelve (12) inches below underside of slab.
   b. Bituminous concrete road and parking pavement - to twenty-four (24) inches below finished grades.
   c. Concrete paving - to twelve (12) inches below underside of paving.

d. Granite curb - to six (6) inches below and parallel to the underside of curb.
e. Seeded areas - to eighteen (18) inches below finished grade.
f. Shrub bed areas - to twenty-four (24) inches below finished grades.
g. Unspecified improvements - to bottom elevation of item plus ample working space on all sides.

D. Excavation for Utilities and Utility Structures:

1. Excavate to the lines and grades shown on the Drawings and as specified herein to obtain the subgrade for the following items of work:

a. Utility structures - to grades shown on the Drawings. Remove by excavating all unsuitable materials from under drainage structures and backfill with clean granular fill compacted in place to subgrades.
b. Excavation for structures and other accessories shall have twelve (12) inch minimum and twenty-four (24) inch maximum clearance on all sides.
c. All utility lines - to twelve (12) inches below bottom of utility lines or structures.
d. Trench for water pipe shall provide a minimum of five (5) feet of cover above top of pipe.
e. Unless otherwise shown, provide separate trenches for each utility. Lay all piping in open trenches except where tunneling is required. Excavation for structures and other accessories shall have twelve (12) inch minimum and twenty-four (24) inch maximum clearance on all sides.
f. Grade the bottom of trenches evenly to have a constant pitch in the direction of flow and to insure a uniform compacted thickness of selected material as called for.

2. Existing services and utilities encountered shall be immediately repaired, protected and maintained in use until relocation of same has been completed or be cut and capped where directed or be prepared for connections when so required.

## 3.03 PROTECTION SHORING AND DEWATERING

A. Protect open excavations with fencing, warning lights and other suitable safeguards.

B. Shore and brace excavations as required so as to maintain them secure and provide sheet piling to prevent cave-ins. Under Phases 1&2 Regulated soils for have been mitigated by removing the regulated soils and replacing them with clean granular fill so as to provide clean corridors for all below grade improvements. Remove shoring and piling before backfilling is completed and as specified herein.

C. Frost Protection: Make no excavations to the full depth indicated when freezing temperature may be expected unless the footing or slabs can be poured immediately after the excavation has been completed. Protect the bottoms as excavated from frost, if placing of concrete is delayed, with straw, tarpaulins or temporary heat until footings or slabs are poured and backfill is placed.

D. Provide all pumps and pumping facilities, including a well point system as necessary with attendants, to keep all excavations free from water from whatever source at all times, when work is in progress or when necessary for protection and integrity of the work in place. Trenches shall be kept water-free during jointing and for sufficient time thereafter to allow the jointing material to become fully set and completely resistant to water penetration.

E. Maintain ground water in the bearing soil strata at a safe level at all times by methods, which prevent loss of fines or other disturbances to these strata. If the methods employed have not been adequate and the bearing value of the soil has been reduced, remove disturbed soil as directed and replace with compacted graded gravel or concrete at no expense to the Owner.

F. Any ditching required to keep the site free from water during construction is the responsibility of the Contractor and will be repaired, topsoiled and seeded before completion of work.

## 3.04 FILLS. BACKFILLS AND COMPACTION

A. Samples and Testing:

1. All fill material and its placement shall be subject to quality control testing. A qualified laboratory will be selected by the Owner to perform tests on materials. All costs of testing will be paid for by the Owner. Test results and laboratory recommendations shall be available to the Architect.

2. Provide samples of each fill material from the proposed source of supply including on-site sources. Allow sufficient time for testing and evaluation of results before material is needed. Submit samples from alternate source if required.

3. Architect will be sole and final judge of suitability of all material.

4. The laboratory will determine maximum dry density and optimum water content in accordance with ASTM D1557, Method D and the in-place density in accordance with ASTM D1556.

5. Tests of material as delivered may be made from time to time. Materials in question may not be used, pending test results. Tests of compacted materials will be made regularly. Remove rejected materials and replace with new, whether in stockpiles or in place.

6. Cooperate with laboratory in obtaining field samples of in-place materials after compaction. Furnish incidental field labor in connection with these tests.

B. Placing Fills and Compacting

1. Fill material shall be placed in horizontal layers not exceeding six (6) inches under the building and all pavements and nine (9) inch layers in lawn areas. Each layer shall be compacted to the percentage of maximum dry density specified for the particular type of fill and at a water content equal to optimum water content plus or minus two (2) percent. The maximum dry density and optimum water content shall be as specified herein.

2. Areas to be filled or backfilled shall be free of construction debris, refuse, compressible or decayable materials and standing water. Do not place fill when fill materials or layers below it are frozen. Proofroll excavated ground surfaces under the proposed building and paved areas using a vibratory drum compactor or other heavy equipment prior to placing specified base course material.

3. Notify the Architect when excavation is ready for inspection. Filling and backfilling shall not be started until conditions have been approved by the Architect.

4. Before backfilling against walls, the permanent structures must be completed and sufficiently aged to attain strength required to resist backfill pressures without damage. Temporary bracing will not be permitted except by written permission from the Architect. When filling on both sides of a wall or pier, place fill simultaneously on each side. Correct any damage to the structure caused by backfilling operations at no cost to the Owner

5. In confined areas adjacent to footings and foundation walls and in utility trenches beneath floor slab, the fill shall be compacted with hand operated vibration tampers. The maximum lift thickness shall be four (4) inches. The degree of compaction attained shall be equivalent to that attained in the adjacent open areas where heavy rolling equipment is used.

6. After the subgrade under concrete slabs and paved areas has been shaped to line, grade and cross-sections, it shall be rolled with an approved power roller weighing not less than six (6) tons until thoroughly compacted. This operation shall include any reshaping, refilling or wetting

required to obtain proper compaction. Any areas, which subsequently settle, shall be refilled to true subgrade and properly compacted.

7. In freezing weather, a layer of fill shall not be left in an uncompacted state at the close of a day's operations. Prior to terminating operations for the day, the final layer of fill, after compaction, shall be rolled with a smooth-wheeled roller to eliminate ridges of soil left by tractors, trucks and compaction equipment.

C. Placing Select Granular Fills

1. Select granular fills, as specified herein above, shall be provided as follows:

   a. As gravel base course under all pavements unless otherwise called for.
   b. As gravel under and/or around footings curbs as shown on the Drawings or specified unless otherwise called for.

2. Place gravel in six (6) inch maximum layers; fill and compact each layer to ninety-five (95) percent maximum dry density.

D. Placing Clean Granular Fills

1. Clean granular fill material as specified shall be placed under pavements and utilities up to subgrades as specified.

2. Fills shall be placed in layers of a maximum six (6) inch compacted thickness up to subgrade. Compaction shall be to ninety-five (95) percent of maximum dry density as specified.

E. Deficiency of Fill Materials:

1. Provide required additional fill materials as specified if a sufficient quantity of suitable materials is not available from the required excavation on the project site at no additional cost to the Owner. Where water content of the fill must be adjusted to meet this Specification, the fill shall be thoroughly disked to insure uniform distribution of any water added.

F. Fill and Backfill for Utilities:

1. Backfill trenches only after pipe has been inspected, tested and locations of pipes and appurtenances have been recorded. Each pipe section shall be laid on a twelve-(12) inch minimum bed of crushed stone as specified herein above. In addition the water line shall be set in a six-(6) inch bed of sand. Bed shall be shaped by means of hand shovels to give full and continuous support to the lower one-third (1/3) of each pipe. Backfill by hand around pipe, and for a depth of twelve (12) inches above pipe, use sand or crushed stone and tamp firmly in layers not exceeding six (6) inches in thickness. Take care not to disturb the pipe. Compact the remainder of the backfill thoroughly with a rammer of suitable weight or with an approved mechanical tamper to achieve compaction of ninety-five (95) percent as specified.

2. Trenches and utility structures shall be backfilled with greatest care; only the suitable materials taken from the excavation shall be used. Any additional fill materials required for backfilling to subgrades shall be graded fill or ordinary fill as specified. Backfill shall be compacted to ninety-five (95) percent as specified. No mud, frozen earth or stone more than six (6) inches in greatest diameter or other objectionable material shall be used for refilling. Any selected material required for filling, in addition to earth from trench excavation, shall be furnished and placed by the Contractor.

3.05 UTILITY SERVICES LINES

A. Electrical, telephone, cable TV and gas services shall be as specified under other Sections. The excavating, trenching and backfilling for these utilities and other pertinent structures shall be done under this Section.

B. Trenches for utility lines shall be excavated of all peat, silt and other materials, which the Architect deems not stable and backfilled as called for in paragraph 3.04, H to form a stable foundation for laying the utility lines.

3.06 SUBGRADE PREPARATION

A. Bring all areas to required subgrade levels as specified and as determined from the Drawings.

B. Maintain all subgrades for site improvements in satisfactory condition, protected against traffic and properly drained, until the surface improvement is placed. In areas to receive pavement or other surface materials, at top and bottom of embankments, along swales and elsewhere, place sufficient grade stakes to facilitate checking the subgrade levels. Correct all irregularities, compacting thoroughly any fill materials.

C. Check all manhole covers, grates, valve boxes and similar structures for correct elevation and position and make, or have made, any necessary adjustments in such structures.

D. All subgrades must be inspected and approved by the Architect before paving, loaming or other site improvements are made.

3.07 WARNING TAPE OVER BURIED GAS. ELECTRIC. CABLE TV. TELEPHONE

A. Provide and install plastic warning tape over all buried gas, electric and water lines as specified.

B. Warning tape shall be installed according to Manufacturer's recommendations and a minimum of twelve (12) inches below finished grades.

3.08 DUST CONTROL

A. The Contractor shall employ all possible methods and/or materials to prevent the spread of dust. Chemical materials may not be used on subgrades of areas to be seeded or planted.

3.09 CLEAN UP

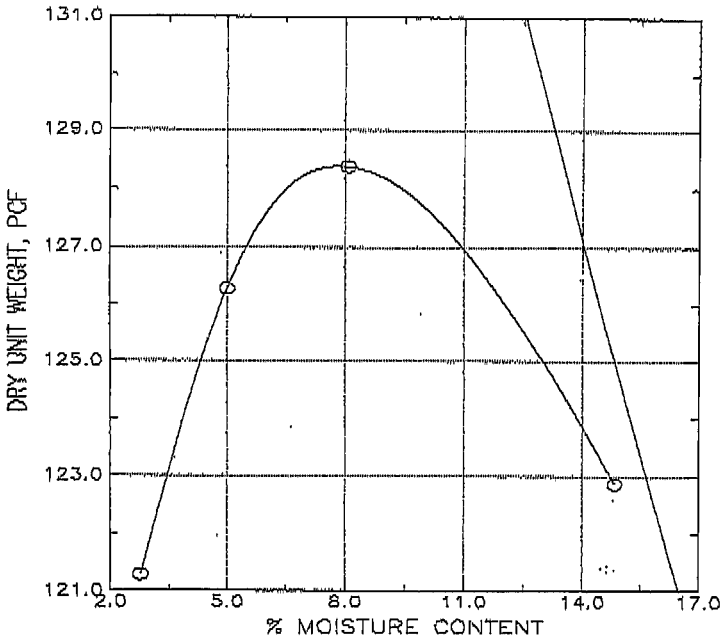
A. The Contractor shall remove all debris, construction equipment and scrap material from all areas within the limit of work prior to inspection for acceptance.

**END OF SECTION**

| MILLER ENGINEERING & TESTING, INC. | Boring No. : N/A<br>Sample No.: L040503<br>Tested by : DM/BM<br>Filename : L040503 | Project: KEITH MIDDLE SCHOOL<br>Project No. : 04.169.NH<br>Location: MIX STOCKPILE # 2<br>Date : Tue Jun 22 2004 |
|---|---|---|

# PROCTOR–GRADATION TEST RESULTS

COMPACTION



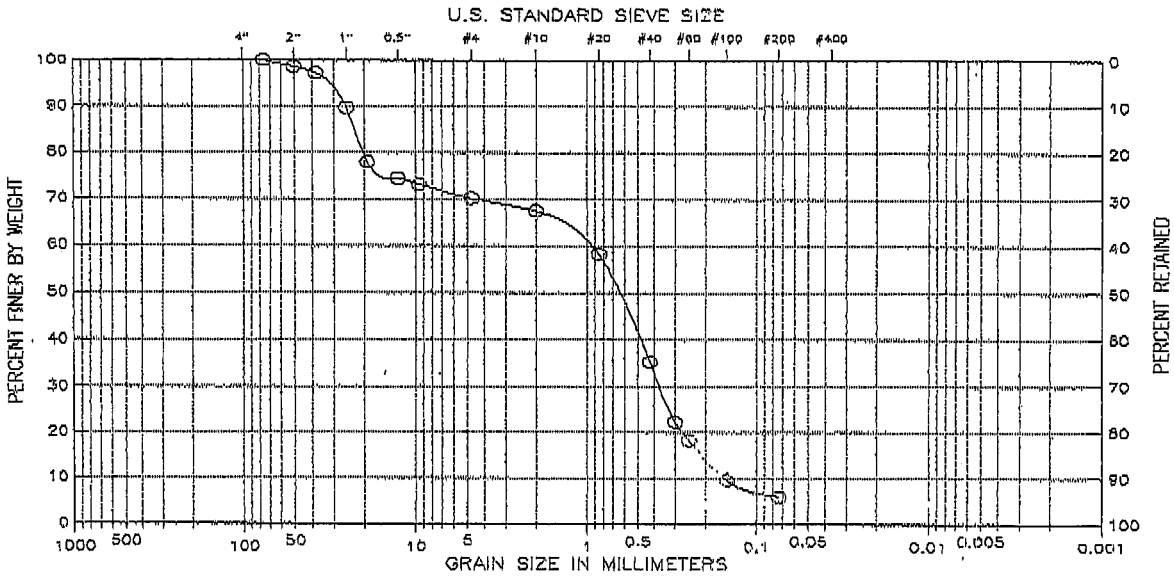

Sample Description :
MIX STOCKPILE # 2

Compaction Test Designation : ASTM D1557–D

Maximum Dry Density : 128.4 PCF

Optimum Moisture Content : 7.9 %

GRAIN SIZE DISTRIBUTION




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

UNIFIED SOIL CLASSIFICATION SYSTEM

Figure 1

Clean Granular Fill

Fri Jun 18 10:33:42 2004



GEOTECHNICAL LABORATORY TEST DATA

Project : KEITH MIDDLE SCHOOL
Project No. : 04.169.NH
Boring No. : N/A
Sample No. : L040503
Location : MIX STOCKPILE # 2
Soil Description : MIX STOCKPILE # 2
Remarks : ASAP

Depth : N/A
Test Date : 6-18-04
Test Method : ASTM

Filename : L040503
Elevation : N/A
Tested by : DM/BM
Checked by : BC

COARSE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (lb) | Cumulative Weight Retained (lb) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| 6" | | | | | 100 | 100 |
| 3" | 3.000 | 76.20 | 11.10 | 11.10 | 100 | |
| 2" | 2.000 | 50.80 | 11.80 | 11.80 | 99 | |
| 1.5" | 1.500 | 38.10 | 11.80 | 12.50 | 97 | |
| 1" | 1.000 | 25.40 | 14.90 | 16.30 | 90 | |
| 0.75" | 0.752 | 19.10 | 17.10 | 22.30 | 78 | |
| 0.5" | 0.500 | 12.70 | 12.60 | 24.00 | 75 | 50 - 85 |
| 0.375" | 0.375 | 9.52 | 11.80 | 24.70 | 73 | |
| #4 | 0.187 | 4.75 | 12.60 | 26.20 | 70 | 40 - 75 |

Total Weight of Sample = 61.7
Tare Weight = 11.1

FINE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (gm) | Cumulative Weight Retained (gm) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| #10 | 0.079 | 2.00 | 13.30 | 13.30 | 68 | |
| #20 | 0.033 | 0.85 | 47.60 | 60.90 | 58 | |
| #40 | 0.017 | 0.43 | 116.60 | 177.50 | 35 | |
| #50 | 0.012 | 0.30 | 65.50 | 243.00 | 22 | 8 - 28 |
| #60 | 0.010 | 0.25 | 20.30 | 263.30 | 18 | |
| #100 | 0.006 | 0.15 | 44.00 | 307.30 | 10 | |
| #200 | 0.003 | 0.07 | 18.50 | 325.80 | 6 | 0 - 8 |
| Pan | | | 30.30 | 356.10 | 0 | |

Total Weight of Sample = 356.1
Tare Weight = 0
Moisture Content = 0

D85 : 22.6736 mm
D60 : 1.0054 mm
D50 : 0.6645 mm
D30 : 0.3695 mm
D15 : 0.2060 mm
D10 : 0.1534 mm

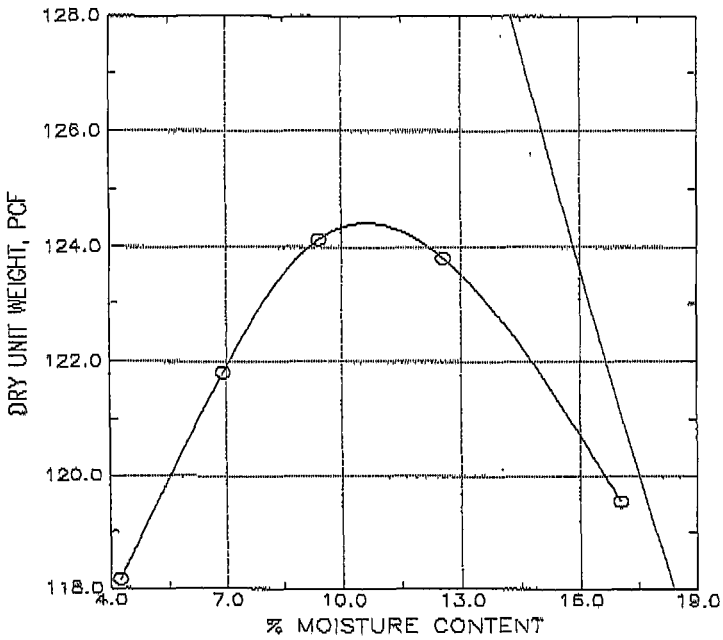
Soil Classification

ASTM Group Symbol : N/A
ASTM Group Name : N/A
AASHTO Group Symbol : A-1-b(0)
AASHTO Group Name : Stone Fragments, Gravel and Sand

| MILLER ENGINEERING & TESTING, INC. | Boring No. : N/A<br>Sample No: L040418B<br>Tested by : DM/BM<br>Filename : L040418B | Project: KEITH MIDDLE SCHOOL<br>Project No. : 04.169.NH<br>Location: KINGSTON PIT MIX 4 TO 1 WITH 3/4 INCH STONE<br>Date : Wed Jun 02 2004 |
|---|---|---|

# PROCTOR–GRADATION TEST RESULTS

COMPACTION




Sample Description :
GRADED FILL

Compaction Test Designation : ASTM D1557–C

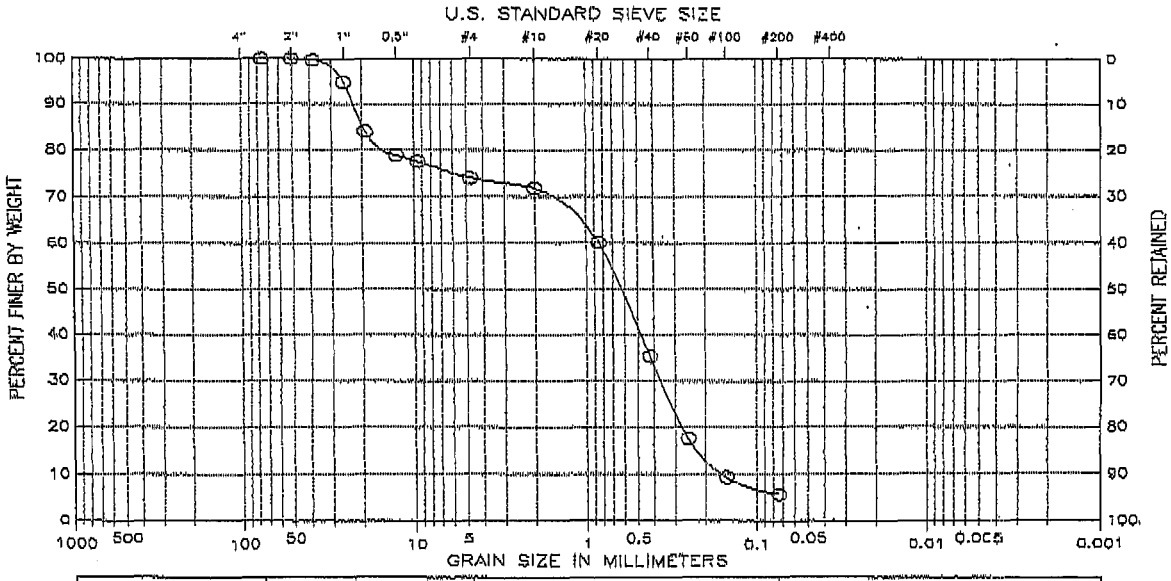
Maximum Dry Density : 124.4 PCF

Optimum Moisture Content : 10.6 %

CORRECTED MAXIMUM DRY DENSITY: 129.2 PCF

CORRECTED OPTIMUM MOISTURE CONTENT: 8.9 %

GRAIN SIZE DISTRIBUTION




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

UNIFIED SOIL CLASSIFICATION SYSTEM

Figure 1

Select Granular Fill

Tue Jun 01 08:37:20 2004



# GEOTECHNICAL LABORATORY TEST DATA

Project : KEITH MIDDLE SCHOOL
Project No. : 04.169.NH
Boring No. : N/A
Sample No. : L040418B
Location : KINGSTON PIT MIX 4 TO 1 WITH 3/4 INCH STONE
Soil Description : GRADED FILL
Remarks : ASAP

Depth : N/A
Test Date : 6-1-04
Test Method : ASTM

Filename : L040418B
Elevation : N/A
Tested by : DM/BM
Checked by : BC

## COARSE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (lb) | Cumulative Weight Retained (lb) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| 6" | | | | | 100 | 100 |
| 3" | 3.000 | 76.20 | 11.90 | 11.90 | 100 | |
| 2" | 2.000 | 50.80 | 11.90 | 11.90 | 100 | |
| 1.5" | 1.500 | 38.10 | 12.10 | 12.10 | 100 | |
| 1" | 1.000 | 25.40 | 15.40 | 15.60 | 95 | |
| 0.75" | 0.752 | 19.10 | 19.50 | 23.20 | 84 | |
| 0.5" | 0.500 | 12.70 | 15.50 | 26.80 | 79 | 50 - 85 |
| 0.375" | 0.375 | 9.52 | 12.90 | 27.80 | 77 | |
| #4 | 0.187 | 4.75 | 14.40 | 30.30 | 74 | 40 - 75 |

Total Weight of Sample = 82.5
Tare Weight = 11.9

## FINE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (gm) | Cumulative Weight Retained (gm) | Percent Finer (%) | | |
|---|---|---|---|---|---|---|---|
| #10 | 0.079 | 2.00 | 10.10 | 10.10 | 72 | | |
| #20 | 0.033 | 0.85 | 54.80 | 64.90 | 60 | | |
| #40 | 0.017 | 0.43 | 115.20 | 180.10 | 35 | 21 | 8 - 28 |
| #60 | 0.010 | 0.25 | 82.50 | 262.60 | 18 | | |
| #100 | 0.006 | 0.15 | 38.90 | 301.50 | 9 | | |
| #200 | 0.003 | 0.07 | 16.80 | 318.30 | 6 | | 0 - 8 |
| Pan | | | 26.00 | 344.30 | 0 | | |

Total Weight of Sample = 344.3
Tare Weight = 0
Moisture Content = 0

D85 : 19.6155 mm
D60 : 0.8500 mm
D50 : 0.6423 mm
D30 : 0.3630 mm
D15 : 0.2140 mm
D10 : 0.1576 mm

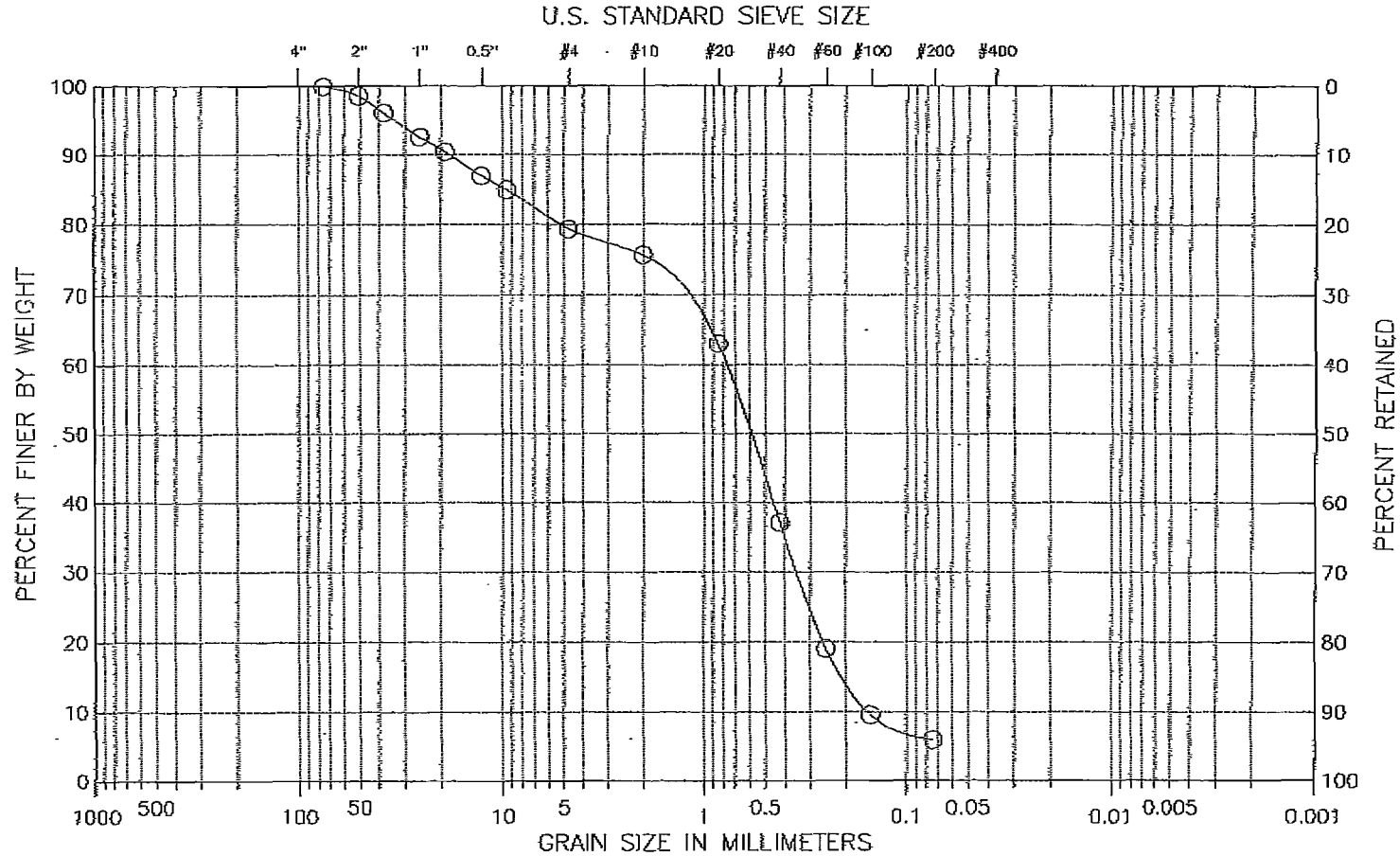
Soil Classification
ASTM Group Symbol : N/A
ASTM Group Name : N/A
AASHTO Group Symbol : A-1-b(0)
AASHTO Group Name : Stone Fragments, Gravel and Sand

# GRAIN SIZE DISTRIBUTION - AGGREGATE GRADING

MILLER ENGINEERING & TESTING, INC.

Boring No. : N/A
Sample No: L040418A
Tested by : DM/BM
Filename : L040418A

Project : KEITH MIDDLE SCHOOL
Project No.: 04.169.NH
Location: KINGSTON PIT SAMPLED FROM ON SITE STOCKPILE
Date : Tue Jun 01 2004




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

Classification :
()
Visual Description :
GRADED FILL

Remarks :
ASAP

Figure 1

# Attachment G

Phase II Specification
02900 - Lawns

**SECTION 02900**

**LAWNS**

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Bidding requirements, Contract Forms, General and Supplementary Conditions and Division I, General Requirements are hereby made a part of this Section.

1.02 DESCRIPTION OF WORK

A. The scope of work consists of all materials, equipment, labor and services required for all Lawns and Planting work, including all items incidental thereto, as specified herein and as shown on the Drawings.

1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Carefully examine all of the Contract Documents for requirements that affect the work of this section.

B. Other specification sections that directly relate to the work of this section include, but are not limited to the following:

1. Section 02010 - Subsurface Investigation
2. Section 02100 - Site Preparation
3. Section 02200 - Earthwork
4. Section 02285 - Site Assessment, Stockpiling and Disposal of Excavated Soil
5. Section 02500 - Paving and Surfacing
6. Section 02700 - Site Utilities

1.04 REFERENCE SPECIFICATIONS

A. ASTM. - American Society for Testing and Materials.

B. AASHTO. - American Association of State Highway and Transportation Officials.

C. SSHB. - Standard Specifications for Highways and Bridges, the Commonwealth of Massachusetts, Department of Public Works, latest edition.

D. AOAC - Association of Official Agriculture Chemists

1.05 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.06 SUBMITTALS

A. Comply with pertinent provisions of Section 01340.

B. Test Reports - Submit the following reports:

1. Loam analysis (furnished from off-site sources)
   a. Mechanical gradation (textural or sieve analysis) as per USDA Soil Classification System
   b. Organic Matter Content

c. pH
d. Soluble Salts, Nitrogen (including Nitrate Nitrogen, Ammonium Nitrogen), Phosphorous, Potassium, Sulfate, Calcium, Magnesium, Aluminum, and Ferric Iron concentrations
e. Heavy metal concentrations including Boron, Cadmium, Zinc, Chromium, Copper, Lead, Manganese, and Nickel

2. Seed analysis
   a. Name and address of Supplier
   b. Source of origin and dates of harvest for each type of seed
   c. Seed mix composition and proportion, indicating named varieties by percent, percent germination, purity, and percent crop seed, percent inert matter, and percent weed seed content
   d. Estimated number of seeds per pound of each type of seed in the mix

3. Fertilizer, lime and superphosphate amendment analyses

C. Samples - submit the following samples:

1. Loam (from off-site sources)

2. Organic Material Amendments (as required) – Compost, Peat Moss, Humus

D. Maintenance Schedule

1.07 PREPARATION AND INSPECTION OF AREAS TO BE SEEDED

A. All areas to be seeded shall be inspected by the Contractor before starting work. Any defects, such as incorrect grading, etc., shall be reported to the Architect prior to beginning this work. The commencement of work by the Contractor shall indicate acceptance of the areas to be seeded, and he shall assume full responsibility for the work of this Section.

1.08 SAMPLES, TESTS AND INSPECTIONS

A. Samples of all loam to be used shall be submitted to the Architect for approval and to determine whether or not it meets the requirements specified. At the time of submission, the Contractor will take representative soil samples of the loam, and tests shall be made by a State or commercial soil testing laboratory using methods approved by the Association of Official Agricultural Chemists (AOAC) or the State Agricultural Experiment Station. The Contractor shall select the testing laboratory with the approval of the Owner and bear all costs for soil testing. No loam may be installed until specific approval of samples has been given by the Architect.

B. <u>Seed Analysis</u> - Prior to the time of sowing the seed mixture, certification shall be submitted to the Architect for approval from the supplier certifying that the seed was obtained for this Contract and stating the formula of the mixture.

1.09 GUARANTEE AND CERTIFICATION OF ACCEPTABILITY

A. <u>Guarantee</u> – Seeded areas shall be guaranteed by the Contractor until Certification of Acceptability is given by the Architect and shall be alive and in satisfactory growth at the end of the guarantee period except for damage resulting from causes beyond the responsibility of the Contractor.

B. Certification of Acceptability

1. Inspection to determine completion of the work under this section will be made at the conclusion of the maintenance period upon written notice requesting such inspection submitted by the Contractor at least five (5) days prior to the anticipated date. The condition of landscaping will be

noted and determination made by the Architect whethermaintenance shall continue in any part.

2. After inspection by the Architect, the Contractor will be notified in writing by the Architect of acceptability of all work of this Section or if there are any deficiencies of the requirements for completion of the work. Maintenance or other work remainingto be done shall be subject to re-inspection before being certified acceptable.

1.10 CLEAN UP

A. Any soil or similar material which has been brought onto paved areas by hauling operations or otherwise shall be removed promptly, keeping these areas clean at all times.

B. Upon completion of work under this Section, all excess stones, debris and soil resulting from work under this Section which have not previously been cleaned up shall be cleaned up and removed from the project site.

**PART 2 - PRODUCTS**

2.01 LOAM AND ADMIXTURES

A. Loam to be furnished.

1. The Contractor shall furnish and placeloam in accordance with the Drawings and Specifications and as directed by the Architect.

2. Material shall consist of fertile friable natural loam topsoil, free from subsoil, obtained from naturally well-drained areas that have never been stripped. It shall be removed to a depth of one (1) foot or less if subsoil is encountered. Loam shall be of uniform quality, free from hard clods, stiff clay, hardpan, sods, partially disintegrated stone, lime, cement, ashes, slag, concrete, tar residues, tarred paper, boards, chips, sticks or any other undesirable material.

3. Loam shall contain between 5.5 and 7.5 per centorganic matter determined by loss on ignition of moisture-free sample dried in accordance with the current method of the Association of Official Agricultural Chemists. The acidity range shall be pH 5.0 to pH 7.0 inclusive, adjusted for plants which require low soil pH. The mechanical analysis of the soil shall be as follows:

| Passing | Retained On | Percentage |
|---|---|---|
| 1" screen | -- | 100% |
| 1" screen | sieve (sand) | 49% - 60% |
| #100 U.S.S. mesh sieve | (very fine sand, silt and clay) | 40% - 60% |

4. The Contractor shall furnish representative samples of all the loam proposed for use to the Architect for approval. The Contract Price shall include inspection and laboratory charges. No loam shall be delivered to the site prior to the approval of samples by the Architect, but such approval shall not constitute the final acceptance. The Architect reserves the right to reject on or after delivery any material that does not, in his opinion, meet these Specifications.

5. The Architect reserves the right to reject loam in which more than sixty (60) per cent of the material passing No. One Hundred (100) U.S.S. meshsieve consists of clay as determined by the Bouyoucus Hydrometer or by the Decantation Method. All percentages are to be based on dry weight of sample. If the Architect directs, loam that varies only slightly from the Specifications may be made acceptable by such corrections as the Architect deems necessary.

B. LIME, FERTILIZER AND RELATED SOIL AMENDMENTS

1. Lime shall be an approved agricultural limestone, uniform in compostion, containing at least fifty (50) percent total oxides (calcium oxide and magnesium oxide). The material will be ground to such fineness that fifty (50) per cent will pass through a one-hundred (100) mesh sieve and ninety (90) per cent will pass through a twenty (20) mesh sieve. Coarser material shall be acceptable provided specific rates of application are increased proportionately on the basis of quantities passing the one-hundred (100) mesh sieve.

2. Superphosphate shall contain twenty (20) percent available phosphoric acid.

3. Fertilizer shall be a complete, standard commercial fertilizer and shall conform to the applicable state fertilizer laws. It shall be uniform in composition, dry and free flowing and shall be delivered to the site in the original, unopened containers, each bearing the manufacturer's guaranteed analysis. Any fertilizer which becomes caked or otherwise damaged, making it unsuitable for use, will not be accepted. At least fifty(50) per cent by weight of the nitrogen contents of the fertilizer shall be Urea-form or derived from organic materials and contain no less than three (3) percent water soluble Nitrogen.

6. Water used in this work shall be furnished by the Contractor and will be suitable for irrigation and free from ingredients harmful to plant life. Hose and other watering equipment required for the work shall be furnished by the Contractor.

7. Manure shall be well-rotted, unleached stable manure not less than eight (8) months old and not more than two (2) years old. It shall be free from sawdust, shavings or refuse of any kind and shall not contain over twenty-five (25) per cent of straw. Furnish information to the Architect as to the kind of disinfectant or chemicals, if any, that may have been used in storage of, or otherwise in connection with, the manure. No manure may be used until found satisfactory after sampling and testing. A composition of peat humus or peat moss to which has been incorporated dehydrated manure, such as Bovung or Spurzon in the proportion of one hundred (100) pounds of dehydrated manure per cubic yard or peat, may be substituted for manure as specified above.

8. Humus shall be ground or shredded natve peat one hundred (100) per cent organic that will have been stockpiled for at least one (1) year prior to its use. Sample shall be submitted to the Architect for approval prior to installation.

2.02 SEED

A. Seed mixture shall be fresh, clean, new crop seed. Seed may be mixed by an approved method on the site or may be mixed by the dealer. If the seed is mixed on the site, each variety shall be delivered in the original containers that shall bear the dealer 's guaranteed statement of the composition of the mixture and the percentage of purity of each variety.

B. Seed shall be composed of the following varieties that shall be mixed in the proportions and shall test to minimum percentages and germination specified:

1. Slope Seed Mix

| Common Name | Proportion By Weight |
|---|---|
| Clemfine Tall Fescue | 55% |
| Nassan Kentucky Bluegrass | 20% |
| Palmer Perennial Ryegrass | 10% |
| Alsihi Clover | 5% |
| Streaker Redtop | 5% |
| Poa trivialis | 5% |

2. Lawn Seed Mix

| Botanical Name | Common Name | Proportion By Weight | %P | %G |
|---|---|---|---|---|
| Festuca rubra commutata | Chewings Fescue | 30% | 98 | 85 |
| Poa pratensis 'Merion' | Merion Bluegrass | 15% | 87 | 85 |
| Lolium perenne 'Manhattan' | Manhattan Perennial Ryegrass | 15% | 93 | 90 |
| Agrostis tenuis | Highland Colonial Bentgrass | 10% | 98 | 90 |
| Festuca rubra 'Pennlawn' | Pennlawn Creeping red fescue | 30% | 98 | 90 |

Application rate shall be five pounds (5#) per 1,000 square foot or 220#/acre. Seed shall be planted between April 1st and May 31st or August 16 and October 15th.

PART 3 - EXECUTION

3.01 WORKMANSHIP

A. Personnel - Seeding and planting shall be performed by personnel familiar with these operations and under the supervision of a qualified experienced foreman:

3.02 SEEDING OF LAWN AREAS

A. Time of Seeding - The Landscape Contractor shall be notified in writing by the General Contractor when other sections of the work have progressed sufficiently to commence work including placing of loam to the finished grade. Thereafter, seeding operations shall be conducted under favorable weather conditions during the next season or seasons that are normal for such work as determined by accepted practice in the locality of the project. At the option and on the full responsibility of the Contractor, seeding operations may be conducted under unseasonable conditions without additional compensation.

C. Preparation of Subgrade - The subsoil shall be graded and uniformly compacted so that it will be a true, smooth slope parallel and six (6) inches below the finished grade and free of all large stones and debris.

1. Prior to spreading of loam, the subgrade shall be loosened and mixed to a depth of four (4) inches. All stones over two (2) inches in size, all sticks and rubbish shall be removed. No heavy objects except lawn rollers shall be moved over the lawn areas after the subgrade soil has been prepared unless the subgrade soil is again graded as specified above, before topsoil is spread.

2. There must be sufficient grade stakes, as determined by the Architect, to insure correct line and grade.

D. Finish Grading - After the subgrade soil has been prepared, loam shall be spread evenly there with lazer grading equipment and lightly compacted. After the loam has been spread, it shall be carefully prepared by scarifying or harrowing and hand raking. All large stiff clods, lumps, brush, roots, stumps, litter, other foreign material and stones over one (1) inch in diameter shall be removed from the aforesaid loam and disposed of by the Contractor. The areas shall also be free of smaller stones in excessive quantities as determined by the Architect. The whole surface shall then be rolled with a hand roller weighing not more than one hundred (100) pounds per foot of width. During the rolling all depressions caused by settlement of rolling shall be filled with additional loam, and the surface shall be regraded and rolled until presenting a smooth and even finish and is up to the required grade, giving a total depth of six (6) inches of compacted loam.

Allowance for settlement shall be made.

E. Applying Superphosphate - Superphosphate shall be applied in accordance with the soil testing laboratory recommendations, or as directed by the Architect. It shall be thoroughly worked into the surface.

F. Applying Fertilizer - The commercial fertilizer shall be uniformly applied in two (2) applications in accordance with the soil testing laboratory recommendations, or as directed by the Architect. The first application shall be applied within one (1) week before seeding and harrowed into the top two (2) inches of the loam. The second application shall be applied and thoroughly watered in immediately after the first cutting of the grass at the rate of fifteen (15) pounds per one thousand (1,000) square feet. Fertilizer shall not be applied between June 15 and August 31, unless otherwise directed by the Architect.

G. Liming - Supply and spread lime in areas to be seeded in accordance with the soil test laboratory recommendations, or as directed by the Architect, at a maximum rate of one hundred (100) pounds per one thousand (1,000) square feet.

H. Seeding shall consist of soil preparation, seeding, raking, rolling, weeding, watering, soil stabilization and otherwise providing all labor and materials necessary to secure the establishment of acceptable turf.

I. Moistening the Soil - During periods of higher than optimal temperature for species being specified and after all uneveness in the soil surface has been corrected, the soil shall be lightly moistened immediately prior to seeding.

J. Sowing of Seed - Immediately before any seed is to be sown, the topsoil shall be scarified as necessary and shall be raked until the surface is smooth, friable and of uniformly fine texture. Lawn areas shall be seeded evenly with a mechanical spreader at the rate of five (5) pounds per one thousand (1,000) square feet of area, lighting raked, rolled with a two hundred (200) pound roller and watered with a fine spray. The method of seeding may be varied at the discretion of the Contractor on his responsibility to establish smooth, uniformly grassed lawn areas; however, the spray method or hydraulic seeding is not recommended. Take necessary precautions to keep the area undisturbed until the grass comes up. Between May 15 and August 15, the Contractor may sow Lolium perenne (perennial rye grass, ninety- eight (98) percent purity, ninety (90) percent germination) at the rate of one (1) pound per one thousand (1,000) square feet of area. This shall be a separate sowing executed after the sowing of the regular mixture and before the raking, rolling and watering operations.

K. All areas not otherwise developed within the limit of work shall be seeded with seed mixture at a rate of five (5) pounds of the seed mixture per one thousand (1,000) square feet of area.

L. Seed bed preparation, including lime but excluding the Superphosphate and fertilizer, shall conform to the requirements of the lawn areas.

3.03 MAINTENANCE AND REPLACEMENT

A. Maintenance shall begin immediately after each portion of area is seeded and shall continue in accordance with the following requirements:

B. The Contractor shall be held responsible for maintenance of seeded areas, including watering, weeding, and cutting for at least sixty (60) days after seeding and as much longer as is necessary to establish a uniform stand of the specified grasses and until Certification of Acceptability. No bare spots will be allowed. After the grass has been seeded, all areas and parts of areas which fail to show a uniform stand of grass, for any reason whatsoever, shall be reseeded repeatedly until all areas are covered with a satisfactory growth of grass. At the time of cutting, keep mower blades not less than two and one-half (2-1/2) inches high. Mowing intervals shall be spaced so that not more than one (1) inch of leaf blade is removed at any one time. The maintenance period shall continue after seeding

and until the seeded areas are certified acceptable by the Architect, which certification shall not be earlier than the date of substantial completion of the entire work of this Contract or as otherwise indicated on the Drawings and as specified herein.

C. Prior to Certification of Acceptability by the Architect, damage resulting from erosion, gulleys, washouts or other causes shall be repaired by filling with t opsoil, tamping, re-fertilizing and seeding by the Contractor at his own expense.

G. The Contractor's responsibility for maintenance shall cease at the time of Certification of Acceptability by the Architect.

**END OF SECTION**

# Attachment H

Storm Water Pollution
Prevention Plan

# KEITH MIDDLE SCHOOL

## Storm Water Pollution Prevention Plan

**225 Hathaway Boulevard**
**New Bedford, Massachusetts**

**September 2004**

Prepared for:
**New Bedford Public Schools**
**455 County Road**
**New Bedford, MA 02740-5194**

Prepared by: Eric A. Olson

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# Storm Water Pollution Prevention Plan

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**225 Hathaway Boulevard**
**New Bedford, MA**

Prepared for:

**New Bedford Public Schools**
**455 County Road**
**New Bedford, MA 02740-5194**

Prepared by:

**BETA Group, Inc.**
**315 Norwood Park South**
**Norwood, MA 02062**

Scientist: Eric A. Olson

Associate: Alan D. Hanscom, P.E., LSP

September 15, 2004

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ATTACHMENTS

Attachment A: **Inspection Forms** – *1) Site Stabilization Measures, 2) Erosion Controls, 3) Stabilized Construction Entrance*

Attachment B: **Date Log Sheet of Major Activities**

Attachment C: **Intended Sequence of Site Activity**

Attachment D: **NPDES General Permit for Storm Water Discharges From Construction Activities**

Attachment E: **Notice of Intent, NOI Shipment Receipt, Copy of Receipt Letter from the EPA**

Attachment F: **Maps** – *1) New Bedford North Quadrangle – Priority Habitats of Rare Species, 2) NewBedford North Quadrangle – Estimated Habitats of rare Wildlife and Certified Vernal Pools, 3) Locus Map – Large Scale, 4) Locus Map – Small Scale*

Attachment G: **Site and Construction Plans**

# KEITH MIDDLE SCHOOL
# CONSTRUCTION POLLUTION PREVENTION PLAN

| SITE DESCRIPTION | | | |
|---|---|---|---|
| Project Name and Location; (Latitude, Longitude, or Address | Keith Middle School<br>225 Hathaway Blvd.<br>New Bedford, MA 02740 | Owner Name and Address: | New Bedford Public Schools<br>455 County Road<br>New Bedford, MA 02740-5194 |
| Project Description: (Purpose and Types of Soil Disturbing Activities) | Phase II of this project will consist of earthwork for site remediation, preparation for site utilities and pile driving. Phase III will consist of site development and building construction. | | |
| Soil disturbing activities will include: Phase II - Stripping topsoil, removal and replacement of fill layer and regulated soils with clean granular fill (to a depth of 3 feet below proposed finished grade in lawn and landscape areas and 4 feet below proposed finished grade under all paved areas), installation of miscellaneous bases, concrete filled steel bollards, underground utilities including water, sewer and drainage systems, and steel piles for building support. Phase III – Construction of new Middle School building, installation of underground electric and gas services and light poles, paving of drives, parking areas and walkways, construction of permanent fencing, and installation of loam, lawns, planting and irrigation. | | | |
| Site Area: | The site is approximately 8.65 acres. | | |
| Sequence of Major Activities | | | |
| The order of activities will be as follows:<br>See Attachment C. | | | |
| Name of Receiving Waters: | The entire site drains to the adjacent Unnamed Wetland and eventually flows into the Appongansett Swamp, which is approximately one mile NW of the site (see Attachment G). | | |

## CONTROLS

Erosion and Sediment Controls are already in place.

### Stabilization Practices

Temporary Stabilization - Topsoil stockpiles and disturbed portions of the site where construction activity temporarily ceases for at least 21 days will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in that area. The temporary seed shall be Rye (grain) applied at the rate of 50 pounds per 1000 sq. ft. After seeding, each area shall be mulched with straw.

Permanent Stabilization - Disturbed portions of the site where construction activities permanently cease shall be stabilized with permanent seed no later than 14 days after the last construction activity. The permanent seed mix shall be as specified in the construction documents or as directed by the Conservation Commission.

Material stockpiles will be encompassed by plastic poly sheeting to contain any sediment from washing away from the area.

All work will be completed in accordance with the Conservation Commission's Order of Conditions DEP file No. SE49-461

### Storm Water Management

Storm water drainage will be provided by closed drainage system consisting of catch basins, manholes and two detention basins for the developed areas. The areas which are not developed will have permanent seeding or plantings.

The new drainage system was designed in accordance with the DEP Stormwater Management Policy that requires a minimum treatment efficiency of 80% removal for TSS.

## OTHER CONTROLS

Waste Disposal:

**Waste Materials**
All waste materials will be collected and stored in a metal dumpster rented from the ABC Disposal, which is a licensed solid waste management company in New Bedford, MA. The dumpster wilt meet all local Town and any State solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied as needed, and the trash will be hauled off site. No construction waste materials will be buried onsite. All personnel will be instructed regarding the correct procedure for waste disposal. Notices stating these practices will be posted in the office trailer and Mr. Adams, the individual who manages the day-to-day site operations, will be responsible for seeing that these procedures are followed.

**Hazardous Waste**
All hazardous waste materials will be disposed of in the manner specified by local or State regulation or by the manufacturer. Site personnel will be instructed in these practices and Mr. Michael Adams of Wes Construction, the site health and safety officer and the individual who manages day-to-day site operations, will be responsible for seeing that these practices are followed.

**Sanitary Waste**
All sanitary waste will be collected from the portable units a minimum of once a week by the Bay-state Portable Restroom, a licensed sanitary waste management contractor, as required by local regulation.

Offsite Vehicle Tracking:

A stabilized construction entrance has been provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance will be swept daily to remove any excess mud, dirt or rock tracked from the site. Dump trucks hauling material from the construction site will be lined with waterproof plastic poly sheeting, covered with a tarpaulin and washed down before leaving the site. Additionally, weekly inspections of the stabilized construction entrance and road will be performed and logged (see Attachment A).

The road at the construction entrance is at a lower elevation than the site. During Phase I activities, seepage of vehicle wash-water onto the road occurred where the driveway meets the road. The wash-water found a conduit by moving laterally through the topsoil towards the road. A four foot deep trench was installed across the entrance to the driveway and filled with crushed stone to prevent future lateral movement of wash-water onto the road by enabling it to drain downwards into the ground. Since the installation of the trench, no seepage has occurred.

## TIMING OF CONTROLS/MEASURES

As indicated in Attachment C - Intended Sequence of Site Activities, as part of Phase I activities, the hay bales and erosion control fence and stabilized construction entrance have already been constructed. Also, the perimeter slopes along the wetland boundary have been graded and stabilized with permanent seed and grass. Additionally, as part of Phase II activities, hay bails and erosion control fence will be constructed the remaining perimeter of the site.

Areas where construction activity temporarily ceases for more than 21 days will be stabilized with temporary seed and mulch within 14 days of the last disturbance. Once construction activity ceases permanently the area will be stabilized with permanent seed.

## CERTIFICATION OF COMPLIANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS

The City of New Bedford currently has no wetland bylaws for storm water management erosion and sediment control and is guided by the State regulations. The storm water pollution prevention plan reflects the State wetland regulations as stated in the Wetlands Protection Act 310 CMR 10.00. To ensure compliance, this plan was prepared in accordance with the Storm Water Management For Construction Activities, published by the United States Environmental Protection Agency. There are no other applicable State or Federal requirements for sediment and erosion site plans (or permits), or storm water management site plans (or permits).

## MAINTENANCE/INSPECTION PROCEDURES

### Erosion and Sediment Control Inspection and Maintenance Practices

Erosion and sediment controls have been installed along the portions of the perimeter of the site that border the wetlands. The slope has been graded, stabilized and seeded. Grass has taken and is helping to stabilize the slope and prevent erosion during storm events. The entire rest of the site is relatively level. Historically, during Phase I activities, runoff from stormwater events in these areas percolated into the ground.

These are the inspection and maintenance practices that will be used to maintain erosion and sediment controls.

- Less than one half of the site will be denuded at one time.
- All control measures will be inspected at least once each week and following any storm event of 0.5 inches or greater.
- All measures will be maintained in good working order; if a repair is necessary, it will be initiated within 24 hours of report.
- Built up sediment will be removed from silt fence when it has reached one-third the height of the fence.
- Silt fence will be inspected for depth of sediment, tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Temporary and permanent seeding and planting will be inspected for bare spots, washouts, and healthy growth.
- Maintenance inspection reports will be made after each inspection of the Erosion Control Methods and the Site Stabilization Measures. Copies of the report forms to be completed by the inspector (see Attachment A).
- Mr. Adam's, the site health and safety officer for Wes Construction Corp., will select three individuals who will be responsible for inspections, maintenance and repair activities, and filling out the inspection and maintenance report.
- Personnel selected for inspection and maintenance responsibilities will receive training from Mr. Adams. They will be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

## MAINTENANCE /INSPECTION PROCEDURES (Continued)

### Non Storm-Water Discharges

It is expected that the following non-storm water discharges will occur from the site during the construction period:

- Contaminated groundwater (from dewatering excavation),
- Non-contaminated groundwater (from dewatering excavation).

All non-storm water discharges will be directed to the on-site storage tank to be discharged into the designated on-site, above-ground, stilling basin. The stilling basin is constructed of silt fabric and allows the water to percolate back into the ground while removing any suspended solids. Solids will be removed from the basin before the design capacity is reduced by 50 percent.

## MATERIAL INVENTORY FOR POLLUTION PREVENTION PLAN

The materials or substances listed below are expected to be present onsite during construction:

- Concrete
- Steel Pilings
- Steel and PVC Pipe for Utilities
- Detergents
- Paints (enamel and latex)
- Metal Studs
- Concrete
- Tar
- Gravel
- Clean Sand for Fill
- Fertilizers
- Petroleum Based Products
- Cleaning Solvents
- Wood
- Masonry Block
- Roofing Materials

## SPILL PREVENTION

### Material Management Practices

The following are the material management practices that will be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff.

#### Good Housekeeping

The following good housekeeping practices will be followed onsite during the construction project

- An effort will be made to store only enough products required to do the job
- All materials stored onsite will be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure
- Products will be kept in their original containers with the original manufacturer's label
- Substances will not be mixed with one another unless recommended by the manufacturer
- Whenever possible, all of a product will be used up before disposing of the container
- Manufacturers' recommendations for proper use and disposal will be followed
- The site superintendent will inspect daily to ensure proper use and disposal of materials onsite.

#### Hazardous Products:

These practices are used to reduce the risks associated with hazardous materials.

- Products will be kept in original containers unless they are not re-sealable
- Original labels and material safety data will be retained; they contain important product information
- If surplus product must be disposed of, manufacturers' or local and State recommended methods for proper disposal will be followed.

### Product Specific Practices

The following product specific practices will be followed onsite:

#### Petroleum Products

All onsite vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite will be applied according to the manufacturer's recommendations.

**Fertilizers:**

Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, fertilizer will be worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

**Paints:**

All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged to the storm sewer system but will be properly disposed of according to manufacturers' instructions or State and local regulations.

**Concrete Trucks:**

Concrete trucks will not be allowed to wash out or discharge surplus concrete or drum wash water on the site.

## Spill Control Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- Manufacturers' recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage area onsite. Equipment and materials will include but not be limited to brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material will be reported to the appropriate State or local government agency, regardless of the size.
- The Health and Safety Plan will be adjusted to include measures to prevent this type of spill from reoccurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures will also be included.
- Mr. Adams, the site health and safety officer responsible for the day-to-day site operations, will be the spill prevention and cleanup coordinator. He will designate at least three other site personnel who will receive spill prevention and cleanup training. These individuals will each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel will be posted in the material storage area and in the office trailer onsite.

## POLLUTION PREVENTION PLAN CERTIFICATION

I certify under the penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signed: Alan D. Hanscom

Alan D. Hanscom, P.E., LSP
Associate
BETA Group, Inc.

Date: 9/17/04

## CONTRACTOR'S CERTIFICATION

I certify under the penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

| Signature | For | Responsible for |
|---|---|---|
| Kenneth J. Vogel<br>Ken Vogel<br>Senior Project Manager<br>Date: 9/17/04 | Wes Construction Corporation<br>175 Commercial Circle<br>Dedham, MA 02026<br>(781) 326-4030 | General Contractor |

# ATTACHMENT A

# KEITH MIDDLE SCHOOL
# STORM WATER POLLUTION PREVENTION PLAN
# INSPECTION AND MAINTENANCE REPORT FORM

## EROSION CONTROLS

DATE:_____

| FROM | TO | IS PERIMETER SLOPE STABILIZED? | IS THERE EVIDENCE OF WASHOUT OR OVERTOPPING? |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

MAINTENANCE REQUIRED FOR EROSION CONTROL BARRIER:

_____

_____

_____

TO BE PERFORMED BY:_____ ON OR BEFORE:_____

**KEITH MIDDLE SCHOOL**
**STORM WATER POLLUTION PREVENTION PLAN**
**INSPECTION AND MAINTENANCE REPORT FORM**

OTHER CONTROLS
STABILIZED CONSTRUCTION ENTRANCE

| DOES MUCH SEDIMENT GET TRACKED ON TO ROAD? | IS THE GRAVEL CLEAN OR IS IT FILLED WITH SEDIMENT? | DOES ALL TRAFFIC USE THE STABILIZED ENTRANCE TO LEAVE THE SITE? | IS THE CULVERT BENEATH THE ENTRANCE WORKING? |
|---|---|---|---|
| | | | |

MAINTENANCE REQUIRED FOR STABILIZED CONSTRUCTION ENTRANCE:

_____

_____

_____

TO BE PERFORMED BY:_____ ON OR BEFORE:_____

# ATTACHMENT B

# Keith Middle School

## Date Log of Major Construction Activities

**Activities to be recorded:** **1)** When Major Grading Activities Occur, **2)** When Construction Activities Temporarily Permanently Cease, **3)** When Stabilization Measures are Initiated.

| Date | Activity |
|---|---|
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Keep an updated copy of this log with the Storm Water Pollution Prevention Plan at all times.

# ATTACHMENT C

# Intended Sequence and Timing of Site Activities
Keith Middle School, New Bedford, MA

## Past Activities

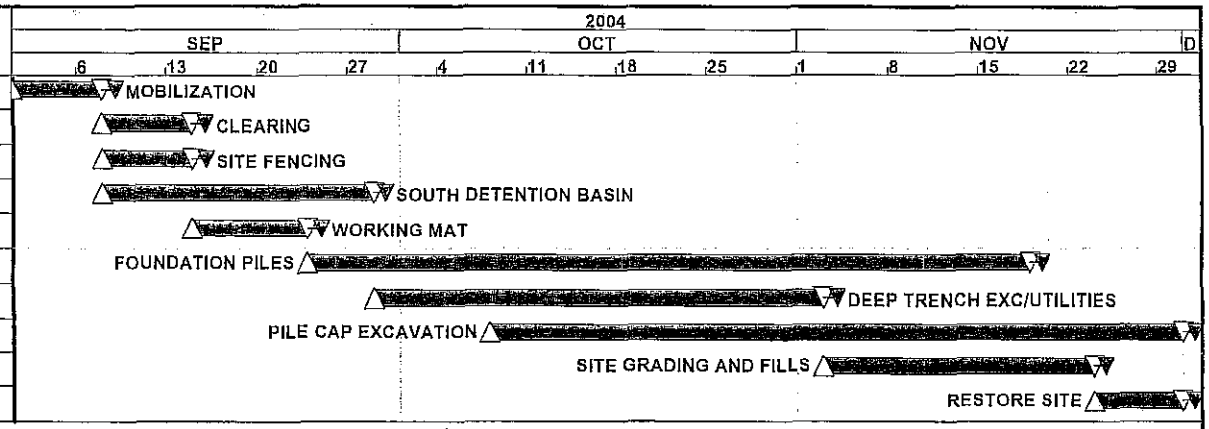
**Phase I - Site Remediation**
5/3/04 - Began installing erosion and sediment controls (silt fence, hay bails). Set up stabilized construction entrance and vehicle washing area, which is constructed of crushed stone.
5/13/04 – Completed the installation of erosion and sediment controls.
8/7/04 – Constructed 4' deep trench and filled it with crushed stone at the end of stabilized construction entrance to prevent vehicle wash water seepage through top layer of soil and onto the roadway, which is at a lower elevation.
8/24/04 - Perimeter slope construction completed and stabilized with grass seed.

## Intended Future Activities

**Phase II - Earthwork for Site Remediation, Preparation for Site Utilities, Pile Driving**
See Attached Sheet Entitled – "Keith Middle School Phase II Site PR" by Wes Construction Corp.

**Phase III - Site Development, Building Construction**
More detail will be provided when the bid process is complete. The intended completion date is September 2006.

| Total Float | Activity Description | Orig Dur | Rem Dur | % | Early Start | Early Finish |
|---|---|---|---|---|---|---|
| 1 | MOBILIZATION | 5 | 5 | 0 | 01SEP04 | 07SEP04 |
| 1 | CLEARING | 5 | 5 | 0 | 08SEP04 | 14SEP04 |
| 1 | SITE FENCING | 5 | 5 | 0 | 08SEP04 | 14SEP04 |
| 1 | SOUTH DETENTION BASIN | 15 | 15 | 0 | 08SEP04 | 28SEP04 |
| 1 | WORKING MAT | 7 | 7 | 0 | 15SEP04 | 23SEP04 |
| 1 | FOUNDATION PILES | 40 | 40 | 0 | 24SEP04 | 18NOV04 |
| 1 | DEEP TRENCH EXC/UTILITIES | 25 | 25 | 0 | 29SEP04 | 02NOV04 |
| 1 | PILE CAP EXCAVATION | 38 | 38 | 0 | 08OCT04 | 30NOV04 |
| 1 | SITE GRADING AND FILLS | 15 | 15 | 0 | 03NOV04 | 23NOV04 |
| 1 | RESTORE SITE | 5 | 5 | 0 | 24NOV04 | 30NOV04 |




| | | |
|---|---|---|
| Project Start | 01SEP04 | Early Bar |
| Project Finish | 30NOV04 | Float Bar |
| Data Date | 01SEP04 | Progress Bar |
| Run Date | 26AUG04 | Critical Activity |

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KMS2

Sheet 1 of 1

WES CONSTRUCTION CORP

KEITH MIDDLE SCHOOL PHASE II SITE PR

Classic Schedule Layout

# ATTACHMENT D

## NPDES General Permit for Storm Water Discharges From Construction Activities

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**National Pollutant Discharge Elimination System**
**General Permit for Discharges from**
**Large and Small Construction Activities**

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 et. seq., (hereafter CWA or the Act), as amended by the Water Quality Act of 1987, P.L. 100-4, operators of large and small construction activities that are described in Subpart 1.3 of this National Pollutant Discharge Elimination System (NPDES) general permit, except for those activities excluded from authorization of discharge in Subpart 1.3.C of this permit are authorized to discharge pollutants to waters of the United States in accordance with the conditions and requirements set forth herein. Permit coverage is required from the "commencement of construction activities" until "final stabilization" as defined in Appendix A.

This permit shall become effective on July 1, 2003.

This permit and the authorization to discharge shall expire at midnight, July 1, 2008.

Signed:

Linda M. Murphy, Director, Office of Ecosystem Protection
EPA Region 1

Kevin Bricke, Acting Director, Division of Environmental Planning and Protection
EPA Region 2

Carlos E. O'Neill, P.E., Acting Division Director, Caribbean Environmental Protection Division
EPA Region 2

John M. Capacasa, Director, Water Protection Division
EPA Region 3

Rebecca Harvey, Chief, NPDES Program Branch
EPA Region 5

Miguel I. Flores, Director, Water Quality Protection Division
EPA Region 6

Leo J. Alderman, Director, Water, Wetlands, and Pesticides Division
EPA Region 7

Stephen S. Tuber, Assistant Regional Administrator, Office of Partnerships and Regulatory Assistance
EPA Region 8

Nancy Woo, Acting Director, Water Division
EPA Region 9

Randall F. Smith, Director, Office of Water
EPA Region 10

The signatures are for the permit conditions in Parts 1 through 9 and Appendices A through G and for any additional conditions which apply to facilities located in the corresponding state, Indian country, or other area.

## PART 1: COVERAGE UNDER THIS PERMIT

### 1.1 Introduction

This Construction General Permit (CGP) authorizes storm water discharges from large and small construction activities that result in a total land disturbance of equal to or greater than one acre, where those discharges enter surface waters of the United States or a municipal separate storm sewer system (MS4) leading to surface waters of the United States subject to the conditions set forth in this permit. This permit also authorizes storm water discharges from any other construction activity designated by EPA where EPA makes that designation based on the potential for contribution to an excursion of a water quality standard or for significant contribution of pollutants to waters of the United States. This permit replaces two permits issued in 1998 (63 FR 7858, February 17, 1998 for EPA Regions 1, 2, 3, 7, 8, 9, and 10 and 63 FR 36489, July 6, 1998 for EPA Region 6). Any references to the 1998 CGP in this permit refer to those two permits.

This permit is presented in a reader-friendly, plain language format. This permit uses the terms "you" and "your" to identify the person(s) who owns or operates a "facility" or "activity" as defined in Appendix A and who must comply with the conditions of this permit. This format should allow you, the permittee and operator of a large or small construction activity, to easily locate and understand applicable requirements.

The goal of this permit is to reduce or eliminate storm water pollution from construction activity by requiring that you plan and implement appropriate pollution control practices to protect water quality.

### 1.2 Permit Area

If your large or small construction activity is located within the areas listed in Appendix B, you may be eligible to obtain coverage under this permit. Permit coverage is actually provided by legally separate and distinctly numbered permits covering each of the areas listed in Appendix B.

### 1.3 Eligibility

Permit eligibility is limited to discharges from "large" and "small" construction activity as defined in Appendix A or as otherwise designated by EPA. This general permit contains eligibility restrictions, as well as permit conditions and requirements. You may have to take certain actions to be eligible for coverage under this permit. In such cases, you must continue to satisfy those eligibility provisions to maintain permit authorization. If you do not meet the requirements that are a pre-condition to eligibility, then resulting discharges constitute unpermitted discharges. By contrast, if you do not comply with the requirements of the general permit, you may be in violation of the general permit for your otherwise eligible discharges.

#### *A. Allowable Storm Water Discharges*

Subject to compliance with the terms and conditions of this permit, you are authorized to discharge pollutants in:

1. Storm water associated with large and small construction activity as defined in Appendix A;
2. Storm water discharges designated by EPA as needing a storm water permit under 40 CFR §122.26(a)(1)(v) or §122.26(b)(15)(ii);
3. Discharges from support activities (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas) provided:
    a. The support activity is directly related to the construction site required to have NPDES permit coverage for discharges of storm water associated with construction activity;
    b. The support activity is not a commercial operation serving multiple unrelated construction projects by different operators, and does not operate beyond the completion of the construction activity at the last construction project it supports; and
    c. Appropriate controls and measures are identified in a Storm Water Pollution Prevention Plan (SWPPP) covering the discharges from the support activity areas; and
4. Discharges composed of allowable discharges listed in 1.3.A and 1.3.B commingled with a discharge authorized by a different NPDES permit and/or a discharge that does not require NPDES permit authorization.

### *B. Allowable Non-Storm Water Discharges*

You are authorized for the following non-storm water discharges, provided the non-storm water component of the discharge is in compliance with Subpart 3.5 (Non-Storm Water Discharge Management):

1. Discharges from fire-fighting activities;
2. Fire hydrant flushings;
3. Waters used to wash vehicles where detergents are not used;
4. Water used to control dust in accordance with Subpart 3.4.G;
5. Potable water including uncontaminated water line flushings;
6. Routine external building wash down that does not use detergents;
7. Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used;
8. Uncontaminated air conditioning or compressor condensate;
9. Uncontaminated ground water or spring water;
10. Foundation or footing drains where flows are not contaminated with process materials such as solvents;
11. Uncontaminated excavation dewatering;
12. Landscape irrigation.

### *C. Limitations on Coverage*

1. This permit does not authorize post-construction discharges that originate from the site after construction activities have been completed and the site has achieved final stabilization, including any temporary support activity. Post-construction storm water discharges from industrial sites may need to be covered by a separate NPDES permit.
2. This permit does not authorize discharges mixed with non-storm water. This exclusion does not apply to discharges identified in Subpart 1.3.B, provided the discharges are in compliance with Subpart 3.5 (Non-Storm Water Discharge Management).
3. This permit does not authorize storm water discharges associated with construction activity that have been covered under an individual permit or required to obtain coverage under an alternative general permit in accordance with Subpart 4.2.
4. This permit does not authorize discharges that EPA, prior to authorization under this permit, determines will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. Where such a determination is made prior to authorization, EPA may notify you that an individual permit application is necessary in accordance with Subpart 4.2. However, EPA may authorize your coverage under this permit after you have included appropriate controls and implementation procedures in your SWPPP designed to bring your discharge into compliance with water quality standards.
5. *Discharging into Receiving Waters With an Approved Total Maximum Daily Load Analysis*
   a. You are not eligible for coverage under this permit for discharges of pollutants of concern to waters for which there is a total maximum daily load (TMDL) established or approved by EPA unless you incorporate into your SWPPP measures or controls that are consistent with the assumptions and requirements of such TMDL. To be eligible for coverage under this general permit, you must incorporate into your SWPPP any conditions applicable to your discharges necessary for consistency with the assumptions and requirements of such TMDL. If a specific wasteload allocation has been established that would apply to your discharge, you must incorporate that allocation into your SWPPP and implement necessary steps to meet that allocation.
   b. In a situation where an EPA-approved or established TMDL has specified a general wasteload allocation applicable to construction storm water discharges, but no specific requirements for construction sites have been identified in the TMDL, you should consult with the State or Federal TMDL authority to confirm that adherence to a SWPPP that meets the requirements of the CGP will be consistent with the approved TMDL. Where an EPA-approved or established TMDL has not

specified a wasteload allocation applicable to construction storm water discharges, but has not specifically excluded these discharges, adherence to a SWPPP that meets the requirements of the CGP will generally be assumed to be consistent with the approved TMDL. If the EPA-approved or established TMDL specifically precludes such discharges, the operator is not eligible for coverage under the CGP.

6. *Endangered and Threatened Species and Critical Habitat Protection*

   a. Coverage under this permit is available only if your storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities, as defined in Appendix A, are not likely to jeopardize the continued existence of any species that are federally-listed as endangered or threatened ("listed") under the Endangered Species Act (ESA) or result in the adverse modification or destruction of habitat that is federally-designated as critical under the ESA ("critical habitat").

   b. You are not eligible to discharge if the storm water discharges, allowable non-storm water discharges, or storm water discharge-related activities would cause a prohibited "take" of federally-listed endangered or threatened species (as defined under section 3 of the ESA and 50 CFR 17.3), unless such takes are authorized under sections 7 or 10 of the ESA.

   c. Determining Eligibility: You must use the process in Appendix C (ESA Review Procedures) to determine eligibility *PRIOR* to submittal of the Notice of Intent (NOI). You must meet one or more of the following six criteria (A-F) for the entire term of coverage under the permit:

Criterion A. No federally-listed threatened or endangered species or their designated critical habitat are in the project area as defined in Appendix C; or

Criterion B. Formal consultation with the Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the ESA has been concluded and that consultation:

i. Addressed the effects of the project's storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat, and
ii. The consultation resulted in either:

a. Biological opinion finding no jeopardy to federally-listed species or destruction/adverse modification of federally-designated critical habitat, or

b. written concurrence from the Service(s) with a finding that the storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities are not likely to adversely affect federally-listed species or federally-designated critical habitat; or

Criterion C. Informal consultation with the Fish and Wildlife Service and/or the National Marine Fisheries Service under section 7 of the ESA has been concluded and that consultation:

i. Addressed the effects of the project's storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities on federally-listed threatened or endangered species and federally-designated critical habitat, and
ii. The consultation resulted in either:

a. Biological opinion finding no jeopardy to federally-listed species or destruction/adverse modification of federally-designated critical habitat, or

b. written concurrence from the Service(s) with a finding that the storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities are not likely to adversely affect federally-listed species or federally-designated critical habitat; or

Criterion D. The construction activities are authorized through the issuance of a permit under section 10 of the ESA, and that authorization addresses the effects of the storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities on federally-listed species and federally-designated critical habitat; or

Criterion E. Storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities are not likely to adversely affect any federally-listed

threatened or endangered species or result in the destruction or adverse modification of federally-designated critical habitat; or

Criterion F. The project's storm water discharges, allowable non-storm water discharges, and storm water discharge-related activities were already addressed in another operator's valid certification of eligibility under Criteria A-E which included your construction activities and there is no reason to believe that federally-listed species or federally-designated critical habitat not considered in the prior certification may be present or located in the project area. By certifying eligibility under this criterion, you agree to comply with any measures or controls upon which the other operator's certification was based.

You must comply with any applicable terms, conditions, or other requirements developed in the process of meeting the eligibility requirements of the criteria in this section to remain eligible for coverage under this permit. Such terms and conditions must be documented and incorporated into your SWPPP.

7. Historic Properties

*[Reserved]*

You are reminded that you must comply with applicable state, tribal and local laws concerning the protection of historic properties and places.

### 1.4 Waivers for Certain Small Construction Activities

Three scenarios exist under which small construction activities (see definition in Appendix A) may be waived from the NPDES permitting requirements detailed in this general permit. These exemptions are predicated on certain criteria being met and proper notification procedures being followed. Details of the waiver options and procedures for requesting a waiver are provided in Appendix D.

## PART 2: AUTHORIZATION FOR DISCHARGES OF STORM WATER FROM CONSTRUCTION ACTIVITY

To obtain coverage under this general permit, you, the operator, must prepare and submit a complete and accurate Notice of Intent (NOI), as described in this Part. Discharges are not authorized if your NOI is incomplete or inaccurate or if you were never eligible for permit coverage.

### 2.1 Authorization to Discharge Date

This permit is effective as of the publication date in the Federal Register and is effective for five years, expiring at midnight on the anniversary of publication in the fifth year.

A. If you submit an NOI during the first 90 days after the issuance date of this permit you are authorized to discharge storm water from construction activities under the terms and conditions of this permit seven (7) calendar days after submittal to EPA of a complete and accurate NOI (i.e., 7 days from date of postmark), except as noted in Subpart 2.1.C.

B. If you submit an NOI after the first 90 days of this permit and prior to the expiration date of this permit, you are authorized to discharge storm water from construction activities under the terms and conditions of this permit seven (7) calendar days after acknowledgment of receipt of your complete NOI is posted on EPA's NPDES website ***http://www.epa.gov/npdes/stormwater/cgp***, except as noted in Subpart 2.1.C.

C. EPA may delay your authorization based on eligibility considerations of Subpart 1.3 (e.g., ESA concerns). In these instances, you are not authorized for coverage under this permit until you receive notice from EPA of your eligibility.

### 2.2 Notice of Intent Contents

A. You must use the NOI form provided in Appendix E (or a photocopy thereof) and available at **www.epa.gov/npdes/stormwater/cgp**. If EPA makes other NOI forms available (either directly, by public notice, or by making information available on the Internet), you may take advantage of any of those options to satisfy the NOI use requirements of this Subpart.

B. You must provide the following information on the NOI form:

1. The applicable permit number for which you are requesting coverage (See Appendix B);

2. Operator name, address, telephone number, and Employer Identification Number (EIN) as established by the U.S. Internal Revenue Service;
3. Project/Site name, address, county or similar governmental subdivision, and latitude/longitude of your construction project or site;
4. Whether your site is located in Indian country and if so, the name of the Reservation, if applicable;
5. Whether the SWPPP has been prepared in advance of filing of this NOI and the location where the applicable SWPPP may be viewed;
6. Name of the water(s) of the U.S. into which your site discharges;
7. Indication whether your discharge is consistent with the assumptions and requirements of applicable EPA approved or established TMDLs;
8. Estimated dates of commencement of construction activity and final stabilization (i.e., project start and completion dates);
9. Total acreage (to the nearest quarter acre) to be disturbed for which you are requesting permit coverage;
10. Whether any federally-listed threatened or endangered species, or federally-designated critical habitat are in your project area to be covered by this permit, and the basis for certifying eligibility for permit coverage based on the instructions in Appendix C;
11. A certification statement, signed and dated by an authorized representative as defined in Appendix G, Section 11, and the name and title of that authorized representative.

### 2.3 Submission Deadlines

A. *New Projects:* To obtain coverage under this permit, you must submit a complete and accurate NOI and be authorized consistent with Subpart 2.1 prior to your commencement of construction activities.

B. *Permitted Ongoing Projects (only applicable for first 90 days after this permit is issued):* If you previously received authorization to discharge for your project under the 1998 CGP and you wish to continue coverage under this permit:

1. Except as noted in 2.3.B.2, you must:
    1. Submit an NOI within 90 days of the issuance date of this permit, and
    2. Until you are authorized under this permit consistent with Subpart 2.1, comply with the terms and conditions of the 1998 CGP under which you were previously authorized.
2. If you meet the termination of coverage requirements in accordance with Subpart 5.1 within 90 days of the issuance date of this permit (e.g., construction will be finished and final stabilization achieved) you must:
    1. Submit an NOT consistent with the 2003 CGP using the NOT form provided in Appendix F, and
    2. Until coverage is no longer required, comply with the terms and conditions of the 1998 CGP under which you were previously authorized.

C. *Unpermitted Ongoing Projects (only applicable for first 90 days after this permit is issued):* If you previously did not receive authorization to discharge for your project under the 1998 CGP and you wish to obtain coverage under this permit:

1. Except as noted in 2.3.C.2, you must:
    1. Submit an NOI within 90 days of the issuance date of this permit, and
    2. Until you are authorized under this permit consistent with Subpart 2.1, comply with an interim Storm Water Pollution Prevention Plan (SWPPP) consistent with the 1998 CGP.
2. If you meet the termination of coverage requirements in accordance with Subpart 5.1 within 90 days of the issuance date of this permit (e.g., construction will be finished and final stabilization achieved) you must comply with an interim Storm Water Pollution Prevention Plan (SWPPP) consistent with the 1998 CGP until permit coverage is no longer required.

D. *Late Notifications:* Operators are not prohibited from submitting NOIs after initiating clearing, grading, excavation activities, or other construction activities. When a late NOI is submitted, authorization for discharges occurs consistent with Subpart 2.1. The Agency reserves the right to take enforcement action for any unpermitted discharges or permit noncompliance that occur between the commencement of construction and discharge authorization.

### 2.4 Where to Submit

A. Except as noted in Subpart 2.3.B, you must send your complete and accurate NOI to EPA at one of the following addresses:

For Regular U.S. Mail Delivery:
EPA Storm Water Notice Processing Center
Mail Code 4203M
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:
EPA Storm Water Notice Processing Center
Room 7420
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

B. In lieu of Subpart 2.4.A, when available, you may submit your NOI using EPA's electronic NOI system (i.e., eNOI) as detailed at www.epa.gov/npdes/stormwater/cgp.

## PART 3: STORM WATER POLLUTION PREVENTION PLANS (SWPPPS)

### 3.1 Storm Water Pollution Prevention Plan Framework

A. A SWPPP must be prepared prior to submission of an NOI as required in Part 2. At least one SWPPP must be developed for each construction project covered by this permit and such SWPPP must be prepared in accordance with good engineering practices.

B. The SWPPP must:

1. Identify all potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges from the construction site;
2. Describe practices to be used to reduce pollutants in storm water discharges from the construction site; and
3. Assure compliance with the terms and conditions of this permit.

C. Once a definable area has been finally stabilized, you may mark this on your SWPPP and no further SWPPP or inspection requirements apply to that portion of the site (e.g., earth-disturbing activities around one of three buildings in a complex are done and the area is finally stabilized, one mile of a roadway or pipeline project is done and finally stabilized, etc).

D. You must implement the SWPPP as written from commencement of construction activity until final stabilization is complete.

### 3.2 Requirements for Different Types of Operators

You may meet one or both of the operational control components in the definition of operator found in Appendix A. Subpart 3.2.C applies to all permittees having control over only a portion of a construction site.

A. If you have operational control over construction plans and specifications, you must ensure that:

1. The project specifications meet the minimum requirements of this Subpart and all other applicable permit conditions;
2. The SWPPP indicates the areas of the project where the operator has operational control over project specifications, including the ability to make modifications in specifications;
3. All other permittees implementing portions of the SWPPP (or their own SWPPP) who may be impacted by a change to the construction plan are notified of such changes in a timely manner; and
4. The SWPPP indicates the name of the party(ies) with day-to-day operational control of those activities necessary to ensure compliance with the SWPPP or other permit conditions.

B. If you have operational control over day-to-day activities, you must ensure that:

1. The SWPPP meets the minimum requirements of this Subpart and identifies the parties responsible for implementation of control measures identified in the plan;
2. The SWPPP indicates areas of the project where you have operational control over day-to-day activities;
3. The SWPPP indicates the name of the party(ies) with operational control over project specifications (including the ability to make modifications in specifications).

C. If you have operational control over only a portion of a larger project (e.g., one of four homebuilders in a subdivision), you are responsible for compliance with all applicable terms and conditions of this permit as it relates to your activities on your portion of the construction site, including protection of endangered species, critical habitat, and historic properties, and implementation of best management practices (BMPs) and other controls required by the SWPPP. You must ensure either directly or through coordination with other permittees, that your activities do not render another party's pollution control ineffective. You must either implement your portion of a common SWPPP or develop and implement your own SWPPP.

For more effective coordination of BMPs and opportunities for cost sharing, a cooperative effort by the different operators at a site to prepare and participate in a comprehensive SWPPP is encouraged. Individual operators at a site may, but are not required to, develop separate SWPPPs that cover only their portion of the project provided reference is made to other operators at the site. In instances where there is more than one SWPPP for a site, cooperation between the permittees is encouraged to ensure the storm water discharge controls and other measures are consistent with one another (e.g., provisions to protect listed species and critical habitat).

### 3.3 Pollution Prevention Plan Contents: Site and Activity Description

A. The SWPPP must identify all operators for the project site, and the areas of the site over which each operator has control.

B. The SWPPP must describe the nature of the construction activity, including:

1. The function of the project (e.g., low density residential, shopping mall, highway, etc.);
2. The intended sequence and timing of activities that disturb soils at the site;
3. Estimates of the total area expected to be disturbed by excavation, grading, or other construction activities, including dedicated off-site borrow and fill areas; and
4. A general location map (e.g., USGS quadrangle map, a portion of a city or county map, or other map) with enough detail to identify the location of the construction site and waters of the United States within one mile of the site.

C. The SWPPP must contain a legible site map, showing the entire site, identifying:

1. Direction(s) of storm water flow and approximate slopes anticipated after major grading activities;
2. Areas of soil disturbance and areas that will not be disturbed;
3. Locations of major structural and nonstructural BMPs identified in the SWPPP;
4. Locations where stabilization practices are expected to occur;
5. Locations of off-site material, waste, borrow or equipment storage areas;
6. Locations of all waters of the United States (including wetlands);
7. Locations where storm water discharges to a surface water; and
8. Areas where final stabilization has been accomplished and no further construction-phase permit requirements apply.

D. The SWPPP must describe and identify the location and description of any storm water discharge associated with industrial activity other than construction at the site. This includes storm water discharges from dedicated asphalt plants and dedicated concrete plants, that are covered by this permit.

### 3.4 Pollution Prevention Plan Contents: Controls to Reduce Pollutants

A. The SWPPP must include a description of all pollution control measures (i.e., BMPs) that will be implemented as part of the construction activity to control pollutants in storm water discharges. For each major activity identified in the project description the SWPPP must clearly describe appropriate control measures, the general sequence during the construction process in which the measures will be implemented, and which operator is responsible for the control measure's implementation.

B. The SWPPP must include a description of interim and permanent stabilization practices for the site, including a schedule of when the practices will be implemented. Site plans should ensure that existing vegetation is preserved where possible and that disturbed portions of the site are stabilized. Use of impervious surfaces for stabilization should be avoided.

C. The following records must be maintained as part of the SWPPP:

   1. Dates when major grading activities occur;
   2. Dates when construction activities temporarily or permanently cease on a portion of the site; and
   3. Dates when stabilization measures are initiated.

D. The SWPPP must include a description of structural practices to divert flows from exposed soils, retain/detain flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Placement of structural practices in floodplains must be avoided to the degree practicable.

E. The SWPPP must include a description of all post-construction storm water management measures that will be installed during the construction process to control pollutants in storm water discharges after construction operations have been completed. Structural measures should be placed on upland soils to the degree practicable. Such measures must be designed and installed in compliance with applicable federal, local, state or tribal requirements.

F. The SWPPP must describe measures to prevent the discharge of solid materials, including building materials, to waters of the United States, except as authorized by a permit issued under section 404 of the CWA.

G. The SWPPP must describe measures to minimize, to the extent practicable, off-site vehicle tracking of sediments onto paved surfaces and the generation of dust.

H. The SWPPP must include a description of construction and waste materials expected to be stored on-site with updates as appropriate. The SWPPP must also include a description of controls, including storage practices, to minimize exposure of the materials to storm water, and spill prevention and response practices.

I. The SWPPP must include a description of pollutant sources from areas other than construction (including storm water discharges from dedicated asphalt plants and dedicated concrete plants), and a description of controls and measures that will be implemented at those sites to minimize pollutant discharges.

### 3.5 Non-Storm Water Discharge Management

The SWPPP must identify all allowable sources of non-storm water discharges listed in Subpart 1.3.B of this permit, except for flows from fire fighting activities, that are combined with storm water discharges associated with construction activity at the site. Non-storm water discharges should be eliminated or reduced to the extent feasible. The SWPPP must identify and ensure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.

### 3.6 Maintenance of Controls

A. All erosion and sediment control measures and other protective measures identified in the SWPPP must be maintained in effective operating condition. If site inspections required by Subpart 3.10 identify BMPs that are not operating effectively, maintenance must be performed as soon as possible and before the next storm event whenever practicable to maintain the continued effectiveness of storm water controls.

B. If existing BMPs need to be modified or if additional BMPs are necessary for any reason, implementation must be completed before the next storm event whenever practicable. If implementation before the next storm event is impracticable, the situation must be documented in the SWPPP and alternative BMPs must be implemented as soon as possible.

C. Sediment from sediment traps or sedimentation ponds must be removed when design capacity has been reduced by 50 percent.

### 3.7 Documentation of Permit Eligibility Related to Endangered Species

The SWPPP must include documentation supporting a determination of permit eligibility with regard to Endangered Species, including:

A. Information on whether federally-listed endangered or threatened species, or federally-designated critical habitat may be in the project area;

B. Whether such species or critical habitat may be adversely affected by storm water discharges or storm water discharge-related activities from the project;

C. Results of the Appendix C listed species and critical habitat screening determinations;

D. Confirmation of delivery of NOI to EPA or to EPA's electronic NOI system. This may include an overnight, express or registered mail receipt acknowledgment; or electronic acknowledgment from EPA's electronic NOI system.

E. Any correspondence for any stage of project planning between the U.S. Fish and Wildlife Service (FWS), EPA, the U.S. National Marine Fisheries Service (NMFS), or others and you regarding listed species and critical habitat, including any notification that delays your authorization to discharge under this permit;

F. A description of measures necessary to protect federally-listed endangered or threatened species, or federally-designated critical habitat. The permittee must describe and implement such measures to maintain eligibility for coverage under this permit.

### 3.8 Copy of Permit Requirements

Copies of this permit and of the signed and certified NOI form that was submitted to EPA must be included in the SWPPP. Also, upon receipt, a copy of the letter from the EPA Storm Water Notice Processing Center notifying you of their receipt of your administratively complete NOI must also be included as a component of the SWPPP.

### 3.9 Applicable State, Tribal, or Local Programs

The SWPPP must be consistent with all applicable federal, state, tribal, or local requirements for soil and erosion control and storm water management, including updates to the SWPPP as necessary to reflect any revisions to applicable federal, state, tribal, or local requirements for soil and erosion control.

### 3.10 Inspections

A. Inspections must be conducted in accordance with one of the two schedules listed below. You must specify in your SWPPP which schedule you will be following.

   1. At least once every 7 calendar days, OR
   2. At least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.

B Inspection frequency may be reduced to at least once every month if:

   1. The entire site is temporarily stabilized,
   2. Runoff is unlikely due to winter conditions (e.g., site is covered with snow, ice, or the ground is frozen), or
   3. Construction is occurring during seasonal arid periods in arid areas and semi-arid areas.

C. A waiver of the inspection requirements is available until one month before thawing conditions are expected to result in a discharge if all of the following requirements are met:

   1. The project is located in an area where frozen conditions are anticipated to continue for extended periods of time (i.e., more than one month);
   2. Land disturbance activities have been suspended; and
   3. The beginning and ending dates of the waiver period are documented in the SWPPP.

D. Inspections must be conducted by qualified personnel (provided by the operator or cooperatively by multiple operators). "Qualified personnel" means a person knowledgeable in the principles and practice of erosion and sediment controls who possesses the skills to assess conditions at the construction site that could impact

storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the construction activity.

E. Inspections must include all areas of the site disturbed by construction activity and areas used for storage of materials that are exposed to precipitation. Inspectors must look for evidence of, or the potential for, pollutants entering the storm water conveyance system. Sedimentation and erosion control measures identified in the SWPPP must be observed to ensure proper operation. Discharge locations must be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to waters of the United States, where accessible. Where discharge locations are inaccessible, nearby downstream locations must be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site must be inspected for evidence of off-site sediment tracking.

F. Utility line installation, pipeline construction, and other examples of long, narrow, linear construction activities may limit the access of inspection personnel to the areas described in Subpart 3.10.E above. Inspection of these areas could require that vehicles compromise temporarily or even permanently stabilized areas, cause additional disturbance of soils, and increase the potential for erosion. In these circumstances, controls must be inspected on the same frequencies as other construction projects, but representative inspections may be performed. For representative inspections, personnel must inspect controls along the construction site for 0.25 mile above and below each access point where a roadway, undisturbed right-of-way, or other similar feature intersects the construction site and allows access to the areas described above. The conditions of the controls along each inspected 0.25 mile segment may be considered as representative of the condition of controls along that reach extending from the end of the 0.25 mile segment to either the end of the next 0.25 mile inspected segment, or to the end of the project, whichever occurs first.

G. For each inspection required above, you must complete an inspection report. At a minimum, the inspection report must include:

1. The inspection date;
2. Names, titles, and qualifications of personnel making the inspection;
3. Weather information for the period since the last inspection (or since commencement of construction activity if the first inspection) including a best estimate of the beginning of each storm event, duration of each storm event, approximate amount of rainfall for each storm event (in inches), and whether any discharges occurred;
4. Weather information and a description of any discharges occurring at the time of the inspection;
5. Location(s) of discharges of sediment or other pollutants from the site;
6. Location(s) of BMPs that need to be maintained;
7. Location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location;
8. Location(s) where additional BMPs are needed that did not exist at the time of inspection; and
9. Corrective action required including any changes to the SWPPP necessary and implementation dates.

A record of each inspection and of any actions taken in accordance with this Part must be retained as part of the SWPPP for at least three years from the date that permit coverage expires or is terminated. The inspection reports must identify any incidents of non-compliance with the permit conditions. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the construction project or site is in compliance with the SWPPP and this permit. The report must be signed in accordance with Appendix G, Section 11 of this permit.

### 3.11 Maintaining an Updated Plan

A. The SWPPP, including the site map, must be amended whenever there is a change in design, construction, operation, or maintenance at the construction site that has or could have a significant effect on the discharge of pollutants to the waters of the United States that has not been previously addressed in the SWPPP.

B. The SWPPP must be amended if during inspections or investigations by site staff, or by local, state, tribal or federal officials, it is determined that the discharges the SWPPP is ineffective in eliminating or significantly minimizing pollutants in storm water discharges from the construction site.

C. Based on the results of an inspection, the SWPPP must be modified as necessary to include additional or modified BMPs designed to correct problems identified. Revisions to the SWPPP must be completed within

seven (7) calendar days following the inspection. Implementation of these additional or modified BMPs must be accomplished as described in Subpart 3.6.B.

### 3.12 Signature, Plan Review and Making Plans Available

A. A copy of the SWPPP (including a copy of the permit), NOI, and acknowledgement letter from EPA must be retained at the construction site (or other location easily accessible during normal business hours to EPA, a state, tribal or local agency approving sediment and erosion plans, grading plans, or storm water management plans; local government officials; the operator of a municipal separate storm sewer receiving discharges from the site; and representatives of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service) from the date of commencement of construction activities to the date of final stabilization. If you have day-to-day operational control over SWPPP implementation, you must have a copy of the SWPPP available at a central location on-site for the use of all those identified as having responsibilities under the SWPPP whenever they are on the construction site. If an on-site location is unavailable to store the SWPPP when no personnel are present, notice of the plan's location must be posted near the main entrance at the construction site.

B. A sign or other notice must be posted conspicuously near the main entrance of the construction site. If displaying near the main entrance is infeasible, the notice can be posted in a local public building such as the town hall or public library. The sign or other notice must contain the following information:

   1. A copy of the completed Notice of Intent as submitted to the EPA Storm Water Notice Processing Center; and

   2. If the location of the SWPPP or the name and telephone number of the contact person for scheduling SWPPP viewing times has changed (i.e., is different than that submitted to EPA in the NOI), the current location of the SWPPP and name and telephone number of a contact person for scheduling viewing times.

   For linear projects, the sign or other notice must be posted at a publicly accessible location near the active part of the construction project (e.g., where a pipeline project crosses a public road).

C. SWPPPs must be made available upon request by EPA; a state, tribal or local agency approving sediment and erosion plans, grading plans, or storm water management plans; local government officials; the operator of a municipal separate storm sewer receiving discharges from the site; and representatives of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service to the requestor. The copy of the SWPPP that is required to be kept on-site or locally available must be made available, in its entirety, to the EPA staff for review and copying at the time of an on-site inspection.

D. All SWPPPs must be signed and certified in accordance with Appendix G, Section 11.

### 3.13 Management Practices

A. All control measures must be properly selected, installed, and maintained in accordance with any relevant manufacturer specifications and good engineering practices. If periodic inspections or other information indicates a control has been used inappropriately, or incorrectly, the operator must replace or modify the control for site situations as soon as practicable.

B. If sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize off-site impacts.

C. Litter, construction debris, and construction chemicals that could be exposed to storm water must be prevented from becoming a pollutant source in storm water discharges.

D. Except as provided below, stabilization measures must be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.

   1. Where stabilization by the 14th day is precluded by snow cover or frozen ground conditions, stabilization measures must be initiated as soon as practicable.

   2. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 14 days, temporary stabilization measures do not have to be initiated on that portion of the site.

3. In arid, semiarid, and drought-stricken areas where initiating perennial vegetative stabilization measures is not possible within 14 days after construction activity has temporarily or permanently ceased, final vegetative stabilization measures must be initiated as soon as practicable.

E. A combination of sediment and erosion control measures are required to achieve maximum pollutant removal.

1. Sediment Basins: For common drainage locations that serve an area with 10 or more acres disturbed at one time, a temporary (or permanent) sediment basin that provides storage for a calculated volume of runoff from the drainage area from a 2-year, 24-hour storm, or equivalent control measures, must be provided where attainable until final stabilization of the site. Where no such calculation has been performed, a temporary (or permanent) sediment basin providing 3,600 cubic feet of storage per acre drained, or equivalent control measures, must be provided where attainable until final stabilization of the site. When computing the number of acres draining into a common location, it is not necessary to include flows from offsite areas and flows from on-site areas that are either undisturbed or have undergone final stabilization where such flows are diverted around both the disturbed area and the sediment basin. In determining whether installing a sediment basin is attainable, the operator may consider factors such as site soils, slope, available area on-site, etc. In any event, the operator must consider public safety, especially as it relates to children, as a design factor for the sediment basin, and alternative sediment controls must be used where site limitations would preclude a safe design.
2. For drainage locations which serve 10 or more disturbed acres at one time and where a temporary sediment basin or equivalent controls is not attainable, smaller sediment basins and/or sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions).
3. For drainage locations serving less than 10 acres, smaller sediment basins and/or sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions) of the construction area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm or 3,600 cubic feet of storage per acre drained is provided.

F. Velocity dissipation devices must be placed at discharge locations and along the length of any outfall channel to provide a non-erosive flow velocity from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., no significant changes in the hydrological regime of the receiving water).

### 3.14 Documentation of Permit Eligibility Related to Total Maximum Daily Loads

The SWPPP must include documentation supporting a determination of permit eligibility with regard to waters that have an EPA-established or approved TMDL, including:

A. Identification of whether your discharge is identified, either specifically or generally, in an EPA-established or approved TMDL and any associated allocations, requirements, and assumptions identified for your discharge;

B. Summaries of consultation with State or Federal TMDL authorities on consistency of SWPPP conditions with the approved TMDL, and

C. Measures taken by you to ensure that your discharge of pollutants from the site is consistent with the assumptions and requirements of the EPA-established or approved TMDL, including any specific wasteload allocation that has been established that would apply to your discharge.

See section 1.3.C.5 for further information on determining permit eligibility related to TMDLs.

## PART 4: SPECIAL CONDITIONS, MANAGEMENT PRACTICES AND OTHER NON-NUMERIC LIMITATIONS

### 4.1 Continuation of the Expired General Permit

If this permit is not reissued or replaced prior to the expiration date, it will be administratively continued in accordance with the Administrative Procedure Act and remain in force and effect. If you were granted permit coverage prior to the expiration date, you will automatically remain covered by the continued permit until the earliest of:

A. Reissuance or replacement of this permit, at which time you must comply with the conditions of the new permit to maintain authorization to discharge; or

B. Your submittal of a Notice of Termination; or

C. Issuance of an individual permit for the project's discharges; or

D. A formal permit decision by EPA to not reissue this general permit, at which time you must seek coverage under an alternative general permit or an individual permit.

### 4.2 Requiring an Individual Permit or an Alternative General Permit

A. EPA may require you to apply for and/or obtain either an individual NPDES permit or an alternative NPDES general permit. Any interested person may petition EPA to take action under this paragraph. If EPA requires you to apply for an individual NPDES permit, EPA will notify you in writing that a permit application is required. This notification will include a brief statement of the reasons for this decision and an application form. In addition, if you are an existing permittee covered under this permit, the notice will set a deadline to file the application, and will include a statement that on the effective date of issuance or denial of the individual NPDES permit or the alternative general permit as it applies to you, coverage under this general permit will automatically terminate. Applications must be submitted to EPA at the applicable EPA Regional offices listed in Appendix B of this permit. EPA may grant additional time to submit the application upon your request. If you are covered under this permit and you fail to submit in a timely manner an individual NPDES permit application as required by EPA, then the applicability of this permit to you is automatically terminated at the end of the day specified by EPA as the deadline for application submittal.

B. You may request to be excluded from the coverage of this general permit by applying for an individual permit. In such a case, you must submit an individual application in accordance with the requirements of 40 CFR §122.26(c)(1)(ii), with reasons supporting the request, to EPA at the applicable EPA Regional office listed in Appendix B of this permit. The request may be granted by issuance of an individual permit or an alternative general permit if your reasons are adequate to support the request.

C. When an individual NPDES permit is issued to you, who are otherwise subject to this permit, or you are authorized to discharge under an alternative NPDES general permit, the applicability of this permit to you is automatically terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. If you, who are otherwise subject to this permit, are denied an individual NPDES permit or an alternative NPDES general permit, the applicability of this permit to you is automatically terminated on the date of such denial, unless otherwise specified by EPA.

### 4.3 Releases in Excess of Reportable Quantities

The discharge of hazardous substances or oil in storm water discharges from the construction site must be prevented or minimized in accordance with the SWPPP. This permit does not relieve you of the federal reporting requirements of 40 CFR Part 110, 40 CFR Part 117 and 40 CFR Part 302 relating to spills or other releases of oils or hazardous substances.

Where a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117 or 40 CFR Part 302, occurs during a 24-hour period:

- you must provide notice to the National Response Center (NRC) (800–424–8802; in the Washington, DC, metropolitan area call 202–426–2675) in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117 and 40 CFR Part 302 as soon as site staff have knowledge of the discharge; and
- you must modify the SWPPP as required under Subpart 3.11 within 7 calendar days of knowledge of the release to: provide a description of the release, the circumstances leading to the release, and the date of the release. Plans must identify measures to prevent the reoccurrence of such releases and to respond to such releases.

### 4.4 Spills

This permit does not authorize the discharge of hazardous substances or oil resulting from an on-site spill.

### 4.5 Attainment of Water Quality Standards After Authorization

A. You must select, install, implement and maintain BMPs at your construction site that minimize pollutants in the discharge as necessary to meet applicable water quality standards. In general, except in situations explained in Subpart 4.5.B below, your SWPPP developed, implemented, and updated consistent with Part 3.0 is considered as stringent as necessary to ensure that your discharges do not cause or contribute to an excursion above any applicable water quality standard.

B. At any time after authorization, EPA may determine that your storm water discharges may cause, have reasonable potential to cause, or contribute to an excursion above any applicable water quality standard. If such a determination is made, EPA will require you to:

   i. Develop a supplemental BMP action plan describing SWPPP modifications in accordance with Subpart 3.11 to address adequately the identified water quality concerns;

   ii. Submit valid and verifiable data and information that are representative of ambient conditions and indicate that the receiving water is attaining water quality standards; or

   iii. Cease discharges of pollutants from construction activity and submit an individual permit application according to Subpart 4.2.

   All written responses required under this part must include a signed certification consistent with Appendix G, Section 11.

## PART 5: TERMINATION OF COVERAGE

### 5.1 Requirements

You may only submit a Notice of Termination (NOT) after one or more of the following conditions have been met:

A. Final stabilization has been achieved on all portions of the site for which you are responsible;

B. Another operator has assumed control according to Appendix G, Section 11.C over all areas of the site that have not been finally stabilized;

C. Coverage under an individual or alternative general NPDES permit has been obtained; or

D. For residential construction only, temporary stabilization has been completed and the residence has been transferred to the homeowner.

The NOT must be submitted within 30 days of one of the above conditions being met. Authorization to discharge terminates at midnight of the day the NOT is signed.

### 5.2 Submitting a Notice of Termination

It is your responsibility to submit a complete and accurate Notice of Termination (NOT), using the form provided in Appendix F (or a photocopy thereof) available at www.epa.gov/npdes/stormwater/cgp. If EPA notifies dischargers (either directly, by public notice, or by making information available on the Internet) of other NOT form options (e.g., electronic submission), you may take advantage of those options to satisfy the requirements of Part 5.

A. The Notice of Termination must include the following information:

   1. The NPDES permit tracking number for the storm water discharge;

   2. The basis for submission of the NOT, including: final stabilization has been achieved on all portions of the site for which the permittee is responsible; another operator/permittee has assumed control over all areas of the site that have not been finally stabilized; coverage under an alternative NPDES permit has been obtained; or, for residential construction only, temporary stabilization has been completed and the residence has been transferred to the homeowner;

   3. You, the operator's name, address, telephone number and your organization's Employer Identification Number (EIN) as established by the U.S. Internal Revenue Service;

   4. The name of the project and address (or a description of location if no street address is available) of the construction site for which the notification is submitted; and

   5. A certification statement, signed and dated by an authorized representative as defined in Appendix G, Section 11 and the name and title of that authorized representative.

### 5.3 Where to Submit

A. All NOTs must be submitted to one of the following addresses:

For Regular U.S. Mail Delivery:
EPA Storm Water Notice Processing Center
Mail Code 4203M
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

For Overnight/Express Mail Delivery:
EPA Storm Water Notice Processing Center
Room 7420
U.S. EPA
1201 Constitution Avenue, NW
Washington, DC 20004

B. In lieu of Subpart 5.3.A, you can submit your NOT to EPA using EPA's electronic system (i.e., eNOI), when available. Check www.epa.gov/npdes/stormwater/cgp for updates.

## PART 6: RETENTION OF RECORDS

Copies of the SWPPP and all documentation required by this permit, including records of all data used to complete the NOI to be covered by this permit, must be retained for at least three years from the date that permit coverage expires or is terminated. This period may be extended by request of EPA at any time.

## PART 7: REOPENER CLAUSE

### 7.1 Procedures for Modification or Revocation

Permit modification or revocation will be conducted according to 40 CFR §122.62, §122.63, §122.64 and §124.5.

### 7.2 Water Quality Protection

If there is evidence indicating that the storm water discharges authorized by this permit cause, have the reasonable potential to cause or contribute to an excursion above any applicable water quality standard, you may be required to obtain an individual permit in accordance with Part 4.5 of this permit, or the permit may be modified to include different limitations and/or requirements.

### 7.3 Timing of Permit Modification

EPA may elect to modify the permit prior to its expiration (rather than waiting for the new permit cycle) to comply with any new statutory or regulatory requirements, such as for effluent limitation guidelines, that may be promulgated in the course of the current permit cycle.

## PART 8: STANDARD PERMIT CONDITIONS

The federal regulations require that the Standard Conditions provisioned at 40 CFR §122.41 be applied to all NPDES permits. You are required to comply with those Standard Conditions, details of which are provided in Appendix G.

## PART 9: PERMIT CONDITIONS APPLICABLE TO SPECIFIC STATES, INDIAN COUNTRY, OR TERRITORIES

The provisions of this Part provide modifications or additions to the applicable conditions of this permit to reflect specific additional conditions required as part of the state or tribal CWA Section 401 certification process, or the Coastal Zone Management Act (CZMA) certification process, or as otherwise established by the permitting authority. The specific additional revisions and requirements only apply to activities in those specific states, Indian country, and federal facilities. States, Indian country, and federal facilities not included in this Part do not have any modifications or additions to the applicable conditions of this permit.

State Coastal Zone Management Act (CZMA) certification was not received from Massachusetts in time for that state to be included in this permit. As such, large construction activities in Massachusetts covered under the 1998 CGP will continue to be covered under that permit. EPA will reissue the CGP for Massachusetts for large and small construction activities at a later date, and will include any state-specific modifications or additions as part of the State's CZMA certification process.

A. Region 1

1. MAR100000: Commonwealth of Massachusetts, except Indian country

   a. State Water Quality Statutes, Regulations, and Policies:

      i. You must comply with the Massachusetts Clean Waters Act (Ch. 21, ss. 23-56).

      ii. You must comply with the conditions in 314 CMR 4.00 - Surface Water Quality Standards.

      iii. You must comply with the conditions in 314 CMR 3.00 - Surface Water Discharge Permit Program.

      iv. You must comply with the Wetlands Protection Act, Ch. 131, s. 40 and its regulations, 310 CMR 10.00 and any order of Conditions issued by a Conservation Commission or a Superseding Order of Conditions issued by the Massachusetts Department of Environmental Protection.

   b. Department of Environmental Protection Storm Water Management Policy:

      i. You must comply with the Massachusetts Storm Water Management Policy, March 1997 and applicable Storm Water Performance Standards, as prescribed by state regulations promulgated under the authority of the Massachusetts Clean Waters Act, MGL Ch. 21, ss. 23-56 and the Wetlands Protection Act Ch. 131, s. 40.

   c. Other State Environmental Laws, Regulations, Policies:

      i. You must comply with the Massachusetts Endangered Species Act [MESA] (MGL Ch. 313A and regulations at 321 CMR 10.00) and any actions undertaken to comply with this storm water permit, shall not result in non-compliance with the MESA.

      ii. You must not conduct activities under this permit that will interfere with implementation of mosquito control work conducted in accordance with Chapter 252 including, s. 5A thereunder and DEP Guideline Number BRP G01-02, West Nile Virus Application of Pesticides to Wetland Resource Areas and Buffer Zones, and Public Water Systems.

   d. Other Department Directives:

      i. The Department may require you to perform water quality monitoring during the permit term if monitoring is necessary for the protection of public health or the environment as designated under the authority at 314 CMR 3.00.

      ii. The Department may require you to provide measurable verification of the effectiveness of BMPs and other control measures in your management program, including water quality monitoring.

      iii. The Department has determined that compliance with this permit does not protect you from enforcement actions deemed necessary by the Department under its associated regulations to address an imminent threat to the public health or a significant adverse environmental impact which results in a violation of the Massachusetts Clean Waters Act, Ch. 21, ss. 26-53.

      iv. The Department reserves the right to modify the 401 Water Quality Certification if any changes, modifications or deletions are made to the general permit. In addition, the Department reserves the right to add and/or alter the terms and conditions of its 401 Water Quality Certification to carry out its responsibilities during the term of this permit with respect to water quality, including any revisions to 314 CMR 4.00, Surface Water Quality Standards.

   e. Permit Compliance

      i. Should any violation of the Massachusetts Surface Water Quality Standards (314 CMR 4.00) or the conditions of this certification occur, the Department will direct you to correct the violations(s). The Department has the right to take any action as authorized by the General Laws of the Commonwealth to address the violation of this permit or the MA Clean Waters Act and the regulations promulgated thereunder. Substantial civil and criminal penalties are authorized under MGL Ch. 21, s. 42 for discharging into Massachusetts' waters in violation of an order or permit issued by this Department. This certification does not relieve the you of the duty to comply with other applicable Massachusetts statutes and regulations.

2. NHR100000: State of New Hampshire

   a. If you disturb 100,000 square feet or more of contiguous area, you must also apply for a "Significant Alteration of the Terrain Permit from DES pursuant to RSA 485-A:17 and Env-Ws 415. This requirement

applies to the disturbances of only 50,000 square feet when construction occurs within the protected shoreline (see RSA 483-B and Env-Ws 1400).

b. You must determine that any excavation dewatering discharges are not contaminated before they will be authorized as an allowable non-storm water discharge under this permit (see Subpart 1.3.B). The water is considered uncontaminated if there is no groundwater contamination within 1,000 feet of the discharge. Information on groundwater contamination can be generated over the Internet via the NHDES web site www.des.state.nh.us (One Stop Data Retrieval, Onestop Master Site Table). The web site also provides E-mail access to an NHDES Site Remediation Contact to answer questions about using the Web site.

c. You must treat any uncontaminated excavation dewatering discharges as necessary to remove suspended solids and turbidity. The discharges must be sampled at a location prior to mixing with storm water at least once per week during weeks when discharges occur. The samples must be analyzed for total suspended solids (TSS) and must meet monthly average and maximum daily TSS limitations of 50 milligrams per liter (mg/L) and 100 mg/L, respectively. TSS (a.k.a. Residue, Nonfilterable) analysis and sampling must be performed in accordance with Tables IB (parameter, units and method) and II (required containers, preservation techniques and holding times) in 40 CFR 136.3 (see: http://www.access.gpo.gov/nara/cfr/waisidx_02/40cfr136_02.html). Records of any sampling and analysis must be maintained and kept with the SWPPP for at least three years after final site stabilization.

d. During site design and preparation of the storm water pollution prevention plan (SWPPP), you must consider opportunities for groundwater recharge using on-site infiltration. The SWPPP must include a description of any on-site infiltration that will be installed as a post construction storm water management measure (see Subpart 3.4.E) or reasons for not employing such measures. For design considerations for infiltration measures see the September 2001 DES publication titled "Managing Storm Water as a Valuable Resource" which is available online at: www.des.state.nh.us/StormWater/construction.htm. Loss of annual recharge to groundwater should be minimized through the use of infiltration measures wherever feasible.

B. Region 2

1. NYR10000I: Indian country within the State of New York

St. Regis Mohawk Territory at Akwesasne

a. NOIs shall also be submitted to the St. Regis Mohawk Tribe, Environment Division, at the same time they are submitted to EPA, at the following address:

St. Regis Mohawk Tribe, Environment Division
412 State Route 37
Akwesasne, NY 13655
Attn: Clean Water Program Manager.

b. In addition, Storm Water Pollution Prevention Plans (and any updates or amendments thereto) must be submitted to the Environment Division and to the Tribal Historic Preservation Officer at least thirty (30) days in advance of corresponding Notices of Intent. This will allow the Environment Division and the THPO to make an informed determination as to whether any proposed discharges might adversely impact the quality of its surface or groundwater, or disturb sites of historic or cultural significance to the Tribe that may be listed, or eligible to be listed, on the National Register of Historic Places.

c. Within 10 days of the inspection required under Subpart 3.10.G of this permit, the permittee shall provide a copy of the Inspection Report to the Environment Division.

C. Region 6

1. NMR150000: The State of New Mexico, except Indian country

*NOTE: Conditions in the New Mexico Environment Department (NMED) certification of the permit resulted in permit requirements adding further restrictions on eligibility for discharges to Outstanding National Resource Waters (ONRWs), expanding on requirements for pollution prevention plans, and limiting options provided in the permit related to inspection frequency and final stabilization.*

a. In addition to all other provisions of this permit, operators who intend to obtain authorization under this permit for all new storm water discharges must satisfy the conditions in Subpart 9.C.1.a.i, unless a TMDL has been established for the receiving stream which specifies a waste load allocation (WLA) for

construction storm water discharges or the receiving stream is a Tier 3 water, in which case Subpart 9.C.1.a.ii applies.

i. The operator must include a Sediment Control Plan (SCP) as a part of the Storm Water Pollution Prevention Plan (SWPPP). The SCP must include site-specific interim and permanent stabilization, managerial, and structural solids, erosion, and sediment control BMPs and/or other controls that are designed to prevent an increase in the sediment yield and flow velocity from pre-construction, undisturbed conditions. This applies to discharges both during construction and after construction operations have been completed. The SCP must identify, and document the rationale for selecting these BMPs and/or other controls. The SCP must also describe design specifications, construction specifications, maintenance schedules (including a long term maintenance plan), criteria for inspections, as well as expected performance and longevity of the BMPs. Using appropriate soil loss prediction models (such as SEDCAD 4.0, RUSLE, SEDIMONT II, MULTISED, etc.), the operator(s) must demonstrate, and include documentation in the SCP, that implementation of the site-specific practices will result in sediment yields that will not be greater than the sediment yield levels from pre-construction, undisturbed conditions. The SCP must be prepared in accordance with good engineering practices and certified by a registered professional engineer. The operator(s) must design, implement, and maintain BMPs in the manner specified in the SCP and the SWPPP.

ii. Operators are not eligible to obtain authorization under this permit for all new storm water discharges to outstanding national resource waters (ONRWs) (also referred to as "Tier 3: waters). According to the Antidegradation Policy at Paragraph 3 of Subsection A of 20.6.4.8 NMAC, in part, "ONRWs may include, but are not limited to, surface waters of the state within national and state monuments, parks, wildlife refuges, waters of exceptional recreational or ecological significance, and waters identified under the Wild and Scenic Rivers Act." No ONRWs exist at the time this permit is being finalized; however, during the term of the permit, if a receiving water is designated as an ONRW, the operator must obtain an individual permit for storm water discharges from large and small construction activities.

b. Storm water discharges associated with industrial activity to Clean Water Act section 303(d) waters as well as all other "waters of the State" that the New Mexico Environment Department, Surface Waters Quality Bureau (SWQB) has determined to be or may reasonably be expected to be contributing to a violation of a water quality standard and/or that do not comply with the applicable anti-degradation provisions of the State's WQS are not authorized by this permit.

*Note: Upon receipt of this determination, NMED anticipates that, within a reasonable period of time, EPA will notify the general permittee to apply for and obtain an individual NPDES permit for these discharges per 40 CFR Part 122.28(b)(3).*

c. Inspections required under Subpart 3.10 must be conducted at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater. The option for inspections at least once per 7 calendar days is not available. The Inspection Waivers provided in Parts 3.10.B and C still apply.

d. Permittees can not use temporary erosion controls as described in item 3 of the Appendix A definition of "Final Stabilization"as a method for final stabilization under the permit.

e. Signed copies of discharge monitoring reports, individual permit applications, and all other reports required by the permit to be submitted, shall also be sent to:

Program Manager
Point Source Regulation Section
Surface Water Quality Bureau
New Mexico Environment Department
P.O. Box 26110
Santa Fe, NM 87502

2. NMR15000I: Indian country within the State of New Mexico, except Navajo Reservation Lands that are covered under Arizona permit AZR10000I and Ute Mountain Reservation Lands that are covered under Colorado permit COR10000I

a. *Pueblo of Acoma* The following conditions apply only to discharges on the Pueblo of Acoma.

i. A copy of the storm water pollution prevention plan, Notice of Intent, and Notice of Termination must be submitted to the Haaku Water Office at the address below. The pollution prevention plan must be submitted to the Pueblo at least thirty (30) days in advance of submitting the Notice of Intent to EPA.

HAAKU WATER OFFICE
Pueblo of Acoma
P.O. Box 309
Pueblo of Acoma, NM 87034

b. *Pueblo of Isleta* The following conditions apply only to discharges on the Pueblo of Isleta.

i. Subpart 1.3.C.4, (Eligibility, Limitations on Coverage) first sentence, is revised to read: "This permit does not authorize discharges that EPA or the Pueblo of Isleta, prior to authorization under this permit, determines will cause, have the reasonable potential to cause, or contribute to an excursion above any applicable water quality standard or impairment of a designated use of receiving waters."

ii. Subpart 2.4. (Where to Submit) is amended to add the following section (2.4.C):

C. Copies of all Notices of Intent submitted to EPA must also be sent concurrently to the Pueblo of Isleta at the following address. Discharges are not authorized by this permit unless an accurate and complete Notice of Intent has been submitted to the Pueblo of Islet

| Regular U.S. Mail Delivery | OR | Overnight/Express Mail Delivery |
|---|---|---|
| Environment Department<br>Pueblo of Isleta<br>P.O. Box 1270<br>Isleta, NM 87022 | | Environment Department<br>Building L<br>11000 Broadway, SE<br>Albuquerque, NM 87105 |

iii. Part 2 (Authorizations for Discharges of Storm Water from Construction Activity), second sentence, is amended to read: " Discharges are not authorized if your NOI is incomplete or inaccurate, if you failed to submit a copy of the NOI to the Pueblo of Isleta, or if you were never eligible for permit coverage.

iv. Subpart 3.4. (Pollution Prevention Plan Contents: Controls to Reduce Pollutants), section A, last sentence, is amended to read: "For each major activity identified in the project description the SWPPP must clearly describe appropriate control measures, the general sequence during the construction process in which the measures will be implemented, and which operator is responsible for the control measure's implementation and maintenance."

v. Subpart 3.8 (Copy of Permit Requirements), first sentence, is revised to read "Copies of this permit and of the signed and certified NOI form that was submitted to the Pueblo of Isleta and EPA must be included in the SWPPP."

vi. Subpart 3.10.(Inspections), section A is revised to read "Inspections must be conducted at least once every 7 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater."

vii. Subpart 3.10. (Inspections), section G, last paragraph, is amended to add: "Copies of inspection reports that identify incidents of noncompliance shall be sent to Pueblo of Isleta at the address listed in Subpart 2.4.C." (See above)

viii. Subpart 3.12. (Signature, Plan Review and Making Plans Available), section A, first sentence is amended to read: "A copy of the SWPPP (including a copy of the permit) must be retained at the construction site (or other location easily accessible during normal business hours to the Pueblo of Isleta's Environmental Department, EPA, a state, tribal or local agency approving sediment and erosion plans, grading plans, or storm water management plans; local government officials; the operator of a municipal separate storm sewer receiving discharges from the site; and representatives of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service) from the date of commencement of construction activities to the date of final stabilization."

ix. Subpart 3.12. (Signature, Plan Review and Making Plans Available), section C. is amended to read: "SWPPPs must be made available upon request by EPA; representatives of the Pueblo of Isleta Environment Department, a state, tribal or local agency approving sediment and erosion plans, grading plans, or storm water management plans; local government officials; the operator of a municipal separate storm sewer receiving discharges from the site; and representatives of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service to the requestor. The copy of the

SWPPP that is required to be kept on-site or locally available must be made available, in its entirety, to the EPA staff and the Pueblo of Isleta's Environment Department staff for review and copying at the time of an on-site inspection.

x. Subpart 3.13. (Management Practices), section A is amended to add: "Erosion and sediment controls shall be designed to retain sediment on-site."

xi. Subpart 4.3 (Releases in Excess of Reportable Quantities), first bullet is amended to read: "you must provide notice to the Pueblo of Isleta Environment Department (505-869-5748) and the National Response Center (NRC) (800–424–8802; in the Washington, DC, metropolitan area call 202–426–2675) in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117 and 40 CFR Part 302 as soon as site staff have knowledge of the discharge; and"

xii. Subpart 4.5 (Attainment of Water Quality Standards After Authorization), is amended to add the following fourth bullet:

"You must provide the Pueblo of Isleta, at the address listed in Subpart 2.4.C, with a copy of the EPA notification, the supplemental action plan, data and certification required by EPA."

xiii. Subpart 5.3. (Where to Submit) is amended to add the following section (5.3.C):

C. Copies of all Notices of Termination submitted to EPA must also be sent concurrently to the Pueblo of Isleta at the following address.

| Regular U.S. Mail Delivery | OR | Overnight/Express Mail Delivery |
|---|---|---|
| Environment Department<br>Pueblo of Isleta<br>P.O. Box 1270<br>Isleta, NM 87022 | | Environment Department<br>Building L<br>11000 Broadway, SE<br>Albuquerque, NM 87105 |

xiv. Any correspondence, other than NOIs and NOTs, with the Pueblo of Isleta concerning storm water discharges authorized by this permit shall sent one of the addresses in Subpart 5.3.C (see above).

xv. Appendix G, Section 9, first sentence is amended to read:

"You must allow the Pueblo of Isleta's Environment Department, EPA, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:"

xvi. Appendix G, Section 12, subsections A, B, C, F, G and H are amended to require that when you must notify EPA of an event (e.g., planned changes, anticipated noncompliance, transfers, required reporting due to potential adverse effects or environmental impacts or other noncompliance matters), the Pueblo of Isleta must also be notified.

xvii. Parties wishing to apply for an Equivalent Analysis Waiver (see Appendix D, Section C) must provide a copy of the waiver analysis to the Pueblo of Isleta at the address specified in Subpart 5.3.C (See above) at the time it is submitted to EPA.

c. *Pueblo of San Juan.* The following conditions apply only to discharges on the Pueblo of San Juan.

i. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) must be provided to the Pueblo at the time it is provided to the Environmental Protection Agency, at the following address:

Office of Environmental Affairs
Pueblo of San Juan
P.O. Box 717
San Juan, NM 87566

ii. Appendix G, Section 10 (Monitoring and records), item D is amended to add:

"All monitoring must be conducted in accordance with the Pueblo of San Juan's Quality Assurance Project Plan."

d. *Pueblo of Sandia.* The following conditions apply only to discharges on the Pueblo of Sandia.

i. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) must be provided to the Pueblo at the same time it is submitted to the Environmental Protection Agency.

Environment Department
Pueblo of Sandia
Box 6008
Bernalillo, NM 87004

ii. The Storm Water Pollution Prevention Plan must be available to tribal environmental personnel upon request.

iii. You must telephone the Pueblo of Sandia Environment Department at (505) 867-4533 of any noncompliance that may endanger human health or the environment within ten (10) hours of becoming aware of the circumstance.

e. *Santa Clara Pueblo.* The following conditions apply only to discharges on the Santa Clara Pueblo.

i. Copies of the Notice of Intent (NOI) and Notice of Termination (NOT) must be provided to the Santa Clara Pueblo Office of Environmental Affairs at the same time it is submitted to the Environmental Protection Agency.

Santa Clara Pueblo
Office of Environmental Affairs
One Knee Street
P.O. Box 580
Espanola, NM 87532

f. *Pueblo of Tesuque* The following conditions apply only to discharges on the Pueblo of Tesuque.

i. A copy of the storm water pollution prevention plan, Notice of Intent, and Notice of Termination must be submitted to the Pueblo of Tesuque Environment Department at the address below. The Notice of Intent and the Notice of Termination must be submitted at the same time they are submitted to EPA. The pollution prevention plan must be submitted before the project begins. Phone: 505- 983-2667 FAX: 505-982-2331

Pueblo of Tesuque
Environment Department
Rt. 42, Box 360-T
Santa Fe, NM 87506

3. OKR15000F: Discharges in the State of Oklahoma that are not under the authority of the Oklahoma Department of Environmental Quality, including activities associated with oil and gas exploration, drilling, operations, and pipelines (includes SIC Groups 13 and 46, and SIC codes 492 and 5171), and point source discharges associated with agricultural production, services, and silviculture (includes SIC Groups 01, 02, 07, 08, 09).

a. Subpart 1.3.C. (Limitations on Coverage) is modified to add paragraphs 8 and 9 as follows:

"8. For activities located within the watershed of any Oklahoma Scenic River, including the Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork, Little Lee Creek, and Big Lee Creek or an water or watershed designated "ORW" (Outstanding Resource Water) in Oklahoma's Water Quality Standards, this permit may only be used to authorize discharges from temporary construction activities. Discharges from ongoing activities such as sand and gravel mining or any other mineral mining are not authorized.

9. Activities located within the watershed of any Oklahoma Scenic River, including the Illinois River, Flint Creek, Barren Fork Creek, Upper Mountain Fork, Little Lee Creek, and Big Lee Creek or an water or watershed designated "ORW" (Outstanding Resource Water) in Oklahoma's Water Quality Standards, this permit may not be used to authorize discharges from concrete or asphalt batch plants."

D. Region 8

1. MTR10000I: Indian country within the State of Montana

a. Confederated Salish and Kootenai Tribes of the Flathead Nation. The following conditions apply only for projects on the Flathead Indian Reservation:

i. The permittee must send the SWPPP to the Tribes at least 30 days before construction starts. The 30 day period will give Tribal staff time to become familiar with the project site, prepare for construction inspections and determine compliance with Tribal water quality standards, as required by the Tribe's Water Quality Management Ordinance 89B (1990) and Surface Water Quality Standards & Antidegradation Policy (1995). Copies of the SWPPP should be sent to the following address:

Confederated Salish and Kootenai Tribes
Natural Resources Department
Department Head
P.O. Box 278
Pablo, MT 59855

ii. Before submitting the Notice of Termination, permittees must clearly demonstrate to an appointed tribal staff person during an on-site inspection that requirements for site stabilization have been met and all temporary erosion control structures removed. The staff person performing the on-site inspection will be determined by the Environmental Protection Division Manager. The staff person will draft a short letter stating the stabilization requirements have been met to add to the permittees Notice of Termination submission to EPA.

iii. The permittee must send a copy of the Notice of Intent (NOI) and the Notice of Termination (NOT) to the Tribes at the same time that the NOI and NOT is sent to EPA. Copies of the NOI and NOT should be sent to the address above.

b. Fort Peck Tribes - Assiniboine & Sioux. The following conditions apply only for projects within the Fort Peck Indian Reservation:

i. The permittee must send a copy of the Notice of Intent (NOI) and the Notice of Termination (NOT) to the Tribes at the same time that the NOI and NOT is sent to EPA. Copies of the NOI and NOT should be sent to the following address:

Deb Madison
Environmental Program Manager
Fort Peck Assiniboine & Sioux Tribes
P.O. Box 1027
Poplar, MT 59255

E. Region 9

1. ASR100000: The Island of American Samoa

a. Discharges authorized by the general permit shall meet all applicable American Samoa water quality standards.

b. Permittees discharging under the general permit shall comply with all conditions of the permit.

2. AZR10000I: Indian country lands within the State of Arizona, including Navajo Reservation lands in New Mexico and Utah

a. White Mountain Apache Tribe. The following condition applies only for projects on the White Mountain Apache Reservation: All NOIs for proposed storm water discharge coverage shall be provided to the following address:

Tribal Environmental Planning Office
P.O. Box 2109
Whiteriver, AZ 85941

3. NIR100000: Commonwealth of the Northern Mariana Islands (CNMI)

a. An Earthmoving and Erosion Control Permit shall be obtained from the CNMI DEQ prior to any construction activity covered under the NPDES general permit.

b. All conditions and requirements set forth in the USEPA NPDES general permit for discharges from large and small construction must be complied with.

c. A SWPPP for storm water discharges from construction activity must be approved by the Director of the CNMI DEQ prior to the submission of the NOI to USEPA. The CNMI address for the submittal of the SWPPP for approval is:

Commonwealth of the Northern Mariana Islands
Office of the Governor
Director, Division of Environmental Quality (DEQ)
P.O. Box 501304 C.K.
Saipan, MP 96950-1304

d. An NOI to be covered by the general permit for discharges from large and small construction sites must be submitted to CNMI DEQ (use above address) and USEPA, Region 9, in the form prescribed by USEPA, accompanied by a SWPPP approval letter from CNMI DEQ.

e. The NOI must be postmarked seven (7) calendar days prior to any storm water discharges and a copy must be submitted to the Director of CNMI DEQ (use above address) no later than seven (7) calendar days prior to any stormwater discharges.

f. Copies of all monitoring reports required by the NPDES general permit must be submitted to CNMI DEQ (use above address).

g. In accordance with section 10.3(h) and (i) of the CNMI water quality standards, CNMI DEQ reserves the right to deny coverage under the general permit and to require submittal of an application for an individual NPDES permit based on a review of the NOI or other information made available to the Director.

F. Region 10

1. AKR100000: The State of Alaska, except Indian country

a. Operators of construction projects disturbing five or more acres occurring outside the Municipality of Anchorage must submit a copy of the Storm Water Pollution Prevention Plan (SWPPP) and a copy of the Notice of Intent (NOI) to the State of Alaska Department of Environmental Conservation (ADEC) for review, and shall be accompanied by the state-required fee of $400. Submittal of the SWPPP and the NOI to the ADEC should be made at the same time the NOI is submitted to the EPA.

b. Operators of publicly-funded projects disturbing five or more acres occurring within the Municipality of Anchorage must submit a copy of the SWPPP and a copy of the NOI to the ADEC for review, and shall be accompanied by the state-required fee of $400. Submittal of the SWPPP and the NOI to the ADEC should be made at the same time the NOI is submitted to the EPA.

c. Operators of construction projects disturbing at least one acre and less than five acres must submit a copy of the NOI to the ADEC at the same time it is submitted to the EPA.

d. Storm Water Pollution Prevention Plans and Notices of Intent must be submitted to ADEC at the following address:

Alaska Department of Environmental Conservation
Water Quality Permitting/Storm Water
555 Cordova Street
Anchorage, Alaska 99501

e. Operators of private construction projects disturbing one or more acres within the Municipality of Anchorage shall submit a copy of the Storm Water Pollution Prevention Plan to the Municipality at the following address:

Municipality of Anchorage, Office of Planning Development and Public Works
4700 S. Bragaw Street
P.O. Box 196650
Anchorage, Alaska 99519-6650

f. Submittal of the SWPPP to the Municipality of Anchorage should be made before or at the same time the NOI is submitted to the EPA and the ADEC and shall be accompanied by any Municipality-required fee.

2. IDR100000: The State of Idaho, except Indian country

   a. Any construction related storm water discharges to impaired water bodies on Idaho's Clean Water Act (CWA) Section 303(d) list with EPA-approved Total Maximum Daily Loads (TMDL) must be consistent with any load allocations established by the applicable TMDL.

   b. No net increase of listed pollutants is allowed in any construction related storm water discharges to an impaired water body considered "high priority" as included on Idaho's CWA Section 303(d) list that does not yet have an EPA-approved TMDL.

   c. If a TMDL has not been established for an impaired water body considered "medium priority" or "low priority" as included on Idaho's CWA Section 303(d) list, BMPs shall be employed as necessary to prohibit further impairment of the designated or existing beneficial uses.

   d. Only BMPs authorized by the appropriate designated agency as defined in the Idaho Water Quality Standards and Wastewater Treatment Requirements (IDAPA 58.01.02 et seq.), or otherwise approved by the Idaho Department of Environmental Quality, will be allowed.

   e. Use of the "Equivalent Analysis Waiver" in Addendum D is not authorized.

   f. Operators may contact the Idaho Department of Environmental Quality regional office nearest the construction activity for more information about impaired waterways:

Boise Regional Office:
1445 N. Orchard
Boise ID 83706-2239
Tel: (208)373-0550
Fax: (208)373-0287

Cascade Satellite Office:
109 N. Main St., PO Box 247
Cascade, ID 83611
Tel: (208)382-6808
Fax: (208)382-3327

Coeur d'Alene Regional Office:
2110 Ironwood Parkway
Coeur d'Alene ID 83814
Tel: (208)769-1422
Fax: (208)769-1404

Grangeville Satellite Office:
300 W. Main
Grangeville ID 83530
Tel: (208)983-0808
Fax: (208)983-2873

Idaho Falls Regional Office:
900 N. Skyline, Suite B
Idaho Falls, ID 83402
Tel: (208)528-2650
Fax: (208)528-2695

Lewiston Regional Office:
1118 "F" Street
Lewiston, ID 83501
Tel: (208)799-4370
Toll Free: 1-877-541-3304
Fax: (208)799-3451

Pocatello Regional Office:
444 Hospital Way #300
Pocatello ID 83201
Tel: (208)236-6160
Fax: (208)236-6168

Twin Falls Regional Office:
601 Pole Line Road, Suite 2
Twin Falls, ID 83301
Tel: (208)736-2190
Fax: (208)736-2194

3. ORR10000I: Indian country within the State of Oregon, except Fort McDermitt Reservation lands (see Region 9):

   a. Confederated Tribes of the Umatilla Indian Reservation. The following conditions apply only for projects within the exterior boundaries of the Umatilla Indian Reservation:

      i. The operator shall be responsible for achieving compliance with the Confederated Tribes of the Umatilla Indian Reservation's (CTUIR) Water Quality Standards.

      ii. The operator shall submit all Erosion Control and/or Storm Water Pollution Prevention Plans to the CTUIR Water Resources Program for review and approval by the Department of Natural Resources Director prior to submitting the Notice of Intent to EPA and prior to beginning any discharge activities.

      iii. The operator shall contact the CTUIR Tribal Historic Preservation Office (THPO) prior to beginning any construction activities to determine whether a cultural resource survey of the project area or other investigation is required. All cultural resource fieldwork must be conducted by qualified personnel and documented using Oregon Reporting Standards. The resulting report must be submitted to the THPO for concurrence at least 30 days before any ground disturbing work can occur at the site. The operator must obtain THPO concurrence in the form of a letter, which (if necessary) will include any measures that must be taken to prevent or mitigate adverse effects to potentially eligible historic properties, prior to any ground disturbing work.

      iv. The operator shall submit copies of the Notice of Intent to the CTUIR Water Resources Program and the CTUIR Tribal Historic Preservation Office at the same time it is submitted to EPA.

v. Erosion Control and Storm Water Pollution Prevention Plans and Notices of Intent shall be submitted to:

Confederated Tribes of the Umatilla Indian Reservation
Water Resources Program
P.O. Box 638
Pendleton, OR 97801
(541) 276-3447

Confederated Tribes of the Umatilla Indian Reservation
Cultural Resources Protection Program
Tribal Historic Preservation Office
P.O. Box 638
Pendleton, OR 97801
(541) 276-3629

b. Confederated Tribes of Warm Springs. The following conditions apply only for projects on the Warm Springs Indian Reservation:

i. All activities covered by this NPDES general permit occurring within a designated riparian buffer zone as established in Ordinance 74 (Integrated Resource Management Plan or IRMP) must be reviewed, approved and permitted through the Tribe's Hydraulic Permit Application process, including payment of any applicable fees.

ii. All activities covered by this NPDES general permit must follow all applicable land management and resource conservation requirements specified in the IRMP.

iii. Operators of activities covered by this NPDES general permit must submit a Storm Water Pollution Prevention Plan to the Tribe's Water Control Board at the following address for approval at least 30 days prior to beginning construction activity:

Chair, Warm Springs Water Control Board
P.O. Box C
Warm Springs, Oregon 97761

4. WAR10000F: Federal Facilities in the State of Washington, except those located on Indian Country

The following conditions apply to stormwater discharges from all permitted construction sites which disturb one acre or more and which discharge to surface waters (40 CFR part 122.26(b)(14)(x) and 122.26 (b)(15)):

a. Discharges must not cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC), sediment management standards (Chapter 173-204 WAC), ground water quality standards (Chapter 173-200 WAC), and human health-based criteria in the National Toxics Rule (Federal Register, Vol. 57, No. 246, Dec. 22, 1992, pages 60848-60923). Discharges that are not in compliance with these standards are not authorized.

b. You must apply all known available and reasonable methods of prevention, control and treatment (AKART), including the preparation and implementation of an adequate Stormwater Pollution Prevention Plan (SWPPP), with all appropriate BMPs installed and maintained in accordance with the SWPPP and the terms and conditions of this permit.

c. Stormwater BMPs must be properly designed, constructed, maintained and operated to:

i. Prevent pollution of state waters and protect water quality, including compliance with applicable state water quality standards;

ii. Satisfy state requirements for all known available and reasonable methods of prevention, control and treatment (AKART) of wastes (including construction stormwater runoff) prior to discharge to waters of the state; and

iii. Satisfy the federal technology-based treatment requirements under 40 CFR part 125.3.

d. You must document the technical basis for the design criteria used to select and design your stormwater management BMPs. You must document within your Stormwater Pollution Prevention Plan (SWPPP) how stormwater BMPs were selected, the pollutant removal performance expected from the BMP being selected, the technical basis (scientific, technical studies, and/or modeling) which support the performance claims for the BMPs being selected, and an assessment of how the selected BMP will

comply with state water quality standards, satisfy the state AKART requirements, and satisfy the federal technology-based treatment requirements.

If you choose to follow the stormwater management practices contained in stormwater technical manuals approved by Washington State, including the proper selection, implementation and maintenance of appropriate BMPs, you are presumed to have satisfied this demonstration requirement and do not need to include within the SWPPP the technical basis which support the performance claims for the BMPs being used. The SWPPP must include a reference to the manual used. Approved stormwater technical manuals include:

i. Stormwater Management Manual for Western Washington, August 2001, for sites west of the crest of the Cascade Mountains;

ii. Stormwater Management Manual for Eastern Washington, (completion expected in the fall of 2003) for sites east of the crest of the Cascade Mountains; or

iii. Other equivalent stormwater management guidance documents approved by Ecology.

e. Stormwater discharges from construction sites which disturb 5 acres or more (40 CFR part 122.26(b)(14)(x)) and which discharge to surface waters listed as impaired by the state under Section 303(d) of the Clean Water Act for turbidity, fine sediment, high pH, and/or phosphorus are subject to an effluent limitation that is equal to the applicable water quality standards at the point of discharge. If impairment is due to turbidity and/or fine sediment, the turbidity at the point of discharge shall not exceed the background (upstream) turbidity of the receiving water.

i. Effluent limitations apply to direct discharges to listed waterbodies as well as indirect discharges via a stormwater conveyance system.

ii. All references and requirements associated with Section 303(d) of the Clean Water Act shall use the most current listing by Ecology of impaired waters that exists at the time of application for coverage under this permit

f. Stormwater discharges from construction sites which disturb 5 acres or more (40 CFR part 122.26(b)(14)(x)) and which discharge to surface waters for which there is a total maximum daily load (TMDL) allocation or other control plan that addresses sediment (including turbidity, fine sediment, total suspended solids or siltation), high pH, or phosphorus must be consistent with the requirements in the approved TMDL or applicable control plan. Control plans may be total maximum daily load (TMDL) determinations, restrictions for the protection of endangered species, ground water management plans, or other limitations that regulate or set limits on discharges to a specific waterbody or groundwater recharge area.

Information on impaired waterways is available from the Department of Ecology web site at: http://www.ecy.wa.gov/programs/wq/stormwater. You may also contact the Department of Ecology for more information about impaired waterways at:

Mailing Address:
Department of Ecology
Stormwater Unit
PO Box 47600
Olympia, WA 98504-7600
Phone: 360-407-6000

Physical Address:
Department of Ecology
300 Desmond Drive
Lacey, WA 98503
Phone: 360-407-6000

5. WAR10000I: Indian country within the State of Washington

a. Puyallup Tribe of Indians. The following conditions apply only for projects on the Puyallup Reservation:

i. Each operator shall be responsible for achieving compliance with the Puyallup Tribe's Water Quality Standards.

ii. Each operator shall submit all Pollution Prevention Plans to the Puyallup Tribe Environmental Department for review and approval prior to beginning any discharge activities.

iii. Each operator shall submit a copy of the Notice of Intent to the Puyallup Tribal Environmental Department at the same time it is submitted to EPA.

iv. Storm Water Pollution Prevention Plans and Notices of Intent shall be submitted to:

Puyallup Tribe Natural Resources, Environmental Department
1850 Alexander Avenue
Tacoma, WA 98421

b. Confederated Tribes of the Chehalis Reservation. The following conditions apply only for projects on the Chehalis Reservation:

i. The operator shall be responsible for achieving compliance with the Chehalis Tribe's Water Quality Standards.

ii. The operator shall submit a Storm Water Pollution Prevention Plan to the Chehalis Tribe Department of Natural Resources for review and approval at least thirty (30) days prior to beginning any discharge activities.

iii. The operator shall submit a copy of the Notice of Intent to the Chehalis Tribe Department of Natural Resources at the same time it is submitted to EPA.

iv. Storm Water Pollution Prevention Plans and Notices of Intent shall be submitted to:

Chehalis Tribe Department of Natural Resources
420 Howanut Road
Oakville, WA 98568

## Appendix A - Definitions and Acronyms

### Definitions

"Arid Areas" means areas with an average annual rainfall of 0 to 10 inches.

"Best Management Practices" (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the United States. BMPs also include treatment requirements, operating procedures, and practice to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Commencement of Construction Activities" means the initial disturbance of soils associated with clearing, grading, or excavating activities or other construction-related activities (e.g., stockpiling of fill material).

"Control Measure" as used in this permit, refers to any BMP or other method used to prevent or reduce the discharge of pollutants to waters of the United States.

"CWA" means the Clean Water Act or the Federal Water Pollution Control Act, 33 U.S.C. section 1251 et seq.

"Discharge" when used without qualification means the "discharge of a pollutant."

"Discharge of Storm Water Associated with Construction Activity" as used in this permit, refers to a discharge of pollutants in storm water from areas where soil disturbing activities (e.g., clearing, grading, or excavation), construction materials or equipment storage or maintenance (e.g., fill piles, borrow area, concrete truck washout, fueling), or other industrial storm water directly related to the construction process (e.g., concrete or asphalt batch plants) are located.

"Eligible" means qualified for authorization to discharge storm water under this general permit.

"Facility" or "Activity" means any "point source" or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the NPDES program.

"Federal Facility" means any buildings, installations, structures, land, public works, equipment, aircraft, vessels, and other vehicles and property, owned by, or constructed or manufactured for the purpose of leasing to, the Federal government.

"Final Stabilization" means that:

1. All soil disturbing activities at the site have been completed and either of the two following criteria are met:
   a. a uniform (e.g,, evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or
   b. equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.
2. When background native vegetation will cover less than 100 percent of the ground (e.g., arid areas, beaches), the 70 percent coverage criteria is adjusted as follows: if the native vegetation covers 50 percent of the ground, 70 percent of 50 percent (0.70 X 0.50 = 0.35) would require 35 percent total cover for final stabilization. On a beach with no natural vegetation, no stabilization is required.
3. In arid and semi-arid areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:
   a. Temporary erosion control measures (e.g., degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by you,
   b. The temporary erosion control measures are selected, designed, and installed to achieve 70 percent vegetative coverage within three years.
4. For individual lots in residential construction, final stabilization means that either:
   a. The homebuilder has completed final stabilization as specified above, or

b. The homebuilder has established temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for, and benefits of, final stabilization.

5. For construction projects on land used for agricultural purposes (e.g., pipelines across crop or range land, staging areas for highway construction, etc.), final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to "water of the United States," and areas which are not being returned to their preconstruction agricultural use must meet the final stabilization criteria (1) or (2) or (3) above.

"Indian country" is defined at 40 CFR §122.2 to mean:

1. All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation;
2. All dependent Indian communities with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and
3. All Indian allotments, the Indian titles to which have not been extinquished, including rights-of-ways running through the same.

"Large Construction Activity" is defined at 40 CFR §122.26(b)(14)(x) and incorporated here by reference. A large construction activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than five acres of land or will disturb less than five acres of total land area but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than five acres. Large construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site.

"Municipal Separate Storm Sewer System" or "MS4" is defined at 40 CFR §122.26(b)(8) to mean a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

1. Owned and operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States;
2. Designed or used for collecting or conveying storm water;
3. Which is not a combined sewer; and
4. Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR §122.2.

"New Project" means the "commencement of construction activities" occurs after the effective date of this permit.

"Ongoing Project" means the "commencement of construction activities" occurs before the effective date of this permit.

"Operator" for the purpose of this permit and in the context of storm water associated with construction activity, means any party associated with a construction project that meets either of the following two criteria:

1. The party has operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
2. The party has day-to-day operational control of those activities at a project which are necessary to ensure compliance with a SWPPP for the site or other permit conditions (e.g., they are authorized to direct workers at a site to carry out activities required by the SWPPP or comply with other permit conditions). This definition is provided to inform permittees of EPA's interpretation of how the regulatory definitions of "owner or operator" and "facility or activity" are applied to discharges of storm water associated with construction activity.

"Owner or operator" means the owner or operator of any "facility or activity" subject to regulation under the NPDES program.

"Permitting Authority" means the United States Environmental Protection Agency, EPA, a Regional Administrator of the Environmental Protection Agency or an authorized representative.

"Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

"Pollutant" is defined at 40 CFR §122.2. A partial listing from this definition includes: dredged spoil, solid waste, sewage, garbage, sewage sludge, chemical wastes, biological materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial or municipal waste.

"Project Area" means:

- The areas on the construction site where storm water discharges originate and flow toward the point of discharge into the receiving waters (including areas where excavation, site development, or other ground disturbance activities occur) and the immediate vicinity. (Example: 1. Where bald eagles nest in a tree that is on or bordering a construction site and could be disturbed by the construction activity or where grading causes storm water to flow into a small wetland or other habitat that is on the site that contains listed species.)
- The areas where storm water discharges flow from the construction site to the point of discharge into receiving waters. (Example: Where storm water flows into a ditch, swale, or gully that leads to receiving waters and where listed species (such as amphibians) are found in the ditch, swale, or gully.)
- The areas where storm water from construction activities discharge into receiving waters and the areas in the immediate vicinity of the point of discharge. (Example: Where storm water from construction activities discharges into a stream segment that is known to harbor listed aquatic species.)
- The areas where storm water BMPs will be constructed and operated, including any areas where storm water flows to and from BMPs. (Example: Where a storm water retention pond would be built.)
- The areas upstream and /or downstream from construction activities discharges into a stream segment that may be affected by the said discharges. (Example: Where sediment discharged to a receiving stream settles downstream and impacts a breeding area of a listed aquatic species.)

"Receiving water" means the "Water of the United States" as defined in 40 CFR §122.2 into which the regulated storm water discharges.

"Runoff coefficient" means the fraction of total rainfall that will appear at the conveyance as runoff.

"Semi-Arid Areas" means areas with an average annual rainfall of 10 to 20 inches.

"Site" means the land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity.

"Small Construction Activity" is defined at 40 CFR §122.26(b)(15) and incorporated here by reference. A small construction activity includes clearing, grading, and excavating resulting in a land disturbance that will disturb equal to or greater than one (1) acre and less than five (5) acres of land or will disturb less than one (1) acre of total land area but is part of a larger common plan of development or sale that will ultimately disturb equal to or greater than one (1) acre and less than five (5) acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site.

"Storm Water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

"Storm Water Discharge-Related Activities" as used in this permit, include: activities that cause, contribute to, or result in storm water point source pollutant discharges, including but not limited to: excavation, site development, grading and other surface disturbance activities; and measures to control storm water including the siting, construction and operation of BMPs to control, reduce or prevent storm water pollution.

"Total Maximum Daily Load" or "TMDL" means the sum of the individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background. If a receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure.

"Waters of the United States" is as defined at 40 CFR §122.2.

"Wetland" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

**ACRONYMS**

BMP - Best Management Practices

CGP - Construction General Permit

CFR - Code of Federal Regulations

CWA - Clean Water Act

EPA - United States Environmental Protection Agency

ESA - Endangered Species Act

FWS - United States Fish and Wildlife Service

MS4 - Municipal Separate Storm Sewer System

MSGP - Multi-Sector General Permit

NHPA - National Historic Preservation Act

NMFS - United States National Marine Fisheries Service

NOI - Notice of Intent

NOT - Notice of Termination

NPDES - National Pollutant Discharge Elimination System

POTW - Publicly Owned Treatment Works

SHPO - State Historic Preservation Officer

SWPPP - Storm Water Pollution Prevention Plan

THPO - Tribal Historic Preservation Officer

TMDL - Total Maximum Daily Load

WQS - Water Quality Standard

## Appendix B - Permit Areas Eligible for Coverage

Permit coverage for storm water discharges from construction activity occurring within the following areas is provided by legally separate and distinctly numbered permits:

### 1. EPA Region 1: CT, MA, ME, NH, RI, VT

US EPA, Region 01
Office of Ecosystem Protection
NPDES Storm Water Program
1 Congress St, Suite 1100 (CMU)
Boston, MA 02114-2023

The States of Connecticut, Maine, Rhode Island, and Vermont are the NPDES Permitting Authority for the majority of discharges within their respective states.

| Permit No. | Areas of Coverage/Where EPA is Permitting Authority |
|---|---|
| **MAR100000** | Commonwealth of Massachusetts (except Indian country) |
| **MAR10000I** | Indian country within the State of Massachusetts |
| **CTR10000I** | Indian country within the State of Connecticut |
| **NHR100000** | State of New Hampshire |
| **RIR10000I** | Indian country within the State of Rhode Island |
| **VTR10000F** | Federal Facilities in the State of Vermont |

### 2. EPA Region 2: NJ, NY, PR, VI

For NJ, NY, and VI:

US EPA, Region 02
NPDES Storm Water Program
290 Broadway, 24th Floor
New York, NY 10007-1866

For PR:

US EPA, Region 02
Caribbean Environmental Protection Division
NPDES Storm Water Program
1492 Ponce de Leon Ave
Central Europa Building, Suite 417
San Juan, PR 00907-4127

The State of New York is the NPDES Permitting Authority for the majority of discharges within its state. The State of New Jersey and the Virgin Islands are the NPDES Permitting Authority for all discharges within their respective states.

| Permit No. | Areas of Coverage/Where EPA is Permitting Authority |
|---|---|
| **NYR10000I** | Indian country within the State of New York |
| **PRR100000** | The Commonwealth of Puerto Rico |

### 3. EPA Region 3: DE, DC, MD, PA, VA, WV

US EPA, Region 03
NPDES Storm Water Program
1650 Arch St
Philadelphia, PA 19103

The State of Delaware is the NPDES Permitting Authority for the majority of discharges within its state. Maryland, Pennsylvania, Virginia, and West Virginia are the NPDES Permitting Authority for all discharges within their respective states.

| Permit No. | Areas of Coverage/Where EPA is Permitting Authority |
|---|---|
| **DCR100000** | The District of Columbia |
| **DER10000F** | Federal Facilities in the State of Delaware |

### 4. EPA Region 4: AL, FL, GA, KY, MS, NC, SC, TN

US EPA, Region 04
Water Management Division
NPDES Storm Water Program
61 Forsyth St SW
Atlanta, GA 30303-3104

Coverage Not Available. Construction activities in Region 4 must obtain permit coverage under an alternative permit.

### 5. EPA Region 5: IL, IN, MI, MN, OH, WI

US EPA, Region 05
NPDES & Technical Support
NPDES Storm Water Program
77 W Jackson Blvd
(WN-16J)
Chicago, IL 60604-3507

The States of Michigan, Minnesota, and Wisconsin are the NPDES Permitting Authority for the majority of discharges within their respective states. The States of Illinois, Indiana, and Ohio are the NPDES Permitting Authorities for all discharges within their respective states.

| Permit No. | Areas of coverage/where EPA is Permitting Authority |
|---|---|
| **MIR10000I** | Indian country within the State of Michigan |
| **MNR10000I** | Indian country within the State of Minnesota |
| **WIR10000I** | Indian country within the State of Wisconsin, except the Sokaogon Chippewa (Mole Lake) Community. |

**6. EPA Region 6: AR, LA, OK, TX, NM (except see Region 9 for Navajo lands, and see Region 8 for Ute Mountain Reservation lands)**

US EPA, Region 06
NPDES Storm Water Program
1445 Ross Ave, Suite 1200
Dallas, TX 75202-2733

The States of Louisiana, Oklahoma, and Texas are the NPDES Permitting Authority for the majority of discharges within their respective state. The State of Arkansas is the NPDES Permitting Authority for all discharges within its respective state.

| Permit No. | Areas of coverage/where EPA is Permitting Authority |
|---|---|
| **LAR15000I** | Indian country within the State of Louisiana |
| **NMR150000** | The State of New Mexico, except Indian country |
| **NMR15000I** | Indian country within the State of New Mexico, except Navajo Reservation Lands that are covered under Arizona permit AZR10000I and Ute Mountain Reservation Lands that are covered under Colorado permit COR10000I. |
| **OKR15000I** | Indian country within the State of Oklahoma |
| **OKR15000F** | Discharges in the State of Oklahoma that are not under the authority of the Oklahoma Department of Environmental Quality, including activities associated with with oil and gas exploration, drilling, operations, and pipelines (includes SIC Groups 13 and 46, and SIC codes 492 and 5171), and point source discharges associated with agricultural production, services, and silviculture (includes SIC Groups 01, 02, 07, 08, 09). |
| **TXR15000F** | Discharges in the State of Texas that are not under the authority of the Texas Commission on Environmental Quality (formerly TNRCC), including activities associated with the exploration, development, or production of oil or gas or geothermal resources, including transportation of crude oil or natural gas by pipeline. |
| **TXR15000I** | Indian country within the State of Texas. |

**7. EPA Region 7: IA, KS, MO, NE (except see Region 8 for Pine Ridge Reservation Lands)**

US EPA, Region 07
NPDES Storm Water Program
901 N 5th St
Kansas City, KS 66101

The States of Iowa, Kansas, and Nebraska are the NPDES Permitting Authority for the majority of discharges within their respective states. The State of Missouri is the NPDES Permitting Authority for all discharges within its state.

| Permit No. | Areas of coverage/where EPA is Permitting Authority |
|---|---|
| **IAR10000I** | Indian country within the State of Iowa |
| **KSR10000I** | Indian country within the State of Kansas |
| **NER10000I** | Indian country within the State of Nebraska, except Pine Ridge Reservation lands (see Region 8) |

**8. EPA Region 8: CO, MT, ND, SD, WY, UT (except see Region 9 for Goshute Reservation and Navajo Reservation Lands), the Ute Mountain Reservation in NM, and the Pine Ridge Reservation in NE.**

US EPA, Region 08
NPDES Storm Water Program
999 18th St, Suite 300
(EPR-EP)
Denver, CO 80202-2466

The States of Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming are the NPDES Permitting Authority for the majority of discharges within their respective states.

| Permit No. | Areas of coverage/where EPA is Permitting Authority |
|---|---|
| **COR10000F** | Federal Facilities in the State of Colorado, except those located on Indian country |
| **COR10000I** | Indian country within the State of Colorado, as well as the portion of the Ute Mountain Reservation located in New Mexico |
| **MTR10000I** | Indian country within the State of Montana |
| **NDR10000I** | Indian country within the State of North Dakota, as well as that portion of the Standing Rock Reservation located in South Dakota (except for the portion of the lands within the former boundaries of the Lake Traverse Reservation which is covered under South Dakota permit SDR10000I listed below) |
| **SDR10000I** | Indian country within the State of South Dakota, as well as the portion of the Pine Ridge Reservation located in Nebraska and the portion of the lands within the former boundaries of the Lake Traverse Reservation located in North Dakota (except for the Standing Rock Reservation which is covered under North Dakota permit NDR10000I listed above) |
| **UTR10000I** | Indian country within the State of Utah, except Goshute and Navajo Reservation lands (see Region 9) |
| **WYR10000I** | Indian country within the State of Wyoming |

**9. EPA Region 9: CA, HI, NV, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, the Goshute Reservation in UT and NV, the Navajo Reservation in UT, NM, and AZ, the Duck Valley Reservation in ID, and the Fort McDermitt Reservation in OR.**

US EPA, Region 09
NPDES Storm Water Program
75 Hawthorne St
San Francisco, CA 94105-3901

The States of Arizona, California and Nevada are the NPDES Permitting Authority for the majority of discharges within their respective states. The State of Hawaii is the NPDES Permitting Authority for all discharges within its state.

| Permit No. | Areas of coverage/where EPA is Permitting Authority |
|---|---|
| **ASR100000** | The Island of American Samoa |
| **AZR10000I** | Indian country within the State of Arizona, as well as Navajo Reservation lands in New Mexico and Utah |
| **CAR10000I** | Indian country within the State of California |
| **GUR100000** | The Island of Guam |
| **JAR100000** | Johnston Atoll |
| **MWR100000** | Midway Island and Wake Island |
| **NIR100000** | Commonwealth of the Northern Mariana Islands |
| **NVR10000I** | Indian country within the State of Nevada, as well as the Duck Valley Reservation in Idaho, the Fort McDermitt Reservation in Oregon and the Goshute Reservation in Utah |

**10. EPA Region 10: AK, WA, ID (except see Region 9 for Duck Valley Reservation Lands), and OR (except see Region 9 for Fort McDermitt Reservation).**

US EPA, Region 10
NPDES Storm Water Program
1200 6th Ave (OW-130)
Seattle, WA 98101-1128
Phone: (206) 553-6650

The States of Oregon and Washington are the NPDES Permitting Authority for the majority of discharges within their respective states.

| Permit No. | Areas of coverage/where EPA is Permitting Authority |
|---|---|
| **AKR100000** | The State of Alaska, except Indian country |
| **AKR10000I** | Indian country within the state of Alaska |
| **IDR100000** | The State of Idaho, except Indian country |
| **IDR10000I** | Indian country within the State of Idaho, except Duck Valley Reservation lands (see Region 9) |
| **ORR10000I** | Indian country within the State of Oregon, except Fort McDermitt Reservation lands (see Region 9) |
| **WAR10000F** | Federal Facilities in the State of Washington, except those located on Indian country |
| **WAR10000I** | Indian country within the State of Washington |

**Appendix C - Endangered Species Act Review Procedures**

You must meet at least one of the six criteria in Subpart 1.3.C.6 to be eligible for coverage under this permit. You must follow the procedures in this Appendix to assess the potential effects of storm water discharges and storm water discharge-related activities on listed species and their critical habitat. When evaluating these potential effects, operators must evaluate the entire project area.

For purposes of this Appendix, the term "project area" is inclusive of the term "Action Area." Action area is defined in 50 CFR §402.02 as all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action. This includes areas beyond the footprint of the construction area that may be affected by storm water discharges and storm water discharge related activities. "Project area" is defined in Appendix A.

(Operators who are eligible and able to certify eligibility under Criterion B, C, D, or F of Subpart 1.3.C.6 because of a previously issued ESA section 10 permit, a previously completed ESA section 7 consultation, or because the operator's activities were already addressed in another operator's certification of eligibility may proceed directly to Step Four.)

**Step One: Determine if Listed Threatened or Endangered Species are Present On or Near Your Project Area**

You must determine, to the best of your knowledge, whether listed species are located on or near your project area. To make this determination, you should:

- Determine if listed species are in your county or township. The local offices of the U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), and State or Tribal Heritage Centers often maintain lists of federally listed endangered or threatened species on their internet sites. Visit www.epa.gov/npdes/stormwater/cgp to find the appropriate site for your state or check with your local office. In most cases, these lists allow you to determine if there are listed species in your county or township.
- If there are listed species in your county or township, check to see if critical habitat has been designated and if that area overlaps or is near your project area.
- Contact your local FWS, NMFS, or State or Tribal Heritage Center to determine if the listed species could be found on or near your project area and if any critical habitat areas have been designated that overlap or are near your project area. Critical habitat areas maybe designated independently from the listed species for your county, so even if there are no listed species in your county or township, you must still contact one of the agencies mentioned above to determine if there are any critical habitat areas on or near your project area.

You can also find critical habitat designations and associated requirements at 50 CFR Parts 17 and 226. http://www.access.gpo.gov.

- If there are no listed species in your county or township, no critical habitat areas on or near your project area, or if your local FWS, NMFS, or State or Tribal Heritage Center indicates that listed species are not a concern in your part of the county or township, you may check box A on the Notice of Intent Form.
- If there are listed species and if your local FWS, NMFS, or State or Tribal Heritage Center indicates that these species could exist on or near your project area, you will need to do one or more of the following:
    - Conduct visual inspections: This method may be particularly suitable for construction sites that are smaller in size or located in non-natural settings such as highly urbanized areas or industrial parks where there is little or no natural habitat, or for construction activities that discharge directly into municipal storm water collection systems.
    - Conduct a formal biological survey. In some cases, particularly for larger construction sites with extensive storm water discharges, biological surveys may be an appropriate way to assess whether species are located on or near the project area and whether there are likely adverse effects to such species. Biological surveys are frequently performed by environmental consulting firms. A biological survey may in some cases be useful in conjunction with Steps Two, Three, or Four of these instructions.
    - Conduct an environmental assessment under the National Environmental Policy Act (NEPA). Such reviews may indicate if listed species are in proximity to the project area. Coverage under the CGP does not trigger such a review because the CGP does not regulate new sources (that is, dischargers subject to New Source Performance Standards under section 306 of the Clean Water Act), and is thus statutorily

exempted from NEPA. See CWA section 511(c). However, some construction activities might require review under NEPA for other reasons such as federal funding or other federal involvement in the project.

If listed threatened or endangered species or critical habitat are present in the project area, you must look at impacts to species and/or habitat when following Steps Two through Four. Note that many but not all measures imposed to protect listed species under these steps will also protect critical habitat. Thus, meeting the eligibility requirements of this CGP may require measures to protect critical habitat that are separate from those to protect listed species.

**Step Two: Determine if the Construction Activity's Storm Water Discharges or Storm Water Discharge-Related Activities Are Likely to Adversely Affect Listed Threatened or Endangered Species or Designated Critical Habitat**

To receive CGP coverage, you must assess whether your storm water discharges or storm water discharge-related activities is likely to adversely affect listed threatened or endangered species or designated critical habitat that are present on or near your project area.

Potential adverse effects from storm water discharges and storm water discharge-related activities include:

- *Hydrological.* Storm water discharges may cause siltation, sedimentation or induce other changes in receiving waters such as temperature, salinity or pH. These effects will vary with the amount of storm water discharged and the volume and condition of the receiving water. Where a storm water discharge constitutes a minute portion of the total volume of the receiving water, adverse hydrological effects are less likely. Construction activity itself may also alter drainage patterns on a site where construction occurs that can impact listed species or critical habitat.
- *Habitat.* Excavation, site development, grading, and other surface disturbance activities from construction activities, including the installation or placement of storm water BMPs, may adversely affect listed species or their habitat. Storm water may drain or inundate listed species habitat.
- *Toxicity.* In some cases, pollutants in storm water may have toxic effects on listed species.

The scope of effects to consider will vary with each site. If you are having difficulty determining whether your project is likely to adversely affect listed species or critical habitat, or one of the Services has already raised concerns to you, you must contact the appropriate office of the FWS, NMFS or Natural Heritage Center for assistance. If adverse effects are not likely, then you may check box E on the NOI form and apply for coverage under the CGP. If the discharge may adversely effect listed species or critical habitat, you must follow Step Three.

**Step Three: Determine if Measures Can Be Implemented to Avoid Adverse Effects**

If you make a preliminary determination that adverse effects are likely to occur, you can still receive coverage under Criterion E of Subpart 1.3.C.6 of the CGP if appropriate measures are undertaken to avoid or eliminate the likelihood of adverse effects prior to applying for CGP coverage. These measures may involve relatively simple changes to construction activities such as re-routing a storm water discharge to bypass an area where species are located, relocating BMPs, or by changing the "footprint" of the construction activity. You should contact the FWS and/or NMFS to see what appropriate measures might be suitable to avoid or eliminate the likelihood of adverse impacts to listed species and/or critical habitat. (See 50 CFR §402.13(b)). This can entail the initiation of informal consultation with the FWS and/or NMFS (described in more detail in Step Four).

If you adopt measures to avoid or eliminate adverse affects, you must continue to abide by those measures for the duration of the construction project and coverage under the CGP. These measures must be described in the SWPPP and are enforceable CGP conditions and/or conditions for meeting the eligibility criteria in Subpart 1.3. If appropriate measures to avoid the likelihood of adverse effects are not available, you must follow Step Four.

**Step Four: Determine if the Eligibility Requirements of Criterion B, C, D, or F of Subpart 1.3.C.6 Can Be Met**

Where adverse effects are likely, you must contact the FWS and/or NMFS. You may still be eligible for CGP coverage if any likely adverse effects can be addressed through meeting Criterion B, C, D, or F of Subpart 1.3.C.6 of the CGP. These criteria are as follows:

1. *An ESA Section 7 Consultation Is Performed for Your Activity (See Criterion B or C of Subpart 1.3.C.6 of the CGP).*

Formal or informal ESA section 7 consultation is performed with the FWS and/or NMFS that addresses the effects of your storm water discharges and storm water discharge-related activities on federally-listed and threatened

species and designated critical habitat. FWS and/or NMFS may request that consultation take place if any actions are identified that may affect listed species or critical habitat. In order to be eligible for coverage under this permit, consultation must result in a "no jeopardy opinion" or a written concurrence by the Service(s) on a finding that your storm water discharge(s) and storm water discharge-related activities are not likely to adversely affect listed species or critical habitat (For more information on consultation, see 50 CFR §402). If you receive a "jeopardy opinion," you may continue to work with the FWS and/or NMFS and your permitting authority to modify your project so that it will not jeopardize listed species or designated critical habitat.

Most consultations are accomplished through informal consultation. By the terms of this CGP, EPA has automatically designated operators as non-federal representatives for the purpose of conducting informal consultations. See Subpart 1.3.C.6 and 50 CFR §402.08 and §402.13. When conducting informal ESA section 7 consultation as a non-federal representative, you must follow the procedures found in 50 CFR Part 402 of the ESA regulations. You must notify FWS and/or NMFS of your intention and agreement to conduct consultation as a non-federal representative.

Consultation may occur in the context of another federal action at the construction site (e.g., where ESA section 7 consultation was performed for issuance of a wetlands dredge and fill permit for the project or where a NEPA review is performed for the project that incorporates a section 7 consultation). Any terms and conditions developed through consultations to protect listed species and critical habitat must be incorporated into the SWPPP. As noted above, operators may, if they wish, initiate consultation with the Services at Step Four.

Whether ESA section 7 consultation must be performed with either the FWS, NMFS or both Services depends on the listed species that may be affected by the operator's activity. In general, NMFS has jurisdiction over marine, estuaries, and anadromous species. Operators should also be aware that while formal section 7 consultation provides protection from incidental takings liability, informal consultation does not.

2. *An Incidental Taking Permit Under Section 10 of the ESA is Issued for the Operators Activity (See Criterion D of Subpart 1.3.C.6 of the CGP).*

Your construction activities are authorized through the issuance of a permit under section 10 of the ESA and that authorization addresses the effects of your storm water discharge(s) and storm water discharge-related activities on federally-listed species and designated critical habitat. You must follow FWS and/or NMFS procedures when applying for an ESA Section 10 permit (see 50 CFR §17.22(b)(1) for FWS and §222.22 for NMFS). Application instructions for section 10 permits for FWS and NMFS can be obtained by accessing the FWS and NMFS websites (http://www.fws.gov and http://www.nmfs.noaa.gov) or by contacting the appropriate FWS and NMFS regional office.

3. *You are Covered Under the Eligibility Certification of Another Operator for the Project Area (See Criterion F of Subpart 1.3.C.6 of the CGP).*

Your storm water discharges and storm water discharge-related activities were already addressed in another operator's certification of eligibility under Criteria A through E of Subpart 1.3.C.6 which also included your project area. For example, a general contractor or developer may have completed and filed an NOI for the entire project area with the necessary Endangered Species Act certifications (criteria A-E), subcontractors may then rely upon that certification and must comply with any conditions resulting from that process. By certifying eligibility under Criterion F of Subpart 1.3.C.6, you agree to comply with any measures or controls upon which the other operator's certification under Criterion B, C, or D of Subpart 1.3.C.6 was based. Certification under Criterion F of Subpart 1.3.C.6 is discussed in more detail in the Fact Sheet that accompanies this permit.

You must comply with any terms and conditions imposed under the eligibility requirements of Criterion A through F to ensure that your storm water discharges and storm water discharge-related activities are protective of listed species and/or critical habitat. Such terms and conditions must be incorporated in the project's SWPPP. If the eligibility requirements of Subpart 1.3.C.6 cannot be met, then you are not eligible for coverage under the CGP. In these instances, you may consider applying to EPA for an individual permit.

**Appendix D - Small Construction Waivers and Instructions**

These waivers are only available to storm water discharges associated with small construction activities (i.e., 1-5 acres). As the operator of a small construction activity, you may be able to qualify for a waiver in lieu of needing to obtain coverage under this general permit based on: (A) a low rainfall erosivity factor, (B) a TMDL analysis, or (C) an equivalent analysis that determines allocations for small construction sites are not needed. Each operator, otherwise needing permit coverage, must notify EPA of its intention for a waiver. It is the responsibility of those individuals wishing to obtain a waiver from coverage under this general permit to submit a complete and accurate waiver certification as described below. Where the operator changes or another is added during the construction project, the new operator must also submit a waiver certification to be waived.

A. Rainfall Erosivity Waiver

Under this scenario the small construction project's rainfall erosivity factor calculation ("R" in the Revised Universal Soil Loss Equation) is less than 5 during the period of construction activity. The operator must certify to the Permitting Authority that construction activity will occur only when the rainfall erosivity factor is less than 5. The period of construction activity begins at initial earth disturbance and ends with final stabilization. Where vegetation will be used for final stabilization, the date of installation of a stabilization practice that will provide interim non-vegetative stabilization can be used for the end of the construction period, provided the operator commits (as a condition of waiver eligibility) to periodically inspect and properly maintain the area until the criteria for final stabilization as defined in the construction general permit have been met. If use of this interim stabilization eligibility condition was relied on to qualify for the waiver, signature on the waiver with its certification statement constitutes acceptance of and commitment to complete the final stabilization process. The operator must submit a waiver certification to EPA prior to commencing construction activities.

*Note: The rainfall erosivity factor "R" is determined in accordance with Chapter 2 of Agriculture Handbook Number 703, Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE), pages 21–64, dated January 1997; United States Department of Agriculture (USDA), Agricultural Research Service.*

EPA funded a cooperative agreement with Texas A&M University to develop an online rainfall erosivity calculator. You can access the calculator from EPA's website at: www.epa.gov/npdes/stormwater/cgp. Use of the calculator allows you to determine potential eligibility for the rainfall erosivity waiver. It may also be useful in determining the time periods during which construction activity could be waived from permit coverage. You may find that moving your construction activity by a few weeks or expediting site stabilization will allow you to qualify for the waiver.

If you are the operator of the construction activity and eligible for a waiver based on low erosivity potential, you must provide the following information on the waiver certification in order to be waived from permitting requirements:

1. Name, address and telephone number of the construction site operators;
2. Name (or other identifier), address, county or similar governmental subdivision, and latitude/longitude of the construction project or site;
3. Estimated construction start and completion (i.e., final stabilization) dates, and total acreage (to the nearest quarter acre) to be disturbed;
4. The rainfall erosivity factor calculation that applies to the active construction phase at your project site; and
5. A statement, signed and dated by an authorized representative as provided in Appendix G, Subsection 11, that certifies that the construction activity will take place during a period when the value of the rainfall erosivity factor is less than five.

At the time of publication, a Low Erosivity Waiver Form is not available. If EPA does create a form, it will be noticed (either directly, by public notice, or by making information available on the Internet at www.epa.gov/npdes/stormwater/cgp.

*Note: If the R factor is 5 or greater, you cannot apply for the rainfall erosivity waiver, and must apply for permit coverage as per Subpart 2.1 of the construction general permit, unless you qualify for the Water Quality Waiver as described below.*

If your small construction project continues beyond the projected completion date given on the waiver certification, you must recalculate the rainfall erosivity factor for the new project duration. If the R factor is below five (5), you

must update all applicable information on the waiver certification and retain a copy of the revised waiver as part of the site SWPPP. The new waiver certification must be submitted prior to the projected completion date listed on the original waiver form to assure your exemption from permitting requirements is uninterrupted. If the new R factor is five (5) or above, you must submit an NOI as per Part 2.

B. TMDL Waiver

This waiver is available if EPA has established or approved a TMDL that addresses the pollutant(s) of concern and has determined that controls on storm water discharges from small construction activity are not needed to protect water quality. The pollutant(s) of concern include sediment (such as total suspended solids, turbidity or siltation) and any other pollutant that has been identified as a cause of impairment of any water body that will receive a discharge from the construction activity. Information on TMDLs that have been established or approved by EPA is available from EPA online at http://www.epa.gov/owow/tmdl/ and from state and tribal water quality agencies.

If you are the operator of the construction activity and eligible for a waiver based on compliance with an EPA established or approved TMDL, you must provide the following information on the Waiver Certification form in order to be waived from permitting requirements:

1. Name, address and telephone number of the construction site operator(s);
2. Name (or other identifier), address, county or similar governmental subdivision, and latitude/longitude of the construction project or site;
3. Estimated construction start and completion (i.e., final stabilization) dates, and total acreage (to the nearest quarter acre) to be disturbed;
4. The name of the water body(s) that would be receiving storm water discharges from your construction project;
5. The name and approval date of the TMDL;
6. A statement, signed and dated by an authorized representative as provided in Appendix G, Subsection 11, that certifies that the construction activity will take place and that the storm water discharges will occur, within the drainage area addressed by the TMDL.

C. Equivalent Analysis Waiver

This waiver is available for non-impaired waters only. The operator can develop an equivalent analysis that determines allocations for his small construction site for the pollutant(s) of concern or determines that such allocations are not needed to protect water quality. This waiver requires a small construction operator to develop an equivalent analysis based on existing in-stream concentrations, expected growth in pollutant concentrations from all sources, and a margin of safety.

If you are a construction operator who wants to use this waiver, you must develop your equivalent analysis and provide the following information to be waived from permitting requirements:

1. Name, address and telephone number of the construction site operator(s);
2. Name (or other identifier), address, county or similar governmental subdivision, and latitude/longitude of the construction project or site;
3. Estimated construction start and completion (i.e., final stabilization) dates, and total acreage (to the nearest quarter acre) to be disturbed;
4. The name of the water bodies that would be receiving storm water discharges from your construction project;
5. Your equivalent analysis;
6. A statement, signed and dated by an authorized representative as provided in Appendix G, Subsection 11, that certifies that the construction activity will take place and that the storm water discharges will occur, within the drainage area addressed by the equivalent analysis.

D. Waiver Deadlines and Submissions

1. Waiver certifications must be submitted prior to commencement of construction activities.

2. If you submit a TMDL or equivalent analysis waiver request, you are not waived until EPA approves your request. As such, you may not commence construction activities until receipt of approval from EPA.
3. Late Notifications: Operators are not prohibited from submitting waiver certifications after initiating clearing, grading, excavation activities, or other construction activities. The Agency reserves the right to take enforcement for any unpermitted discharges or permit noncompliance that occur between the time construction commenced and waiver authorization is granted.

Submittal of a waiver certification is an optional alternative to obtaining permit coverage for discharges of storm water associated with small construction activity, provided you qualify for the waiver. Any discharge of storm water associated with small construction activity not covered by either a permit or a waiver may be considered an unpermitted discharge under the Clean Water Act. As mentioned above, EPA reserves the right to take enforcement for any unpermitted discharges or permit noncompliance that occur between the time construction commenced and either discharge authorization is granted or a complete and accurate waiver certification is submitted. EPA may notify any operator covered by a waiver that they must apply for a permit. EPA may notify any operator who has been in non-compliance with a waiver that they may no longer use the waiver for future projects. Any member of the public may petition EPA to take action under this provision by submitting written notice along with supporting justification.

Complete and accurate Rainfall Erosivity waiver certifications must be sent to the following address:

Regular U.S. Mail Delivery

EPA Storm Water Notice Processing Center
Mail Code 4203M
U.S. EPA
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Overnight/Express Mail Delivery

EPA Storm Water Notice Processing Center
Room 7420
U.S. EPA
1201Constitution Avenue, NW
Washington, DC 20004

Complete and accurate TMDL or equivalent analysis waiver requests must be sent to the applicable EPA Region office specified in Appendix B.

## Appendix E - Notice of Intent Form and Instructions

From the effective date of this permit, operators are to use the Notice of Intent Form contained in this Appendix to obtain permit coverage.

This Form Replaces Form 3510-9 (8-98)
Refer to the Following Pages for Instructions

Form Approved OMB Nos. 2040-0188 and 2040-0211

NPDES Form

United States Environmental Protection Agency
Washington, DC 20460

# Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under an NPDES General Permit

Submission of this Notice of Intent (NOI) constitutes notice that the party identified in Section II of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section I of this form. Submission of this NOI also constitutes notice that the party identified in Section II of this form meets the eligibility requirements of the CGP for the project identified in Section III of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Refer to the instructions at the end of this form.

## I. Permit Number

## II. Operator Information

Name:

IRS Employer Identification Number (EIN): -

**Mailing Address:**

Street:

City: State: Zip Code: -

Phone: - - Fax (optional): - -

E-mail (optional):

## III. Project/Site Information

Project/Site Name:

Project Street/Location:

City: State: Zip Code: -

County or similar government subdivision:

Latitude/Longitude (Use one of three possible formats, and specify method)

Latitude 1. __°__'__" N (degrees, minutes, seconds)
2. __°__.__' N (degrees, minutes, decimal)
3. __.____° N (decimal)

Longitude 1. ___°__'__" W (degrees, minutes, seconds)
2. ___°__.__' W (degrees, minutes, decimal)
3. ___.____° W (decimal)

Method: ☐ U.S.G.S. topographic map ☐ EPA web site ☐ GPS ☐ Other:
• If you used a U.S.G.S. topographic map, what was the scale: _____

Project Located in Indian country? ☐ Yes ☐ No
If so, name of Reservation or if not part of a Reservation, put "Not Applicable": _____

Estimated Project Start Date: / / (Month Date Year) Estimated Project Completion Date: / / (Month Date Year)

Estimated Area to be Disturbed (to the nearest quarter acre): .

## IV. SWPPP Information

Has the SWPPP been prepared in advance of filing this NOI? ☐ Yes ☐ No

Location of SWPPP for viewing: ☐ Address in Section II ☐ Address in Section III ☐ Other

If Other:

SWPPP Street: _____

City: _____

State: _____ Zip Code: _____ - _____

SWPPP Contact Information (if different than that in Section II):

Name: _____

Phone: ___ - ___ - _____ Fax (optional): ___ - ___ - _____

E-mail (optional): _____

## V. Discharge Information

Identify the name(s) of waterbodies to which you discharge. _____

_____

Is this discharge consistent with the assumptions and requirements of applicable EPA approved or established TMDL(s)?

☐ Yes ☐ No

## VI. Endangered Species Information

Under which criterion of the permit have you satisfied your ESA eligibility obligations?

☐ A ☐ B ☐ C ☐ D ☐ E ☐ F

- If you select criterion F, provide permit tracking number of operator under which you are certifying eligibility:

_____

## VII. Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: _____

Print Title: _____

Signature: _____

Date: _____

Instructions for Completing EPA Form 3510-9

**Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under an NPDES General Permit**

NPDES Form | This Form Replaces Form 3510-9 (8/98) | Form Approved OMB Nos. 2040-0188 and 2040-0211

**Who Must File an NOI Form**
Under the provisions of the Clean Water Act, as amended (33 U.S.C. 1251 et.seq.; the Act), federal law prohibits storm water discharges from certain construction activities to waters of the U.S. unless that discharge is covered under a National Pollutant Discharge Elimination System (NPDES) Permit. Operator(s) of construction sites where one or more acres are disturbed, smaller sites that are part of a larger common plan of development or sale where there is a cumulative disturbance of at least one acre, or any other site specifically designated by the Director, must submit an NOI to obtain coverage under an NPDES general permit. Each person, firm, public organization, or any other entity that meets either of the following criteria must file this form: (1) they have operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or (2) they have day-to-day operational control of those activities at the project necessary to ensure compliance with SWPPP requirements or other permit conditions. If you have questions about whether you need an NPDES storm water permit, or if you need information to determine whether EPA or your state agency is the permitting authority, refer to *www.epa.gov/npdes/stormwater/cgp* or telephone the Storm Water Notice Processing Center at (866) 352-7755.

**Where to File NOI Form**
See the applicable CGP for information on where to send your completed NOI form.

**Completing the Form**
Obtain and read a copy of the appropriate EPA Storm Water Construction General Permit for your area. To complete this form, type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks (abbreviate if necessary to stay within the number of characters allowed for each item). Use one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions on this form, refer to *www.epa.gov/npdes/stormwater/cgp* or telephone the Storm Water Notice Processing Center at (866) 352-7755. Please submit original document with signature in ink - do not send a photocopied signature.

**Section I. Permit Number**
Provide the number of the permit under which you are applying for coverage (see Appendix B of the general permit for the list of eligible permit numbers).

**Section II. Operator Information**
Provide the legal name of the person, firm, public organization, or any other entity that operates the project described in this application. An operator of a project is a legal entity that controls at least a portion of site operations and is not necessarily the site manager. Provide the employer identification number (EIN from the Internal Revenue Service; IRS), also commonly referred to as your taxpayer ID. If the applicant does not have an EIN enter "NA" in the space provided. Also provide the operator's mailing address, telephone number, fax number (optional) and e-mail address (if you would like to be notified via e-mail of NOI approval when available). Correspondence for the NOI will be sent to this address.

**Section III. Project/Site Information**
Enter the official or legal name and complete street address, including city, state, zip code, and county or similar government subdivision of the project or site. If the project or site lacks a street address, indicate the general location of the site (e.g., Intersection of State Highways 61 and 34). Complete site information must be provided for permit coverage to be granted.

The applicant must also provide the latitude and longitude of the facility either in degrees, minutes, seconds; degrees, minutes, decimal; or decimal format. The latitude and longitude of your facility can be determined in several different ways, including through the use of global positioning system (GPS) receivers, U.S. Geological Survey (U.S.G.S.) topographic or quadrangle maps, and EPA's web-based siting tools, among others. Refer to *www.epa.gov/npdes/stormwater/cgp* for further guidance on the use of these methodologies. For consistency, EPA requests that measurements be taken from the approximate center of the construction site. Applicants must specify which method they used to determine latitude and longitude. If a U.S.G.S. topographic map is used, applicants are required to specify the scale of the map used.

Indicate whether the project is in Indian country, and if so, provide the name of the Reservation. If the project is in Indian Country Lands that are not part of a Reservation, indicate "not applicable" in the space provided.

Enter the estimated construction start and completion dates using four digits for the year (i.e., 05/27/1998). Enter the estimated area to be disturbed including but not limited to: grubbing, excavation, grading, and utilities and infrastructure installation. Indicate to the nearest quarter acre. Note: 1 acre = 43,560 sq. ft.

**Section IV. SWPPP Information**
Indicate whether or not the SWPPP was prepared in advance of filing the NOI form. Check the appropriate box for the location where the SWPPP may be viewed. Provide the name,

**Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under an NPDES General Permit**

NPDES Form This Form Replaces Form 3510-9 (8/98) Form Approved OMB Nos. 2040-0188 and 2040-0211

fax number (optional), and e-mail address (optional) of the contact person if different than that listed in Section II of the NOI form.

**Section V. Discharge Information**

Enter the name(s) of receiving waterbodies to which the project's storm water will discharge. These should be the first bodies of water that the discharge will reach. (Note: If you discharge to more than one waterbody, please indicate all such waters in the space provided and attach a separate sheet if necessary.) For example, if the discharge leaves your site and travels through a roadside swale or a storm sewer and then enters a stream that flows to a river, the stream would be the receiving waterbody. Waters of the U.S. include lakes, streams, creeks, rivers, wetlands, impoundments, estuaries, bays, oceans, and other surface bodies of water within the confines of the U.S. and U.S. coastal waters. Waters of the U.S. do not include man-made structures created solely for the purpose of wastewater treatment. U.S. Geological Survey topographical maps may be used to make this determination. If the map does not provide a name, use a format such as "unnamed tributary to Cross Creek". If you discharge into a municipal separate storm sewer system (MS4), you must identify the waterbody into which that portion of the storm sewer discharges. That information should be readily available from the operator of the MS4.

Indicate whether your storm water discharges from construction activities will be consistent with the assumptions and requirements of applicable EPA approved or established TMDL(s). To answer this question, refer to *www.epa.gov/npdes/stormwater/cgp* for state- and regional-specific TMDL information related to the construction general permit. You may also have to contact your EPA regional office or state agency. If there are no applicable TMDLs or no related requirements, please check the "yes" box in the NOI form.

**Section VI. Endangered Species Information**

Indicate for which criterion (i.e., A, B, C, D, E, or F) of the permit the applicant is eligible with regard to protection of federally listed endangered and threatened species, and designated critical habitat. See Part 1.3.C.6 and Appendix C of the permit. If you select criterion F, provide the permit tracking number of the operator under which you are certifying eligibility. The permit tracking number is the number assigned to the operator by the Storm Water Notice Processing Center after EPA acceptance of a complete NOI.

**Section VII. Certification Information**

All applications, including NOIs, must be signed as follows:

*For a corporation:* By a responsible corporate officer. For the purpose of this Section, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

*For a partnership or sole proprietorship:* By a general partner or the proprietor, respectively; or

*For a municipality, state, federal, or other public agency:* By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

Include the name and title of the person signing the form and the date of signing. An unsigned or undated NOI form will not be considered eligible for permit coverage.

**Paperwork Reduction Act Notice**

Public reporting burden for this application is estimated to average 3.7 hours. This estimate includes time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form, including any suggestions which may increase or reduce this burden to: Chief, Information Policy Branch 2136, U.S. Environmental Protection, Agency, 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460. Include the OMB control number on any correspondence. Do not send the completed form to this address.

## Appendix F - Notice of Termination Form and Instructions

From the effective date of this permit, operators are to use the Notice of Termination Form contained in this Appendix to terminate permit coverage.

This Form Replaces Form 3517-7 (8-98)
Refer to the Following Page for Instructions

Form Approved OMB Nos. 2040-0086 and 2040-0211

NPDES Form

EPA

United States Environmental Protection Agency
Washington, DC 20460

**Notice of Termination (NOT) of Coverage Under an NPDES General Permit for Storm Water Discharges Associated with Construction Activity**

Submission of this Notice of Termination constitutes notice that the party identified in Section II of this form is no longer authorized to discharge storm water associated with construction activity under the NPDES program from the site identified in Section III of this form. All necessary information must be included on this form. Refer to the instructions at the end of this form.

## I. Permit Information

NPDES Storm Water General Permit Tracking Number: _____

Reason for Termination (Check only one):

- ☐ Final stabilization has been achieved on all portions of the site for which you are responsible.
- ☐ Another operator has assumed control, according to Appendix G, Section 11.C of the CGP, over all areas of the site that have not been finally stabilized.
- ☐ Coverage under an alternative NPDES permit has been obtained.
- ☐ For residential construction only, temporary stabilization has been completed and the residence has been transferred to the homeowner.

## II. Operator Information

Name: _____

IRS Employer Identification Number (EIN): ___ - _____

**Mailing Address:**

Street: _____

City: _____ State: ___ Zip Code: _____ - ____

Phone: ___ - ___ - _____ Fax (optional): ___ - ___ - _____

E-mail (optional): _____

## III. Project/Site Information

Project/Site Name: _____

Project Street/Location: _____

City: _____ State: ___ Zip Code: _____ - ____

County or similar government subdivision: _____

## IV. Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: _____

Print Title: _____

Signature: _____

Date: _____

Instructions for Completing EPA Form 3510-13

**Notice of Termination (NOT) of Coverage Under an NPDES General Permit for Storm Water Discharges Associated with Construction Activity**

NPDES Form This Form Replaces Form 3517-7 (8-98) Form Approved OMB Nos. 2040-0086 and 2040-0211

**Who May File an NOT Form**

Permittees who are presently covered under the EPA-issued National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity may submit an NOT form when final stabilization has been achieved on all portions of the site for which you are responsible; another operator has assumed control in accordance with Appendix G, Section 11.C of the General Permit over all areas of the site that have not been finally stabilized; coverage under an alternative NPDES permit has been obtained; or for residential construction only, temporary stabilization has been completed and the residence has been transferred to the homeowner.

"Final stabilization" means that all soil disturbing activities at the site have been completed and that a uniform perennial vegetative cover with a density of at least 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed. See "final stabilization" definition in Appendix A of the Construction General Permit for further guidance where background native vegetation covers less than 100 percent of the ground, in arid or semi-arid areas, for individual lots in residential construction, and for construction projects on land used for agricultural purposes.

**Completing the Form**

Type or print, using uppercase letters, in the appropriate areas only. Please place each character between the marks. Abbreviate if necessary to stay within the number of characters allowed for each item. Use only one space for breaks between words, but not for punctuation marks unless they are needed to clarify your response. If you have any questions about this form, refer to *www.epa.gov/npdes/stormwater/cgp* or telephone the Storm Water Notice Processing Center at (866) 352-7755. Please submit original document with signature in ink - do not send a photocopied signature.

**Section I. Permit Number**

Enter the existing NPDES Storm Water General Permit Tracking Number assigned to the project by EPA's Storm Water Notice Processing Center. If you do not know the permit tracking number, refer to *www.epa.gov/npdes/stormwater/cgp* or contact the Storm Water Notice Processing Center at (866) 352-7755.

Indicate your reason for submitting this Notice of Termination by checking the appropriate box. Check only one:

*Final stabilization has been achieved on all portions of the site for which you are responsible.*

*Another operator has assumed control according to Appendix G, Section 11.C over all areas of the site that have not been finally stabilized.*

*Coverage under an alternative NPDES permit has been obtained.*

*For residential construction only, if temporary stabilization has been completed and the residence has been transferred to the homeowner.*

**Section II. Operator Information**

Provide the legal name of the person, firm, public organization, or any other entity that operates the project described in this application and is covered by the permit tracking number identified in Section I. The operator of the project is the legal entity that controls the site operation, rather than the site manager. Provide the employer identification number (EIN from the Internal Revenue Service; IRS). If the applicant does not have an EIN enter "NA" in the space provided. Enter the complete mailing address and telephone number of the operator. *Optional:* enter the fax number and e-mail address of the operator.

**Section III. Project/Site Information**

Enter the official or legal name and complete street address, including city, state, zip code, and county or similar government subdivision of the project or site. If the project or site lacks a street address, indicate the general location of the site (e.g., intersection of State Highways 61 and 34). Complete site information must be provided for termination of permit coverage to be valid.

**Section IV. Certification Information**

All applications, including NOIs, must be signed as follows:

*For a corporation*: By a responsible corporate officer. For the purpose of this Part, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

*For a partnership or sole proprietorship:* By a general partner or the proprietor, respectively; or

*For a municipality, state, federal, or other public agency:* By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

Include the name and title of the person signing the form and the date of signing. An unsigned or undated NOT form will not be considered valid termination of permit coverage.

**Paperwork Reduction Act Notice**

Public reporting burden for this application is estimated to average 0.5 hours per notice, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding the burden estimate, any other aspect of the collection of information, or suggestions for improving this form including any suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, 2136, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460. Include the OMB number on any correspondence. Do not sent the completed form to this address.

## Appendix G - Standard Permit Conditions

### STANDARD PERMIT CONDITIONS

### 1. Duty To Comply

You must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

A. You must comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

B. The Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. §2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. §3701 note) (currently $27,500 per day for each violation).

   The Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

C. Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Pursuant to 40 CFR Part 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. §2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. §3701 note) (currently $11,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $27,500). Pursuant to 40 CFR Part 19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. §2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. §3701 note) (currently $11,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $137,500).

### 2. Duty to Reapply

If you wish to continue an activity regulated by this permit after the expiration date of this permit, you must apply for and obtain a new permit.

**3. Need to Halt or Reduce Activity Not a Defense**

It shall not be a defense for you in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

**4. Duty to Mitigate**

You must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

**5. Proper Operation and Maintenance**

You must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by you to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems which are installed by you only when the operation is necessary to achieve compliance with the conditions of this permit.

**6. Permit Actions**

This permit may be modified, revoked and reissued, or terminated for cause. Your filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

**7. Property Rights**

This permit does not convey any property rights of any sort, or any exclusive privileges.

**8. Duty to Provide Information**

You must furnish to EPA, within a reasonable time, any information which EPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. You must also furnish to EPA upon request, copies of records required to be kept by this permit.

**9. Inspection and Entry**

You must allow EPA, or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon presentation of credentials and other documents as may be required by law, to:

A. Enter upon your premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

C. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

D. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

**10. Monitoring and Records**

A. Samples and measurements taken for the purpose of monitoring must be representative of the monitored activity.

B. You must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of EPA at any time.

C. Records of monitoring information must include:

1. The date, exact place, and time of sampling or measurements;
2. The individual(s) who performed the sampling or measurements;
3. The date(s) analyses were performed

4. The individual(s) who performed the analyses;
5. The analytical techniques or methods used; and
6. The results of such analyses.

D. Monitoring results must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, unless other test procedures have been specified in the permit.

E. The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both.

**11. Signatory Requirements**

A. All applications, including NOIs, must be signed as follows:

1. For a corporation: By a responsible corporate officer. For the purpose of this Part, a responsible corporate officer means: (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
2. For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or
3. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this Part, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator of EPA).

B. All reports required by this permit, including SWPPPs, must be signed by a person described in Appendix G, Subsection 11.A above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described in Appendix G, Subsection 11.A;
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
3. The signed and dated written authorization is included in the SWPPP. A copy must be submitted to EPA, if requested.

C. Changes to Authorization. If an authorization under Subpart 2.1 is no longer accurate because a different operator has responsibility for the overall operation of the construction site, a new NOI satisfying the requirements of Subpart 2.1 must be submitted to EPA prior to or together with any reports, information, or applications to be signed by an authorized representative. The change in authorization must be submitted within the time frame specified in Subpart 2.2, and sent to the address specified in Subpart 2.3.

D. Any person signing documents required under the terms of this permit must include the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is,

to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

E. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

**12. Reporting Requirements**

A. Planned changes. You must give notice to EPA as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR §122.29(b); or
2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR §122.42(a)(1).

B. Anticipated noncompliance. You must give advance notice to EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

C. Transfers. This permit is not transferable to any person except after notice to EPA. EPA may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Clean Water Act. (See 40 CFR §122.61; in some cases, modification or revocation and reissuance is mandatory.)

D. Monitoring reports. Monitoring results must be reported at the intervals specified elsewhere in this permit.

1. Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by EPA for reporting results of monitoring of sludge use or disposal practices.
2. If you monitor any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503, or as specified in the permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by EPA.
3. Calculations for all limitations which require averaging of measurements must use an arithmetic mean.

E. Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.

F. Twenty-four hour reporting.

1. You must report any noncompliance which may endanger health or the environment. Any information must be provided orally within 24 hours from the time you become aware of the circumstances. A written submission must also be provided within five days of the time you become aware of the circumstances. The written submission must contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
2. The following shall be included as information which must be reported within 24 hours under this paragraph.
   a. Any unanticipated bypass which exceeds any effluent limitation in the permit. (See 40 CFR §122.41(g).)
   b. Any upset which exceeds any effluent limitation in the permit
   c. Violation of a maximum daily discharge limitation for any of the pollutants listed by EPA in the permit to be reported within 24 hours. (See 40 CFR §122.44(g).)

3. EPA may waive the written report on a case-by-case basis for reports under Appendix G, Subsection 12.F.2 if the oral report has been received within 24 hours.

G. Other noncompliance. You must report all instances of noncompliance not reported under Appendix G, Subsections 12.D, 12.E, and 12.F, at the time monitoring reports are submitted. The reports must contain the information listed in Appendix G, Subsection 12.F.

H. Other information. Where you become aware that you failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Permitting Authority, you must promptly submit such facts or information.

**13. Bypass**

A. Definitions.

1. Bypass means the intentional diversion of waste streams from any portion of a treatment facility

2. Severe property damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

B. Bypass not exceeding limitations. You may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Appendix G, Subsections 13.C and 13.D.

C. Notice–

1. Anticipated bypass. If you know in advance of the need for a bypass, you must submit prior notice, if possible at least ten days before the date of the bypass.

2. Unanticipated bypass. You must submit notice of an unanticipated bypass as required in Appendix G, Subsection 12.F (24-hour notice).

D. Prohibition of bypass.

1. Bypass is prohibited, and EPA may take enforcement action against you for bypass, unless:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. You submitted notices as required under Appendix G, Subsection 13.C.

2. EPA may approve an anticipated bypass, after considering its adverse effects, if EPA determines that it will meet the three conditions listed above in Appendix G, Subsection 13.D.1.

**14. Upset**

A. Definition. Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond your reasonable control. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

B. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Appendix G, Subsection 14.C are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

C. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

1. An upset occurred and that you can identify the cause(s) of the upset;

2. The permitted facility was at the time being properly operated; and

3. You submitted notice of the upset as required in Appendix G, Subsection 12.F.2.b(24 hour notice).
4. You complied with any remedial measures required under Appendix G, Section 4.

D. Burden of proof. In any enforcement proceeding, you, as the one seeking to establish the occurrence of an upset, has the burden of proof.

# ATTACHMENT E

This Form Replaces Form 3510-9 (8-98)
Refer to the Following Pages for Instructions

Form Approved OMB Nos. 2040-0188 and 2040-0211

NPDES Form

EPA

United States Environmental Protection Agency
Washington, DC 20460

**Notice of Intent (NOI) for Storm Water Discharges Associated with Construction Activity Under an NPDES General Permit**

Submission of this Notice of Intent (NOI) constitutes notice that the party identified in Section II of this form requests authorization to discharge pursuant to the NPDES Construction General Permit (CGP) permit number identified in Section I of this form. Submission of this NOI also constitutes notice that the party identified in Section II of this form meets the eligibility requirements of the CGP for the project identified in Section III of this form. Permit coverage is required prior to commencement of construction activity until you are eligible to terminate coverage as detailed in the CGP. To obtain authorization, you must submit a complete and accurate NOI form. Refer to the instructions at the end of this form.

**I. Permit Number**

MAR100000

**II. Operator Information**

Name: WES CONSTRUCTION CORPORATION

IRS Employer Identification Number (EIN): 04 - 2077178

**Mailing Address:**

Street: 175 COMMERCIAL CIRCLE

City: DEDHAM State: MA Zip Code: 02026 -

Phone: 781 - 326 - 4030 Fax (optional): 781 - 326 - 9957

E-mail (optional): WESGC@VERIZON.NET

**III. Project/Site Information**

Project/Site Name: KEITH MIDDLE SCHOOL

Project Street/Location: 225 HATHAWAY BOULEVARD

City: NEW BEDFORD State: MA Zip Code: 02740 -

County or similar government subdivision: BRISTOL

Latitude/Longitude (Use one of three possible formats, and specify method)

Latitude
1. 41° 38' 43" N (degrees, minutes, seconds)
2. ___° ___.___' N (degrees, minutes, decimal)
3. 41.6454° N (decimal)

Longitude
1. 070° 56' 56" W (degrees, minutes, seconds)
2. ___° ___.___' W (degrees, minutes, decimal)
3. -70.9488° W (decimal)

Method: ☐ U.S.G.S. topographic map ☐ EPA web site ☐ GPS ☑ Other:
• If you used a U.S.G.S. topographic map, what was the scale: GEOSEARCH.COM

Project Located in Indian country? ☐ Yes ☑ No
If so, name of Reservation or if not part of a Reservation, put "Not Applicable": _____

Estimated Project Start Date: 09 / 20 / 2004 (Month / Date / Year) Estimated Project Completion Date: 12 / 30 / 2004 (Month / Date / Year)

Estimated Area to be Disturbed (to the nearest quarter acre): 0007.50

## IV. SWPPP Information

Has the SWPPP been prepared in advance of filing this NOI? ☑ Yes ☐ No

Location of SWPPP for viewing: ☐ Address in Section II ☐ Address in Section III ☑ Other

If Other:

SWPPP Street: 315 NORWOOD PARK SOUTH

City: NORWOOD

State: MA Zip Code: 02062 -

SWPPP Contact Information (if different than that in Section II):

Name: ALAN HANSCOM, PE, LSP

Phone: 781 - 255 - 1982 Fax (optional): 781 - 255 - 1974

E-mail (optional): AHANSCOM@BETA-INC.COM

## V. Discharge Information

Identify the name(s) of waterbodies to which you discharge. UNNAMED TRIBUTARY TO THE APPONAGANSETT SWAMP.

Is this discharge consistent with the assumptions and requirements of applicable EPA approved or established TMDL(s)?

☑ Yes ☐ No

## VI. Endangered Species Information

Under which criterion of the permit have you satisfied your ESA eligibility obligations?

☑ A ☐ B ☐ C ☐ D ☐ E ☐ F

- If you select criterion F, provide permit tracking number of operator under which you are certifying eligibility:

## VII. Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name: ALAN D. HANSCOM, P.E., LSP

Print Title: ASSOCIATE

Signature:

Date: 9/15/2004

## Shipment Receipt

(Keep this for your records.)

**Transaction Date** 15 Sep 2004

**Address Information**

| **Ship To:** | **Shipper:** | **Ship From:** |
|---|---|---|
| U.S. E.P.A. | BETA Group | BETA Group |
| 202 272 0167 | ERIC OLSON | Diane Letendre |
| STORM WATER PROCESSING CENTER | 781 255 1982 | 781 255 1982 |
| 1201 CONSTITUTION AVENUE, NW | 315 Norwood Park South | 315 Norwood Park South |
| ROOM 7420 | 2nd Floor | 2nd Floor |
| WASHINGTON DC 20004-3302 | Norwood MA 02062 | Norwood MA 02062 |

**Shipment Information**

| | |
|---|---|
| **Service:** | UPS Ground Service |
| Guaranteed By: | End of Day, Fri. 17 Sep. 2004 |

**Shipping:** ..... 3.81

**Package Information**

**Package 1 of 1**

| | |
|---|---|
| Tracking Number: | 1ZF178410396080170 |
| Package Type: | Your Packaging |
| Dimensions: | 9 x 12 x 1 in. |
| Actual Weight: | 1.0 lbs |
| Billable Weight: | 1.0 lbs |
| Reference#1: | J #: 2685 / T-108 |

**Billing Information**

| | | |
|---|---|---|
| **Payment Method:** | Bill Sender: F17841 | |
| **Total:** | **All Shipping Charges in USD** | **3.81** |

Note: The displayed rate is for reference purposes and does not include applicable taxes.

* For delivery and guarantee information, see the UPS Service Guide. To speak to a customer service representative, call 1-800-PICK-UPS for domestic services and 1-800-782-7892 for international services.

**Responsibility for Loss or Damage**

Unless a greater value is recorded in the declared value field as appropriate for the UPS shipping system used, the shipper agrees that the released value of each package covered by this receipt is no greater than $100, which is a reasonable value under the circumstances surrounding the transportation. UPS does not accept for transportation and shipper's requesting service through the Internet are prohibited from shipping packages with a value of more than $50,000. The maximum liability per package assumed by UPS shall not exceed $100, regardless of the purchase of insurance for protection in excess of $100. The maximum liability per package assumed by the applicable insurance company shall not exceed $50,000 (less $100). Claims not made within nine months after delivery of the package (six months for international shipments), or in the case of failure to make delivery, nine months after a reasonable time for delivery has elapsed (six months for international shipments), shall be deemed waived. The entry of a C.O.D. amount is not a declaration of value for insurance purposes. All checks or other negotiable instruments tendered in payment of C.O.D.'s will be accepted by UPS at shipper's risk. UPS shall not be liable for any special, incidental, or consequential damages.

# ATTACHMENT F

# PRIORITY HABITATS OF RARE SPECIES

**For species protected under MA Endangered Species Act regulations (321 CMR 10)**
**Note: NOT equivalent to Significant Habitat**

Effective October 1, 1999 through December 31, 2001
Produced by the Natural Heritage & Endangered Species Program, MA Division of Fisheries & Wildlife

0.5 0 0.5 1 Miles

See County Index Maps to locate adjacent quadrangles

NEW BEDFORD NORTH QUAD

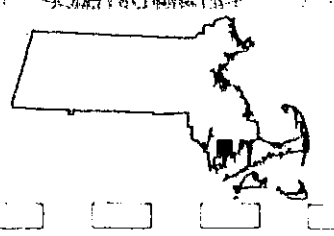
# ESTIMATED HABITATS OF RARE WILDLIFE AND CERTIFIED VERNAL POOLS

**For use with the MA Wetlands Protection Act regulations (310 CMR 10)**

Effective October 1, 1999 through December 31, 2001
Produced by the Natural Heritage & Endangered Species Program, MA Division of Fisheries & Wildlife

0.5 0 0.5 1 Miles

See County Index Maps to locate adjacent quadrangles



NEW BEDFORD NORTH QUAD

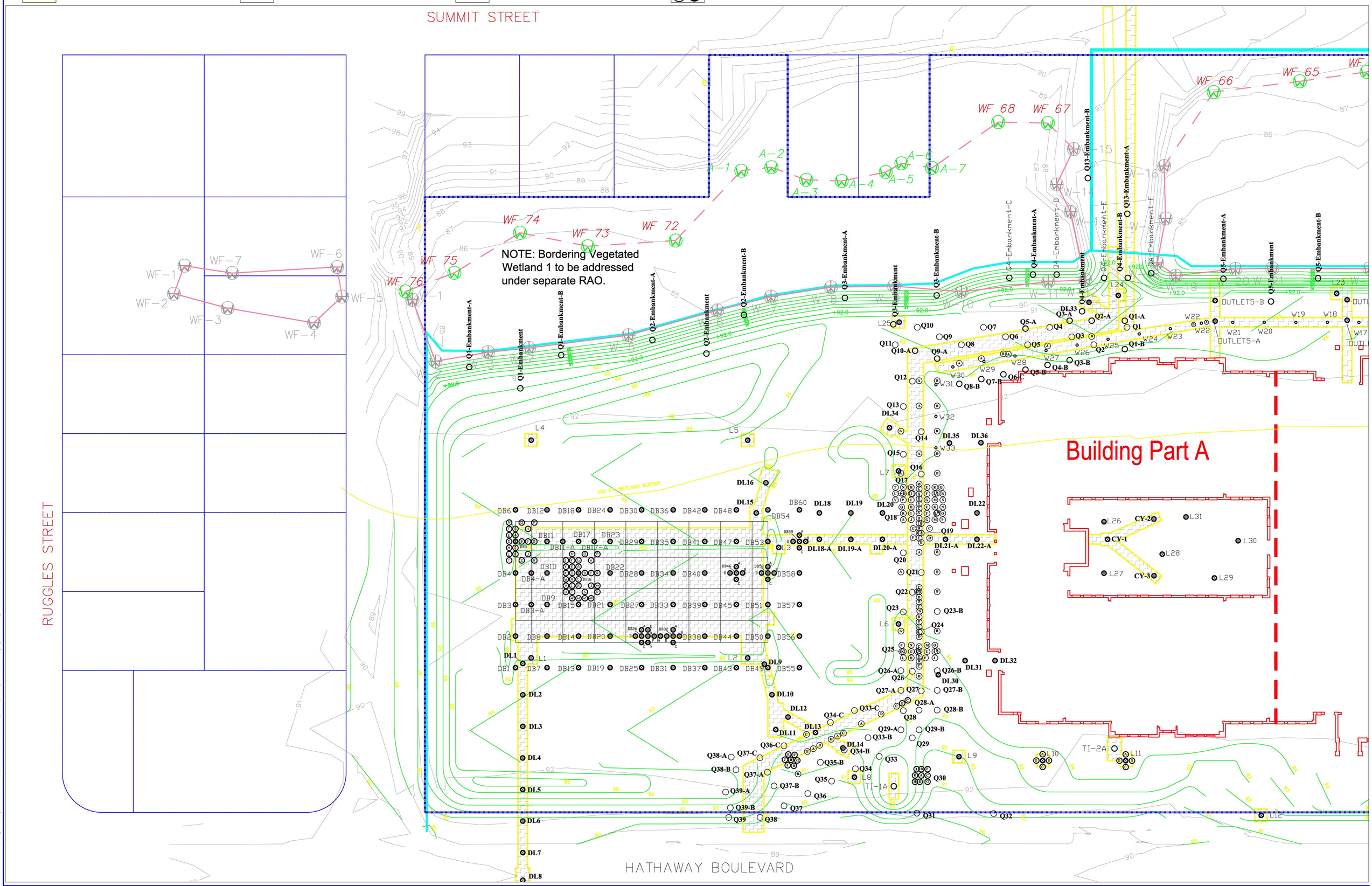
# ATTACHMENT G

**Figure 1.1**

Sample Location Plan
South Side

LEGEND

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 92 | EXISTING ELEVATION | | EXCAVATION AREA | | PROPERTY LINE | | WETLANDS LINE |
| 92 | PROPOSED FINAL ELEVATION | | BUILDING FOOTPRINT | | SECURITY FENCE | | SAMPLE LOCATION |




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

McCoy Field

New Bedford, Massachusetts

BETA Group, Inc.
Engineers•Scientists•Planners

315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com

SCALE: 1" = 20'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

Risk-Based Cleanup Request Rev. 1

**Figure 1.1 Rev. 1**

Sample Location Plan - South Side

JOB 02685

FILE NO. Figure 1.dwg

PLOT DATE June 2005

SHEET

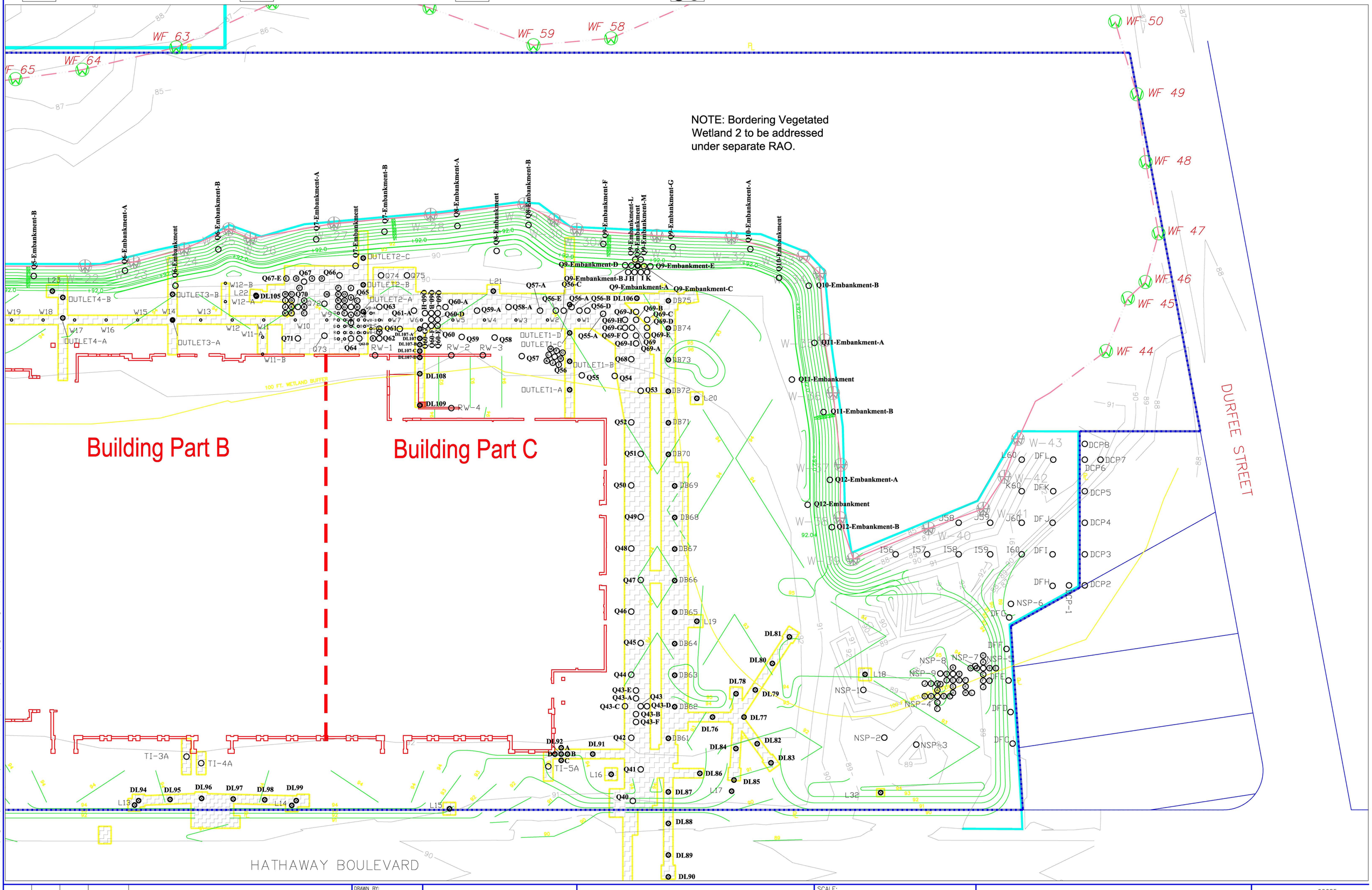
J:\Projects\2600s\2685 – New Bedford Sampling Plan\AutoCad Files\Risk-based Cleanup Request\School Site\Figure 1.dwg Jun. 27, 2005 9:34am

**Figure 1.2**

Sample Location Plan
North Side

LEGEND

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 92 | EXISTING ELEVATION | | EXCAVATION AREA | | PROPERTY LINE | | WETLANDS LINE |
| 92 | PROPOSED FINAL ELEVATION | | BUILDING FOOTPRINT | | SECURITY FENCE | | SAMPLE LOCATION |




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

McCoy Field

New Bedford, Massachusetts

BETA Group, Inc.
Engineers·Scientists·Planners

315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com

SCALE: 1" = 20'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

Risk-Based Cleanup Request Rev. 1

**Figure 1.2 Rev. 1**

Sample Location Plan - North Side

JOB 02685

FILE NO. Figure 1.dwg

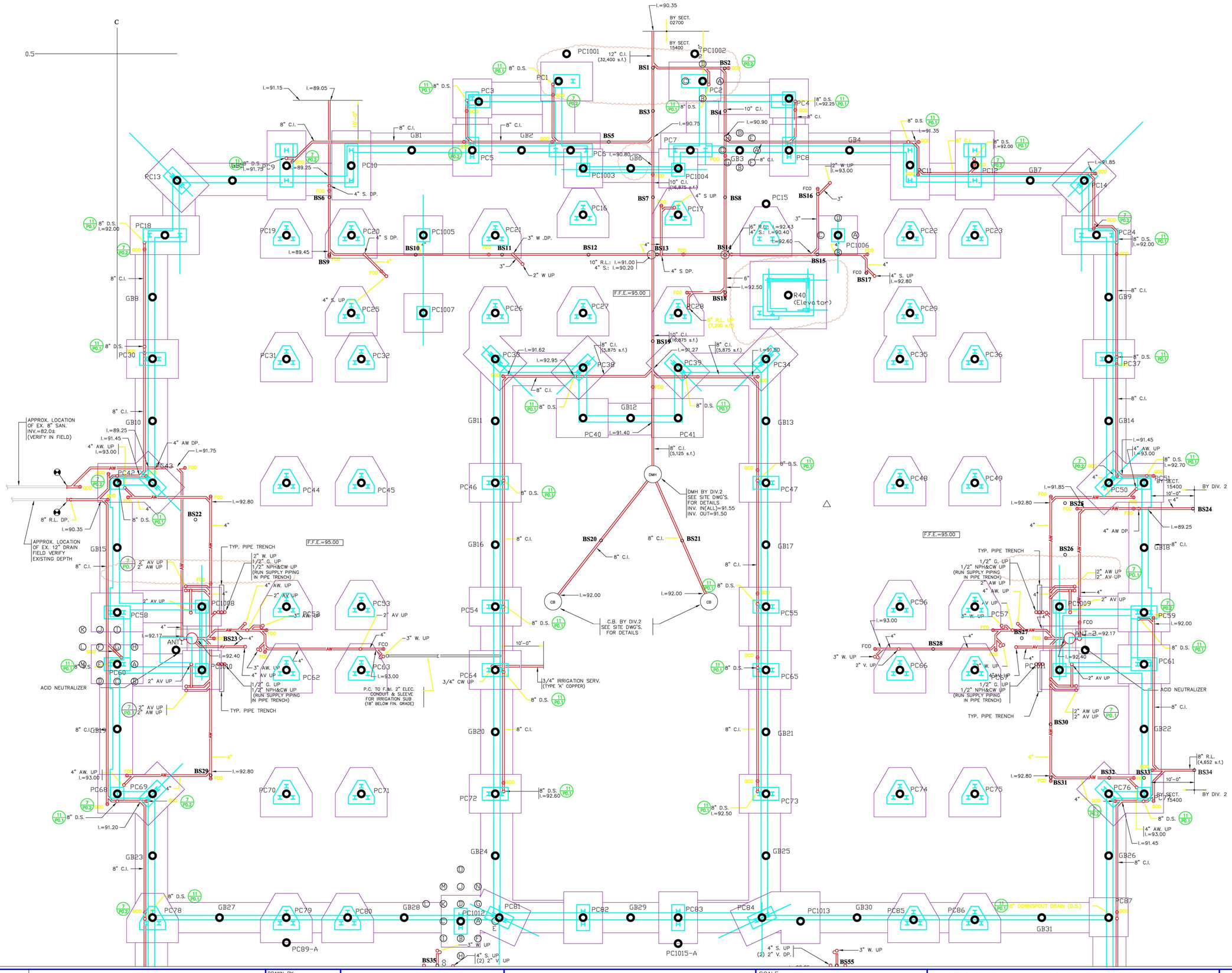
PLOT DATE June 2005

SHEET

J:\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\Risk-based Cleanup Request\School Site\Figure 1.dwg Jun. 27, 2005 9:31am

**Figure 1.3**

Building Part A
Pile Caps, Grade Beams &
Utilities




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

**BETA Group, Inc.**
Engineers·Scientists·Planners

315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com

**McCoy Field**
New Bedford, Massachusetts

SCALE: 1/8" = 1'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

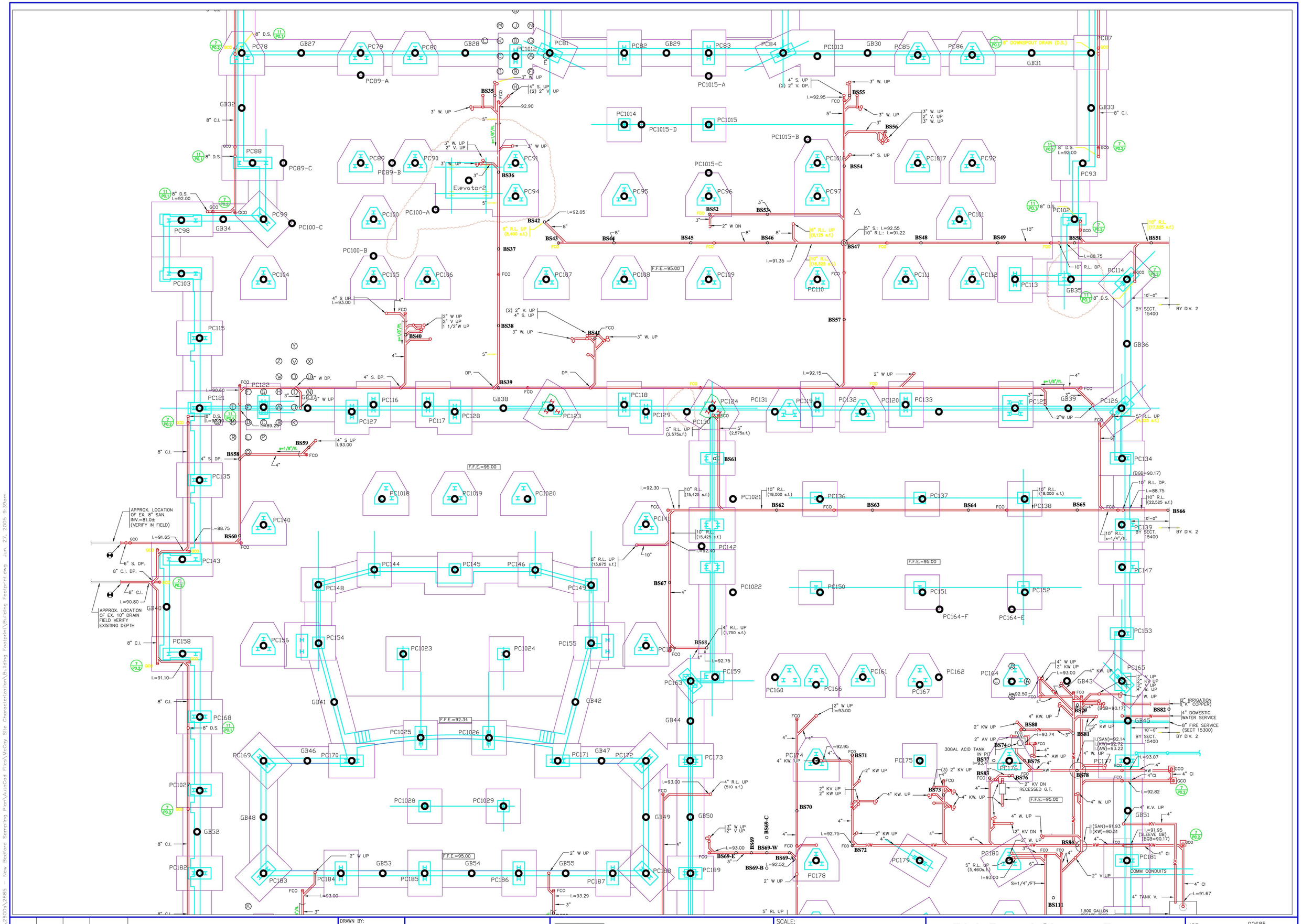
# Risk-Based Cleanup Request
## Figure 1.3
### Building Part A
Pile Caps, Grade Beams & Utilities

JOB 02685
FILE NO. Building Footprint.dwg
PLOT DATE June 2005
SHEET

\\BETA-MA2\Share\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\McCoy Site Characterization\Building Footprint\Building Footprint.dwg Jun 27, 2005 9:38am

**Figure 1.4**

Building Part B
Pile Caps, Grade Beams &
Utilities




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

**BETA Group, Inc.**
Engineers·Scientists·Planners

315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com

**McCoy Field**
New Bedford, Massachusetts

SCALE: 1/8" = 1'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request
## Figure 1.4
### Building Part B
Pile Caps, Grade Beams & Utilities

JOB 02685

FILE NO. Building Footprint.dwg

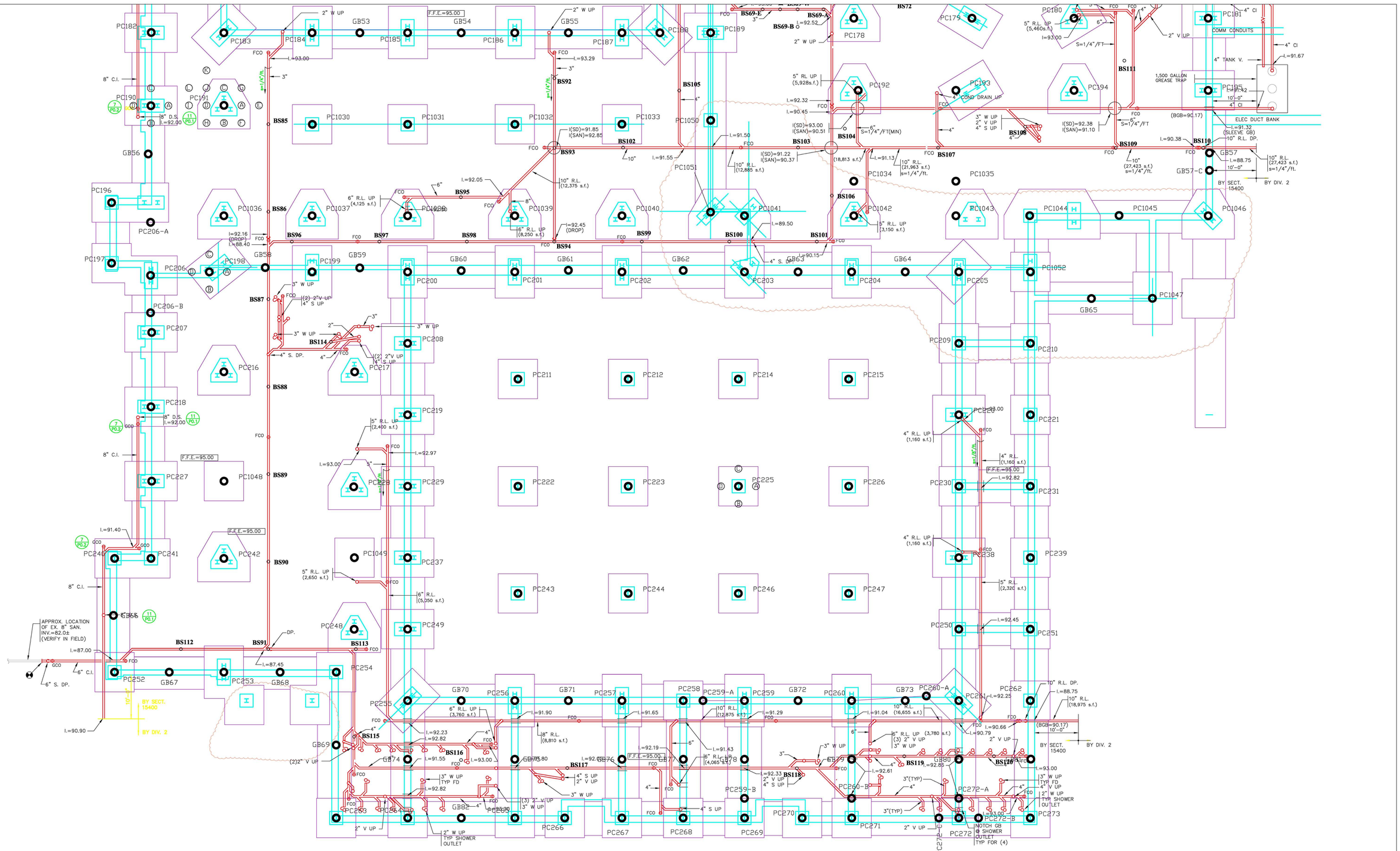
PLOT DATE June 2005

SHEET

\\BETA-MA2\Share\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\McCoy Site Characterization\Building Footprint\Building Footprint.dwg Jun. 27, 2005 9:39am

**Figure 1.5**

Building Part C
Pile Caps, Grade Beams &
Utilities




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:


BETA Group, Inc.
Engineers·Scientists·Planners
315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com


**McCoy Field**
New Bedford, Massachusetts

SCALE: 1/8" = 1'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request
## Figure 1.5
### Buidling Part C
Pile Caps, Grade Beams & Utilities

JOB 02685
FILE NO. Building Footprint.dwg
PLOT DATE June 2005
SHEET

\\BETA-MA2\Share\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\McCoy Site Characterization\Building Footprint\Building Footprint.dwg Jun 27, 2005 9:40am

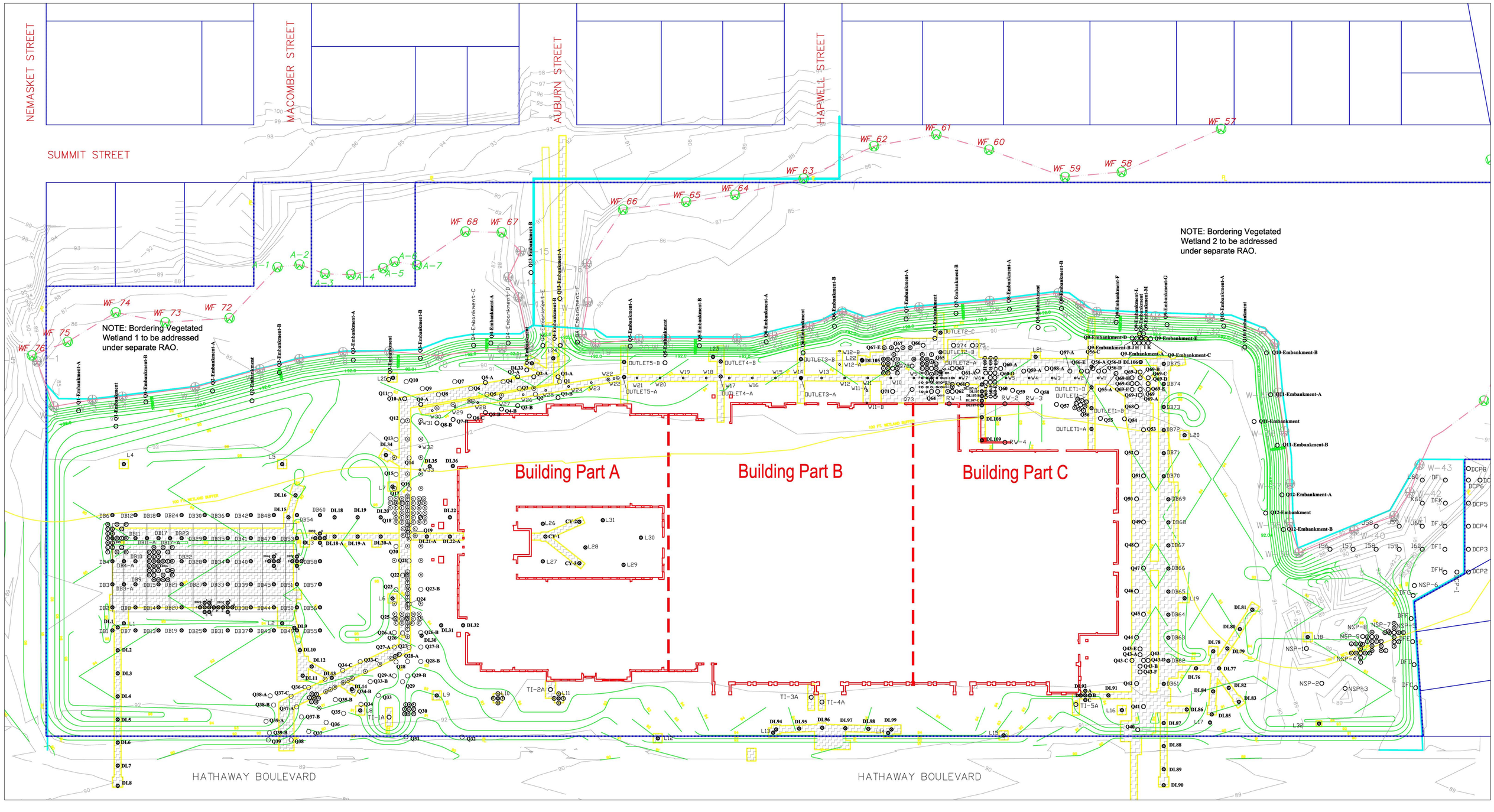
**Figure 1.6**

Landscaped Area Samples

LEGEND

| | |
|---|---|
| EXISTING ELEVATION | EXCAVATION AREA |
| PROPOSED FINAL ELEVATION | BUILDING FOOTPRINT |
| PROPERTY LINE | WETLANDS LINE |
| SECURITY FENCE | LANDSCAPED AREA SAMPLE |

NOTE: Alpha-numeric grid corresponds to Landscaped Area samples. For example, sample A1-0.5-3' coincides with grid intersection (A, 1).




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

McCoy Field

New Bedford, Massachusetts

BETA Group, Inc.
Engineers•Scientists•Planners

315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com

SCALE: 1" = 30'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

Risk-Based Cleanup Request

**Figure 1.6**

Landscaped Area Samples

JOB 02685

FILE NO. Figure 1.dwg

PLOT DATE June 2005

SHEET

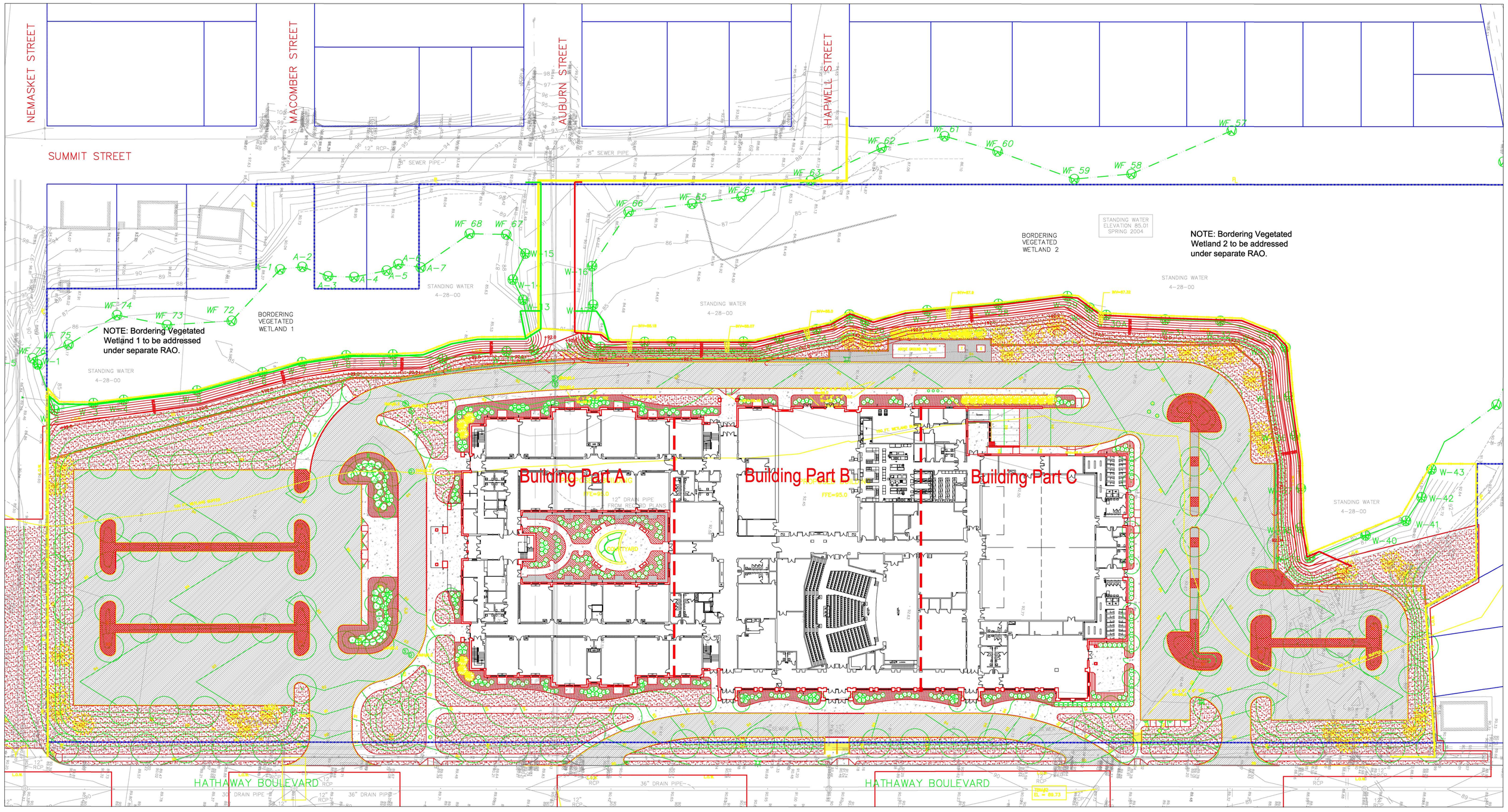
J:\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\Risk-based Cleanup Request\School Site\Figure 1.dwg Jun. 27, 2005 11:59am

**Figure 2**

Land Use Plan

LEGEND

- EXISTING ELEVATION
- PROPOSED FINAL ELEVATION
- LANDSCAPED AREA
- PAVED AREA
- PAVED AREA
- TREES




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

# McCoy Field

New Bedford, Massachusetts


BETA Group, Inc.
Engineers • Scientists • Planners
315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com


SCALE: 1" = 30'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request

## Figure 2

## Land Use Plan

JOB 02685

FILE NO. Figure 2 – Land Use.dw

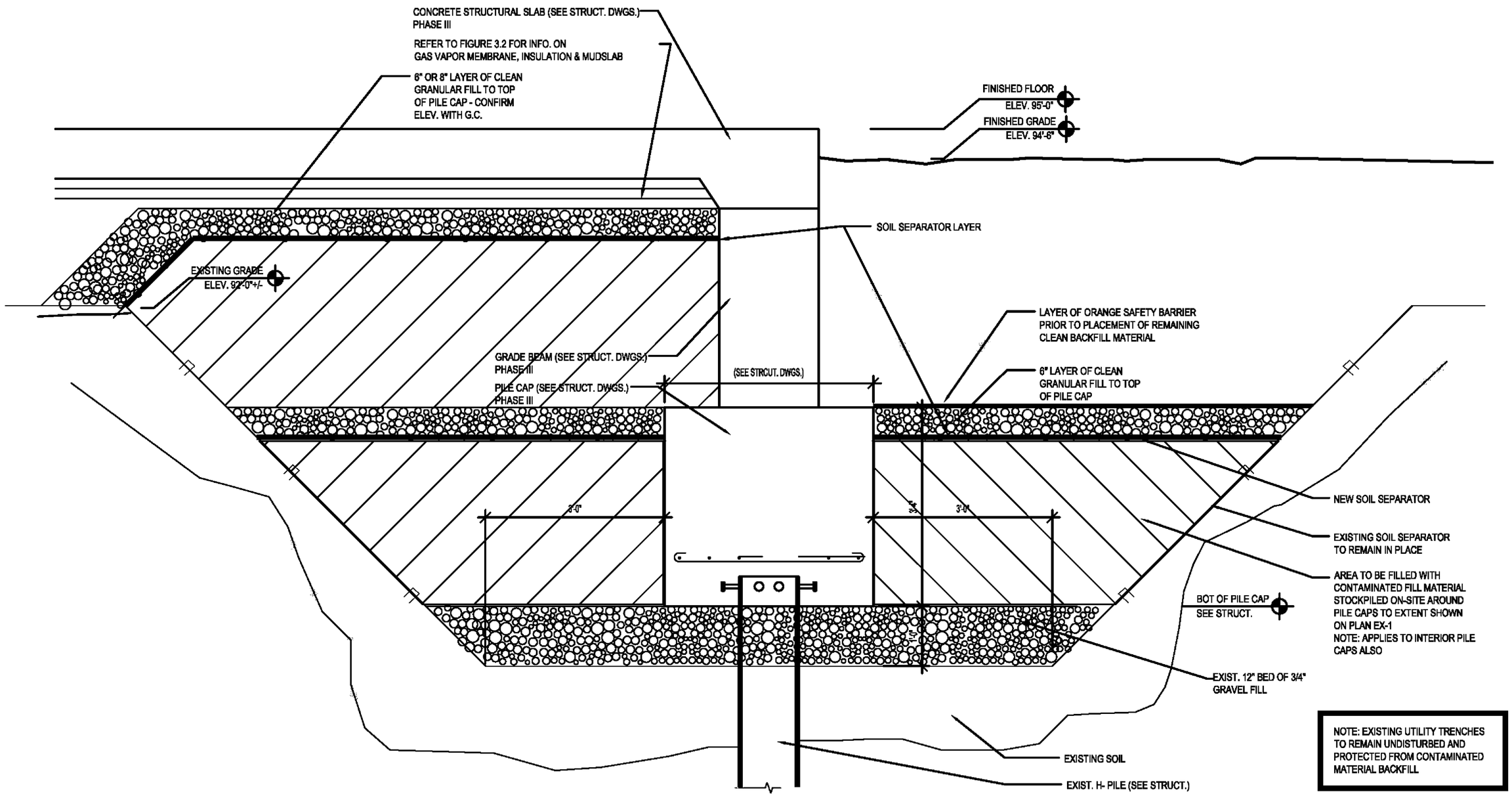
PLOT DATE June 2005

SHEET

J:\Projects\2600s\2685 – New Bedford Sampling Plan\AutoCad Files\Risk-based Cleanup Request\School Site\Figure 2 – Land Use.dwg Jun. 27, 2005 9:42am

**Figure 3.1**

Typical Backfill Detail for
Pile Caps and Grade Beams




BETA Group, Inc.
Engineers · Scientists · Planners

315 Norwood Park South
Norwood, MA 02062 781.255.1982
email: BETA@BETA-inc.com

**McCoy Field**

New Bedford, Massachusetts

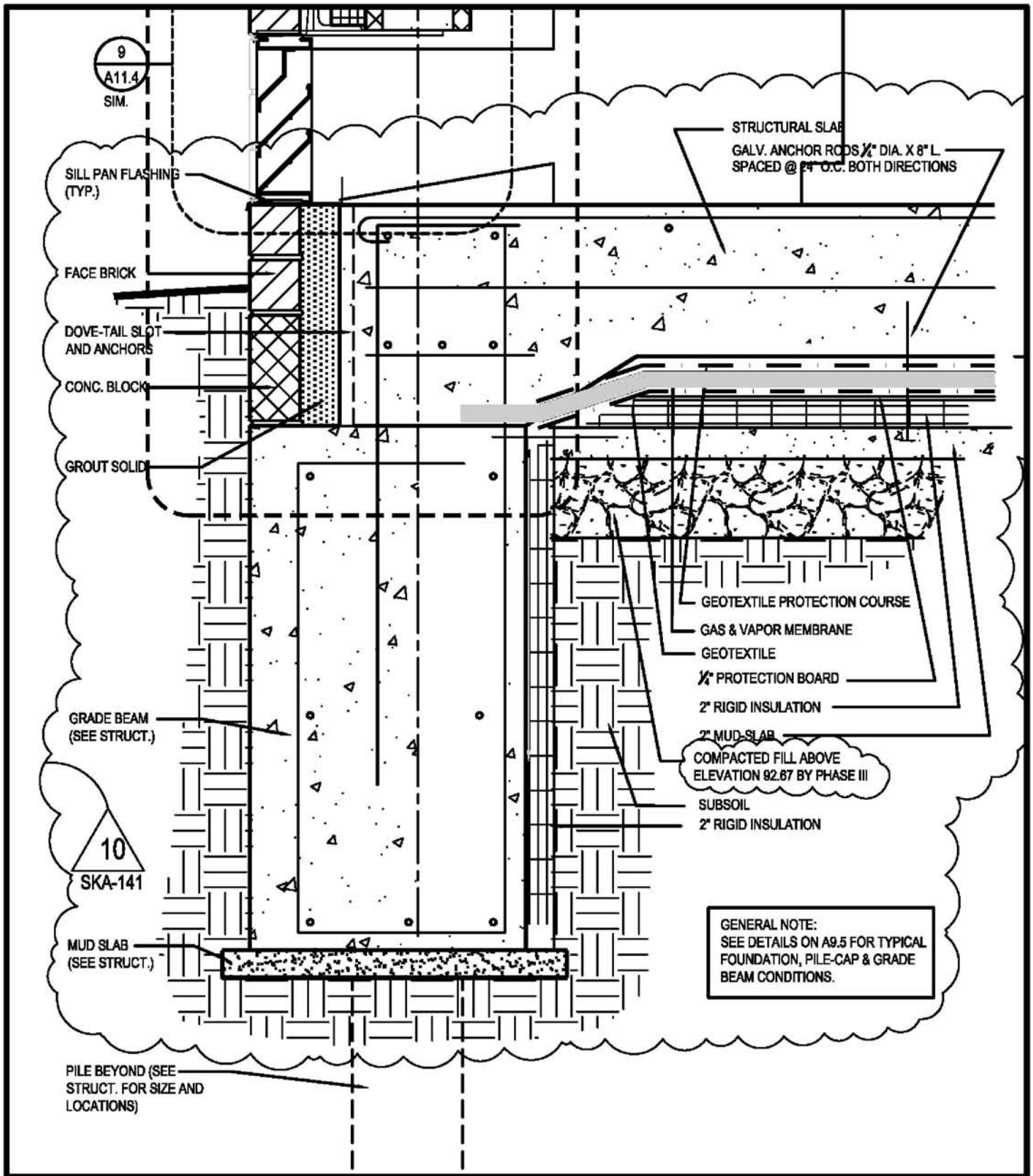
Scale: 1" = 20'

# Figure 3.1

## Typical Backfill Detail for Pile Caps and Grade Beams

**Figure 3.2**

Detail on Gas Vapor Membrane, Insulation & Mudslab




BETA Group, Inc.
Engineers • Scientists • Planners
315 Norwood Park South
Norwood, MA 02062 781.255.1982
email: BETA@BETA-inc.com

**McCoy Field**
New Bedford, Massachusetts

Scale: N.T.S.

# Figure 3.2

**Detail on Gas Vapor Membrane, Insulation & Mudslab**

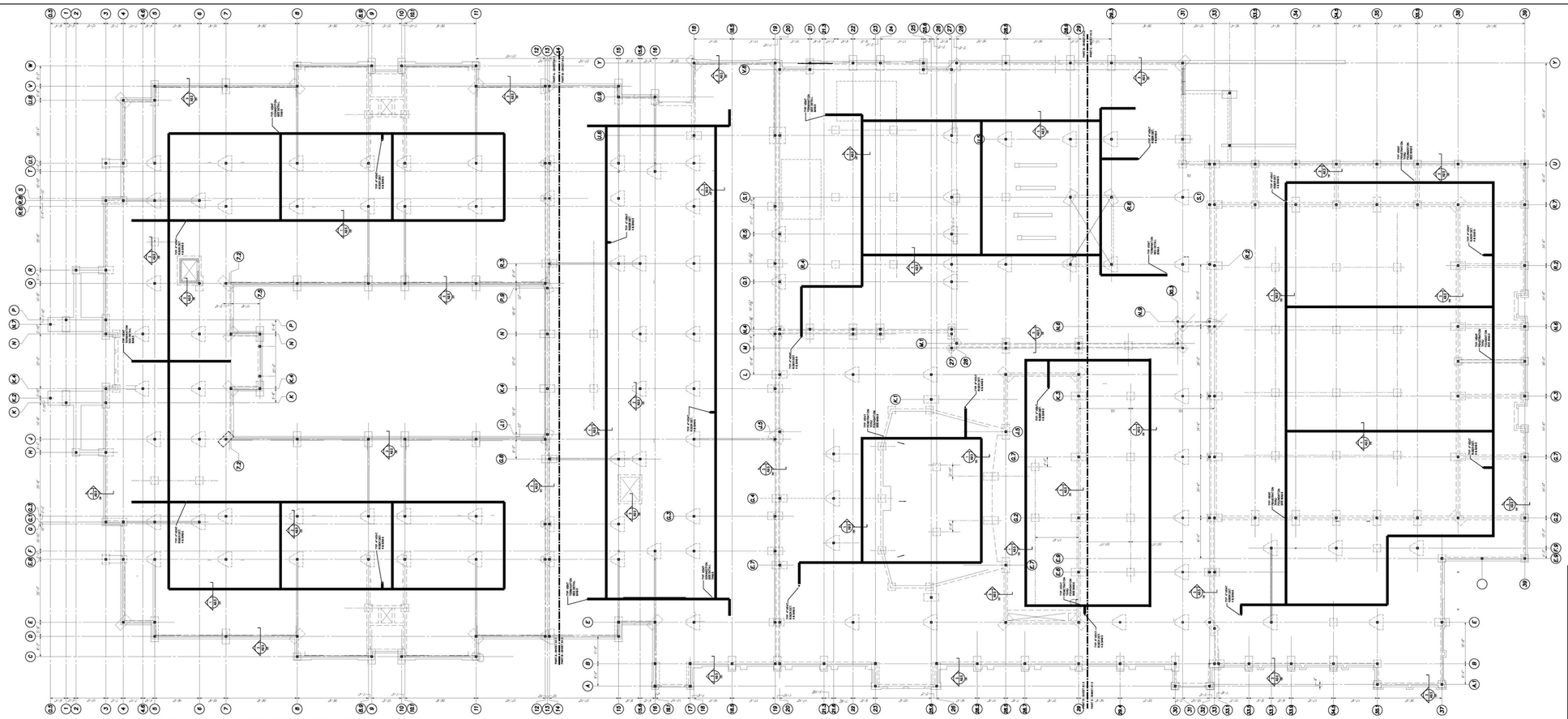
**(refer to Figure 3.1)**

**Figure 4**

Gas Vapor Barrier &
Venting Plan Details

# FIGURE 4

Figure 4 – Gas Vapor Barrier & Venting Plan Details – Hardcopy only (extracted from Phase III Contract Documents A9.5). See BETA hardcopy of Risk-Based Cleanup Request. Above "title block" was taped over A9.5 and copied.



## UNDER SLAB GAS VAPOR MEMBRANE & VENTING PLAN

1" = 20'-0"

NOTES:

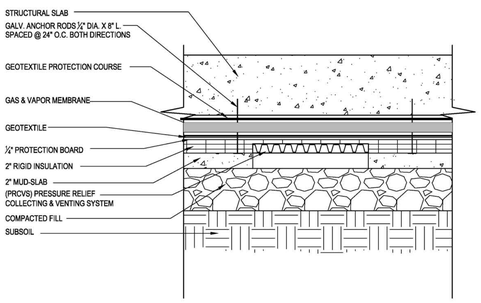
1. THIS PLAN IS A DIAGRAMMATIC REPRESENTATION OF A POTENTIAL VENTING LAYOUT & RISER LOCATION PLAN. FINAL COORDINATION & LAYOUT TO BE INCLUDED AS PART OF THE SUBMITTAL PROCESS AND APPROVED BY THE ARCHITECT.

2. A VENT RISER IS TO BE PROVIDED FOR EVERY 7500 S.F. OF UNDER SLAB AREA. THIS CONTRACTOR TO LEAVE A 6" STUB ABOVE THE F.IN. FLR. FOR CONTINUATION THRU THE ROOF BY PLUMBING SUB-CONTRACTOR.

3. FOR PILE CAP & GRADE BEAM LAYOUT & DETAILS REFER TO STRUCTURAL DRAWINGS S1.1 THRU S1.3.

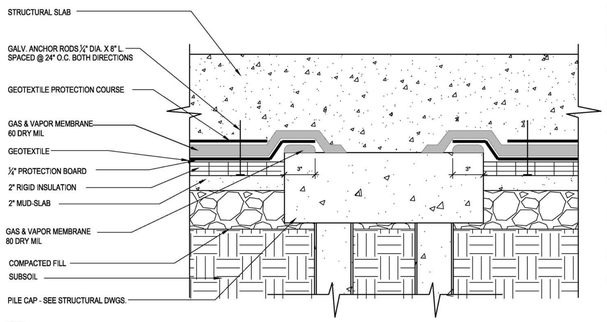
4. FOR BELOW SLAB PLUMBING LAYOUT REFER TO DRAWINGS P1.1 THRU P1.3.

5. A COMPLETE GAS MEMBRANE & VENTING SYSTEM INSTALLATION TO BE PERFORMED BY DIV. 07100.




## MEMBRANE & VENT DETAIL (1)

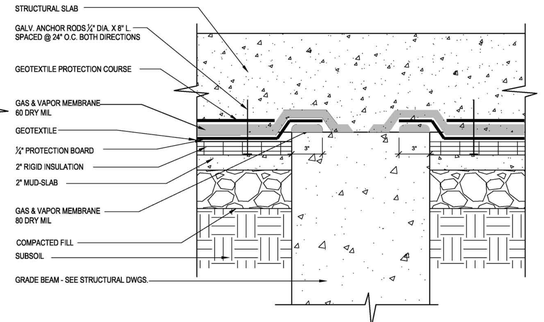
1 1/2" = 1'-0" TYPICAL




NOTE:
BRING THE MEMBRANE 3" ONTO THE PILE CAP, THE GEOTEXTILE IS THEN ENCAPSULATED IN THE MEMBRANE

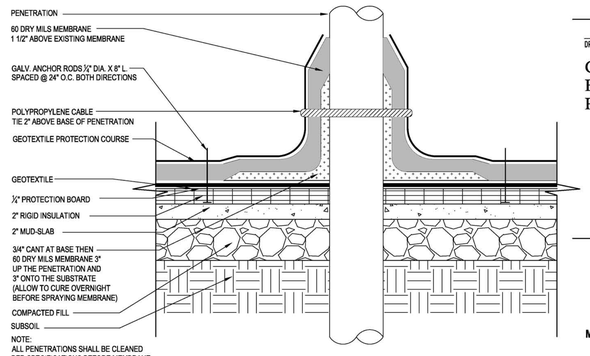
## MEMBRANE AT PILE CAP (2)

1 1/2" = 1'-0" TYPICAL




## MEMBRANE AT GRADE BEAM (3)

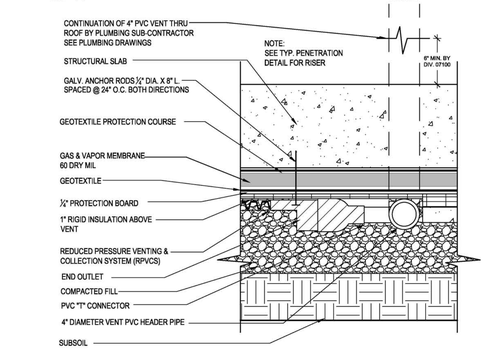
1 1/2" = 1'-0" TYPICAL




NOTE:
ALL PENETRATIONS SHALL BE CLEANED PER SPECIFICATIONS BEFORE MEMBRANE IS APPLIED. DETAIL SHOWN PRIOR TO PLACEMENT OF SLAB.

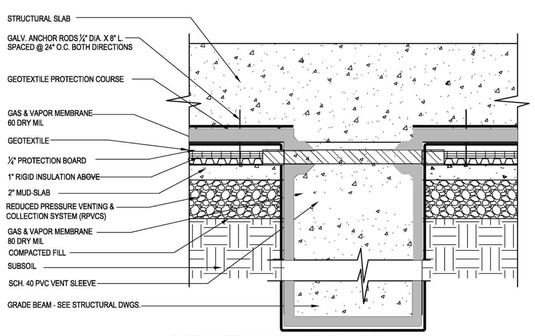
## TYPICAL PENETRATION (4)

1 1/2" = 1'-0" TYPICAL



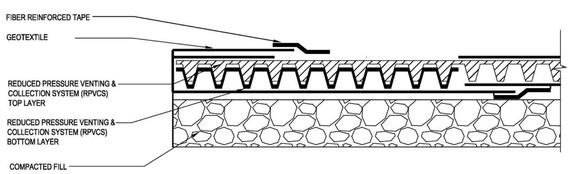

## VENT CONNECTION TO HEADER PIPE & RISER (5)

1 1/2" = 1'-0" TYPICAL



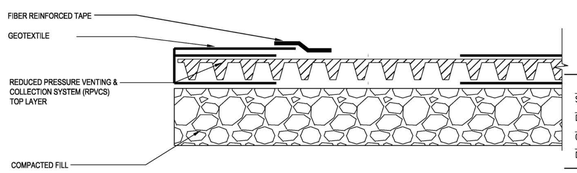

## VENT THRU FOUNDATION (6)

1 1/2" = 1'-0" TYPICAL




## (RPVCS) VENT CONNECTION (7)

1 1/2" = 1'-0" TYPICAL




## (RPVCS) VENT TERMINATION (8)

1 1/2" = 1'-0" TYPICAL

CONSULTANTS

REVISIONS

20005.00
PROJECT NUMBER

KEITH MIDDLE SCHOOL
New Bedford, Ma.

DRAWING TITLE
GAS VAPOR BARRIER & VENTING PLAN & DETAILS


Mount Vernon Group Architects, Inc.
20 Cabot Road
Woburn, Massachusetts 01801

781 937 9720 T
781 937 9728 F
info@mvgarchitects.com E


SEAL

SCALE AS NOTED
DRAWN BY
CHECKED
DATE

DRAWING NUMBER
A9.5

Xref G:\Projects\20005-NewBedford-KeithMS\Drawings\4.0.0-ConsDocs\4.1.0-Architectural\BLOCKS\DATE.dwg

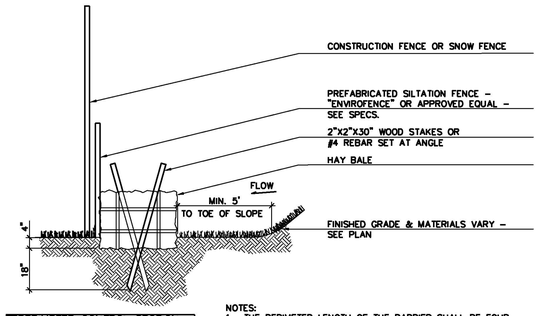
**Figure 5**

Paved Area Cross Section

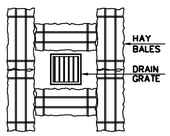
Draft Risk-Based Cleanup Request

# FIGURE 5

Figure 5 – Paved Area Cross-Sections – Hardcopy only (extracted from Phase III Contract Documents L6). See BETA hardcopy of Risk-Based Cleanup Request. Above "title block" was taped over L6 and copied.



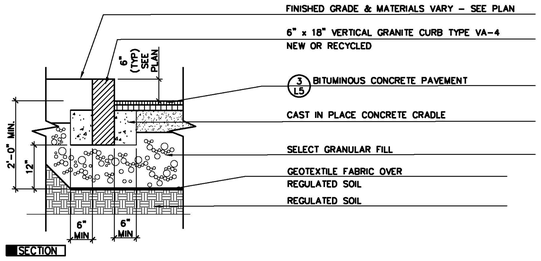

PERIMETER CONTROL SECTION




PLAN AT DRAINAGE INLETS

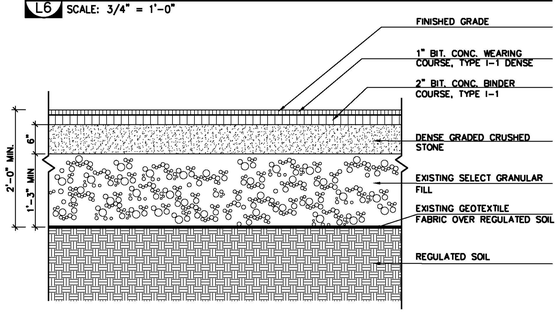
NOTES:
1. THE PERIMETER LENGTH OF THE BARRIER SHALL BE FOUR TIMES THE PERIMETER LENGTH OF THE DRAINAGE INLET. THE TOP OF THE BARRIER SHALL BE LEVEL AND UNIFORM FOR THIS LENGTH.
2. THE BARRIER SHALL BE INSTALLED IMMEDIATELY AFTER THE INLETS ARE INSTALLED AND MAINTAINED UNTIL THE AREA IS PAVED OR TURF HAS BEEN ESTABLISHED.
3. WHERE STAKING IS NOT PRACTICAL, BALES TO BE TIED TOGETHER TO PREVENT MOVEMENT OR OPENINGS IN THE BARRIER.
4. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALE.
5. EACH BALE SHALL BE IMBEDDED IN THE SOIL A MINIMUM OF 4".
6. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOSLY LAID BALE TO FORCE BALES TOGETHER.
7. INSPECTION SHALL BE MADE FREQUENTLY AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
8. REMOVE ALL SEDIMENT PRIOR TO REMOVING HAYBALES.

## 1 EROSION CONTROL
L6 SCALE: N.T.S.



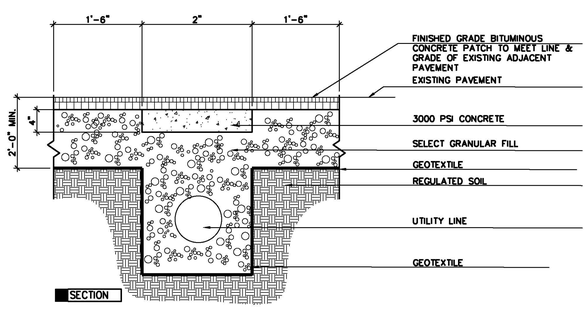

SECTION

## 2 VERTICAL GRANITE CURB
L6 SCALE: 3/4" = 1'-0"



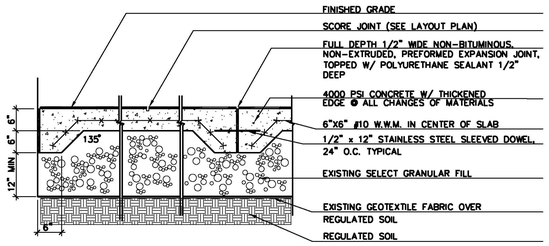

SECTION

## 3 BITUMINOUS CONCRETE ROADWAY PAVEMENT
L6 SCALE: 1"=1'-0"




SECTION

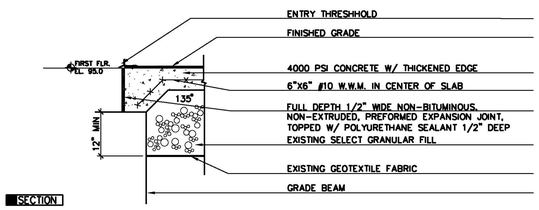
## 4 BITUMINOUS CONCRETE ROADWAY REPAIR
L6 SCALE: 1" = 1'-0"




SECTION

NOTES:
1. PROVIDE EXPANSION JOINTS WHEREVER CONCRETE PAVING MEETS VERTICAL AND HORIZANTAL MASONRY SURFACES, AND NOT MORE THAN 30' OC IN ANY DIRECTION.
2. CONCRETE SHALL BE BROOM FINISHED, PERPENDICULAR TO THE DIRECTION OF TRAVEL, OR AS DIRECTED BY THE ARCHITECT.

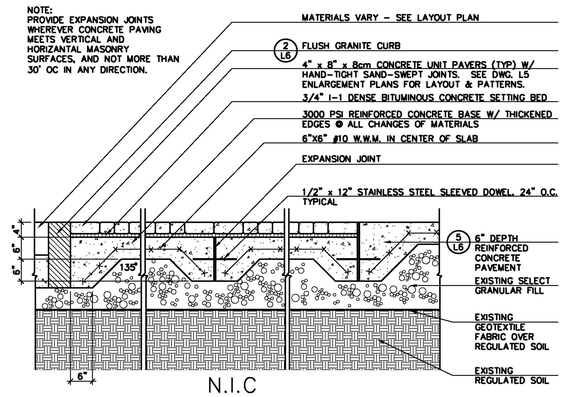
## 5 CONCRETE PAVING/JOINT TREATMENT
L6 SCALE: 3/4" = 1'-0"




SECTION

## 6 CONC. PAVING / JOINT TREATMENT @ DOOR THRESHOLD
L6 SCALE: 3/4" = 1'-0"

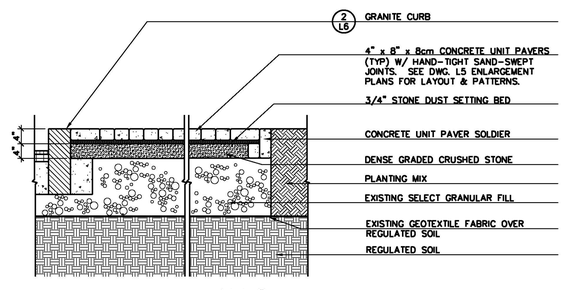
NOTE:
PROVIDE EXPANSION JOINTS WHEREVER CONCRETE PAVING MEETS VERTICAL AND HORIZANTAL MASONRY SURFACES, AND NOT MORE THAN 30' OC IN ANY DIRECTION.




N.I.C

SECTION

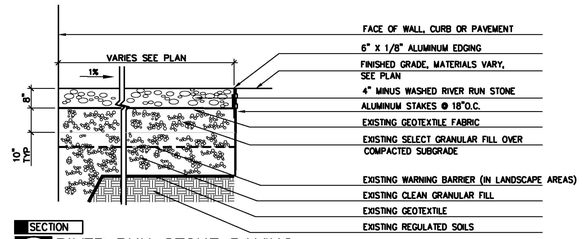
## 7 CONCRETE UNIT PAVERS ON CONCRETE BASE
L6 SCALE: 3/4"=1'-0"




N.I.C

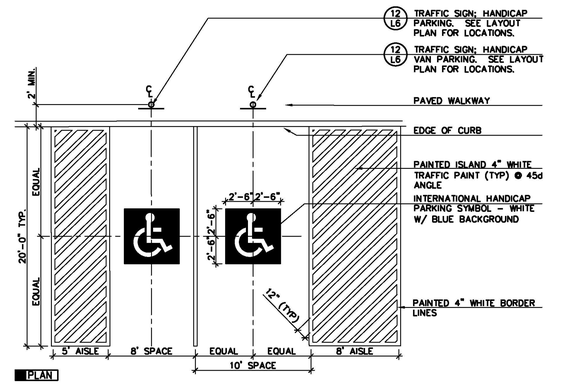
SECTION

## 8 DRY LAID CONCRETE UNIT PAVERS
L6 SCALE: 3/4"=1'-0"



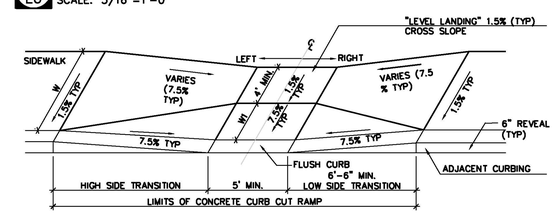

SECTION

## 9 RIVER RUN STONE PAVING
L6 SCALE: 1/2"=1'-0"




PLAN

## 10 HANDICAP PARKING SPACES
L6 SCALE: 3/16"=1'-0"




| ROADWAY PROFILE GRADE | HIGH SIDE TRANSITION LENGTH ROUNDED LENGTH 0.1 m (4") |
|---|---|
| % G | ENGLISH UNITS |
| 0 | 6'-6" |
| 0.00 1 0.01 | 7'-6" |
| 2 | 9'-0" |
| 0.02 | 11'-0" |
| 0.03 | 14'-0" |
| 0.04 0.04 | 15'-0" MAX. |

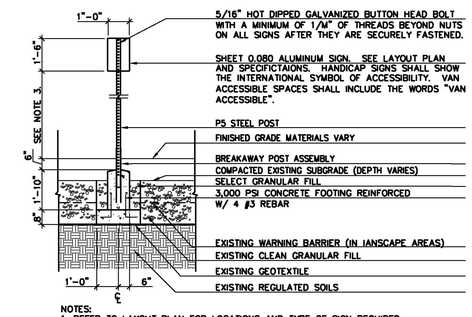
LEGEND

HSL=HIGH SIDE FRONT TRANSITION LENGTH
W=SIDEWALK WIDTH
W1=PERPENDICULAR RAMP LENGTH

NOTES:
1. HANDICAP CURB CUT RAMP SLOPE AND SIDE SLOPES (TRANSITIONS) SHALL NOT EXCEED 1:12. (8.0 % MAXIMUM, 7.5% PREFERRED). SLOPES MAY BE FLATTER THAN 1:12 WHERE REQUIRED BY ADJACENT CONDITIONS. "LEVEL LANDINGS" AND ALL RAMP CROSS SLOPES SHALL NOT EXCEED 1.6% (1.5% PREFFERED).
2. WHERE ROAD PROFILES EXCEED 4%, CURB TRANSITION LENGTHS SHALL BE 15'.
3. HANDICAP CURB CUT RAMPS SHALL NOT BE LOCATED BEHIND STOP LINES.
4. FIXED OBJECTS (E.G., UTILITY POLES, HYDRANTS, ETC.) SHALL NOT ENCROACH ON ANY PART OF HANDICAP CURB CUT RAMPS, INCLUDING TRANSITION SLOPES.
5. CROSSWALK HANDICAP CURB CUT RAMPS SHALL NOT BE LOCATED OUTSIDE OF THE CROSSWALK (EXCLUDING CURB TRANSITIONS). RAMP ENTRANCES SHALL BE CENTERED IN THE CROSSWALK WHENEVER POSSIBLE.
6. HANDICAP CURB CUT RAMP ENTRANCES SHALL MEET FLUSH WITH ADJACENT ROADWAY PAVEMENT.
7. THE LINE OF RAMP SURFACE SLOPES SHALL BE STRAIGHT AND SHALL NOT HAVE DEVIATIONS GREATER THAN 1/4".

ISOMETRIC

## 11 HANDICAP CURB CUT RAMP
L6 SCALE: N.T.S.




NOTES:
1. REFER TO LAYOUT PLAN FOR LOCATIONS AND TYPE OF SIGN REQUIRED.
2. ALL SIGNS SHALL BE INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
3. HEIGHT FOR HANDICAPPED PARKING AND HANDICAPPED VAN PARKING SHALL BE 5'-0"; HEIGHT FOR ALL OTHER TRAFFIC SIGNS SHALL BE 7'-0" MINIMUM.

SECTION

## 12 TRAFFIC SIGN
L6 SCALE: 3/8" = 1'-0"

CONSULTANTS


Moriece & Gary
Landscape Architects
Fifty-Six Roland Street
Charlestown, MA 02129
Tel. 617/776-7600 Fax 617/776-1075
EMail: bgary@mgary.com


| REVISIONS | |
|---|---|
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| | |
| | |
| ENTIRE DWG. | 5/13/05 |
| 1 ENTIRE DWG. | 12/13/04 |

20005.00

PROJECT NUMBER

KEITH MIDDLE SCHOOL
New Bedford, MA
PHASE III

DRAWING TITLE

SITE DETAILS


MVG
MOUNT VERNON GROUP ARCHITECTS
Mount Vernon Group Architects, Inc.
20 Cabot Road
Woburn, Massachusetts 01801
781 937 9720 T
781 937 9728 F
info@mvgarchitects.com E

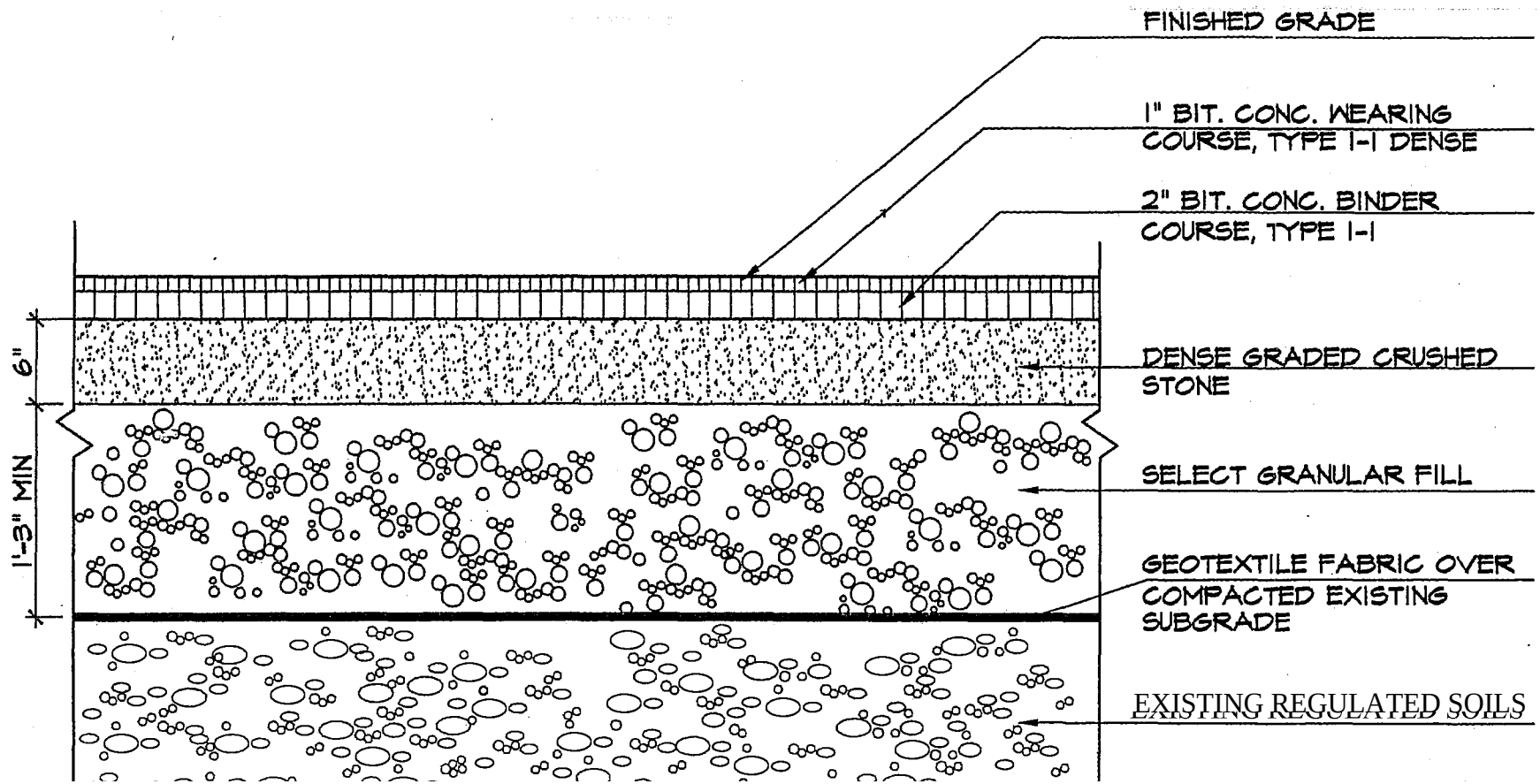

SEAL

| | |
|---|---|
| SCALE | AS NOTED |
| DRAWN BY | PAT |
| CHECKED | BWG/JAM |
| DATE | OCTOBER 6, 2004 |

DRAWING NUMBER

L6

Draft Risk-Based Cleanup Request
FIGURE 5 Section 3/L6 Revision 1




SECTION

3 L6 BITUMINOUS CONCRETE ROADWAY PAVEMENT

SCALE: 1"=1'-0"


Draft Risk-Based Cleanup Request
FIGURE 5 Section 3/L6 Revision 1

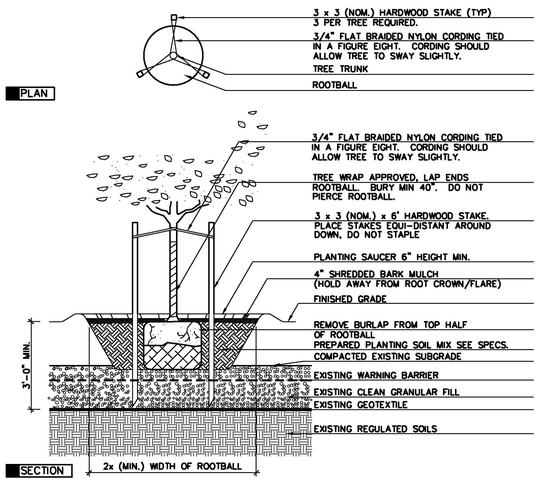
**Figure 6**

Landscaped Area
Cross Section

Draft Risk-Based Cleanup Request

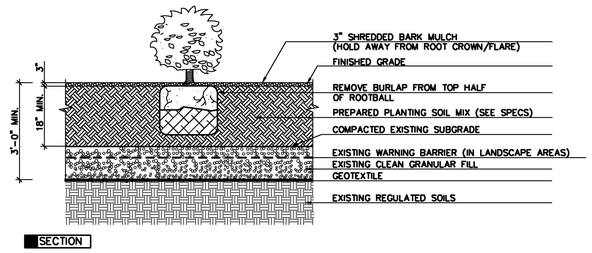
# FIGURE 6

Figure 4 – Landscaped Area Cross-Sections – Hardcopy only (extracted from Phase III Contract Documents L9). See BETA hardcopy of Risk-Based Cleanup Request. Above "title block" was taped over L9 and copied.

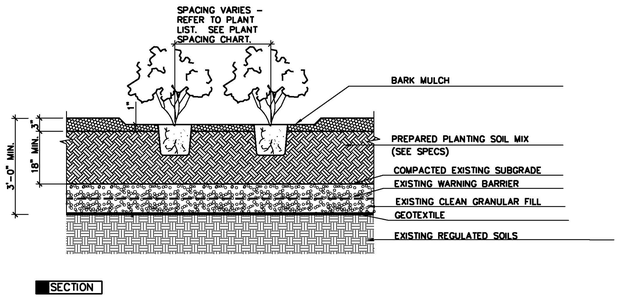



NOTES:
1. DO NOT CUT MAIN LEADER.
2. REMOVE ALL TWINE, ROPES & TAGS FROM TREE BRANCHES & TRUNK.
3. PLANT TREE SO THAT TRUNK/ ROOT FLARE JUNCTION IS 1-2" ABOVE FINISHED GRADE.

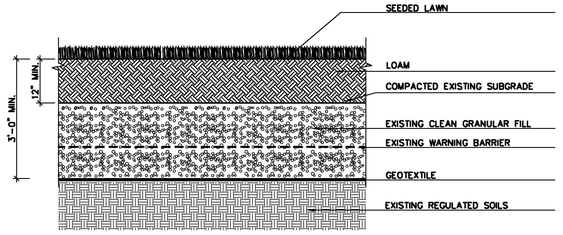
## 1 / L9 DECIDUOUS TREE PLANTING AND STAKING
SCALE: N.T.S



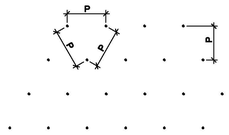

## 3 / L9 SHRUB PLANTING
SCALE: N.T.S.




## 5 / L9 PERENNIAL / GROUNDCOVER PLANTING
SCALE: N.T.S.




## 4 / L9 LAWN SEEDING
SCALE: N.T.S.




FOR USE WHEN PLANTS ARE TO BE SPACED EQUIDISTANT FROM ONE ANOTHER AS SHOWN

R=ROW SPACING
P=PLANT SPACING

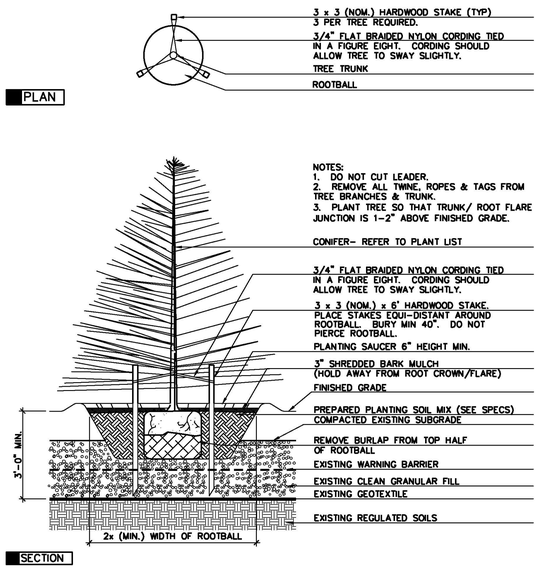
NO. OF PLANTS =AREA/AREA PER PLANT

AREA PER PLANT = R X P

| SPACING "P" | ROW "R" | NO. OF PLANTS | AREA UNIT |
|---|---|---|---|
| 6" O.C. | 5.20" | 4.61 | 1 SQ. FT. |
| 8" O.C. | 6.96" | 2.80 | |
| 10" O.C. | 8.66" | 1.66 | |
| 12" O.C. | 10.40" | 1.15 | |
| 15" O.C. | 13.00" | 7.38 | 10 SQ. FT. |
| 18" O.C. | 15.60" | 5.12 | |
| 24" O.C. | 20.80" | 2.90 | |
| 30" O.C. | 26.00" | 1.85 | |
| 36" O.C. | 30.00" | 1.28 | |

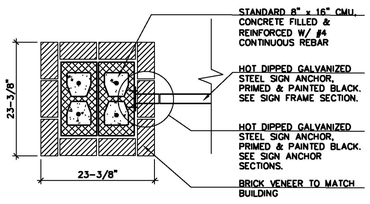
| SPACING "P" | ROW "R" | NO. OF PLANTS | AREA UNIT |
|---|---|---|---|
| 4' O.C. | 3.46' | 7.25 | 100 SQ. FT. |
| 5' O.C. | 4.33' | 4.61 | |
| 6' O.C. | 5.20' | 3.20 | |
| 8' O.C. | 6.93' | 1.80 | |
| 10' O.C. | 8.66' | 1.16 | 1,000 SQ. FT. |
| 12' O.C. | 10.40' | 8.00 | |
| 15' O.C. | 13.00' | 5.15 | |
| 20' O.C. | 17.30' | 2.88 | |
| 25' O.C. | 21.65' | 1.85 | |
| 30' O.C. | 26.00' | 1.29 | |
| 40' O.C. | 34.60' | 7.22 | 10,000 SQ. FT. |

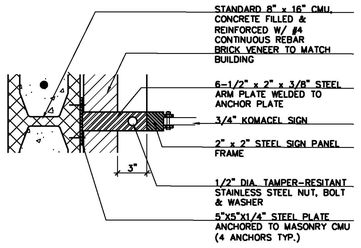
## 6 / L9 PLANT SPACING CHART
SCALE: N.T.S.

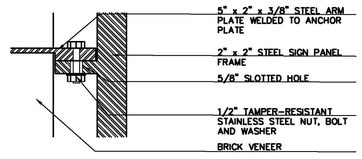


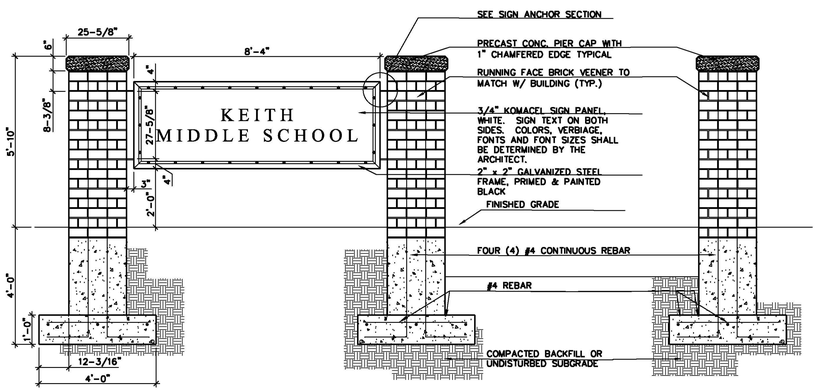

NOTES:
1. DO NOT CUT LEADER.
2. REMOVE ALL TWINE, ROPES & TAGS FROM TREE BRANCHES & TRUNK.
3. PLANT TREE SO THAT TRUNK/ ROOT FLARE JUNCTION IS 1-2" ABOVE FINISHED GRADE.

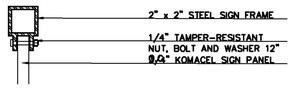
## 2 / L9 CONIFEROUS TREE PLANTING AND STAKING
SCALE: N.T.S




NOTES:
1. SUBMIT SHOP DRAWINGS FOR ALL COMPONENTS INCLUDING SIGN AND FRAME FOR APPROVAL BY THE ARCHITECT.
2. REINFORCEMENT SHALL MAINTAIN 2" CLEARANCE FROM ALL CONCRETE FACES.
3. CONSTRUCTION OF BRICK PIER MASONRY SHALL CLOSELY MATCH CONSTRUCTION OF BUILDING EXTERIOR WALLS.
4. SIGN COLORS, VERBIAGE, FONTS AND FONT SIZES SHALL BE DETERMINED BY THE ARCHITECT.
5. ALL SIGN FRAME HARDWARE SHALL BE TAMPER-RESISTANT.
6. ALL EXPSOED STEEL SIGN FRAME MEMBERS SHALL BE HOT-DIPPED GALVANIZED, PRIMED & PAINTED BLACK.
7. REFER TO SPECIFICATION SECTION 05500 MISC. METALS FOR SIGN FRAME AND 09900 FOR FINISH PAINT.
8. MASONRY PIERS SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH SPECIFICATION SECTION 04200 UNIT MASONRY.

## 6 / L9 SCHOOL IDENTIFICATION SIGN
SCALE: AS NOTED


CONSULTANTS
Moriece & Gary
Landscape Architects
Fifty-Six Roland Street
Charlestown, MA 02129
Tel: 617/776-7600 Fax 617/776-1075
EMail: bgary@mgary.com


| REVISIONS | |
|---|---|
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| | |
| ENTIRE DWG. | 5/13/05 |
| 10 SKL-12 | 12/13/04 |
| 4 SKL-2 | 11/01/04 |

PROJECT NUMBER
20005.00

KEITH MIDDLE SCHOOL
New Bedford, MA
PHASE III

DRAWING TITLE
SITE DETAILS


MVG
MOUNT VERNON GROUP ARCHITECTS
Mount Vernon Group Architects, Inc.
20 Cabot Road
Woburn, Massachusetts 01801
781 937 9720 T
781 937 9728 F
info@mvgarchitects.com E


SEAL

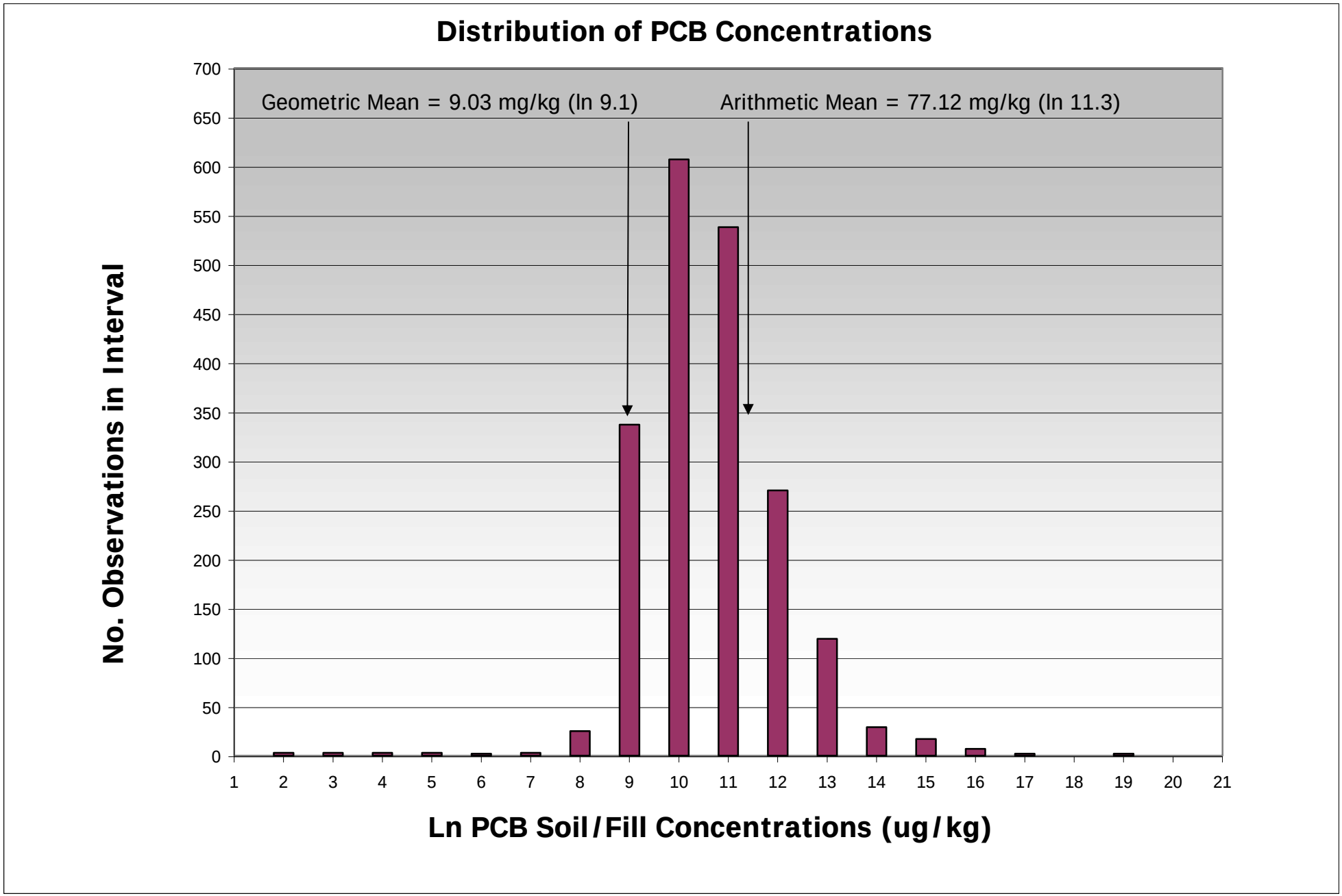
| | |
|---|---|
| SCALE | AS NOTED |
| DRAWN BY | PAT |
| CHECKED | BWG/JAM |
| DATE | OCTOBER 6, 2004 |

DRAWING NUMBER
L9

## Figure 7

Distribution of PCB Concentrations

**Figure 7**


Distribution of PCB Concentrations
Geometric Mean = 9.03 mg/kg (ln 9.1)
Arithmetic Mean = 77.12 mg/kg (ln 11.3)
No. Observations in Interval
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
Ln PCB Soil/Fill Concentrations (ug/kg)

**THIS ATTACHMENT CONSISTS OF HARD COPY (PAPER) PLAN AND IS AVAILABLE FOR VIEWING AT:**

**CITY OF NEW BEDFORD PUBLIC LIBRARY**
**613 PLEASANT STREET**
**NEW BEDFORD, MA 02740**

**CONTACT NUMBERS**
PHONE: (508)991-6275
FAX: (508)979-1481

**SCHEDULE OF HOURS**
MONDAY -THURSDAY
9:00AM - 9:00PM
FRIDAY & SATURDAY
9:00AM - 5:00PM

**CLOSED SUNDAY & HOLIDAYS**
**HANDICAPPED ACCESSIBLE**

**Figure 8**

Hay Bales and Silt Fence
(Phase III Contract
Drawing EX.1)

Draft Risk-Based Cleanup Request

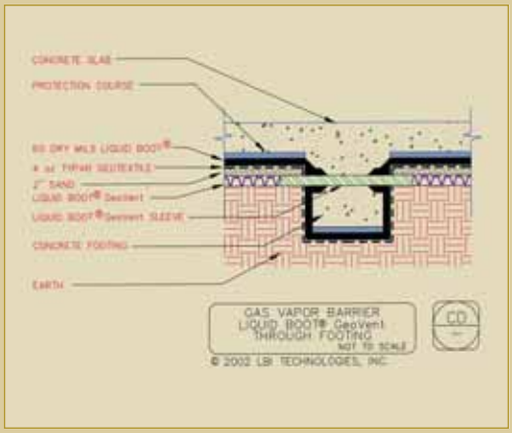
# FIGURE 8

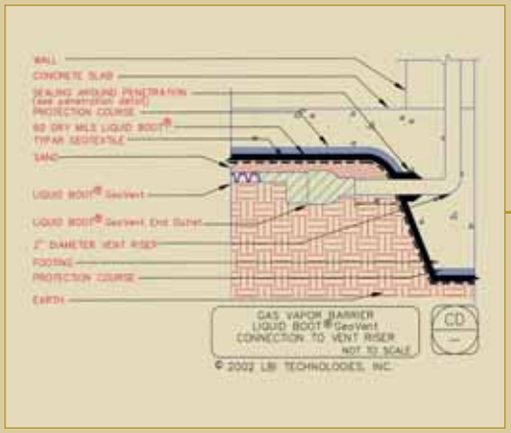
Figure 8 – Hay Bales and Silt Fence – Hardcopy only (extracted from Phase III Contract Documents EX1). See BETA hardcopy of Risk-Based Cleanup Request. Above “title block” was taped over EX1 and copied.

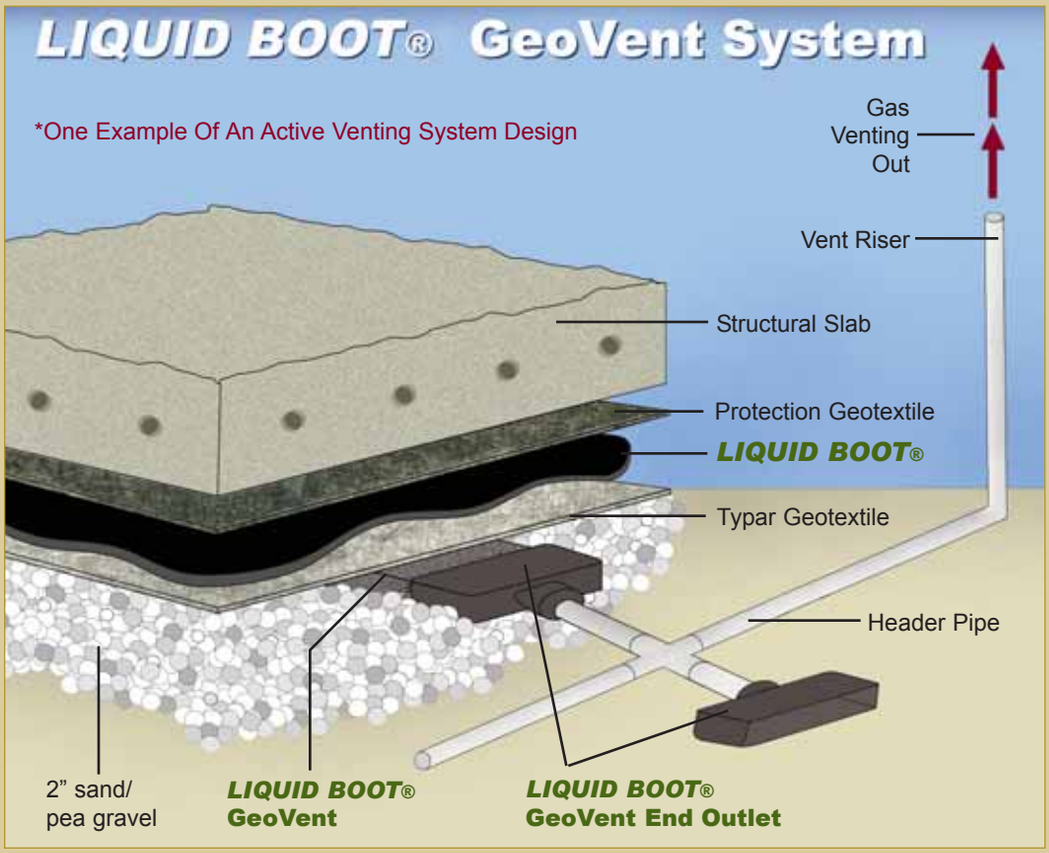
**Figure 9**

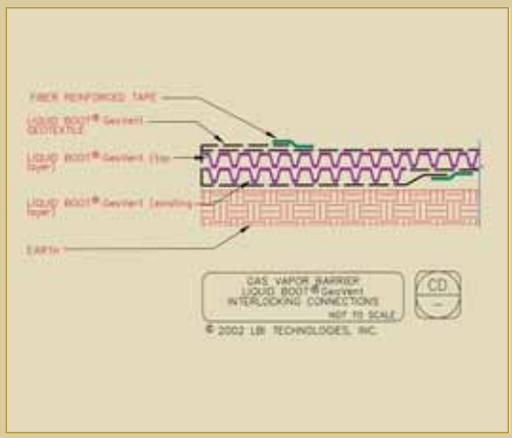
Geovent – PVC Vent and
PVC Header Pipe Connection

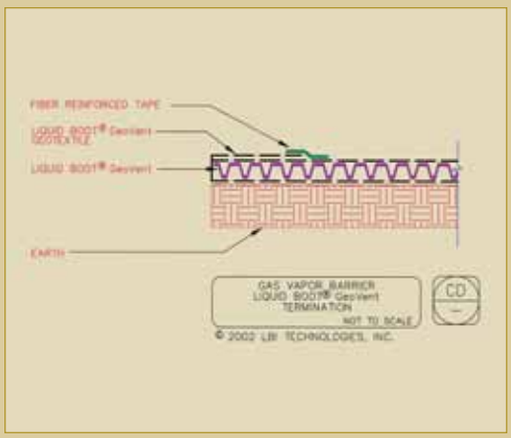
# LIQUID BOOT® GeoVent



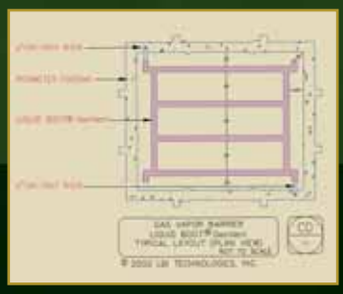




**LBI's Technical Experts Will Design Your Membrane and Venting System with Custom Details & Specifications.**

LBI has worked with architects, environmental engineers and contractors in the design of thousands of various membrane systems. For custom CAD details and specifications, contact your ***LIQUID BOOT®*** representative or e-mail us at lbi@liquidboot.com



## warranty:

Contact LBI Technologies, Inc. for complete details regarding ***LIQUID BOOT®*** warranty at:

Ph | 714.384.0111

e-mail | lbi@liquidboot.com

web | www.liquidboot.com



**Draft Risk-Based Cleanup Request**
**FIGURE 9**

**BETA Group, Inc.**
Engineers • Scientists • Planners

315 Norwood Park South
Norwood, MA 02062
(781) 255-1982 • fax (781) 255-1974
www.BETA-Inc.com

April 29, 2005

Ms. Kimberly Tisa
EPA New England, Region 1
1 Congress Street
Suite 1100 (CPT)
Boston, MA 02114-2023

Re: McCoy Field Site
225 Hathaway Boulevard
New Bedford, MA 02740

Dear Ms. Tisa:

This letter addresses review comments presented in a Memorandum to you dated April 5, 2005 from Yoon-Jean Choi, P.E. The review comments are related to the *Risk-Based Cleanup Request, Rev. 0, March 21, 2005*, for the School Site at the above-referenced location, submitted by BETA Group, Inc. on behalf of the City of New Bedford. The purpose of this letter is to respond to Mr. Choi's comments, with focus on the adequacy of the technical design for the engineered cap proposed for the Site.

**EPA General Comment #1 – Related to discussion of fate and transport to support cap design.**

Section 4.1.2 (Environmental Fate and Transport Characteristics) has been expanded to discuss the characteristics of all contaminants of concern, with emphasis on PCBs. We further discuss how the proposed cap and institutional controls for the Site are protective of the human health and the environment.

In addition, we have expanded Attachments E (Long-Term Cap Monitoring Program) and F (Environmental Monitoring Plan) to present a summary of fate and transport issues and how they were considered in designing the plan.

**EPA General Comment #2(1) – Related to environmental control plan, storm water management plan, erosion control plan.**

The environmental control, storm water management, erosion control, and dust control plans are addressed in the following documents:

- Storm Water Pollution Prevent Plan, submitted to EPA in September 2004;
- Soil Management and Dust Monitoring Section of the Work Plan (page 24);
- Attachment O of the Work Plan (Waste and Regulated Soil Removal Plan); and
- Phase III Contract Drawing EX.1.

We have revised Section 4.1.2 of the Risk Based Cleanup Request (Environmental Fate and Transport Characteristics) to reference the above documents. The Storm Water Pollution Prevention Plan is included as Attachment H. Phase III Contract Drawing EX.1 is included as Figure 8.

The entire site (not including the building footprint) has been provided with the geotextile separation layer. The limits of the fabric include the entire length of Hathaway Boulevard to the east, Nemasket

Street to the south, the back lot lines of the Durfee Street properties to the north, and the toe of the embankment to the west. At the northern and southern ends of the embankment area depicted on Contract #2 Drawing # L2, the fabric extends southerly to Nemasket Street and northerly to the back lot lines of Parcels 75 5, 75 6, and 75 7 on Durfee Street. Hay bales and silt fences are in place, as required in the Order of Conditions received from the Conservation Commission and shown in Figure 5 (detail 1/L6), along the toe of the entire embankment, Hathaway Boulevard, and other resource areas (see EX.1).

**EPA General Comment #2(2) – Related to distinction between geotextile fabrics and warning barrier.**

Four geotextile fabrics are specified for the Site:

- The separation fabric used outside the building footprint to separate regulated soil to remain on Site from clean soil is Mirafi 600X (Phase II Spec. 02200 – Earthwork, as amended by Addendum No. 2, dated 8-13-04);
- The coated separation fabric to protect construction workers from exposure is Mirafi MCF1212 (Phase II Spec. 02200);
- The geotextile to be placed for adherence of the spray-on gas vapor barrier is Mirafi 1100N. (Phase III Spec. 07133); and
- Non-woven protection course geotextile, LBI Technologies Ultrashield G-1000, is specified for use over the gas vapor barrier (Phase III Spec. 07133). Also see Phase III Spec. 07133 for details on the gas vapor barrier.

Reference is made to Shop Drawing (LW1100 Dig Barrier) for details on the warning barrier. The warning barrier is or will be placed in all landscaped areas.

Note: We have expanded Attachment B to include the specifications and shop drawings for the separation fabric, coated separation fabric, adherence geotextile, warning barrier, and gas vapor barrier.

**EPA General Comment #2(3) – Related to information on topsoil layer.**

We have included Specification 02900 - Lawns in Attachment G.

**EPA General Comment #3 – Related to terminology of "Engineer" vs. "Architect".**

The Contract Documents use the term "Architect" generically to refer to the "Architect, its subcontractors, and other designated consultants of the City". As indicated in Phase II Contract Documents Section 02280-1.01A (attached), BETA Group is responsible for directing "excavation, removal, segregation, handling, temporary stockpiling, loading, transportation, and offsite management of the fill layer and unsuitable subgrade soils". BETA has been present at the Site throughout construction to observe, direct and document the aforementioned activities.

**EPA Specific Comment #1 – Related to intrusion into fill material underneath the exposure management barriers.**

With respect to intrusion from animals, we believe the warning barrier and thick geotextile fabric will prevent or strongly discourage burrowing; therefore, we do not believe additional provisions are necessary at this time. The Activity and Use Limitation to be filed for the property requires that the City routinely monitor and repair damage to the asphalt and/or soil cap, including that resulting from animal burrowing.

With respect to root intrusion, care has been taken to select only those species of trees and shrubs that have shallow root systems. While we expect that root intrusion below the separation fabric will occur to some degree, we do not expect significant disruption or movement in the cap itself. The AUL has the following provisions to address this issue:

- Removal of subgrade root systems is limited to 1 foot below grade;
- A list of acceptable shallow rooted trees and shrubs;
- A list of prohibited deep, tap root species of trees;
- Periodic site inspections are required to identify and remove any indigenous deep-rooted species (i.e. maple, oak and similar deciduous trees) that are identified within the AUL area.

Section 1.4 (page 5) and Attachment A (Draft Notice of Activity and Use Limitation) have been revised to address potential intrusion of roots into fill material located below the exposure management barrier.

**EPA Specific Comment #2 – Related to pavement installation details.**

Inconsistencies between pavement installation requirements included in Section 3.3.4 and illustrated on Figure 5 have been corrected. Figure 5 (Section 3/L6) was revised to eliminate the warning barrier and label the material beneath the separation geotextile as "existing regulated soils".

**EPA Specific Comment #3 – Related to geotextile specifications in Attachment B.**

The Mirafi 1100N geotextile fabric is specified for use below the vapor barrier as an adherence surface; the non-woven protection course geotextile is specified for use above the vapor barrier.

**EPA Specific Comment #4 - Attachment E (Long-term Cap Monitoring Plan)**

**(1) - Related to minimum asphalt thickness listed in Attachment E.**

The minimum thickness of the asphalt pavement will be 3 inches, as indicated in the Phase III Contract Documents. Attachment E erroneously specified a minimum thickness of 6 inches. Attachment E has been revised to indicate a minimum thickness of 3 inches for the asphalt pavement.

**(2) – Related to infiltration of water into engineered caps.**

The engineered barriers are not intended to prevent or minimize infiltration of water. This language was originally included in Attachment E, but it has since been deleted.

**<u>EPA Specific Comment #5</u> - Attachment G (Specification for Backfill Materials)**

**(1) - Related to terminology of "Engineer" vs. "Architect".**

The Contract Documents use the term "Architect" generically to refer to the "Architect, its subcontractors, and other designated consultants of the City". As indicated in the Phase II Contract Documents, Section 02280-1.01A (attached), BETA Group, Inc. is responsible for directing "excavation, removal, segregation, handling, temporary stockpiling, loading, transportation, and offsite management of the fill layer and unsuitable subgrade soils". BETA personnel have been present at the Site to observe, direct and document the aforementioned activities.

**(2) - Related to Section 3.04.A.2, Samples and Testing.**

Reference is made to Phase II Contract Specification 02200, a copy of which has been included in Attachment G. The specification addresses the testing requirements before the material is delivered to the site and after it is installed.

**(3) – Related to Section 3.04.B.1. Lift thickness.**

The specified lift thickness is "loose".

**<u>EPA Specific Comment #6</u> - Figure 4 (Gas Vapor Barrier & Venting Plan Details)**

**(1) – Related to Typical 1: Location of pressure relief collection and venting system PRCVS.**

The purpose of the PRCVS is to vent any gas trapped in the subsurface due to the gas vapor barrier. It will be located just below the vapor barrier and above the compacted fill layer to eliminate trapping of any soil gas that may accumulate. Please note that the results of the soil gas survey, as discussed in Section 2.2.3, indicate that soil gas is not expected to pose a significant risk to human health, and the installation of the venting system was recommended as an added precautionary measure.

Section 3.3.1 (Building Footprint) has been expanded to explain why the Pressure Relief Collecting and Venting System (PRCVS) is located above the compacted fill.

**(2) – Related to Typical 3: Purpose of "Gas & Vapor membrane 80 Dry mil".**

The purpose of the "Gas & Vapor membrane 80 Dry mil" is to effect a vapor tight seal between the grade beam and the adherence geotextile. The membrane will be applied above the grade beams using a spray-on technology, prior to pouring of the concrete slab.

Section 3.3.1 (Building Footprint) has been expanded to explain the purpose of the "Gas & Vapor Membrane 80 Dry Mil" shown in Figure 4. We also described how the membrane is to be installed above the grade beam.

**(3) – Related to Typicals 4 & 5: PVC vent and PVC header pipe connection.**

Figure 9 has been included to illustrate connection of the PVC vent and header pipes.

We trust that our responses adequately address the questions and concerns raised during EPA's review of the cap design details; however, we will be available to address any further questions or concerns that may arise. Please call either Jackie Huggins or me with any questions related to the contents of this letter or any further concerns that may arise.

Very truly yours,

**BETA GROUP, INC.**

Alan D. Hanscom, P.E., LSP
Associate

Cc: Gerard Martin, MADEP
Scott Alfonse, City of New Bedford
Jacqueline Coucci, City of New Bedford
William DoCarmo, City Project Manager
Larry Oliveira, School Department
Evan Warner, Mount Vernon Group Architects
Jackie Huggins, BETA

May 2, 2005

Ms. Kimberly Tisa
EPA New England, Region 1
1 Congress Street
Suite 1100 (CPT)
Boston, MA 02114-2023

Re: McCoy Field Site
225 Hathaway Boulevard
New Bedford, MA 02740

Dear Ms. Tisa:

This letter addresses review comments presented in your letter to the City of New Bedford dated April 19, 2005. The review comments are related to the *Risk-Based Cleanup Request, Rev. 0, March 21, 2005*, for the School Site at the above-referenced location, submitted by BETA Group, Inc. on behalf of the City of New Bedford.

**EPA Comment #1 – Related to Warning Barrier**

The warning barrier has or will be placed in all landscaped areas. The warning barrier will not be placed in paved areas or beneath the building footprint. BETA corrected references to the warning barrier locations in Sections 1.3, 3.3.3, and 3.3.4.

**EPA Comment #2 – Related to Figures showing sampling locations**

Aside from the landscape area samples, the colors of the symbols denoting sample locations were arbitrary. The colors were used only to facilitate identification of sample IDs and corresponding locations. The figures have been revised so that all sample locations are shown in black. Also, the landscaped area samples are illustrated on a new Figure 1.6.

**EPA Comment #3 – Related to interpretation of Figures 1.3 thru 1.5 with respect to Figures 1.1 and 1.2**

Figures 1.3 through 1.5 denote sample locations within the building footprint shown on Figures 1.1 and 1.2. Building Sections A, B, and C are labeled on Figures 1.1 and 1.2 for reference.

**EPA Comment #4 – Related to shading of exceedances in PCB analytical results for the Landscaped Area**

Exceedances in the PCB analytical results spreadsheet for the Landscaped Area (Appendix C) were inadvertently not shaded. The subject spreadsheet for the Landscaped Area (Appendix C) has been corrected to include shading for exceedances.

**EPA Comment #5 – Related to distinction on sample types.**

Appendix C was revised so that, for each area of the School Site (i.e. Landscaped Area, Pile Caps, Grade Beams, etc.), the samples are divided into the following categories:

1. Characterization Samples
2. Delineation Samples
3. Confirmation/Remaining Samples

Section 2.2 was expanded to include a discussion on the difference between the types of samples.

**EPA Comment #6 – Related to units presented in data tables for PCBs**

Appendix C was revised so that all PCB results are reported in units of mg/kg (ppm).

**EPA Comment #7 – Related to Groundwater Results**

The raw chromatograms for the PCB Aroclor results reported in Alpha laboratory report L0211201 have been reviewed. The surrogate recoveries are within the acceptable range for all samples. The baselines of the chromatograms for each column are normal. There is no evidence of detection of any PCB Aroclors on any of the chromatograms. A hardcopy of the backup for Alpha laboratory report L0211201 has been included in Attachment D.

**EPA Comment #8 – Related to QA/QC discussion on Data Usability**

A conservative approach was utilized to determining whether fill material would be handled as PCB remediation waste < 50 ppm or PCB remediation waste > 50 ppm, as evidenced by the following:

1. The limits of excavation for PCB remediation waste > 50 ppm were conservative in that we excavated to a sample location known to contain < 50 ppm.
2. BETA requested that the laboratories alert us when they suspected presence of non-Aroclor PCBs so that we could decide whether to proceed with congener analysis by Method 680. When we did not analyze the sample by Method 680 upon the laboratory recommendation, we assumed the sample contained > 50 ppm PCBs.
3. In the event that a duplicate sample was analyzed, BETA based disposal decisions on the higher concentration sample. For instance, if a duplicate sample contained < 50 ppm PCBs but the corresponding sample contained > 50 ppm PCBs, then the material was disposed of as PCB remediation waste > 50 ppm.

Section 2.4 on Data Validation and Usability has been added to the Risk-Based Cleanup Request.

**EPA Comment #9 – Related to Identification of associated reference sample for Duplicate Samples**

Inadvertently, the associated reference samples for some of the duplicates listed in the tables provided in Appendix C were not identified. The PCB analytical results spreadsheets have been corrected (Appendix C) to identify samples associated with duplicate samples.

**<u>EPA Comment #10</u> – Related to Long-Term Monitoring and Cap Maintenance Plans**

Attachment E (Long-term Cap Monitoring Plan) has been revised to include more detailed discussion on the engineered cap maintenance. Attachment F (Environmental Monitoring Plan) has also been revised to include a more detailed discussion on indoor air monitoring, including methodologies and action limits.

We trust these responses adequately address the questions and concerns raised during your supplemental review of the application; however, we will be available to address any further questions or concerns that may arise. Please call either Jackie Huggins or me with any questions related to the contents of this letter or any further concerns that may arise.

Very truly yours,

**BETA GROUP, INC.**

Alan D. Hanscom, P.E., LSP
Associate

Cc: Gerard Martin, MADEP
Scott Alfonse, City of New Bedford
Jacqueline Coucci, City of New Bedford
William DoCarmo, City Project Manager
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Jackie Huggins, BETA

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May 2, 2005

Ms. Kimberly Tisa
EPA New England, Region 1
1 Congress Street
Suite 1100 (CPT)
Boston, MA 02114-2023

Re: McCoy Field Site
225 Hathaway Boulevard
New Bedford, MA 02740

Dear Ms. Tisa:

This letter addresses review comments presented in the Versar, Inc. Memorandum dated April 14, 2005 from Diane Sinkowski to Laura Casey, attached to your letter to the City of New Bedford dated April 19, 2005. The review comments are related to the *Risk-Based Cleanup Request, Rev. 0, March 21, 2005*, for the new Keith Middle School Site at the above-referenced location, submitted by BETA Group, Inc. on behalf of the City of New Bedford.

The purpose of this letter is to respond to Ms. Sinkowski's comments, with focus on the adequacy of the human health risk assessment for the new Keith Middle School Site.

**Comment #1 – Related to Exposure Scenarios and Pathways**

The May 17, 2004 Memorandum calculated a risk-based air particle concentration (RBAC) for PCBs in support of the clean corridor excavation that was completed over the past year. This value was used to evaluate the results of dust monitoring conducted during excavation activities. This task was performed separately from the Risk-Based Cleanup Request (RBCR) risk characterization.

Clean corridor excavation activities were performed by OSHA-trained remediation workers who were subject to a Site-Specific Health and Safety Plan (HASP), in which remediation workers were required to wear dermal protection and avoid soil ingestion. Dust suppression measures were also employed throughout construction. Through the HASP requirements, soil dermal contact and ingestion were controlled. The remaining pathway by which remediation workers could be exposed was through inhalation of soil particles and subsequent ingestion of a portion of inhaled particles, as assessed using the Massachusetts Department of Environmental Protection (MADEP) approach. This approach, based on an average PCB soil concentration of 46.6 mg/kg from data available at that time and a total $1x10^{-6}$ risk level, resulted in a maximum acceptable air particle concentration of ~400 $\mu g/m^3$. As shown on Table 1, the average air particle concentration measured during the clean corridor work (measured between June 2004 and January 2005) was 46 $\mu g/m^3$. Please note that this measurement was total, not respirable, air particles; therefore, it overestimates the exposure concentration of PCBs on respirable particles.

All impacted soil remaining at the Site has or will be covered by geotextile fabric prior to non-remediation workers completing the school building, so there will be no exposure to construction workers constructing the school. After completion of the school, the activity and use limitation (AUL) placed on the Site will prohibit future non-remediation construction workers from contacting impacted soil underneath the exposure management barriers without Licensed Site Professional oversight and adherence to an appropriate HASP.

**Comment #2 – Related to Dermal Contact and Direct Ingestion Soil Pathways for Construction Workers**

As indicated above, the RBACs were derived for evaluating dust monitoring results during clean corridor excavation that was performed by OSHA-trained remediation workers subject to a site-specific HASP that required dermal protection. Direct soil ingestion is assumed to be incomplete.

**Comment #3(a) – Related to Formulas and Accuracy of RBAC Calculations**

Given the HASP controls, the referenced EPA approach (EPA 2002) would consider only the particle inhalation pathway. Applying this approach (modified to include an exposure time parameter of 8 hours per day to account for partial day exposure of the remediation workers), a maximum acceptable air particle concentration of 165 $\mu g/m^3$ is derived (Table 2). This value is slightly lower than that derived by the MADEP approach due to MADEP's apportioning of some particles to the ingestion route. Nonetheless, the average air particle concentration (total, not respirable) measured during the clean corridor work (46 $\mu g/m^3$) is well below this value.

**Comment #3(b) – Related to Use of Relative Absorption Factors (RAFs)**

Application of EPA's approach in Table 1 does not use an RAF. Because of HASP provisions, the direct soil ingestion pathway for remediation workers is assumed to be incomplete.

**Comment #3(c) – Related to Henry's Law Constant for Aroclor 1245 and Evaluation of PCBs for Indoor Air Intrusion**

The commenter is correct that the value presented is the Henry's Law Constant in units of atm-$m^3$/mol rather than the dimensionless value, which was the original intent. The referenced table has been corrected.

Soil vapor intrusion was assessed for constituents detected in soil gas. Soil gas was not analyzed for PCBs, so there were no data with which to assess potential PCB volatilization. Using a comparable approach to that used to estimate indoor air concentrations from soil gas, an indoor air concentration of PCBs volatilizing from subsurface soil was predicted in the school, assuming the absence of a vapor barrier (such a barrier will underlie the school). These exposure and risk calculations are presented on Tables 3-1 through 3-5. The calculations used the same exposure and modeling assumptions applied to the soil gas assessment (where used by the model), and applied the maximum concentration of PCBs detected in soil remaining on the Site (94.5 mg/kg). For an 8-hour-per day, 250-day-per-year, 25-year exposure, a hazard index (HI) of 0.003 and an

excess lifetime cancer risk (ELCR) of $1.5 \times 10^{-7}$ are calculated. Added to the HI and ELCR calculated for soil gas constituents (0.017 and $5.8 \times 10^{-7}$, respectively, when expanded), a total HI of 0.02 and a total ELCR of $7 \times 10^{-7}$ are calculated. These hazard and risk levels are below maximum acceptable levels established by both U.S. EPA and MADEP.

We trust that our responses adequately address the questions and concerns raised during Versar's and EPA's review of the human health risk assessment; however, we will be available to address any further questions or concerns that may arise.

Please call either of the undersigned with any questions related to the contents of this letter or any further concerns that may arise.

Very truly yours,

**BETA GROUP, INC.**

Alan D. Hanscom, P.E., LSP
Associate

**ESS GROUP, INC.**

Cynthia Fuller
Health Risk Assessor

Cc: Gerard Martin, MADEP
Scott Alfonse, City of New Bedford
Jacqueline Coucci, City of New Bedford
William DoCarmo, City Project Manager
Larry Oliveira, School Department
Evan Warner, Mount Vernon Group Architects
Jackie Huggins, BETA

**TABLE 1**
**SUMMARY OF AVERAGE DAILY DUST MEASUERMENTS**
**Former McCoy Field**
**New Bedford, Massachusetts**

| Monitoring Date | Daily Average Dust Concentration ($mg/m^3$) |
|---|---|
| 06/14/04 | 0.009 |
| 06/15/04 | 0.028 |
| 06/18/04 | 0.108 |
| 06/23/04 | 0.015 |
| 06/24/04 | 0.015 |
| 06/25/04 | 0.003 |
| 06/28/04 | 0.007 |
| 06/29/04 | 0.013 |
| 06/30/04 | 0.022 |
| 07/01/04 | 0.030 |
| 07/02/04 | 0.043 |
| 07/06/04 | 0.022 |
| 07/07/04 | 0.024 |
| 07/08/04 | 0.010 |
| 07/09/04 | 0.024 |
| 07/10/04 | 0.015 |
| 07/12/04 | 0.160 |
| 07/13/04 | 0.005 |
| 07/14/04 | 0.003 |
| 07/15/04 | 0.027 |
| 07/16/04 | 0.043 |
| 07/17/04 | 0.019 |
| 07/19/04 | 0.015 |
| 07/20/04 | 0.058 |
| 07/21/04 | 0.018 |
| 07/22/04 | 0.083 |
| 07/23/04 | 0.061 |
| 07/26/04 | 0.027 |
| 07/27/04 | 0.016 |
| 07/28/04 | 0.002 |
| 07/29/04 | 0.034 |
| 07/30/04 | 0.086 |
| 08/02/04 | 0.039 |
| 08/03/04 | 0.076 |
| 08/04/04 | 1.849 |
| 08/06/04 | 0.047 |
| 08/07/04 | 0.026 |
| 08/09/04 | 0.018 |
| 08/10/04 | 0.100 |
| 08/30/04 | 0.042 |
| 09/01/04 | 0.016 |
| 09/02/04 | 0.010 |
| 09/03/04 | 0.012 |
| 09/07/04 | 0.077 |
| 09/08/04 | 0.081 |
| 09/09/04 | 0.043 |
| 09/10/04 | 0.049 |
| 09/13/04 | 0.043 |
| 09/14/04 | 0.125 |
| 09/15/04 | 0.039 |
| 09/16/04 | 0.067 |
| 09/17/04 | 0.071 |
| 09/20/04 | 0.007 |
| 09/21/04 | 0.007 |
| 09/22/04 | 0.021 |
| 09/23/04 | 0.028 |
| 09/24/04 | 0.019 |
| 09/27/04 | 0.066 |
| 09/28/04 | 0.080 |
| 10/01/04 | 0.028 |
| 10/04/04 | 0.045 |
| 10/05/04 | 0.036 |
| 10/06/04 | 0.011 |

**TABLE 1**
**SUMMARY OF AVERAGE DAILY DUST MEASUERMENTS**
**Former McCoy Field**
**New Bedford, Massachusetts**

| Monitoring Date | Daily Average Dust Concentration ($mg/m^3$) |
|---|---|
| 10/07/04 | 0.014 |
| 10/08/04 | 0.036 |
| 10/09/04 | 0.009 |
| 10/12/04 | 0.025 |
| 10/13/04 | 0.018 |
| 10/15/04 | 0.032 |
| 10/16/04 | 0.008 |
| 10/18/04 | 0.006 |
| 10/19/04 | 0.018 |
| 10/21/04 | 0.019 |
| 10/27/04 | 0.058 |
| 10/28/04 | 0.007 |
| 10/30/04 | 0.003 |
| 11/01/04 | 0.014 |
| 11/02/04 | 0.020 |
| 11/03/04 | 0.050 |
| 11/04/04 | 0.010 |
| 11/05/04 | 0.003 |
| 11/08/04 | 0.015 |
| 11/09/04 | 0.118 |
| 11/10/04 | 0.051 |
| 11/12/04 | 0.017 |
| 11/15/04 | 0.041 |
| 11/16/04 | 0.010 |
| 11/17/04 | 0.024 |
| 11/18/04 | 0.037 |
| 11/19/04 | 0.022 |
| 11/20/04 | 0.029 |
| 11/22/04 | 0.024 |
| 11/24/04 | 0.018 |
| 11/27/04 | 0.014 |
| 11/29/04 | 0.010 |
| 11/30/04 | 0.014 |
| 12/02/04 | 0.007 |
| 12/03/04 | 0.037 |
| 12/04/04 | 0.006 |
| 12/06/04 | 0.009 |
| 12/08/04 | 0.012 |
| 12/09/04 | 0.008 |
| 12/13/04 | 0.042 |
| 12/13/04 | 0.042 |
| 12/14/04 | 0.006 |
| 12/15/04 | 0.018 |
| 12/16/04 | 0.008 |
| 12/17/04 | 0.006 |
| 12/18/04 | 0.013 |
| 12/20/04 | 0.025 |
| 12/21/04 | 0.027 |
| 12/22/04 | 0.022 |
| 12/28/04 | 0.014 |
| 01/03/05 | 0.030 |
| 01/04/05 | 0.001 |
| 01/05/05 | 0.021 |
| 01/07/05 | 0.022 |
| 01/10/05 | 0.062 |
| **Arithmetic Mean** | **0.046** |
| **Median** | **0.022** |

Data compiled from BETA's daily log sheet

**TABLE 2**
**CALCULATION OF ALTERNATE AIR DUST CONCENTRATION**
**Former McCoy Field**
**New Bedford, Massachusetts**

For carcinogens:

$$SSL = \frac{TR \cdot AT \cdot CF}{UR \cdot EF \cdot ED \cdot \frac{1}{PEF}}$$

U.S. EPA (2002). *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites*. OSWER 9355.4-24.

Rearranging, substituting $C_{soil}$ for SSL, adding exposure time (ET), and calculating for PEF:

$$PEF = \frac{C_{SOIL} \cdot UR \cdot ET \cdot EF \cdot ED}{TR \cdot AT \cdot CF}$$

Where:

| | |
|---|---|
| SSL = | Soil screening level (mg/kg) |
| PEF = | Particle emission factor ($m^3$/kg) |
| $C_{soil}$ = | Soil concentration (mg/kg) |
| TR = | Target excess lifetime cancer risk (unitless) |
| AT = | Averaging time (yr) |
| CF = | Unit conversion factor (hr/yr) |
| UR = | Unit risk value [$(mg/m^3)^{-1}$] |
| ET = | Exposure time (hr/dy) |
| EF = | Exposure frequency (dy/yr) |
| ED = | Exposure duration (yr) |

and: $C_{air}$ = 1/(PEF) x CF1

where:

| | |
|---|---|
| $C_{air}$ = | Air particle concentration ($mg/m^3$) |
| CF1 = | Unit conversion factor (mg/kg) |

| $C_{soil}$ (mg/kg) | UR [$(mg/m^3)^{-1}$] | ET (hr/dy) | EF (dy/yr) | ED (yr) | TR (unitless) | AT (yr) | CF (hr/yr) | PEF ($m^3$/kg) | CF1 (mg/kg) | $C_{air}$ ($mg/m^3$) |
|---|---|---|---|---|---|---|---|---|---|---|
| 46.6 | 0.57 | 8 | 250 | 1 | 1.00E-06 | 1 | 8,760 | 6.06E+06 | 1.00E+06 | 0.165 |

**TABLE 3-1**
**RISK CHARACTERIZATION**
**INDOOR INHALATION OF PCBs VOLATILIZED FROM SOIL**
**Future Keith Middle School**
**New Bedford, Massachusetts**

Equation $C_{air}$ = **[$C_{soil}$ x $VF_{sesp}$]**

where:
$C_{air}$ = Constituent concentration in indoor air (mg/m³)
$C_{soil}$ = Constituent concentration in subsurface soil (mg/kg)
$VF_{sesp}$ = Volatilization Factor, subsurface soil to enclosed spaces [(mg/m³)/(mg/kg)]

**ADE = [$C_{air}$ x EF x ED x EP x CF]/AP**

where:
ADE = Average daily exposure (mg/m³) (nc = non-carcinogen; ca = carcinogen)
EF = Exposure frequency (events/yr)
ED = Exposure duration (hr/event)
EP = Exposure period (yr)
CF = Unit conversion factor (yr/hr)
AP = Averaging period (yr)

**HQ = ADE/RfC**
**HI = Sum [HQ]**
**Risk = ADE x UR**

HQ = Non-carcinogenic hazard quotient (unitless)
HI = Total hazard index (unitless)
RfC = Reference concentration (mg/m³)
Risk = Excess lifetime cancer risk (unitless)
UR = Unit risk value [(mg/m³)⁻¹]

| Constituent | $C_{soil}$ (mg/kg) | $VF_{sesp}$ [1] [(mg/m³)/(mg/kg)] | $C_{air}$ (mg/m³) | EF (events/yr) | ED (hr/event) | EP (yr) | CF (yr/hr) | AP (nc) (yr) | ADE (nc) (mg/m³) | RfC (mg/m³) | HQ (unitless) | AP [ca] (yr) | ADE [ca] (mg/m³) | UR [(mg/m³)⁻¹] | Risk (unitless) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor 1254 | 94.5 | 9.98E-09 | 9.44E-07 | 250 | 8 | 25 | 1.14E-04 | 25 | 2.15E-07 | 7.00E-05 | 0.003 | 70 | 7.69E-08 | 2 | 1.5E-07 |

1. Supporting equations are presented on following spreasheets.

**TABLE 3-2**
**CALCULATION OF VOLATILIZATION FACTOR**
**SUBSURFACE SOIL TO INDOOR AIR**
**Future Keith Middle School**
**New Bedford, Massachusetts**

$$VF_{sesp} = \frac{\left[\dfrac{H \cdot \rho_s}{\theta_{ws} + (k_s \cdot \rho_s) + (H \cdot \theta_{as})}\right]\left[\dfrac{(D^{eff}{}_s / L_s)}{ER \cdot L_B}\right]}{1 + \left[\dfrac{(D^{eff}{}_s / L_s)}{ER \cdot L_B}\right] + \left[\dfrac{(D^{eff}{}_s / L_s)}{(D^{eff}{}_{crack} / L_{crack}) \cdot \eta}\right]} \bullet 10^3 \ cm^3 - kg / m^3 - g$$

ASTM (1995) Standard Guide for Risk-based Corrective Action Applied at Petroleum Release Sites. E-1739-95.

where:

| | | | |
|---|---|---|---|
| $VF_{sesp}$ = | Volatilization Factor, subsurface soil to enclosed spaces [(mg/m$^3$)/(mg/kg)] | $D^{eff}{}_s$ = | Effective diffusivity in vadose zone soil (cm$^2$/s) |
| H = | Henry's Law Constant (cm$^3$/cm$^3$) | $L_s$ = | Depth to subsurface soil sources (cm) |
| $\rho_s$ = | Bulk soil density (g/cm$^3$) | ER = | Enclosed space air exchange rate (sec$^{-1}$) |
| $\theta_{ws}$ = | Water content in vadose zone soil (cm$^3$/cm$^3$) | $L_B$ = | Enclosed space volume/infiltration ratio (cm) |
| $k_s$ = | Soil sorption coefficient (g/cm$^3$) (= koc x foc) | $D^{eff}{}_{crack}$ = | Effective diffusivity through soil-filled foundation cracks (cm$^2$/s) |
| $k_{oc}$ = | Organic carbon/water partition coefficient (cm$^3$/g) | $L_{crack}$ = | Foundation thickness (cm) |
| $f_{oc}$ = | Fraction of soil organic carbon (g/g) | $\eta$ = | Areal fraction of cracks in foundation (cm$^2$/cm$^2$) |
| $\theta_{as}$ = | Air content in vadose zone soil (cm$^3$/cm$^3$) | CF = | Unit conversion factor [(cm$^3$-kg)/(m$^3$-g)] |

| Constituent | H (cm$^3$/cm$^3$) | $\rho_s$ (g/cm$^3$) | $\theta_{ws}$ (cm$^3$/cm$^3$) | $k_{oc}$ (cm$^3$/g) | $f_{oc}$ (g/g) | $\theta_{as}$ (cm$^3$/cm$^3$) | $D^{eff}{}_s$ (cm$^2$/s) | $L_s$ (cm) | ER (s$^{-1}$) | $L_B$ (cm) | $D^{eff}{}_{crack}$ (cm$^2$/s) | $L_{crack}$ (cm) | $\eta$ (cm$^2$/cm$^2$) | CF [(cm$^3$-kg)/(m$^3$-g)] | $VF_{sesp}$ [(mg/m$^3$)/(mg/kg)] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aroclor 1254 | 1.55E-01 | 1.62 | 0.103 | 9.98E+05 | 0.006 | 0.284 | 1.77E-03 | 91 | 0.000125 | 488 | 1.77E-03 | 15 | 0.0002 | 1000 | 9.98E-09 |

**TABLE 3-3**
**CALCULATION OF EFFECTIVE DIFFUSIVITY FACTORS**
**Future Keith Middle School**
**New Bedford, Massachusetts**

**Effective diffusivity through soil-filled foundation cracks**

$$D^{eff}_{crack} = D_{air} \cdot \left( \frac{\theta_{acrack}^{3.33}}{\theta_T^{2}} \right) + D_{wat} \cdot \left( \frac{1}{H} \right) \cdot \left( \frac{\theta_{wcrack}^{3.33}}{\theta_T^{2}} \right)$$

ASTM (1995) Standard Guide for Risk-based Corrective Action Applied at Petroleum Release Sites. E-1739-95.

where:

| | |
|---|---|
| $D^{eff}_{crack}$ = | Effective diffusivity through soil-filled foundation cracks ($cm^2/s$) |
| $D_{air}$ = | Diffusion coefficient in air ($cm^2/s$) |
| $D_{wat}$ = | Diffusion coefficient in water ($cm^2/s$) |
| H = | Henry's Law Constant ($cm^3/cm^3$) |
| $\theta_{acrack}$ = | Air content in soil-filled foundation cracks ($cm^3/cm^3$) |
| $\theta_{wcrack}$ = | Water content in soil-filled foundation cracks ($cm^3/cm^3$) |
| $\theta_T$ = | Total soil porosity ($cm^3/cm^3$) |

| Constituent | $D_{air}$ ($cm^2/s$) | $D_{wat}$ ($cm^2/s$) | $\theta_{acrack}$ ($cm^3/cm^3$) | $\theta_{wcrack}$ ($cm^3/cm^3$) | $\theta_T$ ($cm^3/cm^3$) | H ($cm^3/cm^3$) | $D^{eff}_{crack}$ ($cm^2/s$) |
|---|---|---|---|---|---|---|---|
| Aroclor 1254 | 1.75E-02 | 8.00E-06 | 0.284 | 0.103 | 0.387 | 1.55E-01 | 1.77E-03 |

**Effective diffusivity through vadose zone soil**

$$D^{eff}_{s} = D_{air} \cdot \left( \frac{\theta_{as}^{3.33}}{\theta_T^{2}} \right) + D_{wat} \cdot \left( \frac{1}{H} \right) \cdot \left( \frac{\theta_{ws}^{3.33}}{\theta_T^{2}} \right)$$

ASTM (1995) Standard Guide for Risk-based Corrective Action Applied at Petroleum Release Sites. E-1739-95.

where:

| | |
|---|---|
| $D^{eff}_{s}$ = | Effective diffusivity through vadose zone soil ($cm^2/s$) |
| $D_{air}$ = | Diffusion coefficient in air ($cm^2/s$) |
| $D_{wat}$ = | Diffusion coefficient in water ($cm^2/s$) |
| H = | Henry's Law Constant ($cm^3/cm^3$) |
| $\theta_{as}$ = | Air content in vadose zone soil ($cm^3/cm^3$) |
| $\theta_{ws}$ = | Water content in vadose zone soil ($cm^3/cm^3$) |
| $\theta_T$ = | Total soil porosity ($cm^3/cm^3$) |

| Constituent | $D_{air}$ ($cm^2/s$) | $D_{wat}$ ($cm^2/s$) | $\theta_{as}$ ($cm^3/cm^3$) | $\theta_{ws}$ ($cm^3/cm^3$) | $\theta_T$ ($cm^3/cm^3$) | H ($cm^3/cm^3$) | $D^{eff}_{s}$ ($cm^2/s$) |
|---|---|---|---|---|---|---|---|
| Aroclor 1254 | 1.75E-02 | 8.00E-06 | 0.284 | 0.103 | 0.387 | 1.55E-01 | 1.77E-03 |

**TABLE 3-4**
**SUMMARY OF CHEMICAL-SPECIFIC INPUT VARIABLES**
**Future Keith Middle School**
**New Bedford, Massachusetts**

| Constituent | Soil Exposure Point Concentration[1] $C_S$ (mg/kg) | Organic Carbon/Water Partition Coefficient[2] $K_{oc}$ ($cm^3/g$) | Diffusion Coefficient in Air[3] $D_{air}$ ($cm^2/s$) | Diffusion Coefficient in Water[3] $D_{wat}$ ($cm^2/s$) | Henry's Law Constant[2] H ($cm^3/cm^3$) |
|---|---|---|---|---|---|
| Aroclor 1254 | 94.5 | 998,000 | 1.75E-02 | 8.00E-06 | 1.55E-01 |

1. Maximum concentration detected in soil remaining on the Site.
2. U.S. EPA (1998). Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities, Peer Review Draft. EPA-530-D-98-001A, July.
3. U.S. EPA (1994). ChemDat8 User's Guide.EPA-453/C-94-080B, November.

**TABLE 3-5**
**SUMMARY OF SITE INPUT VARIABLES**
**Future Keith Middle Schhol**
**New Bedford, Massachusetts**

| Notation | Parameter | Value | Units | Reference |
|---|---|---|---|---|
| $\theta_T$ | Total soil porosity | 0.387 | $cm^3/cm^3$ | Value for sandy loam (U.S. EPA 2003). |
| $\rho_s$ | Dry bulk soil density | 1.62 | $g/cm^3$ | Value for sandy loam (U.S. EPA 2003). |
| $f_{oc}$ | Organic carbon content of soil | 0.006 | g/g | Assumed value, based on range cited in U.S. EPA (2003). |
| $\theta_{ws}$ | Volumetric water content in vadose zone soils | 0.103 | $cm^3/cm^3$ | Average value for sandy loam (U.S. EPA 2003). |
| $\theta_{as}$ | Volumetric air content in vadose zone soils | 0.284 | $cm^3/cm^3$ | $\theta_T - \theta_{WS}$. |
| $\theta_{wcrack}$ | Volumetric water content in soil-filled foundation cracks | 0.103 | $cm^3/cm^3$ | Same as $\theta_{ws}$. |
| $\theta_{acrack}$ | Volumetric air content in soil-filled foundation cracks | 0.284 | $cm^3/cm^3$ | Same as $\theta_{as}$. |
| $L_s$ | Depth to subsurface soil sources | 91 | cm | 3 Feet; planned thickness of clean cover over fill. |
| ER | Building air exchange rate | 0.000125 | $s^{-1}$ | 0.45 air changes per hour, MADEP (2004). |
| $L_B$ | Enclosed space volume/infiltration area ratio | 488 | cm | MADEP (2004). |
| $L_{crack}$ | Enclosed space foundation thickness | 15 | cm | MADEP (2004). |
| $\eta$ | Areal fraction of cracks in foundation | 0.0002 | $cm^2/cm^2$ | U.S. EPA (2003). |

MADEP (2004). Proposed revised Method 1 Numerical Standards and supporting documentation. September.

U.S. EPA (2003). Users Guide for Evaluating Subsurface Vapor Intrusion Into Buildings. June.

***Via Certified US Mail***
***<u>Receipt No. 7002 0860 0000 6593 3290</u>***

April 19, 2005

Scott Alfonse, Director of Environmental Stewardship
City of New Bedford
City Hall
133 William Street
New Bedford, Massachusetts 02740

Re: Review of Risk-Based Cleanup Request
School Site at McCoy Field
New Bedford, Massachusetts

Dear Mr. Alfonse:

This is written in response to your March 21, 2005 Risk-Based Cleanup Request (Application) for the McCoy Field School site located in New Bedford, Massachusetts (the Site). This Application was prepared and submitted by BETA Group, Inc. to support a risk-based cleanup and disposal plan for PCB-contaminated materials on the Site under 40 CFR §761.61(c).

EPA has conducted a review of the Application, including the Human Health Risk Assessment which was submitted in support of the Application. Specific comments on the information provided in the Application are provided in Attachment A; comments on the Human Health Risk Assessment are provided in Attachment B; comments on the proposed engineered cap design are provided in Attachment C. Please note that EPA also provided these cap design comments to the City via e-mail on April 5, 2005.

Should you have any questions on these comments, please feel free to contact me at (617) 918-1527.

Sincerely,

Kimberly N. Tisa, PCB Coordinator
Office of Ecosystem Protection

cc: File

attachments

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 Congress Street, Suite 1100
BOSTON, MA 02114-2023

**MEMORANDUM**

**DATE:** April 18, 2005

**SUBJ:** Risk-Based Cleanup Request, March 21, 2005
McCoy Field, New Bedford, MA

**FROM:** Kimberly N. Tisa, PCB Coordinator
Office of Ecosystem Protection/CPT

**TO:** Scott Alfonse, Director of Environmental Stewardship
City of New Bedford

## SUMMARY

The following summary identifies items and/or deficiencies found during review of the above referenced document. Comments on the Human Health Risk Assessment and proposed engineered cap design will be provided separately.

1. The text indicates that the proposed warning layer would be placed only in the paved areas. EPA's recommendation included all areas (outside the building footprint) to provide a warning before contaminated material. Please clarify why the City is not proposing the warning barrier in the landscaped areas.

2. In correlating sample analytical results from the data tables to the figures, the figures are unclear with respect to sampling locations. There is no explanation on the figures themselves regarding symbols, color changes, etc.

3. In comparing the figures, (e.g. Figures 1.1 and 1.2 versus 1.3 thru 1.5), it is difficult to determine where the 1.3 thru 1.5 are on Figures 1.1 and 1.2. This could possibly be eased by using the same color scheme on each of the Figures or the City could provide some other alternative.

4. For the PCB analytical results for the Landscaped Area (Appendix C), the shading for exceedances is missing. Please correct.

5. In reviewing the sample data tables (Appendix C), there is no distinction on sample post-removal versus confirmatory samples (e.g. following excavation those PCB concentrations remaining).

6. The sample data tables for the PCBs (Appendix C) are expressed in µg/Kg units. Given that the narrative is expressed in mg/Kg, the units should be consistent for ease of understanding and data interpretation.

7. Table 4 provides PCB Aroclor results in groundwater. As previously indicated, a review of the raw chromatograms is necessary to assess partitioning concerns.

8. The QA/QC discussion on data useability is missing. Upon review of the PCB data provided in Appendix C, specifically the duplicates, MS, and MSDs, there appears to be significant variations in the data. For example, at PC191-L the MS and MSD results are lower than the original sample results; at PC198-B the MS is 100% greater than the MSD; at PC255-1-4', the duplicate was ND while the sample had approximately 10 ppm PCBs; at PCB1006-1-3', the original sample showed 468 ppm PCBs while the duplicate showed 12.5 ppm PCBs; etc. Based on EPA's review, the data as presented requires a complete discussion with respect to acceptability and useability. Please note that EPA provided only select sampling locations and that a comprehensive evaluation of all the data by the City is required.

9. With respect to the information provided in Appendix C, EPA noted that for some of the duplicate, MS, and MSD samples, the associated reference sample was not identified. Please correct.

10. Further details are needed on the proposed long-term monitoring and maintenance plans. Conceptual information has been provided and for this project EPA will require a more detailed discussion on the engineered cap maintenance and the indoor air monitoring, including methodologies and action limits.

Versar inc.

**M E M O R A N D U M**

**TO:** Laura Casey cc: Jim Buchert
11.1126.1000.001.01

**FROM:** Diane Sinkowski

**DATE:** April 14, 2005

**SUBJECT:** Review of "Risk-Based Cleanup Request, School Site at McCoy Field, New Bedford, Massachusetts" (Revision 0, March 21, 2005)

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As requested, I have reviewed the human health risk assessment presented in the risk-based cleanup request submitted to EPA Region 1. The following are my responses to the 4 issues presented in your March 21, 2005 Technical Direction.

1. Does the Risk Assessment consider all exposure scenarios and pathways based on the proposed end use of the Site? If not, please provide comments and/or recommendations. Please include Versar's justifications using appropriate EPA procedures and guidance.

**Response:**

The Risk Assessment identifies the following potential receptors at the School Site:

- Students,
- School employees,
- Visitors, and
- Municipal employees (public works, water department workers).

However, any possible exposure pathways are considered to be incomplete due to the engineered barriers or Activity and Use Limitation to be placed on the School Site. Therefore, no exposure/risk calculations were performed. I agree with the selection of these potential receptors and pathways, as well as the conclusion that these pathways would be incomplete.

Additionally, current on-Site workers and off-Site residents are identified as potentially exposed receptors due to inhalation of PCBs in suspended soil particulates from excavation/construction activities at the Site. PCB risk-based air concentrations (RBACs) were calculated for current on-Site workers and off-Site residents by ESS Group, Inc. (ESS) and are documented in a letter dated May 17, 2004. The

RBAC calculation also incorporates inhaled particulates that are expelled by the lungs and then ingested. Generally, EPA guidance (such as the "Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites"- 2002) suggests that construction workers potentially may be exposed to contaminants in soil by ingestion, dermal contact, and inhalation. According to the risk assessment in the Risk-based Cleanup Request, soil management and dust monitoring procedures are discussed in the EPA Work Plan. Are the dermal contact and direct ingestion of soil pathways for the construction worker eliminated by these controls? Could additional information be provided regarding these pathways and on-Site workers?

2. Are there areas where data gaps exist and where additional information is required? Versar shall identify any data deficiencies, and if found, provide possible resolutions such as (but not limited to) the collection of additional samples or requesting additional information.

**Response:**

As mentioned above, I would like to know whether the soil ingestion and dermal pathway were considered to be incomplete, or has justification been provided for not assessing the pathways? Although an indirect soil ingestion calculation is performed, I would like to know why direct soil ingestion is not addressed.

3. Are the formulas provided in the Risk Assessment appropriate and are the calculations correct? If not, please provide comments and/or recommendations using appropriate EPA procedures and guidance.

**Response:**

a. The RBACs calculations assume that half of the inhaled $PM_{10}$ is absorbed by the lungs and twice that amount of PCBs are expelled by the lungs and ingested. These assumptions are consistent with Massachusetts Department of Environmental Protection (MDEP), but not EPA guidance. EPA guidance assumes that all inhaled contaminants are absorbed by the lungs and also recommends assessing soil ingestion for construction workers, assuming a soil ingestion rate of 330 mg/day.

b. EPA guidance does not recommend the use of relative absorption factors (RAFs) for ingestion and inhalation pathways. The risk assessment assumed an inhalation RAF of 1.0, so the inclusion of RAF does not affect the answer. The use of an RAF of 0.85 for ingestion would slightly change the results.

c. The Henry's Law Constant (HLC) for Aroclor 1254 shown in Table 2 of the Risk Assessment, 3.79E-03, is not the dimensionless Henry's Law Constant (H'), as the column heading indicates. According to the reference cited, EPA's "Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities" (EPA, 1998), the HLC for Aroclor 1254 is 3.79E-03 atm-$m^3$/mol. H' for Aroclor 1254 is 1.55E-01 (calculated by multiplying HLC by a conversion factor of 41). Because H' for Aroclor 1254 is of the same order of magnitude as constituents that were evaluated for indoor air intrusion (Table 6, page 3 of 3, in the Risk Assessment), I would like to know why PCBs (i.e, Aroclor 1254) were not evaluated for indoor air intrusion.

4. Is there any additional information that has not been provided that should have been provided to support the proposed cleanup and reuse of this Site? For example, have there been similar requests for this type of cleanup and/or reuse where it was determined that the reuse as a school was inappropriate? If so, was this determination based on a technical and/or scientific finding or some other determination?

**Response:**

While no additional information has been provided with the submitted risk assessment regarding similar sites, I did identify, via an internet search, a couple of other sites with PCB soil contamination cleanup at an existing school or where a school was built post-remediation. Their locations are:

**Allendale School, Pittsfield, Massachusetts**

Elevated levels of PCBs were found in soils used as fill material at the school site, originating from the General Electric (GE) factory. A soil removal action was preformed in 1999 and clean soil was used as backfill for excavated areas. Information on the Allendale School can be found on EPA's website for the GE/Housatonic River Site: http://www.epa.gov/boston/ge/thesite/allendale.html

**New Beard Elementary School, Detroit, Michigan**

A new elementary school was built on a former industrial site where PCBs, among other contaminants, had been detected in subsurface soil samples. Several soil removal actions were undertaken, including soil removal from areas with PCB concentrations exceeding Michigan Department of Environmental Quality residential cleanup levels, even though the soils were beneath a property cap. The cap was replaced once confirmation samples showed that the contaminated soils had been removed.

for the New Beard Elementary School can be found at:
http://www.atsdr.cdc.gov/HAC/PHA/newbeard/nbe_toc.html

Please feel free to contact me at (703) 750-3000 ext. 737 if you have any comments or questions.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 Congress Street, Suite 1100
BOSTON, MA 02114-2023

**MEMORANDUM**

**DATE:** April 5, 2005

**SUBJ:** Comments on Proposed Engineered Cap
McCoy Field, New Bedford Massachusetts

**FROM:** Yoon-Jean Choi, P.E.
Hydrogeology and Waste Geotechnics
US EPA Region 1 (MC: HBS)

**TO:** Kim Tisa, PCB Coordinator (CPT)
Office of Ecosystem Protection

As requested, I have reviewed the *Risk-Based Cleanup Request, Rev. 0, March 21, 2005*, for the School Site at McCoy Field, New Bedford, Massachusetts which was submitted by BETA Group on behalf of the City of New Bedford School Department. My comments focus on the adequacy of the technical design for the engineered cap proposed for the Site, including the building footprint.

**General Comments**

1 It appears that the proposed Risk-Based Cleanup Request is based on MCP requirements (all PCB remediation waste less than 100 ppm encountered in the process of characterizing soil is to be covered by soils, pavement and buildings). However, the PCB regulations at 40 CFR Part 761 provide for a risk-based determination for on-site disposal provided that a finding can be made that there is no unreasonable risk to human health or the environment (see §761.61(c)). The City has proposed a soil/asphalt cap outside the school building footprint and a passive ventilation system/solid vapor barrier beneath the building footprint. While it appears that the proposed capping designs are conservative given the site contaminants, insufficient information clearly justifying these proposed designs was contained in the Request. A short summary on Fate and Transport was included in the Human Health Risk Characterization Section, however, this discussion should be expanded as part of the discussion supporting the proposed institutional controls for this Site. In addition, fate and transport should be considered when designing the long-term O&M plan.

2 The following technical specifications need to be provided:

a. Environmental control plan, storm water management plan, erosion control plan: Detailed environmental control plan and storm water management plan to handle (properly excavate, store and dust control) the PCB contaminated soils both during site grading and during storm events are not provided. In addition, locations of site erosion control devices (ie. silt fences, hay bales, etc) and horizontal limits of proposed geotextile separation layer should be provided on the design figures.

b. Geotextiles and Warning barrier: It is unclear what types and physical properties of the geotextile (and warning barrier) are proposed for use as a separation layer between the clean fill and contaminated soil or protection layer for the vapor barrier. Technical specifications for these materials should be included in the technical specifications.

c. Topsoil layer information was not provided.

3. The "Engineer" should be responsible for Earthwork (Section 02200) rather than "Architect."

**Specific Comments**

1. Section 1.4 page 5 of 18: Intrusion into fill material underneath the exposure management barriers may also result from root penetrations and animal burrowing over time. The thick geotextile may discourage animal burrows, but tree roots can penetrate through the geotextile (see Figure 6).

2. Section 3.3.4 page 12 of 18 bullets 5 and 6: The statements "over the gravel" (bullet 5) and "over the granular material" (bullet 6)" are not consistent with those described in Figure 5 (section 3/L6 Bituminous concrete roadway pavement). Please correct them as appropriate.

3. Attachment B Section 07133 2.2.B 2nd Table and 2.2.C and D Geotextile: It is unclear which geotextile are proposed below and above the vapor barrier regarding the thickness and unit weight (eg. 8 oz./sf or thicker). Please clarify..

4. Attachment E:

a. Background (3) Asphalt thickness: A minimum thickness of the asphalt pavement is 3 inches rather than 6 inches. Change it as appropriate.

b. Background and Cap maintenance: It is stated that "the purpose of these three barriers is to prevent infiltration of water." The asphalt pavement and soil cover in the landscape area (except for buildings) may minimize the infiltration of water

by promoting surface runoff during storm events, but can not prevent infiltration of water entirely through cracks and openings developed due to effects of dry/wet and freeze/thaw cycles over time. Thus maintaining the integrity of the cover by proper repairs is important for long-term O&M.

5. Attachment G

   a. Earth work should be performed under the direction of "Engineer" (not "Architect"). Please correct this.

   b. Section 3.04.A.2. Samples and Testing: Test methods and testing frequency for all fill material are not provided. Please provide the information on what tests and how many tests should be performed 1) as the material is delivered to the project site to determine that the material meets the specified requirements for each material source, and 2) after the material is installed and in-place.

   c. Section 3.04.B.1 Lift thickness: It is unclear whether the proposed lift thickness is loose or compacted. Please clarify.

6. Figure 4

   a. Typical 1: It is unclear why the PRCVS is located above the compacted fill.

   b. Typical 3: What is the purpose of "Gas & Vapor membrane 80 Dry mil' and how will it be installed above the grade beam?

   c. Typical 4 and Typical 5: Provide details of how the PVC vent and PVC header pipe are connected.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
1 Congress Street, Suite 1100
BOSTON, MA 02114-2023

**MEMORANDUM**

**DATE:** April 5, 2005

**SUBJ:** Comments on Proposed Engineered Cap
McCoy Field, New Bedford Massachusetts

**FROM:** Yoon-Jean Choi, P.E.
Hydrogeology and Waste Geotechnics
US EPA Region 1 (MC: HBS)

**TO:** Kim Tisa, PCB Coordinator (CPT)
Office of Ecosystem Protection

As requested, I have reviewed the *Risk-Based Cleanup Request, Rev. 0, March 21, 2005*, for the School Site at McCoy Field, New Bedford, Massachusetts which was submitted by BETA Group on behalf of the City of New Bedford School Department. My comments focus on the adequacy of the technical design for the engineered cap proposed for the Site, including the building footprint.

**General Comments**

1. It appears that the proposed Risk-Based Cleanup Request is based on MCP requirements (all PCB remediation waste less than 100 ppm encountered in the process of characterizing soil is to be covered by soils, pavement and buildings). However, the PCB regulations at 40 CFR Part 761 provide for a risk-based determination for on-site disposal provided that a finding can be made that there is no unreasonable risk to human health or the environment (see §761.61(c)). The City has proposed a soil/asphalt cap outside the school building footprint and a passive ventilation system/solid vapor barrier beneath the building footprint. While it appears that the proposed capping designs are conservative given the site contaminants, insufficient information clearly justifying these proposed designs was contained in the Request. A short summary on Fate and Transport was included in the Human Health Risk Characterization Section, however, this discussion should be expanded as part of the discussion supporting the proposed institutional controls for this Site. In addition, fate and transport should be considered when designing the long-term O&M plan.

2. The following technical specifications need to be provided:

    1) Environmental control plan, storm water management plan, erosion control plan: Detailed environmental control plan and storm water management plan to handle (properly excavate, store and dust control) the PCB contaminated soils both during site grading and during storm events are not provided. In addition, locations of site erosion control devices (ie. silt fences, hay bales, etc) and horizontal limits of proposed geotextile separation layer should be provided on the design figures.

    2) Geotextiles and Warning barrier: It is unclear what types and physical properties of the geotextile (and warning barrier) are proposed for use as a separation layer between the clean fill and contaminated soil or protection layer for the vapor barrier. Technical specifications for these materials should be included in the technical specifications.

    3) Topsoil layer information was not provided.

3. The "Engineer" should be responsible for Earthwork (Section 02200) rather than "Architect."

**<u>Specific Comments</u>**

1. Section 1.4 page 5 of 18: Intrusion into fill material underneath the exposure management barriers may also result from root penetrations and animal burrowing over time. The thick geotextile may discourage animal burrows, but tree roots can penetrate through the geotextile (see Figure 6).

2. Section 3.3.4 page 12 of 18 bullets 5 and 6: The statements "over the gravel" (bullet 5) and "over the granular material" (bullet 6)" are not consistent with those described in Figure 5 (section 3/L6 Bituminous concrete roadway pavement). Please correct them as appropriate.

3. Attachment B Section 07133 2.2.B 2nd Table and 2.2.C and D Geotextile: It is unclear which geotextile are proposed below and above the vapor barrier regarding the thickness and unit weight (eg. 8 oz./sf or thicker). Please clarify..

4. Attachment E:

    1) Background (3) Asphalt thickness: A minimum thickness of the asphalt pavement is 3 inches rather than 6 inches. Change it as appropriate.

    2) Background and Cap maintenance: It is stated that "the purpose of these three barriers is to prevent infiltration of water." The asphalt pavement and soil cover in the landscape area (except for buildings) may minimize the infiltration of water

by promoting surface runoff during storm events, but can not prevent infiltration of water entirely through cracks and openings developed due to effects of dry/wet and freeze/thaw cycles over time. Thus maintaining the integrity of the cover by proper repairs is important for long-term O&M.

5. Attachment G

1) Earth work should be performed under the direction of "Engineer" (not "Architect"). Please correct this.

2) Section 3.04.A.2. Samples and Testing: Test methods and testing frequency for all fill material are not provided. Please provide the information on what tests and how many tests should be performed 1) as the material is delivered to the project site to determine that the material meets the specified requirements for each material source, and 2) after the material is installed and in-place.

3) Section 3.04.B.1 Lift thickness: It is unclear whether the proposed lift thickness is loose or compacted. Please clarify.

6. Figure 4

1) Typical 1: It is unclear why the PRCVS is located above the compacted fill.

2) Typical 3: What is the purpose of "Gas & Vapor membrane 80 Dry mil"and how will it be installed above the grade beam?

3) Typical 4 and Typical 5: Provide details of how the PVC vent and PVC header pipe are connected.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**
REGION 1
1 CONGRESS STREET, SUITE 1100
BOSTON, MASSACHUSETTS 02114-2023

March 30, 2005

Mayor Frederick M. Kalisz, Jr.
City of New Bedford
133 William Street
New Bedford, MA 02740

OFFICE OF THE
REGIONAL ADMINISTRATOR

Dear Mayor Kalisz:

The U.S. Environmental Protection Agency remains committed to working closely with the MA Department of Environmental Protection and the City of New Bedford to ensure that the Keith Middle School Project is conducted in a manner protective of human health and the environment.

EPA is confident a viable cleanup plan can be developed to address contamination at the site. As you know, many New England municipalities have successfully reclaimed brownfields sites for a wide range of redevelopment projects including municipal parks, sports and entertainment facilities, schools and municipal buildings, housing and economic development. Enclosed is a brochure which provides examples of these types of projects in New England.

We understand the City has been complying with the Workplan (revised 10/25/04) developed with EPA and the public participation required by the MA Contingency Plan.

To receive EPA's approval for construction, the City of New Bedford has submitted a risk-based cleanup application, which includes:

- Site contaminants information;
- Proposed cleanup plan;
- Risk assessment; and
- Long-term monitoring and maintenance plan.

EPA staff have begun evaluating the cleanup application and we will reach a decision after all issues have been carefully considered. In addition, EPA will solicit public comment on the cleanup proposal before making a final determination.

Cleaning up sites with contamination is a challenging process which requires patience, commitment and the ability to adapt to new information and changing conditions. We look forward to continuing to work with you to ensure that public health and the environment are protected as you complete this important project.

Sincerely,

Robert W. Varney
Regional Administrator

# CITY OF NEW BEDFORD
# MASSACHUSETTS

133 WILLIAM STREET
NEW BEDFORD, MA 02740
(508) 979-1400

**FREDERICK M. KALISZ, JR.**
**MAYOR**


March 21, 2005

Ms. Kimberly Tisa
EPA New England, Region 1
1 Congress Street
Suite 1100 (CPT)
Boston, MA 02114-2023

Re: McCoy Field Site, 225 Hathaway Boulevard
New Bedford, MA 02740

Dear Ms. Tisa:

The enclosed Risk-Based Cleanup Request has been prepared under 40 CFR 761.61(c) for polychlorinated biphenyl (PCB) remediation waste within the portion of the McCoy Field Site (the Site) hereinafter referred to as the "School Site". The School Site is bounded by a security fence and encompasses landscaped areas, paved areas, and areas within the building footprint. The Site Wetlands will be addressed in a separate risk-based cleanup request.

Since measures to significantly limit exposure, including engineered controls and an Activity and Use Limitation (AUL), will be implemented on the School Site, this Risk-Based Cleanup Request is being submitted with the goal of allowing PCB remediation waste to remain at the School Site. Consistent with MCP requirements, all PCB remediation waste ≧100 ppm encountered in the process of characterizing soil for disposal was further delineated, excavated and managed off-Site.

BETA Group, Inc. has consulted with you concerning the submittal of this Risk-Based Cleanup Request for the School Site separate from a request for the cleanup of the Site Wetlands. The intent in submitting a separate request for the School Site is to help expedite approval for this portion of the Site, so as not to delay construction of the New Keith Middle School.

Questions regarding this matter should be addressed to Alan D. Hanscom, LSP-of-Record, at (781) 255-1982, or to me at (508) 979-1487.

Very truly yours,

**City of New Bedford**

Scott Alfonse
Director of Environmental Stewardship


MAR 21 2005
U.S. EPA, Region 1, Mail Room


Cc: Larry Oliveira, School Department
Jacqueline Coucci, City of New Bedford
William DoCarmo, City Project Manager
Gerard Martin, MADEP
Evan Warner, Mount Vernon Group Architects
Alan D. Hanscom, LSP, BETA Group, Inc

# Risk-Based Cleanup Request

**Revision 0**

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**School Site at McCoy Field**
**New Bedford, Massachusetts**
**RTN 4-15685**

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**March 21, 2005**

Prepared for:

New Bedford School Department
New Bedford, Massachusetts

Prepared by:

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B Keith Middle School - Phase III Project Manual Specification 07133 – Gas Vapor Barrier
C Tabulated PCB Analytical Results
D Laboratory Analytical Reports (provided on CD-ROM)
E Long-term Cap Monitoring Plan
F Environmental Monitoring Plan
G Specification for Backfill Materials

# 1.0 EXECUTIVE SUMMARY

## 1.1 Purpose of Submission

This document constitutes a Risk-Based Cleanup Request under 40 CFR 761.61(c) for polychlorinated biphenyl (PCB) remediation waste within the portion of the McCoy Field Site (the "Site") hereinafter referred to as the School Site. The School Site is bounded by a security fence, as shown in Figure 2, and encompasses landscaped areas, paved areas, and areas within the building footprint. The "Site Wetlands", also illustrated on Figure 2, will be addressed in a separate risk-based cleanup request.

The School Site is the construction site for the New Keith Middle School, and therefore will be considered a high occupancy area. If a self-implementing cleanup were to be conducted under §761.61(a)(4)(i)(A), a cleanup level for bulk PCB remediation waste of ≤1 ppm would be required without further conditions; waste at concentrations >1 ppm and ≤10 ppm would be allowed to remain in areas covered with a cap meeting the requirements of paragraphs (a)(7) and (a)(8). Since engineered controls and an Activity and Use Limitation (AUL), will be implemented to limit exposure, this Risk-Based Cleanup Request is being submitted with the goal of allowing PCB remediation waste to remain at the School Site. Consistent with Massachusetts Contingency Plan requirements, all soil containing PCB concentrations =100 ppm encountered during excavation activities has been delineated, excavated, and managed off-Site.

## 1.2 Site Background

The property formerly known as McCoy Field (the Site), previously a recreational field occupied by three soccer fields, is the construction site for the New Keith Middle School. The Site is bounded by Hathaway Boulevard to the east, Durfee Street to the north, Summit Street to the west, and Ruggles Street to the south (Figure 2). Much of the material underlying the former soccer fields is relocated fill material from the current high school location (east of the Site, across Hathaway Boulevard), where historic dumping and burning activities were reportedly performed prior to construction of the high school in the early 1970s. In or around 1994, the PCB-contaminated debris was spread across the Site and graded for the purposes of athletic field construction. The waste was covered with a sand/gravel leveling course and topsoil prior to construction of the soccer fields. The maximum depth of waste at the Site is 14 feet. As a result, the following distinct horizons are present at the Site:

- Topsoil;
- Sand/gravel layer;
- Fill material;
- Native organic silt; and,
- Native glacial till.

Embankments mark the edge of the fill placement along the northern and western boundaries of the filled area. These embankments lead down to deciduous wood swamp wetland areas where fill material was not historically placed. However, constituents from the fill material have migrated to the wetland area from environmental processes such as

wind erosion and surface water runoff. A separate risk-based cleanup request will be submitted for the "Site Wetlands".

### 1.3 Cleanup Plan

In order to limit potential exposure associated with future School Site activities, the accessibility of all PCB remediation waste at the School Site will be limited by means of being located:

1) Under the building footprint, two feet beneath the gas vapor barrier and venting system;
2) Beneath three feet of clean fill in landscaped (unpaved) areas; or
3) Beneath a minimum of two feet of clean granular fill in paved areas.

Clean corridors have been or will be established for all Site utilities to facilitate worker safety during installation and future maintenance.

An Activity and Use Limitation (AUL) will be placed on the School Site because the Method 3 Risk Characterization performed pursuant to the Massachusetts Contingency Plan (310 CMR 40.0990) relies on limited exposure potential to achieve a level of No Significant Risk. The AUL will require maintenance of three feet of clean soil in landscaped areas and two feet of granular materials in paved areas. Excavation will be limited to within clean corridors, unless otherwise approved by a Massachusetts Licensed Site Professional (LSP), and shall be performed by only authorized personnel. A Draft AUL is included as Attachment A.

At the request of EPA, a warning barrier has been placed at all areas of the School Site outside of the building footprint.

### 1.4 Human Health Risk Characterization

Human receptors anticipated to be present at the future Keith Middle School include the following:

- Students
- School employees
- Visitors
- Municipal employees (such as persons from public works, the water department, etc.)

The exposure management barriers and activity and use limitation (AUL) to be established at the school will prevent students, school employees, and visitors from contacting underlying fill material and will also prohibit soil disturbance activities by municipal workers or similar groups without the explicit involvement of a Massachusetts Licensed Site Professional (LSP). Therefore, the exposure pathway to students, school employees, visitors, or municipal workers to fill underlying exposure management barriers is incomplete.

Intrusion into fill material underneath the exposure management barriers could only result from unintended and/or unauthorized breaching of the exposure management barriers. To contact in-place fill material, a person would need to:

- Penetrate the building foundation;
- Dig through three feet of clean material in landscaped areas; or
- Dig through paving and a minimum of two feet of granular materials (including the warning barrier).

It is considered highly unlikely that such activities would be performed by Site personnel. Awareness training of maintenance staff will be provided by BETA.

# 2.0 SITE BACKGROUND

## 2.1 Site History and Setting

BETA Group, Inc. (BETA) has been retained by the City of New Bedford School Department to provide licensed site professional services related to the development of the New Keith Middle School at the location of the current McCoy Field (the "Site"). McCoy Field consists of approximately seven acres of land on the west side of Hathaway Boulevard, opposite New Bedford High School. Polychlorinated biphenyl (PCB)-contaminated burn debris from a former City burn dump was placed at the Site in the late 1960s/early 1970s. In or around 1994, PCB-contaminated debris was spread across the Site and graded for the purposes of athletic field construction.

Pre-construction investigations of McCoy Field revealed the presence of Reportable Concentrations (RCs) of several contaminants in soil, including lead, barium, PCBs and other semivolatile organic compounds (SVOCs). Initial subsurface investigations conducted in April 2000 by Miller Engineering & Testing, Inc. (Miller) identified four distinct horizons in soil in the playing field: surface soil, a gravel layer, fill (ash & C&D wastes), and native soil. For the purpose of characterizing the soil for disposal, BETA grouped the gravel layer with the fill layer, and separated the native soil into the organic silt layer and the glacial till layer. Previous sampling efforts established that the surface soil is suitable for on-site reuse; therefore, no samples were collected from the surface soil layer.

PCB analytical results from samples collected in March 2004 identified PCB concentrations at ≥50 ppm at the Site. Based on these results and past Site activities, PCB-contaminated materials meet the definition of a *PCB remediation waste*, as defined under federal PCB regulations at 40 CFR 761.3. *PCB remediation waste* is regulated under the Toxic Substances Control Act (TSCA) and the PCB regulations at 40 CFR Part 761. The PCB regulations require disposal of *PCB remediation waste* at ≥50 ppm in a TSCA-permitted disposal facility or a RCRA hazardous waste landfill; *PCB remediation waste* at <50 ppm may be disposed of in a state-approved non-hazardous waste landfill.

In accordance with a Consent Agreement and Final Order (CAFO) between EPA and the City of New Bedford (the City), the City has conducted sampling and removed the PCB-impacted soil located in the proposed utility corridors and in the vicinity of the proposed building pile caps and grade beams at the Site. The CAFO also required development of a Work Plan that details the work. Revision 2 of the EPA Work Plan was appended to the CAFO executed by the EPA on May 21, 2004.

Since the original CAFO addressed only soil located in the utility corridors and in the vicinity of the proposed building pile caps and grade beams at the Site, the CAFO was amended on October 25, 2004 to encompass sampling and removal to be addressed under Revision 3 of the EPA Work Plan. The scope of work at the Site was expanded by Revision 3 of the EPA Work Plan, submitted on November 5, 2004, to include sampling and removal of PCB-impacted soil for installation of the elevator shaft, acid neutralization tanks, AST foundation, light stanchions, detention basins, drain lines, water line, landscaped areas, wetlands, and the neighboring properties in the vicinity of Durfee Street and Nemasket Street.

As part of the school construction project, an initial site preparation contract (Phase I) was prepared and awarded for construction of clean corridors, installation of subsurface utilities, and stabilization of the embankment along the northern and western perimeter of the existing soccer fields. Phase I Work was observed by BETA staff from approximately May 6, 2004 through November 16, 2004. Work to be completed under the Phase II contract includes excavation and management of soil in the location of proposed utility corridors, building pile caps and grade beams, AST foundation, light stanchions, detention basins, drain lines, water line, and landscaped areas. All necessary off-site management options are provided for under Phase I and Phase II construction contracts. In accordance with the provisions of the EPA Work Plan, BETA conducted extensive in-situ sampling from February 2004 through February 2005 to characterize soil and assess off-site management options. Phase I activities are complete and Phase II activities are in the final stages of completion.

BETA Group, Inc. has consulted with EPA and DEP concerning the submittal of this Risk-Based Cleanup Request for the School Site separate from a request for the cleanup of the Site Wetlands. The intent in submitting a separate request for the School Site is to help expedite approval for this portion of the Site, so as not to delay construction of the New Keith Middle School.

## 2.2 Nature of Contamination

Activities conducted to date under the EPA Work Plan (last revised November 5, 2004) include sampling and removal of PCB-impacted soil for installation of clean utility corridors, building pile caps and grade beams, elevator shafts, acid neutralization tanks, AST foundation, light stanchions, detention basins, drain lines, water line, landscaped areas, and for stabilization of the embankments abutting the Site Wetlands. Sample locations are shown on Figures 1.1 through 1.5. Tabulated PCB analytical results are included as Attachment C and laboratory analytical results are provided on CD-ROM as Attachment D.

### 2.2.1 Soil/Fill

Pre-construction investigations at the Site identified the presence of constituents in fill material at concentrations above Massachusetts Department of Environmental Protection (MADEP) Reportable Concentrations (RCs).

Based on investigations conducted in the fill area of the Site between 2000 and the present, constituents present in soil/fill material that will remain on-Site underneath exposure management barriers include PCBs, lead, barium, and several semi-volatile organic compounds. A complete list of all contaminants of concern is included in Table 1.

Volatile organic compounds (VOCs) were detected in soil/fill material infrequently and at low concentrations. Of the twelve VOCs detected, eleven are petroleum-related compounds. Maximum detected concentrations of all individual VOCs, as well as the combined concentration of C9-C10 aromatic compounds, are below their applicable MCP Method 1 S-3 soil standards (i.e., S-3/GW-2 and/or S-3/GW-3).

Numerous semi-volatile organic compounds (SVOCs) were detected; the majority (18) are either polycyclic aromatic hydrocarbons (PAHs) or phthalic acid esters.[1] Six PAHs were detected at maximum and/or arithmetic mean concentrations above their applicable Method 1 S-3 soil standards. Several additional SVOCs were detected in soil/fill, but were detected infrequently (in 1% or less of samples) and at concentrations below their applicable Method 1 S-3 soil standard or U.S. EPA Region 9 preliminary remedial goal (PRG) for industrial soil. Benzidine was detected once, at a concentration above its U.S. EPA Region 9 PRG for industrial soil.

Polychlorinated biphenyls (PCBs) were detected in about 77% of the soil samples analyzed. PCBs were typically reported as Aroclor-1254; in about one percent of the samples, PCBs were reported as Aroclor-1248 and in less than 1% of samples as Aroclor-1260, -1262, or -1268. Total PCB concentrations ranged from less than detectable to a maximum of 46,500 mg/kg. The arithmetic mean of the detections (i.e., not including the non-detected results) was 77.12 mg/kg; however, this concentration is skewed by the anomalously high maximum value. The median concentration is 8.09 mg/kg and the geometric mean concentration is 9.03 mg/kg. Figure 7 presents a distribution histogram of log-normalized PCB detections; the apparent normal distribution of the log-normalized data suggest that the data follow a log-normal distribution and that the geometric mean may be more representative of the central tendency of the data. The 90th percentile concentration of the PCB detection data set is 51.2 mg/kg.

Eight RCRA metals were detected in Site soil/fill material: arsenic (95% of samples); barium (100%); cadmium (89%), total chromium (100%), lead (~100%), mercury (89%), selenium (3%), and silver (37%). Maximum detected concentrations of cadmium, total chromium, mercury, selenium, and silver were below their respective Method 1 S-3 soil standards. While maximum detected concentrations of arsenic and barium exceeded their respective Method 1 S-3 soil standards, their arithmetic mean concentrations were below their respective Method 1 S-3 soil standards. Both the maximum detected and arithmetic mean concentrations of lead exceeded its Method 1 S-3 soil standard.

The attached Table 3 summarizes analytical data for chlorinated dibenzo-p-dioxins and dibenzofurans (CDDs/CDFs) for soil/fill samples collected from the McCoy Field Site. Eight samples, including two duplicates, were collected. A variety of CDDs/CDFs were detected; the highest concentrations were hepta- and octa-substituted dioxins and furans.

Each reported sample concentration of an individual CDD/CDF was converted to a 2,3,7,8-tetrachlorodibenzo-p-dioxin toxicity equivalent (2378-TCDD TEq) using the WHO-98 scheme, as recommended in the draft dioxin reassessment documents (U.S. EPA 2000).[2] 2378-TCDD TEqs for each CDD/CDF in a sample were then summed to derive a total 2378-TCDD TEq for the sample. In the eight samples, total 2378-TCDD TEq concentrations ranged from 11.7 pg/g (parts per

trillion) to 54.8 pg/g. All total 2378-TCDD TEqs, while above Method 1 soil standards, were below the MCP upper concentration limit of 200 pg/g.

### 2.2.2 Groundwater

Sampling of temporary observation wells at four locations on the School Site identified only non-detect and trace levels of heavy metals, VOCs, SVOCs, PAHs and EPH compounds. A summary of analytical results is presented in Table 3. Reference is made to Figures 1.1 and 1.2 for locations of the temporary monitoring wells.

No further groundwater sampling has been performed; however, three monitoring wells are proposed in the Draft Environmental Monitoring Plan (Attachment F).

### 2.2.3 Soil Gas

This section summarizes the evaluation of soil gas results from McCoy Field in New Bedford. The soil gas results, summarized in Table 5, were evaluated for the potential to adversely impact indoor air or an overlying building with no vapor barrier due to vapor diffusion into the building. The conclusion of the evaluation is that no significant risk to human health is posed by measured soil gas concentrations.

The evaluation was conducted using a component of the Johnson & Ettinger (1991) model; specifically, through calculating a steady state indoor air attenuation coefficient ($\alpha$), that describes the reduction in concentration when soil gas intrudes and distributes inside of a building. Average detected soil gas concentrations of each constituent (with a few exceptions, noted below) were combined with this attenuation coefficient and with an intake factor describing the intermittent exposure of an on-Site worker (assessed for 8 hours per day, 250 days per year, 25 years)[3] to derive an indoor air exposure point concentration. The exposure point concentration was then combined with the constituent's appropriate inhalation toxicity value (either a reference concentration for non-carcinogenic constituents or an inhalation unit risk value for carcinogenic constituents) to quantify potential health risks. Constituent-specific non-carcinogenic hazard indices and cancer risks were each summed among all constituents to derive an overall Hazard Index of 0.02 and excess lifetime cancer risk of $6x10^{-7}$. These values are below the maximum acceptable Hazard Index of 1.0 and excess lifetime cancer risk of $1x10^{-5}$ adopted by MADEP. This indicates that inhalation exposure to constituents detected in soil gas will not pose a significant risk to human health. The many conservative approaches applied in the evaluation, as well as the fact that the building will have a vapor barrier, suggest that actual exposures, if any, will be significantly less than those estimated.

A few constituents detected in soil gas could not be assessed either because of the lack of toxicity values or chemical property data to estimate an attenuation factor. These constituents were: ethanol, propylene, 2-bromopentane, cyclopentanone, limonene, dimethyl disulfide, and trans-decahydronaphthalene. The latter five

were each detected in one soil gas sample only; ethanol and propylene were detected more frequently.

Calculations of attenuation coefficients, exposure concentrations, and hazard/risk levels are presented on Tables 5 and 6. All input values are presented and referenced on these tables.

### 2.3 Sampling Procedures

The EPA Work Plan outlines the sampling procedures followed for this Site.

# 3.0 CLEANUP PLAN

## 3.1 Schedule

Construction of the pile caps and grade beams is underway. The construction contract has provisions for installation of a permeable soil cap, construction of the building slab (with gas vapor barrier), and installation of granular materials and pavement that will comprise the "exposure management barrier".

Final construction of all components of the exposure management barrier is expected to be completed by August 31, 2006.

## 3.2 Disposal Technology

Fill material requiring excavation, disposal and/or on-site reuse has been handled in accordance with the EPA Work Plan.

## 3.3 Engineered Controls

In areas where fill remains at the School Site, the following engineering controls (exposure management barriers) and institutional controls (Activity and Use Limitation) will be implemented during or subsequent to construction activities:

### 3.3.1 Building Footprint

To protect on-site workers that will work on pile caps and grade beams (within the building footprint), the following provisions have been implemented. Upon completion of a pile cap(s), PCB remediation waste will be placed by appropriately trained workers into the remaining pile cap excavation area to a depth of six inches below the top of the pile cap. A geotextile barrier fabric be installed directly over the waste and then covered with a minimum of six inches of clean granular fill material. Non-OSHA-trained workers will then be permitted to perform grade beam form work.

Upon completion of grade beams, additional PCB remediation waste will be backfilled in the area of the grade beam to a depth of approximately two feet below the bottom of the building slab. A geotextile barrier fabric will be installed directly over the waste material and then six to eight inches of clean granular fill material will be placed on top of the fabric. Next, a geotextile fabric will be placed and a gas vapor barrier and passive venting system will be installed. A total of eight passive vent pipes have been provided for in the Phase III Contract Documents, as indicated on Drawing A9.5 (Figure 4). Refer to Attachment B for gas vapor barrier technical specifications. The building slab will then be constructed over the gas vapor barrier. Refer to Figures 3.1 and 3.2 for a depiction of the sub slab and slab construction details.

### 3.3.2 Utility Corridors

Clean utility corridors are being created to prevent exposure of future construction or utility workers to fill material remaining at the Site. In these corridors, fill has been removed, properly disposed off-Site in accordance with the EPA Work Plan and applicable state and federal regulations, and replaced with clean granular

material. The specification for backfill materials included in the Contract Documents is included as Attachment G.

### 3.3.3 Landscaped Areas

In landscaped areas outside of the new building footprint:

- Fill material will be removed as necessary to make room for three feet of clean fill beneath final grade;
- A geotextile fabric will be placed over the remaining fill;
- A layer of granular material (see Figure 6) will be placed over the geotextile fabric;
- A minimum of three feet of clean material will be placed over the geotextile fabric; and,
- Landscaping will be established over the granular material.

### 3.3.4 Paved Areas

In developed areas outside of the new building footprint:

- Fill material will be removed as necessary to make room for two feet of granular material beneath the paved surface;
- A geotextile fabric will be placed over the remaining fill;
- A 12” +/- layer of granular material will be placed over the geotextile fabric;
- Warning barrier will be placed;
- A minimum of 18 inches of granular material will be placed over the gravel; and
- A minimum of three inches of pavement will be placed over the granular material.

### 3.3.5 Embankment

Embankments (edges of fill material) have been stabilized at a slope of 2:1 to 3:1 with three feet of clean soil overlying in-place contaminated material. The same geotextile fabric and warning barrier described above have been or will be installed at all of the stabilized embankment areas.

### 3.3.6 Long-term Monitoring and Maintenance

A Long-term Cap Monitoring Plan is included as Attachment E. An Environmental Monitoring Plan addressing indoor air and groundwater monitoring is included as Attachment F.

## 3.4 Activity and Use Limitation

An Activity and Use Limitation (AUL) will be placed on the property to require maintenance of the building slab, paved surfaces, and landscaped areas discussed above and to prevent penetration of these features without the oversight by a Massachusetts Licensed Site Professional (LSP). A Draft AUL is included as Attachment A.

# 4.0 HUMAN HEALTH RISK CHARACTERIZATION

This Section presents a qualitative risk characterization for the School Site and its future use as the New Keith Middle School. The objective of the human health risk characterization is to assess if Site conditions after development pose a potential health risk to humans.

## 4.1 Hazard Identification

### 4.1.1 Constituents of Concern

Constituents of concern (COCs) for the human health risk characterization include the following:

- Acenaphthene
- Acenaphthylene
- Anthracene
- Benzo(a)anthracene
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Benzo(g,h,i)perylene
- Benzo(k)fluoranthene
- Chrysene
- Dibenzo(a,h)anthracene
- Dibenzofuran
- Fluoranthene
- Fluorene
- Indeno(1,2,3-cd)pyrene
- 2-Methylnaphthalene
- Naphthalene
- Phenanthrene
- Pyrene
- PCBs (as Aroclor 1254)
- Total petroleum hydrocarbons
- Arsenic
- Barium
- Lead

The rationale for excluding other detected constituents is presented on Table 1.

### 4.1.2 Environmental Fate and Transport Characteristics

Table 2 summarizes chemical properties that describe the potential environmental fate and transport of the COCs and ranks them according to tendency to solubilize in water, volatilize, and desorb from soil particles. The majority of the COCs are slightly soluble or not soluble, very slightly volatile or non-volatile, and slightly or hardly mobile or immobile. This indicates that these COCs have a very low migration potential and will be easily contained within the exposure management barriers.

A few COCs are listed as readily soluble (acenaphthylene, 2-methylnaphthalene, and naphthalene), slightly volatile (2-methylnaphthalene, and naphthalene) and moderately mobile (naphthalene). However, these constituents currently meet Method 1 S-3 soil standards; in fact, the maximum detected concentration of these COCs meet their most stringent applicable Method 1 soil standard (acenaphthylene: 100 mg/kg; 2-methylnaphthalene: 500 mg/kg; naphthalene: 200 mg/kg).

## 4.2 Exposure Assessment

Human receptors potentially present at the future Keith Middle School include the following:

- Students
- School employees
- Visitors
- Municipal employees (such as persons from public works, the water department, etc.)

The exposure management barriers and activity and use limitation (AUL) to be established at the school will prevent students, school employees, and visitors from regularly contacting underlying fill material and will also prohibit soil disturbance activities by municipal workers or similar groups. Therefore, exposure to students, school employees, visitors, or municipal workers to fill underlying exposure management barriers is incomplete.

Intrusion into fill material underneath the exposure management barriers could only result from unintended breaching of the exposure management barriers or from prohibited activities by unauthorized persons on the Site. To contact in-place fill material, a person would need to dig through the building foundation, three feet of clean material, or paving and two feet of clean material; a gravel layer; and a geotextile fabric layer. This scenario is considered highly unlikely.

**Current Worker Exposure**

ESS Group, Inc. (ESS) revised risk-based air concentrations (RBACs) for PCBs in inhalable particles in air, protective of on-Site construction workers and off-site residents. The approach and assumptions used to derive the RBACs, including all risk calculations are documented in a letter dated May 17, 2004. The conclusion of the assessment is that a concentration of 404 µg inhalable particles per $m^3$ air is protective of both receptor groups and both potential carcinogenic and non-carcinogenic health risks. Soil management and dust monitoring procedures are discussed further in the EPA Work Plan.

To limit the exposure of form workers under the current construction contract, coated geotextile fabric was installed directly over the waste and then covered with a minimum of six inches of clean granular fill material before non-OSHA-trained workers were permitted to perform grade beam form work.

**Future Student-Teacher Exposure**

Future developed portions of the Site, including the new school, and landscaped, parking, and associated open areas, will be managed by engineered barriers and structures and supporting land use restrictions as discussed in Section 3 above. These features will prevent students, school employees, or others from contacting underlying fill material

and will prohibit soil disturbance activities. Therefore, exposure to people on future developed portions of the Site will be incomplete and is not assessed quantitatively.

**Future Worker Exposure**

Clean corridors have been established for utility installation and repair. Unless otherwise approved by a Massachusetts LSP, the AUL will limit excavation to within clean corridors to be performed by only authorized personnel.

### 4.2 Risk Characterization

The exposure management barriers to be established at the future Keith Middle School will effectively prevent potential human receptors from contacting COCs present in the in-place fill material. The properties of the COCs indicate that the COCs will be effectively controlled by the exposure management barriers. The AUL will provide a framework for ensuring that the exposure management barriers will be maintained and that persons are responsible for Site management. Based on these factors, future exposure of people to COCs present in the in-place fill material underneath the exposure management barriers is incomplete, and no health risks are posed.

## 5.0 WRITTEN CERTIFICATION

Pursuant to §761.61(a)(3)(i)(E), Scott Alfonse, as a representative of the City of New Bedford and the party conducting the cleanup, hereby certifies that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental?chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file at:

BETA Group, Inc.
315 Norwood Park South
Norwood, MA 02062

And are available for EPA inspection.

City of New Bedford

Scott Alfonse

Director of Environmental Stewardship

3/18/05

Date

## 6.0 REFERENCES

CIS Envirofate Database as referenced in
http://www.dep.state.pa.us/physicalproperties/_cgi-bin/CPP_Search.idc

CRC Handbook of Chemistry and Physics as referenced in
http://www.dep.state.pa.us/physicalproperties/ _cgi-bin/CPP_Search.idc

Groundwater Chemicals Desk Reference as referenced in
http://www.dep.state.pa.us/physicalproperties/ _cgi-bin/CPP_Search.idc

Massachusetts Department of Environmental Protection Bureau of Waste Site Cleanup (MA DEP BWSC) (May 1999). Guidance on Implementing Activity and Use Limitations. Interim Final Policy #WSC 99-300.

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MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.
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U.S. Environmental Protection Agency (U.S. EPA (2005). Region 9 Preliminary Remediation Goals. (http://www.epa.gov/region09/waste/sfund/prg/files/04prgtable.pdf). U.S. EPA (2004).

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U.S. EPA (1998). Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities, Peer Review Draft. EPA-530-D-98-001A, July.

U.S. EPA (1998). 40 CFR 761.61. "Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions." *Code of Federal Regulations*.

U.S. EPA (1994). ChemDat8 Users Guide. EPA453/C-94-080B, November.

U.S. EPA (1991). Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors. OSWER Directive 9285.6-03, March.

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[1] Acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, benzo(g,h,i)perylene, chrysene, dibenzo(a,h)anthracene, dibenzofuran, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, naphthalene, phenanthrene, pyrene and the phthalic acid esters butylbenzylphthalate, di-n-butylphthalate, and bis(2-ethylhexyl)phthalate.

[2] The analytical laboratory also converted the reported concentrations to 2378-TCDD TEqs, but used an earlier toxicity equivalency scheme, so reported slightly different numbers.

[3] Conventional exposure parameters for an adult worker (U.S. EPA 1991); who is anticipated to have the longest exposure duration of users of the future building. This will also be protective of exposure of typical students.

**REFER TO LISTED CONSTITUENTS OF CONCERN OUTLINED IN THE TEXT.**

## Table 1

Summary of Detected Constituents in Fill Material

## Table 2

Properties of Constituents of Concern

**TABLE 2**
**PROPERTIES OF CONSTITUENTS OF CONCERN**
**McCoy Field**
**New Bedford, Massachusetts**

| Constituent | Water Solubility (S) (mg/L) | | Relative Solubility[6] | Vapor Pressure (VP) (atm) | | Henry's Law Constant (H) ($cm^3/cm^3$) | | Relative Volatility [7] | Log Organic Carbon/Water Partition Coefficient (Log $K_{oc}$) ($cm^3/g$) | | Relative Mobility [8] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | 3.8 | [1] | Moderately soluble | 1.50E-05 | [1] | 4.91E-03 | [1] | very slightly volatile | 3.4 | [1] | slightly mobile |
| Acenaphthylene | 16.1 | [1] | Readily soluble | 4.09E-05 | [1] | 3.39E-03 | [1] | very slightly volatile | 3.4 | [1] | slightly mobile |
| Anthracene | 0.045 | [1] | Not soluble | 7.68E-07 | [1] | 1.60E-03 | [1] | very slightly volatile | 3.9 | [1] | slightly mobile |
| Benzo(a)anthracene | 0.011 | [1] | Not soluble | 5.98E-09 | [1] | 2.34E-04 | [1] | very slightly volatile | 5.0 | [1] | hardly mobile |
| Benzo(a)pyrene | 0.0038 | [1] | Not soluble | 2.10E-10 | [1] | 1.86E-05 | [1] | non-volatile | 5.1 | [1] | immobile |
| Benzo(b)fluoranthene | 0.0015 | [1] | Not soluble | 6.67E-08 | [1] | 6.46E-06 | [9] | non-volatile | 4.9 | [1] | hardly mobile |
| Benzo(g,h,i)perylene | 0.0003 | [1] | Not soluble | 2.22E-10 | [1] | 3.03E-05 | [1] | non-volatile | 5.5 | [1] | immobile |
| Benzo(k)fluoranthene | 0.0008 | [1] | Not soluble | 4.07E-11 | [1] | 6.46E-06 | [1] | non-volatile | 5.1 | [1] | immobile |
| Chrysene | 0.0015 | [1] | Not soluble | 1.06E-09 | [1] | 1.80E-04 | [1] | very slightly volatile | 4.9 | [1] | hardly mobile |
| Dibenzo(a,h)anthracene | 0.0005 | [1] | Not soluble | 1.33E-08 | [1] | 3.07E-06 | [1] | non-volatile | 5.7 | [1] | immobile |
| Dibenzofuran | 6.56 | [2] | Moderately soluble | 3.46E-06 | [3] | 4.50E-03 | [2] | very slightly volatile | 3.9 | [4] | slightly mobile |
| Fluoranthene | 0.26 | [1] | Slightly soluble | 8.61E-08 | [1] | 4.17E-04 | [1] | very slightly volatile | 4.4 | [1] | hardly mobile |
| Fluorene | 1.9 | [1] | Moderately soluble | 7.06E-06 | [1] | 3.19E-03 | [1] | very slightly volatile | 3.6 | [1] | slightly mobile |
| Indeno(1,2,3-cd)pyrene | 0.062 | [1] | Not soluble | 1.00E-09 | [1] | 2.07E-11 | [1] | non-volatile | 5.9 | [1] | immobile |
| 2-Methylnaphthalene | 25 | [1] | Readily soluble | 1.11E-04 | [1] | 2.07E-02 | [1] | slightly volatile | 3.3 | [1] | slightly mobile |
| Naphthalene | 31 | [1] | Readily soluble | 3.63E-04 | [1] | 1.74E-02 | [1] | slightly volatile | 2.9 | [1] | moderately mobile |
| Phenanthrene | 1.1 | [1] | Moderately soluble | 1.12E-06 | [1] | 1.31E-03 | [1] | very slightly volatile | 3.9 | [1] | slightly mobile |
| Pyrene | 0.132 | [1] | Slightly soluble | 1.17E-07 | [1] | 3.71E-04 | [1] | very slightly volatile | 4.4 | [1] | hardly mobile |
| PCBs (as Aroclor 1254) | 0.01 | [5] | Not soluble | 1.16E-07 | [5] | 3.79E-03 | [5] | very slightly volatile | 6.0 | [5] | immobile |
| Total petroleum hydrocarbons | Mixture | | | | | | | | | | |
| Arsenic | NA | | varies | NA | | NA | | non-volatile | NA | | varies |
| Barium | NA | | varies | NA | | NA | | non-volatile | NA | | varies |
| Lead | NA | | varies | NA | | NA | | non-volatile | NA | | varies |

NA = Not applicable or not available.

1. Total Petroleum Hydrocarbon Criteria Working Group (1998). Composition of Petroleum Mixtures. Amherst Scientific Publishing.
2. CRC Handbook of Chemistry and Physics as referenced in http://www.dep.state.pa.us/physicalproperties/_cgi-bin/CPP_Search.idc
3. Groundwater Chemicals Desk Reference as referenced in http://www.dep.state.pa.us/physicalproperties/_cgi-bin/CPP_Search.idc
4. CIS Envirofate Database as referenced in http://www.dep.state.pa.us/physicalproperties/_cgi-bin/CPP_Search.idc
5. U.S. EPA (1998). Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities, Peer Review Draft. EPA-530-D-98-001A, July.
6. Solubility relative ranking [FAO (2000). Assessing Soil Contamination - a Reference Manual.

| Solubility (mg/L at 20 °C) | Classification |
|---|---|
| <0.10 | Not soluble |
| 0.1–1 | Slightly soluble |
| 1–10 | Moderately soluble |
| 10–100 | Readily soluble |
| >100 | Highly soluble |

7. Volatility relative ranking (source)

| VP (atm) | | H ($cm^3/cm^3$) | |
|---|---|---|---|
| < 0.001 | and | < 5E-05 | non-volatile |
| < 0.001 | and | 5E-03 < H < 5E-05 | very slightly volatile |
| < 0.001 | and | 5E-01 < H < 5E-03 | slightly volatile |

8. Mobility relative ranking [FAO (2000). Assessing Soil Contamination - a Reference Manual]

| Log $K_{oc}$ | Classification |
|---|---|
| <1 | Highly mobile |
| 1–2 | Mobile |
| 2–3 | Moderately mobile |
| 3–4 | Slightly mobile |
| 4–5 | Hardly mobile |
| >5 | Immobile |

9. Assumed same as benzo(k)fluoranthene.

## Table 3

Summary of Soil Analyses for Chlorinated Dibenzo-p-dioxins and Dibenzofurans

**TABLE 3**
**SUMMARY OF SOIL ANALYSES FOR**
**CHLORINATED DIBENZO-P-DIOXINS AND DIBENZOFURANS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample ID | 2,3,7,8-TCDD pg/g | | | 1,2,3,7,8-PeCDD pg/g | | | 1,2,3,4,7,8-HxCDD pg/g | | | 1,2,3,6,7,8-HxCDD pg/g | | 1,2,3,7,8,9-HxCDD pg/g | | 1,2,3,4,6,7,8-HpCDD pg/g | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDD $TEF_{DFP}$-$WHO_{98}$ ---> | 1 | | TEQ | 1 | | TEQ | 0.1 | | TEQ | 0.1 | TEQ | 0.1 | TEQ | 0.01 | TEQ |
| Q4-A & B | 0.2 | U | 0.1 | 0.3 | U | 0.15 | 1.4 | J | 0.14 | 6.2 | 0.62 | 5.2 | 0.52 | 117 | 1.17 |
| Q16 A & B | *0.8* | J | 0.8 | 2.2 | J | 2.2 | 3.4 | J | 0.34 | 16.8 | 1.68 | 10.2 | 1.02 | 629 | 6.29 |
| Q24 A & B | 1.4 | J | 1.4 | 3.6 | J | 3.6 | 6.7 | | 0.67 | 44.2 | 4.42 | 23.5 | 2.35 | 1,790 | 17.9 |
| Q37 A, B, &C | *0.68* | J | 0.68 | 2.1 | J | 2.1 | 3.6 | J | 0.36 | 9.3 | 0.93 | 9 | 0.9 | 237 | 2.37 |
| Duplicate 11 | 2.8 | | 2.8 | 6 | | 6 | 5.2 | | 0.52 | 34.1 | 3.41 | 24.1 | 2.41 | 1,310 | 13.1 |
| Duplicate 13 | 0.95 | J | 0.95 | 3.2 | J | 3.2 | 2.6 | J | 0.26 | 9 | 0.9 | 7.9 | 0.79 | 146 | 1.46 |
| Q6-Embankment A & B | 0.66 | J | 0.66 | 2.5 | J | 2.5 | 2.3 | J | 0.23 | 8 | 0.8 | 7 | 0.7 | 129 | 1.29 |
| Q11-Embankment A & | 0.4 | J | 0.4 | 1.8 | J | 1.8 | 2.2 | J | 0.22 | 5.8 | 0.58 | 6 | 0.6 | 106 | 1.06 |
| Arithmetic Mean Concentration [1] | | | 0.97 | | | 2.69 | | | 0.34 | | 1.67 | | 1.16 | | 5.58 |
| Maximum Detected Concentration | | | 2.8 | | | 6 | | | 0.67 | | 4.42 | | 2.41 | | 17.9 |
| Method 1 S-1 Soil standard [2] | | | 4 | | | 4 | | | 4 | | 4 | | 4 | | 4 |
| Method 1 S-2 Soil standard [2] | | | 6 | | | 6 | | | 6 | | 6 | | 6 | | 6 |
| Method 1 S-3 Soil standard [2] | | | 20 | | | 20 | | | 20 | | 20 | | 20 | | 20 |
| Upper Concentration Limit [3] | | | 200 | | | 200 | | | 200 | | 200 | | 200 | | 200 |

pg/g = picrograms per grams (parts per trillion).
U = Undetected at quantitation limit presented.
J = Estimated below calibration range.
C = Value reported from confirmatory analysis.
D = Value reported from dilution analysis.
X = Interference from diphenyl ethers.
TEF = Toxicity equivalency factor.
TEQ = Toxicity equivalents.
TCDD=Tetrachlorodibenzo-p-dioxin.
TCDF = Tetrachlorodibenzofuran.
PeCDD = Pentachlorodibenzo-p-dioxin.
PeCDF = Pentachlorodibenzofuran.
HxCDD = Hexachlorodibenzo-p-dioxin.
HxCDF = Hexachlorodibenzofuran.
HpCDD = Heptachlorodibenzo-p-dioxin.
HpCDF = Heptachlorodibenzofuran.
OCDD = Octachlorodibenzo-p-dioxin.
OCDF = Octachlorodibenzofuran.
Value in italics = Estimated maximum possible concentration (EMPC).
1. Non-detections included at 1/2 quantitation limit.
2. 310 CMR 40.0975(a), (b), (c).
3. 310 CMR 40.0996(7).

**TABLE 3**
**SUMMARY OF SOIL ANALYSES FOR**
**CHLORINATED DIBENZO-P-DIOXINS AND DIBENZOFURANS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample ID | 1,2,3,4,6,7,8,9-OCDD pg/g | | | 2,3,7,8-TCDF pg/g | | | 1,2,3,7,8-PeCDF pg/g | | | 2,3,4,7,8-PeCDF pg/g | | 1,2,3,4,7,8-HxCDF pg/g | | 1,2,3,6,7,8-HxCDF pg/g | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDD $TEF_{DFP}$-$WHO_{98}$ ---> | 0.0001 | | TEQ | 0.1 | | TEQ | 0.05 | | TEQ | 0.5 | TEQ | 0.1 | TEQ | 0.1 | TEQ |
| Q4-A & B | 1,260 | | 0.126 | 8.2 | C | 0.82 | 0.1 | U | 0.0025 | 14.7 | 7.35 | 93.7 | 9.37 | 33.3 | 3.33 |
| Q16 A & B | 4,690 | D | 0.469 | 11.1 | C | 1.11 | 0.1 | U | 0.0025 | 11.5 | 5.75 | 36.5 | 3.65 | 17 | 1.7 |
| Q24 A & B | 12,160 | D | 1.216 | 15.7 | C | 1.57 | 0.1 | U | 0.0025 | 16.3 | 8.15 | 44.2 | 4.42 | 18.9 | 1.89 |
| Q37 A, B, &C | 3,020 | | 0.302 | 5.2 | C | 0.52 | 0.08 | U | 0.002 | 5.6 | 2.8 | 23.7 | 2.37 | 9.9 | 0.99 |
| Duplicate 11 | 10,210 | D | 1.021 | 18.4 | C | 1.84 | 0.2 | U | 0.005 | 19.3 | 9.65 | 51.9 | 5.19 | 22.2 | 2.22 |
| Duplicate 13 | 1,400 | | 0.14 | 13 | C | 1.3 | 0.1 | U | 0.0025 | 17.6 | 8.8 | 34.4 | 3.44 | 16.8 | 1.68 |
| Q6-Embankment A & B | 1,190 | | 0.119 | 11.2 | C | 1.12 | 0.6 | U | 0.015 | 9.9 | 4.95 | 29.6 | 2.96 | 13.5 | 1.35 |
| Q11-Embankment A & | 1,640 | | 0.164 | 5.3 | C | 0.53 | 0.05 | U | 0.00125 | 5.8 | 2.9 | 11.4 | 1.14 | 6.2 | 0.62 |
| Arithmetic Mean Concentration [1] | | | 0.44 | | | 1.10 | | | 0.004 | | 6.29 | | 4.07 | | 1.72 |
| Maximum Detected Concentration | | | 1.22 | | | 1.84 | | | 0.015 | | 9.65 | | 9.37 | | 3.33 |
| Method 1 S-1 Soil standard [2] | | | 4 | | | 4 | | | 4 | | 4 | | 4 | | 4 |
| Method 1 S-2 Soil standard [2] | | | 6 | | | 6 | | | 6 | | 6 | | 6 | | 6 |
| Method 1 S-3 Soil standard [2] | | | 20 | | | 20 | | | 20 | | 20 | | 20 | | 20 |
| Upper Concentration Limit [3] | | | 200 | | | 200 | | | 200 | | 200 | | 200 | | 200 |

pg/g = picrograms per grams (parts per trillion).
U = Undetected at quantitation limit presented.
J = Estimated below calibration range.
C = Value reported from confirmatory analysis.
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HxCDF = Hexachlorodibenzofuran.
HpCDD = Heptachlorodibenzo-p-dioxin.
HpCDF = Heptachlorodibenzofuran.
OCDD = Octachlorodibenzo-p-dioxin.
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2. 310 CMR 40.0975(a), (b), (c).
3. 310 CMR 40.0996(7).

**TABLE 3**
**SUMMARY OF SOIL ANALYSES FOR**
**CHLORINATED DIBENZO-P-DIOXINS AND DIBENZOFURANS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample ID | 2,3,4,6,7,8-HxCDF pg/g | | 1,2,3,7,8,9-HxCDF pg/g | | | 1,2,3,4,6,7,8-HpCDF pg/g | | 1,2,3,4,7,8,9-HpCDF pg/g | | 1,2,3,4,6,7,8,9-OCDF pg/g | | Sample Total TCDD pg/g |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCDD $TEF_{DFP}$-$WHO_{98}$ ---> | 0.1 | TEQ | 0.1 | | TEQ | 0.01 | TEQ | 0.01 | TEQ | 0.0001 | TEQ | |
| Q4-A & B | 19.1 | 1.91 | *5.8* | X | 0.58 | 76.3 | 0.763 | 27.3 | 0.273 | 156 | 0.0156 | 27.2 |
| Q16 A & B | 16.4 | 1.64 | *7.5* | X | 0.75 | 172 | 1.72 | 12.1 | 0.121 | 276 | 0.0276 | 29.3 |
| Q24 A & B | 20.2 | 2.02 | *8.6* | X | 0.86 | 346 | 3.46 | 20.3 | 0.203 | 1,320 | 0.132 | 54.3 |
| Q37 A, B, &C | 8.4 | 0.84 | *4.2* | XJ | 0.42 | 99.7 | 0.997 | 8.2 | 0.082 | 220 | 0.022 | 16.7 |
| Duplicate 11 | 22.4 | 2.24 | *10.4* | X | 1.04 | 310 | 3.1 | 18.2 | 0.182 | 628 | 0.0628 | 54.8 |
| Duplicate 13 | 20.9 | 2.09 | *10.9* | X | 1.09 | 108 | 1.08 | 8.5 | 0.085 | 128 | 0.0128 | 27.3 |
| Q6-Embankment A & B | 14.8 | 1.48 | *10.1* | X | 1.01 | 88.8 | 0.888 | 6.2 | 0.062 | 100 | 0.01 | 20.1 |
| Q11-Embankment A & | 8.5 | 0.85 | *3.8* | XJ | 0.38 | 45.6 | 0.456 | 3.3 J | 0.033 | 58.4 | 0.00584 | 11.7 |
| Arithmetic Mean Concentration [1] | | 1.63 | | | 0.77 | | 1.56 | | 0.13 | | 0.036 | 30.2 |
| Maximum Detected Concentration | | 2.24 | | | 1.09 | | 3.46 | | 0.27 | | 0.132 | 54.8 |
| Method 1 S-1 Soil standard [2] | | 4 | | | 4 | | 4 | | 4 | | 4 | 4 |
| Method 1 S-2 Soil standard [2] | | 6 | | | 6 | | 6 | | 6 | | 6 | 6 |
| Method 1 S-3 Soil standard [2] | | 20 | | | 20 | | 20 | | 20 | | 20 | 20 |
| Upper Concentration Limit [3] | | 200 | | | 200 | | 200 | | 200 | | 200 | 200 |

pg/g = picrograms per grams (parts per trillion).
U = Undetected at quantitation limit presented.
J = Estimated below calibration range.
C = Value reported from confirmatory analysis.
D = Value reported from dilution analysis.
X = Interference from diphenyl ethers.
TEF = Toxicity equivalency factor.
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TCDD=Tetrachlorodibenzo-p-dioxin.
TCDF = Tetrachlorodibenzofuran.
PeCDD = Pentachlorodibenzo-p-dioxin.
PeCDF = Pentachlorodibenzofuran.
HxCDD = Hexachlorodibenzo-p-dioxin.
HxCDF = Hexachlorodibenzofuran.
HpCDD = Heptachlorodibenzo-p-dioxin.
HpCDF = Heptachlorodibenzofuran.
OCDD = Octachlorodibenzo-p-dioxin.
OCDF = Octachlorodibenzofuran.
Value in italics = Estimated maximum possible concentration (EMPC).

1. Non-detections included at 1/2 quantitation limit.
2. 310 CMR 40.0975(a), (b), (c).
3. 310 CMR 40.0996(7).

## Table 4

Results of Groundwater Analysis
Samples Collected 10-31-02

# McCoy Field
# Results of Groundwater Analysis
# Samples Collected October 31, 2002

| Parameter | Method 1 Groundwater | | Sample Location | | | |
|---|---|---|---|---|---|---|
| | GW-3 | Units | TB/OW-22 | TB/OW-2 | TB/OW-18 | TB/OW-6 |
| **Total Metals** | | | | | | |
| Antimony, Total | 300 | ug/l | ND | ND | ND | ND |
| Arsenic, Total | 400 | ug/l | ND | ND | ND | ND |
| Barium, Total | 30000 | ug/l | 260 | 80 | 140 | 1300 |
| Beryllium, Total | 50 | ug/l | ND | ND | ND | ND |
| Cadmium, Total | 10 | ug/l | ND | ND | ND | ND |
| Chromium, Total | 2000 | ug/l | ND | ND | ND | ND |
| Lead, Total | 30 | ug/l | ND | ND | ND | ND |
| Nickel, Total | 80 | ug/l | ND | ND | ND | ND |
| Selenium, Total | 80 | ug/l | ND | ND | ND | ND |
| Silver, Total | 7 | ug/l | ND | ND | ND | ND |
| Thallium, Total | 400 | ug/l | ND | ND | ND | ND |
| Vanadium, Total | 2000 | ug/l | ND | ND | 10 | ND |
| Zinc, Total | 900 | ug/l | ND | ND | ND | ND |
| **Volatile Organic Compounds (VOCs)-8260** | | | | | | |
| Benzene | 7000 | ug/l | ND | ND | ND | 0.76 |
| Toluene | 50000 | ug/l | 1.7 | 1.8 | 1.4 | 1.9 |
| Ethylbenzene | 4000 | ug/l | ND | ND | ND | ND |
| Vinyl chloride | 40000 | ug/l | ND | ND | ND | ND |
| Methyl tert butyl ether | 50000 | ug/l | 1.1 | ND | ND | ND |
| Total Xylenes | 50000 | ug/l | ND | ND | ND | ND |
| Hexachlorobutadiene | 90 | ug/l | ND | ND | ND | ND |
| Naphthalene | 6000 | ug/l | 2.5 | ND | ND | 6.5 |
| **Semi-Volatile Organic Compounds (SVOCs)-8270** | | | | | | |
| Hexachlorobenzene | 40 | ug/l | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | 8000 | ug/l | ND | ND | ND | ND |
| Hexachlorobutadiene | 90 | ug/l | ND | ND | ND | ND |
| Benzo(a)anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(a)pyrene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(b)fluoranthene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 3000 | ug/l | ND | ND | ND | ND |
| Chrysene | 3000 | ug/l | ND | ND | ND | ND |
| Dibenzo(a,h)anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Indeno(1,2,3-cd)pyrene | 3000 | ug/l | ND | ND | ND | ND |
| Pentachlorophenol | 80 | ug/l | ND | ND | ND | ND |
| **Polycyclic Aromatic Hydrocarbons (PAHs)-8270M** | | | | | | |
| Acenaphthene | 5000 | ug/l | ND | ND | ND | ND |
| Fluoranthene | 200 | ug/l | ND | ND | ND | ND |
| Naphthalene | 6000 | ug/l | ND | ND | ND | 3.6 |
| Benzo(a)anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(a)pyrene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(b)fluoranthene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(k)fluoranthene | 3000 | ug/l | ND | ND | ND | ND |
| Chrysene | 3000 | ug/l | ND | ND | ND | ND |
| Acenaphthylene | 3000 | ug/l | ND | ND | ND | ND |
| Anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Benzo(ghi)perylene | 3000 | ug/l | ND | ND | ND | ND |

**McCoy Field**
**Results of Groundwater Analysis**
**Samples Collected October 31, 2002**

| Parameter | Method 1 Groundwater | | Sample Location | | | |
|---|---|---|---|---|---|---|
| | GW-3 | Units | TB/OW-22 | TB/OW-2 | TB/OW-18 | TB/OW-6 |
| Fluorene | 3000 | ug/l | ND | ND | ND | ND |
| Phenanthrene | 50 | ug/l | ND | ND | ND | ND |
| Dibenzo(a,h)anthracene | 3000 | ug/l | ND | ND | ND | ND |
| Indeno(1,2,3-cd)Pyrene | 3000 | ug/l | ND | ND | ND | ND |
| Pyrene | 3000 | ug/l | ND | ND | ND | ND |
| 2-Methylnaphthalene | 3000 | ug/l | ND | ND | ND | ND |
| **Polychlorinated Biphenyls (PCBs)** | | | | | | |
| Aroclor 1221 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1232 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1242/1016 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1248 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1254 | 0.3 | ug/l | ND | ND | ND | ND |
| Aroclor 1260 | 0.3 | ug/l | ND | ND | ND | ND |
| **Extractable Petroleum Hydrocarbons (EPH)** | | | | | | |
| C9-C18 Aliphatics | 20000 | ug/l | ND | ND | ND | ND |
| C19-C36 Aliphatics | 20000 | ug/l | ND | ND | ND | ND |
| C11-C22 Aromatics, Unadjusted | 30000 | ug/l | ND | ND | ND | ND |

ND-not detected.

# Table 5

Evaluation of Soil Gas Concentrations

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | Conversion Factor[1] | SG-1 | | SG-2 | | SG-3 | | SG-4 | | SG-5 | | SG-6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [(mg/m³)/(ppb$_v$)] | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ | ppb$_v$ | µg/m³ |
| Acetone | 2.4 | 4.8 | 11.4 | 5.4 | 12.9 | 15 | 35.7 | 9.6 | 22.8 | 13 | 30.9 | ND | ND |
| Benzene | 3.2 | 0.6 | 2 | 1.6 | 5.1 | 0.9 | 2.7 | ND | ND | ND | ND | 8.5 | 27.1 |
| 1,3-Butadiene | 2.2 | ND | ND | 10 | 22.1 | 9.5 | 21 | ND | ND | 34 | 75.1 | 233 | 515 |
| 2-Butanone (MEK) | 3.0 | ND | ND | 2 | 5.9 | ND | ND | 3 | 8.9 | ND | ND | 88 | 260 |
| Carbon Disulfide | 3.1 | 1.1 | 3.4 | 1.2 | 3.7 | ND | ND | ND | ND | ND | ND | 0.6 | 2.0 |
| Chloromethane | 2.1 | 0.6 | 1.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Cyclohexane | 3.4 | 2.6 | 8.9 | ND | ND | ND | ND | ND | ND | ND | ND | 31 | 107 |
| cis-1,2-Dichloroethene | 4.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 12 | 47.6 |
| trans-1,2-Dichloroethene | 4.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 2.2 | 8.8 |
| Dichlorodifluoromethane | 5.0 | 0.7 | 3.3 | 0.6 | 3 | ND | ND | ND | ND | ND | ND | 17 | 84.2 |
| Ethanol | 1.9 | ND | ND | 81 | 153 | 144 | 272 | 615 | 1,162 | ND | ND | ND | ND |
| Ethylbenzene | 4.3 | ND | ND | ND | ND | 0.9 | 3.8 | ND | ND | ND | ND | 3.2 | 13.9 |
| 4-Ethyltoluene | 4.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.8 | 3.9 |
| Heptane | 4.1 | 9.6 | 39.4 | 41 | 168 | 86 | 353 | 274 | 1,123 | ND | ND | 13 | 53.3 |
| Hexane | 3.5 | 5.2 | 18.4 | ND | ND | ND | ND | ND | ND | ND | ND | 63 | 222 |
| Methy tert-Butyl Ether | 3.6 | ND | ND | 2.6 | 9.4 | ND | ND | ND | ND | 2.9 | 10.4 | ND | ND |
| 4-Methyl-2-pentanone (MIBK) | 4.1 | ND | ND | 5 | 20.5 | 8.6 | 35.3 | ND | ND | ND | ND | ND | ND |
| Propene | 1.7 | 158 | 272 | 21 | 36.1 | 38 | 65.4 | ND | ND | ND | ND | 1,031 | 1,774 |
| Tetrachloroethene | 6.8 | ND | ND | 0.9 | 6.3 | 9.7 | 65.8 | 3.5 | 23.7 | ND | ND | ND | ND |
| Toluene | 3.8 | 8.8 | 33.2 | 35 | 132 | 83 | 313 | 107 | 403 | ND | ND | 8.1 | 30.5 |
| Trichloroethene | 5.4 | ND | ND | 1.6 | 8.6 | ND | ND | ND | ND | ND | ND | 7.7 | 41.3 |
| 1,2,4-Trimethylbenzene | 4.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 1.2 | 5.9 |
| Vinyl Chloride | 2.6 | 2.9 | 7.4 | ND | ND | ND | ND | ND | ND | ND | ND | 93 | 238 |
| Xylenes (total) | 4.3 | ND | ND | 1.8 | 7.8 | 3.5 | 15.2 | ND | ND | ND | ND | 11.1 | 48.2 |
| **C5-C8 aliphatic hydrocarbons** | | | | | | | | | | | | | |
| 2-Methyl-1-pentene | 3.4 | ND | ND | 7.2 | 24.8 | 12 | 41.3 | ND | ND | ND | ND | ND | ND |
| Isobutane | 2.4 | 21 | 49.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Pentane | 3.0 | 4.8 | 14.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2-Methylpentane | 3.5 | 9.9 | 34.9 | ND | ND | 7.9 | 27.8 | 27 | 95.2 | ND | ND | ND | ND |
| 3-Methylpentane | 3.5 | ND | ND | ND | ND | 11 | 38.8 | ND | ND | ND | ND | ND | ND |
| 3,3-Dimethylpentane | 4.1 | 3.5 | 14.3 | 19 | 77.9 | 26 | 106.6 | 82 | 336.1 | ND | ND | ND | ND |
| 2-Methylhexane | 4.1 | 10 | 41.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,3-Dimethylpentane | 4.1 | 12 | 49.2 | 52 | 213.1 | 82 | 336.1 | 264 | 1082.0 | ND | ND | 13 | 53.3 |
| 3-Ethylpentane | 4.1 | ND | ND | 32 | 131.2 | 52 | 213.1 | 163 | 668.1 | ND | ND | ND | ND |
| 2,3,4-Trimethylpentane | 4.7 | 7.9 | 36.9 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 1-Heptene | 4.0 | 5.1 | 20.5 | 21 | 84.3 | 33 | 132.5 | 103 | 413.6 | ND | ND | ND | ND |
| Methylcyclohexane | 4.0 | 22 | 88.4 | 79 | 317.3 | 131 | 526.1 | 407 | 1634.5 | ND | ND | ND | ND |
| 2-Methylheptane | 4.7 | 2.9 | 13.5 | ND | ND | 13 | 60.7 | 36 | 168.1 | ND | ND | ND | ND |
| 2,5-Dimethylhexane | 4.7 | ND | ND | 6.5 | 30.8 | ND | ND | ND | ND | ND | ND | ND | ND |
| 1-Octene | 4.6 | ND | ND | 7.3 | 33.5 | ND | ND | 39 | 178.8 | ND | ND | ND | ND |
| 1,2,4-Trimethylcyclopentane | 4.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 11 | 50.5 |
| 2,4-Dimethylpentane | 4.1 | ND | ND | ND | ND | 36 | 147.5 | ND | ND | ND | ND | ND | ND |
| 4-Methyl-1-hexene | 4.0 | ND | ND | ND | ND | ND | ND | 42 | 168.6 | ND | ND | ND | ND |
| 2,4-Dimethylhexane | 4.7 | ND | ND | ND | ND | ND | ND | 22 | 102.8 | ND | ND | ND | ND |
| 3-Methyl-hexane | 4.1 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dimethylcyclohexane | 4.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 17 | 78.0 |
| ***TOTAL*** | | | 362.8 | | 912.8 | | 1630.6 | | 4847.8 | | 0.0 | | 181.8 |

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | SG-7 | | SG-8 | | SG-9 | | SG-10 | | Average Detected Concentration (excluding non-detections) |
|---|---|---|---|---|---|---|---|---|---|
| | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $\mu g/m^3$ |
| Acetone | ND | ND | 6.1 | 14.5 | 40 | 95.2 | 3.8 | 9 | 29.1 |
| Benzene | 0.8 | 2.4 | ND | ND | 2.2 | 7 | 0.7 | 2.2 | 6.9 |
| 1,3-Butadiene | 68 | 150 | 3.9 | 8.6 | 36 | 79.6 | 6.0 | 13.3 | 111 |
| 2-Butanone (MEK) | ND | ND | ND | ND | 11 | 32.5 | 1.6 | 4.7 | 62.3 |
| Carbon Disulfide | 1.7 | 5.3 | ND | ND | 5.8 | 18 | ND | ND | 6.5 |
| Chloromethane | ND | ND | 0.7 | 1.4 | 0.7 | 1.5 | 0.7 | 1.4 | 1.4 |
| Cyclohexane | ND | ND | ND | ND | 4.6 | 15.8 | ND | ND | 43.8 |
| cis-1,2-Dichloroethene | 1.4 | 5.6 | ND | ND | 6.9 | 27.4 | ND | ND | 26.9 |
| trans-1,2-Dichloroethene | ND | ND | ND | ND | 0.9 | 3.5 | ND | ND | 6.1 |
| Dichlorodifluoromethane | 0.7 | 3.6 | 0.7 | 3.2 | ND | ND | 0.5 | 2.6 | 16.6 |
| Ethanol | ND | ND | 51 | 96.4 | 114 | 215 | 220 | 416 | 386 |
| Ethylbenzene | 0.7 | 3.0 | ND | ND | 0.9 | 4 | 1.1 | 4.8 | 5.9 |
| 4-Ethyltoluene | ND | ND | ND | ND | ND | ND | ND | ND | 3.9 |
| Heptane | 36 | 148 | 25 | 103 | 71 | 291 | 99.0 | 406 | 298 |
| Hexane | 8.7 | 30.7 | 0.9 | 3.2 | 6.4 | 22.6 | 4.1 | 14.5 | 52 |
| Methy tert-Butyl Ether | ND | ND | ND | ND | 2.1 | 7.6 | ND | ND | 9.1 |
| 4-Methyl-2-pentanone (MIBK) | ND | ND | 3.4 | 13.9 | ND | ND | 12.0 | 49.2 | 29.7 |
| Propene | 296 | 509 | ND | ND | 202 | 348 | ND | ND | 501 |
| Tetrachloroethene | 6.6 | 44.7 | ND | ND | ND | ND | ND | ND | 35.1 |
| Toluene | 42 | 158 | 37 | 139 | 75 | 283 | 123 | 464 | 217 |
| Trichloroethene | 2.1 | 11.3 | ND | ND | 2.0 | 10.7 | ND | ND | 18 |
| 1,2,4-Trimethylbenzene | ND | ND | ND | ND | 1.2 | 5.9 | ND | ND | 5.9 |
| Vinyl Chloride | 8.6 | 22 | ND | ND | 13.0 | 33.3 | ND | ND | 75.2 |
| Xylenes (total) | 3.2 | 13.9 | 1.5 | 6.5 | 4.0 | 17.4 | 4.7 | 20.4 | 18.5 |
| **C5-C8 aliphatic hydrocarbons** | | | | | | | | | |
| 2-Methyl-1-pentene | ND | ND | ND | ND | 12 | 41.3 | ND | ND | |
| Isobutane | ND | ND | ND | ND | ND | ND | ND | ND | |
| Pentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2-Methylpentane | ND | ND | ND | ND | 13 | 45.8 | ND | ND | |
| 3-Methylpentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 3,3-Dimethylpentane | 14 | 57.4 | 9.5 | 38.9 | ND | ND | ND | ND | |
| 2-Methylhexane | ND | ND | ND | ND | 63 | 258.2 | ND | ND | |
| 2,3-Dimethylpentane | 40 | 163.9 | 30 | 123.0 | 60 | 245.9 | ND | ND | |
| 3-Ethylpentane | 27 | 110.7 | 19 | 77.9 | 41 | 168.0 | ND | ND | |
| 2,3,4-Trimethylpentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 1-Heptene | 17 | 68.3 | 12 | 48.2 | 25 | 100.4 | ND | ND | |
| Methylcyclohexane | 72 | 289.1 | ND | ND | 104 | 417.7 | ND | ND | |
| 2-Methylheptane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2,5-Dimethylhexane | ND | ND | 4.7 | 22.2 | 10 | 47.3 | ND | ND | |
| 1-Octene | 8.2 | 37.6 | ND | ND | 11 | 50.4 | ND | ND | |
| 1,2,4-Trimethylcyclopentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2,4-Dimethylpentane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 4-Methyl-1-hexene | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2,4-Dimethylhexane | ND | ND | 14 | 65.4 | ND | ND | ND | ND | |
| 3-Methyl-hexane | ND | ND | 60 | 245.9 | ND | ND | ND | ND | |
| trans-1,2-Dimethylcyclohexane | ND | ND | ND | ND | ND | ND | ND | ND | |
| ***TOTAL*** | | 727.0 | | 621.5 | | 1,375 | | ND | 1,184 |

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | Indoor Air Attenuation Coefficient ($\alpha$)[2] (unitless) | Non-Cancer Intake Factor[4] (unitless) | Non-Cancer Exposure Point Concentration[13] $\mu g/m^3$ | Inhalation Reference Concentration ($mg/m^3$) | Non-Cancer Hazard Index[14] (unitless) | Cancer Intake Factor[5] (unitless) | Cancer Exposure Point Concentration[13] ($\mu g/m^3$) | Cancer Inhalation Unit Risk [$(mg/m^3)^{-1}$] | Excess Lifetime Cancer Risk[15] (unitless) | Background Indoor Air Concentration[3] ($\mu g/m^3$) |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 8.92E-04 | 2.28E-01 | 0.0059 | 3 [7] | 0.000002 | -- | -- | -- | -- | 27 |
| Benzene | 7.67E-04 | 2.28E-01 | 0.0012 | 0.03 [6] | 0.00004 | 8.15E-02 | 0.0004 | 0.0078 [6] | 3E-09 | 21 |
| 1,3-Butadiene | 1.11E-03 | 2.28E-01 | 0.0281 | 0.002 [6] | 0.01 | 8.15E-02 | 0.01 | 0.03 [6] | 3E-07 | 1.5 [10] |
| 2-Butanone (MEK) | 1.35E-04 | 2.28E-01 | 0.0019 | 5 [6] | 0.0000004 | -- | -- | -- | -- | 42 [10] |
| Carbon Disulfide | 8.28E-04 | 2.28E-01 | 0.0012 | 0.7 [6] | 0.000002 | -- | -- | -- | -- | -- |
| Chloromethane | 8.97E-04 | 2.28E-01 | 0.0003 | 0.09 [6] | 0.000003 | -- | -- | -- | -- | 1.5 [10] |
| Cyclohexane | 7.49E-04 | 2.28E-01 | 0.0075 | 6 [6] | 0.000001 | -- | -- | -- | -- | 8.0 |
| cis-1,2-Dichloroethene | 7.01E-04 | 2.28E-01 | 0.0043 | 0.035 [7] | 0.0001 | -- | -- | -- | -- | 4.1 [10] |
| trans-1,2-Dichloroethene | 6.86E-04 | 2.28E-01 | 0.0010 | 0.07 [7] | 0.00001 | -- | -- | -- | -- | -- |
| Dichlorodifluoromethane | 6.64E-04 | 2.28E-01 | 0.0025 | 0.2 [7] | 0.00001 | -- | -- | -- | -- | 1.7 [10] |
| Ethanol | 8.90E-04 | 2.28E-01 | 0.0784 | NA | -- | -- | -- | -- | -- | -- |
| Ethylbenzene | 7.08E-04 | 2.28E-01 | 0.0010 | 1 [6] | 0.000001 | -- | -- | -- | -- | 9.6 |
| 4-Ethyltoluene | 6.11E-04 | 2.28E-01 | 0.0005 | 0.05 [11] | 0.00001 | -- | -- | -- | -- | -- |
| Heptane | 6.60E-04 | 2.28E-01 | 0.0449 | 0.2 [12] | 0.0002 | -- | -- | -- | -- | -- |
| Hexane | 1.05E-03 | 2.28E-01 | 0.0125 | 0.2 [6] | 0.00006 | -- | -- | -- | -- | -- |
| Methy tert-Butyl Ether | 1.64E-04 | 2.28E-01 | 0.0003 | 3 [6] | 0.0000001 | -- | -- | -- | -- | -- |
| 4-Methyl-2-pentanone (MIBK) | 7.08E-04 | 2.28E-01 | 0.0048 | 3 [6] | 0.000002 | -- | -- | -- | -- | -- |
| Propene | 1.19E-03 | 2.28E-01 | 0.1358 | NA | -- | -- | -- | -- | -- | -- |
| Tetrachloroethene | 6.93E-04 | 2.28E-01 | 0.0056 | 0.035 [7] | 0.0002 | 8.15E-02 | 0.002 | 0.0552 [8] | 1E-07 | 11 |
| Toluene | 7.63E-04 | 2.28E-01 | 0.0378 | 0.4 [6] | 0.00009 | -- | -- | -- | -- | 28.6 |
| Trichloroethene | 7.27E-04 | 2.28E-01 | 0.0030 | 0.035 [7] | 0.00009 | 8.15E-02 | 0.001 | 0.11 [7] | 1E-07 | 4.5 |
| 1,2,4-Trimethylbenzene | 6.30E-04 | 2.28E-01 | 0.0008 | 0.006 [7] | 0.0001 | -- | -- | -- | -- | 5.4 |
| Vinyl Chloride | 8.35E-04 | 2.28E-01 | 0.0143 | 0.1 [6] | 0.0001 | 8.15E-02 | 0.005 | 0.0088 [6] | 5E-08 | 0.03 |
| Xylenes (total) | 7.35E-04 | 2.28E-01 | 0.0031 | 0.1 [6] | 0.00003 | -- | -- | -- | -- | 72.4 |
| **C5-C8 aliphatic hydrocarbons** | | | | | | | | | | |
| 2-Methyl-1-pentene | | | | | | | | | | |
| Isobutane | | | | | | | | | | |
| Pentane | | | | | | | | | | |
| 2-Methylpentane | | | | | | | | | | |
| 3-Methylpentane | | | | | | | | | | |
| 3,3-Dimethylpentane | | | | | | | | | | |
| 2-Methylhexane | | | | | | | | | | |
| 2,3-Dimethylpentane | | | | | | | | | | |
| 3-Ethylpentane | | | | | | | | | | |
| 2,3,4-Trimethylpentane | | | | | | | | | | |
| 1-Heptene | | | | | | | | | | |
| Methylcyclohexane | | | | | | | | | | |
| 2-Methylheptane | | | | | | | | | | |
| 2,5-Dimethylhexane | | | | | | | | | | |
| 1-Octene | | | | | | | | | | |
| 1,2,4-Trimethylcyclopentane | | | | | | | | | | |
| 2,4-Dimethylpentane | | | | | | | | | | |
| 4-Methyl-1-hexene | | | | | | | | | | |
| 2,4-Dimethylhexane | | | | | | | | | | |
| 3-Methyl-hexane | | | | | | | | | | |
| trans-1,2-Dimethylcyclohexane | | | | | | | | | | |
| ***TOTAL*** | 7.32E-04 | 2.28E-01 | 0.1978 | 0.2 [7] | 0.001 | -- | -- | -- | -- | 85 [9] |

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | Conversion Factor[1] | SG-1 | | SG-2 | | SG-3 | | SG-4 | | SG-5 | | SG-6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [(mg/m$^3$)/(ppb$_v$)] | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ | ppb$_v$ | µg/m$^3$ |
| **C9-C12 aliphatic hydrocarbons** | | | | | | | | | | | | | |
| Decane | 5.8 | ND | ND | 3.3 | 19.2 | ND | ND | ND | ND | ND | ND | ND | ND |
| 2,4-Dimethylheptane | 5.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 7.6 | 39.9 |
| 2,6-Dimethylheptane | 5.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 16 | 83.9 |
| 1,2,4-Trimethylcyclohexane | 5.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 19 | 98.1 |
| 1-Methyl-4-(1-methylethyl)cyclohexane | 5.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 22 | 126.2 |
| 1,1,2,3-Tetramethylcyclohexane | 5.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 59 | 340.8 |
| 4-Methyldecane | 6.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 24 | 153.4 |
| 3-Methylnonane | 5.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| 3-Ethyl-2-methylheptane | 5.8 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| ***TOTAL*** | | | ND | | 19.2 | | ND | | ND | | ND | | 842.3 |
| **Miscellaneous** | | | | | | | | | | | | | |
| 2-Bromopentane | 6.2 | ND | ND | 4.5 | 27.8 | ND | ND | ND | ND | ND | ND | ND | ND |
| Cyclopentanone | 3.4 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Limonene | 5.6 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dimethyl disulfide | 3.9 | ND | ND | ND | ND | ND | ND | ND | ND | 150 | 578 | ND | ND |
| trans-Decahydronaphthalene | 5.7 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | 16 | 90.5 |
| **OVERALL TOTAL** | | | | | | | | | | | | | |

ppb$_v$ = parts per billion by volume.
µg/m$^3$ = micrograms per cubic meter.
ND = Not detected.
NC = Not calculated.
NA = Not available.
1. NIOSH Pocket Guide to Chemical Hazards or calculated as: [(mg/m$^3$)/(ppm) = MW/24.45].
2. Calculated values; see following spreadsheet.
3. Shah and Singh (1988). Environ. Sci. Technol. Vol. 22, No. 12, 1381-1388.
4. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/25 yr
5. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/70 yr
6. U.S. EPA (2005) IRIS (www.epa.gov/iris).
7. U.S. EPA (2005) Region 9 preliminary remediation goal tables.
8. MADEP (undated) Documentation For the Cancer Inhalation Unit Risk Value for Tetrachloroethylene.
9. MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.
10. Value is 75th %-tile outdoor concentration.
11. Value for C9-C10 aromatic hydrocarbons (R7).
12. No value available;value for hexane applied.
13. (Avg soil gas conc)(atten. coeff.)(intake factor).
14. (Exposure Conc) / (1000)(Reference Conc).
15. (Exposure Conc)(Unit Risk)/(1000).

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | SG-7 | | SG-8 | | SG-9 | | SG-10 | | Average Detected Concentration (excluding non-detections) |
|---|---|---|---|---|---|---|---|---|---|
| | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $ppb_v$ | $\mu g/m^3$ | $\mu g/m^3$ |
| **C9-C12 aliphatic hydrocarbons** | | | | | | | | | |
| Decane | 23 | 133.9 | ND | ND | ND | ND | ND | ND | |
| 2,4-Dimethylheptane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 2,6-Dimethylheptane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 1,2,4-Trimethylcyclohexane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 1-Methyl-4-(1-methylethyl)cyclohexane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 1,1,2,3-Tetramethylcyclohexane | ND | ND | ND | ND | ND | ND | ND | ND | |
| 4-Methyldecane | 26 | 166.2 | ND | ND | ND | ND | ND | ND | |
| 3-Methylnonane | 9.4 | 54.6 | ND | ND | ND | ND | ND | ND | |
| 3-Ethyl-2-methylheptane | 9.5 | 55.3 | ND | ND | ND | ND | ND | ND | |
| ***TOTAL*** | | 410.0 | | ND | | ND | | ND | 424 |
| **Miscellaneous** | | | | | | | | | |
| 2-Bromopentane | ND | ND | ND | ND | ND | ND | ND | ND | 28 |
| Cyclopentanone | ND | ND | 4.3 | 14.8 | ND | ND | ND | ND | 15 |
| Limonene | ND | ND | ND | ND | 3.6 | 20.1 | ND | ND | 20 |
| Dimethyl disulfide | ND | ND | ND | ND | ND | ND | ND | ND | 578 |
| trans-Decahydronaphthalene | ND | ND | ND | ND | ND | ND | ND | ND | 90 |
| **OVERALL TOTAL** | | | | | | | | | |

$ppb_v$ = parts per billion by volume.
$\mu g/m^3$ = micrograms per cubic meter.
ND = Not detected.
NC = Not calculated.
NA = Not available.
1. NIOSH Pocket Guide to Chemical Hazards or calculated as: [$(mg/m^3)/(ppm) = MW/24.45$].
2. Calculated values; see following spreadsheet.
3. Shah and Singh (1988). Environ. Sci. Technol. Vol. 22, No. 12, 1381-1388.
4. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/25 yr
5. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/70 yr
6. U.S. EPA (2005) IRIS (www.epa.gov/iris).
7. U.S. EPA (2005) Region 9 preliminary remediation goal tables.
8. MADEP (undated) Documentation For the Cancer Inhalation Unit Risk Value for Tetrachloroethylene.
9. MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.
10. Value is 75th %-tile outdoor concentration.
11. Value for C9-C10 aromatic hydrocarbons (R7).
12. No value available;value for hexane applied.
13. (Avg soil gas conc)(atten. coeff.)(intake factor).
14. (Exposure Conc) / (1000)(Reference Conc).
15. (Exposure Conc)(Unit Risk)/(1000).

**TABLE 5**
**EVALUATION OF SOIL GAS CONCENTRATIONS**
**McCoy Field**
**New Bedford, Massachusetts**

| Sample Identification | Indoor Air Attenuation Coefficient ($\alpha$)[2] (unitless) | Non-Cancer Intake Factor[4] (unitless) | Non-Cancer Exposure Point Concentration[13] $\mu g/m^3$ | Inhalation Reference Concentration ($mg/m^3$) | Non-Cancer Hazard Index[14] (unitless) | Cancer Intake Factor[5] (unitless) | Cancer Exposure Point Concentration[13] ($\mu g/m^3$) | Cancer Inhalation Unit Risk [$(mg/m^3)^{-1}$] | Excess Lifetime Cancer Risk[15] (unitless) | Background Indoor Air Concentration[3] ($\mu g/m^3$) |
|---|---|---|---|---|---|---|---|---|---|---|
| **C9-C12 aliphatic hydrocarbons** | | | | | | | | | | |
| Decane | | | | | | | | | | |
| 2,4-Dimethylheptane | | | | | | | | | | |
| 2,6-Dimethylheptane | | | | | | | | | | |
| 1,2,4-Trimethylcyclohexane | | | | | | | | | | |
| 1-Methyl-4-(1-methylethyl)cyclohexane | | | | | | | | | | |
| 1,1,2,3-Tetramethylcyclohexane | | | | | | | | | | |
| 4-Methyldecane | | | | | | | | | | |
| 3-Methylnonane | | | | | | | | | | |
| 3-Ethyl-2-methylheptane | | | | | | | | | | |
| ***TOTAL*** | 6.82E-04 | 2.28E-01 | 0.0660 | 0.2 [7] | 0.0003 | -- | -- | -- | -- | 90 [9] |
| **Miscellaneous** | | | | NA | -- | -- | -- | -- | -- | |
| 2-Bromopentane | NC | | | NA | -- | -- | -- | -- | -- | -- |
| Cyclopentanone | NC | | | NA | -- | -- | -- | -- | -- | -- |
| Limonene | NC | | | NA | -- | -- | -- | -- | -- | -- |
| Dimethyl disulfide | 7.71E-04 | | | NA | -- | -- | -- | -- | -- | -- |
| trans-Decahydronaphthalene | NC | | | NA | -- | -- | -- | -- | -- | -- |
| **OVERALL TOTAL** | | **Hazard Index =** | | | **0.02** | **Cancer Risk =** | | | **6E-07** | |

$ppb_v$ = parts per billion by volume.
$\mu g/m^3$ = micrograms per cubic meter.
ND = Not detected.
NC = Not calculated.
NA = Not available.
1. NIOSH Pocket Guide to Chemical Hazards or calculated as: [$(mg/m^3)/(ppm)$ = MW/24.45].
2. Calculated values; see following spreadsheet.
3. Shah and Singh (1988). Environ. Sci. Technol. Vol. 22, No. 12, 1381-1388.
4. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/25 yr
5. (8 hr/dy)(250 dy/yr)(25 yr)(1.14E-4 yr/hr)/70 yr
6. U.S. EPA (2005) IRIS (www.epa.gov/iris).
7. U.S. EPA (2005) Region 9 preliminary remediation goal tables.
8. MADEP (undated) Documentation For the Cancer Inhalation Unit Risk Value for Tetrachloroethylene.
9. MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.
10. Value is 75th %-tile outdoor concentration.
11. Value for C9-C10 aromatic hydrocarbons (R7).
12. No value available;value for hexane applied.
13. (Avg soil gas conc)(atten. coeff.)(intake factor).
14. (Exposure Conc) / (1000)(Reference Conc).
15. (Exposure Conc)(Unit Risk)/(1000).

## Table 6

Calculation of Steady State Indoor Air Attenuation Coefficients

**TABLE 6**
**CALCULATION OF STEADY STATE INDOOR AIR ATTENUATION COEFFICIENTS**
**McCoy Field**
**New Bedford, Massachusetts**

**Main Equation**

Eq 1

$$\alpha = \frac{\left[\frac{D_s^{eff} A_B}{Q_{bldg} L_{SG}}\right] \cdot \mathrm{EXP}\left[\frac{Q_{soil} L_{crack}}{D_{crack}^{eff} A_{crack}}\right]}{\left[\exp\left(\frac{Q_{soil} L_{crack}}{D_{crack}^{eff} A_{crack}}\right) + \left(\frac{D_s^{eff} A_B}{Q_{bldg} L_{SG}}\right) + \left(\frac{D_s^{eff} A_B}{Q_{soil} L_{SG}}\right)\left[\exp\left(\frac{Q_{soil} L_{crack}}{D_{crack}^{eff} A_{crack}}\right) - 1\right]\right]}$$

or:

Eq 2

$$\text{as}\left(\frac{Q_{soil} \cdot L_{crack}}{D_{crack}^{eff} \cdot A_{crack}}\right) \rightarrow \infty, \alpha \rightarrow \left(\frac{\frac{D_s^{eff} \cdot A_B}{Q_{bldg} \cdot L_{SG}}}{\left(\frac{D_s^{eff} \cdot A_B}{Q_{soil} \cdot L_{SG}}\right) + 1}\right)$$

Equation 1 will not compute if this state is reached; Equation 2 must be u

where:

| | |
|---|---|
| $\alpha$ = | Steady state attenuation coefficient (unitless) |
| $D^{eff}_s$ = | Effective diffusivity in vadose zone soils ($cm^2/s$) (Calculated below) |
| $A_B$ = | Area of enclosed space below grade ($cm^2$) |
| $Q_{bldg}$ = | Building ventilation rate ($cm^3/sec$) (calculated below) |
| $L_{SG}$ = | Depth to soil gas source (cm) |
| $Q_{soil}$ = | Flow rate of soil gas into enclosed space ($cm^3/s$) |
| $L_{crack}$ = | Enclosed space foundation thickness (cm) |
| $D^{eff}_{crack}$ = | Effective diffusivity through soil-filled foundation cracks ($cm^2/s$) (Calculated below) |
| $A_{crack}$ = | Area of cracks ($cm^2$) ( = $A_B$ x $\eta$) |

| Constituent | $D^{eff}_S$ ($cm^2/s$) | $A_B$ ($cm^2$) | $Q_{bldg}$ ($cm^3/s$) | $L_{SG}$ (cm) | $Q_{soil}$ ($cm^3/s$) | $L_{crack}$ (cm) | $D^{eff}_{crack}$ ($cm^2/s$) | $A_{crack}$ ($cm^2$) | $\alpha$ (Eq 1) (unitless) |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | 1.25E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.25E-02 | 185 | 8.92E-04 |
| Benzene | 8.88E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.88E-03 | 185 | #NUM! |
| 1,3-Butadiene | 2.51E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 2.51E-02 | 185 | 1.11E-03 |
| 2-Butanone (MEK) | 8.30E-04 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.30E-04 | 185 | #NUM! |
| Carbon Disulfide | 1.05E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.05E-02 | 185 | 8.28E-04 |
| Chloromethane | 1.27E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.27E-02 | 185 | 8.97E-04 |
| Cyclohexane | 8.47E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.47E-03 | 185 | #NUM! |
| cis-1,2-Dichloroethene | 7.43E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.43E-03 | 185 | #NUM! |
| trans-1,2-Dichloroethene | 7.14E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.14E-03 | 185 | #NUM! |
| Dichlorodifluoromethane | 6.71E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 6.71E-03 | 185 | #NUM! |
| Ethanol | 1.25E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.25E-02 | 185 | 8.90E-04 |
| Ethylbenzene | 7.57E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.57E-03 | 185 | #NUM! |
| 4-Ethyltoluene | 5.82E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 5.82E-03 | 185 | #NUM! |
| Heptane | 6.65E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 6.65E-03 | 185 | #NUM! |
| Hexane | 2.02E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 2.02E-02 | 185 | 1.05E-03 |
| Methy tert-Butyl Ether | 1.03E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.03E-03 | 185 | #NUM! |
| 4-Methyl-2-pentanone | 7.58E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.58E-03 | 185 | #NUM! |
| Propene | 3.37E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 3.37E-02 | 185 | 1.19E-03 |
| Tetrachloroethene | 7.27E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.27E-03 | 185 | #NUM! |
| Toluene | 8.78E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.78E-03 | 185 | #NUM! |
| Trichloroethene | 7.98E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.98E-03 | 185 | #NUM! |
| 1,2,4-Trimethylbenzene | 6.12E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 6.12E-03 | 185 | #NUM! |
| Vinyl Chloride | 1.07E-02 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 1.07E-02 | 185 | 8.35E-04 |
| Xylenes (total) | 8.15E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.15E-03 | 185 | #NUM! |
| C5-C8 aliphatic hydrocarbons | 8.08E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.08E-03 | 185 | #NUM! |
| C9-C12 aliphatic hydrocarbons | 7.07E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 7.07E-03 | 185 | #NUM! |
| Dimethyl disulfide | 8.99E-03 | 9.24E+05 | 5.63E+04 | 91 | 83.3 | 15 | 8.99E-03 | 185 | #NUM! |

**TABLE 6**
**CALCULATION OF STEADY STATE INDOOR AIR ATTENUATION COEFFICIENTS**
**McCoy Field**
**New Bedford, Massachusetts**

$$Q_{bldg} = L_b\ W_b\ H_b\ ER$$

where:

$Q_{bldg}$ = Building ventilation rate ($cm^3/s$)
$L_b$ = Length of building (cm)
$W_b$ = Width of building (cm)
$H_b$ = Height of building (cm)
ER = Air exchange rate ($sec^{-1}$)

| Constituent | $L_b$ (cm) | $W_b$ (cm) | $H_b$ (cm) | ER ($sec^{-1}$) | $Q_{bldg}$ ($cm^3/s$) |
|---|---|---|---|---|---|
| All | 961 | 961 | 488 | 0.000125 | 5.63E+04 |

$$D^{eff}{}_s = D_{air} \cdot \left( \frac{\theta_{as}{}^{3.33}}{\theta_T{}^2} \right) + D_{wat} \cdot \left( \frac{1}{H} \right) \left( \frac{\theta_{ws}{}^{3.33}}{\theta_T{}^2} \right)$$

where:

$D^{eff}{}_s$ = Effective diffusivity through vadose zone soil and soil-fillied foundation cracks ($D^{eff}{}_{crack}$) ($cm^2/s$)
$D_{air}$ = Diffusion coefficient in air ($cm^2/s$)
$D_{wat}$ = Diffusion coefficient in water ($cm^2/s$)
H = Henry's Law Constant ($cm^3/cm^3$)
$\theta_{as}$ = Air content in vadose zone soil ($cm^3/cm^3$)
$\theta_{ws}$ = Water content in vadose zone soil ($cm^3/cm^3$)
$\theta_T$ = Total soil porosity ($cm^3/cm^3$)

**From subsurface (H at 10 °C)**

| Constituent | $D_{air}$ ($cm^2/s$) | $D_{wat}$ ($cm^2/s$) | $\theta_{as}$ ($cm^3/cm^3$) | $\theta_{ws}$ ($cm^3/cm^3$) | $\theta_T$ ($cm^3/cm^3$) | H ($cm^3/cm^3$) | $D^{eff}{}_s/D^{eff}{}_{crack}$ ($cm^2/s$) |
|---|---|---|---|---|---|---|---|
| Acetone | 1.24E-01 | 1.14E-05 | 0.28 | 0.10 | 0.387 | 1.59E-03 | 1.25E-02 |
| Benzene | 8.80E-02 | 9.80E-06 | 0.28 | 0.10 | 0.387 | 2.27E-01 | 8.88E-03 |
| 1,3-Butadiene | 2.49E-01 | 1.08E-05 | 0.28 | 0.10 | 0.387 | 3.01E+00 | 2.51E-02 |
| 2-Butanone (MEK) | 8.08E-03 | 9.80E-06 | 0.28 | 0.10 | 0.387 | 2.29E-03 | 8.30E-04 |
| Carbon Disulfide | 1.04E-01 | 1.00E-05 | 0.28 | 0.10 | 0.387 | 1.24E+00 | 1.05E-02 |
| Chloromethane | 1.26E-01 | 6.50E-06 | 0.28 | 0.10 | 0.387 | 3.61E-01 | 1.27E-02 |
| Cyclohexane | 8.39E-02 | 9.10E-06 | 0.28 | 0.10 | 0.387 | 7.84E+00 | 8.47E-03 |
| cis-1,2-Dichloroethene | 7.36E-02 | 1.13E-05 | 0.28 | 0.10 | 0.387 | 1.67E-01 | 7.43E-03 |
| trans-1,2-Dichloroethene | 7.07E-02 | 1.19E-05 | 0.28 | 0.10 | 0.387 | 3.84E-01 | 7.14E-03 |
| Dichlorodifluoromethane | 6.65E-02 | 9.92E-06 | 0.28 | 0.10 | 0.387 | 1.40E+01 | 6.71E-03 |
| Ethanol | 1.23E-01 | 1.24E-05 | 0.28 | 0.10 | 0.387 | 1.20E-03 | 1.25E-02 |
| Ethylbenzene | 7.50E-02 | 7.80E-06 | 0.28 | 0.10 | 0.387 | 3.22E-01 | 7.57E-03 |
| 4-Ethyltoluene | 5.76E-02 | 7.80E-06 | 0.28 | 0.10 | 0.387 | 2.02E-01 | 5.82E-03 |
| Heptane | 6.59E-02 | 7.59E-06 | 0.28 | 0.10 | 0.387 | 8.41E+01 | 6.65E-03 |
| Hexane | 2.00E-01 | 7.77E-06 | 0.28 | 0.10 | 0.387 | 6.82E+01 | 2.02E-02 |
| Methy tert-Butyl Ether | 1.02E-02 | 1.05E-05 | 0.28 | 0.10 | 0.387 | 2.56E-02 | 1.03E-03 |
| 4-Methyl-2-pentanone | 7.50E-02 | 7.80E-06 | 0.28 | 0.10 | 0.387 | 5.64E-03 | 7.58E-03 |
| Propene | 3.34E-01 | 1.19E-05 | 0.28 | 0.10 | 0.387 | 1.65E+01 | 3.37E-02 |
| Tetrachloroethene | 7.20E-02 | 8.20E-06 | 0.28 | 0.10 | 0.387 | 7.53E-01 | 7.27E-03 |
| Toluene | 8.70E-02 | 8.60E-06 | 0.28 | 0.10 | 0.387 | 2.72E-01 | 8.78E-03 |
| Trichloroethene | 7.90E-02 | 9.10E-06 | 0.28 | 0.10 | 0.387 | 4.20E-01 | 7.98E-03 |
| 1,2,4-Trimethylbenzene | 6.06E-02 | 7.92E-06 | 0.28 | 0.10 | 0.387 | 2.52E-01 | 6.12E-03 |
| Vinyl Chloride | 1.06E-01 | 1.23E-05 | 0.28 | 0.10 | 0.387 | 1.10E+00 | 1.07E-02 |
| Xylenes (total) | 8.07E-02 | 1.00E-05 | 0.28 | 0.10 | 0.387 | 2.12E-01 | 8.15E-03 |
| C5-C8 aliphatic hydrocarbons | 8.00E-02 | 1.00E-05 | 0.28 | 0.10 | 0.387 | 5.40E+01 | 8.08E-03 |
| C9-C12 aliphatic hydrocarbons | 7.00E-02 | 1.00E-05 | 0.28 | 0.10 | 0.387 | 6.50E+01 | 7.07E-03 |
| Dimethyl disulfide | 8.34E-02 | 1.01E-05 | 0.28 | 0.10 | 0.387 | 6.14E-05 | 8.99E-03 |

**TABLE 6**
**CALCULATION OF STEADY STATE INDOOR AIR ATTENUATION COEFFICIENTS**
**McCoy Field**
**New Bedford, Massachusetts**

**Input Variables**

| Variable | Notation | Value | Units | Reference |
|---|---|---|---|---|
| Total soil porosity | $\theta_T$ | 0.387 | $cm^3/cm^3$ | Representative of sandy loam (U.S. EPA 2003) |
| Bulk soil density | $\rho_s$ | 1.62 | $g/cm^3$ | Representative of sandy loam (U.S. EPA 2003) |
| Water content in vadose zone soils | $\theta_{ws}$ | 0.103 | $cm^3/cm^3$ | Representative of sandy loam (U.S. EPA 2003) |
| Air content in vadose zone soils | $\theta_{as}$ | 0.284 | $cm^3/cm^3$ | $\theta_T - \theta_{WS}$. |
| Building air exchange rate | ER | 0.000125 | $s^{-1}$ | MADEP (2004). |
| Enclosed space height | $L_B$, $H_b$ | 488 | cm | MADEP (2004). |
| Foundation thickness | $L_{crack}$ | 15 | cm | MADEP (2004). |
| Areal fraction of cracks in foundatio | $\eta$ | 0.0002 | $cm^2/cm^2$ | U.S. EPA (2003). |
| Building length | $L_b$ | 961 | cm | MADEP (2004). |
| Building width | $W_b$ | 961 | cm | MADEP (2004). |
| Area of building | $A_B$ | 9.24E+05 | $cm^2$ | Equals $L_b$ x $W_b$. |
| Flow rate of soil gas | $Q_{soil}$ | 83.3 | $cm^3/s$ | U.S. EPA (2003). |
| Depth of soil gas measurement | $L_{SG}$ | 91 | cm | 3 feet (below cover) |

U.S. EPA (2003). Users Guide for Evaluating Subsurface Vapor Intrusion Into Buildings. June.
MADEP (2004). Proposed Revised Method 1 Numerical Standards and supporting documentation (September).

| Constituent | Henry's Law Constant H ($cm^3/cm^3$) | | Diffusion Coefficient in Air $D_{air}$ ($cm^2/s$) | | Diffusion Coefficient in Water $D_{wat}$ ($cm^2/s$) | |
|---|---|---|---|---|---|---|
| Acetone | 1.59E-03 | [1] | 1.24E-01 | [1] | 1.14E-05 | [1] |
| Benzene | 2.27E-01 | [1] | 8.80E-02 | [1] | 9.80E-06 | [1] |
| 1,3-Butadiene | 3.01E+00 | [1] | 2.49E-01 | [1] | 1.08E-05 | [1] |
| 2-Butanone (MEK) | 2.29E-03 | [1] | 8.08E-03 | [1] | 9.80E-06 | [1] |
| Carbon Disulfide | 1.24E+00 | [1] | 1.04E-01 | [1] | 1.00E-05 | [1] |
| Chloromethane | 3.61E-01 | [1] | 1.26E-01 | [1] | 6.50E-06 | [1] |
| Cyclohexane | 7.84E+00 | [2] | 8.39E-02 | [2] | 9.10E-06 | [2] |
| cis-1,2-Dichloroethene | 1.67E-01 | [1] | 7.36E-02 | [1] | 1.13E-05 | [1] |
| trans-1,2-Dichloroethene | 3.84E-01 | [1] | 7.07E-02 | [1] | 1.19E-05 | [1] |
| Dichlorodifluoromethane (Freon 12 | 1.40E+01 | [1] | 6.65E-02 | [1] | 9.92E-06 | [1] |
| Ethanol | 1.20E-03 | [3] | 1.23E-01 | [3] | 1.24E-05 | [3] |
| Ethylbenzene | 3.22E-01 | [1] | 7.50E-02 | [1] | 7.80E-06 | [1] |
| 4-Ethyltoluene | 2.02E-01 | [2] | 5.76E-02 | [2] | 7.80E-06 | [3] |
| Heptane | 8.41E+01 | [2] | 6.59E-02 | [2] | 7.59E-06 | [2] |
| Hexane | 6.82E+01 | [1] | 2.00E-01 | [1] | 7.77E-06 | [1] |
| Methy tert-Butyl Ether | 2.56E-02 | [1] | 1.02E-02 | [1] | 1.05E-05 | [1] |
| 4-Methyl-2-pentanone (MIBK) | 5.64E-03 | [1] | 7.50E-02 | [1] | 7.80E-06 | [1] |
| Propene | 1.65E+01 | [3] | 3.34E-01 | [3] | 1.19E-05 | [3] |
| Tetrachloroethene | 7.53E-01 | [1] | 7.20E-02 | [2] | 8.20E-06 | [1] |
| Toluene | 2.72E-01 | [1] | 8.70E-02 | [1] | 8.60E-06 | [1] |
| Trichloroethene | 4.20E-01 | [1] | 7.90E-02 | [1] | 9.10E-06 | [1] |
| 1,2,4-Trimethylbenzene | 2.52E-01 | [1] | 6.06E-02 | [1] | 7.92E-06 | [1] |
| Vinyl Chloride | 1.10E+00 | [1] | 1.06E-01 | [1] | 1.23E-05 | [1] |
| Xylenes (total) | 2.12E-01 | [1] | 8.07E-02 | [2] | 1.00E-05 | [1] |
| C5-C8 aliphatic hydrocarbons | 5.40E+01 | [4] | 8.00E-02 | [4] | 1.00E-05 | [4] |
| C9-C12 aliphatic hydrocarbons | 6.50E+01 | [4] | 7.00E-02 | [4] | 1.00E-05 | [4] |
| Dimethyl disulfide | 6.14E-05 | [3] | 8.34E-02 | [3] | 1.01E-05 | [3] |

1. U.S. EPA (2003). Users Guide for Evaluating Subsurface Vapor Intrusion into Buildings. June
2. TPHCWG (1998). Composition of Petroleum Mixtures. Amherst Scientific Publishing. November.
3. U.S. EPA (1994). ChemDat8 Users Guide. EPA453/C-94-080B, November.
4. MADEP (2002). Implementation of MADEP VPH/EPH Approach, Final Policy. October.

**TABLE 6**
**CALCULATION OF STEADY STATE INDOOR AIR ATTENUATION COEFFICIENTS**
**McCoy Field**
**New Bedford, Massachusetts**

used.

| α (Eq 2) (unitless) |
|---|
| 8.92E-04 |
| 7.67E-04 |
| 1.11E-03 |
| 1.35E-04 |
| 8.28E-04 |
| 8.97E-04 |
| 7.49E-04 |
| 7.01E-04 |
| 6.86E-04 |
| 6.64E-04 |
| 8.90E-04 |
| 7.08E-04 |
| 6.11E-04 |
| 6.60E-04 |
| 1.05E-03 |
| 1.64E-04 |
| 7.08E-04 |
| 1.19E-03 |
| 6.93E-04 |
| 7.63E-04 |
| 7.27E-04 |
| 6.30E-04 |
| 8.35E-04 |
| 7.35E-04 |
| 7.32E-04 |
| 6.82E-04 |
| 7.71E-04 |

# Attachment A

Draft Notice of Activity and Use Limitation (AUL)

DRAFT

Last Revised: 3-23-05

**Form 1075**

NOTICE OF ACTIVITY AND USE LIMITATION
M.G.L. c. 21E, § 6 and 310 CMR 40.0000

Disposal Site Name: McCoy Field/Keith Middle School
DEP Release Tracking No.(s): 4-0015824, 4-0015685

This Notice of Activity and Use Limitation ("Notice") is made as of this _____ day of _____, 20___, by the City of New Bedford, 133 William Street, New Bedford, Bristol County, Massachusetts, together with his/her/its/their successors and assigns (collectively "Owner").

W I T N E S S E T H:

WHEREAS, the City of New Bedford, is the owner(s) in fee simple of those certain parcel of land located at 70 Hathaway Boulevard in New Bedford, Bristol County, Massachusetts with the buildings and improvements thereon, pursuant to a deed recorded with the Bristol County Registry of Deeds in Book 849, Page 329 and Book 885, Page 401;

WHEREAS, said parcels of land, which is more particularly bounded and described in Exhibit A, attached hereto and made a part hereof ("Property") is subject to this Notice of Activity and Use Limitation. The Property is shown on a plan recorded in the Bristol County Registry of Deeds in Plan Book _____, Plan _____;

WHEREAS, a portion of the Property ("Portion of the Property") is subject to this Notice of Activity and Use Limitation. The Portion of the Property is more particularly bounded and described in Exhibit A-1, attached hereto and made a part hereof. The Portion of the Property is shown on [a plan recorded with the _____ County Registry of Deeds in Plan Book _____, Plan_____], and/or on [a sketch plan attached hereto and filed herewith for registration];

WHEREAS, the Portion of the Property comprises part of a disposal site as the result of a release of oil and/or hazardous material. Exhibit B is a sketch plan showing the relationship of the Portion of the Property subject to this Notice of Activity and Use Limitation to the boundaries of said disposal site existing within the limits of the Property and to the extent such boundaries have been established. Exhibit B is attached hereto and made a part hereof; and

WHEREAS, one or more response actions have been selected for the Portion of the Disposal Site in accordance with M.G.L. c. 21E ("Chapter 21E") and the Massachusetts Contingency Plan, 310 CMR 40.0000 ("MCP"). Said response actions are based upon (a) the restriction of human access to and contact with oil and/or hazardous material in soil and/or (b) the restriction of certain activities occurring in, on, through, over or under the Portion of the Property. The basis for such restrictions is set forth in an Activity and Use Limitation Opinion ("AUL Opinion"), dated _____, (which is attached hereto as Exhibit C and made a part hereof);

NOW, THEREFORE, notice is hereby given that the activity and use limitations set forth in said AUL Opinion are as follows:

1. Activities and Uses Consistent with the AUL Opinion. The AUL Opinion provides that a condition of No Significant Risk to health, safety, public welfare or the environment exists for any foreseeable period of time (pursuant to 310 CMR 40.0000) so long as any of the following activities and uses occur on the Portion of the Property:

(i) Use of the Property for a school, including the presence of all existing school buildings and facilities and associated landscaping, parking lots, and sidewalks;

(ii) Occupancy by students, teachers, staff, and visitors for all normally anticipated school-related activities including classroom education, physical education, daily food service; and use of paved areas for parking lots and sidewalks;

(iii) Normally anticipated ancillary school building and Property uses such as public meetings, assemblies, fund raising events, cultural activities, and adult education;

(iv) Maintenance of landscaped areas and lawns, including placement and removal of mulch or other surficial aesthetic enhancement or erosion control materials;

(v) Planting or removal within the landscaped areas of ornamental vegetation such as trees, shrubs, flowers, groundcover, etc., excepting that no excavation for such work in the landscaped areas shall extend beyond two feet below existing grade;

(vi) Interior or exterior building maintenance that does not impact soil;

(vii) Maintenance, including replacement, of exterior surface materials such as asphalt paving, concrete paving, or sidewalks, such that removal of such surfaces is limited to the material to be replaced and the underlying soil is not significantly disturbed (six inches deep or less below bottom of surface being removed) and where the surface material is immediately repaired or replaced with a comparable barrier;

(viii) Installation of fencing where fence posts are installed in post holes of two feet deep or less;

(xi) Extending concrete or asphalt pavement over current landscaped areas;

(x) Erection or placement of temporary structures or tents that do not require soil excavation. Where stakes are required to stabilize a tent, such stakes shall not be driven more than two feet into the ground;

(xi) Excavation for [short-term] maintenance or repair of existing subsurface utilities where such excavation is confined to the corridor of clean backfill that has been demarcated by [geotextile fabric/yellow warning polyethylene sheeting];

(xii) Any other [public, commercial, or industrial] activities and uses that do not cause and/or result in the direct contact with, disturbance of, and/or relocation of the contaminated soil, [the top of which is] currently located at depths of [two to four] feet below current surface grade;

(xiii) Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to

health, safety, public welfare or the environment than the activities and uses set forth in this Paragraph; and

(xiv) Such other activities and uses not identified in Paragraph 2 as being Activities and Uses Inconsistent with the AUL.

2. Activities and Uses Inconsistent with the AUL Opinion. Activities and uses which are inconsistent with the objectives of this Notice of Activity and Use Limitation, and which, if implemented at the Portion of the Property, may result in a significant risk of harm to health, safety, public welfare or the environment or in a substantial hazard, are as follows:

(i) Excavation to a depth greater than three feet in landscaped areas without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(ii) Excavation to a depth greater than two feet beneath paved areas without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(iii) Removal of building floor slab such that soil is exposed or groundwater is allowed to enter building without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(iv) Penetration or breaching of the vapor barrier beneath the building floor without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(v) Any excavation beneath building floors without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(vi) Activities that result, or could result, in compromising the structural integrity of concrete floors, asphalt pavement, or concrete pavement;

(vii) Activities that result, or could result, in the erosion of soil in any unpaved area,

(viii) Removal of any soil from landscaped areas without immediate replacement with clean soil to current surface grade;

(ix) Planting of food crops in site soil for human or animal consumption [does not include enclosed planters filled with off-site soil];

(x) Any other [public, commercial, or industrial] activities or uses that result in the direct contact with, disturbance of, and/or relocation of the contaminated soil, [the top of which is] currently located at depths of [two to four] feet below current surface grade; and

(xi) Any other activities or uses that cause or have the potential to cause exposure to contaminated soil

beneath the building foundation(s), or beneath clean soil and/or paving in the exterior of the building(s).

3. Obligations and Conditions Set Forth in the AUL Opinion. If applicable, obligations and/or conditions to be undertaken and/or maintained at the Portion of the Property to maintain a condition of No Significant Risk as set forth in the AUL Opinion shall include the following:

(i) Maintain all asphalt pavement, concrete pavement, and sidewalks such that the integrity of each is not compromised;

(ii) Maintain all interior building floors such that the integrity of each is not compromised;

(iii) Perform semi-annual inspections and associated record keeping activities to confirm that the pavement is being properly maintained to prevent exposure;

(iv) Maintain all landscaped areas such that soil erosion is prevented;

(v) A Soil Management Plan must be prepared by an LSP and implemented prior to the commencement of any activity which is likely to disturb contaminated soil [the top of which is] located at [two to four] feet below surface grade within the AUL area. The Soil Management Plan should describe appropriate soil excavation, handling, storage, transport, and disposal procedures and include a description of the engineering controls and air monitoring procedures necessary to ensure that workers and receptors in the vicinity are not affected by fugitive dust or particles. On-Site workers must be informed of the requirements of the soil management plan, and the Plan must be available on-site throughout the course of the project;

(vi) A Health and Safety Plan must be prepared by a certified Industrial Hygienist or other qualified individual sufficiently trained in worker health and safety requirements and implemented prior to the commencement of any activity which is likely to disturb contaminated soil [the top of which is] located at [two to four] feet below surface grade within the AUL area. The Health and Safety Plan should specify the type of personal protection (i.e., clothing, respirators), engineering controls, and environmental monitoring necessary to prevent worker exposures to contaminated soil through dermal contact, ingestion, and/or inhalation. Workers must be informed of the requirements of the Health and Safety Plan, and the plan must be available on-site throughout the course of the project; and

(vii) The contaminated soil [the top of which is] located at [two to four] feet below surface grade within the AUL area must remain at depth and may not be relocated, unless such activity is first appropriately evaluated by an LSP who renders an Opinion that states that such relocation is consistent with maintaining a condition of No Significant Risk.

4. Proposed Changes in Activities and Uses. Any proposed changes in activities and uses at the Portion of the Property which may result in higher levels of exposure to oil and/or hazardous material than currently exist shall be evaluated by an LSP who shall render an Opinion, in accordance with 310 CMR 40.1080 *et seq*., as to whether the proposed changes will present a significant risk of harm to health, safety, public welfare or the environment. Any and all requirements set forth in the Opinion to meet the objective of this Notice shall be satisfied before any such activity or use is commenced.

5. Violation of a Response Action Outcome. The activities, uses and/or exposures upon which this Notice is based shall not change at any time to cause a significant risk of harm to health, safety, public welfare, or the environment or to create substantial hazards due to exposure to oil and/or hazardous material without the prior evaluation by an LSP in accordance with 310 CMR 40.1080 *et seq*., and without additional response actions, if necessary, to achieve or maintain a condition of No Significant Risk or to eliminate substantial hazards.

If the activities, uses, and/or exposures upon which this Notice is based change without the prior evaluation and additional response actions determined to be necessary by an LSP in accordance with 310 CMR 40.1080 *et seq*., the owner or operator of the Portion of the Property subject to this Notice at the time that the activities, uses and/or exposures change, shall comply with the requirements set forth in 310 CMR 40.0020.

6. Incorporation Into Deeds, Mortgages, Leases, and Instruments of Transfer. This Notice shall be incorporated either in full or by reference into all future deeds, easements, mortgages, leases, licenses, occupancy agreements or any other instrument of transfer, whereby an interest in and/or a right to use the Property or a portion thereof is conveyed.

Owner hereby authorizes and consents to the filing and recordation and/or registration of this Notice, said Notice to become effective when executed under seal by the undersigned LSP, and recorded and/or registered with the appropriate Registry(ies) of Deeds and/or Land Registration Office(s).

DRAFT

Last Revised: 3-23-05

WITNESS the execution hereof under seal this _____ day of _____, 20____.

_____
, for the City of New Bedford

COMMONWEALTH OF MASSACHUSETTS

_____, ss _____, 20___

Then personally appeared the above-named _____ and acknowledged the foregoing instrument to be [his][her] free act and deed before me,

Notary Public:
My Commission Expires:

The undersigned LSP hereby certifies that he executed the aforesaid Activity and Use Limitation Opinion attached hereto as Exhibit C and made a part hereof and that in his Opinion this Notice of Activity and Use Limitation is consistent with the terms set forth in said Activity and Use Limitation Opinion.

Date:_____

_____
[Name of LSP]

[LSP SEAL ]

COMMONWEALTH OF MASSACHUSETTS

_____, ss _____, 20__

Then personally appeared the above named _____ and acknowledged the foregoing instrument to be [his][her] free act and deed before me,

Notary Public:
My Commission Expires:

[If recorded land] Upon recording, return to:
Mr. Scott Alfonse
Brownfields Coordinator
City of New Bedford
133 William Street
New Bedford, MA 02740

# EXHIBIT C - Activity and Use Limitation Opinion

In accordance with the requirements of 310 CMR 40.1074, this Activity and Use Limitation Opinion has been prepared for a portion of those parcels of land owned by the City of New Bedford located at 70 Hathaway Boulevard, Bristol County, New Bedford (the Property). As of the date of this Activity and Use Limitation Opinion, the Property is the location of a City of New Bedford school - the Keith Middle School.

## Site History

The Keith Middle School is located on a portion of City of New Bedford-owned parcels known as McCoy Field. McCoy Field is bounded by Hathaway Boulevard, Durfee Street, and Summit Street. The field was created in the 1960s by filling a low area with soil, ash, clinkers, and construction and demolition debris. This material originated from the adjacent New Bedford High School site during the high school's construction in 1970-1971. The High School site was previously operated as a burning dump. The fill consists of black fine sand and organic silt containing ash, asphalt, concrete, brick, glass, metal, and wood. Laboratory analysis of the fill detected Reportable Concentrations (RCs) of polychlorinated biphenyls (PCBs), polynuclear aromatic hydrocarbons (PAHs), lead, barium, and pesticides. As a result of the filling operation, McCoy Field was raised approximately 6 to 8 feet above the original elevation of the adjacent land to the north and west and to the same grade as Hathaway Boulevard to the east. In the 1970s, during the construction of former high school athletic fields, the field was graded with a layer of gravel and capped with imported fill. The Keith Middle School was subsequently constructed at McCoy Field in 2004-2005.

## Reason for Activity and Use Limitation

BETA has performed a Method 3 Risk Assessment to evaluate the risk posed by use of the Property as a public school. The Risk Assessment concluded that the Property poses No Significant Risk to health, safety, public welfare, or the environment under current conditions in which exposure to the soil is prevented. However, a Significant Risk would exist without such restrictions. Therefore, in order to ensure that such exposures do not occur and that a condition of No Significant Risk be maintained for future activities and uses, an Activity and Use Limitation is required to restrict certain activities and uses of the Property.

## Property Barriers to Exposure

The Property is entirely occupied by the Keith Middle School facility. The school facility isolates and prevents exposure to the underlying fill by one of three barriers: (1) The school building, which was constructed on pilings, with the base of the concrete floor of the school at grade. The floor consists of ___ inches of poured-in-place reinforced concrete. Construction of the floor included the placement of a sprayed-on impermeable elastomeric membrane ("LIQUID BOOT®") beneath the floor to further isolate the building from the soil and fill beneath; (2) Portions of exterior areas of the school facility are landscaped. All landscaped areas were constructed by removing site soil to a minimum depth of 3.5 feet, placing a geotextile fabric to demarcate the limits of

excavation and to separate site soil from clean fill, backfilling with a six-inch base of imported clean crushed stone, followed by one foot of imported clean sand and gravel, an orange mesh warning barrier, followed by two feet of gravel/topsoil to the existing finished grade; and (3) The remaining exterior site areas are asphalt or concrete paved. Asphalt has been placed at a thickness of _____ inches on top of two feet of imported clean sand and gravel underlain by a geotextile fabric; and concrete pavement that was poured to a thickness of ___ inches, also on top of two feet of imported clean sand and gravel and a geotextile fabric.

Additionally, all subsurface utilities at the Keith Middle School facility were placed in trenches that were backfilled with clean imported soil. Prior to backfilling, the walls and floors of the trenches were lined with yellow polyethylene sheeting to provide warning to any future excavation repair contractors of the boundaries of the clean soil.

**Activities and Uses Consistent with the AUL Opinion**

(i) Use of the Property for a school, including the presence of all existing school buildings and facilities and associated landscaping, parking lots, and sidewalks;

(ii) Occupancy by students, teachers, staff, and visitors for all normally anticipated school-related activities including classroom education, physical education, daily food service; and use of paved areas for parking lots and sidewalks;

(iii) Normally anticipated ancillary school building and Property uses such as public meetings, assemblies, fund raising events, cultural activities, and adult education;

(iv) Maintenance of landscaped areas and lawns, including placement and removal of mulch or other surficial aesthetic enhancement or erosion control materials;

(v) Planting or removal within the landscaped areas of ornamental vegetation such as trees, shrubs, flowers, groundcover, etc., excepting that no excavation for such work in the landscaped areas shall extend beyond two feet below existing grade;

(vi) Interior or exterior building maintenance that does not impact soil;

(vii) Maintenance, including replacement, of exterior surface materials such as asphalt paving, concrete paving, or sidewalks, such that removal of such surfaces is limited to the material to be replaced and the underlying soil is not significantly disturbed (six inches deep or less below bottom of surface being removed) and where the surface material is immediately repaired or replaced with a comparable barrier;

(viii) Installation of fencing where fence posts are installed in post holes of two feet deep or less;

(xi) Extending concrete or asphalt pavement over current landscaped areas;

(x) Erection or placement of temporary structures or tents that do not require soil excavation. Where stakes are required to stabilize a tent, such stakes shall not be driven more than two feet into the ground;

(xi) Excavation for [short-term] maintenance or repair of existing subsurface utilities where such excavation is confined to the corridor of clean backfill that has been demarcated by [geotextile fabric/yellow warning polyethylene sheeting];

(xii) Any other [public, commercial, or industrial] activities and uses that do not cause and/or result in the direct contact with, disturbance of, and/or relocation of the contaminated soil, [the top of which is] currently located at depths of [two to four] feet below current surface grade;

(xiii) Such other activities or uses which, in the Opinion of an LSP, shall present no greater risk of harm to health, safety, public welfare or the environment than the activities and uses set forth in this Paragraph; and

(xiv) Such other activities and uses not identified in Paragraph 2 as being Activities and Uses Inconsistent with the AUL.

**Activities and Uses Inconsistent with the AUL Opinion**

(i) Excavation to a depth greater than three feet in landscaped areas without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(ii) Excavation to a depth greater than two feet beneath paved areas without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(iii) Removal of building floor slab such that soil is exposed or groundwater is allowed to enter building without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(iv) Penetration or breaching of the vapor barrier beneath the building floor without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(v) Any excavation beneath building floors without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with Obligations (iv) and (v) of this Notice;

(vi) Activities that result, or could result, in compromising the structural integrity of concrete floors, asphalt pavement, or concrete pavement;

(vii) Activities that result, or could result, in the erosion of soil in any unpaved area,

(viii) Removal of any soil from landscaped areas without immediate replacement with clean soil to current surface grade;

(ix) Planting of food crops in site soil for human or animal consumption [does not include enclosed planters filled with off-site soil];

(x) Any other [public, commercial, or industrial] activities or uses that result in the direct contact with, disturbance of, and/or relocation of the contaminated soil, [the top of which is] currently located at depths of [two to four] feet below current surface grade; and

(xi) Any other activities or uses that cause or have the potential to cause exposure to contaminated soil beneath the building foundation(s), or beneath clean soil and/or paving in the exterior of the building(s).

**Obligations and Conditions Set Forth in the AUL Opinion**

(i) Maintain all asphalt pavement, concrete pavement, and sidewalks such that the integrity of each is not compromised;

(ii) Maintain all interior building floors such that the integrity of each is not compromised;

(iii) Perform semi-annual inspections and associated record keeping activities to confirm that the pavement is being properly maintained to prevent exposure;

(iv) Maintain all landscaped areas such that soil erosion is prevented;

(v) A Soil Management Plan must be prepared by an LSP and implemented prior to the commencement of any activity which is likely to disturb contaminated soil [the top of which is] located at [two to four] feet below surface grade within the AUL area. The Soil Management Plan should describe appropriate soil excavation, handling, storage, transport, and disposal procedures and include a description of the engineering controls and air monitoring procedures necessary to ensure that workers and receptors in the vicinity are not affected by fugitive dust or particles. On-Site workers must be informed of the requirements of the soil management plan, and the Plan must be available on-site throughout the course of the project;

(vi) A Health and Safety Plan must be prepared by a certified Industrial Hygienist or other qualified individual sufficiently trained in worker health and safety requirements and implemented prior to the commencement of any activity which is likely to disturb contaminated soil [the top of which is] located at [two to four] feet below surface grade within the AUL area. The Health and Safety Plan should specify the type of personal protection (i.e., clothing, respirators), engineering controls, and environmental monitoring necessary to prevent worker exposures to contaminated soil through dermal contact,

ingestion, and/or inhalation. Workers must be informed of the requirements of the Health and Safety Plan, and the plan must be available on-site throughout the course of the project; and

(vii) The contaminated soil [the top of which is] located at [two to four] feet below surface grade within the AUL area must remain at depth and may not be relocated, unless such activity is first appropriately evaluated by an LSP who renders an Opinion that states that such relocation is consistent with maintaining a condition of No Significant Risk.

LSP: _____ [LSP Stamp]

Date: _____

# Attachment B

Specification 07133
Gas Vapor Barrier

**SECTION 07133**

**GAS VAPOR BARRIER**

## PART 1 - GENERAL

### 1.01 FILED SUB-BID REQUIREMENTS

A. This Section 07133 – GAS VAPOR BARRIER is part of filed sub-bid for Division 7 – Waterproofing, Damproofing and Caulking. Refer to Section 07100 – Waterproofing, Damproofing, and Caulking.

B. Specific information relating to bidders is set forth in the Contract Documents, under the heading "Instructions To Bidders" and the attention of bidders is directed thereto.

C. The work to be done under this Section is shown on Drawings numbered: EX1, L1.1 & L1.2, L2.1 & L2.2, L3.1 & L3.2, L4.1 & L4.2, L5, L6, L7, L8 & L9, SU1.1 & SU1.2, SU2, CR.1, CR.2, A0.1 thru A0.3, A1.1 thru A1.9, A2.1 thru A2.3, A3.1 thru A3.9, A4.1 thru A4.5, A5.1 thru A5.8, A6.1 thru 6.21, A7.1 thru A7.7, A8.1 thru A8.5, A9.1 & A9.2, A10.1 thru A10.4, A11.1 thru A11.4, A12.1 thru A12.6, A13.1 thru A13.3, K1.1, PL.1 thru PL.3, S0.1 thru S0.4, S1.1 thru S1.13, S2.1 thru S2.3, COMLEG, COM1.1, COM1.2, COM1.3, COM1.4, COM1.5, COM1.6, COM1.7, COM1.8, TC2.01, TC2.02, TC2.03, TC2.04, TC2.05. E0.1, E0.2, E0.3, E0.4, E0.5, E0.6, E0.7, E0.8, E0.9, E1.1, E1.2, E1.3, E1.4, E1.5, E1.6, E1.7, E1.8, E2.1, E2.2, E2.3, E2.4, E2.5, E2.6, E2.7, E2.8, E3.1, E3.2, E3.3, E3.4, E3.5, E3.6, E3.7, E3.8, E3.9, P0.1, P0.2, P0.3, P1.1, P1.2, P1.3, P1.4, P1.5, P1.6, P1.7, P1.8, P1.9, P1.10, P1.11, P1.12, P2.1, FP0.1, FP0.2, FP1.1, FP1.2, FP1.3, FP1.4, FP1.5, FP1.6, FP1.7, FP1.8, M1.1, M1.2, M1.3, M1.4, M1.5, M1.6, M1.7, M1.8, M1.9, M1.10, M2.1, M2.2, M2.3, M2.4, VS-1.

### 1.02 RELATED DOCUMENTS

A. All of the Contract Documents, including General and Supplementary Conditions and Division 1 General Requirements, apply to the work of this section.

### 1.03 DESCRIPTION OF WORK

A. The work of this Section consists of all labor and materials and in performing all operations in gas vapor barrier providing protection from the following gases:

1. Gas vapor barrier providing protection from the following gases:
   Methane
2. Soil vapor extraction piping and pressure relief, collection and venting system (PRCVS).

B. Related work not in this section:
1. Excavation and backfilling.
2. Parge coat on masonry to receive gas vapor barrier membrane.
3. Mortar beds or concrete toppings over gas vapor barrier membranes.
4. Latex waterproofing.
5. Damp-proofing.
6. Flashing and sheet metal.
7. Joint sealers.
8. Soil sterilant.

### 1.04 QUALITY ASSURANCE

A. Gas vapor barrier contractor/applicator shall be trained and approved by gas vapor barrier manufacturer and shall have at least 3 years experience in the work of the type required by this section.

B. A pre-installation conference shall be held prior to application of gas vapor barrier to assure substrate and installation conditions, to include general contractor, applicator, and architect/engineer.

1.05 SUBMITTALS

A. Refer to SECTION 01341 - SUBMITTALS for substitution of equipment and submittal of Shop Drawings. If apparatus or materials are substituted for those specified, and such substitution necessitates changes in or additional connections, accessories, etc. same shall be provided as the responsibility, and at the expense, of this Subcontractor.

B. Fabrication of any material or performing of any work prior to the final approval of the Submittals will be entirely at the risk of the Subcontractor. The Subcontractor is responsible for furnishing and installing materials called for in the Contract Documents, even though these materials may have been omitted from approved Submittals.

C. Product Data: Submit manufacturer's product data and installation instructions for specific application. Include standard details, certified test results, installation instructions, and recommendations for sealing penetrations.

D. Samples: Submit three labeled representative samples of the following for approval, not less than 12 by 12 inches in size:

1. Gas vapor barrier membrane material.
2. Protection Board and/or Protection Mat.
3. Prefabricated Pressure relief, collection & venting system – each component.
4. Geotextiles.

E. Shop Drawings: Submit shop drawings indicating details of construction. Include relationship with adjacent materials, sequence of installation and materials and methods for sealing penetrations. At a minimum shop drawings shall include details of the following connections, as applicable to the project:

1. Grade beams & pile caps.
2. Under slab & walls.
3. Lap joints.
4. Penetrations
5. Layout of PRCVS system and associated details.

1.06 DELIVERY, STORAGE AND HANDLING

Deliver materials to site in original unbroken packages bearing manufacturer's label showing brand, weight, volume, and batch number. Store materials at site in strict compliance with manufacturer's instructions. Do not allow materials to freeze in containers.

1.07 PROJECT CONDITIONS

A. Protect all adjacent areas not to receive gas vapor barrier. Where necessary, apply masking to prevent staining of surfaces to remain exposed wherever membrane abuts to other finish surfaces.

B. Perform work only when existing and forecasted weather conditions are within manufacturer's recommendations for the material and product used.

C. Minimum clearance of required for application of product:
- 90 degree spray wand – 2 feet.
- Conventional spray wand – 4 feet.

D. Ambient temperature shall be within manufacturer's specifications. (Greater than +32°F/+0°C).

E. All plumbing, electrical, mechanical and structural items to be under or passing through the gas vapor barrier shall be positively secured in their proper positions and appropriately protected prior to membrane application.

F. Gas vapor barrier shall be installed before placement of reinforcing steel. When not possible, all exposed reinforcing steel shall be masked by General Contractor prior to membrane application.

G. Expansion joints must be filled with a conventional waterproof expansion joint material.

H. Surface preparation shall be per manufacturer's specification.

1.08 GUARANTEE

A. Guarantee all work under this SECTION free from defects in workmanship and materials for a period of one (1) year from the date of final acceptance of the building, as set forth in the Contract. Replace any such defective work developing during this period, unless such defects are clearly the result of bad usage of equipment by others. Where such defective work results in damage to work of other SECTIONS of the Specifications, restore such work to its original condition by mechanics skilled in the affected trade.

## PART 2 PRODUCTS

2.01 GENERAL

A. All materials and equipment furnished under this SECTION shall be new, unused, first quality of a manufacturer of established reputation. Each valve, fitting, section of pipe, piece of equipment, etc., shall have cast or indelibly stamped thereon the manufacturer's name, pressure rating where applicable, type, etc. Materials shall conform to Massachusetts Code as a minimum requirement.

B. Acceptable Manufacturers

1. This specification is performance based on products as manufactured by LBI Technologies, Inc., Santa Ana, CA (714) 384-0111.

2. Alternate application: A 60 mil. vapor-protective, composite sheet membrane system composed of high-density polyethylene having a sodium-bentonite face with modified overlap area providing for non-reinforced integral seam tape within overlaps.
   a. Tremco "Paramount Paraseal GM"
   b. Poly-Flex

2.02 MATERIALS

A. Fluid applied Liquid Boot gas vapor barrier system; a single course, high build, polymer modified asphaltic emulsion. Water borne and spray applied at ambient temperatures. A minimum thickness of 60 dry mils. Non-toxic and odorless.

B. Gas vapor barrier physical properties:

| GAS VAPOR MEMBRANE | **TEST METHOD** | **VALUE** |
|---|---|---|
| Hydrogen Sulfide Gas Permeability | ASTM D1343 | None Detected |
| Benzene, Toulene, Ethylene, Xylene, Gasoline, Hexane, Perchloroethylene | ASTM D543, D412, D1434 (tested at 20,000 ppm) | Passed in gas permeability and weight change |
| Sodium Sulfate (2% water solution) | ASTM D543, D412, D143 | Passed in gas permeability and weight change |
| Acid Exposure (10% $H_2SO_4$ for 90 days) | ASTM D543 | Less than 1% weight change |
| Radon Permeability | Tested by US Dept. of | Zero permeability to Radon (222Rn) |

| | | |
|---|---|---|
| Bonded Seam Strength Tests | ASTM D6392 | Passed |
| Micro Organism Resistance (Soil Burial) average weight change, average tensile strength change, average tensile stress change, average elongation change, bonded seams, methane permeability | ASTM D4068-88 | Passed |
| Methane Permeability | ASTM 1434-82 | Passed |
| Oil Resistance Test average weight change, average tensile strength change, average tensile stress change, average elongation change, bonded seams, methane permeability | ASTM D543-87 | Passed |
| Heat Aging average tensile strength change, average tensile stress change, average elongation change, bonded seams | ASTM D4068-88 | Passed |
| Dead Load Seam Strength | City of Los Angeles | Passed |
| Environmental Stress-Cracking | ASTM D1693-78 | Passed |
| WATERPROOFING | **TEST METHOD** | VALUE |
| Soil Burial | ASTM E154-88 | Passed |
| Water Penetration Rate | ASTM D2434 | $<7.75 \times 10^{-9}$ cm/sec |
| Water Vapor Permeability | ASTM E96 | 0.24 perms |
| Water Vapor Transmission | ASTM E96 | 0.10 grains/h-ft$^2$ |
| POTABLE WATER | **TEST METHOD** | **VALUE** |
| Toxicity Test | 22 CCR 66696 | Passed. CCR Bioassay—Flathead |
| Potable Water Containment | ANSI/NSF 61 | NSF Certified for tanks >300,000 gallons |

| **GENERAL INFORMATION** | **TEST METHOD** | **VALUE** |
|---|---|---|
| Coefficient of Friction (with geotextile both sides) | ASTM D5321 | 0.72 |
| Cold Bend Test | ASTM D146 | Passed. No cracking at –25°F |
| Freeze-Thaw Resistance (100 Cycles) | ASTM A742 | Meets criteria. No spalling or disbondment |
| Accelerated Weathering and Ultraviolet Exposure | ASTM D822 | No adverse effect after 500 hours |
| Hydrostatic Head Resistance | ASTM D751 | Tested to 138 feet or 60 p.s.i |
| Elongation | ASTM D412 | 1,332% without reinforcement, 90% recovery |
| Elongation with 8oz. non-woven geotextile both sides | ASTM D751 | 100% (same as geotextile tested separately) |
| Tensile Strength | ASTM D412 | 58 p.s.i. without reinforcement |
| Tensile Strength with 8oz. non-woven geotextile both sides | ASTM D751 | 196 p.s.i. (same as geotextile tested separately) |

| | | |
|---|---|---|
| Tensile Bond Strength to Concrete | ASTM D413 | 2,556 lbs/ft$^2$ uplift force |
| Puncture Resistance with 8oz. non-woven geotextile both sides | ASTM D4833 | 286 lbs. (travel of probe = 0.756 inches) (same as geotextile tested separately) |
| Flame Spread | ASTM E108 | Class A with top coat (comparable to UL790) |
| Electric Volume Resistivity | ASTM D257 | 1.91 x $10^{10}$ ohms-cm |

C. Geotextile Fabric: Mirafi 1100N.

D. Non-woven protection course geotextile: LBI Tecnologies Ultrashield G-1000.

E. Protection Board: ¼" dense glass gold.

2.03 PRESSURE RELIEF, COLLECTION AND VENTING SYSTEM (PRCVS)

A. Liquid Boot Geovent: Low profile PRCVS consisting of a 3-dimensional vent core and wrapped with
a non-woven needle punched filter fabric. The trenchless gas collection system shall also include the following accessories for a complete installation.

1. Geovent end outlets.
2. Geovent interior foundation sleeves.
3. Geovent fabric reinforced tape.
4. Solid 4" diameter PVC pipe, sealant & fittings.

## PART 3 - EXECUTION

3.01 EXAMINATION
All surfaces to receive gas vapor barrier shall be inspected and approved by the applicator at least one day prior to commencing work.

3.02 SURFACE PREPARATION
Provide 24 inch minimum clearance out from surfaces to receive the gas vapor barrier. The application surface shall be prepared and provided to the applicator in accordance with manufacturer's specifications listed below:

A. Concrete/Shotcrete/Masonry
Concrete surfaces shall be light broom finish or smoother, free of any dirt, debris, loose material, release agents or curing compounds. Fill all voids more than 1/4 inch deep and 1/4 inch wide. Masonry joints, cold joints, and form joints shall be struck smooth.

All penetrations shall be prepared in accordance with manufacturer's specifications. Provide a 3/4 inch minimum cant of gas vapor barrier, or other suitable material as approved by manufacturer, at all horizontal to vertical transitions and other inside corners of 120° or less. **Allow to cure overnight before the application of gas vapor barrier.**

All cracks or cold joints greater than 1/16 inch must be completely grouted with non-shrink grout as approved by engineer.

Install Hardcast reinforcing tape over all cold joints, cracks and form tie holes (after holes and cracks are grouted).

B. Dirt & Gravel
The sub-grade shall be moisture conditioned and compacted to a minimum relative compaction of 90 percent. The finished surface shall be smooth, uniform, free of debris and standing water. Remove all stones or dirt clods greater than 1/4 inch. (NOTE: Aggregate sub-bases shall be rolled flat). All penetrations shall be prepared in accordance with manufacturer's specifications. All form stakes that penetrate the membrane shall be of rebar which shall be bent over and left in the slab.

Trenches shall be cut oversize to accommodate gas vapor barrier membrane and protection course with perpendicular to sloped sides and maximum obtainable compaction. Adjoining grade shall be finish graded and compacted. Excavated walls shall be vertical or sloped back, free of roots and protruding rocks.

3.03 INSTALLATION

A. Roll out geotextile on protection course over rigid insulation with the heat-rolled side facing up. Overlap seams a minimum of six inches (6"). Lay geotextile tight at all inside corners. Apply a thin (10 mil) tack coat of gas vapor barrier "A" side without catalyst within the seam overlap.

Line trenches with geotextile extending at least six inches (6") onto adjoining sub-grade if slab and footings are to be sprayed separately. Overlap seams a minimum of six inches (6"). Lay geotextile tight at all inside corners. Apply a thin (10 mil) tack coat of gas vapor barrier "A" side without catalyst within the seam overlap.

B. Refer to section 3.03.1, "Sealing Around Penetrations", for procedures to seal around penetrations.

C. Spray apply gas vapor barrier onto geotextile to an 60 mil minimum dry thickness. If a second coat is required, remove any standing water from the membrane before proceeding with the second application.

D. Do not penetrate membrane. Keep membrane free of dirt, debris and traffic until a protective cover is in place. **It is the responsibility of the General Contractor to insure that the membrane and the protection system are not penetrated.**

E. After membrane has cured and checked for proper thickness and flaws, install protection material pursuant to manufacturer's instructions.

**NOTE: All testing or inspection to be performed prior to placing protection course.**

3.03.1 SEALING AROUND PENETRATIONS

A. Clean all penetrations. All metal penetrations shall be sanded clean with emery cloth.

B. Roll out geotextile on protection course over rigid insulation with the heat-rolled side facing up, overlapping seams a minimum of six inches (6"). Cut the geotextile around penetrations so that it lays flat on the protection course. Lay geotextile tight at all inside corners. Apply a thin (10 mil) tack coat of gas vapor barrier "A" side without catalyst within the seam overlap.

C. Spray apply gas vapor barrier to surrounding areas as specified for the particular application to an 60 mil minimum dry thickness. At the base of penetration Install a minimum 3/4 inch thick membrane cant of gas vapor barrier, or other suitable material as

approved by manufacturer. Extend the membrane at 60 mil thickness up the penetration a minimum of three inches (3"). **Allow to cure overnight before proceeding to D.**

D. Spray apply gas vapor barrier membrane at a 60 mil thickness three inches (3") around the base of penetration and up the penetration, completely encapsulating the collar assembly, to a height of one and one half inches (1 1/2") minimum above the membrane as described in 3.03.1 C above.

E. Allow gas vapor barrier to cure completely before proceeding to step "F".

F. Wrap penetration with polypropylene cable tie at a point two inches (2") above the base of the penetration. Tighten the cable tie firmly so as to squeeze, but not cut, the cured membrane collar.

## 3.04 FIELD QUALITY CONTROL

**Applicators should check their own work for coverage, thickness, and all around good workmanship before calling for inspections.**

The membrane must be cured at least overnight before inspecting for dry-thickness, holes, shadow shrinkage, and any other membrane damage. If water testing is to be performed, allow the membrane to cure at least 72 hours prior to the water test.

When thickness or integrity is in question the membrane should be tested in the proper manner as described below. Areas suspected of being too thin to the touch should be measured with the gauges to determine the exact thickness.

A. Membrane may be checked for proper thickness with a blunt-nose depth gauge, taking one reading every 500 square feet. Record the readings. Mark the test area for repair, if necessary.

B. If necessary, test areas are to be patched over with gas vapor barrier to a 60 mils minimum dry thickness, extending a minimum of one inch (1") beyond the test perimeter.

C. Voids left by sampling are to be patched with geotextile overlapping the void by a minimum of two inches (2"). Apply a thin tack coat of LIQUID BOOT® under the geotextile patch. Then spray or trowel apply LIQUID BOOT® to an 60 mils minimum dry thickness, extending at least three inches (3") beyond geotextile patch.

## 3.05 PRESSURE RELIEF, COLLECTION AND VENTING SYSTEM (PRCVS)

A. Roll out Geovent per layout as approved by Architect.

B. Use prefabricated Geovent sleeves where venting is to penetrate interior foundation walls and grade beams.

C. At points of intersection, cut away geotextile to produce rectangular flaps. Interlock exposed dimple board in a Lego-like fashion. Fold flaps of geotextile in a manner so that the dimple board is covered completely. Secure geotextile folds with fiber reinforcing tape so that the geotextile is completely impermeable to sand fill.

D. Use Geovent end outlet to attach to solid 4" diameter PVC pipe at penetration through building foundation. Seal/grout piping at penetrations through foundation using approved methods.

SMOKE TESTING FOR HOLES

A. Holes or other breaches in the membrane can be detected by conducting a smoke test. This involves pumping smoke under the membrane for a specified period of time, under a specified pressure by the Engineer. Smoke testing to take place prior to installation of reinforcing bars for structural slab and upon completion of reinforcing installation.

**END OF SECTION**

# Attachment C

Tabulated PCB Analytical Results

McCoy Field
Project No. 02685

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| A1-0.5-3' | 0.5-3 | 10/12/04 | 10/19/04 | 20,200 | ND | ND | ND | ND | 20,200 | ND | ND | ND |
| A2-0.5-1.9' | 0.5-1.9 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-0.5-2.5' | 0.5-2.5 | 10/12/04 | 10/20/04 | 112,000 | ND | ND | ND | ND | 112,000 | ND | ND | ND |
| A5-2.5-3.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 102,000 | ND | ND | ND | ND | 102,000 | ND | ND | ND |
| A5-3.5-4.5' | 3.5-4.5 | 12/3/04 | 12/18/04 | 114,000 | ND | ND | ND | ND | 114,000 | ND | ND | ND |
| A5-4.5-5.5' | 4.5-5.5 | 12/28/04 | 1/8/05 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| A5-A-0.5-2.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 1,600 | ND | ND | ND | ND | 1,600 | ND | ND | ND |
| A5-A-2.5-3.5' | 2.5-3.5 | 12/3/04 | 12/18/04 | 64,100 | ND | ND | ND | ND | 64,100 | ND | ND | ND |
| A5-A-3.5-4.5' | 3.5-4.5 | 12/3/04 | 12/18/04 | 3,870 | ND | ND | ND | ND | 3,870 | ND | ND | ND |
| A5-B-0.5-2.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 8,560 | ND | ND | ND | ND | 8,560 | ND | ND | ND |
| A5-B-2.5-3.5' | 2.5-3.5 | 12/3/04 | 12/18/04 | 726,000 | ND | ND | ND | ND | 726,000 | ND | ND | ND |
| A5-C-0.5-2.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 112,000 | ND | ND | ND | ND | 112,000 | ND | ND | ND |
| A5-C-2.5-3.5' | 2.5-3.5 | 12/3/04 | 12/8/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| A5-C-3.5-4.5' | 3.5-4.5 | 12/3/04 | 12/8/04 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND |
| A5-D-0.5-2.5' | 0.5-2.5 | 12/3/04 | 12/8/04 | 4,280 | ND | ND | ND | ND | 4,280 | ND | ND | ND |
| A5-D-2.5-3.5' | 2.5-3.5 | 12/3/04 | 12/8/04 | 993,000 | ND | ND | ND | ND | 993,000 | ND | ND | ND |
| A5-D-3.5-4.5' | 3.5-4.5 | 12/3/04 | 12/8/04 | 190,000 | ND | ND | ND | ND | 190,000 | ND | ND | ND |
| A5-E-0.5-2.5' | 0.5-2.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-F-0.5-2.5' | 0.5-2.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-G-0.5-2.5' | 0.5-2.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-H-2.5-3.5' | 2.5-3.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-H-3.5-4.5' | 3.5-4.5 | 12/28/04 | 1/8/05 | 472,000 | ND | ND | ND | ND | 472,000 | ND | ND | ND |
| A5-H-4.5-5.5' | 4.5-5.5 | 12/28/04 | 1/13/05 | 55,000 | ND | ND | ND | ND | 55,000 | ND | ND | ND |
| A5-I-2.5-3.5' | 2.5-3.5 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A5-I-3.5-4.5' | 3.5-4.5 | 12/28/04 | 1/8/05 | 74,100 | ND | ND | ND | ND | 74,100 | ND | ND | ND |
| A5-J-3.5-4.5' | 3.5-4.5 | 1/11/05 | 1/13/05 | 8,550 | ND | ND | ND | ND | 8,550 | ND | ND | ND |
| A5-K-3.5-4.5' | 3.5-4.5 | 1/11/05 | 1/13/05 | 18,100 | ND | ND | ND | ND | 18,100 | ND | ND | ND |
| A5-L-3.5-4.5' | 3.5-4.5 | 1/11/05 | 1/13/05 | 55,100 | ND | ND | ND | ND | 55,100 | ND | ND | ND |
| A6-0.5-1.75' | 0.5-1.75 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A7-0.5-1.6 | 0.5-1.6 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A8-0.5-1.6' | 0.5-1.6 | 10/12/04 | 10/20/04 | 4,430 | ND | ND | ND | ND | 4,430 | ND | ND | ND |
| A9-0.5-1.6' | 0.5-1.6 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A13-0.5-3.6' | 0.5-3.6 | 10/12/04 | 10/20/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| A14-0.5-4.7' | 0.5-4.7 | 10/12/04 | 10/20/04 | 12,600 | ND | ND | ND | ND | 12,600 | ND | ND | ND |
| Duplicate 159 (A14-0.5-4.7') | 0.5-4.7 | 10/12/04 | 10/19/04 | 29,500 | ND | ND | ND | ND | 29,500 | ND | ND | ND |
| A18-0.5-3.6' | 0.5-3.6 | 10/12/04 | 10/19/04 | 23,200 | ND | ND | ND | ND | 23,200 | ND | ND | ND |
| A19-0.5-3.5' | 0.5-3.5 | 10/12/04 | 10/20/04 | 40,700 | ND | ND | ND | ND | 40,700 | ND | ND | ND |
| A20-0.5-2.75' | 0.5-2.75 | 10/12/04 | 10/19/04 | 22,300 | ND | ND | ND | ND | 22,300 | ND | ND | ND |
| A21-0.5-2.6' | 0.5-2.6 | 10/12/04 | 10/20/04 | 276,000 | ND | ND | ND | ND | 276,000 | ND | ND | ND |
| A21-2.6-3.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 6,950 | ND | ND | ND | ND | 6,950 | ND | ND | ND |
| A21-A-0.5-2.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 4,200 | ND | ND | ND | ND | 4,200 | ND | ND | ND |
| A21-B-0.5-2.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 18,500 | ND | ND | ND | ND | 18,500 | ND | ND | ND |
| A21-C-0.5-2.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 6,020 | ND | ND | ND | ND | 6,020 | ND | ND | ND |
| A21-C-0.5-2.6'MS | 0.5-2.6 | 12/3/04 | 12/8/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| A21-C-0.5-2.6'MSD | 0.5-2.6 | 12/3/04 | 12/8/04 | 12,300 | ND | ND | ND | ND | 12,300 | ND | ND | ND |
| A21-D-0.5-2.6' | 0.5-2.6 | 12/3/04 | 12/8/04 | 3,130 | ND | ND | ND | ND | 3,130 | ND | ND | ND |
| A22-0.5-2.5' | 0.5-2.5 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A23-0.5-2.5' | 0.5-2.5 | 10/12/04 | 10/19/04 | 1,820 | ND | ND | ND | ND | 1,820 | ND | ND | ND |
| A24-0.5-2.6' | 0.5-2.6 | 10/12/04 | 10/19/04 | 3,560 | ND | ND | ND | ND | 3,560 | ND | ND | ND |
| A25-0.5-2.1' | 0.5-2.1 | 10/12/04 | 10/19/04 | 9,800 | ND | ND | ND | ND | 9,800 | ND | ND | ND |
| A26-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/15/04 | 40,500 | ND | ND | ND | ND | 40,500 | ND | ND | ND |
| Duplicate 160 (A26-0.5-1.5') | 0.5-1.5 | 10/14/04 | 10/19/04 | 15,600 | ND | ND | ND | ND | 15,600 | ND | ND | ND |
| A27-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/19/04 | 4,550 | ND | ND | ND | ND | 4,550 | ND | ND | ND |
| A43-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A44-0.5-1.7 | 0.5-1.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A45-0.5-2.5 | 0.5-2.5 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A46-0.5-2.1 | 0.5-2.1 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A50-0.5-2.7 | 0.5-2.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A52-0-3.5 | 0-3.5 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A53-0-3 | 0-3 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A53-0-3'MS | 0-3 | 11/11/04 | 11/17/04 | 6,200 | ND | ND | ND | ND | 6,200 | ND | ND | ND |
| A53-0-3'MSD | 0-3 | 11/11/04 | 11/17/04 | 5,870 | ND | ND | ND | ND | 5,870 | ND | ND | ND |
| A54-0-2.5 | 0-2.5 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A55-0-1 | 0-1 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A57-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A58-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A59-0-1.5 | 0-1.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A59.5-1-3' | 1-3 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| A60-1-3.5 | 1-3.5 | 11/4/04 | 11/11/04 | 2,750 | ND | ND | ND | ND | 2,750 | ND | ND | ND |
| B1-0.5-1.1' | 0.5-1.1 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B8-0.5-0.6' | 0.5-0.6 | 10/12/04 | 10/20/04 | 6,190 | ND | ND | ND | ND | 6,190 | ND | ND | ND |
| B9-0.5-0.7 | 0.5-0.7 | 10/12/04 | 10/20/04 | 9,030 | ND | ND | ND | ND | 9,030 | ND | ND | ND |
| B18-0.5-2.8' | 0.5-2.8 | 10/12/04 | 10/20/04 | 55,900 | ND | ND | ND | ND | 55,900 | ND | ND | ND |
| B18-A-0.5-2.8' | 0.5-2.8 | 12/3/04 | 12/8/04 | 7,630 | ND | ND | ND | ND | 7,630 | ND | ND | ND |
| B18-B-0.5-2.8' | 0.5-2.8 | 12/3/04 | 12/8/04 | 14,100 | ND | ND | ND | ND | 14,100 | ND | ND | ND |
| B18-C-0.5-2.8' | 0.5-2.8 | 12/3/04 | 12/8/04 | 37,700 | ND | ND | ND | ND | 37,700 | ND | ND | ND |
| B18-D-0.5-2.8' | 0.5-2.8 | 12/3/04 | 12/8/04 | 6,430 | ND | ND | ND | ND | 6,430 | ND | ND | ND |
| B19-0.5-2.4' | 0.5-2.4 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B23-0.5-0.7' | 0.5-0.7 | 10/12/04 | 10/19/04 | 9,420 | ND | ND | ND | ND | 9,420 | ND | ND | ND |
| B24-0.5-1.2' | 0.5-1.2 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B25-0.5-2.1' | 0.5-1.2 | 10/12/04 | 10/19/04 | 9,320 | ND | ND | ND | ND | 9,320 | ND | ND | ND |
| B26-0.5-1.9 | 0.5-1.9 | 10/14/04 | 10/15/04 | 44,800 | ND | ND | ND | ND | 44,800 | ND | ND | ND |
| B26-0.5-1.9'MS | 0.5-1.9 | 10/14/04 | 10/15/04 | 39,500 | ND | ND | ND | ND | 39,500 | ND | ND | ND |
| B26-0.5-1.9'MSD | 0.5-1.9 | 10/14/04 | 10/15/04 | 106,000 | ND | ND | ND | ND | 106,000 | ND | ND | ND |
| B26-0.5-2.0 | 0.5-2.0 | 12/3/04 | 12/8/04 | 9,390 | ND | ND | ND | ND | 9,390 | ND | ND | ND |
| B28-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B32-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/19/04 | 1,350 | ND | ND | ND | ND | 1,350 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| B37-0.5-0.9 | 0.5-0.9 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B38-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B41-0.5-0.8 | 0.5-0.8 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B42-0.5-1.6 | 0.5-1.6 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B43-0.5-1.75 | 0.5-1.75 | 10/14/04 | 10/19/04 | 2,130 | ND | ND | ND | ND | 2,130 | ND | ND | ND |
| B44-0.5-2.4 | 0.5-2.4 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B46-0.5-1.0 | 0.5-1 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B53-0-2 | 0-2 | 11/11/04 | 11/17/04 | 1,110 | ND | ND | ND | ND | 1,110 | ND | ND | ND |
| B54-0-1 | 0-1 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| B59.5-0.5-2 | 0.5-2 | 11/4/04 | 11/11/04 | 2,950 | ND | ND | ND | ND | 2,950 | ND | ND | ND |
| B60-1-3.5 | 1-3.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C1-0.5-0.6' | 0.5-0.6 | 10/12/04 | 10/19/04 | 4,560 | ND | ND | ND | ND | 4,560 | ND | ND | ND |
| C5-0.5-0.6' | 0.5-0.6 | 10/12/04 | 10/19/04 | 13,300 | ND | ND | ND | ND | 13,300 | ND | ND | ND |
| C6-0.5-1 | 0.5-1 | 10/12/04 | 10/20/04 | 14,500 | ND | ND | ND | ND | 14,500 | ND | ND | ND |
| C7-0.5-1 | 0.5-1 | 10/12/04 | 10/20/04 | 15,500 | ND | ND | ND | ND | 15,500 | ND | ND | ND |
| C8-0.5-1.25' | 0.5-1.25 | 10/12/04 | 10/20/04 | 9,340 | ND | ND | ND | ND | 9,340 | ND | ND | ND |
| C9-0.5-1.7' | 0.5-1.7 | 10/12/04 | 10/20/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| C18-0.5-2.25' | 0.5-2.25 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C19-0.5-1.3' | 0.5-1.3 | 10/12/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C26-0.5-1.0 | 0.5-1 | 10/14/04 | 10/19/04 | 2,160 | ND | ND | ND | ND | 2,160 | ND | ND | ND |
| C50-0.5-1.7 | 0.5-1.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C53-0-1.5 | 0-1.5 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| C59.5-0.5-2 | 0.5-2 | 11/4/04 | 11/11/04 | 1,300 | ND | ND | ND | ND | 1,300 | ND | ND | ND |
| C60-1-3.5 | 1-3.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| D1-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/6/05 | 1,340 | ND | ND | ND | ND | 1,340 | ND | ND | ND |
| D5-0.5-0.8 | 0.5-0.8 | 12/28/04 | 1/6/05 | 8,220 | ND | ND | ND | ND | 8,220 | ND | ND | ND |
| D6-0.5-1.1 | 0.5-1.1 | 12/28/04 | 1/6/05 | 5,470 | ND | ND | ND | ND | 5,470 | ND | ND | ND |
| D7-0.5-1.15 | 0.5-1.15 | 12/28/04 | 1/6/05 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |
| D8-0.5-1.45 | 0.5-1.45 | 12/28/04 | 1/6/05 | 7,740 | ND | ND | ND | ND | 7,740 | ND | ND | ND |
| D9-0.5-1.9 | 0.5-1.9 | 12/28/04 | 1/6/05 | 6,050 | ND | ND | ND | ND | 6,050 | ND | ND | ND |
| D10-0.5-2.2 | 0.5-2.2 | 12/28/04 | 1/6/05 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| D10-0.5-2.2MS | 0.5-2.2 | 12/28/04 | 1/6/05 | 18,600 | ND | ND | ND | ND | 18,600 | ND | ND | ND |
| D10-0.5-2.2MSD | 0.5-2.2 | 12/28/04 | 1/6/05 | 19,400 | ND | ND | ND | ND | 19,400 | ND | ND | ND |
| D18-0.5-1.1 | 0.5-1.1 | 10/12/04 | 10/19/04 | 5,290 | ND | ND | ND | ND | 5,290 | ND | ND | ND |
| D46-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| D53-0-2 | 0-2 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| D59.5-0-2 | 0-2 | 11/4/04 | 11/12/04 | 35,435 | ND | ND | ND | ND | 35,435 | ND | ND | ND |
| D60-0-1.5 | 0-1.5 | 11/4/04 | 11/12/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| E1-0.5-0.8 | 0.5-0.8 | 12/28/04 | 1/6/05 | 1,070 | ND | ND | ND | ND | 1,070 | ND | ND | ND |
| E5-0.5-0.85 | 0.5-0.85 | 12/28/04 | 1/6/05 | 14,400 | ND | ND | ND | ND | 14,400 | ND | ND | ND |
| E6-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/6/05 | 14,300 | ND | ND | ND | ND | 14,300 | ND | ND | ND |
| E7-0.5-1.2 | 0.5-1.2 | 12/28/04 | 1/6/05 | 8,490 | ND | ND | ND | ND | 8,490 | ND | ND | ND |
| E8-0.5-1.25 | 0.5-1.25 | 12/28/04 | 1/6/05 | 3,850 | ND | ND | ND | ND | 3,850 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **RCS-1** | | | | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Turnkey Acceptance Limit** | | | | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **UCL** | | | | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| E9-0.5-1.5 | 0.5-1.5 | 12/28/04 | 1/6/05 | 6,200 | ND | ND | ND | ND | 6,200 | ND | ND | ND |
| E10-0.5-1.9 | 0.5-1.9 | 12/28/04 | 1/6/05 | 9,900 | ND | ND | ND | ND | 9,900 | ND | ND | ND |
| E13-0.5-2.4 | 0.5-2.4 | 12/28/04 | 1/8/05 | 6,700 | ND | ND | ND | ND | 6,700 | ND | ND | ND |
| Duplicate 205 (E13-0.5-2.4) | 0.5-2.4 | 12/28/04 | 1/8/05 | 6,580 | ND | ND | ND | ND | 6,580 | ND | ND | ND |
| E14-0.5-1.25 | 0.5-1.25 | 10/14/04 | 10/21/04 | 5,970 | ND | ND | ND | ND | 5,970 | ND | ND | ND |
| E15-0.5-2.5 | 0.5-2.5 | 10/14/04 | 10/21/04 | 2,800 | ND | ND | ND | ND | 2,800 | ND | ND | ND |
| E15-0.5-2.5'MS | 0.5-2.5 | 10/14/04 | 10/21/04 | 9,050 | ND | ND | ND | ND | 9,050 | ND | ND | ND |
| E15-0.5-2.5'MSD | 0.5-2.5 | 10/14/04 | 10/21/04 | 8,200 | ND | ND | ND | ND | 8,200 | ND | ND | ND |
| E47-0.5-0.6 | 0.5-0.6 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| E53-0-1 | 0-1 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| E59.5-0-2 | 0-2 | 11/4/04 | 11/12/04 | 16,800 | ND | ND | ND | ND | 16,800 | ND | ND | ND |
| F13-0.5-1.4 | 0.5-1.4 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| F14-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/21/04 | 8,250 | ND | ND | ND | ND | 8,250 | ND | ND | ND |
| F15-0.5-1 | 0.5-1 | 10/14/04 | 10/21/04 | 5,640 | ND | ND | ND | ND | 5,640 | ND | ND | ND |
| F50-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| F51-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| F59.5-0-2 | 0-2 | 11/4/04 | 11/12/04 | 21,800 | ND | ND | ND | ND | 21,800 | ND | ND | ND |
| Duplicate 187 (F59.5-0-2') | 0-2 | 11/4/04 | 11/12/04 | 40,260 | ND | ND | ND | ND | 40,260 | ND | ND | ND |
| F60-0.25-2 | 0.25-2 | 11/4/04 | 11/12/04 | 45,500 | ND | ND | ND | ND | 45,500 | ND | ND | ND |
| F,G55.25-0-1 | 0-1 | 11/11/04 | 11/17/04 | 86,400 | ND | ND | ND | ND | 86,400 | ND | ND | ND |
| F,G55.25-A-0-1' | 0-1 | 1/14/05 | 1/15/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| F,G55.25-B-0-1' | 0-1 | 1/14/05 | 1/15/05 | 2,400 | ND | ND | ND | ND | 2,400 | ND | ND | ND |
| F,G55.25-C-0-1' | 0-1 | 1/14/05 | 1/15/05 | 1,560 | ND | ND | ND | ND | 1,560 | ND | ND | ND |
| F,G55.25-D-0-1' | 0-1 | 1/14/05 | 1/15/05 | 2,020 | ND | ND | ND | ND | 2,020 | ND | ND | ND |
| G13-0.5-1.2 | 0.5-1.2 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| G14-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/21/04 | 5,830 | ND | ND | ND | ND | 5,830 | ND | ND | ND |
| G18-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 163 (G18-0.5-1.2') | 0.5-1.2 | 10/14/04 | 10/21/04 | 2,790 | ND | ND | ND | ND | 2,790 | ND | ND | ND |
| G50-0.5-1.6 | 0.5-1.6 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| G50-0.5-1.6'MS | 0.5-1.6 | 10/14/04 | 10/20/04 | 5,710 | ND | ND | ND | ND | 5,710 | ND | ND | ND |
| G50-0.5-1.6'MSD | 0.5-1.6 | 10/14/04 | 10/20/04 | 6,150 | ND | ND | ND | ND | 6,150 | ND | ND | ND |
| G51-0-1 | 0-1 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| G52-0-1 | 0-1 | 11/11/04 | 11/17/04 | 1,110 | ND | ND | ND | ND | 1,110 | ND | ND | ND |
| G53-0-1 | 0-1 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| G54-0-1 | 0-1 | 11/11/04 | 11/17/04 | 4,390 | ND | ND | ND | ND | 4,390 | ND | ND | ND |
| G59-0-2' | 0-2 | 11/4/04 | 11/11/04 | 3,250 | ND | ND | ND | ND | 3,250 | ND | ND | ND |
| G59.5-0-3.25' | 0-3.25 | 11/4/04 | 11/11/04 | 2,400 | ND | ND | ND | ND | 2,400 | ND | ND | ND |
| G59.5-0-3.25'MS | 0-3.25 | 11/4/04 | 11/11/04 | 9,610 | ND | ND | ND | ND | 9,610 | ND | ND | ND |
| G59.5-0-3.25'MSD | 0-3.25 | 11/4/04 | 11/11/04 | 8,745 | ND | ND | ND | ND | 8,745 | ND | ND | ND |
| G60-0.5-3 | 0.5-3 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| HG56.75-0-1.5 | 0-1.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H1-0.5-0.65 | 0.5-0.65 | 12/28/04 | 1/6/05 | 7,580 | ND | ND | ND | ND | 7,580 | ND | ND | ND |
| H13-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/8/05 | 3,830 | ND | ND | ND | ND | 3,830 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| H14-0.5-1.25 | 0.5-1.25 | 10/14/04 | 10/21/04 | 6,380 | ND | ND | ND | ND | 6,380 | ND | ND | ND |
| H15-0.5-1.3 | 0.5-1.3 | 10/14/04 | 10/21/04 | 5,870 | ND | ND | ND | ND | 5,870 | ND | ND | ND |
| H21-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H22-0.5-1.3 | 0.5-1.3 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H26-0.5-1 | 0.5-1 | 10/14/04 | 10/21/04 | 5,210 | ND | ND | ND | ND | 5,210 | ND | ND | ND |
| H50-0.5-1.25 | 0.5-1.25 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 162 (H50-0.5-1.25') | 0.5-1.25 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H51-0-1.5 | 0-1.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H52-0-1 | 0-1 | 11/11/04 | 11/17/04 | 18,800 | ND | ND | ND | ND | 18,800 | ND | ND | ND |
| H54-0-3 | 0-3 | 11/11/04 | 11/17/04 | 4,170 | ND | ND | ND | ND | 4,170 | ND | ND | ND |
| H55-0-3 | 0-3 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H56-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H57-0-2 | 0-2 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H58-0-3 | 0-3 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H59-0-2.5 | 0-2.5 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| H59.5-0-2 | 0-2 | 11/4/04 | 11/11/04 | 8,900 | ND | ND | ND | ND | 8,900 | ND | ND | ND |
| H60-0-2.5 | 0-2.5 | 11/4/04 | 11/12/04 | 47,700 | ND | ND | ND | ND | 47,700 | ND | ND | ND |
| I1-0.5-0.7 | 0.5-0.7 | 12/28/04 | 1/6/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I13-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I14-0.5-1.25 | 0.5-1.25 | 12/28/04 | 1/8/05 | 4,200 | ND | ND | ND | ND | 4,200 | ND | ND | ND |
| I26-0.5-1.1 | 0.5-1.1 | 10/14/04 | 10/21/04 | 2,630 | ND | ND | ND | ND | 2,630 | ND | ND | ND |
| I50-0.5-1 | 0.5-1 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I51-0-1.75 | 0-1.75 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I52-0-1.75 | 0-1.75 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I56-0-1' | 0-1 | 2/16/05 | 2/17/05 | 2,150 | ND | ND | ND | ND | 2,150 | ND | ND | ND |
| I56-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I57-0-1' | 0-1 | 2/16/05 | 2/17/05 | 1,725 | ND | ND | ND | ND | 1,725 | ND | ND | ND |
| I57-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I58-0-1' | 0-1 | 2/16/05 | 2/17/05 | 420 | ND | ND | ND | ND | 420 | ND | ND | ND |
| I58-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I59-0-1' | 0-1 | 2/16/05 | 2/17/05 | 32,600 | ND | ND | ND | ND | 32,600 | ND | ND | ND |
| I59-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| I60-0-1' | 0-1 | 2/16/05 | 2/17/05 | 9,450 | ND | ND | ND | ND | 9,450 | ND | ND | ND |
| I60-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J1-0.5-0.7 | 0.5-0.7 | 12/28/04 | 1/6/05 | 4,390 | ND | ND | ND | ND | 4,390 | ND | ND | ND |
| J21-0.5-1 | 0.5-1 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J26-0.5-1 | 0.5-1 | 10/14/04 | 10/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J50-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J51-0-1 | 0-1 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J52-0-0.75 | 0-0.75 | 11/11/04 | 11/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J58-0-1' | 0-1 | 2/16/05 | 2/17/05 | 760 | ND | ND | ND | ND | 760 | ND | ND | ND |
| J58-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| J59-0-1' | 0-1 | 2/16/05 | 2/17/05 | 49,000 | ND | ND | ND | ND | 49,000 | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| J59-1-3' | 1-3 | 2/16/05 | 2/17/05 | 490 | ND | ND | ND | ND | 490 | ND | ND | ND |
| J60-0-1' | 0-1 | 2/16/05 | 2/17/05 | 2,360 | ND | ND | ND | ND | 2,360 | ND | ND | ND |
| J60-1-3' | 1-3 | 2/16/05 | 2/17/05 | 550 | ND | ND | ND | ND | 550 | ND | ND | ND |
| K1-0.5-0.7 | 0.5-0.7 | 12/28/04 | 1/6/05 | 11,900 | ND | ND | ND | ND | 11,900 | ND | ND | ND |
| K8-0.5-0.55 | 0.5-0.65 | 12/28/04 | 1/6/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K9-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/6/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K10-0.5-1.1 | 0.5-1.1 | 12/28/04 | 1/6/05 | 3,530 | ND | ND | ND | ND | 3,530 | ND | ND | ND |
| K12-0.5-1.2 | 0.5-1.2 | 12/28/04 | 1/6/05 | 6,010 | ND | ND | ND | ND | 6,010 | ND | ND | ND |
| K13-0.5-1.7 | 0.5-1.7 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K14-0.5-1.15 | 0.5-1.15 | 12/28/04 | 1/8/05 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| K51-0-0.75 | 0-0.75 | 11/4/04 | 11/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K60-0-1' | 0-1 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| K60-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| L1-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/6/05 | 1,090 | ND | ND | ND | ND | 1,090 | ND | ND | ND |
| L9-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/6/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| L10-0.5-1.1 | 0.5-1.1 | 12/28/04 | 1/6/05 | 7,170 | ND | ND | ND | ND | 7,170 | ND | ND | ND |
| L12-0.5-1 | 0.5-1 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| L13-0.5-1.5 | 0.5-1.5 | 12/28/04 | 1/8/05 | 5,020 | ND | ND | ND | ND | 5,020 | ND | ND | ND |
| L14-0.5-1.75 | 0.5-1.75 | 12/28/04 | 1/8/05 | 4,210 | ND | ND | ND | ND | 4,210 | ND | ND | ND |
| L60-0-1' | 0-1 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| L60-1-3' | 1-3 | 2/16/05 | 2/17/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| M12-0.5-0.8 | 0.5-0.8 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| M14-0.5-1.25 | 0.5-1.25 | 12/28/04 | 1/8/05 | 8,350 | ND | ND | ND | ND | 8,350 | ND | ND | ND |
| M53-0-2 | 0-2 | 11/11/04 | 11/17/04 | 4,260 | ND | ND | ND | ND | 4,260 | ND | ND | ND |
| N1-0.5-1.2 | 0.5-1.2 | 12/28/04 | 1/6/05 | 5,020 | ND | ND | ND | ND | 5,020 | ND | ND | ND |
| Duplicate 206 (N1-0.5-1.2) | 0.5-1.2 | 12/28/04 | 1/8/05 | 5,460 | ND | ND | ND | ND | 5,460 | ND | ND | ND |
| N2-0.5-1.4 | 0.5-1.4 | 12/28/04 | 1/6/05 | 4,940 | ND | ND | ND | ND | 4,940 | ND | ND | ND |
| N3-0.5-1.3 | 0.5-1.3 | 12/28/04 | 1/6/05 | 4,910 | ND | ND | ND | ND | 4,910 | ND | ND | ND |
| N4-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/6/05 | 3,250 | ND | ND | ND | ND | 3,250 | ND | ND | ND |
| N12-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| N13-0.5-1.5 | 0.5-1.5 | 12/28/04 | 1/8/05 | 3,260 | ND | ND | ND | ND | 3,260 | ND | ND | ND |
| N14-0.5-1 | 0.5-1 | 12/28/04 | 1/8/05 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| N15-0.5-1 | 0.5-1 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| N42-0.5-1.7 | 0.5-1.7 | 10/14/04 | 10/20/04 | 21,700 | ND | ND | ND | ND | 21,700 | ND | ND | ND |
| N43-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/20/04 | 1,740 | ND | ND | ND | ND | 1,740 | ND | ND | ND |
| N53-0-2.5 | 0-2.5 | 11/11/04 | 11/17/04 | 6,370 | ND | ND | ND | ND | 6,370 | ND | ND | ND |
| O13-0.5-1.1 | 0.5-1.1 | 12/28/04 | 1/8/05 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| O14-0.5-1 | 0.5-1 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| O15-0.5-1.75 | 0.5-1.75 | 12/28/04 | 1/8/05 | 14,800 | ND | ND | ND | ND | 14,800 | ND | ND | ND |
| O15-0.5-1.75MS | 0.5-1.75 | 12/28/04 | 1/8/05 | 30,500 | ND | ND | ND | ND | 30,500 | ND | ND | ND |
| O15-0.5-1.75MSD | 0.5-1.75 | 12/28/04 | 1/8/05 | 24,800 | ND | ND | ND | ND | 24,800 | ND | ND | ND |
| O42-0.5-1.6 | 0.5-1.6 | 10/14/04 | 10/20/04 | 13,000 | ND | ND | ND | ND | 13,000 | ND | ND | ND |
| O43-0.5-0.6 | 0.5-0.6 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

## Landscaped Area
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| O53-0-3.5 | 0-3.5 | 11/11/04 | 11/17/04 | 4,300 | ND | ND | ND | ND | 4,300 | ND | ND | ND |
| P11-0.5-0.9 | 0.5-0.9 | 12/28/04 | 1/6/05 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| P13-0.5-1.0 | 0.5-1.0 | 12/28/04 | 1/8/05 | 17,900 | ND | ND | ND | ND | 17,900 | ND | ND | ND |
| P14-0.5-1.35 | 0.5-1.35 | 12/28/04 | 1/8/05 | 8,820 | ND | ND | ND | ND | 8,820 | ND | ND | ND |
| Duplicate 204 (P14-0.5-1.35) | 0.5-1.35 | 12/28/04 | 1/8/05 | 12,300 | ND | ND | ND | ND | 12,300 | ND | ND | ND |
| P15-0.5-0.75 | 0.5-0.75 | 12/28/04 | 1/8/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| P25-0.5-1.75 | 0.5-1.75 | 10/14/04 | 10/21/04 | 3,040 | ND | ND | ND | ND | 3,040 | ND | ND | ND |
| P26-0.5-1.6 | 0.5-1.6 | 10/14/04 | 10/20/04 | 8,280 | ND | ND | ND | ND | 8,280 | ND | ND | ND |
| P27-0.5-1.5 | 0.5-1.5 | 10/14/04 | 10/20/04 | 1,730 | ND | ND | ND | ND | 1,730 | ND | ND | ND |
| P28-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/20/04 | 3,460 | ND | ND | ND | ND | 3,460 | ND | ND | ND |
| P29-0.5-0.7 | 0.5-0.7 | 10/14/04 | 10/20/04 | 9,180 | ND | ND | ND | ND | 9,180 | ND | ND | ND |
| P31-0.5-1 | 0.5-1 | 10/14/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| P50-0.5-1.2 | 0.5-1.2 | 10/14/04 | 10/20/04 | 8,540 | ND | ND | ND | ND | 8,540 | ND | ND | ND |
| P53-0-3.5 | 0-3.5 | 11/11/04 | 11/17/04 | 3,150 | ND | ND | ND | ND | 3,150 | ND | ND | ND |
| Q53-Landscape-0-4 | 0-4 | 11/11/04 | 11/17/04 | 1,940 | ND | ND | ND | ND | 1,940 | ND | ND | ND |
| Dup 189 (Landscape Comp 15) | -- | 11/11/04 | 11/17/04 | 7,280 | ND | ND | ND | ND | 7,280 | ND | ND | ND |

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC1** | PC1-1-3' | 1-3 | 06/11/04 | 06/19/04 | 5,290 | ND | ND | ND | ND | 5,290 | ND | ND | ND |
| | PC1-3-6' | 3-6 | 06/11/04 | 06/19/04 | 16,400 | ND | ND | ND | ND | 16,400 | ND | ND | ND |
| **PC2** | PC2-1-3' | 1-3 | 06/11/04 | 06/19/04 | 41,000 | ND | ND | ND | ND | 41,000 | ND | ND | ND |
| | PC2-3-6' | 3-6 | 06/11/04 | 06/19/04 | 13,700 | ND | ND | ND | ND | 13,700 | ND | ND | ND |
| | PC2-1-3' | 1-3 | 08/25/04 | 09/07/04 | **338,000** | ND | ND | ND | ND | 338,000 | ND | ND | ND |
| | PC2-3-6' | 3-6 | 08/25/04 | 09/01/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC2-A-1-3' | 1-3 | 10/15/04 | 10/18/04 | 7,160 | ND | ND | ND | ND | 7,160 | ND | ND | ND |
| | PC2-A-3-4.75' | 3-4.75 | 10/15/04 | 10/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC2-B-1-3' | 1-3 | 10/15/04 | 10/18/04 | 39,700 | ND | ND | ND | ND | 39,700 | ND | ND | ND |
| | PC2-B-3-6' | 3-6 | 10/15/04 | 10/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC2-C-1-3' | 1-3 | 10/15/04 | 10/18/04 | 13,300 | ND | ND | ND | ND | 13,300 | ND | ND | ND |
| | PC2-C-3-6' | 3-6 | 10/15/04 | 10/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC2-C-3-6'MS | 3-6 | 10/15/04 | 10/18/04 | 6,720 | ND | ND | ND | ND | 6,720 | ND | ND | ND |
| | PC2-C-3-6'MSD | 3-6 | 10/15/04 | 10/18/04 | 5,810 | ND | ND | ND | ND | 5,810 | ND | ND | ND |
| | PC2-D-1-3' | 1-3 | 10/15/04 | 10/18/04 | 40,900 | ND | ND | ND | ND | 40,900 | ND | ND | ND |
| | PC2-D-3-6' | 3-6 | 10/15/04 | 10/18/04 | 3,950 | ND | ND | ND | ND | 3,950 | ND | ND | ND |
| **PC3** | PC3-1-3' | 1-3 | 06/11/04 | 06/19/04 | 1,790 | ND | ND | ND | ND | 1,790 | ND | ND | ND |
| | PC3-3-5.5' | 3-5.5 | 06/11/04 | 06/19/04 | 3,820 | ND | ND | ND | ND | 3,820 | ND | ND | ND |
| **PC4** | PC4-1-3' | 1-3 | 06/11/04 | 06/19/04 | 3,160 | ND | ND | ND | ND | 3,160 | ND | ND | ND |
| | PC4-3-5' | 3-5 | 06/11/04 | 06/19/04 | 2,550 | ND | ND | ND | ND | 2,550 | ND | ND | ND |
| **PC5** | PC5-1-3' | 1-3 | 06/11/04 | 06/19/04 | 16,300 | ND | ND | ND | ND | 16,300 | ND | ND | ND |
| | PC5-3-5.5' | 3-5.5 | 06/11/04 | 06/19/04 | 16,900 | ND | ND | ND | ND | 16,900 | ND | ND | ND |
| **PC6** | PC6-1-2' | 1-2 | 06/11/04 | 06/19/04 | 4,910 | ND | ND | ND | ND | 4,910 | ND | ND | ND |
| **PC7** | PC7-1-3' | 1-3 | 06/11/04 | 06/19/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| | PC7-3-5' | 3-5 | 06/11/04 | 06/19/04 | 2,370 | ND | ND | ND | ND | 2,370 | ND | ND | ND |
| **PC8** | PC8-1-4' | 1-4 | 06/11/04 | 06/19/04 | 21,500 | ND | ND | ND | ND | 21,500 | ND | ND | ND |
| **PC9** | PC9-1-3' | 1-3 | 06/11/04 | 07/03/04 | 5,300 | ND | ND | ND | ND | 5,300 | ND | ND | ND |
| | PC9-3-6' | 3-6 | 06/11/04 | 07/03/04 | 7,610 | ND | ND | ND | ND | 7,610 | ND | ND | ND |
| **PC10** | PC10-1-3' | 1-3 | 06/11/04 | 06/19/04 | 5,140 | ND | ND | ND | ND | 5,140 | ND | ND | ND |
| | Duplicate 36 (PC10-1-3') | 1-3 | 06/11/04 | 07/11/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| | PC10-3-6' | 3-6 | 06/11/04 | 06/19/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |
| | PC10-3-6'MS | 3-6 | 06/11/04 | 06/19/04 | 10,300 | ND | ND | ND | ND | 10,300 | ND | ND | ND |
| | PC10-3-6'MSD | 3-6 | 06/11/04 | 06/19/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| **PC11** | PC11-1-3' | 1-3 | 06/11/04 | 06/19/04 | 15,100 | ND | ND | ND | ND | 15,100 | ND | ND | ND |
| | PC11-3-5' | 3-5 | 06/11/04 | 06/19/04 | 42,700 | ND | ND | ND | ND | 42,700 | ND | ND | ND |
| **PC12** | PC12-1-3' | 1-3 | 06/11/04 | 06/19/04 | 33,100 | ND | ND | ND | ND | 33,100 | ND | ND | ND |
| | PC12-3-5' | 3-5 | 06/11/04 | 06/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC13** | PC13-1-3' | 1-3 | 06/11/04 | 06/19/04 | 6,150 | ND | ND | ND | ND | 6,150 | ND | ND | ND |
| | PC13-3-6' | 3-6 | 06/11/04 | 06/19/04 | 5,080 | ND | ND | ND | ND | 5,080 | ND | ND | ND |
| **PC14** | PC14-1-3' | 1-3 | 06/11/04 | 06/19/04 | 5,350 | ND | ND | ND | ND | 5,350 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC14** | PC14-3-6' | 3-6 | 06/11/04 | 06/19/04 | 3,400 | ND | ND | ND | ND | 3,400 | ND | ND | ND |
| **PC15** | PC15-1-2' | 1-2 | 06/11/04 | 06/19/04 | 9,490 | ND | ND | ND | ND | 9,490 | ND | ND | ND |
| **PC16** | PC16-1-2' | 1-2 | 06/11/04 | 06/19/04 | 1,780 | ND | ND | ND | ND | 1,780 | ND | ND | ND |
| **PC17** | PC17-1-2' | 1-2 | 06/11/04 | 06/19/04 | 22,400 | ND | ND | ND | ND | 22,400 | ND | ND | ND |
| **PC18** | PC18-1-3' | 1-3 | 06/11/04 | 07/03/04 | 8,660 | ND | ND | ND | ND | 8,660 | ND | ND | ND |
| | PC18-3-6' | 3-6 | 06/11/04 | 07/03/04 | 3,100 | ND | ND | ND | ND | 3,100 | ND | ND | ND |
| **PC19** | PC19-1-2' | 1-2 | 06/11/04 | 07/03/04 | 5,760 | ND | ND | ND | ND | 5,760 | ND | ND | ND |
| **PC20** | PC20-1-2' | 1-2 | 06/11/04 | 07/03/04 | 5,680 | ND | ND | ND | ND | 5,680 | ND | ND | ND |
| **PC21** | PC21-1-2' | 1-2 | 06/11/04 | 07/07/04 | 26,800 | ND | ND | ND | ND | 26,800 | ND | ND | ND |
| **PC22** | PC22-1-2' | 1-2 | 06/11/04 | 07/11/04 | 16,100 | ND | ND | ND | ND | 16,100 | ND | ND | ND |
| **PC23** | PC23-1-2' | 1-2 | 06/11/04 | 07/11/04 | 6,540 | ND | ND | ND | ND | 6,540 | ND | ND | ND |
| **PC24** | PC24-1-3' | 1-3 | 06/11/04 | 07/11/04 | 5,630 | ND | ND | ND | ND | 5,630 | ND | ND | ND |
| | Duplicate 38 (PC24-1-3') | 1-3 | 06/11/04 | 07/11/04 | 4,230 | ND | ND | ND | ND | 4,230 | ND | ND | ND |
| | PC24-3-6' | 3-6 | 06/11/04 | 07/11/04 | 5,580 | ND | ND | ND | ND | 5,580 | ND | ND | ND |
| | PC24-3-6'MS | 3-6 | 06/11/04 | 07/11/04 | 12,600 | ND | ND | ND | ND | 12,600 | ND | ND | ND |
| | PC24-3-6'MSDUP | 3-6 | 06/11/04 | 07/11/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| **PC25** | PC25-1-2' | 1-2 | 06/11/04 | 07/03/04 | 6,440 | ND | ND | ND | ND | 6,440 | ND | ND | ND |
| **PC26** | PC26-1-2' | 1-2 | 06/11/04 | 07/04/04 | 5,060 | ND | ND | ND | ND | 5,060 | ND | ND | ND |
| **PC27** | PC27-1-2' | 1-2 | 06/11/04 | 07/04/04 | 26,900 | ND | ND | ND | ND | 26,900 | ND | ND | ND |
| **PC28** | PC28-1-2' | 1-2 | 06/11/04 | 07/04/04 | 10,500 | ND | ND | ND | ND | 10,500 | ND | ND | ND |
| **PC29** | PC29-1-2' | 1-2 | 06/11/04 | 07/11/04 | 7,940 | ND | ND | ND | ND | 7,940 | ND | ND | ND |
| **PC30** | PC30-1-3' | 1-3 | 06/11/04 | 07/09/04 | 6,820 | ND | ND | ND | ND | 6,820 | ND | ND | ND |
| | PC30-3-6' | 3-6 | 06/11/04 | 07/09/04 | 3,950 | ND | ND | ND | ND | 3,950 | ND | ND | ND |
| **PC31** | PC31-1-2' | 1-2 | 06/11/04 | 07/04/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| **PC32** | PC32-1-2' | 1-2 | 06/11/04 | 07/04/04 | 14,400 | ND | ND | ND | ND | 14,400 | ND | ND | ND |
| **PC33** | PC33-1-3' | 1-3 | 06/11/04 | 07/04/04 | 2,740 | ND | ND | ND | ND | 2,740 | ND | ND | ND |
| | PC33-3-5.5' | 1-5.5 | 06/11/04 | 07/04/04 | 27,000 | ND | ND | ND | ND | 27,000 | ND | ND | ND |
| **PC34** | PC34-1-3' | 1-3 | 06/11/04 | 07/11/04 | 18,300 | ND | ND | ND | ND | 18,300 | ND | ND | ND |
| | PC34-3-6' | 3-6 | 06/11/04 | 07/11/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND |
| **PC35** | PC35-1-2' | 1-2 | 06/11/04 | 07/11/04 | **57,100** | ND | ND | ND | ND | 57,100 | ND | ND | ND |
| **PC36** | PC36-1-2' | 1-2 | 06/11/04 | 07/11/04 | 22,900 | ND | ND | ND | ND | 22,900 | ND | ND | ND |
| **PC37** | PC37-1-3' | 1-3 | 06/11/04 | 07/11/04 | 7,850 | ND | ND | ND | ND | 7,850 | ND | ND | ND |
| | PC37-3-6' | 3-6 | 06/11/04 | 07/11/04 | 24,300 | ND | ND | ND | ND | 24,300 | ND | ND | ND |
| **PC38** | PC38-1-3' | 1-3 | 06/11/04 | 07/04/04 | 34,600 | ND | ND | ND | ND | 34,600 | ND | ND | ND |
| | PC38-3-5' | 3-5 | 06/11/04 | 07/04/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| **PC39** | PC39-1-3' | 1-3 | 06/11/04 | 07/04/04 | 7,050 | ND | ND | ND | ND | 7,050 | ND | ND | ND |
| | PC39-1-3'MS | 1-3 | 06/11/04 | 07/04/04 | 10,300 | ND | ND | ND | ND | 10,300 | ND | ND | ND |
| | PC39-1-3'MSDUP | 1-3 | 06/11/04 | 07/04/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| | Duplicate 39 (PC39-3-6') | 3-6 | 06/11/04 | 07/11/04 | 29,000 | ND | ND | ND | ND | 29,000 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC39-3-6' | 3-6 | 06/11/04 | 07/04/04 | 21,000 | ND | ND | ND | ND | 21,000 | ND | ND | ND |
| **PC40** | PC40-1-3' | 1-3 | 06/11/04 | 07/04/04 | 1,210 | ND | ND | ND | ND | 1,210 | ND | ND | ND |
| | PC40-3-5.5' | 3-5.5 | 06/11/04 | 07/04/04 | 33,400 | ND | ND | ND | ND | 33,400 | ND | ND | ND |
| | PC40-1-4' | 1-4 | 08/25/04 | 09/01/04 | 13,100 | ND | ND | ND | ND | 13,100 | ND | ND | ND |
| | PC40-4-7' | 4-7 | 08/25/04 | 09/01/04 | 33,400 | ND | ND | ND | ND | 33,400 | ND | ND | ND |
| **PC41** | PC41-1-3' | 1-3 | 06/11/04 | 07/04/04 | 1,310 | ND | ND | ND | ND | 1,310 | ND | ND | ND |
| | PC41-3-6' | 3-6 | 06/11/04 | 07/04/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| | PC41-1-4' | 1-4 | 08/25/04 | 09/01/04 | 25,200 | ND | ND | ND | ND | 25,200 | ND | ND | ND |
| | PC41-4-7' | 4-7 | 08/25/04 | 08/31/04 | 19,300 | ND | ND | ND | ND | 19,300 | ND | ND | ND |
| **PC42** | PC42-1-3' | 1-3 | 06/11/04 | 07/11/04 | 3,180 | ND | ND | ND | ND | 3,180 | ND | ND | ND |
| | PC42-3-5' | 3-5 | 06/11/04 | 07/11/04 | **73,800** | ND | ND | ND | ND | 73,800 | ND | ND | ND |
| **PC43** | PC43-1-3' | 1-3 | 06/11/04 | 07/11/04 | 16,300 | ND | ND | ND | ND | 16,300 | ND | ND | ND |
| | PC43-3-6' | 3-6 | 06/11/04 | 07/11/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| **PC44** | PC44-1-3' | 1-3 | 08/26/04 | 09/01/04 | 5,160 | ND | ND | ND | ND | 5,160 | ND | ND | ND |
| **PC45** | PC45-1-2' | 1-2 | 06/11/04 | 07/11/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| **PC46** | PC46-1-3' | 1-3 | 06/11/04 | 07/11/04 | 21,700 | ND | ND | ND | ND | 21,700 | ND | ND | ND |
| | PC46-3-5.5' | 3-5.5 | 06/11/04 | 07/11/04 | 31,900 | ND | ND | ND | ND | 31,900 | ND | ND | ND |
| **PC47** | PC47-1-3' | 1-3 | 06/11/04 | 07/11/04 | 36,200 | ND | ND | ND | ND | 36,200 | ND | ND | ND |
| | PC47-3-6' | 3-6 | 06/11/04 | 07/11/04 | 37,000 | ND | ND | ND | ND | 37,000 | ND | ND | ND |
| **PC48** | PC48-1-2' | 1-2 | 06/11/04 | 07/11/04 | 3,630 | ND | ND | ND | ND | 3,630 | ND | ND | ND |
| **PC49** | PC49-1-2' | 1-2 | 06/11/04 | 07/11/04 | 2,690 | ND | ND | ND | ND | 2,690 | ND | ND | ND |
| **PC50** | PC50-1-3' | 1-3 | 06/11/04 | 07/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC50-3-5' | 3-5 | 06/11/04 | 07/11/04 | 3,620 | ND | ND | ND | ND | 3,620 | ND | ND | ND |
| **PC51** | PC51-1-3' | 1-3 | 6/14/04 | 7/12/04 | 7,570 | ND | ND | ND | ND | 7,570 | ND | ND | ND |
| | PC51-1-3'MS | 1-3 | 6/14/04 | 7/12/04 | 6,380 | ND | ND | ND | ND | 6,380 | ND | ND | ND |
| | PC51-1-3'MSD | 1-3 | 6/14/04 | 7/12/04 | 8,440 | ND | ND | ND | ND | 8,440 | ND | ND | ND |
| | Duplicate 40 (PC51-3-6') | 3-6 | 6/14/04 | 7/18/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND |
| | PC51-3-6' | 3-6 | 6/14/04 | 7/12/04 | 3,900 | ND | ND | ND | ND | 3,900 | ND | ND | ND |
| **PC52** | PC52-1-2' | 1-2 | 6/14/04 | 7/12/04 | 17,600 | ND | ND | ND | ND | 17,600 | ND | ND | ND |
| | PC52-3-6.5' | 3-6.5 | 8/25/04 | 8/31/04 | 5,880 | ND | ND | ND | ND | 5,880 | ND | ND | ND |
| **PC53** | PC53-1-2' | 1-2 | 6/14/04 | 7/12/04 | 4,680 | ND | ND | ND | ND | 4,680 | ND | ND | ND |
| **PC54** | PC54-1-3' | 1-3 | 6/14/04 | 7/12/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | PC54-3-6' | 3-6 | 6/14/04 | 7/12/04 | 30,000 | ND | ND | ND | ND | 30,000 | ND | ND | ND |
| **PC55** | PC55-1-3' | 1-3 | 6/14/04 | 7/12/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| | PC55-3-6' | 3-6 | 6/14/04 | 7/12/04 | 17,200 | ND | ND | ND | ND | 17,200 | ND | ND | ND |
| **PC56** | PC56-1-2' | 1-2 | 6/14/04 | 7/12/04 | 1,130 | ND | ND | ND | ND | 1,130 | ND | ND | ND |
| **PC57** | PC57-1-2' | 1-2 | 6/14/04 | 7/12/04 | 4,890 | ND | ND | ND | ND | 4,890 | ND | ND | ND |
| | PC57-3-6.5' | 3-6.5 | 8/25/04 | 9/7/04 | 38,000 | ND | ND | ND | ND | 38,000 | ND | ND | ND |
| **PC58** | PC58-1-3' | 1-3 | 6/14/04 | 7/12/04 | 15,500 | ND | ND | ND | ND | 15,500 | ND | ND | ND |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC58** | PC58-3-6' | 3-6 | 6/14/04 | 7/12/04 | 4,690 | ND | ND | ND | ND | 4,690 | ND | ND | ND |
| **PC59** | PC59-1-3' | 1-3 | 6/14/04 | 7/11/04 | 5,480 | ND | ND | ND | ND | 5,480 | ND | ND | ND |
| | PC59-3-6' | 3-6 | 6/14/04 | 7/11/04 | 3,990 | ND | ND | ND | ND | 3,990 | ND | ND | ND |
| **PC60** | PC60-1-3' | 1-3 | 6/14/04 | 7/12/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| | PC60-3-6' | 3-6 | 6/14/04 | 7/12/04 | **215,000** | ND | ND | ND | ND | 215,000 | ND | ND | ND |
| | PC60-1-3' | 1-3 | 8/25/04 | 8/31/04 | 18,900 | ND | ND | ND | ND | 18,900 | ND | ND | ND |
| | PC60-3-6' | 3-6 | 8/25/04 | 9/2/04 | 4,280 | ND | ND | ND | ND | 4,280 | ND | ND | ND |
| | PC60-6-11' | 6-11 | 9/20/04 | 9/22/04 | 33,000 | ND | ND | ND | ND | 33,000 | ND | ND | ND |
| | PC60-A-1-3' | 1-3 | 9/14/04 | 9/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-A-3-6' | 3-6 | 9/14/04 | 9/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-A-6-8' | 6-8 | 9/14/04 | 9/21/04 | 25,400 | ND | ND | ND | ND | 25,400 | ND | ND | ND |
| | PC60-B-1-3' | 1-3 | 9/14/04 | 9/21/04 | 20,100 | ND | ND | ND | ND | 20,100 | ND | ND | ND |
| | PC60-B-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-B-6-11' | 6-11 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-C-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-C-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 135 (PC60-C-3-6') | 3-6 | 9/14/04 | 9/21/04 | 20,300 | ND | ND | ND | ND | 20,300 | ND | ND | ND |
| | PC60-C-6-10' | 6-10 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-D-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-D-3-6' | 3-6 | 9/14/04 | 9/24/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | PC60-D-6-10' | 6-10 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60-E-1-3' | 1-3 | 9/9/04 | 9/18/04 | 30,400 | ND | ND | ND | ND | 30,400 | ND | ND | ND |
| | PC60-E-3-6' | 3-6 | 9/9/04 | 9/18/04 | 9,160 | ND | ND | ND | ND | 9,160 | ND | ND | ND |
| | PC60-F-1-3' | 1-3 | 9/9/04 | 9/18/04 | 31,400 | ND | ND | ND | ND | 31,400 | ND | ND | ND |
| | PC60-F-3-6' | 3-6 | 9/9/04 | 9/18/04 | 17,200 | ND | ND | ND | ND | 17,200 | ND | ND | ND |
| | PC60-F-6-9' | 6-9 | 9/9/04 | 9/14/04 | **136,000** | ND | ND | ND | ND | 136,000 | ND | ND | ND |
| | PC60-G-6-11' | 6-11 | 9/20/04 | 9/22/04 | 3,420 | ND | ND | ND | ND | 3,420 | ND | ND | ND |
| | PC60-H-3-6' | 3-6 | 9/20/04 | 9/22/04 | 4,620 | ND | ND | ND | ND | 4,620 | ND | ND | ND |
| | PC60-H-6-11' | 6-11 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60 I-3-6 | 3-6 | 9/20/04 | 9/22/04 | 3,890 | ND | ND | ND | ND | 3,890 | ND | ND | ND |
| | PC60 I-6-11 | 6-11 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC60 J-3-6 | 3-6 | 9/20/04 | 9/22/04 | 3,920 | ND | ND | ND | ND | 3,920 | ND | ND | ND |
| | PC60 J-6-11 | 6-11 | 9/20/04 | 9/22/04 | 4,750 | ND | ND | ND | ND | 4,750 | ND | ND | ND |
| | PC60 K-3-6 | 3-6 | 9/20/04 | 9/22/04 | 3,160 | ND | ND | ND | ND | 3,160 | ND | ND | ND |
| | PC60 K-6-11 | 6-11 | 9/20/04 | 9/22/04 | 11,600 | ND | ND | ND | ND | 11,600 | ND | ND | ND |
| | PC60 L-3-6 | 3-6 | 9/20/04 | 9/22/04 | 13,100 | ND | ND | ND | ND | 13,100 | ND | ND | ND |
| | PC60 L-6-11 | 6-11 | 9/20/04 | 9/22/04 | 23,600 | ND | ND | ND | ND | 23,600 | ND | ND | ND |
| | PC60 M-3-6 | 3-6 | 9/20/04 | 9/22/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |
| | PC60 M-6-11 | 6-11 | 9/20/04 | 9/22/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| **PC61** | PC61-1-3' | 1-3 | 6/14/04 | 7/11/04 | 6,270 | ND | ND | ND | ND | 6,270 | ND | ND | ND |

**NOTES:**
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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC61** | PC61-3-6' | 3-6 | 6/14/04 | 7/11/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| **PC62** | PC62-1-2' | 1-2 | 6/14/04 | 7/12/04 | 8,940 | ND | ND | ND | ND | 8940 | ND | ND | ND |
| | PC62-3-6.5' | 3-6.5 | 8/26/04 | 8/31/04 | 14,200 | ND | ND | ND | ND | 14200 | ND | ND | ND |
| **PC63** | PC63-1-2' | 1-2 | 6/14/04 | 7/12/04 | 6,260 | ND | ND | ND | ND | 6260 | ND | ND | ND |
| **PC64** | PC64-1-3' | 1-3 | 6/14/04 | 7/19/04 | 4,050 | ND | ND | ND | ND | 4050 | ND | ND | ND |
| | Duplicate 41 (PC63-1-3') | 1-3 | 6/14/04 | 7/18/04 | 6,660 | ND | ND | ND | ND | 6660 | ND | ND | ND |
| | PC64-3-6'MS | 3-6 | 6/14/04 | 7/19/04 | 26,000 | ND | ND | ND | ND | 26000 | ND | ND | ND |
| | PC64-3-6'MSD | 3-6 | 6/14/04 | 7/19/04 | 37,000 | ND | ND | ND | ND | 37000 | ND | ND | ND |
| | PC64-3-6' | 3-6 | 6/14/04 | 7/19/04 | 31,500 | ND | ND | ND | ND | 31500 | ND | ND | ND |
| **PC65** | PC65-1-3' | 1-3 | 6/14/04 | 7/12/04 | 18,400 | ND | ND | ND | ND | 18400 | ND | ND | ND |
| | PC65-3-6' | 3-6 | 6/14/04 | 7/12/04 | 16,700 | ND | ND | ND | ND | 16700 | ND | ND | ND |
| **PC66** | PC66-1-2' | 1-2 | 6/14/04 | 7/12/04 | 3,480 | ND | ND | ND | ND | 3480 | ND | ND | ND |
| **PC67** | PC67-1-2' | 1-2 | 6/14/04 | 7/12/04 | 24,700 | ND | ND | ND | ND | 24700 | ND | ND | ND |
| | PC67-3-6.5' | 3-6.5 | 8/25/04 | 8/31/04 | 12,300 | ND | ND | ND | ND | 12300 | ND | ND | ND |
| **PC68** | PC68-1-3' | 1-3 | 6/14/04 | 7/12/04 | 5,470 | ND | ND | ND | ND | 5470 | ND | ND | ND |
| | PC68-3-6' | 3-6 | 6/14/04 | 7/12/04 | 11,600 | ND | ND | ND | ND | 11600 | ND | ND | ND |
| **PC69** | PC69-1-3' | 1-3 | 6/14/04 | 7/12/04 | 3,690 | ND | ND | ND | ND | 3690 | ND | ND | ND |
| | PC69-3-6' | 3-6 | 6/14/04 | 7/19/04 | 6,780 | ND | ND | ND | ND | 6780 | ND | ND | ND |
| **PC70** | PC70-1-2' | 1-2 | 6/14/04 | 7/19/04 | 13,500 | ND | ND | ND | ND | 13500 | ND | ND | ND |
| **PC71** | PC71-1-2' | 1-2 | 6/14/04 | 7/19/04 | 5,880 | ND | ND | ND | ND | 5880 | ND | ND | ND |
| **PC72** | PC72-1-3' | 1-3 | 6/14/04 | 7/19/04 | 11,700 | ND | ND | ND | ND | 11700 | ND | ND | ND |
| | PC72-3-6' | 3-6 | 6/14/04 | 7/19/04 | 4,560 | ND | ND | ND | ND | 4560 | ND | ND | ND |
| **PC73** | PC73-1-3' | 1-3 | 6/14/04 | 7/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC73-3-6' | 3-6 | 6/14/04 | 7/19/04 | 3,690 | ND | ND | ND | ND | 3690 | ND | ND | ND |
| **PC74** | PC74-1-2' | 1-2 | 6/14/04 | 7/19/04 | 16,300 | ND | ND | ND | ND | 16300 | ND | ND | ND |
| **PC75** | PC75-1-2' | 1-2 | 6/14/04 | 7/18/04 | 9,100 | ND | ND | ND | ND | 9100 | ND | ND | ND |
| **PC76** | PC76-1-3' | 1-3 | 6/14/04 | 7/18/04 | **52,200** | ND | ND | ND | ND | 52200 | ND | ND | ND |
| | PC76-1-3'MS | 1-3 | 6/14/04 | 7/18/04 | 14,300 | ND | ND | ND | ND | 14300 | ND | ND | ND |
| | PC76-1-3'MSD | 1-3 | 6/14/04 | 7/18/04 | 10,100 | ND | ND | ND | ND | 10100 | ND | ND | ND |
| | Duplicate 42 (PC76-3-5.5') | 3-5.5 | 6/14/04 | 7/18/04 | 32,200 | ND | ND | ND | ND | 32200 | ND | ND | ND |
| | PC76-3-5.5' | 3-5.5 | 6/14/04 | 7/18/04 | 31,900 | ND | ND | ND | ND | 31900 | ND | ND | ND |
| **PC77** | PC77-1-3' | 1-3 | 6/14/04 | 7/18/04 | **76,100** | ND | ND | ND | ND | 76100 | ND | ND | ND |
| | PC77-3-6' | 3-6 | 6/14/04 | 7/18/04 | 7,160 | ND | ND | ND | ND | 7160 | ND | ND | ND |
| **PC78** | PC78-1-3' | 1-3 | 6/14/04 | 7/19/04 | 5,550 | ND | ND | ND | ND | 5550 | ND | ND | ND |
| | PC78-3-6' | 3-6 | 6/14/04 | 7/19/04 | 11,100 | ND | ND | ND | ND | 11100 | ND | ND | ND |
| **PC79** | PC79-1-3' | 1-3 | 6/14/04 | 7/19/04 | 5,120 | ND | ND | ND | ND | 5120 | ND | ND | ND |
| | PC79-3-6' | 3-6 | 6/14/04 | 7/19/04 | 6,120 | ND | ND | ND | ND | 6120 | ND | ND | ND |
| **PC80** | PC80-1-3' | 1-3 | 6/14/04 | 7/19/04 | 4,220 | ND | ND | ND | ND | 4220 | ND | ND | ND |
| | PC80-3-6' | 3-6 | 6/14/04 | 7/19/04 | 28,700 | ND | ND | ND | ND | 28700 | ND | ND | ND |

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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC81** | PC81-1-4.5 | 1-4.5 | 6/14/04 | 7/19/04 | 6,760 | ND | ND | ND | ND | 6760 | ND | ND | ND |
| **PC82** | PC82-1-3' | 1-3 | 6/14/04 | 7/19/04 | 12,300 | ND | ND | ND | ND | 12300 | ND | ND | ND |
| | PC82-3-6' | 3-6 | 6/14/04 | 7/19/04 | 26,900 | ND | ND | ND | ND | 26900 | ND | ND | ND |
| **PC83** | PC83-1-3' | 1-3 | 6/14/04 | 7/19/04 | 17,700 | ND | ND | ND | ND | 17700 | ND | ND | ND |
| | PC83-3-6' | 3-6 | 6/14/04 | 7/19/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| **PC84** | PC84-1-3' | 1-3 | 6/14/04 | 7/19/04 | 15,300 | ND | ND | ND | ND | 15300 | ND | ND | ND |
| | PC84-3-6' | 3-6 | 6/14/04 | 7/19/04 | 6,940 | ND | ND | ND | ND | 6940 | ND | ND | ND |
| **PC85** | PC85-1-3' | 1-3 | 6/14/04 | 7/19/04 | 14,400 | ND | ND | ND | ND | 14400 | ND | ND | ND |
| | PC85-3-6' | 3-6 | 6/14/04 | 7/19/04 | 6,280 | ND | ND | ND | ND | 6280 | ND | ND | ND |
| **PC86** | PC86-1-3' | 1-3 | 6/14/04 | 7/19/04 | 8,220 | ND | ND | ND | ND | 8220 | ND | ND | ND |
| | PC86-1-3'MS | 1-3 | 6/14/04 | 7/18/04 | 6,030 | ND | ND | ND | ND | 6030 | ND | ND | ND |
| | PC86-1-3'MSD | 1-3 | 6/14/04 | 7/18/04 | 10,100 | ND | ND | ND | ND | 10100 | ND | ND | ND |
| | Duplicate 43 (PC86-3-6') | 3-6 | 6/14/04 | 7/18/04 | 21,400 | ND | ND | ND | ND | 21400 | ND | ND | ND |
| | PC86-3-6' | 3-6 | 6/14/04 | 7/19/04 | 14,300 | ND | ND | ND | ND | 14300 | ND | ND | ND |
| **PC87** | PC87-1-3' | 1-3 | 6/14/04 | 7/18/04 | 10,100 | ND | ND | ND | ND | 10100 | ND | ND | ND |
| | PC87-3-6' | 3-6 | 6/14/04 | 7/18/04 | 9,550 | ND | ND | ND | ND | 9550 | ND | ND | ND |
| **PC88** | PC88-1-3' | 1-3 | 6/30/04 | 7/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC88-3-6.5 | 3-6.5 | 6/30/04 | 7/31/04 | 9,920 | ND | ND | ND | ND | 9920 | ND | ND | ND |
| **PC89** | PC89-1-3' | 1-3 | 6/30/04 | 7/31/04 | **94,100** | ND | ND | ND | ND | 94100 | ND | ND | ND |
| | PC89-A-1-3' | 1-3 | 11/17/04 | 11/18/04 | 6,020 | ND | ND | ND | ND | 6020 | ND | ND | ND |
| | PC89-B-1-3' | 1-3 | 11/17/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC89-C-1-3' | 1-3 | 11/17/04 | 11/18/04 | 2,160 | ND | ND | ND | ND | 2160 | ND | ND | ND |
| **PC90** | PC90-1-3' | 1-3 | 6/30/04 | 7/31/04 | 9,730 | ND | ND | ND | ND | 9730 | ND | ND | ND |
| **Elevator2** | Elevator2-1-4' | 1-4 | 11/17/04 | 11/18/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| | Elevator2-4-8' | 4-8 | 11/17/04 | 11/18/04 | 25,600 | ND | ND | ND | ND | 25600 | ND | ND | ND |
| | Elevator2-8-11' | 8-11 | 11/17/04 | 11/18/04 | 2,410 | ND | ND | ND | ND | 2410 | ND | ND | ND |
| **PC91** | PC91-1-3' | 1-3 | 6/30/04 | 7/31/04 | 3,360 | ND | ND | ND | ND | 3360 | ND | ND | ND |
| **PC92** | PC92-1-3' | 1-3 | 6/30/04 | 8/2/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| **PC93** | PC93-1-3' | 1-3 | 6/30/04 | 8/2/04 | 33,900 | ND | ND | ND | ND | 33900 | ND | ND | ND |
| | PC93-3-6.5' | 3-6.5 | 6/30/04 | 8/2/04 | 17,700 | ND | ND | ND | ND | 17700 | ND | ND | ND |
| **PC94** | PC94-1-3' | 1-3 | 6/30/04 | 8/2/04 | 2,870 | ND | ND | ND | ND | 2870 | ND | ND | ND |
| **PC95** | PC95-1-3.5' | 1-3.5 | 6/30/04 | 8/2/04 | 4,750 | ND | ND | ND | ND | 4750 | ND | ND | ND |
| **PC96** | PC96-1-3' | 1-3 | 6/30/04 | 8/2/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| **PC97** | PC97-1-3' | 1-3 | 6/30/04 | 8/2/04 | 21,000 | ND | ND | ND | ND | 21000 | ND | ND | ND |
| **PC98** | PC98-1-3' | 1-3 | 6/30/04 | 7/31/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| | PC98-3-6.5' | 3-6.5 | 6/30/04 | 7/31/04 | 6,900 | ND | ND | ND | ND | 6900 | ND | ND | ND |
| **PC99** | PC99-1-3' | 1-3 | 6/30/04 | 7/31/04 | 8,090 | ND | ND | ND | ND | 8090 | ND | ND | ND |
| | PC99-1-3'MS | 1-3 | 6/30/04 | 7/31/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| | PC99-1-3'MSD | 1-3 | 6/30/04 | 7/31/04 | 12,400 | ND | ND | ND | ND | 12400 | ND | ND | ND |
| | PC99-3-6.5' | 3-6.5 | 6/30/04 | 7/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Duplicate 45 (PC99-3-6.5') | 3-6.5 | 6/30/04 | 8/7/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC100** | PC100-1-3' | 1-3 | 6/30/04 | 8/2/04 | **70,500** | ND | ND | ND | ND | 70500 | ND | ND | ND |
| | PC100-A-1-3' | 1-3 | 11/17/04 | 11/18/04 | 2,740 | ND | ND | ND | ND | 2740 | ND | ND | ND |
| | PC100-B-1-3' | 1-3 | 11/17/04 | 11/18/04 | 6,810 | ND | ND | ND | ND | 6810 | ND | ND | ND |
| | PC100-C-1-3' | 1-3 | 11/17/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC101** | PC101-1-3' | 1-3 | 6/30/04 | 8/7/04 | 11,400 | ND | ND | ND | ND | 11400 | ND | ND | ND |
| **PC102** | PC102-1-3' | 1-3 | 6/30/04 | 8/7/04 | 13,900 | ND | ND | ND | ND | 13900 | ND | ND | ND |
| | PC102-3-6.5' | 1-3 | 6/30/04 | 8/7/04 | 4,880 | ND | ND | ND | ND | 4880 | ND | ND | ND |
| **PC103** | PC103-1-3' | 1-3 | 6/30/04 | 8/2/04 | **49,100** | ND | ND | ND | ND | 49100 | ND | ND | ND |
| | PC103-3-6.5' | 3-6.5 | 6/30/04 | 8/2/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| **PC104** | PC104-1-3' | 1-3 | 6/30/04 | 8/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC105** | PC105-1-3' | 1-3 | 6/30/04 | 8/7/04 | 33,800 | ND | ND | ND | ND | 33800 | ND | ND | ND |
| **PC106** | PC106-1-3' | 1-3 | 6/30/04 | 8/7/04 | 5,180 | ND | ND | ND | ND | 5180 | ND | ND | ND |
| **PC107** | PC107-1-3' | 1-3 | 6/30/04 | 8/7/04 | 3,410 | ND | ND | ND | ND | 3410 | ND | ND | ND |
| **PC108** | PC108-1-3.5' | 1-3 | 6/30/04 | 8/7/04 | 1,840 | ND | ND | ND | ND | 1840 | ND | ND | ND |
| **Composite** | PC1014-PC108 | -- | 6/30/04 | 8/7/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| | PC1014-PC108MS | -- | 6/30/04 | 8/7/04 | 15,200 | ND | ND | ND | ND | 15200 | ND | ND | ND |
| | PC1014-PC108MSD | -- | 6/30/04 | 8/7/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| **PC109** | PC109-1-3' | 1-3 | 7/1/04 | 8/5/04 | 5,150 | ND | ND | ND | ND | 5150 | ND | ND | ND |
| **PC110** | PC110-1-3' | 1-3 | 7/1/04 | 8/5/04 | 14,500 | ND | ND | ND | ND | 14500 | ND | ND | ND |
| **PC111** | PC111-1-3' | 1-3 | 7/1/04 | 8/7/04 | 19,400 | ND | ND | ND | ND | 19400 | ND | ND | ND |
| **PC112** | PC112-1-3' | 1-3 | 7/1/04 | 8/5/04 | 11,400 | ND | ND | ND | ND | 11400 | ND | ND | ND |
| **PC113** | PC113-1-3' | 1-3 | 7/1/04 | 8/5/04 | 16,800 | ND | ND | ND | ND | 16800 | ND | ND | ND |
| | PC113-3-6.5' | 3-6.5 | 7/1/04 | 8/5/04 | 25,600 | ND | ND | ND | ND | 25600 | ND | ND | ND |
| **PC114** | PC114-1-3' | 1-3 | 7/1/04 | 8/5/04 | 9,700 | ND | ND | ND | ND | 9700 | ND | ND | ND |
| | PC114-1-3'MS | 1-3 | 7/1/04 | 8/5/04 | 18,700 | ND | ND | ND | ND | 18700 | ND | ND | ND |
| | PC114-1-3'MSD | 1-3 | 7/1/04 | 8/5/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| | PC114-3-6' | 3-6 | 7/1/04 | 8/5/04 | 6,190 | ND | ND | ND | ND | 6190 | ND | ND | ND |
| | Duplicate 47 (PC114-3-6') | 3-6 | 7/1/04 | 8/11/04 | 6,670 | ND | ND | ND | ND | 6670 | ND | ND | ND |
| **PC115** | PC115-1-3' | 1-3 | 7/1/04 | 8/7/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| | PC115-3-6.5' | 3-6.5 | 7/1/04 | 8/7/04 | 19,800 | ND | ND | ND | ND | 19800 | ND | ND | ND |
| **PC116** | PC116-1-3' | 1-3 | 7/1/04 | 8/8/04 | 5,490 | ND | ND | ND | ND | 5490 | ND | ND | ND |
| | PC116-3-7' | 3-7 | 7/1/04 | 8/8/04 | 9,710 | ND | ND | ND | ND | 9710 | ND | ND | ND |
| **PC117** | PC117-1-3' | 1-3 | 7/1/04 | 8/8/04 | 7,660 | ND | ND | ND | ND | 7660 | ND | ND | ND |
| | PC117-3-7' | 1-3 | 7/1/04 | 8/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC118** | PC118-1-3' | 1-3 | 7/1/04 | 8/8/04 | 5,100 | ND | ND | ND | ND | 5100 | ND | ND | ND |
| | PC118-3-7' | 3-7 | 7/1/04 | 8/8/04 | 8,840 | ND | ND | ND | ND | 8840 | ND | ND | ND |
| **PC119** | PC119-1-3' | 1-3 | 7/1/04 | 8/5/04 | 9,440 | ND | ND | ND | ND | 9440 | ND | ND | ND |
| | PC119-3-6.5' | 3-6.5 | 7/1/04 | 8/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC120** | PC120-1-3' | 1-3 | 7/1/04 | 8/5/04 | 9,240 | ND | ND | ND | ND | 9240 | ND | ND | ND |
| | PC120-3-6.5' | 3-6.5 | 7/1/04 | 8/5/04 | 3,770 | ND | ND | ND | ND | 3770 | ND | ND | ND |
| **PC121** | PC121-1-3' | 1-3 | 7/1/04 | 8/8/04 | 1,510 | ND | ND | ND | ND | 1510 | ND | ND | ND |
| | PC121-3-6.5' | 3-6.5 | 7/1/04 | 8/7/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC122** | PC122-1-3' | 1-3 | 7/1/04 | 8/7/04 | 3,880 | ND | ND | ND | ND | 3880 | ND | ND | ND |
| | PC122-3-6' | 3-6 | 7/1/04 | 8/7/04 | **187,000** | ND | ND | ND | ND | 187000 | ND | ND | ND |
| | PC122-1-3' | 1-3 | 8/26/04 | 9/1/04 | 2,400 | ND | ND | ND | ND | 2400 | ND | ND | ND |
| | PC122-3-6.5' | 3-6.5 | 8/26/04 | 9/8/04 | **260,000** | ND | ND | ND | ND | 260000 | ND | ND | ND |
| | PC122-6-9' | 6-9 | 9/9/04 | 9/14/04 | **2,960,000** | ND | ND | ND | ND | 2960000 | ND | ND | ND |
| | PC122-A-1-3' | 1-3 | 9/9/04 | 9/12/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-A-3-6' | 3-6 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-A-6-9' | 6-9 | 9/9/04 | 9/13/04 | **113,000** | ND | ND | ND | ND | 113000 | ND | ND | ND |
| | PC122-B-1-3' | 1-3 | 9/9/04 | 9/12/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-B-3-6' | 3-6 | 9/9/04 | 9/12/04 | 39,700 | ND | ND | ND | ND | 39700 | ND | ND | ND |
| | PC122-B-6-9' | 6-9 | 9/9/04 | 9/12/04 | **58,500** | ND | ND | ND | ND | 58500 | ND | ND | ND |
| | PC122-C-1-3' | 1-3 | 9/9/04 | 9/12/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-C-3-6' | 3-6 | 9/9/04 | 9/12/04 | **80,200** | ND | ND | ND | ND | 80200 | ND | ND | ND |
| | PC122-C-6-9' | 6-9 | 9/9/04 | 9/12/04 | **65,800** | ND | ND | ND | ND | 65800 | ND | ND | ND |
| | PC122-D-1-3' | 1-3 | 9/9/04 | 9/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-D-3-6' | 3-6 | 9/9/04 | 9/13/04 | **702,000** | ND | ND | ND | ND | 702000 | ND | ND | ND |
| | Duplicate 131 (PC122-D-3-6') | 3-6 | 9/9/04 | 9/13/04 | **544,000** | ND | ND | ND | ND | 544000 | ND | ND | ND |
| | PC122-D-6-9' | 6-9 | 9/9/04 | 9/12/04 | **83,800** | ND | ND | ND | ND | 83800 | ND | ND | ND |
| | PC122-E-1-3' | 1-3 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-E-3-6' | 3-6 | 9/9/04 | 9/13/04 | **67,700** | ND | ND | ND | ND | 67700 | ND | ND | ND |
| | PC122-E-6-9' | 6-9 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-F-1-3' | 1-3 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-F-3-6' | 3-6 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-F-6-9' | 6-9 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-G-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-G-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-G-6-9' | 6-9 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-H-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC122-H-3-6' | 3-6 | 9/9/04 | 9/14/04 | **74,300** | ND | ND | ND | ND | 74300 | ND | ND | ND |
| | PC122-H-6-8.5' | 6-8.5 | 9/9/04 | 9/14/04 | 22,300 | ND | ND | ND | ND | 22300 | ND | ND | ND |
| | PC122-I-1-3' | 1-3 | 10/15/04 | 10/27/04 | 8,410 | ND | ND | ND | ND | 8410 | ND | ND | ND |
| | PC122-I-3-6' | 3-6 | 10/15/04 | 10/19/04 | **101,000** | ND | ND | ND | ND | 101000 | ND | ND | ND |
| | PC122-I-6-10.5' | 6-10.5 | 10/15/04 | 10/19/04 | 36,000 | ND | ND | ND | ND | 36000 | ND | ND | ND |
| | PC122-J-1-3' | 1-3 | 10/15/04 | 10/27/04 | 1,700 | ND | ND | ND | ND | 1700 | ND | ND | ND |
| | PC122-J-3-6' | 3-6 | 10/15/04 | 10/19/04 | **49,800** | ND | ND | ND | ND | 49800 | ND | ND | ND |
| | PC122-J-6-10.75' | 6-10.75 | 10/15/04 | 10/19/04 | 7,900 | ND | ND | ND | ND | 7900 | ND | ND | ND |
| | PC122-K-3-6' | 3-6 | 10/15/04 | 10/19/04 | 17,300 | ND | ND | ND | ND | 17300 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC122-K-6-6.25' | 6-6.25 | 10/15/04 | 10/19/04 | 32,200 | ND | ND | ND | ND | 32200 | ND | ND | ND |
| | PC122-L-1-3' | 1-3 | 10/15/04 | 10/19/04 | 9,460 | ND | ND | ND | ND | 9460 | ND | ND | ND |
| | PC122-L-3-6' | 3-6 | 10/15/04 | 10/19/04 | **1,020,000** | ND | ND | ND | ND | 1020000 | ND | ND | ND |
| | PC122-L-6-10.75' | 6-10.75 | 10/15/04 | 10/19/04 | **66,800** | ND | ND | ND | ND | 66800 | ND | ND | ND |
| | PC122-M-1-3' | 1-3 | 10/15/04 | 10/20/04 | 5,320 | ND | ND | ND | ND | 5320 | ND | ND | ND |
| | PC122-M-3-6' | 3-6 | 10/15/04 | 10/20/04 | **269,000** | ND | ND | ND | ND | 269000 | ND | ND | ND |
| | PC122-M-6-10.5' | 6-10.5 | 10/15/04 | 10/20/04 | 7,990 | ND | ND | ND | ND | 7990 | ND | ND | ND |
| | PC122-N-3-6' | 3-6 | 10/28/04 | 10/30/04 | 10,700 | ND | ND | ND | ND | 10700 | ND | ND | ND |
| | PC122-O-1-3' | 1-3 | 10/28/04 | 11/7/04 | 4,430 | ND | ND | ND | ND | 4430 | ND | ND | ND |
| | PC122-O-3-6' | 3-6 | 10/28/04 | 10/30/04 | **134,000** | ND | ND | ND | ND | 134000 | ND | ND | ND |
| | PC122-O-6-9.5' | 6-9.5 | 10/28/04 | 11/7/04 | 3,770 | ND | ND | ND | ND | 3770 | ND | ND | ND |
| | PC122-P-3-6' | 3-6 | 10/28/04 | 10/30/04 | **68,200** | ND | ND | ND | ND | 68200 | ND | ND | ND |
| | PC122-Q-3-6' | 3-6 | 10/28/04 | 10/30/04 | 25,100 | ND | ND | ND | ND | 25100 | ND | ND | ND |
| | PC122-R-3-6' | 3-6 | 10/28/04 | 10/30/04 | **89,400** | ND | ND | ND | ND | 89400 | ND | ND | ND |
| | PC122-S-3-6' | 3-6 | 10/28/04 | 10/30/04 | **62,000** | ND | ND | ND | ND | 62000 | ND | ND | ND |
| | PC122-T-3-6' | 3-6 | 10/28/04 | 10/30/04 | 5,090 | ND | ND | ND | ND | 5090 | ND | ND | ND |
| | PC122-U-3-6' | 3-6 | 11/2/04 | 11/3/04 | **60,300** | ND | ND | ND | ND | 60300 | ND | ND | ND |
| | PC122-V-1-3' | 1-3 | 11/2/04 | 11/10/04 | 14,300 | ND | ND | ND | ND | 14300 | ND | ND | ND |
| | PC122-V-3-6' | 3-6 | 11/2/04 | 11/3/04 | **127,000** | ND | ND | ND | ND | 127000 | ND | ND | ND |
| | Duplicate 180 (PC122-V-3-6') | 3-6 | 11/2/04 | 11/3/04 | **146,000** | ND | ND | ND | ND | 146000 | ND | ND | ND |
| | PC122-V-6-10' | 6-10 | 11/2/04 | 11/10/04 | 6,790 | ND | ND | ND | ND | 6790 | ND | ND | ND |
| | PC122-W-3-6' | 3-6 | 11/2/04 | 11/3/04 | 21,400 | ND | ND | ND | ND | 21400 | ND | ND | ND |
| | PC122-X-3-6' | 3-6 | 12/2/04 | 12/4/04 | 11,100 | ND | ND | ND | ND | 11100 | ND | ND | ND |
| | PC122-Y-3-6' | 3-6 | 12/2/04 | 12/4/04 | 23,100 | ND | ND | ND | ND | 23100 | ND | ND | ND |
| | PC122-Z-3-6' | 3-6 | 12/2/04 | 12/4/04 | 1,960 | ND | ND | ND | ND | 1960 | ND | ND | ND |
| **PC123** | PC123-1-3' | 1-3 | 7/1/04 | 8/8/04 | 1,280 | ND | ND | ND | ND | 1280 | ND | ND | ND |
| | PC123-3-7' | 3-7 | 7/1/04 | 8/8/04 | 9,030 | ND | ND | ND | ND | 9030 | ND | ND | ND |
| **PC124** | PC124-1-3' | 1-3 | 7/1/04 | 8/8/04 | 9,740 | ND | ND | ND | ND | 9740 | ND | ND | ND |
| | Duplicate 48 (PC124-1-3') | 1-3 | 7/1/04 | 8/11/04 | 9,360 | ND | ND | ND | ND | 9360 | ND | ND | ND |
| | PC124-3-7' | 3-7 | 7/1/04 | 8/8/04 | 3,720 | ND | ND | ND | ND | 3720 | ND | ND | ND |
| | PC124-3-7'MS | 3-7 | 7/1/04 | 8/8/04 | 6,680 | ND | ND | ND | ND | 6680 | ND | ND | ND |
| | PC124-3-7'MSD | 3-7 | 7/1/04 | 8/8/04 | 13,700 | ND | ND | ND | ND | 13700 | ND | ND | ND |
| **PC125** | PC125-1-3' | 1-3 | 7/1/04 | 8/5/04 | 8,280 | ND | ND | ND | ND | 8280 | ND | ND | ND |
| | PC125-3-6.5' | 3-6.5 | 7/1/04 | 8/5/04 | 5,050 | ND | ND | ND | ND | 5050 | ND | ND | ND |
| **PC126** | PC126-1-3' | 1-3 | 7/1/04 | 8/7/04 | 8,910 | ND | ND | ND | ND | 8910 | ND | ND | ND |
| | PC126-3-6' | 3-6 | 7/1/04 | 8/7/04 | 9,640 | ND | ND | ND | ND | 9640 | ND | ND | ND |
| **PC127** | PC127-1-3' | 1-3 | 7/1/04 | 8/8/04 | 9,670 | ND | ND | ND | ND | 9670 | ND | ND | ND |
| | PC127-3-6.5' | 3-6.5 | 7/1/04 | 8/8/04 | 23,900 | ND | ND | ND | ND | 23900 | ND | ND | ND |
| **PC128** | PC128-1-3' | 1-3 | 7/1/04 | 8/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC128-3-7' | 3-7 | 7/1/04 | 8/11/04 | 2,400 | ND | ND | ND | ND | 2400 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC129** | PC129-1-3' | 1-3 | 7/1/04 | 8/11/04 | 26,600 | ND | ND | ND | ND | 26600 | ND | ND | ND |
| | PC129-3-7' | 3-7 | 7/1/04 | 8/11/04 | 8,800 | ND | ND | ND | ND | 8800 | ND | ND | ND |
| **PC130** | PC130-1-3' | 1-3 | 7/1/04 | 8/11/04 | 11,400 | ND | ND | ND | ND | 11400 | ND | ND | ND |
| | PC130-3-7' | 3-7 | 7/1/04 | 8/11/04 | 6,320 | ND | ND | ND | ND | 6320 | ND | ND | ND |
| **PC131** | PC131-1-3' | 1-3 | 7/1/04 | 8/11/04 | 23,600 | ND | ND | ND | ND | 23600 | ND | ND | ND |
| | PC131-3-6.5' | 3-6.5 | 7/1/04 | 8/11/04 | 10,400 | ND | ND | ND | ND | 10400 | ND | ND | ND |
| **PC132** | PC132-1-3' | 1-3 | 7/1/04 | 8/10/04 | 9,730 | ND | ND | ND | ND | 9730 | ND | ND | ND |
| | PC132-3-6.5' | 3-6.5 | 7/1/04 | 8/10/04 | 5,420 | ND | ND | ND | ND | 5420 | ND | ND | ND |
| **PC133** | PC133-1-3' | 1-3 | 7/1/04 | 8/10/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| | PC133-3-6.5' | 3-6.5 | 7/1/04 | 8/10/04 | 8,600 | ND | ND | ND | ND | 8600 | ND | ND | ND |
| **PC134** | PC134-1-3' | 1-3 | 7/1/04 | 8/7/04 | 2,750 | ND | ND | ND | ND | 2750 | ND | ND | ND |
| | PC134-1-3'MS | 1-3 | 7/1/04 | 8/7/04 | 9,120 | ND | ND | ND | ND | 9120 | ND | ND | ND |
| | PC134-1-3'MSD | 1-3 | 7/1/04 | 8/7/04 | 6,250 | ND | ND | ND | ND | 6250 | ND | ND | ND |
| | PC134-3-6' | 3-6 | 7/1/04 | 8/7/04 | 13,100 | ND | ND | ND | ND | 13100 | ND | ND | ND |
| | Duplicate 49 (PC134-3-6') | 3-6 | 7/1/04 | 8/11/04 | 8,290 | ND | ND | ND | ND | 8290 | ND | ND | ND |
| **PC135** | PC135-1-3' | 1-3 | 7/1/04 | 8/11/04 | 5,900 | ND | ND | ND | ND | 5900 | ND | ND | ND |
| | PC135-3-6.5' | 3-6.5 | 7/1/04 | 8/11/04 | 4,790 | ND | ND | ND | ND | 4790 | ND | ND | ND |
| | PC135-1-3' | 1-3 | 8/26/04 | 9/1/04 | 13,800 | ND | ND | ND | ND | 13800 | ND | ND | ND |
| | PC135-3-6.5' | 3-6.5 | 8/26/04 | 9/1/04 | 25,000 | ND | ND | ND | ND | 25000 | ND | ND | ND |
| **PC136** | PC136-1-3' | 1-3 | 7/1/04 | 8/11/04 | 27,000 | ND | ND | ND | ND | 27000 | ND | ND | ND |
| **PC137** | PC137-1-3' | 1-3 | 7/1/04 | 8/10/04 | 24,900 | ND | ND | ND | ND | 24900 | ND | ND | ND |
| **PC138** | PC138-1-3' | 1-3 | 7/1/04 | 8/10/04 | 9,690 | ND | ND | ND | ND | 9690 | ND | ND | ND |
| **PC139** | PC139-1-3' | 1-3 | 7/1/04 | 8/7/04 | 9,800 | ND | ND | ND | ND | 9800 | ND | ND | ND |
| | PC139-3-6' | 3-6 | 7/1/04 | 8/7/04 | 10,800 | ND | ND | ND | ND | 10800 | ND | ND | ND |
| **PC140** | PC140-1-3' | 1-3 | 7/1/04 | 8/11/04 | 7,790 | ND | ND | ND | ND | 7790 | ND | ND | ND |
| **PC141** | PC141-3.5' | 1-3.5 | 7/1/04 | 8/11/04 | 12,500 | ND | ND | ND | ND | 12500 | ND | ND | ND |
| **PC142** | PC142-1-3.5' | 1-3.5 | 7/1/04 | 8/11/04 | 8,220 | ND | ND | ND | ND | 8220 | ND | ND | ND |
| | PC142-3.5-7' | 3.5-7 | 11/17/04 | 11/18/04 | 17,400 | ND | ND | ND | ND | 17400 | ND | ND | ND |
| **PC143** | PC143-1-3' | 1-3 | 7/1/04 | 8/11/04 | 8,440 | ND | ND | ND | ND | 8440 | ND | ND | ND |
| | PC143-3-6.5' | 3-6.5 | 7/1/04 | 8/11/04 | 6,140 | ND | ND | ND | ND | 6140 | ND | ND | ND |
| | PC143-1-3' | 1-3 | 8/26/04 | 9/1/04 | 2,160 | ND | ND | ND | ND | 2160 | ND | ND | ND |
| | PC143-3-6.5' | 3-6.5 | 8/26/04 | 9/1/04 | 23,500 | ND | ND | ND | ND | 23500 | ND | ND | ND |
| **PC144** | PC144-1-3' | 1-3 | 7/1/04 | 8/11/04 | 7,010 | ND | ND | ND | ND | 7010 | ND | ND | ND |
| | PC144-3-7' | 3-7 | 11/17/04 | 11/18/04 | 3,700 | ND | ND | ND | ND | 3700 | ND | ND | ND |
| **PC145** | PC145-1-3' | 1-3 | 7/1/04 | 8/11/04 | 2,490 | ND | ND | ND | ND | 2490 | ND | ND | ND |
| | PC145-3-7' | 3-7 | 11/17/04 | 11/18/04 | 3,970 | ND | ND | ND | ND | 3970 | ND | ND | ND |
| **PC146** | PC146-1-3.5' | 1-3.5 | 7/1/04 | 8/10/04 | 1,690 | ND | ND | ND | ND | 1690 | ND | ND | ND |
| | PC146-3.5-7' | 3.5-7 | 11/17/04 | 11/18/04 | 8,250 | ND | ND | ND | ND | 8250 | ND | ND | ND |
| | PC147-1-3' | 1-3 | 7/1/04 | 8/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 50 (PC147-1-3') | 1-3 | 7/1/04 | 8/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC147** | PC147-3-6' | 3-6 | 7/1/04 | 8/10/04 | 3,420 | ND | ND | ND | ND | 3420 | ND | ND | ND |
| | PC147-3-6'MS | 3-6 | 7/1/04 | 8/10/04 | 5,830 | ND | ND | ND | ND | 5830 | ND | ND | ND |
| | PC147-3-6'MSD | 3-6 | 7/1/04 | 8/10/04 | 5,440 | ND | ND | ND | ND | 5440 | ND | ND | ND |
| **PC148** | PC148-1-3' | 1-3 | 7/1/04 | 8/11/04 | 19,200 | ND | ND | ND | ND | 19200 | ND | ND | ND |
| | PC148-3-7' | 3-7 | 11/17/04 | 11/18/04 | 19,700 | ND | ND | ND | ND | 19700 | ND | ND | ND |
| **PC149** | PC149-1-3.5' | 1-3.5 | 7/1/04 | 8/10/04 | 26,400 | ND | ND | ND | ND | 26400 | ND | ND | ND |
| | PC149-3.5-7' | 3.5-7 | 11/17/04 | 11/18/04 | 7,170 | ND | ND | ND | ND | 7170 | ND | ND | ND |
| **PC150** | PC150-1-3' | 1-3 | 7/1/04 | 8/10/04 | 19,800 | ND | ND | ND | ND | 19800 | ND | ND | ND |
| **PC151** | PC151-1-3' | 1-3 | 7/1/04 | 8/10/04 | 2,800 | ND | ND | ND | ND | 2800 | ND | ND | ND |
| **PC152** | PC152-1-3' | 1-3 | 7/1/04 | 8/10/04 | 46,000 | ND | ND | ND | ND | 46000 | ND | ND | ND |
| **PC153** | PC153-1-3' | 1-3 | 8/25/04 | 9/2/04 | 16,500 | ND | ND | ND | ND | 16500 | ND | ND | ND |
| | PC153-3-6' | 3-6 | 8/25/04 | 9/1/04 | 4,450 | ND | ND | ND | ND | 4450 | ND | ND | ND |
| **PC154** | PC154-1-5' | 1-5 | 7/20/04 | 8/31/04 | 28,500 | ND | ND | ND | ND | 28500 | ND | ND | ND |
| | PC154-5-6.5' | 5-6.5 | 11/17/04 | 11/18/04 | 10,700 | ND | ND | ND | ND | 10700 | ND | ND | ND |
| **PC155** | PC155-1-3' | 1-3 | 7/20/04 | 8/31/04 | 5,280 | ND | ND | ND | ND | 5280 | ND | ND | ND |
| | PC155-3-5.5' | 3-5.5 | 7/20/04 | 8/31/04 | 8,830 | ND | ND | ND | ND | 8830 | ND | ND | ND |
| | PC155-5.5-7' | 5.5-7 | 11/17/04 | 11/18/04 | 9,200 | ND | ND | ND | ND | 9200 | ND | ND | ND |
| **PC156** | PC156-1-3' | 1-3 | 7/20/04 | 8/31/04 | 9,270 | ND | ND | ND | ND | 9270 | ND | ND | ND |
| **PC157** | PC157-1-3.5' | 1-3.5 | 7/20/04 | 8/14/04 | 12,500 | ND | ND | ND | ND | 12500 | ND | ND | ND |
| **PC158** | PC158-1-3' | 1-3 | 7/20/04 | 8/31/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| | PC158-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 27,800 | ND | ND | ND | ND | 27800 | ND | ND | ND |
| **PC159** | PC159-1-4' | 1-4 | 7/20/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC159-4-7' | 4-7 | 7/20/04 | 8/31/04 | 1,430 | ND | ND | ND | ND | 1430 | ND | ND | ND |
| **PC160** | PC160-1-4' | 1-4 | 7/20/04 | 8/14/04 | 1,840 | ND | ND | ND | ND | 1840 | ND | ND | ND |
| | Duplicate 51 (PC160-1-4') | 1-4 | 7/20/04 | 9/4/04 | 2,883 | ND | ND | ND | ND | 2883 | ND | ND | ND |
| | PC160-4-7' | 4-7 | 7/20/04 | 8/14/04 | 5,640 | ND | ND | ND | ND | 5640 | ND | ND | ND |
| | PC160-4-7'MS | 4-7 | 7/20/04 | 8/14/04 | 12,400 | ND | ND | ND | ND | 12400 | ND | ND | ND |
| | PC160-4-7'MSD | 4-7 | 7/20/04 | 8/13/04 | 14,200 | ND | ND | ND | ND | 14200 | ND | ND | ND |
| **PC161** | PC161-1-3' | 1-3 | 7/20/04 | 8/13/04 | 2,620 | ND | ND | ND | ND | 2620 | ND | ND | ND |
| | PC161-3-6.5' | 3-6.5 | 7/20/04 | 8/13/04 | 3,850 | ND | ND | ND | ND | 3850 | ND | ND | ND |
| **PC162** | PC162-1-3' | 1-3 | 7/20/04 | 8/31/04 | 3,910 | ND | ND | ND | ND | 3910 | ND | ND | ND |
| | PC162-3-6.5' | 3-6.5 | 7/20/04 | 8/13/04 | 2,144 | ND | ND | ND | ND | 2144 | ND | ND | ND |
| **PC163** | PC163-1-4' | 1-4 | 7/20/04 | 8/31/04 | 8,840 | ND | ND | ND | ND | 8840 | ND | ND | ND |
| | PC163-4-7' | 4-7 | 7/20/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC164-1-3' | 1-3 | 7/20/04 | 8/31/04 | **107,200** | ND | ND | ND | ND | 107200 | ND | ND | ND |
| | PC164-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 9,194 | ND | ND | ND | ND | 9194 | ND | ND | ND |
| | PC164-A-1-3' | 1-3 | 10/28/04 | 10/30/04 | 20,800 | ND | ND | ND | ND | 20800 | ND | ND | ND |
| | PC164-A-3-6.5' | 3-6.5 | 10/28/04 | 10/30/04 | 1,350 | ND | ND | ND | ND | 1350 | ND | ND | ND |
| | PC164-B-1-3' | 1-3 | 10/28/04 | 10/30/04 | 12,200 | ND | ND | ND | ND | 12200 | ND | ND | ND |
| | PC164-B-3-6.5' | 3-6.5 | 10/28/04 | 10/30/04 | 2,650 | ND | ND | ND | ND | 2650 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC164** | PC164-C-1-3' | 1-3 | 10/28/04 | 10/30/04 | 8,620 | ND | ND | ND | ND | 8620 | ND | ND | ND |
| | Duplicate 173 (PC164-C-1-3' | 1-3 | 10/28/04 | 10/30/04 | 9,840 | ND | ND | ND | ND | 9840 | ND | ND | ND |
| | PC164-C-3-6.5' | 3-6.5 | 10/28/04 | 10/30/04 | 2,260 | ND | ND | ND | ND | 2260 | ND | ND | ND |
| | PC164-C-3-6.5'MS | 3-6.5 | 10/28/04 | 10/30/04 | 2,070 | ND | ND | ND | ND | 2070 | ND | ND | ND |
| | PC164-C-3-6.5'MSD | 3-6.5 | 10/28/04 | 10/30/04 | 2,460 | ND | ND | ND | ND | 2460 | ND | ND | ND |
| | PC164-D-1-3' | 1-3 | 10/28/04 | 10/30/04 | **50,300** | ND | ND | ND | ND | 50300 | ND | ND | ND |
| | PC164-D-3-6.5' | 3-6.5 | 10/28/04 | 10/30/04 | 2,480 | ND | ND | ND | ND | 2480 | ND | ND | ND |
| | PC164-E-1-3' | 1-3 | 12/2/04 | 12/4/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| | PC164-F-1-3' | 1-3 | 12/2/04 | 12/4/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| **PC165** | PC165-1-3' | 1-3 | 8/25/04 | 9/1/04 | 5,110 | ND | ND | ND | ND | 5110 | ND | ND | ND |
| | PC165-3-6' | 3-6 | 8/25/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC166** | PC166-1-4' | 1-4 | 7/20/04 | 8/31/04 | 4,740 | ND | ND | ND | ND | 4740 | ND | ND | ND |
| | PC166-4-7' | 1-4 | 7/20/04 | 8/31/04 | 2,410 | ND | ND | ND | ND | 2410 | ND | ND | ND |
| **PC167** | PC167-1-3' | 1-3 | 7/20/04 | 8/31/04 | 4,870 | ND | ND | ND | ND | 4870 | ND | ND | ND |
| | PC167-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 3,750 | ND | ND | ND | ND | 3750 | ND | ND | ND |
| **PC168** | PC168-1-3' | 1-3 | 7/20/04 | 8/31/04 | 5,590 | ND | ND | ND | ND | 5590 | ND | ND | ND |
| | PC168-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 22,000 | ND | ND | ND | ND | 22000 | ND | ND | ND |
| **PC169** | PC169-1-3' | 1-3 | 7/20/04 | 8/31/04 | 664 | ND | ND | ND | ND | 664 | ND | ND | ND |
| | PC169-1-3'MS | 1-3 | 7/20/04 | 8/31/04 | 7,450 | ND | ND | ND | ND | 7450 | ND | ND | ND |
| | PC169-1-3'MSD | 1-3 | 7/20/04 | 8/31/04 | 6,560 | ND | ND | ND | ND | 6560 | ND | ND | ND |
| | PC169-3-6.5' | 3-6.5 | 7/20/04 | 8/31/04 | 19,200 | ND | ND | ND | ND | 19200 | ND | ND | ND |
| | Duplicate 52 (PC169-3-6.5') | 3-6.5 | 7/20/04 | 9/4/04 | 42,300 | ND | ND | ND | ND | 42300 | ND | ND | ND |
| **PC170** | PC170-1-4' | 1-4 | 7/20/04 | 8/31/04 | 24,600 | ND | ND | ND | ND | 24600 | ND | ND | ND |
| | PC170-4-7' | 4-7 | 7/20/04 | 8/31/04 | 11,100 | ND | ND | ND | ND | 11100 | ND | ND | ND |
| **PC171** | PC171-1-4' | 1-4 | 7/20/04 | 8/31/04 | 1,530 | ND | ND | ND | ND | 1530 | ND | ND | ND |
| | PC171-4-7' | 4-7 | 7/20/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC172** | PC172-1-4' | 1-4 | 7/20/04 | 8/31/04 | 4,660 | ND | ND | ND | ND | 4660 | ND | ND | ND |
| | PC172-4-7' | 4-7 | 7/20/04 | 8/31/04 | 8,520 | ND | ND | ND | ND | 8520 | ND | ND | ND |
| **PC173** | PC173-1-4' | 1-4 | 7/20/04 | 8/31/04 | 3,350 | ND | ND | ND | ND | 3350 | ND | ND | ND |
| | PC173-4-7' | 4-7 | 7/20/04 | 8/31/04 | 2,920 | ND | ND | ND | ND | 2920 | ND | ND | ND |
| **PC174** | PC174-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,460 | ND | ND | ND | ND | 5460 | ND | ND | ND |
| **PC175** | PC175-1-3' | 1-3 | 7/20/04 | 9/4/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| **PC176** | PC176-1-3' | 1-3 | 7/20/04 | 9/4/04 | **77,300** | ND | ND | ND | ND | 77300 | ND | ND | ND |
| **PC177** | PC177-1-3' | 1-3 | 8/25/04 | 9/1/04 | 20,100 | ND | ND | ND | ND | 20100 | ND | ND | ND |
| | PC177-3-6' | 3-6 | 8/25/04 | 9/1/04 | 4,920 | ND | ND | ND | ND | 4920 | ND | ND | ND |
| **PC178** | PC178-1-4' | 1-4 | 7/20/04 | 9/4/04 | 10,900 | ND | ND | ND | ND | 10900 | ND | ND | ND |
| | PC178-4-7' | 4-7 | 7/20/04 | 9/4/04 | 6,140 | ND | ND | ND | ND | 6140 | ND | ND | ND |
| **PC179** | PC179-1-3' | 1-3 | 7/20/04 | 9/4/04 | 7,000 | ND | ND | ND | ND | 7000 | ND | ND | ND |
| | Duplicate 54 (PC179-1-3') | 1-3 | 7/20/04 | 9/4/04 | 6,390 | ND | ND | ND | ND | 6390 | ND | ND | ND |
| | PC179-3-6.5' | 3-6.5 | 7/20/04 | 9/4/04 | 7,500 | ND | ND | ND | ND | 7500 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC179-3-6.5'MS | 3-6.5 | 7/20/04 | 9/4/04 | 5,520 | ND | ND | ND | ND | 5520 | ND | ND | ND |
| | PC179-3-6.5'MSD | 3-6.5 | 7/20/04 | 9/4/04 | 1,650 | ND | ND | ND | ND | 1650 | ND | ND | ND |
| **PC180** | PC180-1-4' | 1-4 | 10/28/04 | 10/30/04 | 2,340 | ND | ND | ND | ND | 2340 | ND | ND | ND |
| | PC180-4-8' | 4-8 | 10/28/04 | 10/30/04 | 2,140 | ND | ND | ND | ND | 2140 | ND | ND | ND |
| | PC180-8-10.5' | 8-10.5 | 10/28/04 | 10/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC181** | PC181-1-3' | 1-3 | 8/25/04 | 8/31/04 | 3,510 | ND | ND | ND | ND | 3510 | ND | ND | ND |
| | PC181-3-6' | 3-6 | 8/25/04 | 8/31/04 | 3,520 | ND | ND | ND | ND | 3520 | ND | ND | ND |
| **PC182** | PC182-1-3 | 1-3 | 7/21/04 | 8/17/04 | 26,400 | ND | ND | ND | ND | 26400 | ND | ND | ND |
| | PC182-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 44,700 | ND | ND | ND | ND | 44700 | ND | ND | ND |
| **PC183** | PC183-1-3' | 1-3 | 7/21/04 | 8/17/04 | 2,090 | ND | ND | ND | ND | 2090 | ND | ND | ND |
| | PC183-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | **48,300** | ND | ND | ND | ND | 48300 | ND | ND | ND |
| **PC184** | PC184-1-4' | 1-4 | 7/21/04 | 8/17/04 | 13,100 | ND | ND | ND | ND | 13100 | ND | ND | ND |
| | PC184-4-7' | 4-7 | 7/21/04 | 8/17/04 | 11,900 | ND | ND | ND | ND | 11900 | ND | ND | ND |
| **PC185** | PC185-1-4' | 1-4 | 7/21/04 | 8/17/04 | 10,700 | ND | ND | ND | ND | 10700 | ND | ND | ND |
| | PC185-4-7' | 4-7 | 7/21/04 | 8/17/04 | 1,770 | ND | ND | ND | ND | 1770 | ND | ND | ND |
| **PC186** | PC186-1-4' | 1-4 | 7/21/04 | 8/17/04 | 7,940 | ND | ND | ND | ND | 7940 | ND | ND | ND |
| | PC186-4-7' | 4-7 | 7/21/04 | 8/17/04 | 6,280 | ND | ND | ND | ND | 6280 | ND | ND | ND |
| **PC187** | PC187-1-4' | 1-4 | 7/21/04 | 8/17/04 | 3,660 | ND | ND | ND | ND | 3660 | ND | ND | ND |
| | PC187-4-7' | 4-7 | 7/21/04 | 8/17/04 | 5,620 | ND | ND | ND | ND | 5620 | ND | ND | ND |
| **PC188** | PC188-1-4' | 1-4 | 7/20/04 | 9/4/04 | 3,590 | ND | ND | ND | ND | 3590 | ND | ND | ND |
| | PC188-4-7' | 4-7 | 7/20/04 | 9/4/04 | 5,180 | ND | ND | ND | ND | 5180 | ND | ND | ND |
| **PC189** | PC189-1-4' | 1-4 | 7/20/04 | 9/4/04 | 4,540 | ND | ND | ND | ND | 4540 | ND | ND | ND |
| | Duplicate 55 (PC189-1-4') | 1-4 | 7/20/04 | 9/4/04 | 5,030 | ND | ND | ND | ND | 5030 | ND | ND | ND |
| | PC189-4-7' | 4-7 | 7/20/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC189-4-7'MS | 4-7 | 7/20/04 | 9/4/04 | 9,200 | ND | ND | ND | ND | 9200 | ND | ND | ND |
| | PC189-4-7'MSD | 4-7 | 7/20/04 | 9/4/04 | 11,000 | ND | ND | ND | ND | 11000 | ND | ND | ND |
| **PC190** | PC190-1-3' | 1-3 | 7/21/04 | 8/17/04 | 3,620 | ND | ND | ND | ND | 3620 | ND | ND | ND |
| | PC190-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | **959,000** | ND | ND | ND | ND | 959000 | ND | ND | ND |
| | PC190-6.5-10' | 6.5-10 | 9/22/04 | 9/29/04 | 4,190 | ND | ND | ND | ND | 4190 | ND | ND | ND |
| | Duplicate 141 (PC190-6.5-10') | 6.5-10 | 9/22/04 | 9/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC190-A-1-3' | 1-3 | 9/22/04 | 9/29/04 | 4,590 | ND | ND | ND | ND | 4590 | ND | ND | ND |
| | PC190-A-3-6.5' | 3-6.5 | 9/22/04 | 9/29/04 | 44,300 | ND | ND | ND | ND | 44300 | ND | ND | ND |
| | PC190-A-6.5-10' | 6.5-10 | 9/22/04 | 9/29/04 | 2,700 | ND | ND | ND | ND | 2700 | ND | ND | ND |
| | PC190-B-1-3' | 1-3 | 9/22/04 | 9/29/04 | 46,100 | ND | ND | ND | ND | 46100 | ND | ND | ND |
| | PC190-B-3-6.5' | 3-6.5 | 9/22/04 | 9/29/04 | 9,580 | ND | ND | ND | ND | 9580 | ND | ND | ND |
| | PC190-B-6.5-10' | 6.5-10 | 9/22/04 | 9/29/04 | 20,800 | ND | ND | ND | ND | 20800 | ND | ND | ND |
| | PC190-C-1-3' | 1-3 | 9/23/04 | 9/29/04 | 4,480 | ND | ND | ND | ND | 4480 | ND | ND | ND |
| | PC190-C-3-6.5' | 3-6.5 | 9/23/04 | 9/29/04 | 2,780 | ND | ND | ND | ND | 2780 | ND | ND | ND |
| | PC190-C-6.5-12' | 6.5-12 | 9/23/04 | 9/29/04 | 27,400 | ND | ND | ND | ND | 27400 | ND | ND | ND |
| | PC190-D-1-3' | 1-3 | 9/22/04 | 9/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC190-D-3-6.5' | 3-6.5 | 9/22/04 | 9/29/04 | 28,500 | ND | ND | ND | ND | 28500 | ND | ND | ND |
| | PC190-D-3-6.5'MS | 3-6.5 | 9/22/04 | 9/29/04 | 25,000 | ND | ND | ND | ND | 25000 | ND | ND | ND |
| | PC190-D-3-6.5'MSD | 3-6.5 | 9/22/04 | 9/29/04 | 33,600 | ND | ND | ND | ND | 33600 | ND | ND | ND |
| | PC190-D-6.5-10.5' | 6.5-10.5 | 9/22/04 | 9/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC191** | PC191-1-3' | 1-3 | 7/21/04 | 8/17/04 | **236,000** | ND | ND | ND | ND | 236000 | ND | ND | ND |
| | PC191-3-6' | 3-6 | 9/23/04 | 9/29/04 | 11,000 | ND | ND | ND | ND | 11000 | ND | ND | ND |
| | Duplicate 167 (PC191-3-6') | 3-6 | 10/20/04 | 10/25/04 | 19,500 | ND | ND | ND | ND | 19500 | ND | ND | ND |
| | PC191-6-10' | 6-10 | 9/23/04 | 9/29/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| | PC191-A-1-3' | 1-3 | 9/23/04 | 9/29/04 | **1,685,000** | ND | ND | ND | ND | 495000 | 1190000 | ND | ND |
| | Duplicate 142 (PC191-A-1-3') | 1-3 | 9/23/04 | 9/29/04 | **92,700** | ND | ND | ND | ND | 92700 | ND | ND | ND |
| | PC191-A-3-6' | 3-6 | 9/23/04 | 9/29/04 | **94,000** | ND | ND | ND | ND | 94000 | ND | ND | ND |
| | PC191-A-3-6'MS | 3-6 | 9/23/04 | 10/1/04 | **254,700** | ND | ND | ND | ND | 254700 | ND | ND | ND |
| | PC191-A-3-6'MSD | 3-6 | 9/23/04 | 10/1/04 | **367,000** | ND | ND | ND | ND | 367000 | ND | ND | ND |
| | PC191-B-1-3' | 1-3 | 9/23/04 | 9/29/04 | 3,800 | ND | ND | ND | ND | 3800 | ND | ND | ND |
| | PC191-B-3-6' | 3-6 | 9/23/04 | 9/29/04 | 10,400 | ND | ND | ND | ND | 10400 | ND | ND | ND |
| | PC191-C-1-3' | 1-3 | 9/23/04 | 9/29/04 | 9,380 | ND | ND | ND | ND | 9380 | ND | ND | ND |
| | PC191-C-3-6' | 3-6 | 9/23/04 | 9/29/04 | 31,100 | ND | ND | ND | ND | 31100 | ND | ND | ND |
| | PC191-D-1-3' | 1-3 | 9/23/04 | 9/29/04 | 2,860 | ND | ND | ND | ND | 2860 | ND | ND | ND |
| | PC191-D-3-6' | 3-6 | 9/23/04 | 9/29/04 | **664,000** | ND | ND | ND | ND | 664000 | ND | ND | ND |
| | PC191-E-1-3' | 1-3 | 10/15/04 | 10/20/04 | 2,020 | ND | ND | ND | ND | 2020 | ND | ND | ND |
| | PC191-E-1-3'MS | 1-3 | 10/15/04 | 10/20/04 | 6,790 | ND | ND | ND | ND | 6790 | ND | ND | ND |
| | PC191-E-1-3'MSD | 1-3 | 10/15/04 | 10/20/04 | 4,710 | ND | ND | ND | ND | 4710 | ND | ND | ND |
| | PC191-E-3-6' | 3-6 | 10/15/04 | 10/20/04 | 42,100 | ND | ND | ND | ND | 42100 | ND | ND | ND |
| | Duplicate 166 (PC191-E-3-6') | 3-6 | 10/15/04 | 10/20/04 | 36,800 | ND | ND | ND | ND | 36800 | ND | ND | ND |
| | PC191-F-1-3' | 1-3 | 10/20/04 | 10/25/04 | 5,350 | ND | ND | ND | ND | 5350 | ND | ND | ND |
| | PC191-F-3-6' | 3-6 | 10/20/04 | 10/25/04 | 16,700 | ND | ND | ND | ND | 16700 | ND | ND | ND |
| | PC191-F-6-10.5' | 6-10.5 | 10/20/04 | 10/25/04 | 26,000 | ND | ND | ND | ND | 26000 | ND | ND | ND |
| | PC191-G-1-3' | 1-3 | 10/15/04 | 10/27/04 | **78,400** | ND | ND | ND | ND | 78400 | ND | ND | ND |
| | PC191-G-3-6' | 3-6 | 10/15/04 | 10/20/04 | **57,500** | ND | ND | ND | ND | 57500 | ND | ND | ND |
| | PC191-G-6-9' | 6-9 | 10/15/04 | 10/20/04 | 29,000 | ND | ND | ND | ND | 29000 | ND | ND | ND |
| | PC191-H-1-3' | 1-3 | 10/20/04 | 10/25/04 | 15,100 | ND | ND | ND | ND | 15100 | ND | ND | ND |
| | PC191-H-3-6' | 3-6 | 10/20/04 | 10/26/04 | 19,100 | ND | ND | ND | ND | 19100 | ND | ND | ND |
| | PC191-H-6-10.5' | 6-10.5 | 10/20/04 | 10/26/04 | 3,990 | ND | ND | ND | ND | 3990 | ND | ND | ND |
| | PC191-I-1-3' | 1-3 | 10/15/04 | 10/20/04 | 7,380 | ND | ND | ND | ND | 7380 | ND | ND | ND |
| | PC191-I-3-6' | 3-6 | 10/15/04 | 10/20/04 | 6,800 | ND | ND | ND | ND | 6800 | ND | ND | ND |
| | PC191-I-6-10.75' | 6-10.75 | 10/15/04 | 10/20/04 | 2,910 | ND | ND | ND | ND | 2910 | ND | ND | ND |
| | PC191-I-1-3' | 1-3 | 10/20/04 | 10/26/04 | 7,400 | ND | ND | ND | ND | 7400 | ND | ND | ND |
| | PC191-I-3-6' | 3-6 | 10/20/04 | 10/26/04 | **67,900** | ND | ND | ND | ND | 67900 | ND | ND | ND |
| | PC191-I-6-10.75' | 6-10.75 | 10/20/04 | 10/26/04 | 7,800 | ND | ND | ND | ND | 7800 | ND | ND | ND |
| | PC191-J-1-3' | 1-3 | 10/20/04 | 10/26/04 | 4,200 | ND | ND | ND | ND | 4200 | ND | ND | ND |
| | PC191-J-3-6' | 3-6 | 10/20/04 | 10/27/04 | **786,000** | ND | ND | ND | ND | 786000 | ND | ND | ND |

**NOTES:**
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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC191-J-6-10.5' | 6-10.5 | 10/20/04 | 10/26/04 | 27,600 | ND | ND | ND | ND | 27600 | ND | ND | ND |
| | PC191-K-3-6' | 3-6 | 11/11/04 | 11/15/04 | 31,400 | ND | ND | ND | ND | 31400 | ND | ND | ND |
| | PC191-L-3-6' | 3-6 | 11/11/04 | 11/15/04 | **55,700** | ND | ND | ND | ND | 55700 | ND | ND | ND |
| | PC191-L-3-6'MS | 3-6 | 11/11/04 | 11/15/04 | 27,200 | ND | ND | ND | ND | 27200 | ND | ND | ND |
| | PC191-L-3-6'MSD | 3-6 | 11/11/04 | 11/15/04 | 16,100 | ND | ND | ND | ND | 16100 | ND | ND | ND |
| **PC192** | PC192-1-3' | 1-3 | 7/21/04 | 8/17/04 | 9,220 | ND | ND | ND | ND | 9220 | ND | ND | ND |
| | PC192-3-6.5' | 3-6.5 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC193** | PC193-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,360 | ND | ND | ND | ND | 5360 | ND | ND | ND |
| | PC193-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 2,850 | ND | ND | ND | ND | 2850 | ND | ND | ND |
| **PC194** | PC194-1-3' | 1-3 | 7/21/04 | 8/31/04 | 3,040 | ND | ND | ND | ND | 3040 | ND | ND | ND |
| | PC194-1-3' | 1-3 | 8/25/04 | 8/17/04 | 8,920 | ND | ND | ND | ND | 8920 | ND | ND | ND |
| **PC195** | PC195-1-3' | 1-3 | 8/25/04 | 8/31/04 | 2,480 | ND | ND | ND | ND | 2480 | ND | ND | ND |
| | PC195-3-6' | 3-6 | 8/25/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC196** | PC196-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,610 | ND | ND | ND | ND | 5610 | ND | ND | ND |
| | PC196-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 10,700 | ND | ND | ND | ND | 10700 | ND | ND | ND |
| | PC196-3-6.5'MS | 3-6.5 | 7/21/04 | 8/17/04 | 6,490 | ND | ND | ND | ND | 6490 | ND | ND | ND |
| | PC196-3-6.5'MSD | 3-6.5 | 7/21/04 | 8/17/04 | 7,280 | ND | ND | ND | ND | 7280 | ND | ND | ND |
| **PC197** | PC197-1-3' | 1-3 | 7/21/04 | 8/17/04 | 2,000 | ND | ND | ND | ND | 2000 | ND | ND | ND |
| | PC197-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 23,200 | ND | ND | ND | ND | 23200 | ND | ND | ND |
| **PC198** | PC198-1-3' | 1-3 | 7/21/04 | 8/17/04 | 7,580 | ND | ND | ND | ND | 7580 | ND | ND | ND |
| | PC198-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | **349,000** | ND | ND | ND | ND | 349000 | ND | ND | ND |
| | PC198-6.5-10' | 6.5-10 | 9/24/04 | 10/1/04 | 4,260 | ND | ND | ND | ND | 4260 | ND | ND | ND |
| | Duplicate 145 (PC198-6.5-10') | 6.5-10 | 9/24/04 | 10/1/04 | 43,400 | ND | ND | ND | ND | 43400 | ND | ND | ND |
| | PC198-A-1-3' | 1-3 | 9/24/04 | 10/2/04 | 4,190 | ND | ND | ND | ND | 4190 | ND | ND | ND |
| | PC198-A-3-6.5' | 3-6.5 | 9/24/04 | 10/1/04 | 13,520 | ND | ND | ND | ND | 13520 | ND | ND | ND |
| | PC198-A-6.5-9' | 6.5-9 | 9/24/04 | 10/2/04 | 1,640 | ND | ND | ND | ND | 1640 | ND | ND | ND |
| | PC198-B-1-3' | 1-3 | 9/24/04 | 10/1/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| | PC198-B-3-6.5' | 3-6.5 | 9/24/04 | 10/1/04 | 8,540 | ND | ND | ND | ND | 8540 | ND | ND | ND |
| | PC198-B-3-6.5'MS | 3-6.5 | 9/24/04 | 10/4/04 | 14,000 | ND | ND | ND | ND | 14000 | ND | ND | ND |
| | PC198-B-3-6.5'MSD | 3-6.5 | 9/24/04 | 10/4/04 | 7,760 | ND | ND | ND | ND | 7760 | ND | ND | ND |
| | PC198-B-6.5-9' | 6.5-9 | 9/24/04 | 10/1/04 | 3,750 | ND | ND | ND | ND | 3750 | ND | ND | ND |
| | PC198-C-1-3' | 1-3 | 9/24/04 | 10/1/04 | 4,430 | ND | ND | ND | ND | 4430 | ND | ND | ND |
| | PC198-C-3-6.5' | 3-6.5 | 9/24/04 | 10/1/04 | 17,700 | ND | ND | ND | ND | 17700 | ND | ND | ND |
| | PC198-C-6.5-11' | 6.5-11 | 9/24/04 | 10/1/04 | 12,300 | ND | ND | ND | ND | 12300 | ND | ND | ND |
| | PC198-D-1-3' | 1-3 | 9/24/04 | 10/1/04 | 9,160 | ND | ND | ND | ND | 9160 | ND | ND | ND |
| | PC198-D-3-6.5' | 3-6.5 | 9/24/04 | 10/1/04 | 22,600 | ND | ND | ND | ND | 22600 | ND | ND | ND |
| | PC198-D-6.5-8.5' | 6.5-8.5 | 9/24/04 | 10/1/04 | 6,430 | ND | ND | ND | ND | 6430 | ND | ND | ND |
| **PC199** | PC199-1-4' | 1-4 | 7/21/04 | 8/17/04 | 15,900 | ND | ND | ND | ND | 15900 | ND | ND | ND |
| | PC199-4-7' | 4-7 | 7/21/04 | 8/17/04 | 27,000 | ND | ND | ND | ND | 27000 | ND | ND | ND |
| **PC200** | PC200-1-4' | 1-4 | 7/21/04 | 8/17/04 | 8,330 | ND | ND | ND | ND | 8330 | ND | ND | ND |

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McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC200** | PC200-4-7' | 4-7 | 7/21/04 | 8/17/04 | 3,080 | ND | ND | ND | ND | 3080 | ND | ND | ND |
| **PC201** | PC201-1-4' | 1-4 | 7/21/04 | 8/17/04 | 8,080 | ND | ND | ND | ND | 8080 | ND | ND | ND |
| | PC201-1-4'MS | 1-4 | 7/21/04 | 8/17/04 | 8,380 | ND | ND | ND | ND | 8380 | ND | ND | ND |
| | PC201-1-4'MSD | 1-4 | 7/21/04 | 8/17/04 | 8,220 | ND | ND | ND | ND | 8220 | ND | ND | ND |
| | PC201-4-7' | 4-7 | 7/21/04 | 8/17/04 | 9,650 | ND | ND | ND | ND | 9650 | ND | ND | ND |
| | Duplicate 57 (PC201-4-7') | 4-7 | 7/21/04 | 8/17/04 | 4,330 | ND | ND | ND | ND | 4330 | ND | ND | ND |
| **PC202** | PC202-1-4' | 1-4 | 7/21/04 | 8/17/04 | 2,060 | ND | ND | ND | ND | 2060 | ND | ND | ND |
| | PC202-4-7' | 4-7 | 7/21/04 | 8/17/04 | 3,340 | ND | ND | ND | ND | 3340 | ND | ND | ND |
| **PC203** | PC203-1-4' | 1-4 | 7/21/04 | 8/17/04 | 3,290 | ND | ND | ND | ND | 3290 | ND | ND | ND |
| | PC203-4-7' | 4-7 | 7/21/04 | 8/17/04 | 8,740 | ND | ND | ND | ND | 8740 | ND | ND | ND |
| **PC204** | PC204-1-4' | 1-4 | 7/22/04 | 8/18/04 | 3,680 | ND | ND | ND | ND | 3680 | ND | ND | ND |
| | PC204-4-7' | 4-7 | 7/22/04 | 8/18/04 | 9,810 | ND | ND | ND | ND | 9810 | ND | ND | ND |
| **PC205** | PC205-1-3' | 1-3 | 7/22/04 | 8/18/04 | 2,970 | ND | ND | ND | ND | 2970 | ND | ND | ND |
| | PC205-3-6.5' | 3-6.5 | 7/22/04 | 8/18/04 | 3,820 | ND | ND | ND | ND | 3820 | ND | ND | ND |
| **PC206** | PC206-1-3' | 1-3 | 7/22/04 | 8/20/04 | 2,300 | ND | ND | ND | ND | 2300 | ND | ND | ND |
| | PC206-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | **71,700** | ND | ND | ND | ND | 71700 | ND | ND | ND |
| | PC206-A-3-6.5' | 3-6.5 | 12/2/04 | 12/4/04 | 14,700 | ND | ND | ND | ND | 14700 | ND | ND | ND |
| | PC206-B-3-6.5' | 3-6.5 | 12/2/04 | 12/4/04 | 12,200 | ND | ND | ND | ND | 12200 | ND | ND | ND |
| | Duplicate 195 (PC206-B-3-6.5') | 3-6.5 | 12/2/04 | 12/4/04 | 13,100 | ND | ND | ND | ND | 13100 | ND | ND | ND |
| **PC207** | PC207-1-3' | 1-3 | 7/22/04 | 8/20/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| | PC207-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | 3,510 | ND | ND | ND | ND | 3510 | ND | ND | ND |
| **PC208** | PC208-1-4' | 1-4 | 7/22/04 | 8/19/04 | 39,400 | ND | ND | ND | ND | 39400 | ND | ND | ND |
| | PC208-4-7 | 4-7 | 7/22/04 | 8/19/04 | 7,210 | ND | ND | ND | ND | 7210 | ND | ND | ND |
| **PC209** | PC209-1-3' | 1-3 | 7/22/04 | 8/19/04 | 9,600 | ND | ND | ND | ND | 9600 | ND | ND | ND |
| | PC209-1-3'MS | 1-3 | 7/22/04 | 8/19/04 | 13,500 | ND | ND | ND | ND | 13500 | ND | ND | ND |
| | PC209-1-3'MSD | 1-3 | 7/22/04 | 8/19/04 | 11,900 | ND | ND | ND | ND | 11900 | ND | ND | ND |
| | PC209-3-6.5' | 3-6.5 | 7/22/04 | 8/19/04 | 11,700 | ND | ND | ND | ND | 11700 | ND | ND | ND |
| | Duplicate 59 (PC209-3-6.5') | 3-6.5 | 7/22/04 | 8/18/04 | 20,900 | ND | ND | ND | ND | 20900 | ND | ND | ND |
| **PC210** | PC210-1-3' | 1-3 | 7/22/04 | 8/19/04 | 2,260 | ND | ND | ND | ND | 2260 | ND | ND | ND |
| | PC210-3-6' | 3-6 | 7/22/04 | 8/19/04 | 4,570 | ND | ND | ND | ND | 4570 | ND | ND | ND |
| | PC210-6-9' | 6-9 | 11/17/04 | 11/23/04 | 2,650 | ND | ND | ND | ND | 2650 | ND | ND | ND |
| | Duplicate 192 (PC210-6-9') | 6-9 | 11/17/04 | 11/23/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| **PC211** | PC211-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 3,000 | ND | ND | ND | ND | 3000 | ND | ND | ND |
| **PC212** | PC212-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 19,200 | ND | ND | ND | ND | 19200 | ND | ND | ND |
| **PC213** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC214** | PC214-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 9,960 | ND | ND | ND | ND | 9960 | ND | ND | ND |
| **PC215** | PC215-1-3' | 1-3 | 7/22/04 | 8/19/04 | 3,340 | ND | ND | ND | ND | 3340 | ND | ND | ND |
| **PC216** | PC216-1-3' | 1-3 | 7/22/04 | 8/20/04 | 24,100 | ND | ND | ND | ND | 24100 | ND | ND | ND |
| **PC217** | PC217-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 4,900 | ND | ND | ND | ND | 4900 | ND | ND | ND |
| **PC218** | PC218-1-3' | 1-3 | 7/22/04 | 8/19/04 | 4,150 | ND | ND | ND | ND | 4150 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC218** | PC218-3-6.5 | 3-6.5 | 7/22/04 | 8/19/04 | 8,870 | ND | ND | ND | ND | 8870 | ND | ND | ND |
| **PC219** | PC219-1-4' | 1-4 | 7/22/04 | 8/19/04 | 2,020 | ND | ND | ND | ND | 2020 | ND | ND | ND |
| | PC219-4-7' | 4-7 | 7/22/04 | 8/19/04 | 5,500 | ND | ND | ND | ND | 5500 | ND | ND | ND |
| **PC220** | PC220-1-3' | 1-3 | 7/22/04 | 8/20/04 | 1,600 | ND | ND | ND | ND | 1600 | ND | ND | ND |
| | PC220-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | 2,660 | ND | ND | ND | ND | 2660 | ND | ND | ND |
| **PC221** | PC221-1-3' | 1-3 | 7/22/04 | 8/20/04 | 8,570 | ND | ND | ND | ND | 8570 | ND | ND | ND |
| | PC221-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| **PC222** | PC222-1-3.5' | 1-3.5 | 7/22/04 | 8/20/04 | 8,870 | ND | ND | ND | ND | 8870 | ND | ND | ND |
| **PC223** | PC223-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 17,600 | ND | ND | ND | ND | 17600 | ND | ND | ND |
| **PC224** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC225** | PC225-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | **220,000** | ND | ND | ND | ND | 220000 | ND | ND | ND |
| | PC225-3.5-6 | 3.5-6 | 9/23/04 | 10/2/04 | 5,790 | ND | ND | ND | ND | 5790 | ND | ND | ND |
| | PC225-6-11 | 6-11 | 9/23/04 | 10/2/04 | 5,080 | ND | ND | ND | ND | 5080 | ND | ND | ND |
| | PC225-A-1-3.5 | 1-3.5 | 9/23/04 | 10/2/04 | 1,580 | ND | ND | ND | ND | 1580 | ND | ND | ND |
| | PC225-A 3.5-6 | 3.5-6 | 9/23/04 | 10/2/04 | 5,230 | ND | ND | ND | ND | 5230 | ND | ND | ND |
| | PC225-B-1-3.5 | 1-3.5 | 9/23/04 | 10/2/04 | 1,330 | ND | ND | ND | ND | 1330 | ND | ND | ND |
| | PC225-B-3.5-6 | 3.5-6 | 9/23/04 | 10/2/04 | 3,350 | ND | ND | ND | ND | 3350 | ND | ND | ND |
| | PC225-C-1-3.5 | 1-3.5 | 9/23/04 | 10/2/04 | 7,190 | ND | ND | ND | ND | 7190 | ND | ND | ND |
| | PC225-C-3.5-6 | 3.5-6 | 9/23/04 | 10/2/04 | 11,800 | ND | ND | ND | ND | 11800 | ND | ND | ND |
| | PC225-D-1-3.5 | 1-3.5 | 9/23/04 | 10/2/04 | 6,160 | ND | ND | ND | ND | 6160 | ND | ND | ND |
| | PC225-D-3.5-6 | 3.5-6 | 9/23/04 | 9/30/04 | 28,100 | ND | ND | ND | ND | 28100 | ND | ND | ND |
| **PC226** | PC226-1-3' | 1-3' | 7/22/04 | 8/19/04 | 12,700 | ND | ND | ND | ND | 12700 | ND | ND | ND |
| **PC227** | PC227-1-3' | 1-3 | 7/22/04 | 8/18/04 | 3,280 | ND | ND | ND | ND | 3280 | ND | ND | ND |
| | PC227-1-3'MS | 1-3 | 7/22/04 | 8/18/04 | 9,920 | ND | ND | ND | ND | 9920 | ND | ND | ND |
| | PC227-1-3'MSD | 1-3 | 7/22/04 | 8/18/04 | 9,250 | ND | ND | ND | ND | 9250 | ND | ND | ND |
| | PC227-3-6.5' | 3-6.5 | 7/22/04 | 8/18/04 | 4,130 | ND | ND | ND | ND | 4130 | ND | ND | ND |
| | Duplicate 60 (PC227-3-6.5') | 3-6.5 | 7/22/04 | 8/18/04 | 6,630 | ND | ND | ND | ND | 6630 | ND | ND | ND |
| **PC228** | PC228-1-3.5' | 1-3.5 | 7/22/04 | 8/19/04 | 5,068 | ND | ND | ND | ND | 5068 | ND | ND | ND |
| **PC229** | PC229-1-4' | 1-4 | 7/22/04 | 8/19/04 | 5,950 | ND | ND | ND | ND | 5950 | ND | ND | ND |
| | PC229-4-7' | 4-7 | 7/22/04 | 8/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC230** | PC230-1-4' | 1-4 | 7/22/04 | 8/20/04 | 4,660 | ND | ND | ND | ND | 4660 | ND | ND | ND |
| | PC230-4-7' | 4-7 | 7/22/04 | 8/20/04 | 15,700 | ND | ND | ND | ND | 15700 | ND | ND | ND |
| **PC231** | PC231-1-3' | 1-3 | 7/22/04 | 8/20/04 | 6,000 | ND | ND | ND | ND | 6000 | ND | ND | ND |
| | PC231-3-6.5' | 3-6.5 | 7/22/04 | 8/20/04 | 3,230 | ND | ND | ND | ND | 3230 | ND | ND | ND |
| **PC232** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC233** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC234** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC235** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC236** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC237** | PC237-1-4' | 1-4 | 7/22/04 | 8/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC237** | PC237-4-7' | 4-7 | 7/22/04 | 8/19/04 | 14,800 | ND | ND | ND | ND | 14800 | ND | ND | ND |
| **PC238** | PC238-1-3' | 1-3 | 8/26/04 | 9/1/04 | 16,200 | ND | ND | ND | ND | 16200 | ND | ND | ND |
| | PC238-3-6.5' | 3-6.5 | 8/26/04 | 9/1/04 | 8,080 | ND | ND | ND | ND | 8080 | ND | ND | ND |
| **PC239** | PC239-1-3' | 1-3 | 7/22/04 | 8/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC239-3-6.5' | 3-6.5 | 7/22/04 | 8/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC240** | PC240-1-3' | 1-3 | 7/22/04 | 8/19/04 | 6,080 | ND | ND | ND | ND | 6080 | ND | ND | ND |
| | PC240-3-6.5' | 3-6.5 | 7/22/04 | 8/19/04 | 11,300 | ND | ND | ND | ND | 11300 | ND | ND | ND |
| **PC241** | PC241-1-3' | 1-3 | 7/29/04 | 8/20/04 | 4,110 | ND | ND | ND | ND | 4110 | ND | ND | ND |
| | Duplicate 62 (PC241-1-3') | 1-3 | 7/29/04 | 8/20/04 | 1,270 | ND | ND | ND | ND | 1270 | ND | ND | ND |
| | PC241-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 5,750 | ND | ND | ND | ND | 5750 | ND | ND | ND |
| | PC241-3-6.5'MS | 3-6.5 | 7/29/04 | 8/20/04 | 7,710 | ND | ND | ND | ND | 7710 | ND | ND | ND |
| | PC241-3-6.5'MSD | 3-6.5 | 7/29/04 | 8/20/04 | 8,820 | ND | ND | ND | ND | 8820 | ND | ND | ND |
| **PC242** | PC242-1-3' | 1-3 | 7/29/04 | 8/20/04 | 13,300 | ND | ND | ND | ND | 13300 | ND | ND | ND |
| **PC243** | PC243-1-3' | 1-3 | 7/29/04 | 8/20/04 | 4,780 | ND | ND | ND | ND | 4780 | ND | ND | ND |
| **PC244** | PC244-1-3' | 1-3 | 7/29/04 | 8/20/04 | 11,900 | ND | ND | ND | ND | 11900 | ND | ND | ND |
| **PC245** | (deleted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC246** | PC246-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC247** | PC247-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC248** | PC248-1-3' | 1-3 | 7/29/04 | 8/20/04 | 3,540 | ND | ND | ND | ND | 3540 | ND | ND | ND |
| **PC249** | PC249-1-4' | 1-4 | 7/29/04 | 8/20/04 | 22,700 | ND | ND | ND | ND | 22700 | ND | ND | ND |
| | PC249-4-7' | 4-7 | 7/29/04 | 8/20/04 | 14,900 | ND | ND | ND | ND | 14900 | ND | ND | ND |
| **PC250** | PC250-1-4' | 1-4 | 7/29/04 | 8/20/04 | 23,000 | ND | ND | ND | ND | 23000 | ND | ND | ND |
| | PC250-4-7' | 4-7 | 7/29/04 | 8/20/04 | 13,200 | ND | ND | ND | ND | 13200 | ND | ND | ND |
| **PC251** | PC251-1-3' | 1-3 | 7/29/04 | 8/20/04 | 2,870 | ND | ND | ND | ND | 2870 | ND | ND | ND |
| | PC251-3-6' | 3-6 | 7/29/04 | 8/20/04 | 8,700 | ND | ND | ND | ND | 8700 | ND | ND | ND |
| **PC252** | PC252-1-3' | 1-3 | 7/29/04 | 8/20/04 | 2,090 | ND | ND | ND | ND | 2090 | ND | ND | ND |
| | PC252-3-6' | 3-6 | 7/29/04 | 8/20/04 | 1,290 | ND | ND | ND | ND | 1290 | ND | ND | ND |
| **PC253** | PC253-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC253-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 4,470 | ND | ND | ND | ND | 4470 | ND | ND | ND |
| **PC254** | PC254-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC254-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 7,750 | ND | ND | ND | ND | 7750 | ND | ND | ND |
| **PC255** | PC255-1-4' | 1-4 | 7/29/04 | 8/20/04 | 9,430 | ND | ND | ND | ND | 9430 | ND | ND | ND |
| | Duplicate 63 (PC255-1-4') | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC255-4-7' | 4-7 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC255-4-7'MS | 4-7 | 7/29/04 | 8/20/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| | PC255-4-7'MSD | 4-7 | 7/29/04 | 8/20/04 | 12,600 | ND | ND | ND | ND | 12600 | ND | ND | ND |
| **PC256** | PC256-1-4' | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC256-4-7' | 4-7 | 7/29/04 | 8/20/04 | 6,980 | ND | ND | ND | ND | 6980 | ND | ND | ND |
| **PC257** | PC257-1-4' | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC257** | PC257-4-7' | 4-7 | 7/29/04 | 8/20/04 | 2,050 | ND | ND | ND | ND | 2050 | ND | ND | ND |
| **PC258** | PC258-1-4' | 1-4 | 7/29/04 | 8/20/04 | 1,800 | ND | ND | ND | ND | 1800 | ND | ND | ND |
| | PC258-4-7' | 4-7 | 7/29/04 | 8/20/04 | 1,980 | ND | ND | ND | ND | 1980 | ND | ND | ND |
| **PC259** | PC259-1-4' | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC259-4-7' | 4-7 | 7/29/04 | 8/20/04 | **53,700** | ND | ND | ND | ND | 53700 | ND | ND | ND |
| | PC259-A-4-7' | 4-7 | 11/17/04 | 11/23/04 | 3,340 | ND | ND | ND | ND | 3340 | ND | ND | ND |
| | PC259-B-4-7' | 4-7 | 11/17/04 | 11/20/04 | 5,280 | ND | ND | ND | ND | 5280 | ND | ND | ND |
| **PC260** | PC260-1-4' | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC260-4-7' | 4-7 | 7/29/04 | 8/20/04 | **86,200** | ND | ND | ND | ND | 86200 | ND | ND | ND |
| | PC260-A-4-7' | 4-7 | 11/17/04 | 11/24/04 | 5,280 | ND | ND | ND | ND | 5280 | ND | ND | ND |
| | Duplicate 193 (PC260-A-4-7') | 4-7 | 11/17/04 | 11/24/04 | 9,450 | ND | ND | ND | ND | 9450 | ND | ND | ND |
| | PC260-B-4-7' | 4-7 | 11/17/04 | 11/20/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| **PC261** | PC261-1-3' | 1-3 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC261-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 2,730 | ND | ND | ND | ND | 2730 | ND | ND | ND |
| **PC262** | PC262-1-3' | 1-3 | 7/29/04 | 8/20/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| | PC262-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 6,460 | ND | ND | ND | ND | 6460 | ND | ND | ND |
| **PC263** | PC263-1-4' | 1-4 | 7/29/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC263-4-7' | 4-7 | 7/29/04 | 8/21/04 | 6,640 | ND | ND | ND | ND | 6640 | ND | ND | ND |
| **PC264** | PC264-1-4' | 1-4 | 7/29/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC264-4-7' | 4-7 | 7/29/04 | 8/21/04 | 4,010 | ND | ND | ND | ND | 4010 | ND | ND | ND |
| **PC265** | PC265-1-4' | 1-4 | 7/29/04 | 8/21/04 | 1,160 | ND | ND | ND | ND | 1160 | ND | ND | ND |
| | Duplicate 64 (PC265-1-4') | 1-4 | 7/29/04 | 8/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC265-4-7' | 4-7 | 7/29/04 | 8/21/04 | 27,700 | ND | ND | ND | ND | 27700 | ND | ND | ND |
| | PC265-4-7'MS | 4-7 | 7/29/04 | 8/21/04 | 39,500 | ND | ND | ND | ND | 39500 | ND | ND | ND |
| | PC265-4-7'MSD | 4-7 | 7/29/04 | 8/21/04 | 35,100 | ND | ND | ND | ND | 35100 | ND | ND | ND |
| **PC266** | PC266-1-4' | 1-4 | 7/29/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC266-4-7' | 4-7 | 7/29/04 | 8/21/04 | 19,400 | ND | ND | ND | ND | 19400 | ND | ND | ND |
| **PC267** | PC267-1-4' | 1-4 | 7/29/04 | 8/21/04 | 3,720 | ND | ND | ND | ND | 3720 | ND | ND | ND |
| | PC267-4-7' | 4-7 | 7/29/04 | 8/21/04 | 12,000 | ND | ND | ND | ND | 12000 | ND | ND | ND |
| **PC268** | PC268-1-4' | 1-4 | 7/29/04 | 8/21/04 | 3,130 | ND | ND | ND | ND | 3130 | ND | ND | ND |
| | PC268-4-7' | 4-7 | 7/29/04 | 8/21/04 | 11,700 | ND | ND | ND | ND | 11700 | ND | ND | ND |
| **PC269** | PC269-1-4' | 1-4 | 7/29/04 | 8/20/04 | 1,940 | ND | ND | ND | ND | 1940 | ND | ND | ND |
| | PC269-4-7' | 4-7 | 7/29/04 | 8/20/04 | 6,580 | ND | ND | ND | ND | 6580 | ND | ND | ND |
| **PC270** | PC270-1-4' | 1-4 | 7/29/04 | 8/20/04 | 19,000 | ND | ND | ND | ND | 19000 | ND | ND | ND |
| | PC270-4-7' | 4-7 | 7/29/04 | 8/20/04 | 4,230 | ND | ND | ND | ND | 4230 | ND | ND | ND |
| **PC271** | PC271-1-4' | 1-4 | 7/29/04 | 8/20/04 | 1,880 | ND | ND | ND | ND | 1880 | ND | ND | ND |
| | PC271-4-7' | 4-7 | 7/29/04 | 8/21/04 | 2,000 | ND | ND | ND | ND | 2000 | ND | ND | ND |
| **PC272** | PC272-1-3' | 1-3 | 7/29/04 | 8/20/04 | **77,700** | ND | ND | ND | ND | 77700 | ND | ND | ND |
| | PC272-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| | PC272-A-1-3' | 1-3 | 11/17/04 | 11/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC272-B-1-3' | 1-3 | 11/17/04 | 11/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC272-C-1-3' | 1-3 | 11/17/04 | 11/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC273** | PC273-1-3' | 1-3 | 7/29/04 | 8/20/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |
| | PC273-1-3'MS | 1-3 | 7/29/04 | 8/20/04 | 13,300 | ND | ND | ND | ND | 13300 | ND | ND | ND |
| | PC273-1-3'MSD | 1-3 | 7/29/04 | 8/20/04 | 14,100 | ND | ND | ND | ND | 14100 | ND | ND | ND |
| | Duplicate 65 (PC273-1-3') | 1-3 | 7/29/04 | 8/20/04 | 29,500 | ND | ND | ND | 16700 | 12800 | ND | ND | ND |
| | PC273-3-6.5' | 3-6.5 | 7/29/04 | 8/20/04 | 9,670 | ND | ND | ND | ND | 9670 | ND | ND | ND |
| **PC1001** | PC1001-1-4' | 1-4 | 8/25/04 | 8/31/04 | 34,700 | ND | ND | ND | ND | 34700 | ND | ND | ND |
| | PC1001-4-7' | 4-7 | 8/25/04 | 8/31/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| | Duplicate 116 (PC1001-4-7') | 4-7 | 8/25/04 | 8/31/04 | 5,840 | ND | ND | ND | ND | 5840 | ND | ND | ND |
| **PC1002** | PC1002-1-4' | 1-4 | 8/25/04 | 8/31/04 | 22,100 | ND | ND | ND | ND | 22100 | ND | ND | ND |
| | PC1002-4-7' | 4-7 | 8/25/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1003** | PC1003-1-4' | 1-4 | 8/25/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1003-4-7' | 4-7 | 11/17/04 | 11/18/04 | 18,000 | ND | ND | ND | ND | 18000 | ND | ND | ND |
| **PC1004** | PC1004-1-4' | 1-4 | 8/25/04 | 8/31/04 | 16,200 | ND | ND | ND | ND | 16200 | ND | ND | ND |
| | PC1004-4-7' | 4-7 | 8/25/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1005** | PC1005-1-3.5' | 1-3.5 | 8/25/04 | 8/31/04 | 5,250 | ND | ND | ND | ND | 5250 | ND | ND | ND |
| **PC1006** | PC1006-1-3' | 1-3 | 8/25/04 | 9/7/04 | **468,000** | ND | ND | ND | ND | 468000 | ND | ND | ND |
| | Duplicate 117 (PC1006-1-3') | 1-3 | 8/25/04 | 8/31/04 | 12,500 | ND | ND | ND | ND | 12500 | ND | ND | ND |
| | PC1006-A-1-3' | 1-3 | 10/15/04 | 10/19/04 | 10,300 | ND | ND | ND | ND | 10300 | ND | ND | ND |
| | PC1006-A-3-5.5' | 3-5.5 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1006-B-1-3' | 1-3 | 10/15/04 | 10/19/04 | 21,200 | ND | ND | ND | ND | 21200 | ND | ND | ND |
| | PC1006-B-3-6' | 3-6 | 10/15/04 | 10/19/04 | **48,300** | ND | ND | ND | ND | 48300 | ND | ND | ND |
| | PC1006-C-1-3' | 1-3 | 10/15/04 | 10/19/04 | 8,200 | ND | ND | ND | ND | 8200 | ND | ND | ND |
| | PC1006-C-3-5.5' | 3-5.5 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1006-D-1-3' | 1-3 | 10/15/04 | 10/19/04 | 5,870 | ND | ND | ND | ND | 5870 | ND | ND | ND |
| | PC1006-D-3-4.75' | 3-4.75 | 10/15/04 | 10/19/04 | 8,620 | ND | ND | ND | ND | 8620 | ND | ND | ND |
| **PC1007** | PC1007-1-3.5' | 1-3.5 | 8/25/04 | 9/7/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1008** | PC1008-1-3' | 1-3 | 8/25/04 | 8/31/04 | 21,600 | ND | ND | ND | ND | 21600 | ND | ND | ND |
| | PC1008-3-6.5' | 3-6.5 | 8/25/04 | 9/1/04 | 10,200 | ND | ND | ND | ND | 10200 | ND | ND | ND |
| **PC1009** | PC1009-1-3' | 1-3 | 8/25/04 | 8/31/04 | 5,160 | ND | ND | ND | ND | 5160 | ND | ND | ND |
| | PC1009-3-6' | 3-6 | 8/25/04 | 8/31/04 | 25,600 | ND | ND | ND | ND | 25600 | ND | ND | ND |
| **PC1010** | PC1010-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1010-3-6.5' | 3-6.5 | 8/26/04 | 9/1/04 | 6,060 | ND | ND | ND | ND | 6060 | ND | ND | ND |
| **PC1011** | PC1011-1-3' | 1-3 | 8/25/04 | 8/31/04 | 28,600 | ND | ND | ND | ND | 28600 | ND | ND | ND |
| | PC1011-3-6' | 3-6 | 8/25/04 | 8/31/04 | 6,890 | ND | ND | ND | ND | 6890 | ND | ND | ND |
| | PC1012-1-4' | 1-4 | 8/26/04 | 8/31/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| | PC1012-4-7' | 4-7 | 8/26/04 | 9/8/04 | **127,000** | ND | ND | ND | ND | 127000 | ND | ND | ND |
| | PC1012-1-4' | 1-4 | 9/14/04 | 9/21/04 | 25,300 | ND | ND | ND | ND | 25300 | ND | ND | ND |
| | PC1012-7-10' | 7-10 | 9/14/04 | 9/24/04 | **50,700** | ND | ND | ND | ND | 50700 | ND | ND | ND |

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McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC1012** | PC1012-A-1-4' | 1-4 | 9/14/04 | 9/21/04 | **53,900** | ND | ND | ND | ND | 53900 | ND | ND | ND |
| | PC1012-A-4-7' | 4-7 | 9/14/04 | 9/24/04 | 22,300 | ND | ND | ND | ND | 22300 | ND | ND | ND |
| | PC1012-A-7-10.5' | 7-10.5 | 9/14/04 | 9/24/04 | **146,000** | ND | ND | ND | ND | 146000 | ND | ND | ND |
| | PC1012-B-1-4' | 1-4 | 9/14/04 | 9/24/04 | 6,770 | ND | ND | ND | ND | 6770 | ND | ND | ND |
| | PC1012-B-4-7' | 4-7 | 9/14/04 | 9/21/04 | **142,000** | ND | ND | ND | ND | 142000 | ND | ND | ND |
| | PC1012-B-7-8' | 7-8 | 9/14/04 | 9/24/04 | 11,200 | ND | ND | ND | ND | ND | ND | ND | 11200 |
| | PC1012-C-1-4' | 1-4 | 9/14/04 | 9/24/04 | 13,800 | ND | ND | ND | ND | 13800 | ND | ND | ND |
| | PC1012-C-4-7' | 4-7 | 9/14/04 | 9/24/04 | 4,570 | ND | ND | ND | ND | 4570 | ND | ND | ND |
| | PC1012-C-7-11' | 7-11 | 9/14/04 | 9/24/04 | 6,220 | ND | ND | ND | ND | 6220 | ND | ND | ND |
| | PC1012-D-1-4' | 1-4 | 9/14/04 | 9/21/04 | 21,300 | ND | ND | ND | ND | 21300 | ND | ND | ND |
| | PC1012-D-4-7' | 4-7 | 9/14/04 | 9/24/04 | **122,000** | ND | ND | ND | ND | 122000 | ND | ND | ND |
| | PC1012-D-7-10' | 7-10 | 9/14/04 | 9/24/04 | 21,200 | ND | ND | ND | ND | 21200 | ND | ND | ND |
| | PC1012-E-4-7' | 4-7 | 10/15/04 | 10/19/04 | 13,800 | ND | ND | ND | ND | 13800 | ND | ND | ND |
| | PC1012-E-7-10' | 7-10 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-F-1-4' | 1-4 | 10/15/04 | 10/19/04 | 5,870 | ND | ND | ND | ND | 5870 | ND | ND | ND |
| | Duplicate 165 (PC1012-F-1-4') | 1-4 | 10/15/04 | 10/19/04 | 8,840 | ND | ND | ND | ND | 8840 | ND | ND | ND |
| | PC1012-F-4-7' | 4-7 | 10/15/04 | 10/19/04 | 7,390 | ND | ND | ND | ND | 7390 | ND | ND | ND |
| | PC1012-F-7-10' | 7-10 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-F-7-10'MS | 7-10 | 10/15/04 | 10/19/04 | 11,160 | ND | ND | ND | ND | 11160 | ND | ND | ND |
| | PC1012-F-7-10'MSD | 7-10 | 10/15/04 | 10/19/04 | 12,900 | ND | ND | ND | ND | 12900 | ND | ND | ND |
| | PC1012-G-1-4' | 1-4 | 10/15/04 | 10/19/04 | 10,200 | ND | ND | ND | ND | 10200 | ND | ND | ND |
| | PC1012-G-4-7' | 4-7 | 10/15/04 | 10/19/04 | 12,100 | ND | ND | ND | ND | 12100 | ND | ND | ND |
| | PC1012-G-7-10.5' | 7-10.5 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-H-1-4' | 1-4 | 10/15/04 | 10/19/04 | 3,760 | ND | ND | ND | ND | 3760 | ND | ND | ND |
| | PC1012-H-4-7' | 4-7 | 10/15/04 | 10/19/04 | 12,900 | ND | ND | ND | ND | 12900 | ND | ND | ND |
| | PC1012-H-7-10' | 7-10 | 10/15/04 | 10/19/04 | 1,890 | ND | ND | ND | ND | 1890 | ND | ND | ND |
| | PC1012-I-1-4' | 1-4 | 10/15/04 | 10/19/04 | 2,070 | ND | ND | ND | ND | 2070 | ND | ND | ND |
| | PC1012-I-4-7' | 4-7 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-I-7-10' | 7-10 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-J-1-4' | 1-4' | 10/15/04 | 10/19/04 | **229,000** | ND | ND | ND | ND | 229000 | ND | ND | ND |
| | PC1012-J-4-7' | 4-7' | 10/16/04 | 10/19/04 | 33,500 | ND | ND | ND | ND | 33500 | ND | ND | ND |
| | PC1012-J-7-10' | 7-10' | 10/17/04 | 10/19/04 | 2,690 | ND | ND | ND | ND | 2690 | ND | ND | ND |
| | PC1012-K-1-4' | 1-4 | 10/15/04 | 10/19/04 | **136,000** | ND | ND | ND | ND | 136000 | ND | ND | ND |
| | PC1012-K-4-7' | 4-7 | 10/15/04 | 10/19/04 | **62,900** | ND | ND | ND | ND | 62900 | ND | ND | ND |
| | PC1012-K-7-10' | 7-10 | 10/15/04 | 10/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1012-L-1-4' | 1-4 | 11/3/04 | 11/9/04 | 4,010 | ND | ND | ND | ND | 4010 | ND | ND | ND |
| | PC1012-M-1-4' | 1-4 | 11/3/04 | 11/10/04 | 5,710 | ND | ND | ND | ND | 5710 | ND | ND | ND |
| | PC1012-N-1-4' | 1-4 | 10/28/04 | 10/30/04 | 8,910 | ND | ND | ND | ND | 8910 | ND | ND | ND |
| | Duplicate 174 (PC1012-N-1-4') | 1-4 | 10/28/04 | 10/30/04 | 7,590 | ND | ND | ND | ND | 7590 | ND | ND | ND |
| | PC1012-O-1-4' | 1-4 | 10/28/04 | 10/30/04 | 11,100 | ND | ND | ND | ND | 11100 | ND | ND | ND |
| | PC1012-O-1-4'MS | 1-4 | 10/28/04 | 10/30/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND |

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# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | PC1012-O-1-4'MSD | 1-4 | 10/28/04 | 10/30/04 | 13,200 | ND | ND | ND | ND | 13200 | ND | ND | ND |
| **PC1013** | PC1013-1-3' | 1-3 | 8/26/04 | 8/31/04 | 19,900 | ND | ND | ND | ND | 19900 | ND | ND | ND |
| | PC1013-3-6.5' | 3-6.5 | 8/26/04 | 8/31/04 | 9,760 | ND | ND | ND | ND | 9760 | ND | ND | ND |
| | Duplicate 118 (PC1013-3-6.5') | 3-6.5 | 8/26/04 | 8/31/04 | 6,550 | ND | ND | ND | ND | 6550 | ND | ND | ND |
| **PC1014** | PC1014-1-3.5' | 1-3.5 | 6/30/04 | 8/2/04 | 12,000 | ND | ND | ND | ND | 12000 | ND | ND | ND |
| **PC1015** | PC1015-1-3' | 1-3 | 6/30/04 | 8/2/04 | **68,600** | ND | ND | ND | ND | 68600 | ND | ND | ND |
| | PC1015-A-1-3' | 1-3 | 11/17/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1015-B-1-3' | 1-3 | 11/17/04 | 11/18/04 | 4,780 | ND | ND | ND | ND | 4780 | ND | ND | ND |
| | PC1015-C-1-3' | 1-3 | 11/17/04 | 11/18/04 | 2,240 | ND | ND | ND | ND | 2240 | ND | ND | ND |
| | PC1015-D-1-3' | 1-3 | 11/17/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1016** | PC1016-1-3' | 1-3 | 6/30/04 | 8/2/04 | 13,000 | ND | ND | ND | ND | 13000 | ND | ND | ND |
| **PC1017** | PC1017-1-3' | 1-3 | 6/30/04 | 8/2/04 | 22,500 | ND | ND | ND | ND | 22500 | ND | ND | ND |
| **PC1018** | PC1018-1-3' | 1-3 | 7/1/04 | 8/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1019** | PC1019-1-3' | 1-3 | 7/1/04 | 8/11/04 | 8,580 | ND | ND | ND | ND | 8580 | ND | ND | ND |
| **PC1020** | PC1020-1-3.5' | 1-3.5 | 7/1/04 | 8/11/04 | 1,810 | ND | ND | ND | ND | 1810 | ND | ND | ND |
| **PC1021** | PC1021-1-3' | 1-3 | 7/1/04 | 8/11/04 | 11,500 | ND | ND | ND | ND | 11500 | ND | ND | ND |
| **PC1022** | PC1022-1-3' | 1-3 | 7/1/04 | 8/11/04 | 40,000 | ND | ND | ND | ND | 40000 | ND | ND | ND |
| **PC1023** | PC1023-1-5' | 1-5 | 7/20/04 | 8/31/04 | 2,750 | ND | ND | ND | ND | 2750 | ND | ND | ND |
| **PC1024** | PC1024-1-3' | 1-3 | 7/20/04 | 8/31/04 | 23,800 | ND | ND | ND | ND | 23800 | ND | ND | ND |
| | PC1024-3-5.5 | 3-5.5 | 7/20/04 | 8/31/04 | 4,920 | ND | ND | ND | ND | 4920 | ND | ND | ND |
| **PC1025** | PC1025-1-5' | 1-5 | 7/20/04 | 8/31/04 | 7,980 | ND | ND | ND | ND | 7980 | ND | ND | ND |
| **PC1026** | PC1026-1-3' | 1-3 | 720/04 | 8/31/04 | 1,670 | ND | ND | ND | ND | 1670 | ND | ND | ND |
| | PC1026-3-5.5' | 3-5.5 | 7/20/04 | 8/31/04 | 10,100 | ND | ND | ND | ND | 10100 | ND | ND | ND |
| **PC1027** | PC1027-1-3' | 1-3 | 7/21/04 | 8/17/04 | 3,610 | ND | ND | ND | ND | 3610 | ND | ND | ND |
| | PC1027-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 30,900 | ND | ND | ND | ND | 30900 | ND | ND | ND |
| **PC1028** | PC1028-1-3' | 1-3 | 7/21/04 | 8/17/04 | 2,590 | ND | ND | ND | ND | 2590 | ND | ND | ND |
| **PC1029** | PC1029-1-3.5' | 1-3.5 | 7/21/04 | 8/17/04 | 2,630 | ND | ND | ND | ND | 2630 | ND | ND | ND |
| **PC1030** | PC1030-1-3' | 1-3 | 7/21/04 | 8/17/04 | 3,620 | ND | ND | ND | ND | 3620 | ND | ND | ND |
| **PC1031** | PC1031-1-3' | 1-3 | 7/21/04 | 8/17/04 | 2,440 | ND | ND | ND | ND | 2440 | ND | ND | ND |
| **PC1032** | PC1032-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,840 | ND | ND | ND | ND | 5840 | ND | ND | ND |
| **PC1033** | PC1033-1-3.5' | 1-3.5 | 7/21/04 | 8/17/04 | 7,370 | ND | ND | ND | ND | 7370 | ND | ND | ND |
| **PC1034** | PC1034-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,050 | ND | ND | ND | ND | 5050 | ND | ND | ND |
| **PC1035** | PC1035-1-3' | 1-3 | 7/21/04 | 8/17/04 | 11,600 | ND | ND | ND | ND | 11600 | ND | ND | ND |
| **PC1036** | PC1036-1-3' | 1-3 | 7/21/04 | 8/17/04 | 7,400 | ND | ND | ND | ND | 7400 | ND | ND | ND |
| **PC1037** | PC1037-1-3' | 1-3 | 7/21/04 | 8/17/04 | 5,980 | ND | ND | ND | ND | 5980 | ND | ND | ND |
| | Duplicate 56 (PC1037-1-3') | 1-3 | 7/21/04 | 8/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1038** | PC1038-1-3' | 1-3 | 7/21/04 | 8/17/04 | 1,500 | ND | ND | ND | ND | 1500 | ND | ND | ND |
| **PC1039** | PC1039-1-3.5' | 1-3.5 | 7/21/04 | 8/17/04 | 2,190 | ND | ND | ND | ND | 2190 | ND | ND | ND |
| **PC1040** | PC1040-1-3.5 | 1-3.5 | 7/21/04 | 8/17/04 | 16,800 | ND | ND | ND | ND | 16800 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Pile Caps
## Polychlorinated Biphenyls (PCBs)

| Pile Cap | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **PC1041** | PC1041-1-3' | 1-3 | 7/21/04 | 8/17/04 | **62,300** | ND | ND | ND | ND | 62300 | ND | ND | ND |
| **PC1042** | PC1042-1-3' | 1-3 | 7/21/04 | 8/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1043** | PC1043-1-3' | 1-3 | 7/21/04 | 8/17/04 | 6,400 | ND | ND | ND | ND | 6400 | ND | ND | ND |
| **PC1044** | PC1044-1-3' | 1-3 | 7/21/04 | 8/17/04 | 4,500 | ND | ND | ND | ND | 4500 | ND | ND | ND |
| | PC1044-3-6.5' | 3-6.5 | 7/21/04 | 8/17/04 | 2,290 | ND | ND | ND | ND | 2290 | ND | ND | ND |
| **PC1045** | PC1045-1-4' | 1-4 | 10/28/04 | 10/30/04 | 32,900 | ND | ND | ND | ND | 32900 | ND | ND | ND |
| | PC1045-4-8' | 4-8 | 10/28/04 | 10/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1045-8-10' | 8-10 | 10/28/04 | 10/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1046** | PC1046-1-3' | 1-3 | 7/21/04 | 8/17/04 | 20,900 | ND | ND | ND | ND | 20900 | ND | ND | ND |
| | PC1046-3-6' | 3-6 | 7/21/04 | 8/17/04 | 1,320 | ND | ND | ND | ND | 1320 | ND | ND | ND |
| | PC1046-6-9' | 6-9 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1047** | PC1047-1-3' | 1-3 | 7/22/04 | 8/19/04 | 14,500 | ND | ND | ND | ND | 14500 | ND | ND | ND |
| | PC1047-3-6' | 3-6 | 7/22/04 | 8/19/04 | 46,200 | ND | ND | ND | ND | 46200 | ND | ND | ND |
| | PC1047-6-9' | 6-9 | 11/17/04 | 11/23/04 | 2,760 | ND | ND | ND | ND | 2760 | ND | ND | ND |
| **PC1048** | PC1048-1-3' | 1-3 | 7/22/04 | 8/20/04 | 2,920 | ND | ND | ND | ND | 2920 | ND | ND | ND |
| **PC1049** | PC1049-1-3' | 1-3 | 7/22/04 | 8/19/04 | 5,270 | ND | ND | ND | ND | 5270 | ND | ND | ND |
| **PC1050** | PC1050-1-4' | 1-4 | 11/17/04 | 11/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1050-4-7' | 4-7 | 11/17/04 | 11/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **PC1051** | PC1051-1-4' | 1-4 | 11/17/04 | 11/24/04 | 4,620 | ND | ND | ND | ND | 4620 | ND | ND | ND |
| | PC1051-4-7' | 4-7 | 11/17/04 | 11/24/04 | 16,000 | ND | ND | ND | ND | 16000 | ND | ND | ND |
| **PC1052** | PC1052-1-3' | 1-3 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1052-3-6' | 3-6 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | PC1052-6-9.5' | 6-9.5 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **ANT-1** | ANT-1-1-3' | 1-3 | 6/14/04 | 7/12/04 | 6,250 | ND | ND | ND | ND | 6250 | ND | ND | ND |
| | ANT-1-3-6' | 3-6 | 6/14/04 | 7/12/04 | 22,400 | ND | ND | ND | ND | 22400 | ND | ND | ND |
| **ANT-2** | ANT-2-1-3' | 1-3 | 6/14/04 | 7/12/04 | 6,080 | ND | ND | ND | ND | 6080 | ND | ND | ND |
| | ANT-2-3-6' | 3-6 | 6/14/04 | 7/12/04 | 6,770 | ND | ND | ND | ND | 6770 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Grade Beams
## Polychlorinated Biphenyls

| Sample ID | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| GB1-1-3' | 1-3 | 7/30/04 | 8/21/04 | 17,100 | ND | ND | ND | ND | 17,100 | ND | ND | ND |
| GB2-1-3' | 1-3 | 7/30/04 | 8/21/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| GB3-1-3' | 1-3 | 7/30/04 | 8/21/04 | **318,000** | ND | ND | ND | ND | 318,000 | ND | ND | ND |
| GB3-1-3'MS | 1-3 | 7/30/04 | 8/21/04 | 324,000 | ND | ND | ND | ND | 324,000 | ND | ND | ND |
| GB3-1-3'MSD | 1-3 | 7/30/04 | 8/21/04 | 313,000 | ND | ND | ND | ND | 313,000 | ND | ND | ND |
| GB3-3-6' | 3-6 | 9/22/04 | 9/29/04 | 2,110 | ND | ND | ND | ND | 2,110 | ND | ND | ND |
| GB3-6-9' | 6-9 | 9/22/04 | 9/29/04 | **184,100** | ND | ND | ND | ND | 80,100 | 104,000 | ND | ND |
| GB3-A-1-3' | 1-3 | 9/22/04 | 9/29/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| GB3-A-3-6' | 3-6 | 9/22/04 | 9/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-B-1-3' | 1-3 | 9/22/04 | 9/28/04 | 4,080 | ND | ND | ND | ND | 4,080 | ND | ND | ND |
| GB3-B-3-6' | 3-6 | 9/22/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-C-1-3' | 1-3 | 9/22/04 | 9/28/04 | 24,800 | ND | ND | ND | ND | 24,800 | ND | ND | ND |
| GB3-C-3-5' | 3-5 | 9/22/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-D-1-3' | 1-3 | 9/22/04 | 9/28/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| GB3-D-3-6' | 3-6 | 9/22/04 | 9/28/04 | **63,600** | ND | ND | ND | 27,300 | 36,300 | ND | ND | ND |
| GB3-E-6-7' | 6-7 | 11/2/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-F-6-7' | 6-7 | 11/2/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-G-6-7' | 6-7 | 11/2/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB3-H-6-7' | 6-7 | 11/2/04 | 11/3/04 | 13,100 | ND | ND | ND | ND | 13,100 | ND | ND | ND |
| GB4-1-2' | 1-2 | 7/30/04 | 8/21/04 | 16,200 | ND | ND | ND | ND | 16,200 | ND | ND | ND |
| GB5-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | 4,410 | ND | ND | ND | ND | 4,410 | ND | ND | ND |
| GB6-1-3' | 1-3 | 7/30/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB7-1-2' | 1-2 | 7/30/04 | 8/23/04 | 23,400 | ND | ND | ND | ND | 23,400 | ND | ND | ND |
| GB8-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | 2,660 | ND | ND | ND | ND | 2,660 | ND | ND | ND |
| GB9-1-2' | 1-2 | 7/30/04 | 8/21/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| GB10-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB11-1-3' | 1-3 | 7/30/04 | 8/23/04 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND |
| Duplicate 79 (GB11-1-3') | 1-3 | 7/30/04 | 8/24/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| GB12-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB13-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| GB14-1-2' | 1-2 | 7/30/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB15-1-2' | 1-2 | 7/30/04 | 8/23/04 | 2,240 | ND | ND | ND | ND | 2240 | ND | ND | ND |
| GB16-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB17-1-2.5' | 1-2.5 | 7/30/04 | 8/21/04 | 1,480 | ND | ND | ND | ND | 1480 | ND | ND | ND |
| GB18-1-2' | 1-2 | 7/30/04 | 8/21/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB19-1-2' | 1-2 | 7/30/04 | 8/23/04 | 2,080 | ND | ND | ND | ND | 2080 | ND | ND | ND |
| GB20-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 36,900 | ND | ND | ND | ND | 36900 | ND | ND | ND |
| GB21-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 8,670 | ND | ND | ND | ND | 8670 | ND | ND | ND |
| GB22-1-2' | 1-2 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB23-1-2' | 1-2 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB24-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 4,150 | ND | ND | ND | ND | 4150 | ND | ND | ND |
| GB25-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 19,900 | ND | ND | ND | ND | 19900 | ND | ND | ND |

# Grade Beams
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| GB26-1-2' | 1-2 | 7/30/04 | 8/23/04 | 14,200 | ND | ND | ND | ND | 14200 | ND | ND | ND |
| GB27-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB28-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 5,540 | ND | ND | ND | ND | 5,540 | ND | ND | ND |
| GB28-1-2.5'MS | 1-2.5 | 7/30/04 | 8/23/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| GB28-1-2.5'MSD | 1-2.5 | 7/30/04 | 8/23/04 | 12,500 | ND | ND | ND | ND | 12,500 | ND | ND | ND |
| GB29-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 13,000 | ND | ND | ND | ND | 13,000 | ND | ND | ND |
| Duplicate 81 (GB29-1-2.5') | 1-2.5 | 7/30/04 | 8/24/04 | 5,390 | ND | ND | ND | ND | 5,390 | ND | ND | ND |
| GB30-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | 6,400 | ND | ND | ND | ND | 6,400 | ND | ND | ND |
| GB31-1-2' | 1-2 | 7/30/04 | 8/23/04 | 9,360 | ND | ND | ND | ND | 9,360 | ND | ND | ND |
| GB32-1-2' | 1-2 | 7/30/04 | 8/24/04 | 1,580 | ND | ND | ND | ND | 1,580 | ND | ND | ND |
| GB33-1-2' | 1-2 | 7/30/04 | 8/24/04 | 25,900 | ND | ND | ND | ND | 25,900 | ND | ND | ND |
| GB34-1-2' | 1-2 | 7/30/04 | 8/24/04 | 1,320 | ND | ND | ND | ND | 1,320 | ND | ND | ND |
| GB35-1-2' | 1-2 | 7/30/04 | 8/23/04 | 13,100 | ND | ND | ND | ND | 13,100 | ND | ND | ND |
| GB35-2-6.5' | 2-6.5 | 11/17/04 | 11/18/04 | 26,600 | ND | ND | ND | ND | 26,600 | ND | ND | ND |
| GB36-1-2' | 1-2 | 7/30/04 | 8/24/04 | 8,230 | ND | ND | ND | ND | 8,230 | ND | ND | ND |
| GB37-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB38-1-2.5' | 1-2.5 | 7/30/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB39-1-2' | 1-2 | 7/30/04 | 8/23/04 | 5,630 | ND | ND | ND | ND | 5,630 | ND | ND | ND |
| GB40-1-2' | 1-2 | 7/30/04 | 8/23/04 | 1,940 | ND | ND | ND | ND | 1,940 | ND | ND | ND |
| GB41-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB42-1-3' | 1-3 | 7/30/04 | 8/24/04 | 2,150 | ND | ND | ND | ND | 2,150 | ND | ND | ND |
| GB42-1-3'MS | 1-3 | 7/30/04 | 8/24/04 | 6,680 | ND | ND | ND | ND | 6,680 | ND | ND | ND |
| GB42-1-3'MSD | 1-3 | 7/30/04 | 8/24/04 | 7,720 | ND | ND | ND | ND | 7,720 | ND | ND | ND |
| GB43-1-2' | 1-2 | 7/30/04 | 8/23/04 | 5,650 | ND | ND | ND | ND | 5,650 | ND | ND | ND |
| GB44-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB45-1-2' | 1-2 | 7/30/04 | 8/24/04 | 12,100 | ND | ND | ND | ND | 12,100 | ND | ND | ND |
| GB46-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 22,600 | ND | ND | ND | ND | 22,600 | ND | ND | ND |
| GB47-1-3' | 1-3 | 7/30/04 | 8/24/04 | 3,880 | ND | ND | ND | ND | 3,880 | ND | ND | ND |
| GB48-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 9,390 | ND | ND | ND | ND | 9,390 | ND | ND | ND |
| GB49-1-3' | 1-3 | 7/30/04 | 8/24/04 | 5,440 | ND | ND | ND | ND | 5,440 | ND | ND | ND |
| GB50-1-3' | 1-3 | 7/30/04 | 8/24/04 | 4,360 | ND | ND | ND | ND | 4,360 | ND | ND | ND |
| GB52-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 6,950 | ND | ND | ND | ND | 6,950 | ND | ND | ND |
| Duplicate 82 (GB52-1-2.5') | 1-2.5 | 7/30/04 | 8/24/04 | 5,660 | ND | ND | ND | ND | 5,660 | ND | ND | ND |
| GB53-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND |
| GB54-1-2.5' | 1-2.5 | 7/30/04 | 8/24/04 | 2,150 | ND | ND | ND | ND | 2,150 | ND | ND | ND |
| GB55-1-3' | 1-3 | 7/30/04 | 8/24/04 | 9,470 | ND | ND | ND | ND | 9,470 | ND | ND | ND |
| GB56-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 1,180 | ND | ND | ND | ND | 1,180 | ND | ND | ND |
| GB57-1-3' | 1-3 | 8/4/04 | 8/31/04 | **50,900** | ND | ND | ND | ND | 50,900 | ND | ND | ND |
| GB57-C-1-3' | 1-3 | 12/3/04 | 12/8/04 | 17,800 | ND | ND | ND | ND | 17,800 | ND | ND | ND |
| GB58-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB59-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB60-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 2,440 | ND | ND | ND | ND | 2,440 | ND | ND | ND |

# Grade Beams
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| Duplicate 91 (GB60-1-2.5') | 1-2.5' | 8/4/04 | 9/4/04 | 1,330 | ND | ND | ND | ND | 1,330 | ND | ND | ND |
| GB60-1-2.5'MS | 1-2.5 | 8/4/04 | 9/3/04 | 1,770 | ND | ND | ND | ND | 1,770 | ND | ND | ND |
| GB60-1-2.5'MSD | 1-2.5 | 8/4/04 | 9/3/04 | 5,840 | ND | ND | ND | ND | 5,840 | ND | ND | ND |
| GB61-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB62-1-2.5 | 1-2.5 | 8/4/04 | 9/3/04 | 2,610 | ND | ND | ND | ND | 2,610 | ND | ND | ND |
| GB63-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 6,700 | ND | ND | ND | ND | 6,700 | ND | ND | ND |
| GB64-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 2,140 | ND | ND | ND | ND | 2,140 | ND | ND | ND |
| GB65-1-2' | 1-2 | 8/26/04 | 8/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB66-1-2' | 1-2 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB67-1-2' | 1-2 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB68-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB69-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB70-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB71-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 5,890 | ND | ND | ND | ND | 5,890 | ND | ND | ND |
| GB72-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 7,020 | ND | ND | ND | ND | 7,020 | ND | ND | ND |
| GB73-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | 9,310 | ND | ND | ND | ND | 9,310 | ND | ND | ND |
| GB74-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB75-1-3' | 1-3 | 8/4/04 | 9/4/04 | 3,310 | ND | ND | ND | ND | 3,310 | ND | ND | ND |
| Duplicate 93 (GB75-1-3') | 1-3 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB75-1-3'MS | 1-3 | 8/4/04 | 9/4/04 | 4,650 | ND | ND | ND | ND | 4,650 | ND | ND | ND |
| GB75-1-3'MSD | 1-3 | 8/4/04 | 9/4/04 | 3,620 | ND | ND | ND | ND | 3,620 | ND | ND | ND |
| GB76-1-3.5' | 1-3.5 | 12/2/04 | 12/4/04 | 1,750 | ND | ND | ND | ND | 1,750 | ND | ND | ND |
| GB77-1-3' | 1-3 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB78-1-2.5' | 1-2.5 | 8/4/04 | 9/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB79-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB80-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | 2,280 | ND | ND | ND | ND | 2,280 | ND | ND | ND |
| GB81-1-2.5' | 1-2.5 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| GB82-1-3' | 1-3 | 8/4/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

# Building Subsurface Utilities
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| BS-1-1-4' | 1-4 | 10/29/04 | 11/2/04 | 8,570 | ND | ND | ND | ND | 8,570 | ND | ND | ND |
| BS-2-1-4' | 1-4 | 10/29/04 | 11/2/04 | 8,380 | ND | ND | ND | ND | 8,380 | ND | ND | ND |
| BS-3-1-4' | 1-4 | 10/29/04 | 11/2/04 | 4,670 | ND | ND | ND | ND | 4,670 | ND | ND | ND |
| BS-4-1-4' | 1-4 | 10/29/04 | 11/2/04 | 6,040 | ND | ND | ND | ND | 6,040 | ND | ND | ND |
| BS-5-1-4' | 1-4 | 10/29/04 | 11/2/04 | 4,790 | ND | ND | ND | ND | 4,790 | ND | ND | ND |
| BS-6-1-5' | 1-5 | 10/29/04 | 11/2/04 | 2,620 | ND | ND | ND | ND | 2,620 | ND | ND | ND |
| BS-7-1-4' | 1-4 | 10/29/04 | 11/2/04 | 8,820 | ND | ND | ND | ND | 8,820 | ND | ND | ND |
| BS-8-1-3.5' | 1-3.5 | 10/29/04 | 11/2/04 | 1,770 | ND | ND | ND | ND | 1,770 | ND | ND | ND |
| BS-9-1-4.5' | 1-4.5 | 10/29/04 | 11/2/04 | 7,660 | ND | ND | ND | ND | 7,660 | ND | ND | ND |
| BS-10-1-4.5' | 1-4.5 | 10/29/04 | 11/2/04 | 5,160 | ND | ND | ND | ND | 5,160 | ND | ND | ND |
| BS-11-1-4' | 1-4 | 10/29/04 | 11/2/04 | 26,600 | ND | ND | ND | ND | 26,600 | ND | ND | ND |
| BS-12-1-4' | 1-4 | 10/29/04 | 11/2/04 | 33,400 | ND | ND | ND | ND | 33,400 | ND | ND | ND |
| BS-13-1-5' | 1-5 | 10/29/04 | 11/2/04 | 3,220 | ND | ND | ND | ND | 3,220 | ND | ND | ND |
| BS-14-1-4' | 1-4 | 10/29/04 | 11/2/04 | 12,700 | ND | ND | ND | ND | 12,700 | ND | ND | ND |
| BS-15-1-3.25' | 1-3.25 | 10/29/04 | 11/2/04 | 21,600 | ND | ND | ND | ND | 21,600 | ND | ND | ND |
| BS-16-1-3' | 1-3 | 10/29/04 | 11/2/04 | 27,800 | ND | ND | ND | ND | 27,800 | ND | ND | ND |
| BS-17-1-3' | 1-3 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-18-1-2' | 1-2 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-19-1-3.5' | 1-3.5 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-20-1-2.5' | 1-2.5 | 10/29/04 | 11/4/04 | 1,480 | ND | ND | ND | ND | 1,480 | ND | ND | ND |
| BS-21-1-2.5' | 1-2.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-22-1-2' | 1-2 | 10/29/04 | 11/4/04 | 1,250 | ND | ND | ND | ND | 1,250 | ND | ND | ND |
| BS-23-1-2' | 1-2 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-25-1-2.5' | 1-2.5 | 10/29/04 | 11/3/04 | 1,280 | ND | ND | ND | ND | 1,280 | ND | ND | ND |
| BS-26-1-3' | 1-3 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-26-1-3'MS | 1-3 | 10/29/04 | 11/3/04 | 4,930 | ND | ND | ND | ND | 4,930 | ND | ND | ND |
| BS-26-1-3'MSD | 1-3 | 10/29/04 | 11/3/04 | 4,610 | ND | ND | ND | ND | 4610 | ND | ND | ND |
| Duplicate 175 | | 10/29/04 | 11/3/04 | 1,120 | ND | ND | ND | ND | 1120 | ND | ND | ND |
| BS27-1-2' | 1-2 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-29-1-1.5' | 1-1.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-30-1-2.5' | 1-2.5 | 10/29/04 | 11/3/04 | 1,610 | ND | ND | ND | ND | 1610 | ND | ND | ND |
| BS-31-1-1.5' | 1-1.5 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-32-1-2' | 1-2 | 10/29/04 | 11/3/04 | 4,250 | ND | ND | ND | ND | 4250 | ND | ND | ND |
| BS-33-1-1.5' | 1-1.5 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-34-1-2.5' | 1-2.5 | 10/29/04 | 11/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-35-1-1.5' | 1-1.5 | 11/2/04 | 11/6/04 | 18,400 | ND | ND | ND | ND | 18400 | ND | ND | ND |
| BS-36-1-2' | 1-2 | 11/2/04 | 11/6/04 | 7,340 | ND | ND | ND | ND | 7340 | ND | ND | ND |
| BS-37-1-2.5' | 1-2.5 | 11/2/04 | 11/6/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-38-1-2.5' | 1-2.5 | 11/2/04 | 11/6/04 | 20,600 | ND | ND | ND | ND | 20,600 | ND | ND | ND |
| Duplicate 179 (BS38-1-2.5') | 1-2.5 | 11/2/04 | 11/8/04 | 11,600 | ND | ND | ND | ND | 11,600 | ND | ND | ND |
| BS-39-1-3' | 1-3 | 11/2/04 | 11/8/04 | 2,660 | ND | ND | ND | ND | 2,660 | ND | ND | ND |
| BS-40-1-1.5' | 1-1.5 | 11/2/04 | 11/8/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |

# Building Subsurface Utilities
## Polychlorinated Biphenyls

| Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| BS-41-1-1.5' | 1-1.5 | 11/2/04 | 11/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-42-1-2' | 1-2 | 11/2/04 | 11/9/04 | 5,270 | ND | ND | ND | ND | 5,270 | ND | ND | ND |
| BS-43-1-2' | 1-2 | 11/2/04 | 11/8/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND |
| BS-44-1-2.5' | 1-2.5 | 11/2/04 | 11/8/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND |
| BS-45-1-2.5' | 1-2.5 | 11/2/04 | 11/8/04 | 5,690 | ND | ND | ND | ND | 5,690 | ND | ND | ND |
| BS-46-1-2.5' | 1-2.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-47-1-3' | 1-3 | 10/29/04 | 11/4/04 | 18,600 | ND | ND | ND | ND | 18,600 | ND | ND | ND |
| BS-48-1-3.5' | 1-3.5 | 10/29/04 | 11/4/04 | 6,740 | ND | ND | ND | ND | 6,740 | ND | ND | ND |
| BS-49-1-4' | 1-4 | 10/29/04 | 11/4/04 | 13,700 | ND | ND | ND | ND | 13,700 | ND | ND | ND |
| BS-50-1-4.5' | 1-4.5 | 10/29/04 | 11/4/04 | 19,300 | ND | ND | ND | ND | 19,300 | ND | ND | ND |
| BS-51-1-5' | 1-5 | 10/29/04 | 11/4/04 | 1,570 | ND | ND | ND | ND | 1,570 | ND | ND | ND |
| BS-52-1-1.25' | 1-1.25 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-53-1-1.5' | 1-1.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-54-1-1.5' | 1-1.5 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-55-1-1.25' | 1-1.25 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-56-1-1.25' | 1-1.25 | 10/29/04 | 11/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-57-1-2.5' | 1-2.5 | 10/29/04 | 11/4/04 | 10,900 | ND | ND | ND | ND | 10,900 | ND | ND | ND |
| BS-58-1-4' | 1-4 | 11/2/04 | 11/8/04 | 3,700 | ND | ND | ND | ND | 3,700 | ND | ND | ND |
| Duplicate 178 (BS-58-1-4') | 1-4 | 11/2/04 | 11/8/04 | 4,980 | ND | ND | ND | ND | 4,980 | ND | ND | ND |
| BS-59-1-1.5' | 1-1.5 | 11/2/04 | 11/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-60-1-5' | 1-5 | 11/2/04 | 11/8/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| BS61-2-6' | 2-6 | 11/17/04 | 11/5/04 | 9,230 | ND | ND | ND | ND | 9,230 | ND | ND | ND |
| Duplicate 191 (BS61-2-6') | 2-6 | 11/17/04 | 11/18/04 | 6,440 | ND | ND | ND | ND | 6,440 | ND | ND | ND |
| BS-61-1-2' | 1-2 | 10/29/04 | 11/18/04 | 2,190 | ND | ND | ND | ND | 2,190 | ND | ND | ND |
| BS-62-1-2.5' | 1-2.5 | 10/29/04 | 11/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-63-1-3' | 1-3 | 10/29/04 | 11/4/04 | 7,800 | ND | ND | ND | ND | 7,800 | ND | ND | ND |
| BS-64-1-3.5' | 1-3.5 | 10/29/04 | 11/4/04 | 8,350 | ND | ND | ND | ND | 8,350 | ND | ND | ND |
| BS-65-1-4' | 1-4 | 10/29/04 | 11/4/04 | 32,500 | ND | ND | ND | ND | 32,500 | ND | ND | ND |
| BS-66-1-5' | 1-5 | 10/29/04 | 11/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-67-1-1.5' | 1-1.5 | 10/29/04 | 11/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-68-1-1.5' | 1-1.5 | 10/29/04 | 11/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-69-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | **98,800** | ND | ND | ND | ND | 98,800 | ND | ND | ND |
| BS-69-1.5-2.5' | 1.5-2.5 | 12/2/04 | 12/4/04 | 14,200 | ND | ND | ND | ND | 14,200 | ND | ND | ND |
| BS-69-E-1-1.5' | 1-1.5 | 11/11/04 | 11/15/04 | 48,000 | ND | ND | ND | ND | 48,000 | ND | ND | ND |
| BS-69-W-1-1.5' | 1-1.5 | 11/11/04 | 11/15/04 | **138,700** | ND | ND | ND | ND | 138,700 | ND | ND | ND |
| BS-69-A-1-2' | 1-2 | 11/17/04 | 11/18/04 | 32,500 | ND | ND | ND | ND | 32,500 | ND | ND | ND |
| BS-69-B-1-2' | 1-2 | 11/17/04 | 11/18/04 | 2,280 | ND | ND | ND | ND | 2,280 | ND | ND | ND |
| BS-69-C-1-2' | 1-2 | 11/17/04 | 11/18/04 | 7,700 | ND | ND | ND | ND | 7,700 | ND | ND | ND |
| BS-70-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | 20,100 | ND | ND | ND | ND | 20,100 | ND | ND | ND |
| BS-71-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-72-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | 30,600 | ND | ND | ND | ND | 30,600 | ND | ND | ND |

# Building Subsurface Utilities
## Polychlorinated Biphenyls

| Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| BS-73-1-1.5' | 1-1.5 | 11/3/04 | 11/10/04 | 2,240 | ND | ND | ND | ND | 2,240 | ND | ND | ND |
| BS-74-1-2' | 1-2 | 11/3/04 | 11/9/04 | 3,520 | ND | ND | ND | ND | 3,520 | ND | ND | ND |
| BS-75-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| BS-76-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-77-1-2' | 1-2 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-78-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-79-1-4' | 1-4 | 11/3/04 | 11/9/04 | 24,800 | ND | ND | ND | ND | 24,800 | ND | ND | ND |
| Duplicate 181 (BS79-1-4') | 1-4 | 11/3/04 | 11/9/04 | 23,600 | ND | ND | ND | ND | 23,600 | ND | ND | ND |
| BS-80-1-2' | 1-2 | 11/3/04 | 11/9/04 | 4,000 | ND | ND | ND | ND | 4,000 | ND | ND | ND |
| BS-81-1-2' | 1-2 | 11/3/04 | 11/9/04 | 13,600 | ND | ND | ND | ND | 13,600 | ND | ND | ND |
| BS-82-1-5' | 1-5 | 11/3/04 | 11/9/04 | 8,510 | ND | ND | ND | ND | 8,510 | ND | ND | ND |
| BS-83-1-1.5 | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-84-1-3.75' | 1-3.75 | 11/3/04 | 11/9/04 | 14,500 | ND | ND | ND | ND | 14,500 | ND | ND | ND |
| BS-85-1-2' | 1-2 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-86-1-2' | 1-2 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-87-1-5.5' | 1-5.5 | 11/3/04 | 11/9/04 | 4,020 | ND | ND | ND | ND | 4,020 | ND | ND | ND |
| BS-88-1-5.5' | 1-5.5 | 11/3/04 | 11/9/04 | 2,000 | ND | ND | ND | ND | 2,000 | ND | ND | ND |
| BS-89-1-6' | 1-6 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-90-1-4' | 1-4 | 11/3/04 | 11/9/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND |
| BS-90-4-7' | 4-7 | 11/3/04 | 11/9/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| Duplicate 184 (BS90-4-7') | 4-7 | 11/3/04 | 11/10/04 | 8,350 | ND | ND | ND | ND | 8,350 | ND | ND | ND |
| BS-91-1-4' | 1-4 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-91-4-6.75' | 4-6.75 | 11/3/04 | 11/9/04 | 2,650 | ND | ND | ND | ND | 2,650 | ND | ND | ND |
| BS-92-1-2' | 1-2 | 11/3/04 | 11/9/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND |
| BS-93-1-2' | 1-2 | 11/3/04 | 11/10/04 | 2,000 | ND | ND | ND | ND | 2,000 | ND | ND | ND |
| BS-94-1-4.5' | 1-4.5 | 11/3/04 | 11/10/04 | 2,700 | ND | ND | ND | ND | 2,700 | ND | ND | ND |
| BS-95-1-2' | 1-2 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-96-1-6' | 1-6 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-97-1-5.25' | 1-5.25 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 182 (BS-97-1-5.25') | 1-5.25 | 11/3/04 | 11/10/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| BS-98-1-5' | 1-5 | 11/3/04 | 11/10/04 | 5,450 | ND | ND | ND | ND | 5,450 | ND | ND | ND |
| BS-99-1-4.25' | 1-4.25 | 11/3/04 | 11/10/04 | 20,100 | ND | ND | ND | ND | 20,100 | ND | ND | ND |
| BS-100-1-4' | 1-4 | 11/3/04 | 11/9/04 | 6,190 | ND | ND | ND | ND | 6,190 | ND | ND | ND |
| BS-101-1-3.75' | 1-3.75 | 11/3/04 | 11/9/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| BS-102-1-2' | 1-2 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-103-1-2.75' | 1-2.75 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-104-1-4' | 1-4 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-105-1-1.5' | 1-1.5 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-106-1-4' | 1-4 | 11/3/04 | 11/9/04 | 2,180 | ND | ND | ND | ND | 2,180 | ND | ND | ND |
| BS-107-1-3.25' | 1-3.25 | 11/3/04 | 11/10/04 | 40,000 | ND | ND | ND | ND | 40,000 | ND | ND | ND |
| BS-108-1-1.75' | 1-1.75 | 11/3/04 | 11/10/04 | 3,440 | ND | ND | ND | ND | 3,440 | ND | ND | ND |
| BS-109-1-3.75' | 1-3.75 | 11/3/04 | 11/10/04 | 8,520 | ND | ND | ND | ND | 8,520 | ND | ND | ND |

## Building Subsurface Utilities
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| BS-110-1-3.75' | 1-3.75 | 11/3/04 | 11/10/04 | 18,100 | ND | ND | ND | ND | 18,100 | ND | ND | ND |
| BS-111-1-4.5' | 1-4.5 | 11/3/04 | 11/9/04 | 8,620 | ND | ND | ND | ND | 8,620 | ND | ND | ND |
| BS-112-1-4' | 1-4 | 11/3/04 | 11/10/04 | 48,000 | ND | ND | ND | ND | 48,000 | ND | ND | ND |
| BS-112-4-7' | 4-7 | 11/3/04 | 11/10/04 | 5,960 | ND | ND | ND | ND | 5,960 | ND | ND | ND |
| BS-113-1-4' | 1-4 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-113-4-7' | 4-7 | 11/3/04 | 11/10/04 | 6,670 | ND | ND | ND | ND | 6,670 | ND | ND | ND |
| BS-114-1-5' | 1-5 | 11/3/04 | 11/9/04 | 2,530 | ND | ND | ND | ND | 2,530 | ND | ND | ND |
| BS-115-1-2' | 1-2 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-116-1-2' | 1-2 | 11/3/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-117-1-2' | 1-2 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| BS-118-1-1.75' | 1-1.75 | 11/3/04 | 11/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

# Utility Tie-Ins
# Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Tie-In** | **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **TI-1A** | TI-1A-1-4' | 1-4 | 10/20/04 | 10/26/04 | 21,700 | ND | ND | ND | ND | 21,700 | ND | ND | ND |
| | TI-1A-4-8' | 4-8 | 10/20/04 | 10/26/04 | 3,600 | ND | ND | ND | ND | 3,600 | ND | ND | ND |
| | TI-1A-8-11' | 8-11 | 10/20/04 | 10/26/04 | 3,720 | ND | ND | ND | ND | 3,720 | ND | ND | ND |
| **TI-2A** | TI-2A-1-4' | 1-4 | 10/20/04 | 10/26/04 | **60,900** | ND | ND | ND | ND | 60,900 | ND | ND | ND |
| | TI-2A-4-8' | 4-8 | 10/20/04 | 10/26/04 | 7,210 | ND | ND | ND | ND | 7,210 | ND | ND | ND |
| | TI-2A-8-11' | 8-11 | 10/20/04 | 10/26/04 | 2,870 | ND | ND | ND | ND | 2,870 | ND | ND | ND |
| **TI-3A** | TI-3A-1-4' | 1-4 | 10/20/04 | 10/26/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | TI-3A-4-8' | 4-8 | 10/20/04 | 10/27/04 | 44,600 | ND | ND | ND | ND | 44,600 | ND | ND | ND |
| | TI-3A-8-11' | 8-11 | 10/20/04 | 10/26/04 | 2,350 | ND | ND | ND | ND | 2,350 | ND | ND | ND |
| **TI-4A** | TI-4A-0-4' | 0-4 | 10/20/04 | 10/26/04 | 3,680 | ND | ND | ND | ND | 3,680 | ND | ND | ND |
| | TI-4A-4-8' | 4-8 | 10/20/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | TI-4A-8-9' | 8-9 | 10/20/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **TI-5A** | TI-5A-1-4' | 1-4 | 10/20/04 | 10/27/04 | **75,000** | ND | ND | ND | ND | 75,000 | ND | ND | ND |
| | TI-5A-4-8' | 4-8 | 10/20/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | TI-5A-8-9.25' | 8-9.25 | 10/20/04 | 10/26/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Q40** | Q40-2-4' | 2-4 | 5/26/04 | 6/5/04 | 1,530 | ND | ND | ND | ND | 1,530 | ND | ND | ND | ~ |
| | Q40-4-8' | 4-8 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q41** | Q41-2-4' | 2-4 | 5/26/04 | 6/5/04 | 25,900 | ND | ND | ND | ND | ND | ND | ND | 25,900 | ~ |
| | Q41-4-6' | 4-6 | 5/26/04 | 6/5/04 | 6,470 | ND | ND | ND | ND | 6,470 | ND | ND | ND | ~ |
| | Q41-6-8.5' | 6-8.5 | 5/26/04 | 6/5/04 | 1,410 | ND | ND | ND | ND | 1,410 | ND | ND | ND | ~ |
| | Q41-OS-9-10' | 9-10 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q42** | Q42-2-4' | 2-4 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q42-4-6' | 4-6 | 5/26/04 | 6/5/04 | 9,140 | ND | ND | ND | ND | 9,140 | ND | ND | ND | ~ |
| | Q42-6-8.5' | 6-8.5 | 5/26/04 | 6/5/04 | 7,570 | ND | ND | ND | ND | 7,570 | ND | ND | ND | ~ |
| | Q42-OS-9-10' | 9-10 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q43** | Q43-2-4' | 2-4 | 5/26/04 | 6/5/04 | 2,190 | ND | ND | ND | ND | 2,190 | ND | ND | ND | ~ |
| | Q43-4-6' | 4-6 | 5/26/04 | 6/11/04 | **99,000** | ND | ND | ND | ND | 99,000 | ND | ND | ND | ~ |
| | Q43-6-8.5' | 6-8.5 | 5/26/04 | 6/12/04 | **108,000** | ND | ND | ND | ND | 108,000 | ND | ND | ND | ~ |
| | Q43-OS-9-10' | 9-10 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| | Q43-A-4-6' | 4-6 | 6/30/04 | 7/31/04 | 20,300 | ND | ND | ND | ND | 20300 | ND | ND | ND | ~ |
| | Q43-A-6-9' | 6-9 | 6/30/04 | 7/31/04 | 10,200 | ND | ND | ND | ND | 10200 | ND | ND | ND | ~ |
| | Duplicate 68 (Q43-A-6-9') | 6-9 | 6/30/04 | 8/7/04 | 6,490 | ND | ND | ND | ND | 6490 | ND | ND | ND | |
| | Q43-B-4-6' | 4-6 | 6/30/04 | 7/31/04 | 4,750 | ND | ND | ND | ND | 4750 | ND | ND | ND | ~ |
| | Q43-B-6-9' | 6-9 | 6/30/04 | 7/31/04 | 4,250 | ND | ND | ND | ND | 4250 | ND | ND | ND | ~ |
| | Q43-B-6-9'MS | 6-9 | 6/30/04 | 7/31/04 | 11,200 | ND | ND | ND | ND | 11200 | ND | ND | ND | ~ |
| | Q43-B-6-9'MSD | 6-9 | 6/30/04 | 7/31/04 | 17,100 | ND | ND | ND | ND | 17100 | ND | ND | ND | ~ |
| | Q43-C-4-6' | 4-6 | 6/30/04 | 7/31/04 | 2,380 | ND | ND | ND | ND | 2380 | ND | ND | ND | ~ |
| | Q43-C-6-9' | 6-9 | 6/30/04 | 7/31/04 | 2,470 | ND | ND | ND | ND | 2470 | ND | ND | ND | ~ |
| | Q43-D-4-6' | 4-6 | 6/30/04 | 7/31/04 | 1,720 | ND | ND | ND | ND | 1720 | ND | ND | ND | ~ |
| | Q43-D-6-8.5' | 6-8.5 | 6/30/04 | 7/31/04 | 47,600 | ND | ND | ND | ND | 47600 | ND | ND | ND | ~ |
| | Q43-E-4-6' | 4-6 | 6/30/04 | 7/31/04 | **50,900** | ND | ND | ND | ND | 50900 | ND | ND | ND | ~ |
| | Q43-E-6-8.5' | 6-8.5 | 6/30/04 | 7/31/04 | 4,720 | ND | ND | ND | ND | 4720 | ND | ND | ND | ~ |
| | Q43-F-4-6' | 4-6 | 6/30/04 | 7/31/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q43-F-6-9.5' | 6-9.5 | 6/30/04 | 7/31/04 | 9,870 | ND | ND | ND | ND | 9870 | ND | ND | ND | ~ |
| **Q44** | Q44-1-3' | 1-3 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q44-3-6' | 3-6 | 5/26/04 | 6/5/04 | 5,880 | ND | ND | ND | ND | 5,880 | ND | ND | ND | ~ |
| | Q44-6-9' | 6-9 | 5/26/04 | 6/5/04 | 6,370 | ND | ND | ND | ND | 6,370 | ND | ND | ND | ~ |
| **Q45** | Q45-1-3' | 1-3 | 5/26/04 | 6/5/04 | 1,500 | ND | ND | ND | ND | 1,500 | ND | ND | ND | ~ |
| | Q45-3-6' | 3-6 | 5/26/04 | 6/5/04 | 3,450 | ND | ND | ND | ND | 3,450 | ND | ND | ND | ~ |
| | Q45-6-9' | 6-9 | 5/26/04 | 6/5/04 | 3,560 | ND | ND | ND | ND | 3,560 | ND | ND | ND | ~ |
| **Q46** | Q46-1-4' | 1-4 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q46-4-7' | 4-7 | 5/26/04 | 6/5/04 | 6,340 | ND | ND | ND | ND | 6,340 | ND | ND | ND | ~ |
| | Q46-4-7'MS | 4-7 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q46-4-7'MSDUP | 4-7 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |

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Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Q46-7-10' | 7-10 | 5/26/04 | 6/5/04 | 7,180 | ND | ND | ND | ND | 7,180 | ND | ND | ND | ~ |
| | Q46-OS-10.5-11.5' | 10.5-11.5 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q47** | Q47-1-3' | 1-3 | 5/26/04 | 6/5/04 | 3,240 | ND | ND | ND | ND | 3,240 | ND | ND | ND | ~ |
| | Q47-3-6' | 3-6 | 5/26/04 | 6/5/04 | 3,730 | ND | ND | ND | ND | 3,730 | ND | ND | ND | ~ |
| | Q47-6-9' | 6-9 | 5/26/04 | 6/5/04 | 8,630 | ND | ND | ND | ND | 8,630 | ND | ND | ND | ~ |
| **Q48** | Q48-1-3' | 1-3 | 5/26/04 | 6/5/04 | 2,640 | ND | ND | ND | ND | 2,640 | ND | ND | ND | ~ |
| | Q48-3-6' | 3-6 | 5/26/04 | 6/5/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND | ~ |
| **Q49** | Q49-1-3' | 1-3 | 5/26/04 | 6/5/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q49-3-5' | 3-5 | 5/26/04 | 6/5/04 | 1,800 | ND | ND | ND | ND | 1,800 | ND | ND | ND | ~ |
| | Q49-5-8' | 5-8 | 5/26/04 | 6/5/04 | 6,730 | ND | ND | ND | ND | 6,730 | ND | ND | ND | ~ |
| | Q49-OS-9.5-10.5' | 9.5-10.5 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q50** | Q50-1-4' | 1-4 | 5/26/04 | 6/5/04 | 2,860 | ND | ND | ND | ND | 2,860 | ND | ND | ND | ~ |
| | Q50-4-7' | 4-7 | 5/26/04 | 6/5/04 | 5,310 | ND | ND | ND | ND | 5,310 | ND | ND | ND | ~ |
| | Q50-7-11' | 7-11 | 5/26/04 | 6/6/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q50-OS-11.5-12' | 11.5-12 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q51** | Q51-1-4' | 1-4 | 5/26/04 | 6/6/04 | 9,140 | ND | ND | ND | ND | 3,410 | ND | ND | 5,730 | ~ |
| | Q51-4-7' | 4-7 | 5/26/04 | 6/6/04 | 2,560 | ND | ND | ND | ND | 2,560 | ND | ND | ND | ~ |
| | Q51-7-10' | 7-10 | 5/26/04 | 6/6/04 | 1,720 | ND | ND | ND | ND | 1,720 | ND | ND | ND | ~ |
| | Q51-OS-10.5-11.5' | 10.5-11.5 | 5/26/04 | 6/8/04 | ND | ND | ND | ~ | ND | ND | ND | ND | ~ | ~ |
| **Q52** | Q52-1-4' | 1-4 | 6/14/04 | 7/13/04 | 9,650 | ND | ND | ND | ND | 9,650 | ND | ND | ND | ~ |
| | Q52-4-7' | 4-7 | 6/14/04 | 7/4/04 | 4,520 | ND | ND | ND | ND | 4,520 | ND | ND | ND | ~ |
| | Duplicate 27 | | 6/14/04 | 7/13/04 | 6,240 | ND | ND | ND | ND | 6,240 | ND | ND | ND | ~ |
| | Q52-7-11' | 7-11 | 6/14/04 | 7/4/04 | 5,320 | ND | ND | ND | ND | 5,320 | ND | ND | ND | ~ |
| | Q52-OS-11.5-12' | 11.5-12 | 6/14/04 | 6/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q53** | Q53-1-4' | 1-4 | 6/14/04 | 7/4/04 | 2,940 | ND | ND | ND | ND | 2,940 | ND | ND | ND | ~ |
| | Q53-1-4'MS | 1-4 | 6/14/04 | 7/4/04 | 4,810 | ND | ND | ND | ND | 4,810 | ND | ND | ND | ~ |
| | Q53-1-4'MSD | 1-4 | 6/14/04 | 7/4/04 | 4,670 | ND | ND | ND | ND | 4,670 | ND | ND | ND | ~ |
| | Q53-4-8' | 4-8 | 6/14/04 | 7/4/04 | 1,450 | ND | ND | ND | ND | 1,450 | ND | ND | ND | ~ |
| **former Q54** | Q54-1-4' | 1-4 | 6/14/04 | 7/4/04 | 2,640 | ND | ND | ND | ND | 2,640 | ND | ND | ND | ~ |
| | Q54-4-7' | 4-7 | 6/14/04 | 7/4/04 | 1,640 | ND | ND | ND | ND | 1,640 | ND | ND | ND | ~ |
| | Q54-7-11' | 7-11 | 6/14/04 | 7/4/04 | 1,450 | ND | ND | ND | ND | 1,450 | ND | ND | ND | ~ |
| | Q54-OS-11-12' | 11-12 | 6/14/04 | 6/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **former Q55** | Q55-1-4' | 1-4 | 6/14/04 | 7/13/04 | 1,560 | ND | ND | ND | ND | 1,560 | ND | ND | ND | ~ |
| | Q55-4-8' | 4-8 | 6/14/04 | 7/4/04 | 3,710 | ND | ND | ND | ND | 3,710 | ND | ND | ND | ~ |
| | Q55-8-11' | 8-11 | 6/30/04 | 7/31/04 | 2,060 | ND | ND | ND | ND | 2,060 | ND | ND | ND | ~ |
| **former Q56** | Q56-1-4' | 1-4 | 6/17/04 | 7/30/04 | 4,580 | ND | ND | ND | ND | 4,580 | ND | ND | ND | ~ |
| | Q56-4-8' | 4-8 | 6/17/04 | 7/30/04 | 2,840 | ND | ND | ND | ND | 2,840 | ND | ND | ND | ~ |
| | Q56-8-12' | 8-12 | 6/17/04 | 7/30/04 | 1,610 | ND | ND | ND | ND | 1,610 | ND | ND | ND | ~ |
| | Q57-1-4' | 1-4 | 6/17/04 | 7/30/04 | 4,410 | ND | ND | ND | ND | 4,410 | ND | ND | ND | ~ |

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McCoy Field
Project No. 02685

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **former Q57** | Q57-4-7' | 4-7 | 6/17/04 | 7/30/04 | 4,280 | ND | ND | ND | ND | 4,280 | ND | ND | ND | ~ |
| | Q57-7-10' | 7-10 | 6/17/04 | 7/30/04 | 2,690 | ND | ND | ND | ND | 2,690 | ND | ND | ND | ~ |
| | Q57-OS-10.5-12' | 10.5-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **former Q58** | Q58-1-4' | 1-4 | 6/17/04 | 7/30/04 | 5,610 | ND | ND | ND | ND | 5,610 | ND | ND | ND | ~ |
| | Q58-4-7' | 4-7 | 6/17/04 | 7/30/04 | 4,030 | ND | ND | ND | ND | 4,030 | ND | ND | ND | ~ |
| | Q58-7-11' | 7-11 | 6/17/04 | 7/30/04 | 2,040 | ND | ND | ND | ND | 2,040 | ND | ND | ND | ~ |
| **former Q59** | Q59-1-3' | 1-3 | 6/17/04 | 7/30/04 | 22,300 | ND | ND | ND | ND | 22,300 | ND | ND | ND | ~ |
| | Q59-3-6' | 3-6 | 6/17/04 | 7/30/04 | 2,810 | ND | ND | ND | ND | 2,810 | ND | ND | ND | ~ |
| | Q59-6-9' | 6-9 | 6/17/04 | 7/30/04 | 1,840 | ND | ND | ND | ND | 1,840 | ND | ND | ND | ~ |
| | Q59-OS-9.5-12' | 9.5-12 | 6/17/04 | 7/9/04 | 851 | ND | ND | ND | ND | 851 | ND | ND | ND | ~ |
| | DUPLICATE 28 | | 6/17/04 | 7/31/04 | 9,330 | ND | ND | ND | ND | 9,330 | ND | ND | ND | ~ |
| **former Q60** | Q60-1-4' | 1-4 | 6/17/04 | 7/30/04 | **217,000** | ND | ND | ND | ND | 217,000 | ND | ND | ND | ~ |
| | Q60-1-4'MS | 1-4 | 6/17/04 | 7/30/04 | 392,000 | ND | ND | ND | ND | 392,000 | ND | ND | ND | ~ |
| | Q60-1-4'MS DUP | 1-4 | 6/17/04 | 7/30/04 | 351,000 | ND | ND | ND | ND | 351,000 | ND | ND | ND | ~ |
| | Q60-4-7' | 4-7 | 6/17/04 | 7/30/04 | **80,700** | ND | ND | ND | ND | 80,700 | ND | ND | ND | ~ |
| | Q60-7-10.5' | 7-10.5 | 6/17/04 | 7/30/04 | 3,590 | ND | ND | ND | ND | 3,590 | ND | ND | ND | ~ |
| | Q60-OS-11-12' | 11-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **former Q61** | Q61-1-4' | 1-4 | 6/17/04 | 7/30/04 | 14,900 | ND | ND | ND | ND | 14,900 | ND | ND | ND | ~ |
| | Q61-4-7' | 4-7 | 6/17/04 | 7/30/04 | 3,360 | ND | ND | ND | ND | 3,360 | ND | ND | ND | ~ |
| | Q61-7-11' | 7-11 | 6/17/04 | 7/30/04 | 3,890 | ND | ND | ND | ND | 3,890 | ND | ND | ND | ~ |
| **Q55** | Q55A-1-4' | 1-4 | 7/7/04 | 8/6/04 | 8,260 | ND | ND | ND | ND | 8,260 | ND | ND | ND | ~ |
| | DUPLICATE 76 | 1-4 | 7/7/04 | 8/6/04 | 7,840 | ND | ND | ND | ND | 7,840 | ND | ND | ND | ~ |
| | Q55A-4-7' | 4-7 | 7/7/04 | 8/6/04 | 6,050 | ND | ND | ND | ND | 6,050 | ND | ND | ND | ~ |
| | Q55A-4-7'MS | 4-7 | 7/7/04 | 8/6/04 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND | ~ |
| | Q55A-4-7'MSD | 4-7 | 7/7/04 | 8/6/04 | 8,120 | ND | ND | ND | ND | 8,120 | ND | ND | ND | ~ |
| | Q55A-7-11' | 7-11 | 7/7/04 | 8/6/04 | 2,070 | ND | ND | ND | ND | 2,070 | ND | ND | ND | ~ |
| | Q55A-OS-11.5-12' | 11.5-12 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q56** | Q56A-1-4' | 1-4 | 7/7/04 | 8/6/04 | 14,900 | ND | ND | ND | ND | 14,900 | ND | ND | ND | ~ |
| | Q56A-4-7' | 4-7 | 7/7/04 | 8/6/04 | **57,500** | ND | ND | ND | ND | 57,500 | ND | ND | ND | ~ |
| | Q56A-7-10' | 7-10 | 7/7/04 | 8/6/04 | 2,750 | ND | ND | ND | ND | 2,750 | ND | ND | ND | ~ |
| | Q56A-OS-10.5-13' | 10.5-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q56-B-1-4' | 1-4 | 8/18/04 | 8/19/04 | 18,000 | ND | ND | ND | ND | 18,000 | ND | ND | ND | ~ |
| | Q56-B-4-7' | 4-7 | 8/18/04 | 8/19/04 | **62,500** | ND | ND | ND | ND | 62,500 | ND | ND | ND | ~ |
| | Q56-B-7-9.5' | 7-9.5 | 8/18/04 | 8/19/04 | 1,450 | ND | ND | ND | ND | 1,450 | ND | ND | ND | ~ |
| | Q56-C-1-4' | 1-4 | 8/18/04 | 8/19/04 | 3,930 | ND | ND | ND | ND | 3,930 | ND | ND | ND | ~ |
| | Q56-C-4-7' | 4-7 | 8/18/04 | 8/20/04 | 24,100 | ND | ND | ND | ND | 24,100 | ND | ND | ND | ~ |
| | Q56-C-7-8' | 7-8 | 8/18/04 | 8/19/04 | 1,590 | ND | ND | ND | ND | 1,590 | ND | ND | ND | ~ |
| | Q56-D-1-4' | 1-4 | 8/18/04 | 8/24/04 | 3,360 | ND | ND | ND | ND | 3,360 | ND | ND | ND | ~ |
| | Q56-D-4-7' | 4-7 | 8/18/04 | 8/24/04 | 39,600 | ND | ND | ND | ND | 39,600 | ND | ND | ND | ~ |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

## North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Q56-D-7-11' | 7-11 | 8/18/04 | 8/24/04 | 2,780 | ND | ND | ND | ND | 2,780 | ND | ND | ND | ~ |
| **Q57** | Q57A-1-4' | 1-4 | 7/7/04 | 8/6/04 | 5,760 | ND | ND | ND | ND | 5,760 | ND | ND | ND | ~ |
| | Q57A-4-7' | 4-7 | 7/7/04 | 8/7/04 | 8,000 | ND | ND | ND | ND | 8,000 | ND | ND | ND | ~ |
| | Q57A-7-10' | 7-10 | 7/7/04 | 8/7/04 | 2,320 | ND | ND | ND | ND | 2,320 | ND | ND | ND | ~ |
| | Q57A-OS-10.5-13' | 10.5-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q58** | Q58A-1-3' | 1-3 | 7/7/04 | 8/7/04 | 6,660 | ND | ND | ND | ND | 6,660 | ND | ND | ND | ~ |
| | Q58A-3-6' | 3-6 | 7/7/04 | 8/7/04 | 9,670 | ND | ND | ND | ND | 9,670 | ND | ND | ND | ~ |
| | Q58A-6-9.5' | 6-9.5 | 7/7/04 | 8/7/04 | 1,960 | ND | ND | ND | ND | 1,960 | ND | ND | ND | ~ |
| | Q58A-OS-10-12' | 10-12 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q59** | Q59A-1-3' | 1-3 | 7/7/04 | 8/7/04 | 20,000 | ND | ND | ND | ND | 20,000 | ND | ND | ND | ~ |
| | Q59A-3-6' | 3-6 | 7/7/04 | 8/7/04 | 2,280 | ND | ND | ND | ND | 2,280 | ND | ND | ND | ~ |
| | Q59A-6-9.5' | 6-9.5 | 7/7/04 | 8/7/04 | 5,090 | ND | ND | ND | ND | 5,090 | ND | ND | ND | ~ |
| | Q59A-OS-10-13' | 10-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q60** | Q60A-1-4' | 1-4 | 7/7/04 | 8/7/04 | 3,230 | ND | ND | ND | ND | 3,230 | ND | ND | ND | ~ |
| | Q60A-4-7' | 4-7 | 7/7/04 | 8/7/04 | 4,350 | ND | ND | ND | ND | 4,350 | ND | ND | ND | ~ |
| | Q60A-7-10.5' | 7-10.5 | 7/7/04 | 8/7/04 | 3,810 | ND | ND | ND | ND | 3,810 | ND | ND | ND | ~ |
| | Q60A-OS-11-12' | 11-12 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q60-B-1-4' | 1-4 | 8/18/04 | 8/20/04 | 1,960 | ND | ND | ND | ND | 1,960 | ND | ND | ND | ~ |
| | Q60-B-4-7' | 4-7 | 8/18/04 | 8/20/04 | 2,270 | ND | ND | ND | ND | 2,270 | ND | ND | ND | ~ |
| | Q60-C-1-4' | 1-4 | 8/18/04 | 8/21/04 | **82,600** | ND | ND | ND | ND | 82,600 | ND | ND | ND | ~ |
| | Duplicate 112 | 1-4 | 8/18/04 | 8/22/04 | 16,100 | ND | ND | ND | ND | 16,100 | ND | ND | ND | ~ |
| | Q60-C-4-7' | 4-7 | 8/18/04 | 8/20/04 | 1,360 | ND | ND | ND | ND | 1,360 | ND | ND | ND | ~ |
| | Q60-C-4-7'MS | 4-7 | 8/18/04 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | ~ |
| | Q60-C-4-7'MSD | 4-7 | 8/18/04 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | ~ |
| | Q60-D-1-4' | 1-4 | 8/18/04 | 8/21/04 | **73,900** | ND | ND | ND | ND | 73,900 | ND | ND | ND | ~ |
| | Q60-D-4-7' | 4-7 | 8/18/04 | 8/22/04 | **68,100** | ND | ND | ND | ND | 68,100 | ND | ND | ND | ~ |
| | Q60-E-1-4' | 1-4 | 8/18/04 | 8/20/04 | **97,100** | ND | ND | ND | ND | 97,100 | ND | ND | ND | ~ |
| | Q60-E-4-7' | 4-7 | 8/18/04 | 8/20/04 | 1,690 | ND | ND | ND | ND | 1,690 | ND | ND | ND | ~ |
| | Q60-F-1-4' | 1-4 | 8/18/04 | 8/20/04 | 29,300 | ND | ND | ND | ND | 29,300 | ND | ND | ND | ~ |
| | Q60-F-4-7' | 4-7 | 8/18/04 | 8/20/04 | 2,050 | ND | ND | ND | ND | 2,050 | ND | ND | ND | ~ |
| | Q60-G-1-4' | 1-4 | 8/18/04 | 8/20/04 | 5,910 | ND | ND | ND | ND | 5,910 | ND | ND | ND | ~ |
| | Q60-G-4-7' | 4-7 | 8/18/04 | 8/20/04 | 1,310 | ND | ND | ND | ND | 1,310 | ND | ND | ND | ~ |
| | Q60-H-1-4' | 1-4 | 8/18/04 | 8/20/04 | 1,030 | ND | ND | ND | ND | 1,030 | ND | ND | ND | ~ |
| | Q60-H-4-7' | 4-7 | 8/18/04 | 8/20/04 | 3,610 | ND | ND | ND | ND | 3,610 | ND | ND | ND | ~ |
| **Q61** | Q61A-1-4' | 1-4 | 7/7/04 | 8/7/04 | 40,200 | ND | ND | ND | ND | 40,200 | ND | ND | ND | ~ |
| | Q61A-4-8' | 4-8 | 7/7/04 | 8/7/04 | 12,800 | ND | ND | ND | ND | 12,800 | ND | ND | ND | ~ |
| | Q61A-8-12' | 8-12 | 7/7/04 | 8/7/04 | 1,910 | ND | ND | ND | ND | 1,910 | ND | ND | ND | ~ |
| | Q61A-OS-12-13' | 12-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | DUPLICATE 77 | 12-13 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |

**NOTES:**
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~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Q62** | Q62-1-4' | 1-4 | 6/17/04 | 7/30/04 | **62,300** | ND | ND | ND | ND | 62,300 | ND | ND | ND | ~ |
| | Q62-4-7' | 4-7 | 6/17/04 | 7/30/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND | ~ |
| | Q62-7-11.5' | 7-11.5 | 6/17/04 | 7/30/04 | 2,660 | ND | ND | ND | ND | 2,660 | ND | ND | ND | ~ |
| | Q62-A-1-4' | 1-4 | 9/22/04 | 9/24/04 | **55,180** | ND | ND | ND | ND | 55,180 | ND | ND | ND | ~ |
| | Q62-A-4-7' | 4-7 | 9/22/04 | 9/24/04 | 2,400 | ND | ND | ND | ND | 2,400 | ND | ND | ND | ~ |
| | Q62-B-1-4' | 1-4 | 9/22/04 | 9/24/04 | 5,800 | ND | ND | ND | ND | 5,800 | ND | ND | ND | ~ |
| | Q62-B-4-7' | 4-7 | 9/22/04 | 9/24/04 | 4,000 | ND | ND | ND | ND | 4,000 | ND | ND | ND | ~ |
| | Q62-C-1-4' | 1-4 | 9/24/04 | 9/28/04 | 2,050 | ND | ND | ND | ND | 2,050 | ND | ND | ND | ~ |
| | Q62-C-4-7' | 4-7 | 9/24/04 | 9/28/04 | 2,060 | ND | ND | ND | ND | 2,060 | ND | ND | ND | ~ |
| | Q62-D-1-4' | 1-4 | 9/24/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q62-D-4-7' | 4-7 | 9/24/04 | 9/28/04 | **48,900** | ND | ND | ND | ND | 48,900 | ND | ND | ND | ~ |
| **Q63** | Q63-1-4' | 1-4 | 6/17/04 | 7/30/04 | 22,500 | ND | ND | ND | ND | 22,500 | ND | ND | ND | ~ |
| | Q63-4-7' | 4-7 | 6/17/04 | 7/30/04 | 1,370 | ND | ND | ND | ND | 1,370 | ND | ND | ND | ~ |
| | Q63-7-10.5' | 7-10.5 | 6/17/04 | 7/30/04 | 1,480 | ND | ND | ND | ND | 1,480 | ND | ND | ND | ~ |
| | Q63-OS-11-12' | 11-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q64** | Q64-1-4' | 1-4 | 6/17/04 | 7/31/04 | 6,890 | ND | ND | ND | ND | 6,890 | ND | ND | ND | ~ |
| | Q64-4-7' | 4-7 | 6/17/04 | 7/31/04 | 16,600 | ND | ND | ND | ND | 16,600 | ND | ND | ND | ~ |
| | Q64-7-11' | 7-11 | 6/17/04 | 7/31/04 | 7,830 | ND | ND | ND | ND | 7,830 | ND | ND | ND | ~ |
| | Q64-OS-11.5-12' | 11.5-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q65** | Q65-1-4' | 1-4 | 6/17/04 | 7/31/04 | **121,000** | ND | ND | ND | ND | 121,000 | ND | ND | ND | ~ |
| | Q65-4-7' | 4-7 | 6/17/04 | 7/31/04 | 6,950 | ND | ND | ND | ND | 6,950 | ND | ND | ND | ~ |
| | Q65-7-11' | 7-11 | 6/17/04 | 7/31/04 | 8,760 | ND | ND | ND | ND | 8,760 | ND | ND | ND | ~ |
| | Q65-OS-11.5-12' | 11.5-12 | 6/17/04 | 7/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-A-1-4' | 1-4 | 8/18/04 | 8/22/04 | **94,900** | ND | ND | ND | ND | 94,900 | ND | ND | ND | ~ |
| | Q65-A-4-7' | 4-7 | 8/18/04 | 8/20/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND | ~ |
| | Q65-B-1-4' | 1-4 | 8/18/04 | 8/20/04 | 9,920 | ND | ND | ND | ND | 9,920 | ND | ND | ND | ~ |
| | Q65-B-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,640 | ND | ND | ND | ND | 2,640 | ND | ND | ND | ~ |
| | Q65-C-1-4' | 1-4 | 8/18/04 | 8/19/04 | 4,510 | ND | ND | ND | ND | 4,510 | ND | ND | ND | ~ |
| | Q65-C-4-7'MS | 4-7 | 8/18/04 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | ~ |
| | Q65-C-4-7'MSD | 4-7 | 8/18/04 | NR | NR | NR | NR | NR | NR | NR | NR | NR | NR | ~ |
| | Q65-C-4-7' | 4-7 | 8/18/04 | 8/19/04 | 5,960 | ND | ND | ND | ND | 5,960 | ND | ND | ND | ~ |
| | Duplicate 113 | 4-7 | 8/18/04 | 8/20/04 | 9,820 | ND | ND | ND | ND | 9,820 | ND | ND | ND | ~ |
| | Q65-D-1-4' | 1-4 | 8/18/04 | 8/20/04 | 35,100 | ND | ND | ND | ND | 35,100 | ND | ND | ND | ~ |
| | Q65-D-4-7' | 4-7 | 8/18/04 | 8/19/04 | 5,820 | ND | ND | ND | ND | 5,820 | ND | ND | ND | ~ |
| | Q65-E-1-4' | 1-4 | 8/18/04 | 8/20/04 | 2,830 | ND | ND | ND | ND | 2,830 | ND | ND | ND | ~ |
| | Q65-E-4-7' | 4-7 | 8/18/04 | 8/20/04 | 3,100 | ND | ND | ND | ND | 3,100 | ND | ND | ND | ~ |
| | Q65-F-1-4' | 1-4 | 8/18/04 | 8/22/04 | 26,600 | ND | ND | ND | ND | 26,600 | ND | ND | ND | ~ |
| | Q65-F-4-7' | 4-7 | 8/18/04 | 8/20/04 | 28,300 | ND | ND | ND | ND | 28,300 | ND | ND | ND | ~ |
| | Q65-G-1-4' | 1-4 | 8/18/04 | 8/20/04 | **92,000** | ND | ND | ND | ND | 92,000 | ND | ND | ND | ~ |
| | Q65-G-4-7' | 4-7 | 8/18/04 | 8/19/04 | 3,150 | ND | ND | ND | ND | 3,150 | ND | ND | ND | ~ |

**NOTES:**
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Q65-H-1-4' | 1-4 | 8/18/04 | 8/20/04 | 22,000 | ND | ND | ND | ND | 22,000 | ND | ND | ND | ~ |
| | Q65-H-4-7' | 4-7 | 8/18/04 | 8/20/04 | 2,360 | ND | ND | ND | ND | 2,360 | ND | ND | ND | ~ |
| | Q65-I-1-4' | 1-4 | 8/18/04 | 8/25/04 | 19,700 | ND | ND | ND | ND | 19,700 | ND | ND | ND | ~ |
| | Q65-I-4-7' | 4-7 | 8/18/04 | 8/25/04 | 6,230 | ND | ND | ND | ND | 6,230 | ND | ND | ND | ~ |
| | Q65-K-1-4' | 1-4 | 9/24/04 | 9/28/04 | **51,800** | ND | ND | ND | ND | 51,800 | ND | ND | ND | ~ |
| | Q65-K-4-7' | 4-7 | 9/24/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-K-7-8' | 7-8 | 10/1/04 | 10/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-L-1-4' | 1-4 | 9/24/04 | 9/28/04 | **230,000** | ND | ND | ND | ND | 230,000 | ND | ND | ND | ~ |
| | Q65-L-4-7' | 4-7 | 9/24/04 | 9/28/04 | **265,000** | ND | ND | ND | ND | 265,000 | ND | ND | ND | ~ |
| | Q65-L-7-10' | 7-10 | 10/1/04 | 10/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-M-1-4' | 1-4 | 10/1/04 | 10/4/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND | ~ |
| | Q65-M-4-7' | 4-7 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-M-7-11' | 7-11 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-N-1-4' | 1-4 | 10/1/04 | 10/4/04 | 28,500 | ND | ND | ND | ND | 28,500 | ND | ND | ND | ~ |
| | Q65-N-4-7' | 4-7 | 10/1/04 | 10/2/04 | 2,480 | ND | ND | ND | ND | 2,480 | ND | ND | ND | ~ |
| | Duplicate 152 (Q65-N-4-7') | 4-7 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-N-7-10.5' | 7-10.5 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-O-1-4' | 1-4 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-O-4-7' | 4-7 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q65-O-7-10' | 7-10 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q66** | Q66-1-4' | 1-4 | 6/17/04 | 7/31/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND | ~ |
| | Q66-4-8' | 4-8 | 6/17/04 | 7/31/04 | 7,330 | ND | ND | ND | ND | 7,330 | ND | ND | ND | ~ |
| | Q66-OS-11-11.5 | 11-11.5 | 6/17/04 | 7/9/04 | 601 | ND | ND | ND | ND | 601 | ND | ND | ND | ~ |
| **Q67** | Q67-1-4' | 1-4 | 6/17/04 | 7/31/04 | 5,310 | ND | ND | ND | ND | 5,310 | ND | ND | ND | ~ |
| | Q67-4-8' | 4-8 | 6/17/04 | 7/31/04 | 32,100 | ND | ND | ND | ND | 32,100 | ND | ND | ND | ~ |
| | Q67-OS-8.5-9.5 | 8.5-9.5 | 6/17/04 | 7/9/04 | 933 | ND | ND | ND | ND | 933 | ND | ND | ND | ~ |
| | Q67-C-1-4' | 1-4 | 8/19/04 | 8/26/04 | 38,300 | ND | ND | ND | ND | 38,300 | ND | ND | ND | ~ |
| | Q67-C-4-8' | 4-8 | 8/19/04 | 8/26/04 | 5,360 | ND | ND | ND | ND | 5,360 | ND | ND | ND | ~ |
| **Q68** | Q68-1-4' | 1-4 | 7/7/04 | 8/7/04 | 5,660 | ND | ND | ND | ND | 5,660 | ND | ND | ND | ~ |
| | Q68-4-7' | 4-7 | 7/7/04 | 8/7/04 | 2,870 | ND | ND | ND | ND | 2,870 | ND | ND | ND | ~ |
| | Q68-4-7'MS | 4-7 | 7/7/04 | 8/7/04 | 7,160 | ND | ND | ND | ND | 7,160 | ND | ND | ND | ~ |
| | Q68-4-7'MSD | 4-7 | 7/7/04 | 8/7/04 | 7,090 | ND | ND | ND | ND | 7,090 | ND | ND | ND | ~ |
| | Q68-7-11' | 7-11 | 7/7/04 | 8/7/04 | 4,900 | ND | ND | ND | ND | 4,900 | ND | ND | ND | ~ |
| | Q69-1-4' | 1-4 | 7/7/04 | 8/6/04 | **113,000** | ND | ND | ND | ND | 113,000 | ND | ND | ND | ~ |
| | Q69-4-7' | 4-7 | 7/7/04 | 8/6/04 | **650,000** | ND | ND | ND | ND | 650,000 | ND | ND | ND | ~ |
| | Q69-7-10.5' | 7-10.5 | 7/7/04 | 8/6/04 | 12,500 | ND | ND | ND | ND | 12,500 | ND | ND | ND | ~ |
| | Q69-OS-11-12' | 11-12 | 7/7/04 | 7/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q69-A-1-4' | 1-4 | 8/18/04 | 8/19/04 | 3,590 | ND | ND | ND | ND | 3,590 | ND | ND | ND | ~ |
| | Q69-A-4-7' | 4-7 | 8/18/04 | 8/19/04 | 3,280 | ND | ND | ND | ND | 3,280 | ND | ND | ND | ~ |

**NOTES:**
ND = Not detected
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Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) | Method 680 Homologs (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Q69** | Q69-A-7-9.5' | 7-9.5 | 8/18/04 | 8/19/04 | 2,020 | ND | ND | ND | ND | 2,020 | ND | ND | ND | ~ |
| | Q69-B-1-4' | 1-4 | 8/18/04 | 8/19/04 | 2,780 | ND | ND | ND | ND | 2,780 | ND | ND | ND | ~ |
| | Q69-B-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,520 | ND | ND | ND | ND | 2,520 | ND | ND | ND | ~ |
| | Q69-B-7-13 | 7-13 | 8/18/04 | 8/19/04 | 1,040 | ND | ND | ND | ND | 1,040 | ND | ND | ND | ~ |
| | Q69-C-1-4' | 1-4 | 8/18/04 | 8/19/04 | 6,280 | ND | ND | ND | ND | 6,280 | ND | ND | ND | ~ |
| | Q69-C-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,260 | ND | ND | ND | ND | 2,260 | ND | ND | ND | ~ |
| | Q69-C-7-10' | 7-10 | 8/18/04 | 8/19/04 | 2,880 | ND | ND | ND | ND | 2,880 | ND | ND | ND | ~ |
| | Q69-D-1-4' | 1-4 | 8/18/04 | 8/19/04 | 2,010 | ND | ND | ND | ND | 2,010 | ND | ND | ND | ~ |
| | Q69-D-4-7' | 4-7 | 8/18/04 | 8/20/04 | 10,500 | ND | ND | ND | ND | 10,500 | ND | ND | ND | ~ |
| | Q69-D-7-10' | 7-10 | 8/18/04 | 8/19/04 | 950 | ND | ND | ND | ND | 950 | ND | ND | ND | ~ |
| | Q69-E-1-4' | 1-4 | 8/18/04 | 8/19/04 | 2,340 | ND | ND | ND | ND | 2,340 | ND | ND | ND | ~ |
| | Q69-E-4-7' | 4-7 | 8/18/04 | 8/19/04 | 22,500 | ND | ND | ND | ND | 22,500 | ND | ND | ND | ~ |
| | Q69-E-7-10' | 7-10 | 8/18/04 | 8/20/04 | 1,060 | ND | ND | ND | ND | 1,060 | ND | ND | ND | ~ |
| | Q69-F-1-4' | 1-4 | 8/18/04 | 8/19/04 | 5,690 | ND | ND | ND | ND | 5,690 | ND | ND | ND | ~ |
| | Q69-F-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,610 | ND | ND | ND | ND | 2,610 | ND | ND | ND | ~ |
| | Q69-F-7-9' | 7-9 | 8/18/04 | 8/19/04 | 2,540 | ND | ND | ND | ND | 2,540 | ND | ND | ND | ~ |
| | Q69-G-1-4' | 1-4 | 8/18/04 | 8/19/04 | 2,600 | ND | ND | ND | ND | 2,600 | ND | ND | ND | ~ |
| | Duplicate 111 | 1-4 | 8/18/04 | 8/20/04 | 4,680 | ND | ND | ND | ND | 4,680 | ND | ND | ND | ~ |
| | Q69-G-4-7' | 4-7 | 8/18/04 | 8/19/04 | 2,950 | ND | ND | ND | ND | 2,950 | ND | ND | ND | ~ |
| | Q69-G-4-7'MS | 4-7 | 8/18/04 | | | | | | | | | | | ~ |
| | Q69-G-4-7'MSD | 4-7 | 8/18/04 | | | | | | | | | | | ~ |
| | Q69-G-7-9' | 7-9 | 8/18/04 | 8/19/04 | 1,710 | ND | ND | ND | ND | 1,710 | ND | ND | ND | ~ |
| | Q69-H-1-4' | 1-4 | 8/18/04 | 8/19/04 | 3,370 | ND | ND | ND | ND | 3,370 | ND | ND | ND | ~ |
| | Q69-H-4-7' | 4-7 | 8/18/04 | 8/19/04 | 1,230 | ND | ND | ND | ND | 1,230 | ND | ND | ND | ~ |
| | Q69-H-7-13' | 7-13 | 8/18/04 | 8/19/04 | 1,680 | ND | ND | ND | ND | 1,680 | ND | ND | ND | ~ |
| **Q70** | Q70-1-4' | 1-4 | 8/19/04 | 8/23/04 | **290,000** | ND | ND | ND | ND | 290,000 | ND | ND | ND | ~ |
| | Q70-4-7' | 4-7 | 8/19/04 | 8/23/04 | 3,240 | ND | ND | ND | ND | 3,240 | ND | ND | ND | ~ |
| | Q70-7-11' | 7-11 | 8/19/04 | 8/23/04 | 1,190 | ND | ND | ND | ND | 1,190 | ND | ND | ND | ~ |
| | Q70-OS-11.5-12' | 11.5-12 | 8/19/04 | 8/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-A-1-4' | 1-4 | 8/25/04 | 8/27/04 | 10,300 | ND | ND | ND | ND | 10300 | ND | ND | ND | ~ |
| | Q70-A-4-7' | 4-7 | 8/25/04 | 8/27/04 | 1,080 | ND | ND | ND | ND | 1080 | ND | ND | ND | ~ |
| | Q70-B-1-4' | 1-4 | 8/25/04 | 8/27/04 | 22,800 | ND | ND | ND | ND | 22800 | ND | ND | ND | ~ |
| | Q70-B-4-7' | 4-7 | 8/25/04 | 8/27/04 | 1,480 | ND | ND | ND | ND | 1480 | ND | ND | ND | ~ |
| | Q70-C-1-4' | 1-4 | 8/25/04 | 8/27/04 | 4,400 | ND | ND | ND | ND | 4400 | ND | ND | ND | ~ |
| | Q70-C-4-7' | 4-7 | 8/25/04 | 8/27/04 | 1,730 | ND | ND | ND | ND | 1730 | ND | ND | ND | ~ |
| | Q70-D-1-4' | 1-4 | 8/25/04 | 8/27/04 | **132,000** | ND | ND | ND | ND | 132000 | ND | ND | ND | ~ |
| | Q70-D-4-7' | 4-7 | 8/25/04 | 8/27/04 | 2,070 | ND | ND | ND | ND | 2070 | ND | ND | ND | ~ |
| | Q70-E-1-4' | 1-4 | 8/25/04 | 8/27/04 | **106,000** | ND | ND | ND | ND | 106000 | ND | ND | ND | ~ |
| | Q70-E-4-7' | 4-7 | 8/25/04 | 8/27/04 | 1,340 | ND | ND | ND | ND | 1340 | ND | ND | ND | ~ |
| | Q70-F-1-4' | 1-4 | 8/25/04 | 8/30/04 | 24,000 | ND | ND | ND | ND | 24000 | ND | ND | ND | ~ |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# North Corridor
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 | Method 680 Homologs |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | Q70-F-4-7' | 4-7 | 8/25/04 | 8/27/04 | 2,920 | ND | ND | ND | ND | 2920 | ND | ND | ND | ~ |
| | Q70-G-1-4' | 1-4 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-G-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-H-1-4' | 1-4 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-H-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-I-1-4' | 1-4 | 9/8/04 | 9/9/04 | 3,200 | ND | ND | ND | ND | ND | ND | ND | ND | 3200 |
| | Q70-I-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-J-1-4' | 1-4 | 9/8/04 | 9/18/04 | 1,400 | ND | ND | ND | ND | ND | ND | ND | ND | 1400 |
| | Q70-J-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-K-1-4' | 1-4 | 9/8/04 | 9/9/04 | 14,000 | ND | ND | ND | ND | ND | ND | ND | ND | 14000 |
| | Duplicate 130 (Q70-K-1-4') | 1-4 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q70-K-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q71** | Q71-1-4' | 1-4 | 8/19/04 | 8/23/04 | 4,900 | ND | ND | ND | ND | 4,900 | ND | ND | ND | ~ |
| | Duplicate 115 (Q71-1-4') | 1-4 | 8/19/04 | 8/23/04 | 3,700 | ND | ND | ND | ND | 3,700 | ND | ND | ND | ~ |
| | Q71-4-7' | 4-7 | 8/19/04 | 8/23/04 | 2,300 | ND | ND | ND | ND | 2,300 | ND | ND | ND | ~ |
| | Q71-4-7'MS | 4-7 | 8/19/04 | | | | | | | | | | | ~ |
| | Q71-4-7'MSD | 4-7 | 8/19/04 | | | | | | | | | | | ~ |
| | Q71-7-11.5' | 7-11.5 | 8/19/04 | 8/23/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND | ~ |
| | Q71-OS-12-12.5' | 12-12.5 | 8/19/04 | 8/23/04 | ND | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ND (1590) | ~ |
| **Q72** | Q72-1-4' | 1-4 | 9/22/04 | 9/23/04 | 7,900 | ND | ND | ND | ND | 7,900 | ND | ND | ND | ~ |
| | Q72-4-7' | 4-7 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q72-7-8.5' | 7-8.5 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q73** | Q73-1-4' | 1-4 | 9/22/04 | 9/23/04 | 13,900 | ND | ND | ND | ND | 13,900 | ND | ND | ND | ~ |
| | Q73-4-7' | 4-7 | 9/22/04 | 9/23/04 | 11,560 | ND | ND | ND | ND | 11,560 | ND | ND | ND | ~ |
| | Q73-7-11' | 7-11 | 9/22/04 | 9/23/04 | 3,500 | ND | ND | ND | ND | 3,500 | ND | ND | ND | ~ |
| **Q74** | Q74-1-4' | 1-4 | 9/22/04 | 9/23/04 | 6,740 | ND | ND | ND | ND | 6,740 | ND | ND | ND | ~ |
| | Q74-4-7' | 4-7 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| | Q74-7-8.5' | 7-8.5 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |
| **Q75** | Q75-1-4' | 1-4 | 9/22/04 | 9/23/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND | ~ |
| | Q75-4-7' | 4-7 | 9/22/04 | 9/23/04 | 25,000 | ND | ND | ND | ND | 25,000 | ND | ND | ND | ~ |
| | Q75-7-10' | 7-10 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ~ |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Water Line
## Polychlorinated Biphenyls (PCBs)

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **LOCATION** | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **W1** | W1-1-3' | 1-3 | 7/2/04 | 8/13/04 | **48,200** | ND | ND | ND | ND | 48,200 | ND | ND | ND |
| | W1-3-5' | 3-5 | 7/2/04 | 8/13/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| **W2** | W2-1-3' | 1-3 | 7/2/04 | 8/13/04 | 6,230 | ND | ND | ND | ND | 6,230 | ND | ND | ND |
| | W2-3-5' | 3-5 | 7/2/04 | 8/13/04 | 1,340 | ND | ND | ND | ND | 1,340 | ND | ND | ND |
| **W3** | W3-1-3' | 1-3 | 7/2/04 | 8/13/04 | 2,280 | ND | ND | ND | ND | 2,280 | ND | ND | ND |
| | W3-3-5' | 3-5 | 7/2/04 | 8/13/04 | 1,840 | ND | ND | ND | ND | 1,840 | ND | ND | ND |
| **W4** | W4-1-3' | 1-3 | 7/2/04 | 8/13/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| | W4-1-3'MS | 1-3 | 7/2/04 | 8/13/04 | 12,200 | ND | ND | ND | ND | 12,200 | ND | ND | ND |
| | W4-1-3'MSD | 1-3 | 7/2/04 | 8/13/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | W4-3-5' | 3-5 | 7/2/04 | 8/13/04 | 1,850 | ND | ND | ND | ND | 1,850 | ND | ND | ND |
| | Duplicate 74 | 3-5 | 7/2/04 | 8/13/04 | 27,700 | ND | ND | ND | ND | 27,700 | ND | ND | ND |
| **W5** | W5-1-3' | 1-3 | 7/2/04 | 8/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W5-3-5' | 3-5 | 7/2/04 | 8/13/04 | 2,220 | ND | ND | ND | ND | 2,220 | ND | ND | ND |
| **W6** | W6-1-3' | 1-3 | 7/2/04 | 8/12/04 | 7,700 | ND | ND | ND | ND | 7,700 | ND | ND | ND |
| | W6-3-5' | 3-5 | 7/2/04 | 8/13/04 | 2,110 | ND | ND | ND | ND | 2,110 | ND | ND | ND |
| **W7** | W7-1-3' | 1-3 | 7/2/04 | 8/12/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | Duplicate 73 | 1-3 | 7/2/04 | 8/13/04 | 11,400 | ND | ND | ND | ND | 11,400 | ND | ND | ND |
| | W7-3-5' | 3-5 | 7/2/04 | 8/12/04 | 12,900 | ND | ND | ND | ND | 12,900 | ND | ND | ND |
| | W7-3-5'MS | 3-5 | 7/2/04 | 8/12/04 | 11,500 | ND | ND | ND | ND | 11,500 | ND | ND | ND |
| | W7-3-5'MSD | 3-5 | 7/2/04 | 8/12/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | W8-1-3' | 1-3 | 7/2/04 | 8/12/04 | **133,000** | ND | ND | ND | ND | 133,000 | ND | ND | ND |
| | W8-3-5' | 3-5 | 7/2/04 | 8/12/04 | **124,000** | ND | ND | ND | ND | 124,000 | ND | ND | ND |
| | W8-5-7' | 5-7 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-A-1-3' | 1-3 | 9/8/04 | 9/18/04 | 18,700 | ND | ND | ND | ND | 18,700 | ND | ND | ND |
| | W8-A-3-5' | 3-5 | 9/8/04 | 9/20/04 | 3,580 | ND | ND | ND | ND | 3,580 | ND | ND | ND |
| | W8-A-5-7' | 5-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-B-1-3' | 1-3 | 9/8/04 | 9/12/04 | **93,400** | ND | ND | ND | ND | 93,400 | ND | ND | ND |
| | W8-B-3-5' | 3-5 | 9/8/04 | 9/21/04 | **168,000** | ND | ND | ND | ND | 168,000 | ND | ND | ND |
| | W8-B-5-7' | 5-7 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-C-1-3' | 1-3 | 9/8/04 | 9/21/04 | **126,000** | ND | ND | ND | ND | 126,000 | ND | ND | ND |
| | W8-C-3-5' | 3-5 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-C-5-7' | 5-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-D-1-3' | 1-3 | 9/8/04 | 9/13/04 | 28,200 | ND | ND | ND | ND | 28,200 | ND | ND | ND |
| | W8-D-3-5' | 3-5 | 9/8/04 | 9/13/04 | **192,000** | ND | ND | ND | ND | 192,000 | ND | ND | ND |
| | W8-D-5-7' | 5-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-E-1-3' | 1-3 | 9/8/04 | 9/12/04 | **356,000** | ND | ND | ND | ND | 356,000 | ND | ND | ND |
| | W8-E-3-5' | 3-5 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-E-5-7' | 5-7 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-F-1-3' | 1-3 | 9/8/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-F-3-4' | 3-4 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-G-1-3' | 1-3 | 9/14/04 | 9/17/04 | **152,000** | ND | ND | ND | ND | 152,000 | ND | ND | ND |
| | W8-G-3-5' | 3-5 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

# Water Line
## Polychlorinated Biphenyls (PCBs)

| LOCATION | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **W8** | W8-H-1-3' | 1-3 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-H-3-5' | 3-5 | 9/14/04 | 9/19/04 | **1,260,000** | ND | ND | ND | ND | 1,260,000 | ND | ND | ND |
| | W8-I-1-3' | 1-3 | 9/14/04 | 9/19/04 | **2,320,000** | ND | ND | ND | ND | 2,320,000 | ND | ND | ND |
| | W8-I-3-5' | 3-5 | 9/14/04 | 9/17/04 | 28,500 | ND | ND | ND | ND | 28,500 | ND | ND | ND |
| | W8-J-1-3' | 1-3 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-J-3-5' | 3-5 | 9/14/04 | 9/17/04 | **123,000** | ND | ND | ND | ND | 123,000 | ND | ND | ND |
| | W8-J-5-7' | 5-7 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-K-1-3' | 1-3 | 9/14/04 | 9/22/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | W8-K-3-5' | 3-5 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-K-5-7' | 5-7 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-L-1-3' | 1-3 | 9/14/04 | 9/22/04 | 5,200 | ND | ND | ND | ND | 5,200 | ND | ND | ND |
| | Duplicate 137 (W8-L-1-3') | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-L-3-4' | 3-4 | 9/14/04 | 9/22/04 | 26,500 | ND | ND | ND | ND | 26,500 | ND | ND | ND |
| | W8-L-4-7' | 4-7 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W8-M-1-3 | 1-3 | 9/24/04 | 9/28/04 | **77,600** | ND | ND | ND | ND | 77,600 | ND | ND | ND |
| | W8-M-1-3'MS | 1-3 | 9/24/04 | 9/28/04 | 24,200 | ND | ND | ND | ND | 24,200 | ND | ND | ND |
| | W8-M-1-3'MSD | 1-3 | 9/24/04 | 9/28/04 | **53,100** | ND | ND | ND | ND | 53,100 | ND | ND | ND |
| | W8-M-3-5 | 3-5 | 9/24/04 | 9/28/04 | 20,900 | ND | ND | ND | ND | 20,900 | ND | ND | ND |
| | Duplicate 143 (W8-M-3-5') | 3-5 | 9/24/04 | 9/28/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | W8-M-5-7 | 5-7 | 9/24/04 | 9/28/04 | 2,930 | ND | ND | ND | ND | 2,930 | ND | ND | ND |
| | W8-N-1-3' | 1-3 | 9/24/04 | 9/28/04 | 2,480 | ND | ND | ND | ND | 2,480 | ND | ND | ND |
| | W8-N-3-5' | 3-5 | 9/24/04 | 9/28/04 | 2,430 | ND | ND | ND | ND | 2,430 | ND | ND | ND |
| | W8-N-5-7' | 5-7 | 9/24/04 | 9/28/04 | 2,080 | ND | ND | ND | ND | 2,080 | ND | ND | ND |
| | W8-N-5-7'MS | 5-7 | 9/24/04 | 9/28/04 | 7,970 | ND | ND | ND | ND | 7,970 | ND | ND | ND |
| | W8-N-5-7'MSD | 5-7 | 9/24/04 | 9/28/04 | 8,440 | ND | ND | ND | ND | 8,440 | ND | ND | ND |
| | W8-O-1-3' | 1-3 | 9/24/04 | 9/28/04 | **146,000** | ND | ND | ND | ND | 146,000 | ND | ND | ND |
| | W8-O-3-5' | 3-5 | 9/24/04 | 9/28/04 | 31,400 | ND | ND | ND | ND | 31,400 | ND | ND | ND |
| | W8-O-5-7' | 5-7 | 9/24/04 | 9/28/04 | 2,540 | ND | ND | ND | ND | 2,540 | ND | ND | ND |
| | W8-P-1-3' | 1-3 | 9/24/04 | 9/28/04 | 2,650 | ND | ND | ND | ND | 2,650 | ND | ND | ND |
| | W8-P-3-5' | 3-5 | 9/24/04 | 9/28/04 | **115,000** | ND | ND | ND | ND | 115,000 | ND | ND | ND |
| | W8-P-5-7' | 5-7 | 9/24/04 | 9/28/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND |
| | W8-Q-1-3' | 1-3 | 9/24/04 | 9/28/04 | **92,300** | ND | ND | ND | ND | 92,300 | ND | ND | ND |
| | W8-Q-3-5' | 3-5 | 9/24/04 | 9/28/04 | 19,100 | ND | ND | ND | ND | 19,100 | ND | ND | ND |
| | W8-Q-5-7' | 5-7 | 9/24/04 | 9/28/04 | 2,150 | ND | ND | ND | ND | 2,150 | ND | ND | ND |
| | W8-R-1-3' | 1-3 | 9/24/04 | 9/28/04 | 4,580 | ND | ND | ND | ND | 4,580 | ND | ND | ND |
| | W8-R-3-5' | 3-5 | 9/24/04 | 9/28/04 | 9,320 | ND | ND | ND | ND | 9,320 | ND | ND | ND |
| | W8-R-5-7' | 5-7 | 9/24/04 | 9/28/04 | 2,080 | ND | ND | ND | ND | 2,080 | ND | ND | ND |
| | W8-S-1-3' | 1-3 | 9/24/04 | 9/28/04 | 3,410 | ND | ND | ND | ND | 3,410 | ND | ND | ND |
| | W8-S-3-5' | 3-5 | 9/24/04 | 9/28/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| | W8-S-5-7' | 5-7 | 9/24/04 | 9/28/04 | 5,850 | ND | ND | ND | ND | 5,850 | ND | ND | ND |
| | W8-T-1-3' | 1-3 | 9/24/04 | 9/28/04 | 9,820 | ND | ND | ND | ND | 9,820 | ND | ND | ND |
| | W8-T-3-5' | 3-5 | 9/24/04 | 9/28/04 | 1,650 | ND | ND | ND | ND | 1,650 | ND | ND | ND |
| | W8-T-5-7' | 5-7 | 9/24/04 | 9/28/04 | 1,870 | ND | ND | ND | ND | 1,870 | ND | ND | ND |

# Water Line
## Polychlorinated Biphenyls (PCBs)

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **LOCATION** | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | W8-U-1-3' | 1-3 | 9/24/04 | 9/28/04 | **119,000** | ND | ND | ND | ND | 119,000 | ND | ND | ND |
| | W8-U-3-5' | 3-5 | 9/24/04 | 9/28/04 | 2,070 | ND | ND | ND | ND | 2,070 | ND | ND | ND |
| | W8-U-5-7' | 5-7 | 9/24/04 | 9/28/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND |
| **W9** | W9-1-3' | 1-3 | 7/2/04 | 8/12/04 | 11,400 | ND | ND | ND | ND | 11,400 | ND | ND | ND |
| | W9-3-5' | 3-5 | 7/2/04 | 8/12/04 | 3,950 | ND | ND | ND | ND | 3,950 | ND | ND | ND |
| **W10** | W10-1-3' | 1-3 | 7/2/04 | 8/12/04 | 12,500 | ND | ND | ND | ND | 12,500 | ND | ND | ND |
| | W10-3-5' | 3-5 | 7/2/04 | 8/12/04 | 6,640 | ND | ND | ND | ND | 6,640 | ND | ND | ND |
| **W11** | W11-1-3' | 1-3 | 7/2/04 | 8/18/04 | 3,700 | ND | ND | ND | ND | 3,700 | ND | ND | ND |
| | W11-3-5' | 3-5 | 7/2/04 | 8/12/04 | 2,010 | ND | ND | ND | ND | 2,010 | ND | ND | ND |
| | W11-A-1-4' | 1-4 | 9/20/04 | 9/22/04 | 3,650 | ND | ND | ND | ND | 3,650 | ND | ND | ND |
| | W11-A-4-8' | 4-8 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W11-A-8-10' | 8-10 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W11-B-1-4' | 1-4 | 9/20/04 | 9/22/04 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| | W11-B-4-8' | 4-8 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W11-B-8-9' | 8-9 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **W12** | W12-1-3' | 1-3 | 7/2/04 | 8/18/04 | 5,640 | ND | ND | ND | ND | 5,640 | ND | ND | ND |
| | W12-3-5' | 3-5 | 7/2/04 | 8/18/04 | 11,600 | ND | ND | ND | ND | 11,600 | ND | ND | ND |
| | W12-A-1-4' | 1-4 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 140 (W12-A-1-4') | 1-4 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W12-A-4-8' | 4-8 | 9/22/04 | 9/23/04 | 3,100 | ND | ND | ND | ND | 3,100 | ND | ND | ND |
| | W12-A-4-8'MS | 4-8 | 9/22/04 | 9/23/04 | 6,840 | ND | ND | ND | ND | 6,840 | ND | ND | ND |
| | W12-A-4-8'MSD | 4-8 | 9/22/04 | 9/23/04 | 10,650 | ND | ND | ND | ND | 10,650 | ND | ND | ND |
| | W12-A-8-11' | 8-11 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W12-B-1-4' | 1-4 | 9/22/04 | 9/23/04 | 4,500 | ND | ND | ND | ND | 4,500 | ND | ND | ND |
| | W12-B-4-8' | 4-8 | 9/22/04 | 9/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W12-B-8-9.5' | 8-9.5 | 9/22/04 | 9/23/04 | 4,500 | ND | ND | ND | ND | 4,500 | ND | ND | ND |
| **W13** | W13-1-3' | 1-3 | 7/2/04 | 8/18/04 | 8,420 | ND | ND | ND | ND | 8,420 | ND | ND | ND |
| | W13-3-5' | 3-5 | 7/2/04 | 8/18/04 | 14,800 | ND | ND | ND | ND | 14,800 | ND | ND | ND |
| **W14** | W14-1-3' | 1-3 | 7/2/04 | 8/18/04 | 6,850 | ND | ND | ND | ND | 6,850 | ND | ND | ND |
| | W14-3-5' | 3-5 | 7/2/04 | 8/18/04 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| **W15** | W15-1-3' | 1-3 | 7/2/04 | 8/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W15-3-5' | 3-5 | 7/2/04 | 8/18/04 | 8,540 | ND | ND | ND | ND | 8,540 | ND | ND | ND |
| **W16** | W16-1-3' | 1-3 | 7/2/04 | 7/27/04 | 4,190 | ND | ND | ND | ND | 4,190 | ND | ND | ND |
| | W16-3-5' | 3-5 | 7/2/04 | 7/27/04 | 7,580 | ND | ND | ND | ND | 7,580 | ND | ND | ND |
| **W17** | W17-1-3' | 1-3 | 7/2/04 | 8/12/04 | 8,930 | ND | ND | ND | ND | 8,930 | ND | ND | ND |
| | W17-3-5' | 3-5 | 7/2/04 | 8/12/04 | 5,970 | ND | ND | ND | ND | 5,970 | ND | ND | ND |
| **W18** | W18-1-3' | 1-3 | 7/2/04 | 8/12/04 | 7,960 | ND | ND | ND | ND | 7,960 | ND | ND | ND |
| | Duplicate 70 | 1-3 | 7/2/04 | 8/13/04 | 1,750 | ND | ND | ND | ND | 1,750 | ND | ND | ND |
| | W18-3-5' | 3-5 | 7/2/04 | 8/12/04 | 5,990 | ND | ND | ND | ND | 5,990 | ND | ND | ND |
| **W19** | W19-1-3' | 1-3 | 7/2/04 | 8/12/04 | 12,800 | ND | ND | ND | ND | 12,800 | ND | ND | ND |
| | W19-1-3'MS | 1-3 | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | W19-1-3'MSD | 1-3 | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |

McCoy Field
Project No. 02685

## Water Line
## Polychlorinated Biphenyls (PCBs)

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **LOCATION** | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | W19-3-5' | 3-5 | 7/2/04 | 8/12/04 | 25,700 | ND | ND | ND | ND | 25,700 | ND | ND | ND |
| **W20** | W20-1-3' | 1-3 | 7/2/04 | 8/12/04 | 7,240 | ND | ND | ND | ND | 7,240 | ND | ND | ND |
| | W20-3-5' | 3-5 | 7/2/04 | 8/12/04 | 2,940 | ND | ND | ND | ND | 2,940 | ND | ND | ND |
| **W21** | W21-1-3' | 1-3 | 7/2/04 | 8/12/04 | 5,970 | ND | ND | ND | ND | 5,970 | ND | ND | ND |
| | W21-3-5' | 3-5 | 7/2/04 | 8/12/04 | 7,530 | ND | ND | ND | ND | 7,530 | ND | ND | ND |
| **W22** | W22-1-4' | 1-4 | 7/7/04 | 8/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W22-4-8' | 4-8 | 7/7/04 | 8/13/04 | **69,800** | ND | ND | ND | ND | 69,800 | ND | ND | ND |
| | W22-A-1-4' | 1-4 | 9/14/04 | 9/20/04 | **77,200** | ND | ND | ND | ND | 77,200 | ND | ND | ND |
| | W22-A-4-8' | 4-8 | 9/14/04 | 9/20/04 | **54,200** | ND | ND | ND | ND | 54,200 | ND | ND | ND |
| | W22-B-1-4' | 1-4 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W22-B-4-8' | 4-8 | 9/14/04 | 9/23/04 | **78,600** | ND | ND | ND | ND | 78,600 | ND | ND | ND |
| | W22-C-1-4' | 1-4 | 9/14/04 | 9/23/04 | 9,930 | ND | ND | ND | ND | 9,930 | ND | ND | ND |
| | W22-C-4-8' | 4-8 | 9/14/04 | 9/23/04 | 15,000 | ND | ND | ND | ND | 15,000 | ND | ND | ND |
| | W22-D-1-4' | 1-4 | 9/14/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | W22-D-4-8' | 4-8 | 9/14/04 | 9/23/04 | 37,000 | ND | ND | ND | ND | 37,000 | ND | ND | ND |
| **W23** | W23-1-4' | 1-4 | 7/7/04 | 8/13/04 | 4,410 | ND | ND | ND | ND | 4,410 | ND | ND | ND |
| | W23-4-8' | 4-8 | 7/7/04 | 8/13/04 | 21,900 | ND | ND | ND | ND | 21,900 | ND | ND | ND |
| | Duplicate 78 | 4-8 | 7/7/04 | 8/13/04 | 27,300 | ND | ND | ND | ND | 27,300 | ND | ND | ND |
| **W24** | W24-1-4' | 1-4 | 7/7/04 | 8/13/04 | 7,680 | ND | ND | ND | ND | 7,680 | ND | ND | ND |
| | W24-4-8' | 4-8 | 7/7/04 | 8/13/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| **W25** | W25-1-4' | 1-4 | 7/7/04 | 8/13/04 | 3,900 | ND | ND | ND | ND | 3,900 | ND | ND | ND |
| | W25-4-8' | 4-8 | 7/7/04 | 8/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **W26** | W26-1-4' | 1-4 | 7/7/04 | 8/13/04 | 23,500 | ND | ND | ND | ND | 23,500 | ND | ND | ND |
| | W26-1-4'MS | 1-4 | 7/7/04 | 8/13/04 | 26,200 | ND | ND | ND | ND | 26,200 | ND | ND | ND |
| | W26-1-4'MSD | 1-4 | 7/7/04 | 8/13/04 | 26,400 | ND | ND | ND | ND | 26,400 | ND | ND | ND |
| | W26-4-8' | 4-8 | 7/7/04 | 8/13/04 | 5,570 | ND | ND | ND | ND | 5,570 | ND | ND | ND |
| **W27** | W27-1-4' | 1-4 | 7/7/04 | 8/13/04 | 8,660 | ND | ND | ND | ND | 8,660 | ND | ND | ND |
| | W27-4-8' | 4-8 | 7/7/04 | 8/13/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| **W28** | W28-1-4' | 1-4 | 7/7/04 | 8/13/04 | 2,140 | ND | ND | ND | ND | 2,140 | ND | ND | ND |
| | W28-4-8' | 4-8 | 7/7/04 | 8/13/04 | 3,120 | ND | ND | ND | ND | 3,120 | ND | ND | ND |
| **W29** | W29-1-4' | 1-4 | 7/7/04 | 8/13/04 | 5,460 | ND | ND | ND | ND | 5,460 | ND | ND | ND |
| | W29-4-8' | 4-8 | 7/7/04 | 8/13/04 | 6,440 | ND | ND | ND | ND | 6,440 | ND | ND | ND |
| **W30** | W30-1-4' | 1-4 | 7/7/04 | 8/13/04 | 5,750 | ND | ND | ND | ND | 5,750 | ND | ND | ND |
| | W30-4-8' | 4-8 | 7/7/04 | 8/13/04 | 2,110 | ND | ND | ND | ND | 2,110 | ND | ND | ND |
| **W31** | W31-1-4' | 1-4 | 7/7/04 | 8/7/2004 | 8,000 | ND | ND | ND | ND | 8,000 | ND | ND | ND |
| | W31-4-8' | 4-8 | 7/7/04 | 8/7/04 | 6,290 | ND | ND | ND | ND | 6,290 | ND | ND | ND |
| **W32** | W32-1-4' | 1-4 | 7/7/04 | 8/7/04 | 26,600 | ND | ND | ND | ND | 26,600 | ND | ND | ND |
| | W32-4-7.5' | 4-7.5 | 7/7/04 | 8/7/04 | 2,040 | ND | ND | ND | ND | 2,040 | ND | ND | ND |
| **W33** | W33-1-4' | 1-4 | 7/7/04 | 8/7/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | W33-4-6.5' | 4-6.5 | 7/7/04 | 8/7/04 | 7,840 | ND | ND | ND | ND | 7,840 | ND | ND | ND |
| W16-W21 | | ~ | 7/2/04 | 8/12/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |

McCoy Field
Project No. 02685

# North Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB61** | DB61-2.5-4' | 2.5-4 | 8/5/04 | 9/8/04 | 20,400 | ND | ND | ND | ND | 20,400 | ND | ND | ND |
| | DB61-4-8' | 4-8 | 8/5/04 | 9/8/04 | 1,380 | ND | ND | ND | ND | 1,380 | ND | ND | ND |
| | DB61-8-11' | 8-11 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB62** | DB62-2.5-4' | 2.5-4 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB62-4-8' | 4-8 | 8/5/04 | 9/8/04 | 14,800 | ND | ND | ND | ND | 14,800 | ND | ND | ND |
| | DB62-8-9.5' | 8-9.5 | 8/5/04 | 9/8/04 | 5,130 | ND | ND | ND | ND | 5,130 | ND | ND | ND |
| **DB63** | DB63-1-3' | 1-3 | 8/5/04 | 9/8/04 | 1,660 | ND | ND | ND | ND | 1,660 | ND | ND | ND |
| | DB63-3-6' | 3-6 | 8/5/04 | 9/8/04 | 2,370 | ND | ND | ND | ND | 2,370 | ND | ND | ND |
| | DB63-6-9' | 6-9 | 8/5/04 | 9/8/04 | 2,860 | ND | ND | ND | ND | 2,860 | ND | ND | ND |
| **DB64** | DB64-1-4' | 1-4 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB64-4-8' | 4-8 | 8/5/04 | 9/8/04 | 7,150 | ND | ND | ND | ND | 7,150 | ND | ND | ND |
| | DB64-8-12' | 8-12 | 8/5/04 | 9/8/04 | 3,110 | ND | ND | ND | ND | 3,110 | ND | ND | ND |
| **DB65** | DB65-1-4' | 1-4 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB65-4-7' | 4-7 | 8/5/04 | 9/8/04 | 4,560 | ND | ND | ND | ND | 4,560 | ND | ND | ND |
| | DB65-4-7'MS | 4-7 | 8/5/04 | 9/8/04 | 15,000 | ND | ND | ND | ND | 15,000 | ND | ND | ND |
| | DB65-4-7'MSD | 4-7 | 8/5/04 | 9/8/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |
| | DB65-7-10.5' | 7-10.5 | 8/5/04 | 9/8/04 | 9,310 | ND | ND | ND | ND | 9,310 | ND | ND | ND |
| | Duplicate 95 | 7-10.5 | 8/5/04 | 9/8/04 | 1,890 | ND | ND | ND | ND | 1,890 | ND | ND | ND |
| **DB66** | DB66-1-4' | 1-4 | 8/5/04 | 9/7/04 | 1,450 | ND | ND | ND | ND | 1,450 | ND | ND | ND |
| | DB66-4-8' | 4-8 | 8/5/04 | 9/8/04 | 18,000 | ND | ND | ND | ND | 18,000 | ND | ND | ND |
| | DB66-8-12' | 8-12 | 8/5/04 | 9/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB67** | DB67-1-4' | 1-4 | 8/5/04 | 9/7/04 | 4,720 | ND | ND | ND | ND | 4,720 | ND | ND | ND |
| | DB67-4-7' | 4-7 | 8/5/04 | 9/7/04 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| | DB67-7-10.5' | 7-10.5 | 8/5/04 | 9/7/04 | 9,530 | ND | ND | ND | ND | 9,530 | ND | ND | ND |
| **DB68** | DB68-1-4' | 1-4 | 8/5/04 | 9/7/04 | 1,490 | ND | ND | ND | ND | 1,490 | ND | ND | ND |
| | DB68-4-8' | 4-8 | 8/5/04 | 9/7/04 | 6,110 | ND | ND | ND | ND | 6,110 | ND | ND | ND |
| | DB68-8-11' | 8-11 | 8/5/04 | 9/7/04 | 6,830 | ND | ND | ND | ND | 6,830 | ND | ND | ND |
| **DB69** | DB69-1-4' | 1-4 | 8/5/04 | 9/7/04 | 5,040 | ND | ND | ND | ND | 5,040 | ND | ND | ND |
| | DB69-4-8' | 4-8 | 8/5/04 | 9/7/04 | 3,010 | ND | ND | ND | ND | 3,010 | ND | ND | ND |
| | DB69-8-11.5' | 8-11.5 | 8/5/04 | 9/7/04 | 4,760 | ND | ND | ND | ND | 4,760 | ND | ND | ND |
| **DB70** | DB70-1-4' | 1-4 | 8/5/04 | 9/7/04 | 4,090 | ND | ND | ND | ND | 4,090 | ND | ND | ND |
| | DB70-4-7' | 4-7 | 8/5/04 | 9/7/04 | 1,410 | ND | ND | ND | ND | 1,410 | ND | ND | ND |
| | DB70-7-11' | 7-11 | 8/5/04 | 9/7/04 | 3,560 | ND | ND | ND | ND | 3,560 | ND | ND | ND |
| **DB71** | DB71-1-4' | 1-4 | 8/5/04 | 9/4/04 | 6,690 | ND | ND | ND | ND | 6,690 | ND | ND | ND |
| | DB71-4-8' | 4-8 | 8/5/04 | 9/4/04 | 3,070 | ND | ND | ND | ND | 3,070 | ND | ND | ND |
| | DB71-4-8'MS | 4-8 | 8/5/04 | 9/7/04 | 7,440 | ND | ND | ND | ND | 7,440 | ND | ND | ND |
| | DB71-4-8'MSD | 4-8 | 8/5/04 | 9/7/04 | 6,021 | ND | ND | ND | ND | 6,021 | ND | ND | ND |
| | DB71-8-12' | 8-12 | 8/5/04 | 9/4/04 | 2,250 | ND | ND | ND | ND | 2,250 | ND | ND | ND |
| | Duplicate 96 | 8-12 | 8/5/04 | 9/8/04 | 2,740 | ND | ND | ND | ND | 2,740 | ND | ND | ND |
| **DB72** | DB72-1-4' | 1-4 | 8/5/04 | 9/4/04 | 9,290 | ND | ND | ND | ND | 9,290 | ND | ND | ND |
| | DB72-4-7' | 4-7 | 8/5/04 | 9/4/04 | 4,330 | ND | ND | ND | ND | 4,330 | ND | ND | ND |
| | DB72-7-10' | 7-10 | 8/5/04 | 9/4/04 | 2,420 | ND | ND | ND | ND | 2,420 | ND | ND | ND |
| | DB73-1-4' | 1-4 | 8/5/04 | 9/4/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |

McCoy Field
Project No. 02685

## North Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB73** | DB73-4-8' | 4-8 | 8/5/04 | 9/4/04 | 1,440 | ND | ND | ND | ND | 1,440 | ND | ND | ND |
| | DB73-8-11' | 8-11 | 8/5/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB74** | DB74-1-4' | 1-4 | 8/5/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB74-4-7' | 4-7 | 8/5/04 | 9/4/04 | 3,420 | ND | ND | ND | ND | 3,420 | ND | ND | ND |
| | DB74-7-10' | 7-10 | 8/5/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB75** | DB75-1-4' | 1-4 | 8/5/04 | 9/4/04 | 4,910 | ND | ND | ND | ND | 4910 | ND | ND | ND |
| | DB75-4-8' | 4-8 | 8/5/04 | 9/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

# South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB1** | DB 1-1-4' | 1-4 | 8/3/04 | 8/25/04 | 6,630 | ND | ND | ND | ND | 6,630 | ND | ND | ND |
| **DB2** | DB 2-1-4' | 1-4 | 8/3/04 | 8/25/04 | 2,300 | ND | ND | ND | ND | 2,300 | ND | ND | ND |
| **DB3** | DB 3-1-4' | 1-4 | 8/3/04 | 8/28/04 | 10,400 | ND | ND | ND | ND | 10,400 | ND | ND | ND |
| | DB3-1-4'MS | 1-4 | 8/3/04 | 9/10/04 | 9,220 | ND | ND | ND | ND | 9,220 | ND | ND | ND |
| | DB3-1-4'MSD | 1-4 | 8/3/04 | 8/28/04 | 8,500 | ND | ND | ND | ND | 8,500 | ND | ND | ND |
| | DB3-A-3-6' | 3-6 | 8/25/04 | 10/26/04 | **78,500** | ND | ND | ND | 55,800 | 22,700 | ND | ND | ND |
| | DB3-A-6-9' | 6-9 | 8/25/04 | 10/26/04 | **53,400** | ND | ND | ND | 23,900 | 29,500 | ND | ND | ND |
| | Duplicate 172 (DB3-A-6-9') | 6-9 | 8/25/04 | 10/26/04 | 35,000 | ND | ND | ND | 23,000 | 12,000 | ND | ND | ND |
| | DB3-A-9-10.5' | 9-10.5 | 8/25/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB4** | DB 4-1-4' | 1-4 | 8/3/04 | 8/28/04 | 4,620 | ND | ND | ND | ND | 4,620 | ND | ND | ND |
| | Duplicate 86 | 1-4 | 8/3/04 | 8/28/04 | 5,510 | ND | ND | ND | ND | 5,510 | ND | ND | ND |
| | DB4-A-3-6' | 3-6 | 8/25/04 | 10/26/04 | 28,200 | ND | ND | ND | 16,600 | 11,600 | ND | ND | ND |
| | DB4-A-6-9' | 6-9 | 8/25/04 | 10/26/04 | 43,600 | ND | ND | ND | 31,200 | 12,400 | ND | ND | ND |
| | DB4-A-9-11' | 9-11 | 8/25/04 | 10/26/04 | 32,400 | ND | ND | ND | 19,900 | 12,500 | ND | ND | ND |
| **DB5** | DB 5-1-4' | 1-4 | 8/3/04 | 8/28/04 | **64,000** | ND | ND | ND | 36,800 | 27,200 | ND | ND | ND |
| | DB5-A-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-A-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-A-6-10' | 6-10 | 9/14/04 | 9/20/04 | **67,800** | ND | ND | ND | ND | 67,800 | ND | ND | ND |
| | DB5-B-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-B-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-B-6-10' | 6-10 | 9/14/04 | 9/20/04 | **113,000** | ND | ND | ND | ND | 113,000 | ND | ND | ND |
| | DB5-B-10-13' | 10-13 | 9/14/04 | 9/23/04 | 11,500 | ND | ND | ND | ND | 11,500 | ND | ND | ND |
| | DB5-C-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-C-3-6' | 3-6 | 9/14/04 | 9/20/04 | **79,700** | ND | ND | ND | ND | 79,700 | ND | ND | ND |
| | DB5-C-6-11.5' | 6-11.5 | 9/14/04 | 9/23/04 | 5,390 | ND | ND | ND | ND | 5,390 | ND | ND | ND |
| | DB5-D-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-D-3-6' | 3-6 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-D-6-11.5' | 6-11.5 | 9/14/04 | 9/23/04 | 12,900 | ND | ND | ND | ND | 12,900 | ND | ND | ND |
| | DB5-E-1-3' | 1-3 | 9/29/04 | 9/30/04 | 5,610 | ND | ND | ND | ND | 5,610 | ND | ND | ND |
| | DB5-E-3-6' | 3-6 | 9/29/04 | 9/30/04 | 5,920 | ND | ND | ND | ND | 5,920 | ND | ND | ND |
| | DB5-E-6-10' | 6-10 | 9/29/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-E-10-12' | 10-12 | 9/29/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-F-1-3' | 1-3 | 9/29/04 | 9/30/04 | 11,300 | ND | ND | ND | ND | 11,300 | ND | ND | ND |
| | DB5-F-3-6' | 3-6 | 9/29/04 | 9/30/04 | **49,100** | ND | ND | ND | 29,100 | 20,000 | ND | ND | ND |
| | DB5-F-6-10' | 6-10 | 9/29/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-F-10-11.5' | 10-11.5 | 9/29/04 | 9/30/04 | 1,820 | ND | ND | ND | ND | 1,820 | ND | ND | ND |
| | DB5-G-1-3' | 1-3 | 9/30/04 | 10/7/04 | 4,100 | ND | ND | ND | ND | 4,100 | ND | ND | ND |
| | DB5-G-3-6' | 3-6 | 9/30/04 | 10/7/04 | **60,100** | ND | ND | ND | 21,600 | 38,500 | ND | ND | ND |
| | DB5-G-6-10.5 | 6-10.5 | 9/30/04 | 10/7/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-H-1-3' | 1-3 | 9/30/04 | 9/30/04 | 36,800 | ND | ND | ND | 18,600 | 18,200 | ND | ND | ND |
| | DB5-H-3-6' | 3-6 | 9/30/04 | 9/30/04 | 33,800 | ND | ND | ND | ND | 33,800 | ND | ND | ND |
| | DB5-H-6-10' | 6-10 | 9/30/04 | 9/30/04 | 6,960 | ND | ND | ND | ND | 6,960 | ND | ND | ND |
| | DB5-H-10-12' | 10-12 | 9/30/04 | 9/30/04 | 4,170 | ND | ND | ND | ND | 4,170 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB5-I-1-3' | 1-3 | 9/30/04 | 9/30/04 | 8,870 | ND | ND | ND | ND | 8,870 | ND | ND | ND |
| | DB5-I-3-6' | 3-6 | 9/30/04 | 9/30/04 | 12,200 | ND | ND | ND | ND | 12,200 | ND | ND | ND |
| | DB5-I-6-10' | 6-10 | 9/30/04 | 9/30/04 | 19,900 | ND | ND | ND | ND | 19,900 | ND | ND | ND |
| | DB5-I-10-11.5' | 10-11.5 | 9/30/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-J-1-3' | 1-3 | 9/30/04 | 9/30/04 | 6,900 | ND | ND | ND | ND | 6,900 | ND | ND | ND |
| | DB5-J-3-6' | 3-6 | 9/30/04 | 9/30/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | DB5-J-6-10' | 6-10 | 9/30/04 | 9/30/04 | 15,200 | ND | ND | ND | ND | 15,200 | ND | ND | ND |
| | DB5-J-10-11.5' | 10-11.5 | 9/30/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-K-1-3' | 1-3 | 9/30/04 | 9/30/04 | 13,600 | ND | ND | ND | ND | 13,600 | ND | ND | ND |
| | DB5-K-3-6' | 3-6 | 9/30/04 | 9/30/04 | 5,420 | ND | ND | ND | ND | 5,420 | ND | ND | ND |
| | DB5-K-6-10' | 6-10 | 9/30/04 | 9/30/04 | 27,600 | ND | ND | ND | ND | 27,600 | ND | ND | ND |
| | DB5-K-10-12' | 10-12 | 9/30/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-L-1-3' | 1-3 | 9/30/04 | 9/30/04 | 7,740 | ND | ND | ND | ND | 7,740 | ND | ND | ND |
| | DB5-L-1-3'MS | 1-3 | 9/30/04 | 9/30/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | DB5-L-1-3'MSD | 1-3 | 9/30/04 | 9/30/04 | 17,200 | ND | ND | ND | ND | 17,200 | ND | ND | ND |
| | DB5-L-3-6' | 3-6 | 9/30/04 | 9/30/04 | 8,440 | ND | ND | ND | ND | 8,440 | ND | ND | ND |
| | Duplicate 147 (DB5-L-3-6') | 3-6 | 9/30/04 | 9/30/04 | 5,770 | ND | ND | ND | ND | 5,770 | ND | ND | ND |
| | DB5-L-6-10' | 6-10 | 9/30/04 | 9/30/04 | 7,240 | ND | ND | ND | ND | 7,240 | ND | ND | ND |
| | DB5-L-10-11.5' | 10-11.5 | 9/30/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB5-M-1-3' | 1-3 | 9/29/04 | 9/30/04 | 8,470 | ND | ND | ND | ND | 8,470 | ND | ND | ND |
| | DB5-M-3-6' | 3-6 | 9/29/04 | 9/30/04 | **70,600** | ND | ND | ND | 24,000 | 46,600 | ND | ND | ND |
| | DB5-M-6-10' | 6-10 | 9/29/04 | 9/30/04 | 38,600 | ND | ND | ND | 15,500 | 23,100 | ND | ND | ND |
| | DB5-M-10-12' | 10-12 | 9/29/04 | 9/30/04 | 1,520 | ND | ND | ND | ND | 1,520 | ND | ND | ND |
| **DB6** | DB 6-1-4' | 1-4 | 8/3/04 | 8/28/04 | 2,500 | ND | ND | ND | ND | 2,500 | ND | ND | ND |
| **DB7** | DB 7-1-4' | 1-4 | 8/3/04 | 8/25/04 | 8,840 | ND | ND | ND | ND | 8,840 | ND | ND | ND |
| **DB8** | DB 8-1-3' | 1-3 | 8/3/04 | 8/25/04 | 8,180 | ND | ND | ND | ND | 8,180 | ND | ND | ND |
| | DB 8-3-6' | 3-6 | 8/3/04 | 8/25/04 | 7,490 | ND | ND | ND | ND | 7,490 | ND | ND | ND |
| | DB 8-6-9' | 6-9 | 8/3/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB9** | DB 9-1-3' | 1-3 | 8/3/04 | 8/28/04 | 1,370 | ND | ND | ND | ND | 1,370 | ND | ND | ND |
| | DB 9-3-6' | 3-6 | 8/3/04 | 8/28/04 | 8,470 | ND | ND | ND | ND | 8,470 | ND | ND | ND |
| | DB 9-6-9' | 6-9 | 8/3/04 | 8/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB 9-6-9'MS | 6-9 | 8/3/04 | 8/28/04 | 9,250 | ND | ND | ND | ND | 9,250 | ND | ND | ND |
| | DB 9-6-9'MSD | 6-9 | 8/3/04 | 8/28/04 | 7,590 | ND | ND | ND | ND | 7,590 | ND | ND | ND |
| **DB10** | DB 10-1-3' | 1-3 | 8/4/04 | 8/28/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DB 10-3-6' | 3-6 | 8/4/04 | 8/28/04 | 45,000 | ND | ND | ND | ND | 45,000 | ND | ND | ND |
| | Duplicate 83 | 3-6 | 8/4/04 | 8/28/04 | 6,940 | ND | ND | ND | ND | 6,940 | ND | ND | ND |
| | DB 10-6-9' | 6-9 | 8/4/04 | 8/28/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| **DB11** | DB 11-1-3' | 1-3 | 8/4/04 | 9/3/04 | 5,800 | ND | ND | ND | ND | 5,800 | ND | ND | ND |
| | DB 11-3-6' | 3-6 | 8/4/04 | 9/3/04 | 6,630 | ND | ND | ND | ND | 6,630 | ND | ND | ND |
| | DB 11-3-6'MS | 3-6 | 8/4/04 | 9/3/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| | DB 11-3-6'MSD | 3-6 | 8/4/04 | 9/3/04 | 12,800 | ND | ND | ND | ND | 12,800 | ND | ND | ND |
| | DB 11-6-9' | 6-9 | 8/4/04 | 9/3/04 | 4,590 | ND | ND | ND | ND | 4,590 | ND | ND | ND |
| | Duplicate 90 (DB11-6-9') | 6-9 | 8/4/04 | 9/4/04 | 2,020 | ND | ND | ND | ND | 2,020 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | DB11-A-9-11' | 9-11 | 8/25/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB12** | DB12-1-4' | 1-4 | 8/4/04 | 9/3/04 | 23,900 | ND | ND | ND | ND | 23,900 | ND | ND | ND |
| **DB13** | DB13-1-4' | 1-4 | 8/3/04 | 8/25/04 | 4,620 | ND | ND | ND | ND | 4,620 | ND | ND | ND |
| **DB14** | DB14-1-3' | 1-3 | 8/3/04 | 8/26/04 | 21,100 | ND | ND | ND | ND | 21,100 | ND | ND | ND |
| | DB14-3-6' | 3-6 | 8/3/04 | 8/26/04 | 7,820 | ND | ND | ND | ND | 7,820 | ND | ND | ND |
| | DB14-6-9' | 6-9 | 8/3/04 | 8/26/04 | 1,190 | ND | ND | ND | ND | 1,190 | ND | ND | ND |
| **DB15** | DB15-1-3' | 1-3 | 8/3/04 | 8/28/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | DB15-3-6' | 3-6 | 8/3/04 | 8/28/04 | 31,400 | ND | ND | ND | ND | 31,400 | ND | ND | ND |
| | DB15-6-9' | 6-9 | 8/3/04 | 8/28/04 | 29,600 | ND | ND | ND | ND | 29,600 | ND | ND | ND |
| | DB16-1-3' | 1-3 | 8/4/04 | 8/28/04 | 32,700 | ND | ND | ND | 12,500 | 20,200 | ND | ND | ND |
| | DB16-3-6' | 3-6 | 8/4/04 | 8/28/04 | **65,000** | ND | ND | ND | 29,000 | 36,000 | ND | ND | ND |
| | DB16-6-9' | 6-9 | 8/4/04 | 8/28/04 | **148,000** | ND | ND | ND | 72,200 | 75,800 | ND | ND | ND |
| | DB16-A-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-A-3-6' | 3-6 | 9/14/04 | 9/23/04 | 24,200 | ND | ND | ND | ND | 24,200 | ND | ND | ND |
| | DB16-A-6-10' | 6-10 | 9/14/04 | 9/18/04 | **66,200** | ND | ND | ND | ND | 66,200 | ND | ND | ND |
| | DB16-B-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-B-3-6' | 3-6 | 9/14/04 | 9/24/04 | 25,300 | ND | ND | ND | ND | 25,300 | ND | ND | ND |
| | DB16-B-6-10' | 6-10 | 9/14/04 | 9/18/04 | **169,000** | ND | ND | ND | ND | 169,000 | ND | ND | ND |
| | DB16-C-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-C-3-6' | 3-6 | 9/14/04 | 9/19/04 | **70,900** | ND | ND | ND | ND | 70,900 | ND | ND | ND |
| | DB16-C-6-11' | 6-11 | 9/14/04 | 9/23/04 | 27,300 | ND | ND | ND | ND | 27,300 | ND | ND | ND |
| | DB16-D-1-3' | 1-3 | 9/14/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-D-3-6' | 3-6 | 9/14/04 | 9/23/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | DB16-D-6-10' | 6-10 | 9/14/04 | 9/23/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| | DB16-E-1-3' | 1-3 | 9/30/04 | 10/4/04 | 9,140 | ND | ND | ND | ND | 9,140 | ND | ND | ND |
| | DB16-E-3-6' | 3-6 | 9/30/04 | 10/4/04 | **102,000** | ND | ND | ND | ND | 102,000 | ND | ND | ND |
| | DB16-E-6-10' | 6-10 | 9/30/04 | 10/4/04 | 27,200 | ND | ND | ND | ND | 27,200 | ND | ND | ND |
| | DB16-E-10-12' | 10-12 | 9/30/04 | 10/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-F-1-3' | 1-3 | 9/30/04 | 10/1/04 | 7,600 | ND | ND | ND | ND | 7,600 | ND | ND | ND |
| | DB16-F-3-6' | 3-6 | 9/30/04 | 10/1/04 | 15,600 | ND | ND | ND | ND | 15,600 | ND | ND | ND |
| | DB16-F-6-10' | 6-10 | 9/30/04 | 10/1/04 | 46,800 | ND | ND | ND | ND | 46,800 | ND | ND | ND |
| | DB16-F-10-11.5' | 10-11.5 | 9/30/04 | 10/1/04 | 6,200 | ND | ND | ND | ND | 6,200 | ND | ND | ND |
| | DB16-G-1-3' | 1-3 | 9/30/04 | 10/1/04 | 8,730 | ND | ND | ND | ND | 8,730 | ND | ND | ND |
| | DB16-G-3-6' | 3-6 | 9/30/04 | 10/1/04 | 23,400 | ND | ND | ND | ND | 23,400 | ND | ND | ND |
| | DB16-G-6-10.5' | 6-10.5 | 9/30/04 | 10/1/04 | 37,300 | ND | ND | ND | ND | 37,300 | ND | ND | ND |
| | DB16-H-1-3' | 1-3 | 9/30/04 | 10/1/04 | 13,700 | ND | ND | ND | ND | 13,700 | ND | ND | ND |
| | DB16-H-3-6' | 3-6 | 9/30/04 | 10/1/04 | **178,000** | ND | ND | ND | ND | 178,000 | ND | ND | ND |
| | DB16-H-6-10' | 6-10 | 9/30/04 | 10/1/04 | 25,100 | ND | ND | ND | ND | 25,100 | ND | ND | ND |
| | DB16-H-10-11.5' | 10-11.5 | 9/30/04 | 10/1/04 | **59,300** | ND | ND | ND | ND | 59,300 | ND | ND | ND |
| | DB16-I-1-3' | 1-3 | 9/30/04 | 10/1/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DB16-I-3-6' | 3-6 | 9/30/04 | 10/1/04 | 26,100 | ND | ND | ND | ND | 26,100 | ND | ND | ND |
| | DB16-I-6-10' | 6-10 | 9/30/04 | 10/1/04 | 47,300 | ND | ND | ND | ND | 47,300 | ND | ND | ND |
| | DB16-I-10-11.5' | 10-11.5 | 9/30/04 | 10/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB16** | DB16-J-1-3' | 1-3 | 9/30/04 | 10/1/04 | 16,400 | ND | ND | ND | ND | 16,400 | ND | ND | ND |
| | DB16-J-3-6' | 3-6 | 9/30/04 | 10/1/04 | 14,800 | ND | ND | ND | ND | 14,800 | ND | ND | ND |
| | DB16-J-6-10' | 6-10 | 9/30/04 | 10/1/04 | **66,800** | ND | ND | ND | ND | 66,800 | ND | ND | ND |
| | DB16-J-10-11' | 10-11 | 9/30/04 | 10/1/04 | 47,600 | ND | ND | ND | ND | 47,600 | ND | ND | ND |
| | DB16-K-1-3' | 1-3 | 9/30/04 | 10/1/04 | 21,800 | ND | ND | ND | ND | 21,800 | ND | ND | ND |
| | DB16-K-3-6' | 3-6 | 9/30/04 | 10/1/04 | 38,200 | ND | ND | ND | ND | 38,200 | ND | ND | ND |
| | DB16-K-6-10' | 6-10 | 9/30/04 | 10/1/04 | 44,800 | ND | ND | ND | ND | 44,800 | ND | ND | ND |
| | DB16-K-10-11.75' | 10-11.75 | 9/30/04 | 10/1/04 | 18,200 | ND | ND | ND | ND | 18,200 | ND | ND | ND |
| | DB16-L-1-3' | 1-3 | 9/30/04 | 10/1/04 | 7,700 | ND | ND | ND | ND | 7,700 | ND | ND | ND |
| | Duplicate 149 (DB16-L-1-3') | 1-3 | 9/30/04 | 10/1/04 | 2,890 | ND | ND | ND | ND | 2,890 | ND | ND | ND |
| | DB16-L-3-6' | 3-6 | 9/30/04 | 10/1/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DB16-L-6-10' | 6-10 | 9/30/04 | 10/1/04 | **131,000** | ND | ND | ND | ND | 131,000 | ND | ND | ND |
| | DB16-L-10-11' | 10-11 | 9/30/04 | 10/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-M-1-3' | 1-3 | 9/30/04 | 10/1/04 | 5,830 | ND | ND | ND | ND | 5,830 | ND | ND | ND |
| | DB16-M-3-6' | 3-6 | 9/30/04 | 10/1/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| | DB16-M-6-10' | 6-10 | 9/30/04 | 10/1/04 | 34,100 | ND | ND | ND | ND | 34,100 | ND | ND | ND |
| | DB16-M-10-12' | 10-12 | 9/30/04 | 10/1/04 | **60,800** | ND | ND | ND | ND | 60,800 | ND | ND | ND |
| | DB16-N-1-3' | 1-3 | 9/30/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB16-N-3-6' | 3-6 | 9/30/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB16-N-6-10' | 6-10 | 9/30/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB16-N-10-11.5' | 10-11.5 | 9/30/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB16-O-1-3' | 1-3 | 9/30/04 | 10/6/04 | 29,100 | ND | ND | ND | ND | 29,100 | ND | ND | ND |
| | DB16-O-3-6' | 3-6 | 9/30/04 | 10/6/04 | 37,300 | ND | ND | ND | ND | 37,300 | ND | ND | ND |
| | DB16-O-6-10' | 6-10 | 9/30/04 | 10/6/04 | 39,900 | ND | ND | ND | ND | 39,900 | ND | ND | ND |
| | DB16-P-1-3' | 1-3 | 9/30/04 | 10/6/04 | 13,600 | ND | ND | ND | ND | 13,600 | ND | ND | ND |
| | DB16-P-3-6' | 3-6 | 9/30/04 | 10/6/04 | 13,700 | ND | ND | ND | ND | 13,700 | ND | ND | ND |
| | DB16-P-6-10' | 6-10 | 9/30/04 | 10/6/04 | 18,800 | ND | ND | ND | ND | 18,800 | ND | ND | ND |
| | DB16-P-10-12.5' | 10-12.5 | 9/30/04 | 10/6/04 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| | DB16-Q-1-3' | 1-3 | 9/30/04 | 10/6/04 | 15,000 | ND | ND | ND | ND | 15,000 | ND | ND | ND |
| | DB16-Q-3-6' | 3-6 | 9/30/04 | 10/6/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | DB16-Q-6-10' | 6-10 | 9/30/04 | 10/6/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DB16-Q-10-11.5' | 10-11.5 | 9/30/04 | 10/6/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-R-1-3' | 1-3 | 10/1/04 | 10/2/04 | 7,860 | ND | ND | ND | ND | 7,860 | ND | ND | ND |
| | DB16-R-3-6' | 3-6 | 10/1/04 | 10/2/04 | 8,970 | ND | ND | ND | ND | 8,970 | ND | ND | ND |
| | DB16-R-6-10' | 6-10 | 10/1/04 | 10/2/04 | 24,700 | ND | ND | ND | ND | 24,700 | ND | ND | ND |
| | DB16-R-10-11' | 10-11 | 10/1/04 | 10/2/04 | 25,700 | ND | ND | ND | ND | 25,700 | ND | ND | ND |
| | DB16-S-1-3' | 1-3 | 10/1/04 | 10/2/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | DB16-S-3-6' | 3-6 | 10/1/04 | 10/2/04 | 40,100 | ND | ND | ND | ND | 40,100 | ND | ND | ND |
| | DB16-S-6-10' | 6-10 | 10/1/04 | 10/4/04 | **88,500** | ND | ND | ND | ND | 88,500 | ND | ND | ND |
| | DB16-S-10-13.5' | 10-13.5 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB16-T-1-3' | 1-3 | 9/30/04 | 10/6/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| | DB16-T-3-6' | 3-6 | 9/30/04 | 10/7/04 | **136,000** | ND | ND | ND | ND | 136,000 | ND | ND | ND |
| | DB16-T-6-10' | 6-10 | 9/30/04 | 10/7/04 | **131,000** | ND | ND | ND | ND | 131,000 | ND | ND | ND |
| | DB16-T-10-11' | 10-11 | 9/30/04 | 10/6/04 | 34,000 | ND | ND | ND | ND | 34,000 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **RCS-1** | | | | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Turnkey Acceptance Limit** | | | | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **UCL** | | | | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-U-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-U-3-6' | 3-6 | 10/8/04 | 10/13/04 | **81,500** | ND | ND | ND | 39,700 | 41,800 | ND | ND | ND |
| DB16-U-6-10.5' | 6-10.5 | 10/8/04 | 10/11/04 | 7,080 | ND | ND | ND | ND | 7,080 | ND | ND | ND |
| DB16-V-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-V-3-6' | 3-6 | 10/8/04 | 10/13/04 | 6,220 | ND | ND | ND | ND | 6,220 | ND | ND | ND |
| DB16-V-6-10' | 6-10 | 10/8/04 | 10/11/04 | 2,020 | ND | ND | ND | ND | 2,020 | ND | ND | ND |
| DB16-V-10-13' | 10-13 | 10/8/04 | 10/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB16-W-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-W-3-6' | 3-6 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-W-6-10.5' | 6-10.5 | 10/8/04 | 10/11/04 | 22,600 | ND | ND | ND | 11,500 | 11,100 | ND | ND | ND |
| DB16-X-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-X-3-6' | 3-6 | 10/8/04 | 10/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB16-X-6-10' | 6-10 | 10/8/04 | 10/11/04 | 41,100 | ND | ND | ND | 17,300 | 23,800 | ND | ND | ND |
| DB16-Y-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-Y-3-6' | 3-6 | 10/8/04 | 10/11/04 | **393,000** | ND | ND | ND | 148,000 | 245,000 | ND | ND | ND |
| DB16-Y-6-10' | 6-10 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-Z-1-3' | 1-3 | 10/8/04 | 10/11/04 | 6,610 | ND | ND | ND | ND | 6,610 | ND | ND | ND |
| DB16-Z-3-6' | 3-6 | 10/8/04 | 10/11/04 | 11,900 | ND | ND | ND | ND | 11,900 | ND | ND | ND |
| DB16-Z-6-11' | 6-11 | 10/8/04 | 10/11/04 | 14,300 | ND | ND | ND | ND | 14,300 | ND | ND | ND |
| DB16-AA-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AA-3-6' | 3-6 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AA-6-10' | 6-10 | 10/8/04 | 10/11/04 | 11,900 | ND | ND | ND | ND | 11,900 | ND | ND | ND |
| DB16-AA-6-10'MS | 6-10 | 10/8/04 | 10/11/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| DB16-AA-6-10'MSD | 6-10 | 10/8/04 | 10/11/04 | 20,700 | ND | ND | ND | ND | 20,700 | ND | ND | ND |
| DB16-AA-10-13' | 10-13 | 10/8/04 | 10/11/04 | 6,790 | ND | ND | ND | ND | 6,790 | ND | ND | ND |
| Duplicate 156 (DB16-AA-10-13') | 10-13 | 10/8/04 | 10/11/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| DB16-AB-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AB-3-6' | 3-6 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AB-6-10' | 6-10 | 10/8/04 | 10/11/04 | 9,990 | ND | ND | ND | ND | 9,990 | ND | ND | ND |
| DB16-AB-10-11.75' | 10-11.75 | 10/8/04 | 10/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB16-AC-1-3' | 1-3 | 10/8/04 | 10/13/04 | 4,940 | ND | ND | ND | ND | 4,940 | ND | ND | ND |
| DB16-AC-3-6' | 3-6 | 10/8/04 | 10/13/04 | **71,700** | ND | ND | ND | ND | 71,700 | ND | ND | ND |
| DB16-AC-6-10' | 6-10 | 10/8/04 | 10/11/04 | **98,900** | ND | ND | ND | 51,200 | 47,700 | ND | ND | ND |
| DB16-AC-10-13' | 10-13 | 10/8/04 | 10/11/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| DB16-AD-1-3' | 1-3 | 10/8/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| DB16-AD-3-6' | 3-6 | 10/8/04 | 10/13/04 | 4,910 | ND | ND | ND | ND | 4,910 | ND | ND | ND |
| DB16-AD-6-10' | 6-10 | 10/8/04 | 10/11/04 | 31,100 | ND | ND | ND | 15,200 | 15,900 | ND | ND | ND |
| DB16-AD-10-12' | 10-12 | 10/8/04 | 10/11/04 | 1,560 | ND | ND | ND | ND | 1,560 | ND | ND | ND |
| DB16-AE-1-3' | 1-3 | 10/8/04 | 10/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB16-AE-3-6' | 3-6 | 10/8/04 | 10/11/04 | **53,300** | ND | ND | ND | 21,100 | 32,200 | ND | ND | ND |
| DB16-AE-6-10' | 6-10 | 10/8/04 | 10/11/04 | **71,500** | ND | ND | ND | 36,000 | 35,500 | ND | ND | ND |
| DB16-AE-10-13' | 10-13 | 10/8/04 | 10/11/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DB17-1-3' | 1-3 | 8/4/04 | 8/29/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB17** | DB17-3-6' | 3-6 | 8/4/04 | 8/29/04 | 14,200 | ND | ND | ND | ND | 14,200 | ND | ND | ND |
| | DB17-6-9' | 6-9 | 8/4/04 | 8/29/04 | 34,300 | ND | ND | ND | ND | 34,300 | ND | ND | ND |
| | DB17-A-9-10.5' | 9-11 | 8/25/04 | 10/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB17-A-9-10.5'MS | 9-11 | 8/25/04 | 10/26/04 | 11,300 | ND | ND | ND | ND | 11,300 | ND | ND | ND |
| | DB17-A-9-10.5'MSD | 9-11 | 8/25/04 | 10/26/04 | 9,970 | ND | ND | ND | ND | 9,970 | ND | ND | ND |
| **DB18** | DB18-1-4' | 1-4 | 8/4/04 | 9/3/04 | 19,500 | ND | ND | ND | ND | 19,500 | ND | ND | ND |
| **DB19** | DB19-1-4' | 1-4 | 8/3/04 | 8/25/04 | 7,830 | ND | ND | ND | ND | 7,830 | ND | ND | ND |
| **DB20** | DB20-1-3' | 1-3 | 8/3/04 | 8/26/04 | 4,900 | ND | ND | ND | ND | 4,900 | ND | ND | ND |
| | DB20-3-6' | 3-6 | 8/3/04 | 8/26/04 | 38,100 | ND | ND | ND | 23,500 | 14,600 | ND | ND | ND |
| | DB20-6-9' | 6-9 | 8/3/04 | 8/26/04 | 2,490 | ND | ND | ND | ND | 2,490 | ND | ND | ND |
| **DB21** | DB21-1-3' | 1-3 | 8/3/04 | 8/27/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | DB21-3-6' | 3-6 | 8/3/04 | 8/27/04 | 5,910 | ND | ND | ND | ND | 5,910 | ND | ND | ND |
| | DB21-6-9' | 6-9 | 8/3/04 | 8/27/04 | 17,100 | ND | ND | ND | ND | 17,100 | ND | ND | ND |
| **DB22** | DB22-1-3' | 1-3 | 8/4/04 | 8/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB22-3-6' | 3-6 | 8/4/04 | 8/28/04 | 6,300 | ND | ND | ND | ND | 6,300 | ND | ND | ND |
| | DB22-6-9' | 6-9 | 8/4/04 | 8/28/04 | 6,790 | ND | ND | ND | ND | 6,790 | ND | ND | ND |
| **DB23** | DB23-1-3' | 1-3 | 8/4/04 | 8/29/04 | 22,000 | ND | ND | ND | ND | 22,000 | ND | ND | ND |
| | DB23-3-6' | 3-6 | 8/4/04 | 8/29/04 | 5,010 | ND | ND | ND | ND | 5,010 | ND | ND | ND |
| | DB23-6-9' | 6-9 | 8/4/04 | 8/29/04 | 3,360 | ND | ND | ND | ND | 3,360 | ND | ND | ND |
| **DB24** | DB24-1-4' | 1-4 | 8/4/04 | 9/3/04 | 23,500 | ND | ND | ND | ND | 23,500 | ND | ND | ND |
| **DB25** | DB25-1-4' | 1-4 | 8/3/04 | 8/25/04 | 10,900 | ND | ND | ND | ND | 10,900 | ND | ND | ND |
| **DB26** | DB26-1-3' | 1-3 | 8/3/04 | 8/26/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| | DB26-3-6' | 3-6 | 8/3/04 | 8/26/04 | **53,200** | ND | ND | ND | 17,700 | 35,500 | ND | ND | ND |
| | DB26-6-9' | 6-9 | 8/3/04 | 8/26/04 | 44,400 | ND | ND | ND | 21,500 | 22,900 | ND | ND | ND |
| | DB26-A-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-A-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-A-6-8' | 6-8 | 9/9/04 | 9/20/04 | 20,900 | ND | ND | ND | ND | 20,900 | ND | ND | ND |
| | DB26-B-1-3' | 1-3 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-B-3-6' | 3-6 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-B-6-9' | 6-9 | 9/9/04 | 9/20/04 | 27300* | ND | ND | ND | ND | 27300* | ND | ND | ND |
| | Duplicate 132 (DB26-B-6-9') | 6-9 | 9/9/04 | 9/20/04 | 25500* | ND | ND | ND | ND | 25500* | ND | ND | ND |
| | DB26-C-1-3' | 1-3 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-C-3-6' | 3-6 | 9/9/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-C-6-9' | 6-9 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-D-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-D-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-D-6-9' | 6-9 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB26-E-3-6' | 3-6 | 9/22/04 | 9/23/04 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| | DB26-E-6-13' | 6-13 | 9/22/04 | 9/23/04 | 10,000 | ND | ND | ND | ND | 10,000 | ND | ND | ND |
| | DB26-F-3-6' | 3-6 | 9/22/04 | 9/23/04 | 4,130 | ND | ND | ND | ND | 4,130 | ND | ND | ND |
| | DB26-F-6-13' | 6-13 | 9/22/04 | 9/23/04 | 7,810 | ND | ND | ND | ND | 7,810 | ND | ND | ND |
| | DB26-G-3-6' | 3-6 | 9/22/04 | 9/23/04 | 5,410 | ND | ND | ND | ND | 5,410 | ND | ND | ND |
| | DB26-G-6-12.5' | 6-12.5 | 9/22/04 | 9/23/04 | 2,410 | ND | ND | ND | ND | 2,410 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | DB26-H-3-6' | 3-6 | 9/22/04 | 9/23/04 | 8,160 | ND | ND | ND | ND | 8,160 | ND | ND | ND |
| | DB26-H-6-11' | 6-11 | 9/22/04 | 9/23/04 | 11,200 | ND | ND | ND | ND | 11,200 | ND | ND | ND |
| **DB27** | DB27-1-3' | 1-3 | 8/3/04 | 8/27/04 | 3,980 | ND | ND | ND | ND | 3,980 | ND | ND | ND |
| | DB27-3-6' | 3-6 | 8/3/04 | 8/27/04 | 3,390 | ND | ND | ND | ND | 3,390 | ND | ND | ND |
| | DB27-6-9' | 6-9 | 8/3/04 | 8/27/04 | 2,200 | ND | ND | ND | ND | 2,200 | ND | ND | ND |
| **DB28** | DB28-1-3' | 1-3 | 8/3/04 | 8/28/04 | 2,500 | ND | ND | ND | ND | 2,500 | ND | ND | ND |
| | DB28-3-6' | 3-6 | 8/3/04 | 8/28/04 | 7,130 | ND | ND | ND | ND | 7,130 | ND | ND | ND |
| | Duplicate 85 | 3-6 | 8/3/04 | 8/28/04 | 2,200 | ND | ND | ND | ND | 2,200 | ND | ND | ND |
| | DB28-6-9' | 6-9 | 8/3/04 | 9/9/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| | DB28-6-9'MS | 6-9 | 8/3/04 | 9/10/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| | DB28-6-9'MSD | 6-9 | 8/3/04 | 8/28/04 | 10,000 | ND | ND | ND | ND | 10,000 | ND | ND | ND |
| **DB29** | DB29-1-3' | 1-3 | 8/4/04 | 8/29/04 | 6,350 | ND | ND | ND | ND | 6,350 | ND | ND | ND |
| | DB29-3-6' | 3-6 | 8/4/04 | 8/29/04 | 3,870 | ND | ND | ND | ND | 3,870 | ND | ND | ND |
| | DB29-6-9' | 6-9 | 8/4/04 | 8/29/04 | 2,470 | ND | ND | ND | ND | 2,470 | ND | ND | ND |
| **DB30** | DB30-1-4' | 1-4 | 8/4/04 | 9/3/04 | 9,450 | ND | ND | ND | ND | 9,450 | ND | ND | ND |
| **DB31** | DB31-1-4' | 1-4 | 8/3/04 | 8/25/04 | 7,010 | ND | ND | ND | ND | 7,010 | ND | ND | ND |
| **DB32** | DB32-1-3' | 1-3 | 8/3/04 | 8/26/04 | **51,180** | ND | ND | ND | 46,300 | 4,880 | ND | ND | ND |
| | DB32-3-6' | 3-6 | 8/3/04 | 8/26/04 | 23,000 | ND | ND | ND | ND | 23,000 | ND | ND | ND |
| | DB32-6-9' | 6-9 | 8/3/04 | 8/26/04 | 40,500 | ND | ND | ND | ND | 40,500 | ND | ND | ND |
| | DB32-A-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-A-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-B-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-B-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-C-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-C-3-6' | 3-6 | 9/9/04 | 9/14/04 | 24,800 | ND | ND | ND | ND | 24,800 | ND | ND | ND |
| | DB32-D-1-3' | 1-3 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB32-D-3-6' | 3-6 | 9/9/04 | 9/14/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB33** | DB33-1-3' | 1-3 | 8/3/04 | 8/27/04 | 3,030 | ND | ND | ND | ND | 3,030 | ND | ND | ND |
| | DB33-3-6' | 3-6 | 8/3/04 | 8/27/04 | 3,810 | ND | ND | ND | ND | 3,810 | ND | ND | ND |
| | DB33-6-9' | 6-9 | 8/3/04 | 8/27/04 | 3,930 | ND | ND | ND | ND | 3,930 | ND | ND | ND |
| **DB34** | DB34-1-3' | 1-3 | 8/4/04 | 8/28/04 | 1,620 | ND | ND | ND | ND | 1,620 | ND | ND | ND |
| | DB34-3-6' | 3-6 | 8/4/04 | 8/28/04 | 5,970 | ND | ND | ND | ND | 5,970 | ND | ND | ND |
| | DB34-6-9' | 6-9 | 8/4/04 | 9/10/04 | 2,390 | ND | ND | ND | ND | 2,390 | ND | ND | ND |
| **DB35** | DB35-1-3' | 1-3 | 8/4/04 | 8/29/04 | 17,500 | ND | ND | ND | ND | 17,500 | ND | ND | ND |
| | DB35-3-6' | 3-6 | 8/4/04 | 8/29/04 | 25,400 | ND | ND | ND | ND | 25,400 | ND | ND | ND |
| | DB35-6-9' | 6-9 | 8/4/04 | 8/29/04 | 6,150 | ND | ND | ND | ND | 6,150 | ND | ND | ND |
| **DB36** | DB36-1-4' | 1-4 | 8/4/04 | 9/3/04 | 5,860 | ND | ND | ND | ND | 5,860 | ND | ND | ND |
| **DB37** | DB37-1-4' | 1-4 | 8/3/04 | 8/25/04 | 32,100 | ND | ND | ND | ND | 32,100 | ND | ND | ND |
| **DB38** | DB38-1-3' | 1-3 | 8/3/04 | 8/26/04 | 2,460 | ND | ND | ND | ND | 2,460 | ND | ND | ND |
| | DB38-3-6' | 3-6 | 8/3/04 | 8/26/04 | 26,500 | ND | ND | ND | ND | 26,500 | ND | ND | ND |
| | Duplicate 84 | 3-6 | 8/3/04 | 9/10/04 | 17,100 | ND | ND | ND | ND | 17,100 | ND | ND | ND |
| | DB38-6-9' | 6-9 | 8/3/04 | 8/26/04 | 5,250 | ND | ND | ND | ND | 5,250 | ND | ND | ND |
| | DB39-1-3' | 1-3 | 8/3/04 | 8/26/04 | 5,670 | ND | ND | ND | ND | 5,670 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB39** | DB39-3-6' | 3-6 | 8/3/04 | 8/26/04 | 13,000 | ND | ND | ND | ND | 13,000 | ND | ND | ND |
| | DB39-6-9' | 6-9 | 8/3/04 | 8/26/04 | 5,940 | ND | ND | ND | ND | 5,940 | ND | ND | ND |
| **DB40** | DB40-1-3' | 1-3 | 8/4/04 | 9/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB40-3-6' | 3-6 | 8/4/04 | 8/28/04 | 5,100 | ND | ND | ND | ND | 5,100 | ND | ND | ND |
| | DB40-6-9' | 6-9 | 8/4/04 | 9/10/04 | 14,600 | ND | ND | ND | ND | 14,600 | ND | ND | ND |
| **DB41** | DB41-1-3' | 1-3 | 8/4/04 | 9/10/04 | 19,700 | ND | ND | ND | ND | 19,700 | ND | ND | ND |
| | DB41-3-6' | 3-6 | 8/4/04 | 8/28/04 | 6,820 | ND | ND | ND | ND | 6,820 | ND | ND | ND |
| | DB41-6-9' | 6-9 | 8/4/04 | 8/28/04 | 9,970 | ND | ND | ND | ND | 9,970 | ND | ND | ND |
| **DB42** | DB42-1-4' | 1-4 | 8/4/04 | 9/3/04 | 7,910 | ND | ND | ND | ND | 7,910 | ND | ND | ND |
| **DB43** | DB43-1-4' | 1-4 | 8/3/04 | 8/25/04 | 36,700 | ND | ND | ND | ND | 36,700 | ND | ND | ND |
| **DB44** | DB44-1-3' | 1-3 | 8/3/04 | 8/26/04 | 1,460 | ND | ND | ND | ND | 1,460 | ND | ND | ND |
| | DB44-3-6' | 3-6 | 8/3/04 | 8/26/04 | 38,200 | ND | ND | ND | ND | 38,200 | ND | ND | ND |
| | DB44-6-9' | 6-9 | 8/3/04 | 8/26/04 | 29,000 | ND | ND | ND | ND | 29,000 | ND | ND | ND |
| **DB45** | DB45-1-3' | 1-3 | 8/3/04 | 8/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB45-3-6' | 3-6 | 8/3/04 | 8/26/04 | 17,700 | ND | ND | ND | ND | 17,700 | ND | ND | ND |
| | DB45-3-6'MS | 3-6 | 8/3/04 | 8/26/04 | 21,900 | ND | ND | ND | ND | 21,900 | ND | ND | ND |
| | DB45-3-6'MSD | 3-6 | 8/3/04 | 8/26/04 | 20,700 | ND | ND | ND | ND | 20,700 | ND | ND | ND |
| | DB45-6-9' | 6-9 | 8/3/04 | 8/26/04 | 3,770 | ND | ND | ND | ND | 3,770 | ND | ND | ND |
| | Duplicate 87 | 6-9 | 8/3/04 | 8/28/04 | 9,650 | ND | ND | ND | ND | 9,650 | ND | ND | ND |
| **DB46** | DB46-1-4' | 1-3 | 9/8/04 | 9/12/04 | **87,400** | ND | ND | ND | ND | 87,400 | ND | ND | ND |
| | DB46-4-7' | 3-6 | 9/8/04 | 9/20/04 | 18,000 | ND | ND | ND | ND | 18,000 | ND | ND | ND |
| | DB46-7-10' | 6-9 | 9/8/04 | 9/20/04 | 4,280 | ND | ND | ND | ND | 4,280 | ND | ND | ND |
| | DB46 A-1-3 | 1-3 | 9/20/04 | 9/20/04 | 26,300 | ND | ND | ND | ND | 26,300 | ND | ND | ND |
| | DB46 A-3-6 | 3-6 | 9/20/04 | 9/20/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |
| | Duplicate 138 (DB46-A-3-6') | 3-6 | 9/20/04 | 9/20/04 | 14,300 | ND | ND | ND | ND | 14,300 | ND | ND | ND |
| | DB46 A-6-10.5 | 6-10.5 | 9/20/04 | 9/20/04 | 4,170 | ND | ND | ND | ND | 4,170 | ND | ND | ND |
| | DB46 A-6-10.5MS | 6-10.5 | 9/20/04 | 9/20/04 | 8,000 | ND | ND | ND | ND | 8,000 | ND | ND | ND |
| | DB46 A-6-10.5MSD | 6-10.5 | 9/20/04 | 9/20/04 | 9,910 | ND | ND | ND | ND | 9,910 | ND | ND | ND |
| | DB46 B-1-3 | 1-3 | 9/20/04 | 9/20/04 | 7,680 | ND | ND | ND | ND | 7,680 | ND | ND | ND |
| | DB46 B-3-6 | 3-6 | 9/20/04 | 9/20/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| | DB46 B-6-10 | 6-10 | 9/20/04 | 9/20/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |
| | DB46 C-1-3 | 1-3 | 9/20/04 | 9/20/04 | 7,320 | ND | ND | ND | ND | 7,320 | ND | ND | ND |
| | DB46 C-3-6 | 3-6 | 9/20/04 | 9/20/04 | 12,900 | ND | ND | ND | ND | 12,900 | ND | ND | ND |
| | DB46 C-6-10 | 6-10 | 9/20/04 | 9/20/04 | 9,270 | ND | ND | ND | ND | 9,270 | ND | ND | ND |
| | DB46 D-1-3 | 1-3 | 9/20/04 | 9/20/04 | 19 | ND | ND | ND | ND | 19 | ND | ND | ND |
| | DB46 D-3-6 | 3-6 | 9/20/04 | 9/20/04 | 12,800 | ND | ND | ND | ND | 12,800 | ND | ND | ND |
| | DB46 D-6-10 | 6-10 | 9/20/04 | 9/20/04 | 5,000 | ND | ND | ND | ND | 5,000 | ND | ND | ND |
| **DB47** | DB47-1-4' | 1-4 | 9/8/04 | 9/20/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | DB47-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB47-7-10.5' | 7-10.5 | 9/8/04 | 9/22/04 | 4,640 | ND | ND | ND | ND | 4,640 | ND | ND | ND |
| **DB48** | DB48-1-4' | 1-4 | 9/8/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB49** | DB49-1-4' | 1-4 | 8/3/04 | 8/25/04 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND |
| | DB50-1-3' | 1-3 | 8/3/04 | 8/26/04 | 22,800 | ND | ND | ND | ND | 22,800 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DB50** | DB50-3-6' | 3-6 | 8/3/04 | 8/26/04 | 1,910 | ND | ND | ND | ND | 1,910 | ND | ND | ND |
| | DB50-6-9' | 6-9 | 8/3/04 | 8/26/04 | 4,150 | ND | ND | ND | ND | 4,150 | ND | ND | ND |
| **DB51** | DB51-1-3' | 1-3 | 8/3/04 | 8/26/04 | 3,500 | ND | ND | ND | ND | 3,500 | ND | ND | ND |
| | DB51-3-6' | 3-6 | 8/3/04 | 8/26/04 | 3,750 | ND | ND | ND | ND | 3,750 | ND | ND | ND |
| | DB51-6-9' | 6-9 | 8/3/04 | 8/26/04 | 8,910 | ND | ND | ND | ND | 8,910 | ND | ND | ND |
| **DB52** | DB52-1-4' | 1-4 | 9/8/04 | 9/18/04 | 7,560 | ND | ND | ND | ND | 7,560 | ND | ND | ND |
| | DB52-4-7' | 4-7 | 9/8/04 | 9/9/04 | 23,400 | ND | ND | ND | ND | 23,400 | ND | ND | ND |
| | Duplicate 128 (DB52-4-7') | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-7-10.5' | 7-10.5 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-A-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-A-3-6' | 3-6 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-A-6-10' | 6-10 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 136 (DB52-A-6-10') | 6-10 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-B-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-B-3-6' | 3-6 | 9/14/04 | 9/24/04 | 32,500 | ND | ND | ND | ND | 32,500 | ND | ND | ND |
| | DB52-B-6-10' | 6-10 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-C-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-C-3-6' | 3-6 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-C-6-9.5' | 6-9.5 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-D-1-3' | 1-3 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-D-3-6' | 3-6 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB52-D-6-9.5' | 6-9.5 | 9/14/04 | 9/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DB53** | DB53-1-4' | 1-4 | 9/8/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB53-4-7' | 4-7 | 9/8/04 | 9/9/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB53-7-10' | 7-10 | 9/8/04 | 9/20/04 | 7,350 | ND | ND | ND | ND | 7,350 | ND | ND | ND |
| **DB54** | DB54-1-4' | 1-4 | 9/8/04 | 9/20/04 | 34,200 | ND | ND | ND | ND | 34,200 | ND | ND | ND |
| **DB55** | DB55-1-4' | 1-4 | 8/3/04 | 8/25/04 | 6,960 | ND | ND | ND | ND | 6,960 | ND | ND | ND |
| **DB56** | DB56-1-4' | 1-4 | 8/3/04 | 8/26/04 | 2,940 | ND | ND | ND | ND | 2,940 | ND | ND | ND |
| **DB57** | DB57-1-4' | 1-4 | 8/3/04 | 8/26/04 | 7,860 | ND | ND | ND | ND | 7,860 | ND | ND | ND |
| **DB58** | DB58-1-4' | 1-4 | 9/8/04 | 9/22/04 | 15,400 | ND | ND | ND | ND | 15,400 | ND | ND | ND |
| **DB59** | DB59-1-4' | 1-4 | 9/8/04 | 9/13/04 | **96,200** | ND | ND | ND | ND | 96,200 | ND | ND | ND |
| | DB59-4-6' | 4-6 | 12/2/04 | 12/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB59-6-10.5' | 6-10.5 | 12/2/04 | 12/4/04 | 8,810 | ND | ND | ND | ND | 8,810 | ND | ND | ND |
| | DB59 A-1-3 | 1-3 | 9/20/04 | 9/20/04 | 9,510 | ND | ND | ND | ND | 9,510 | ND | ND | ND |
| | DB59 A-3-6 | 3-6 | 9/20/04 | 9/20/04 | 32,200 | ND | ND | ND | ND | 32,200 | ND | ND | ND |
| | DB59 A-6-10.5 | 6-10.5 | 9/20/04 | 9/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DB59 B-1-3 | 1-3 | 9/20/04 | 9/20/04 | 28,800 | ND | ND | ND | ND | 28,800 | ND | ND | ND |
| | DB59 B-3-6 | 3-6 | 9/20/04 | 9/20/04 | 5,100 | ND | ND | ND | ND | 5,100 | ND | ND | ND |
| | DB59 B-6-10.5 | 6-10.5 | 9/20/04 | 9/20/04 | 10,700 | ND | ND | ND | ND | 10,700 | ND | ND | ND |
| | DB59 C-1-3 | 1-3 | 9/20/04 | 9/20/04 | 22,900 | ND | ND | ND | ND | 22,900 | ND | ND | ND |
| | DB59 C-3-6 | 3-6 | 9/20/04 | 9/20/04 | 8,630 | ND | ND | ND | ND | 8,630 | ND | ND | ND |
| | DB59 C-6-10 | 6-10 | 9/20/04 | 9/20/04 | 22,200 | ND | ND | ND | ND | 22,200 | ND | ND | ND |
| | DB59 D-1-3 | 1-3 | 9/20/04 | 9/20/04 | 14,900 | ND | ND | ND | ND | 14,900 | ND | ND | ND |

## South Detention Basin
## Polychlorinated Biphenyls

| | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DB59 D-3-6 | 3-6 | 9/20/04 | 9/20/04 | 9,910 | ND | ND | ND | ND | 9,910 | ND | ND | ND |
| | DB59 D-6-10.5 | 6-10.5 | 9/20/04 | 9/20/04 | 12,600 | ND | ND | ND | ND | 12,600 | ND | ND | ND |
| **DB60** | DB60-1-4' | 1-4 | 9/8/04 | 9/20/04 | 28,500 | ND | ND | ND | ND | 28,500 | ND | ND | ND |
| | DB8-Comp | 1-9 | 8/3/04 | 8/25/04 | 4,250 | ND | ND | ND | ND | 4,250 | ND | ND | ND |
| | DB14-Comp | 1-9 | 8/3/04 | 8/26/04 | 9,080 | ND | ND | ND | ND | 9,080 | ND | ND | ND |
| | DB20-Comp | 1-9 | 8/3/04 | 8/26/04 | 3,160 | ND | ND | ND | ND | 3,160 | ND | ND | ND |
| | DB26-Comp | 1-9 | 8/3/04 | 8/26/04 | **65,700** | ND | ND | ND | 35,500 | 30,200 | ND | ND | ND |
| | DB32-Comp | 1-9 | 8/3/04 | 8/26/04 | 15,200 | ND | ND | ND | ND | 15,200 | ND | ND | ND |
| | DB38-Comp | 1-9 | 8/3/04 | 8/26/04 | 27,000 | ND | ND | ND | ND | 27,000 | ND | ND | ND |
| | DB44-Comp | 1-9 | 8/3/04 | 8/26/04 | 19,600 | ND | ND | ND | ND | 19,600 | ND | ND | ND |
| | DB50-Comp | 1-9 | 8/3/04 | 8/26/04 | 5,900 | ND | ND | ND | ND | 5,900 | ND | ND | ND |
| | Comp-DB23, 29, 35-1-3' | 1-3 | 8/4/04 | 8/29/04 | 5,890 | ND | ND | ND | ND | 5,890 | ND | ND | ND |
| | Comp-DB23, 29, 35-3-6' | 3-6 | 8/4/04 | 8/29/04 | 6,210 | ND | ND | ND | ND | 6,210 | ND | ND | ND |
| | Comp-DB23, 29, 35-6-9' | 6-9 | 8/4/04 | 8/29/04 | 4,500 | ND | ND | ND | ND | 4,500 | ND | ND | ND |
| | Comp DB 51, 45, 39-1-3' | 1-3 | 8/3/04 | 8/27/04 | 2,520 | ND | ND | ND | ND | 2,520 | ND | ND | ND |
| | Comp DB 51, 45, 39-3-6' | 3-6 | 8/3/04 | 8/27/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | Comp DB 51, 45, 39-6-9' | 6-9 | 8/3/04 | 8/27/04 | 8,470 | ND | ND | ND | ND | 8,470 | ND | ND | ND |
| | Comp DB 33, 27, 21-1-3' | 1-3 | 8/3/04 | 8/27/04 | 1,990 | ND | ND | ND | ND | 1,990 | ND | ND | ND |
| | Comp DB 33, 27, 21-3-6' | 3-6 | 8/3/04 | 8/27/04 | 1,760 | ND | ND | ND | ND | 1,760 | ND | ND | ND |
| | Comp DB 33, 27, 21-6-9' | 6-9 | 8/3/04 | 8/27/04 | **67,200** | ND | ND | ND | ND | 67,200 | ND | ND | ND |
| | Comp DB 34, 40, 41-1-3' | 1-3 | 8/3/04 | 8/28/04 | 7,320 | ND | ND | ND | ND | 7,320 | ND | ND | ND |
| | Comp DB 34, 40, 41-3-6' | 3-6 | 8/3/04 | 9/10/04 | 6,300 | ND | ND | ND | ND | 6,300 | ND | ND | ND |
| | Duplicate 88 | 3-6 | 8/3/04 | 8/28/04 | 10,300 | ND | ND | ND | ND | 10,300 | ND | ND | ND |
| | Comp DB 34, 40, 41-6-9' | 6-9 | 8/3/04 | 8/28/04 | 3,700 | ND | ND | ND | ND | 3,700 | ND | ND | ND |
| | Comp DB 11 & 17-1-3' | 1-3 | 8/4/04 | 9/3/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| | Comp DB 11 & 17-3-6' | 3-6 | 8/4/04 | 9/3/04 | 5,780 | ND | ND | ND | ND | 5,780 | ND | ND | ND |
| | Comp DB 11 & 17-6-9' | 6-9 | 8/4/04 | 9/3/04 | 6,710 | ND | ND | ND | ND | 6,710 | ND | ND | ND |
| | Comp DB 30, 36, 42-1-4' | 1-4 | 8/4/04 | 9/3/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| | Comp DB 12, 18, 24-1-4' | 1-4 | 8/4/04 | 9/3/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | Duplicate 89 (Comp DB 12, 18, 24-1-4') | 1-4 | 8/4/04 | 9/4/04 | 11,100 | ND | ND | ND | ND | 11,100 | ND | ND | ND |
| | Comp DB 12, 18, 24-1-4'MS | 1-4 | 8/4/04 | 9/3/04 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| | Comp DB 12, 18, 24-1-4'MSD | 1-4 | 8/4/04 | 9/3/04 | 22,100 | ND | ND | ND | ND | 22,100 | ND | ND | ND |
| | Comp DB 10, 15, 9-1-3' | 1-3 | 8/3/04 | 8/28/04 | 16,900 | ND | ND | ND | ND | 16,900 | ND | ND | ND |
| | Comp DB 10, 15, 9-3-6' | 3-6 | 8/3/04 | 8/28/04 | 8,010 | ND | ND | ND | ND | 8,010 | ND | ND | ND |
| | Comp DB 10, 15, 9-6-9' | 6-9 | 8/3/04 | 8/28/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| | Comp DB 3&4-1-4' | 1-4 | 8/3/04 | 8/28/04 | 7,850 | ND | ND | ND | ND | 7,850 | ND | ND | ND |
| | Comp DB 5&6-1-4' | 1-4 | 8/3/04 | 8/28/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | Comp DB 16, 22, 28-1-3' | 1-3 | 8/3/04 | 9/10/04 | 5,650 | ND | ND | ND | ND | 5,650 | ND | ND | ND |
| | Comp DB 16, 22, 28-3-6' | 3-6 | 8/3/04 | 8/28/04 | 8,660 | ND | ND | ND | ND | 8,660 | ND | ND | ND |
| | Comp DB 16, 22, 28-6-9' | 6-9 | 8/3/04 | 8/28/04 | 6,320 | ND | ND | ND | ND | 6,320 | ND | ND | ND |

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# Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DL1** | DL1-1-4' | 1-4 | 8/10/04 | 9/9/04 | 6,380 | ND | ND | ND | ND | 6,380 | ND | ND | ND |
| | DL1-4-7' | 4-7 | 8/10/04 | 9/9/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | DL1-7-10' | 7-10 | 8/10/04 | 9/9/04 | 5,980 | ND | ND | ND | ND | 5,980 | ND | ND | ND |
| **DL2** | DL2-1-4' | 1-4 | 8/10/04 | 9/9/04 | 19,700 | ND | ND | ND | ND | 19,700 | ND | ND | ND |
| | DL2-4-7' | 4-7 | 8/10/04 | 9/9/04 | 7,190 | ND | ND | ND | ND | 7,190 | ND | ND | ND |
| | DL2-7-11' | 7-11 | 8/10/04 | 9/9/04 | 3,680 | ND | ND | ND | ND | 3,680 | ND | ND | ND |
| **DL3** | DL3-1-4' | 1-4 | 8/10/04 | 9/9/04 | 17,800 | ND | ND | ND | ND | 17,800 | ND | ND | ND |
| | Duplicate 97 (DL3-1-4') | 1-4 | 8/10/04 | 9/9/04 | 10,400 | ND | ND | ND | ND | 10,400 | ND | ND | ND |
| | DL3-4-7' | 4-7 | 8/10/04 | 9/9/04 | 12,200 | ND | ND | ND | ND | 12,200 | ND | ND | ND |
| | DL3-4-7' MS | 4-7 | 8/10/04 | 9/9/04 | 17,100 | ND | ND | ND | ND | 17,100 | ND | ND | ND |
| | DL3-4-7' MSD | 4-7 | 8/10/04 | 9/9/04 | 67,600 | ND | ND | ND | ND | 67,600 | ND | ND | ND |
| | DL3-7-11 | 7-11 | 8/10/04 | 9/9/04 | 2,060 | ND | ND | ND | ND | 2,060 | ND | ND | ND |
| **DL4** | DL4-1-3' | 1-3 | 8/10/04 | 9/9/04 | 23,500 | ND | ND | ND | ND | 23,500 | ND | ND | ND |
| | DL4-5-7' | 5-7 | 8/10/04 | 9/9/04 | 2,240 | ND | ND | ND | ND | 2,240 | ND | ND | ND |
| | DL4-10-11.5 | 10-11.5 | 8/10/04 | 9/9/04 | 13,000 | ND | ND | ND | ND | 13,000 | ND | ND | ND |
| **DL5** | DL5-1-5' | 1-5 | 8/10/04 | 9/9/04 | 3,080 | ND | ND | ND | ND | 3,080 | ND | ND | ND |
| | DL5-5-11 | 5-11 | 8/10/04 | 9/9/04 | 1,830 | ND | ND | ND | ND | 1,830 | ND | ND | ND |
| **DL6** | (no sample collected - clean backfill - located over current sewer line) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL7** | (no sample collected - clean backfill - located on Hathaway Boulevard.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL8** | (no sample collected - clean backfill - located on Hathaway Boulevard.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL9** | DL9-1-4' | 1-4 | 8/10/04 | 9/9/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DL9-4-7' | 4-7 | 8/10/04 | 9/9/04 | 4,380 | ND | ND | ND | ND | 4,380 | ND | ND | ND |
| | DL9-7-10' | 7-10 | 8/10/04 | 9/9/04 | 11,500 | ND | ND | ND | ND | 11,500 | ND | ND | ND |
| **DL10** | DL10-1-4' | 1-4 | 8/11/04 | 9/13/04 | 7,220 | ND | ND | ND | ND | 7,220 | ND | ND | ND |
| | DL10-4-8' | 4-8 | 8/11/04 | 9/23/04 | 14,000 | ND | ND | ND | ND | 14,000 | ND | ND | ND |
| | Duplicate 99 (DL10-4-8') | 4-8 | 8/11/04 | 9/9/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DL10-8-11.5' | 8-11.5 | 8/11/04 | 9/23/04 | 2,220 | ND | ND | ND | ND | 2,220 | ND | ND | ND |
| | DL10-1-4'MS | 1-4 | 8/11/04 | 9/23/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | DL10-1-4'MSD | 1-4 | 8/11/04 | 9/23/04 | 16,600 | ND | ND | ND | ND | 16,600 | ND | ND | ND |
| **DL11** | DL11-1-4' | 1-4 | 8/11/04 | 9/13/04 | 21,140 | ND | ND | ND | ND | 21,140 | ND | ND | ND |
| | DL11-4-7' | 4-7 | 8/11/04 | 9/23/04 | 12,600 | ND | ND | ND | ND | 12,600 | ND | ND | ND |
| | DL11-7-11' | 7-11 | 8/11/04 | 9/23/04 | 9,500 | ND | ND | ND | ND | 9,500 | ND | ND | ND |
| **DL12** | DL12-1-4' | 1-4 | 8/11/04 | 9/23/04 | 11,400 | ND | ND | ND | ND | 11,400 | ND | ND | ND |
| | DL12-4-8' | 4-8 | 8/11/04 | 9/23/04 | 18,600 | ND | ND | ND | ND | 18,600 | ND | ND | ND |
| | DL12-8-11.5' | 8-11.5 | 8/11/04 | 9/13/04 | 25,000 | ND | ND | ND | ND | 25,000 | ND | ND | ND |
| **DL13** | (no sample collected - clean backfill - located in South Corridor) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL14** | DL14-1-4' | 1-4 | 8/11/04 | 9/13/04 | 6,500 | ND | ND | ND | ND | 6,500 | ND | ND | ND |
| | DL14-4-8' | 4-8 | 8/11/04 | 9/23/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | DL14-8-12' | 8-12 | 8/11/04 | 9/14/04 | 4,400 | ND | ND | ND | ND | 4,400 | ND | ND | ND |

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# Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DL15** | DL15-1-4' | 1-4 | 12/2/04 | 12/4/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| | DL15-4-8' | 4-8 | 12/2/04 | 12/4/04 | 11,800 | ND | ND | ND | ND | 11,800 | ND | ND | ND |
| | DL15-8-11' | 8-11 | 12/2/04 | 12/4/04 | 4,610 | ND | ND | ND | ND | 4,610 | ND | ND | ND |
| **COMP** | Duplicate 100 (DL16-DL22 Medium) | -- | 8/11/04 | 9/9/04 | 5,770 | ND | ND | ND | ND | 5,770 | ND | ND | ND |
| **DL16** | DL16-1-4' | 1-4 | 8/11/04 | 9/15/04 | 20,200 | ND | ND | ND | ND | 20,200 | ND | ND | ND |
| | DL16-4-8' | 4-8 | 8/11/04 | 9/15/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| **DL17** | (no sample collected due to proximity to DB59 - use DB59 data) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL18** | DL18-1-3' | 1-3 | 8/11/04 | 9/15/04 | 5,100 | ND | ND | ND | ND | 5,100 | ND | ND | ND |
| | DL18-3-6' | 3-6 | 8/11/04 | 9/15/04 | 3,330 | ND | ND | ND | ND | 3,330 | ND | ND | ND |
| | DL18-A-1-4' | 1-4 | 12/2/04 | 12/4/04 | 13,500 | ND | ND | ND | ND | 13,500 | ND | ND | ND |
| | DL18-A-4-8' | 4-8 | 12/2/04 | 12/4/04 | 4,270 | ND | ND | ND | ND | 4,270 | ND | ND | ND |
| | DL18-A-8-10' | 8-10 | 12/2/04 | 12/4/04 | 9,300 | ND | ND | ND | ND | 9,300 | ND | ND | ND |
| **DL19** | DL19-1-3' | 1-3 | 8/11/04 | 9/15/04 | 4,000 | ND | ND | ND | ND | 4,000 | ND | ND | ND |
| | DL19-3-6' | 3-6 | 8/11/04 | 9/15/04 | 8,400 | ND | ND | ND | ND | 8,400 | ND | ND | ND |
| | DL19-A-1-4 | 1-4 | 12/2/04 | 12/4/04 | 11,300 | ND | ND | ND | ND | 11,300 | ND | ND | ND |
| | DL19-A-1-4'MS | 1-4 | 12/2/04 | 12/4/04 | 34,500 | ND | ND | ND | ND | 34,500 | ND | ND | ND |
| | DL19-A-1-4'MSD | 1-4 | 12/2/04 | 12/4/04 | 20,500 | ND | ND | ND | ND | 20,500 | ND | ND | ND |
| | DL19-A-4-8' | 4-8 | 12/2/04 | 12/4/04 | 11,600 | ND | ND | ND | ND | 11,600 | ND | ND | ND |
| | Duplicate 194 (DL19-A-4-8') | 4-8 | 12/2/04 | 12/4/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| | DL19-A-8-11' | 8-11 | 12/2/04 | 12/4/04 | 6,900 | ND | ND | ND | ND | 6,900 | ND | ND | ND |
| **DL20** | DL20-1-3' | 1-3 | 8/11/04 | 9/23/04 | 21,000 | ND | ND | ND | ND | 21,000 | ND | ND | ND |
| | DL20-1-3'MS | 1-3 | 8/11/04 | 9/23/04 | 17,900 | ND | ND | ND | ND | 17,900 | ND | ND | ND |
| | DL20-1-3'MSD | 1-3 | 8/11/04 | 9/23/04 | 21,000 | ND | ND | ND | ND | 21,000 | ND | ND | ND |
| | DL20-3-6' | 3-6 | 8/11/04 | 9/15/04 | 5,825 | ND | ND | ND | ND | 5,825 | ND | ND | ND |
| | DL20-A-1-4' | 1-4 | 10/22/04 | 10/29/04 | 7,760 | ND | ND | ND | ND | 7,760 | ND | ND | ND |
| | DL20-A-4-8' | 4-8 | 10/22/04 | 10/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL20-A-8-9' | 8-9 | 10/22/04 | 10/29/04 | 7,200 | ND | ND | ND | ND | 7,200 | ND | ND | ND |
| **DL21** | DL21-A-1-4' | 1-4 | 10/22/04 | 10/29/04 | 4,170 | ND | ND | ND | ND | 4,170 | ND | ND | ND |
| | DL21-A-4-8' | 4-8 | 10/22/04 | 10/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL21-A-8-8.5' | 8-8.5 | 10/22/04 | 10/29/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL22** | DL22-1-3' | 1-3 | 8/11/04 | 9/23/04 | 26,000 | ND | ND | ND | ND | 26,000 | ND | ND | ND |
| | DL22-3-6' | 3-6 | 8/11/04 | 9/15/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL22-A-1-4' | 1-4 | 12/2/04 | 12/4/04 | 5,560 | ND | ND | ND | ND | 5,560 | ND | ND | ND |
| | DL22-A-4-8' | 4-8 | 12/2/04 | 12/4/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL22-A-8-9' | 8-9 | 10/22/04 | 10/29/04 | 2,030 | ND | ND | ND | ND | 2,030 | ND | ND | ND |
| | DL22-A-8-9.5' | 8-9.5 | 12/2/04 | 12/4/04 | 1,930 | ND | ND | ND | ND | 1,930 | ND | ND | ND |
| **DL23** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL24** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL25** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL26** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL27** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL28** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |

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# Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| **DL29** | (deleted - drain lines shifted) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL30** | DL30-1-4' | 1-4 | 8/11/04 | 9/13/04 | 26,300 | ND | ND | ND | ND | 26,300 | ND | ND | ND |
| | DL30-4-8' | 4-8 | 8/11/04 | 9/13/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | DL30-8-11.5' | 8-11.5 | 8/11/04 | 9/13/04 | 5,000 | ND | ND | ND | ND | 5,000 | ND | ND | ND |
| **DL31** | DL31-1-4' | 1-4 | 8/11/04 | 9/23/04 | 22,850 | ND | ND | ND | ND | 22,850 | ND | ND | ND |
| | DL31-4-7' | 4-7 | 8/11/04 | 9/13/04 | 12,300 | ND | ND | ND | ND | 12,300 | ND | ND | ND |
| | DL31-7-11' | 7-11 | 8/11/04 | 9/13/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL32** | DL32-1-4' | 1-4 | 8/11/04 | 9/13/04 | 11,000 | ND | ND | ND | ND | 11,000 | ND | ND | ND |
| | DL32-4-7' | 4-7 | 8/11/04 | 9/13/04 | 3,000 | ND | ND | ND | ND | 3,000 | ND | ND | ND |
| | DL32-7-11' | 7-11 | 8/11/04 | 9/13/04 | 3,800 | ND | ND | ND | ND | 3,800 | ND | ND | ND |
| **DL33** | DL33-1-3' | 1-3 | 8/11/04 | 9/3/04 | 7,575 | ND | ND | ND | ND | 7,575 | ND | ND | ND |
| | DL33-3-6' | 3-6 | 8/11/04 | 9/3/04 | 6,340 | ND | ND | ND | ND | 6,340 | ND | ND | ND |
| **DL34** | DL34-1-4' | 1-4 | 8/11/04 | 9/3/04 | 10,840 | ND | ND | ND | ND | 10,840 | ND | ND | ND |
| | DL34-4-8' | 4-8 | 8/11/04 | 9/3/04 | 8,730 | ND | ND | ND | ND | 8,730 | ND | ND | ND |
| **DL35** | DL35-1-4' | 1-4 | 8/11/04 | 9/3/04 | 33,800 | ND | ND | ND | ND | 33,800 | ND | ND | ND |
| | DL36-4-8' | 4-8 | 8/11/04 | 9/3/04 | 13,800 | ND | ND | ND | ND | 13,800 | ND | ND | ND |
| **DL36** | DL36-1-4' | 1-4 | 8/11/04 | 9/3/04 | 8,600 | ND | ND | ND | ND | 8,600 | ND | ND | ND |
| | DL36-4-8' | 4-8 | 8/11/04 | 9/3/04 | 4,650 | ND | ND | ND | ND | 4,650 | ND | ND | ND |
| **COMP** | DUPLICATE 121 (DL76-86 Medium) | -- | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **NOTE: There is no DL37 through DL75** | | | | | | | | | | | | | |
| **DL76** | DL76-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL76-3-6' | 3-6 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL76-6-9' | 6-9 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL77** | DL77-1-3' | 1-3 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL77-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL77-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL78** | DL78-1-4' | 1-4 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL78-4-7' | 4-7 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL78-7-10' | 7-10 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL79** | DL79-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL79-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL79-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL80** | DL80-1-4' | 1-4 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 119 (DL80-1-4') | 1-4 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL80-4-8.5' | 4-8.5 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL81** | DL81-1-5' | 1-5 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 120 (DL81-1-5') | 1-5 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL82** | DL82-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL82-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL82-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL83** | DL83-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL83-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
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# Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | DL83-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL84** | DL84-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL84-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL84-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL85** | DL85-1-3' | 1-3 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL85-3-6' | 3-6 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL85-6-9' | 6-9 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL86** | DL86-1-4' | 1-4 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL86-4-7' | 4-7 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL86-7-11' | 7-11 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL87** | DL87-1-4' | 1-4 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL87-4-7' | 4-7 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL87-7-11' | 7-11 | 8/26/04 | 9/1/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL88** | (no sample collected - clean backfill - located over current sewer line) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL89** | (no sample collected - clean backfill - located on Hathaway Boulevard.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL90** | (no sample collected - clean backfill - located on Hathaway Boulevard.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL91** | DL91-1-4' | 1-4 | 10/22/04 | 10/29/04 | 4,000 | ND | ND | ND | ND | 4,000 | ND | ND | ND |
| | DL91-4-8' | 4-8 | 10/22/04 | 10/29/04 | 7,730 | ND | ND | ND | ND | 7,730 | ND | ND | ND |
| | DL91-8-10' | 8-10 | 10/22/04 | 10/29/04 | 3,200 | ND | ND | ND | ND | 3,200 | ND | ND | ND |
| **DL92** | DL92-1-4' | 1-4 | 8/26/04 | 9/2/04 | **212,000** | ND | ND | ND | ND | 212,000 | ND | ND | ND |
| | DL92-4-8.5' | 4-8.5 | 8/26/04 | 9/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL92-A-1-4' | 1-4 | 10/22/04 | 10/29/04 | 12,100 | ND | ND | ND | ND | 12,100 | ND | ND | ND |
| | DL92-A-4-8' | 4-8 | 10/22/04 | 10/29/04 | 7,020 | ND | ND | ND | ND | 7,020 | ND | ND | ND |
| | DL92-A-8-9.5' | 8-9.5 | 10/22/04 | 10/29/04 | 4,360 | ND | ND | ND | ND | 4,360 | ND | ND | ND |
| | DL92-B-1-4' | 1-4 | 10/22/04 | 10/29/04 | 38,500 | ND | ND | ND | ND | 38,500 | ND | ND | ND |
| | DL92-B-4-8' | 4-8 | 10/22/04 | 10/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL92-B-8-10' | 8-10 | 10/22/04 | 10/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL92-C-1-4' | 1-4 | 10/22/04 | 10/29/04 | **94,500** | ND | ND | ND | ND | 94,500 | ND | ND | ND |
| | Duplicate 169 (DL92-C-1-4') | 1-4 | 10/22/04 | 10/29/04 | **52,800** | ND | ND | ND | ND | 52,800 | ND | ND | ND |
| | DL92-C-4-8' | 4-8 | 10/22/04 | 10/28/04 | 3,260 | ND | ND | ND | ND | 3,260 | ND | ND | ND |
| | DL92-C-8-9.75' | 8-9.75 | 10/22/04 | 10/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL92-D-1-4' | 1-4 | 10/22/04 | 10/28/04 | 24,900 | ND | ND | ND | ND | 24,900 | ND | ND | ND |
| | DL92-D-4-8' | 4-8 | 10/22/04 | 10/28/04 | 4,910 | ND | ND | ND | ND | 4,910 | ND | ND | ND |
| | DL92-D-8-9.5' | 8-9.5 | 10/22/04 | 10/29/04 | 2,320 | ND | ND | ND | ND | 2,320 | ND | ND | ND |
| **DL93** | (no sample collected due to proximity to DB75 - use DB75 data) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL94** | (no sample collected - clean backfill.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL95** | (consistently hit refusal while drilling in this area.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | DL96-1-3' | 1-3 | 9/9/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

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# Drain Lines
## Polychlorinated Biphenyls

| | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL96** | (no sample collected beyond 3' bgs - clean backfill.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL97** | DL97-1-2' | 1-2 | 9/9/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | (no sample collected beyond 2' bgs - clean backfill.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL98** | DL98-1-4' | 1-4 | 9/9/04 | 9/17/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | (no sample collected beyond 4' bgs - clean backfill.) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL99** | DL99-1-4' | 1-4 | 9/9/04 | 9/16/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 134 (DL99-1-4') | 1-4 | 9/9/04 | 9/16/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL99-4-7' | 4-7 | 9/9/04 | 9/16/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL99-7-10' | 7-10 | 9/9/04 | 9/19/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **DL100** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL101** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL102** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL103** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL104** | (no sample with this ID collected) | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **DL105** | DL105-1-3 | 1-3 | 9/20/04 | 9/22/04 | 3,590 | ND | ND | ND | ND | 3,590 | ND | ND | ND |
| | DL105-3-6 | 3-6 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL105-6-8.5 | 6-8.5 | 9/20/04 | 9/22/04 | 3,210 | ND | ND | ND | ND | 3,210 | ND | ND | ND |
| **DL106** | DL106-1-3 | 1-3 | 9/20/04 | 9/22/04 | 2,890 | ND | ND | ND | ND | 2,890 | ND | ND | ND |
| | DL106-3-6 | 3-6 | 9/20/04 | 9/22/04 | 2,300 | ND | ND | ND | ND | 2,300 | ND | ND | ND |
| | DL106-6-8 | 6-8 | 9/20/04 | 9/22/04 | 1,330 | ND | ND | ND | ND | 1,330 | ND | ND | ND |
| **DL107** | DL107-1-3 | 1-3 | 9/20/04 | 9/22/04 | **63,700** | ND | ND | ND | ND | 63,700 | ND | ND | ND |
| | DL107-3-6 | 3-6 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL107-6-10 | 6-10 | 9/20/04 | 9/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 139 | | 9/20/04 | 9/22/04 | 5,430 | ND | ND | ND | ND | 5,430 | ND | ND | ND |
| | MS-DL107-6-10 | 6-10 | 9/20/04 | 9/22/04 | 6,960 | ND | ND | ND | ND | 6,960 | ND | ND | ND |
| | MSD-DL107-6-10 | 6-10 | 9/20/04 | 9/22/04 | 7,990 | ND | ND | ND | ND | 7,990 | ND | ND | ND |
| | DL107-A-1-3' | 1-3 | 9/24/04 | 9/28/04 | 4,620 | ND | ND | ND | ND | 4,620 | ND | ND | ND |
| | DL107-A-3-6' | 3-6 | 9/24/04 | 9/28/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL107-A-6-10.25' | 6-10.25 | 10/1/04 | 10/4/04 | 2,940 | ND | ND | ND | ND | 2,940 | ND | ND | ND |
| | DL107-B-1-3' | 1-3 | 9/24/04 | 9/28/04 | 8,420 | ND | ND | ND | ND | 8,420 | ND | ND | ND |
| | DL107-B-3-6' | 3-6 | 9/24/04 | 9/28/04 | **109,000** | ND | ND | ND | ND | 109,000 | ND | ND | ND |
| | DL107-B-6-10' | 6-10 | 10/1/04 | 10/4/04 | 6,260 | ND | ND | ND | ND | 6,260 | ND | ND | ND |
| | DL107-C-1-3' | 1-3 | 10/1/04 | 10/4/04 | **56,300** | ND | ND | ND | ND | 56,300 | ND | ND | ND |
| | DL107-C-3-6' | 3-6 | 10/1/04 | 10/4/04 | 2,990 | ND | ND | ND | ND | 2,990 | ND | ND | ND |
| | DL107-C-6-10' | 6-10 | 10/1/04 | 10/3/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DL107-D-1-3' | 1-3 | 10/1/04 | 10/6/04 | 15,900 | ND | ND | ND | ND | 15,900 | ND | ND | ND |
| | DL107-D-3-6' | 3-6 | 10/1/04 | 10/6/04 | 4,630 | ND | ND | ND | ND | 4,630 | ND | ND | ND |
| | DL107-D-6-10' | 6-10 | 10/1/04 | 10/6/04 | 2,260 | ND | ND | ND | ND | 2,260 | ND | ND | ND |
| **DL108** | DL108-1-3 | 1-3 | 9/20/04 | 9/22/04 | 12,400 | ND | ND | ND | ND | 12,400 | ND | ND | ND |
| | DL108-3-6 | 3-6 | 9/20/04 | 9/22/04 | 4,660 | ND | ND | ND | ND | 4,660 | ND | ND | ND |

## Drain Lines
## Polychlorinated Biphenyls

| | | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| | DL108-6-10 | 6-10 | 9/20/04 | 9/22/04 | 3,930 | ND | ND | ND | ND | 3,930 | ND | ND | ND |
| **DL109** | DL109-1-3 | 1-3 | 9/20/04 | 9/22/04 | 9,070 | ND | ND | ND | ND | 9,070 | ND | ND | ND |
| | DL109-3-6 | 3-6 | 9/20/04 | 9/22/04 | 3,920 | ND | ND | ND | ND | 3,920 | ND | ND | ND |
| | DL109-6-10 | 6-10 | 9/20/04 | 9/22/04 | 5,400 | ND | ND | ND | ND | 5,400 | ND | ND | ND |
| **CY-1** | CY-1-1-3' | 1-3 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 158 (CY-1-1-3') | 1-3 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | CY-1-3-6' | 3-6 | 10/12/04 | 10/20/04 | 43,600 | ND | ND | ND | ND | 43,600 | ND | ND | ND |
| | CY-1-6-10' | 6-10 | 10/12/04 | 10/20/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| **CY-2** | CY-2-1-3' | 1-3 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | CY-2-3-6' | 3-6 | 10/12/04 | 10/20/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | CY-2-6-10' | 6-10 | 10/12/04 | 10/20/04 | 21,600 | ND | ND | ND | ND | 21,600 | ND | ND | ND |
| **CY-3** | CY-3-1-3' | 1-3 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | CY-3-3-6' | 3-6 | 10/12/04 | 10/20/04 | 41,600 | ND | ND | ND | ND | 41,600 | ND | ND | ND |
| | CY-3-6-10' | 6-10 | 10/12/04 | 10/20/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

# ROOF DRAIN OUTLETS
## Polychlorinated Biphenyls

| LOCATION | Sample Identification | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **OUTLET 1** | OUTLET 1-A-1-2.5' | 1-2.5 | 7/2/04 | 7/26/04 | 14,300 | ND | ND | ND | ND | 14,300 | ND | ND | ND |
| | OUTLET 1-B-0.5-2.5' | 0.5-2.5 | 7/2/04 | 7/26/04 | 18,000 | ND | ND | ND | ND | 18,000 | ND | ND | ND |
| | OUTLET 1-C-0-2.5' | 0-2.5 | 7/2/04 | 7/27/04 | 21,200 | ND | ND | ND | ND | 21,200 | ND | ND | ND |
| | OUTLET 1-D-0-2' | 0-2 | 7/2/04 | 7/27/04 | 6,460 | ND | ND | ND | ND | 6,460 | ND | ND | ND |
| | OUTLET 1 A+B+C+D | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **OUTLET 2** | OUTLET 2-A-1-2' | 1-2 | 7/2/04 | 7/26/04 | 16,900 | ND | ND | ND | ND | 16,900 | ND | ND | ND |
| | OUTLET 2-B-0-1' | 0-1 | 7/2/04 | 7/26/04 | 5,560 | ND | ND | ND | ND | 5,560 | ND | ND | ND |
| | OUTLET 2-C-0-1' | 0-1 | 7/2/04 | 7/26/04 | 3,620 | ND | ND | ND | ND | 3,620 | ND | ND | ND |
| | OUTLET 2-A+B+C | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **OUTLET 3** | OUTLET 3-A-1-2.5' | 1-2.5 | 7/2/04 | 7/26/04 | 6,810 | ND | ND | ND | ND | 6,810 | ND | ND | ND |
| | OUTLET 3-AB-0-2' | 0-2 | 7/2/04 | 7/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | OUTLET 3-A+B | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | OUTLET 3-C-1-3' | 1-3 | 10/8/04 | 10/14/04 | 2,080 | ND | ND | ND | ND | 2,080 | ND | ND | ND |
| **OUTLET 4** | OUTLET 4-A-1-2.5' | 1-2.5 | 7/2/04 | 7/26/04 | 3,830 | ND | ND | ND | ND | 3,830 | ND | ND | ND |
| | OUTLET 4-B-0-2' | 0-2 | 7/2/04 | 7/26/04 | 4,240 | ND | ND | ND | ND | 4,240 | ND | ND | ND |
| | OUTLET 4-A+B | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | OUTLET 4-C-1-4' | 1-4 | 10/8/04 | 10/14/04 | 1,220 | ND | ND | ND | ND | 1,220 | ND | ND | ND |
| | OUTLET 4 SP | ~ | 7/30/04 | 8/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **OUTLET 5** | OUTLET 5-A-1-2.5' | 1-2.5 | 7/2/04 | 7/26/04 | 1,530 | ND | ND | ND | ND | 1,530 | ND | ND | ND |
| | OUTLET 5-B-0-2' | 0-2 | 7/2/04 | 7/26/04 | 3,420 | ND | ND | ND | ND | 3,420 | ND | ND | ND |
| | OUTLET 5-A+B | ~ | 7/2/04 | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | OUTLET 5-C-1-4' | 1-4 | 10/8/04 | 10/12/04 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| | OUTLET 5 SP | ~ | 7/29/04 | 7/31/04 | 2,220 | ND | ND | ND | ND | 2,220 | ND | ND | ND |

McCoy Field
Project No. 02685

# Lights
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **L1** | L1-1-4' | 1-4 | 8/17/04 | 8/21/04 | 3,640 | ND | ND | ND | ND | 3,640 | ND | ND | ND |
| | L1-4-7' | 4-7 | 8/17/04 | 8/25/04 | 2,920 | ND | ND | ND | ND | 1,770 | 1,150 | ND | ND |
| | L1-7-11' | 7-11 | 8/17/04 | 8/21/04 | 2,100 | ND | ND | ND | ND | 2,100 | ND | ND | ND |
| **L4** | L4-1-4' | 1-4 | 8/17/04 | 8/23/04 | 287 | ND | ND | ND | ND | 287 | ND | ND | ND |
| | L4-4-8' | 4-8 | 8/17/04 | 8/21/04 | 26,200 | ND | ND | ND | ND | 26,200 | ND | ND | ND |
| | L4-8-12' | 8-12 | 8/17/04 | 8/24/04 | 92 | ND | ND | ND | ND | 92 | ND | ND | ND |
| **L5** | L5-1-4' | 1-4 | 8/17/04 | 8/21/04 | 1,580 | ND | ND | ND | ND | 1,580 | ND | ND | ND |
| | Duplicate 104 (L5-1-4') | 1-4 | 8/17/04 | 8/25/04 | 17,000 | ND | ND | ND | ND | 17,000 | ND | ND | ND |
| | L5-4-7' | 4-7 | 8/17/04 | 8/21/04 | 12,500 | ND | ND | ND | ND | 12,500 | ND | ND | ND |
| | L5-7-10' | 7-10 | 8/17/04 | 8/23/04 | 552 | ND | ND | ND | ND | 552 | ND | ND | ND |
| **Flagpole** | FLAGPOLE-1-3' | 1-3 | 8/17/04 | 8/21/04 | 4,140 | ND | ND | ND | ND | 4,140 | ND | ND | ND |
| | FLAGPOLE-3-6' | 3-6 | 8/17/04 | 8/21/04 | 3,960 | ND | ND | ND | ND | 3,960 | ND | ND | ND |
| | FLAGPOLE-6-9' | 6-9 | 8/17/04 | 8/23/04 | 10,100 | ND | ND | ND | ND | 10,100 | ND | ND | ND |
| **L6** | L6-1-4' | 1-4 | 11/17/04 | 11/23/04 | 35,800 | ND | ND | ND | ND | 35,800 | ND | ND | ND |
| | L6-4-8' | 4-8 | 11/17/04 | 11/24/04 | **73,900** | ND | ND | ND | ND | 73,900 | ND | ND | ND |
| | L6-8-9.5' | 8-9.5 | 11/17/04 | 11/23/04 | 10,500 | ND | ND | ND | ND | 10,500 | ND | ND | ND |
| **L7** | L7-1-4' | 1-4 | 11/17/04 | 11/23/04 | 7,010 | ND | ND | ND | ND | 7,010 | ND | ND | ND |
| | L7-4-8' | 4-8 | 11/17/04 | 11/23/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L7-8-9' | 8-9 | 11/17/04 | 11/23/04 | 2,360 | ND | ND | ND | ND | 2,360 | ND | ND | ND |
| **L8** | L8-1-3' | 1-3 | 8/17/04 | 8/21/04 | 3,810 | ND | ND | ND | ND | 3810 | ND | ND | ND |
| | L8-3-6' | 3-6 | 8/17/04 | 8/25/04 | 13,500 | ND | ND | ND | ND | 13500 | ND | ND | ND |
| | L8-6-9' | 6-9 | 8/17/04 | 8/21/04 | 961 | ND | ND | ND | ND | 961 | ND | ND | ND |
| **L9** | L9-1-4' | 1-4 | 8/17/04 | 8/21/04 | 1,670 | ND | ND | ND | ND | 1670 | ND | ND | ND |
| | L9-4-7' | 4-7 | 8/17/04 | 8/21/04 | 1,240 | ND | ND | ND | ND | 1240 | ND | ND | ND |
| | L9-7-10' | 7-10 | 8/17/04 | 8/23/04 | 3,320 | ND | ND | ND | ND | 1610 | 1710 | ND | ND |
| **L10** | L10-1-3' | 1-3 | 8/17/04 | 8/23/04 | 1,080 | ND | ND | ND | ND | 1080 | ND | ND | ND |
| | L10-3-6' | 3-6 | 8/17/04 | 8/25/04 | **1,020,000** | ND | ND | ND | ND | 1020000 | ND | ND | ND |
| | Duplicate 106 (L10-3-6') | 3-6 | 8/17/04 | 8/21/04 | **178,000** | ND | ND | ND | ND | 178,000 | ND | ND | ND |
| | L10-6-9' | 6-9 | 8/17/04 | 8/24/04 | 23,500 | ND | ND | ND | ND | 23500 | ND | ND | ND |
| | L10-A-3-6' | 3-6 | 12/3/04 | 12/8/04 | 10,000 | ND | ND | ND | ND | 10000 | ND | ND | ND |
| | L10-B-3-6' | 3-6 | 12/3/04 | 12/8/04 | 9,530 | ND | ND | ND | ND | 9530 | ND | ND | ND |
| | L10-C-3-6' | 3-6 | 12/3/04 | 12/8/04 | 3,520 | ND | ND | ND | ND | 3520 | ND | ND | ND |
| | L10-D-3-6' | 3-6 | 12/3/04 | 12/8/04 | **73,500** | ND | ND | ND | ND | 73500 | ND | ND | ND |
| **L11** | L11-1-3' | 1-3 | 8/17/04 | 8/24/04 | 13,100 | ND | ND | ND | ND | 13100 | ND | ND | ND |
| | L11-3-6' | 3-6 | 8/17/04 | 8/23/04 | 2,220 | ND | ND | ND | ND | 2220 | ND | ND | ND |
| | L11-6-9.5' | 6-9.5 | 8/17/04 | 8/23/04 | **113,000** | ND | ND | ND | ND | 113,000 | ND | ND | ND |
| | L11-A-6-10' | 6-10 | 12/3/04 | 12/8/04 | 3,450 | ND | ND | ND | ND | 3,450 | ND | ND | ND |
| | Duplicate 196 (L11-A-6-10') | 6-10 | 12/3/04 | 12/8/04 | 5,410 | ND | ND | ND | ND | 5,410 | ND | ND | ND |
| | L11-B-6-11' | 6-11 | 12/2/04 | 12/4/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

# Lights
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/ 1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | L11-C-6-10' | 6-10 | 12/3/04 | 12/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L11-C-6-10'MS | 6-10 | 12/3/04 | 12/8/04 | 8,110 | ND | ND | ND | ND | 8,110 | ND | ND | ND |
| | L11-C-6-10'MSD | 6-10 | 12/3/04 | 12/8/04 | 8,790 | ND | ND | ND | ND | 8,790 | ND | ND | ND |
| | L11-D-6-9.5' | 6-9.5 | 12/2/04 | 12/4/04 | 10,200 | ND | ND | ND | ND | 10,200 | ND | ND | ND |
| **L12** | L12-1-4' | 1-4 | 8/17/04 | 8/24/04 | **54,500** | ND | ND | ND | ND | 54,500 | ND | ND | ND |
| | L12-4-7' | 4-7 | 8/17/04 | 8/24/04 | 3,630 | ND | ND | ND | ND | 3,630 | ND | ND | ND |
| | L12-7-10' | 7-10 | 8/17/04 | 8/24/04 | 21,700 | ND | ND | ND | ND | 21,700 | ND | ND | ND |
| **L13** | L13-1-4' | 1-4 | 8/17/04 | 8/23/04 | 2,350 | ND | ND | ND | ND | 2,350 | ND | ND | ND |
| | L13-4-8' | 4-8 | 8/17/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L13-8-12' | 8-12 | 8/17/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **L14** | L14-1-4' | 1-4 | 8/17/04 | 8/24/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L14-4-8' | 4-8 | 8/17/04 | 8/24/04 | 95 | ND | ND | ND | ND | 95 | ND | ND | ND |
| | L14-8-12' | 8-12 | 8/17/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **L15** | L15-1-4' | 1-4 | 8/17/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L15-4-8' | 4-8 | 8/17/04 | 8/24/04 | 1,100 | ND | ND | ND | ND | 1,100 | ND | ND | ND |
| | L15-8-12' | 8-12 | 8/17/04 | 8/24/04 | 492 | ND | ND | ND | ND | 492 | ND | ND | ND |
| **L16** | L16-1-4' | 1-4 | 8/17/04 | 8/21/04 | 2,120 | ND | ND | ND | ND | 2,120 | ND | ND | ND |
| | L16-4-8' | 4-8 | 8/17/04 | 8/21/04 | 4,370 | ND | ND | ND | ND | 4,370 | ND | ND | ND |
| **L17** | L17-1-4' | 1-4 | 8/19/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L17-4-7' | 4-7 | 8/19/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L17-7-10' | 7-10 | 8/19/04 | 8/25/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **L18** | L18-0-4' | 0-4 | 12/3/04 | 12/8/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L18-4-5' | 4-5 | 12/3/04 | 12/8/04 | 1,210 | ND | ND | ND | ND | 1,210 | ND | ND | ND |
| **L19** | L19-1-4' | 1-4 | 8/19/04 | 8/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | Duplicate 107 (L19-1-4') | 1-4 | 8/19/04 | 8/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | L19-4-7' | 4-7 | 8/19/04 | 8/26/04 | 3,120 | ND | ND | ND | ND | 3,120 | ND | ND | ND |
| | L19-7-11' | 7-11 | 8/19/04 | 8/26/04 | 3,260 | ND | ND | ND | ND | 3,260 | ND | ND | ND |
| **L20** | L20-1-4' | 1-4 | 8/19/04 | 8/26/04 | 2,300 | ND | ND | ND | ND | 2,300 | ND | ND | ND |
| | L20-4-7' | 4-7 | 8/19/04 | 8/26/04 | 5,530 | ND | ND | ND | ND | 5,530 | ND | ND | ND |
| | L20-7-11' | 7-11 | 8/19/04 | 8/26/04 | 1,970 | ND | ND | ND | ND | 1,970 | ND | ND | ND |
| **L21** | L21-1-4' | 1-4 | 8/19/04 | 8/26/04 | 2,820 | ND | ND | ND | ND | 2,820 | ND | ND | ND |
| | L21-4-7' | 4-7 | 8/19/04 | 8/26/04 | 1,900 | ND | ND | ND | ND | 1,900 | ND | ND | ND |
| | L21-7-10.5' | 7-10.5 | 8/19/04 | 8/26/04 | 1,420 | ND | ND | ND | ND | 1,420 | ND | ND | ND |
| **L22** | L22-1-4' | 1-4 | 8/19/04 | 8/26/04 | 792 | ND | ND | ND | ND | 792 | ND | ND | ND |
| | L22-4-7' | 4-7 | 8/19/04 | 8/26/04 | 5,160 | ND | ND | ND | ND | 5,160 | ND | ND | ND |
| | L22-7-11.5' | 7-11.5 | 8/19/04 | 8/27/04 | 2,520 | ND | ND | ND | ND | 2,520 | ND | ND | ND |
| **L23** | L23-1-4' | 1-4 | 8/19/04 | 8/26/04 | 2,010 | ND | ND | ND | ND | 2,010 | ND | ND | ND |
| | L23-4-8' | 4-8 | 8/19/04 | 8/26/04 | 22,200 | ND | ND | ND | ND | 22,200 | ND | ND | ND |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Lights
## Polychlorinated Biphenyls

| Quadrant | Sample ID | Depth | Collection Date | Analysis Date | Total PCBs (ug/kg) | PCB-1221 (ug/kg) | PCB-1232 (ug/kg) | PCB-1016/ 1242 (ug/kg) | PCB-1248 (ug/kg) | PCB-1254 (ug/kg) | PCB-1260 (ug/kg) | PCB-1262 (ug/kg) | PCB-1268 (ug/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | L23-8-12' | 8-12 | 8/19/04 | 8/26/04 | 1,220 | ND | ND | ND | ND | 1,220 | ND | ND | ND |
| **L24** | L24-1-4' | 1-4 | 8/19/04 | 8/26/04 | 4,470 | ND | ND | ND | ND | 4,470 | ND | ND | ND |
| | L24-4-7' | 4-7 | 8/19/04 | 8/26/04 | 3,780 | ND | ND | ND | ND | 3,780 | ND | ND | ND |
| | L24-7-9' | 7-9 | 8/19/04 | 8/26/04 | 21,400 | ND | ND | ND | ND | 21,400 | ND | ND | ND |
| **L25** | L25-1-4' | 1-4 | 8/19/04 | 8/26/04 | **69,800** | ND | ND | ND | ND | 69,800 | ND | ND | ND |
| | L25-4-7' | 4-7 | 8/19/04 | 8/26/04 | 19,900 | ND | ND | ND | ND | 19,900 | ND | ND | ND |
| | L25-7-10' | 7-10 | 8/19/04 | 8/26/04 | 3,490 | ND | ND | ND | ND | 3,490 | ND | ND | ND |
| **L26** | L26-1-4' | 1-4 | 8/19/04 | 8/27/04 | 10,600 | ND | ND | ND | ND | 10,600 | ND | ND | ND |
| | L26-4-8' | 4-8 | 8/19/04 | 8/27/04 | 9,150 | ND | ND | ND | ND | 9,150 | ND | ND | ND |
| | L26-8-12' | 8-12 | 8/19/04 | 8/27/04 | 6,210 | ND | ND | ND | ND | 6,210 | ND | ND | ND |
| **L27** | L27-1-4' | 1-4 | 8/19/04 | 8/27/04 | 5,650 | ND | ND | ND | ND | 5,650 | ND | ND | ND |
| | L27-4-8.5' | 4-8.5 | 8/19/04 | 8/27/04 | 26,300 | ND | ND | ND | ND | 26,300 | ND | ND | ND |
| **L28** | L28-1-3' | 1-3 | 8/19/04 | 8/26/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| | DUPLICATE 110 (L28-1-3') | 1-3 | 8/19/04 | 8/26/04 | 629 | ND | ND | ND | ND | 629 | ND | ND | ND |
| | L28-3-6' | 3-6 | 8/19/04 | 8/27/04 | 40,200 | ND (8770) | ND (8770) | ND (8770) | ND (8770) | 40,200 | ND (8770) | ND (8770) | ND (8770) |
| | L28-6-9.5' | 6-9.5 | 8/19/04 | 8/27/04 | 11,700 | ND | ND | ND | ND | 11,700 | ND | ND | ND |
| **L29** | L29-1-4' | 1-4 | 8/19/04 | 8/27/04 | 43,600 | ND (9260) | ND (9260) | ND (9260) | ND (9260) | 43,600 | ND (9260) | ND (9260) | ND (9260) |
| | L29-4-8' | 4-8 | 8/19/04 | 8/27/04 | 1,460 | ND | ND | ND | ND | 1,460 | ND | ND | ND |
| | L29-8-11' | 8-11 | 8/19/04 | 8/27/04 | **49,000** | ND (9800) | ND (9800) | ND (9800) | ND (9800) | 49,000 | ND (9800) | ND (9800) | ND (9800) |
| **L30** | L30-1-4' | 1-4 | 8/19/04 | 8/27/04 | 34,900 | ND | ND | ND | ND | 34,900 | ND | ND | ND |
| | L30-4-8' | 4-8 | 8/19/04 | 8/26/04 | 4,460 | ND | ND | ND | ND | 4,460 | ND | ND | ND |
| | L30-8-11' | 8-11 | 8/19/04 | 8/27/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| **L31** | L31-1-4' | 1-4 | 8/19/04 | 8/26/04 | 7,300 | ND | ND | ND | ND | 7,300 | ND | ND | ND |
| | L31-4-8' | 4-8 | 8/19/04 | 8/27/04 | **48,900** | ND (8660) | ND (8660) | ND (8660) | ND (8660) | 48,900 | ND (8660) | ND (8660) | ND (8660) |
| | L31-8-12' | 8-12 | 8/19/04 | 8/27/04 | 20,700 | ND | ND | ND | ND | 20,700 | ND | ND | ND |
| **L32** | Clean backfill from installation of nearby fire hydrant | | | | | | | | | | | | |

**NOTES:**
ND = Not detected
~ = Constituent not analyzed
Gray shading indicates Turnkey Acceptance Limit exceedance.
Black shading indicates UCL exceedance.

McCoy Field
Project No. 02685

# Sidewalk
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg | (ug/kg |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| Sidewalk-1-1.25-2' | 1.25-2 | 10/28/04 | 10/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-2-1.5-2' | 1.5-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-3-1-2' | 1-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-4-0.25-2' | 0.25-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-5-0.5-2' | 0.5-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Sidewalk-6-0.5-2' | 0.5-2 | 10/29/04 | 11/2/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

## North Stockpiles
## Polychlorinated Biphenyls

| | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| North SP-1 | 9/23/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| North SP-2 | 9/23/04 | 9/30/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| North SP-3 | 9/23/04 | 9/30/04 | 29,100 | ND | ND | ND | ND | 29,100 | ND | ND | ND |
| North SP-4 | 9/23/04 | 9/30/04 | **46,500,000** | ND | ND | ND | ND | 46,500,000 | ND | ND | ND |
| NSP-4-0-1' | 12/9/04 | 12/13/04 | **377,000** | ND | ND | ND | ND | 377,000 | ND | ND | ND |
| NSP-4-1-2' | 12/9/04 | 12/18/04 | 9,380 | ND | ND | ND | ND | 9,380 | ND | ND | ND |
| NSP-4-A-0-1' | 12/9/04 | 12/13/04 | **4,300,000** | ND | ND | ND | ND | 4,300,000 | ND | ND | ND |
| NSP-4-A-1-2' | 12/9/04 | 12/18/04 | **450,000** | ND | ND | ND | ND | 450,000 | ND | ND | ND |
| NSP-4-A-2-3' | 1/11/05 | 1/13/05 | 35,100 | ND | ND | ND | ND | 35,100 | ND | ND | ND |
| NSP-4-B-0-1' | 12/9/04 | 12/13/04 | **102,000** | ND | ND | ND | ND | 102,000 | ND | ND | ND |
| NSP-4-B-1-2' | 12/9/04 | 12/18/04 | 11,500 | ND | ND | ND | ND | 11,500 | ND | ND | ND |
| NSP-4-C-0-1' | 12/9/04 | 12/13/04 | **1,210,000** | ND | ND | ND | ND | 1,210,000 | ND | ND | ND |
| NSP-4-C-1-2' | 12/9/04 | 12/18/04 | 3,450 | ND | ND | ND | ND | 3,450 | ND | ND | ND |
| NSP-4-D-0-1' | 12/9/04 | 12/13/04 | 13,200 | ND | ND | ND | ND | 13,200 | ND | ND | ND |
| NSP-4-D-1-2' | 12/9/04 | 1/15/05 | 38,300 | ND | ND | ND | ND | 38,300 | ND | ND | ND |
| NSP-4-E-0-1' | 12/9/04 | 12/18/04 | **78,900** | ND | ND | ND | ND | 78,900 | ND | ND | ND |
| NSP-4-F-0-1' | 12/9/04 | 12/18/04 | 24,700 | ND | ND | ND | ND | 24,700 | ND | ND | ND |
| NSP-4-H-0-1' | 12/9/04 | 12/18/04 | **630,000** | ND | ND | ND | ND | 630,000 | ND | ND | ND |
| NSP-4-H-1-2' | 1/11/05 | 1/13/05 | **2,290,000** | ND | ND | ND | ND | 2,290,000 | ND | ND | ND |
| NSP-4-H-2-3' | 1/11/05 | 1/15/05 | 10,800 | ND | ND | ND | ND | 10,800 | ND | ND | ND |
| NSP-4-I-0-1' | 1/11/05 | 1/13/05 | 8,350 | ND | ND | ND | ND | 8,350 | ND | ND | ND |
| NSP-4-I-1-2' | 1/11/05 | 1/13/05 | **72,800** | ND | ND | ND | ND | 72,800 | ND | ND | ND |
| North SP-5 | 9/23/04 | 9/30/04 | **2,190,000** | ND | ND | ND | ND | 2,190,000 | ND | ND | ND |
| NSP-5-0-1' | 12/9/04 | 12/13/04 | **321,000** | ND | ND | ND | ND | 321,000 | ND | ND | ND |
| NSP-5-1-2' | 12/9/04 | 12/18/04 | 33,600 | ND | ND | ND | ND | 33,600 | ND | ND | ND |
| NSP-5-A-0-1' | 12/9/04 | 12/13/04 | 21,800 | ND | ND | ND | ND | 21,800 | ND | ND | ND |
| NSP-5-B-0-1' | 12/9/04 | 12/13/04 | **70,400** | ND | ND | ND | 37,100 | ND | ND | 33,300 | ND |
| NSP-5-C-0-1' | 12/9/04 | 12/13/04 | 7,770 | ND | ND | ND | ND | 7,770 | ND | ND | ND |
| NSP-5-D-0-1' | 12/9/04 | 12/13/04 | 4,050 | ND | ND | ND | ND | 4,050 | ND | ND | ND |
| NSP-5-F-0-1' | 12/9/04 | 1/15/05 | **332,000** | ND | ND | ND | ND | 332,000 | ND | ND | ND |
| NSP-5-F-1-2' | 12/9/04 | 1/15/05 | 40,300 | ND | ND | ND | ND | 23,700 | ND | 16,600 | ND |
| NSP-5-G-0-1' | 12/9/04 | 1/15/05 | 4,060 | ND | ND | ND | ND | 4,060 | ND | ND | ND |
| NSP-5-G-1-2' | 12/9/04 | 1/15/05 | 7,230 | ND | ND | ND | ND | 7,230 | ND | ND | ND |
| NSP-5-I-0-1' | 1/19/05 | 1/20/05 | 8,930 | ND | ND | ND | ND | 8,930 | ND | ND | ND |
| NSP-5-J-0-1' | 1/19/05 | 1/20/05 | 18,400 | ND | ND | ND | ND | 18,400 | ND | ND | ND |
| NSP-6-0-1' | 12/9/04 | 12/13/04 | 2,230 | ND | ND | ND | ND | 2,230 | ND | ND | ND |
| North SP-6 | 9/23/04 | 9/30/04 | 2,040 | ND | ND | ND | ND | 2,040 | ND | ND | ND |
| North SP-7 | 10/29/04 | 11/4/04 | 34,700 | ND | ND | ND | ND | 34,700 | ND | ND | ND |
| North SP-8 | 10/29/04 | 11/4/04 | **865,000** | ND | ND | ND | ND | 865,000 | ND | ND | ND |
| NSP-8-A-0-1' | 11/11/04 | 11/15/04 | **74,760** | ND | ND | ND | ND | 74,760 | ND | ND | ND |
| NSP-8-A-0-1' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-A-1-2' | 11/11/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-A-2-3' | 11/11/04 | 11/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

McCoy Field
Project No. 02685

## North Stockpiles
## Polychlorinated Biphenyls

| | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample Identification** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| NSP-8-B-0-1' | 11/11/04 | 11/15/04 | 28,100 | ND | ND | ND | ND | 28,100 | ND | ND | ND |
| NSP-8-B-0-1' | 12/9/04 | 12/13/01 | **589,000** | ND | ND | ND | ND | 589,000 | ND | ND | ND |
| NSP-8-B-1-2' | 11/11/04 | 11/18/04 | 3,280 | ND | ND | ND | ND | 3,280 | ND | ND | ND |
| NSP-8-B-2-3' | 11/11/04 | 11/18/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-B-3-4' | 11/11/04 | 11/18/04 | 13,400 | ND | ND | ND | ND | 13,400 | ND | ND | ND |
| NSP-8-B-4-5' | 11/11/04 | 11/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-C-0-1' | 12/9/04 | 12/13/04 | **989,000** | ND | ND | ND | ND | 989,000 | ND | ND | ND |
| NSP-8-C-0-1' | 11/11/04 | 11/15/04 | **32,760,000** | ND | ND | ND | ND | 32,760,000 | ND | ND | ND |
| Duplicate 188 | 11/11/04 | 11/15/04 | **37,890,000** | ND | ND | ND | ND | 37,890,000 | ND | ND | ND |
| NSP-8-C-1-2' | 11/11/04 | 11/18/04 | **3,450,000** | ND | ND | ND | ND | 3,450,000 | ND | ND | ND |
| NSP-8-C-2-3' | 11/11/04 | 11/18/04 | **201,000** | ND | ND | ND | ND | 201,000 | ND | ND | ND |
| NSP-8-C-3-4' | 11/11/04 | 11/18/04 | **139,000** | ND | ND | ND | ND | 139,000 | ND | ND | ND |
| NSP-8-C-4-5' | 11/11/04 | 11/22/04 | **62,100** | ND | ND | ND | ND | 62,100 | ND | ND | ND |
| NSP-8-D-0-1' | 11/11/04 | 11/15/04 | 37,300 | ND | ND | ND | ND | 37,300 | ND | ND | ND |
| NSP-8-D-1-2' | 11/11/04 | 11/18/04 | 3,070 | ND | ND | ND | ND | 3,070 | ND | ND | ND |
| NSP-8-D-2-3' | 11/11/04 | 11/22/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-E-0-1' | 12/9/04 | 12/13/04 | **626,000** | ND | ND | ND | ND | 626,000 | ND | ND | ND |
| NSP-8-E-1-2' | 12/9/04 | 12/10/04 | 4,400 | ND | ND | ND | ND | 4,400 | ND | ND | ND |
| NSP-8-E-2-3' | 12/9/04 | 12/10/04 | 7,190 | ND | ND | ND | ND | 7,190 | ND | ND | ND |
| NSP-8-E-3-4' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-F-0-1' | 12/9/04 | 12/18/04 | **307,000** | ND | ND | ND | ND | 307,000 | ND | ND | ND |
| NSP-8-F-1-2' | 1/11/05 | 1/13/05 | **153,000** | ND | ND | ND | ND | 153,000 | ND | ND | ND |
| NSP-8-F-2-3' | 1/11/05 | 1/15/05 | 1,920 | ND | ND | ND | ND | 1,920 | ND | ND | ND |
| NSP-8-G-0-1' | 12/9/04 | 12/13/04 | **78,500** | ND | ND | ND | ND | 78,500 | ND | ND | ND |
| NSP-8-G-1-2' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-G-2-3' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-G-3-4' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 197 (NSP-8-H-1-2') | 12/3/04 | 7/30/04 | 5,990 | ND | ND | ND | ND | 5,990 | ND | ND | ND |
| NSP-8-I-0-1' | 12/9/04 | 12/13/04 | **55,000** | ND | ND | ND | ND | 55,000 | ND | ND | ND |
| NSP-8-I-1-2' | 12/9/04 | 12/10/04 | 2,110 | ND | ND | ND | ND | 2,110 | ND | ND | ND |
| NSP-8-I-2-3' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-I-3-4' | 12/9/04 | 12/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| NSP-8-K-0-1' | 1/11/05 | 1/13/05 | **95,200** | ND | ND | ND | ND | 95,200 | ND | ND | ND |
| Duplicate 214 (NSP-8-K-0-1') | 1/11/05 | 1/13/05 | **2,250,000** | ND | ND | ND | ND | 2,250,000 | ND | ND | ND |
| NSP-8-K-1-2' | 1/11/05 | 1/15/05 | 3,180 | ND | ND | ND | ND | 3,180 | ND | ND | ND |
| NSP-8-M-0-1' | 1/26/05 | 1/27/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| North SP-9 | 10/29/04 | 11/4/04 | 5,840 | ND | ND | ND | ND | 5,840 | ND | ND | ND |

McCoy Field
Project No. 02685

# Durfee Fence
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| DFA-0-1' | 0-1 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1020) | ND | ND | ND |
| DFA-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1030) | ND | ND | ND |
| DFA-2-3' | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1000) | ND | ND | ND |
| DFA-3-4' | 3-4 | 11/4/04 | 11/10/04 | 2,070 | ND | ND | ND | ND | 2,070 | ND | ND | ND |
| DFA-4-5' | 4-5 | 11/4/04 | 11/10/04 | 2,260 | ND | ND | ND | ND | 2,260 | ND | ND | ND |
| DFA-5-6' | 5-6 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1270) | ND | ND | ND |
| DFA-6-7' | 6-7 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (2550) | ND | ND | ND |
| DFB-0-1' | 0-1 | 11/4/04 | 11/10/04 | 1,340 | ND | ND | ND | ND | 1,340 | ND | ND | ND |
| DFB-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1050) | ND | ND | ND |
| DFB-2-3' | 2-3 | 11/4/04 | 11/10/04 | 2,690 | ND | ND | ND | ND | 2,690 | ND | ND | ND |
| DFB-3-4' | 3-4 | 11/4/04 | 11/10/04 | 12,000 | ND | ND | ND | ND | 12,000 | ND | ND | ND |
| DFB-4-5' | 4-5 | 11/4/04 | 11/10/04 | 1,730 | ND | ND | ND | ND | 1,730 | ND | ND | ND |
| DFB-5-6' | 5-6 | 11/4/04 | 11/10/04 | 19,710 | ND | ND | ND | ND | 2,610 | ND | ND | 17,100 |
| DFB-6-7' | 6-7 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (3590) | ND | ND | ND |
| DFC-0-1' | 0-1 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1060) | ND | ND | ND |
| DFC-1-2' | 1-2 | 11/4/04 | 11/10/04 | 1,880 | ND | ND | ND | ND | 1,880 | ND | ND | ND |
| DFC-2-3' | 2-3 | 11/4/04 | 11/10/04 | 10,400 | ND | ND | ND | ND | 10,400 | ND | ND | ND |
| Duplicate 186 | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1290) | ND | ND | ND |
| DFC-3-4' | 3-4 | 11/4/04 | 11/10/04 | 2,030 | ND | ND | ND | ND | 2,030 | ND | ND | ND |
| DFC-4-5' | 4-5 | 11/4/04 | 11/10/04 | 14,210 | ND | ND | ND | ND | 14,210 | ND | ND | ND |
| DFD-0-1' | 0-1 | 11/4/04 | 11/10/04 | 2,340 | ND | ND | ND | ND | 2,340 | ND | ND | ND |
| DFD-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1130) | ND | ND | ND |
| DFD-2-3' | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1180) | ND | ND | ND |
| DFD-3-4' | 3-4 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1330) | ND | ND | ND |
| Duplicate 185 | 3-4 | 11/4/04 | 11/10/04 | 1,590 | ND | ND | ND | ND | 1,590 | ND | ND | ND |
| DFE-0-1' | 0-1 | 11/4/04 | 11/10/04 | 2,950 | ND | ND | ND | ND | 2,950 | ND | ND | ND |
| DFE-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1120) | ND | ND | ND |
| DFE-2-3' | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1150) | ND | ND | ND |
| DFE-3-4' | 3-4 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1310) | ND | ND | ND |
| DFF-0-0.5' | 0-0.5 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1230) | ND | ND | ND |
| DFF-0.5-1.5' | 0.5-1.5 | 11/4/04 | 11/10/04 | 2,050 | ND | ND | ND | ND | 2,050 | ND | ND | ND |
| DFF-1.5-2.5' | 1.5-2.5 | 11/4/04 | 11/10/04 | 3,490 | ND | ND | ND | ND | 3,490 | ND | ND | ND |
| DFF-2.5-3.5' | 2.5-3.5 | 11/4/04 | 11/10/04 | 4,410 | ND | ND | ND | ND | 4,410 | ND | ND | ND |
| DFF-3.5-4.5' | 3.5-4.5 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFG-0-1' | 0-1 | 11/4/04 | 11/10/04 | 2,060 | ND | ND | ND | ND | 2,060 | ND | ND | ND |
| DFG-1-2' | 1-2 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1170) | ND | ND | ND |
| DFG-2-3' | 2-3 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1140) | ND | ND | ND |
| DFG-3-4' | 3-4 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1150) | ND | ND | ND |
| DFG-4-5' | 4-5 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1100) | ND | ND | ND |
| DFG-5-6' | 5-6 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1040) | ND | ND | ND |
| DFH-0-1.5' | 0-1.5 | 11/4/04 | 11/10/04 | 1,580 | ND | ND | ND | ND | 1,580 | ND | ND | ND |
| DFH-1.5-3' | 1.5-3 | 2/16/05 | 2/18/05 | 359 | ND | ND | ND | ND | 359 | ND | ND | ND |

McCoy Field
Project No. 02685

## Durfee Fence
## Polychlorinated Biphenyls

| | | | | Total PCBs | PCB-1221 | PCB-1232 | PCB-1016/1242 | PCB-1248 | PCB-1254 | PCB-1260 | PCB-1262 | PCB-1268 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) | (ug/kg) |
| | | | **RCS-1** | **2,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **Turnkey Acceptance Limit** | **50,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| | | | **UCL** | **100,000** | ~ | ~ | ~ | ~ | ~ | ~ | ~ | ~ |
| **Sample ID** | **Depth** | **Collection Date** | **Analysis Date** | | | | | | | | | |
| DFH-1.5-3'MS | 1.5-3 | 2/16/05 | 2/18/05 | 792 | ND | ND | ND | ND | 792 | ND | ND | ND |
| DFH-1.5-3'MSD | 1.5-3 | 2/16/05 | 2/18/05 | 695 | ND | ND | ND | ND | 695 | ND | ND | ND |
| DFI-0-0.5' | 0-0.5 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1130) | ND | ND | ND |
| DFI-0.5-3' | 0.5-3 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Duplicate 215 (DFI-0.5-3') | 0.5-3 | 2/16/05 | 2/18/05 | 353 | ND | ND | ND | ND | 353 | ND | ND | ND |
| DFJ-0-0.75' | 0-0.75 | 11/4/04 | 11/10/04 | ND | ND | ND | ND | ND | ND (1280) | ND | ND | ND |
| DFJ-0.75-3' | 0.75-3 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFK-0-1' | 0-1 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFK-1-3' | 1-3 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFL-0-1' | 0-1 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| DFL-1-3' | 1-3 | 2/16/05 | 2/18/05 | ND | ND | ND | ND | ND | ND | ND | ND | ND |

ND = Not detected
~ = Constituent not analyzed
Gray shaded values indicate that the Turnkey Acceptance Limit has been exceeded.
Black shaded values indicate that the Upper Concentration Limit (UCL) has been exceeded.

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**HANDICAPPED ACCESSIBLE**

# Attachment D

Laboratory Analytical
Reports on CD-ROM

# Attachment E

Long-term Cap Monitoring Plan

# ATTACHMENT E

## Long-Term Cap Monitoring Plan

### Background

The school facility isolates and prevents exposure to the underlying fill by one of three barriers: (1) The school building, which was constructed on pilings, with the base of the concrete floor of the school at grade. The floor consists of a minimum of six inches of poured-in-place reinforced concrete. Construction of the floor included the placement of a sprayed-on impermeable elastomeric membrane ("LIQUID BOOT®") beneath the floor to further isolate the building from the soil and fill beneath; (2) Portions of exterior areas of the school facility are landscaped. All landscaped areas were constructed by removing site soil to a minimum depth of 3.5 feet, placing a geotextile fabric to demarcate the limits of excavation and to separate site soil from clean fill, backfilling with a six-inch base of imported clean crushed stone, followed by imported clean sand and gravel/topsoil to the existing finished grade; and (3) The remaining exterior site areas are asphalt or concrete paved. Asphalt has been placed at a minimum thickness of six inches on top of two feet of imported clean sand and gravel underlain by a geotextile fabric; and concrete pavement that was poured to a minimum thickness of six inches, also on top of two feet of imported clean sand and gravel and a geotextile fabric. In combination, the purpose of these three barriers is to prevent human exposure, infiltration of water, and erosion and represent the cap for the school facility in accordance with the requirements of 40 CFR 761.61(a)(7).

### Cap Maintenance

The following activities are required to maintain the integrity of the cap:

A. Maintain all asphalt pavement, concrete pavement, and sidewalks such that the integrity of each is not compromised.

   1) If replacement of such surfaces is required, it shall be limited to the material to be replaced such that the underlying soil is not significantly disturbed (six inches deep or less below bottom of surface being removed) and the surface material is immediately (within 72 hours) repaired or replaced with a comparable barrier.

   2) No excavation to a depth greater than two feet beneath paved areas shall occur without the prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with the descriptions below.

B. Maintain all interior building floors such that the integrity of each is not compromised. This shall include a prohibition against:

   1) Removal of building floor slab such that soil is exposed or groundwater is allowed to enter building without prior development of a Soil Management

Plan and a Health and Safety Plan prepared and implemented in accordance with descriptions below.

2) Any penetration or breaching of the vapor barrier beneath the building floor without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with descriptions below.

3) Any excavation beneath building floors without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with descriptions below.

4) Activities that result, or could result, in compromising the structural integrity of building floors, asphalt pavement, or concrete pavement.

C. Maintain all landscaped areas such that soil erosion is prevented. This shall include:

1) Placement of mulch or planting of ornamental vegetation such as trees, shrubs, flowers, groundcover, etc. If vegetation is to be planted or removed, no excavation for such work shall extend beyond three feet below existing grade.

2) Prohibition against any excavation to a depth greater than three feet in landscaped areas without prior development of a Soil Management Plan and a Health and Safety Plan prepared and implemented in accordance with descriptions below.

3) Prohibition against any activities that result, or could result, in the erosion of soil in any unpaved area.

**Cap Inspections**

Perform semi-annual inspections and associated record keeping activities to confirm that the cap is being properly maintained to prevent exposure.

**Deed Restriction**

The above requirements will be recorded on the property [deed/certificate of title] in a Notice of Activity and Use Limitation (AUL) at the Bristol County Registry of Deeds. The AUL will be prepared and filed [within 60 days of completion of cleanup activity as required in 40 CFR 761.61(8)(i)] in accordance with the requirements of the Massachusetts Contingency Plan 310 CMR 40.0000. The AUL will be maintained, and the Cap Monitoring Plan will continue to be implemented, in perpetuity, or until such time as additional response actions allow the modification or removal of the AUL and Cap Monitoring Plan in accordance with all applicable laws and regulations in force at the time.

**ATTACHMENT E**

**Soil Management Plan**

A Soil Management Plan must be prepared by a Massachusetts Licensed Site Professional (LSP) and implemented prior to the commencement of any activity which is likely to disturb contaminated soil [the top of which is] located at [two to four] feet below surface grade within the AUL area. The Soil Management Plan should describe appropriate soil excavation, handling, storage, transport, and disposal procedures and include a description of the engineering controls and air monitoring procedures necessary to ensure that workers and receptors in the vicinity are not affected by fugitive dust or particles. On-Site workers must be informed of the requirements of the soil management plan, and the Plan must be available on-site throughout the course of the project.

**Health and Safety Plan**

A Health and Safety Plan must be prepared by a certified Industrial Hygienist or other qualified individual sufficiently trained in worker health and safety requirements and implemented prior to the commencement of any activity which is likely to disturb contaminated soil [the top of which is] located at [two to four] feet below surface grade within the AUL area. The Health and Safety Plan should specify the type of personal protection (i.e., clothing, respirators), engineering controls, and environmental monitoring necessary to prevent worker exposures to contaminated soil through dermal contact, ingestion, and/or inhalation. Workers must be informed of the requirements of the Health and Safety Plan, and the plan must be available on-site throughout the course of the project; and

# Attachment F

Environmental Monitoring Plan

# ATTACHMENT F

## Environmental Monitoring Plan

### Indoor Air Monitoring

The concentrations of potential airborne contaminants within the school building will be monitored on a twice-yearly basis. Air samples will be collected in early August with the goal of collecting the samples, performing laboratory analyses, evaluating the data, and communicating the results to school officials prior to the start of each school year. The goal of this sample collection time is to collect samples when conditions are present that may increase the likelihood of migration of subslab contaminants into indoor air. In August, the school will likely have experienced lower than normal air exchanges (i.e., contaminant dilution) due to the doors and windows of the school building being generally closed and air handling equipment being in off or low flow modes. Additionally, during vacation periods, the sampling equipment will not interfere with normal school activities and sampling can occur with reduced concerns for tampering.

The second annual sampling event will occur during the December school vacation. The goal of this sample collection time is also to obtain a "worst-case" sample during a period when the school will have experienced lower than normal air exchanges. During the winter vacation, it is anticipated that doors and windows will be closed and air handling equipment can produce low pressure within the building, increasing the chance of migration of subslab vapors into the building. Frozen ground surrounding the school can increase the buildup of volatile contaminants beneath the ground and also result in the potential for increased migration of vapors into the building. The December vacation is approximately the mid-point of the school year.

Samples will be collected from four to six locations. Each location will be selected to be representative of portions of the school building normally occupied by students and teachers. A least one sample will be collected using the same methods from immediately outside of the building to provide comparative background results. Samples will be collected at the height of the normal breathing zone.

At each sampling event, samples will be collected and analyzed for the following parameters:

1. Volatile Organic Compounds (VOCs) by EPA Method TO-14A - Standard laboratory precleaned and evacuated SUMMA canisters will be used to collect 24-hour composite samples.
2. Polychlorinated Biphenyls (PCB) by NIOSH Method 5503 – A personal sampling pump will be used to draw sample air through a florisil tube to collect 24-hour composite samples.

Changes may be made in the specific compositing times and/or substitutions be made by equal or improved sampling and/or analytical methods.

A summary report presenting sampling methods, analytical methods (including any changes to the above methods), analytical results, any deviations from the standard sampling or analytical methods, and a discussion of the implications of the analytical results will be provided to school officials and EPA.

**ATTACHMENT F**

## Groundwater Monitoring

Two groundwater monitoring wells will be installed along the western edge and one groundwater monitoring well will be installed along the southern edge of the school facility to serve as downgradient groundwater monitoring points. The wells will be constructed of two-inch diameter polyvinyl chloride riser pipe and screen. The wells will be installed with 10 feet of screen intersecting the average annual elevation of the water table. Groundwater samples will be collected from each well in the spring and fall. Samples will be collected using a low flow sampling method. Water quality parameters (pH, temperature, specific conductance, dissolved oxygen, oxidation-reduction potential, and turbidity) will be monitored during well purging with samples collected upon stabilization (+/- 5 percent) of all parameters.

At each sampling event, samples will be collected and analyzed for the following parameters:

1. Volatile Organic Compounds (VOCs) by EPA Method 8260B
2. Polychlorinated Biphenyls (PCB) by EPA Method 8081
3. Dissolved Resource Conservation and Recovery Act metals

Substitutions may be made by equal or improved sampling and/or analytical methods.

A summary report presenting sampling methods, analytical methods (including any changes to the above methods), analytical results, any deviations from the standard sampling or analytical methods, and a discussion of the implications of the analytical results will be provided to school officials and EPA.

# Attachment G

Specifications for Backfill Material

**SECTION 02200**

**EARTHWORK**

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

A. Bidding requirements, Contract Forms, General and Supplementary Conditions and Division I, General Requirements are hereby made a part of this Section. The Order of Conditions, DEP File No. SE 49-461, No. SE49-475 and all Amendments issued by the New Bedford Conservation Commission, is included in this contract in Section 00200 – Information Available to Bidders.

### 1.02 DESCRIPTION OF WORK

A. ***This project represents the final Phase of a three-phase project. Phase 1 consisted of the excavation and management of regulated soils for the installation of a portion of the project's subsurface utility system. Phase two completed the installation of the subsurface utility system, capping of the regulated soils and the shaping of the subgrades for the Phase III contract as shown on the Plans and specifications.*** The scope of work consists of all materials, equipment, labor and services required for all Earthwork work, including all items incidental thereto, as specified herein and as shown on the Drawings. The following work shall be included:

1. Surplus material shall be removed from the site. No burning on the site shall be permitted.

2. Excavating, filling, trenching and backfilling of all description required for the construction of walls, building structures, utility structures, utilities, pavements, seeded areas and site improvements. Provide all additional fill materials as required and specified herein. Refer to Sections on Heating, Plumbing, Electrical and Structural for other excavation.

3. Pumping and/or bailing necessary to maintain excavated spaces free from water from any source whatsoever.

4. Provide graded materials, as specified, for fills, base courses and backfills as required.

5. Protect all existing utilities, roads, pavements, lawns, planting and other improvements from damage due to construction. Install fencing and safety devices or controls as necessary.

6. Dust control and clean up.

B. The project site is part of a disposal site under the Massachusetts Contingency Plan (MCP) that has received "Special Project" designation by the Department of Environmental Protection. Under recent environmental contracts, near-surface contaminated soil has been removed in the vicinity of the Work, to significantly reduce the potential for exposure of workers to contaminated soil. However, in the event that excavation becomes necessary that could result in worker exposure to "suspect" contaminated subsurface soil, or off-site management of same, the CONTRACTOR must notify the ARCHITECT prior to proceeding with any subsurface excavations.

### 1.03 RELATED WORK SPECIFIED ELSEWHERE

A. Carefully examine all of the Contract Documents for requirements which effect the work of this section.

B. Other specifications sections, which directly relate to the work of this section include, but are not limited to, the following:

1. Section 00200 – Information Available To Bidders
2. Section 02100 - Site Preparation
3. Section 02500 - Paving and Surfacing
4. Section 02665 - Water System
5. Section 02800 - Site Improvements
6. Section 02810 - Irrigation
7. Section 02900 - Lawns and Planting
8. Section 03300 – Cast-In-Place Concrete
9. Section 15300 – Plumbing
10. Section 15400 – Fire Protection
11. Section 16000 - Electrical

1.04 REFERENCE STANDARDS

A. Definitions and Reference Standards:

1. ASTM: Specifications of the American Society for Testing and Materials.

2. AASHTO: American Association of State Highway and Transportation Officials.

3. ACI: American Concrete Institute.

4. Building Code: Commonwealth of Massachusetts State Building Code, latest edition.

5. EPA: Environmental protection Agency.

6. DEP: Department of Environmental Protection.

7. SSHB: Standard Specifications for Highways and Bridges, the Commonwealth of Massachusetts, Mass. Highway Department, latest edition.

1.05 BENCHMARKS AND ENGINEERING

A. Lines and grade work in accordance with Drawings and Specifications shall be laid out by a registered Civil Engineer or Surveyor employed by the Contractor. The Contractor shall establish permanent benchmarks, to which access can easily be had during the progress of the work. The Contractor shall maintain all established bounds and benchmarks and replace, as directed, any that may be disturbed or destroyed. The selection of the registered Civil Engineer or Surveyor shall be subject to the Architect's approval. The General Contractor shall pay all costs of the services of the Civil Engineer or Surveyor.

B. The Contractor shall verify dimensions and elevations on the ground and report any discrepancies immediately to the Architect. Any discrepancies not reported prior to construction shall not be the basis for claims for extra compensation.

C. An As-Built Plan of work completed in the Phase I and II contracts shall be provided to the Contractor in .DWG format.

1.06 SUBSURFACE INFORMATION

A. The Architect shall issue As-Built Drawings indicating the extent of regulated soils that have been removed covered with a geotextile soil separator, warning barrier and brought up to Phase III subgrades with compacted, clean granular fill.

B. The Owner assumes no responsibility for the Contractor's failure to make his own site investigation regarding the character of the soil or subsurface conditions, which may be encountered during the performance of the work. (See Section 00200 – Information Available To Bidders.)

1.07 FINISHED GRADES

A. The words "finished grades" as used herein mean the required final grade elevations indicated on the Drawings. Where not otherwise indicated, areas outside of buildings shall be given uniform slopes between points, for which finished grades are shown, or between such points and existing grade except that vertical curves or roundings shall be provided at abrupt changes in slope.

1.08 GRADES AND ELEVATIONS

A. The Drawings indicate, in general, the alignment and finished grade elevations and sewer, drain, water and underground electric invert grades. The Architect, however, may make such adjustments in grades and alignment as are found necessary in order to avoid interference and to adapt the piping to other special conditions encountered.

1.09 PROTECTION

A. All rules and regulations governing the respective utilities shall be observed in executing all work under this Section. All work shall be executed in such a manner as to prevent any damage to existing buildings, clean corridors, streets, curbs, paving, service utility lines, structures and adjoining property. Monuments and benchmarks shall be carefully maintained and, if disturbed or destroyed, replaced as directed.

B. The Contractor shall furnish all facilities and materials necessary to prevent the earth at the bottom of excavation from becoming frozen or unsuitable to receive footings, foundations or other load bearing units.

C. The Contractor, under this Section, shall provide at his own expense adequate pumping and drainage facades to keep the excavation sufficiently dry as not to affect adversely the quality or time of placement of concrete or other materials to be installed in the excavated areas.

D. The Contractor shall assume full responsibility for damages caused by him or his Subcontractor's equipment and personnel to the existing geotextile soil separator and warning barrier, buildings and grounds as well as adjoining private property.

E. The work of this Section shall be performed in such a manner as to cause no interference with access by the Subcontractors or other Contractors to all portions of the site as is necessary for the normal conduct of their work.

**PART 2 - PRODUCTS**

A. Crushed Stone:

1. Crushed stone to be placed under and around sewer and storm drain pipes as shown on the Drawings and as specified shall be washed graded free of organic materials three-quarter (3/4) inch to one-half (1/2)-inch size. Gradation shall conform to SSHB., Section M2.01.3 as follows:

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 1- inch | | 100% |
| 3/4 inches | 90% | 100% |
| 1/2 inch | 10% | 50% |

| | | |
|---|---|---|
| 3/8 inch | 0% | 20% |
| #4 | 0% | 5% |

2. Crushed stone drive aprons as shown on the Drawings and as specified shall be washed graded free of organic materials two (2) inches to one-half (1/2)-inch size. Gradation shall conform to SSHB., Section M2.01.1 as follows:

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 2 inch | 100% | - |
| 1-1/2 inches | 95% | 50% |
| 1 inch | 35% | 70% |
| 3/4 inch | 0% | 25% |

B. Select Granular Fill: Gravel base as called for on the Drawings, for foundations, bases and miscellaneous site improvements, as specified shall consist of a well graded sand and gravel, free from deleterious matter, loam and clay, meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 8 inches | 100% | |
| 3 inches | 70% | 100% |
| 1/2 inches | 40% | 90% |
| No. 4 | 25% | 80% |
| No. 10 | 15% | 70% |
| No. 40 | 5% | 40% |
| No. 200 | 0% | 12% |

C. Clean Granular Fill: Fill up to subgrade in landscaped areas, shall consist of a well-graded sand and gravel borrow, free from deleterious matter, loam and clay meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 8 inches | 100% | |
| 3 inches | 70% | 100% |
| 1/2 inches | 40% | 100% |
| No. 4 | 25% | 100% |
| No. 10 | 15% | 95% |
| N0. 40 | 10% | 70% |
| No. 200 | 0% | 15% |

D. Bedding Sand: Bedding sand for concrete unit pavers shall be clean, washed natural or manufactured concrete sand meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| 3/8 inches | 100% | |
| No. 4 | 95% | 100% |
| No. 8 | 85% | 100% |
| N0. 16 | 50% | 85% |
| No. 30 | 25% | 60% |
| N0. 50 | 10% | 30% |
| No. 100 | 2% | 10% |

E. Joint Sand: Joint sand for concrete unit pavers shall be clean, washed natural or manufactured concrete sand meeting the following gradation requirements.

| U.S. Standard Sieve Size | Percent by Weight Passing Minimum | Maximum |
|---|---|---|
| No. 4 | 100% | % |
| No. 8 | 95% | 100% |
| N0. 16 | 70% | 100% |
| No. 30 | 40% | 75% |
| N0. 50 | 10% | 35% |
| No. 100 | 2% | 15% |
| No. 200 | 0% | 10% |

F. Material falling within the above Specifications, encountered during the excavation, shall be stored in segregated stockpiles for reuse. All material shall be tested and subject to approval by the Architect.

G. Sand: Sand for water and gas line pipe bedding shall be, clean masons sand.

## PART 3 – EXECUTION

### 3.01 EXCAVATION

A. General:

1. Excavate all materials to the elevations, dimensions and form as shown on the Drawings and as specified for the construction of building structures, utility structures, utilities, site improvements and other structures necessary for the completion of the building, utilities and site work. All unsuitable materials within the indicated and specified limits shall be excavated and removed. Any quantities involving an extra or other adjustment of the Contract Price shall be subject to measurement verification and approval by the Architect prior to the excavation and removal of such materials. Unsuitable materials shall include the following:

   a. Regulated soils
   b. Pavements, utility structures, building foundations and other man made structures.
   c. Peat, organic silt and other organic materials subject to decomposition, consolidation or decay.
   d. Miscellaneous fill including sand, gravel, cinders, ash, glass, wood, metal and ledge.
   e. Ledge or boulders except as specified for fills herein.

2. **The Architect will provide the Contractor with an as-built drawing showing the extent of regulated soil remediation, location and inverts of all utilities pile locations and elevations installed in the Phase 1 & 2 Contracts.** The Contractor shall obtain, from the proper authorities, locations of all other utilities within the scope of this work so that there will be no damage done to such utilities. Neither the Owner nor the Architect will be responsible for any such damage, and the Contractor shall restore any structure or utility so damaged without additional compensation. Written notifications to the appropriate utility agencies shall be made at least ten (10) days prior to the commencement of any work.

3. Excess Material: Suitable excavated material, which is required for fill, and backfill shall be separately stockpiled as directed by the Architect. All surplus fill other than that required to complete the intent of the Contract shall become the property of the Contractor and shall be disposed of off the property by the General Contractor. All excavated materials, which, in the

opinion of the Architect, are not suitable for, fill or backfill shall be removed and disposed of off the property.

4. Any unsanitary conditions encountered, such as broken sewer mains or uncovered garbage, shall be corrected or removed entirely as directed by the Architect.

B. Excavation for Building Structures:

1. Refer to Structural and Mechanical Drawings and notes thereon which may affect work under this Section.

2. Excavation shall be performed to elevations and dimensions indicated or specified, plus sufficient space to permit erection of forms and shoring, drains, masonry and the inspection of foundations.

3. Bottoms of excavations shall be protected from frost. Foundations, footings or slabs shall not be placed on frozen ground. The Contractor shall shore and brace excavations, protect all slopes and earth banks and provide sheet piling necessary to prevent cave-ins. Shoring and piling shall be removed before backfiliing is completed but not unto permanent supports are in place. Excavation of earth and/or rock beyond indicated or authorized limits shall be refilled with select granular fill compacted to ninety-five (95) percent of the maximum dry density at optimum moisture content as specified herein or concrete as required by the Architect at no additional cost to the Owner.

4. The Contractor shall control the grading around the building so that the ground shall be pitched in order to prevent water from running into the excavated areas of the building or prevent damage to other structures. The Contractor shall furnish all pumping required to keep excavated areas clear of water during construction. Water shall not be conducted onto adjacent property.

5. Excavate to subgrade for concrete slabs, including utility trenches, and footings. Compact subgrade to ninety-five (95) percent of maximum dry density as determined by the Modified Proctor Compaction Test.

6. Make final excavations by hand or using smooth-bladed equipment to avoid disturbance and the formation of ridges, which would be left by a bucket with teeth.

7. Repair or replace geotextile soil separator and warning barrier as required.

8. Prevent water accumulation on bearing surfaces, to reduce the possibility of softening of the subgrade soils.

9. The subgrade soils must be examined in the field by the Architect.

10. The bearing surface should be cleared of all loose and disturbed soil before any footings are placed. Prior to placing forms or reinforcing steel, the cleared area beneath the footings should be compacted with at least four coverage's of a vibratory plate compactor weighing at least 200 pounds imparting at least 5,000 pounds dynamic force.

C. Fill for Site Improvements:

1. Fill to the lines and grades shown on the Drawings and as specified to obtain the subgrades for the following items of work:

   a. Concrete slabs on grade - to twelve (12) inches below underside of slab.
   b. Bituminous concrete road and parking pavement - to twenty-four (24) inches below finished grades.
   c. Concrete paving - to twelve (12) inches below underside of paving.

d. Granite curb - to six (6) inches below and parallel to the underside of curb.
e. Seeded areas - to eighteen (18) inches below finished grade.
f. Shrub bed areas - to twenty-four (24) inches below finished grades.
g. Unspecified improvements - to bottom elevation of item plus ample working space on all sides.

D. Excavation for Utilities and Utility Structures:

1. Excavate to the lines and grades shown on the Drawings and as specified herein to obtain the subgrade for the following items of work:

a. Utility structures - to grades shown on the Drawings. Remove by excavating all unsuitable materials from under drainage structures and backfill with clean granular fill compacted in place to subgrades.
b. Excavation for structures and other accessories shall have twelve (12) inch minimum and twenty-four (24) inch maximum clearance on all sides.
c. All utility lines - to twelve (12) inches below bottom of utility lines or structures.
d. Trench for water pipe shall provide a minimum of five (5) feet of cover above top of pipe.
e. Unless otherwise shown, provide separate trenches for each utility. Lay all piping in open trenches except where tunneling is required. Excavation for structures and other accessories shall have twelve (12) inch minimum and twenty-four (24) inch maximum clearance on all sides.
f. Grade the bottom of trenches evenly to have a constant pitch in the direction of flow and to insure a uniform compacted thickness of selected material as called for.

2. Existing services and utilities encountered shall be immediately repaired, protected and maintained in use until relocation of same has been completed or be cut and capped where directed or be prepared for connections when so required.

## 3.03 PROTECTION SHORING AND DEWATERING

A. Protect open excavations with fencing, warning lights and other suitable safeguards.

B. Shore and brace excavations as required so as to maintain them secure and provide sheet piling to prevent cave-ins. Under Phases 1&2 Regulated soils for have been mitigated by removing the regulated soils and replacing them with clean granular fill so as to provide clean corridors for all below grade improvements. Remove shoring and piling before backfilling is completed and as specified herein.

C. Frost Protection: Make no excavations to the full depth indicated when freezing temperature may be expected unless the footing or slabs can be poured immediately after the excavation has been completed. Protect the bottoms as excavated from frost, if placing of concrete is delayed, with straw, tarpaulins or temporary heat until footings or slabs are poured and backfill is placed.

D. Provide all pumps and pumping facilities, including a well point system as necessary with attendants, to keep all excavations free from water from whatever source at all times, when work is in progress or when necessary for protection and integrity of the work in place. Trenches shall be kept water-free during jointing and for sufficient time thereafter to allow the jointing material to become fully set and completely resistant to water penetration.

E. Maintain ground water in the bearing soil strata at a safe level at all times by methods, which prevent loss of fines or other disturbances to these strata. If the methods employed have not been adequate and the bearing value of the soil has been reduced, remove disturbed soil as directed and replace with compacted graded gravel or concrete at no expense to the Owner.

F. Any ditching required to keep the site free from water during construction is the responsibility of the Contractor and will be repaired, topsoiled and seeded before completion of work.

## 3.04 FILLS. BACKFILLS AND COMPACTION

A. Samples and Testing:

1. All fill material and its placement shall be subject to quality control testing. A qualified laboratory will be selected by the Owner to perform tests on materials. All costs of testing will be paid for by the Owner. Test results and laboratory recommendations shall be available to the Architect.

2. Provide samples of each fill material from the proposed source of supply including on-site sources. Allow sufficient time for testing and evaluation of results before material is needed. Submit samples from alternate source if required.

3. Architect will be sole and final judge of suitability of all material.

4. The laboratory will determine maximum dry density and optimum water content in accordance with ASTM D1557, Method D and the in-place density in accordance with ASTM D1556.

5. Tests of material as delivered may be made from time to time. Materials in question may not be used, pending test results. Tests of compacted materials will be made regularly. Remove rejected materials and replace with new, whether in stockpiles or in place.

6. Cooperate with laboratory in obtaining field samples of in-place materials after compaction. Furnish incidental field labor in connection with these tests.

B. Placing Fills and Compacting

1. Fill material shall be placed in horizontal layers not exceeding six (6) inches under the building and all pavements and nine (9) inch layers in lawn areas. Each layer shall be compacted to the percentage of maximum dry density specified for the particular type of fill and at a water content equal to optimum water content plus or minus two (2) percent. The maximum dry density and optimum water content shall be as specified herein.

2. Areas to be filled or backfilled shall be free of construction debris, refuse, compressible or decayable materials and standing water. Do not place fill when fill materials or layers below it are frozen. Proofroll excavated ground surfaces under the proposed building and paved areas using a vibratory drum compactor or other heavy equipment prior to placing specified base course material.

3. Notify the Architect when excavation is ready for inspection. Filling and backfilling shall not be started until conditions have been approved by the Architect.

4. Before backfilling against walls, the permanent structures must be completed and sufficiently aged to attain strength required to resist backfill pressures without damage. Temporary bracing will not be permitted except by written permission from the Architect. When filling on both sides of a wall or pier, place fill simultaneously on each side. Correct any damage to the structure caused by backfilling operations at no cost to the Owner

5. In confined areas adjacent to footings and foundation walls and in utility trenches beneath floor slab, the fill shall be compacted with hand operated vibration tampers. The maximum lift thickness shall be four (4) inches. The degree of compaction attained shall be equivalent to that attained in the adjacent open areas where heavy rolling equipment is used.

6. After the subgrade under concrete slabs and paved areas has been shaped to line, grade and cross-sections, it shall be rolled with an approved power roller weighing not less than six (6) tons until thoroughly compacted. This operation shall include any reshaping, refilling or wetting

required to obtain proper compaction. Any areas, which subsequently settle, shall be refilled to true subgrade and properly compacted.

7. In freezing weather, a layer of fill shall not be left in an uncompacted state at the close of a day's operations. Prior to terminating operations for the day, the final layer of fill, after compaction, shall be rolled with a smooth-wheeled roller to eliminate ridges of soil left by tractors, trucks and compaction equipment.

C. Placing Select Granular Fills

1. Select granular fills, as specified herein above, shall be provided as follows:

   a. As gravel base course under all pavements unless otherwise called for.
   b. As gravel under and/or around footings curbs as shown on the Drawings or specified unless otherwise called for.

2. Place gravel in six (6) inch maximum layers; fill and compact each layer to ninety-five (95) percent maximum dry density.

D. Placing Clean Granular Fills

1. Clean granular fill material as specified shall be placed under pavements and utilities up to subgrades as specified.

2. Fills shall be placed in layers of a maximum six (6) inch compacted thickness up to subgrade. Compaction shall be to ninety-five (95) percent of maximum dry density as specified.

E. Deficiency of Fill Materials:

1. Provide required additional fill materials as specified if a sufficient quantity of suitable materials is not available from the required excavation on the project site at no additional cost to the Owner. Where water content of the fill must be adjusted to meet this Specification, the fill shall be thoroughly disked to insure uniform distribution of any water added.

F. Fill and Backfill for Utilities:

1. Backfill trenches only after pipe has been inspected, tested and locations of pipes and appurtenances have been recorded. Each pipe section shall be laid on a twelve-(12) inch minimum bed of crushed stone as specified herein above. In addition the water line shall be set in a six-(6) inch bed of sand. Bed shall be shaped by means of hand shovels to give full and continuous support to the lower one-third (1/3) of each pipe. Backfill by hand around pipe, and for a depth of twelve (12) inches above pipe, use sand or crushed stone and tamp firmly in layers not exceeding six (6) inches in thickness. Take care not to disturb the pipe. Compact the remainder of the backfill thoroughly with a rammer of suitable weight or with an approved mechanical tamper to achieve compaction of ninety-five (95) percent as specified.

2. Trenches and utility structures shall be backfilled with greatest care; only the suitable materials taken from the excavation shall be used. Any additional fill materials required for backfilling to subgrades shall be graded fill or ordinary fill as specified. Backfill shall be compacted to ninety-five (95) percent as specified. No mud, frozen earth or stone more than six (6) inches in greatest diameter or other objectionable material shall be used for refilling. Any selected material required for filling, in addition to earth from trench excavation, shall be furnished and placed by the Contractor.

3.05 UTILITY SERVICES LINES

A. Electrical, telephone, cable TV and gas services shall be as specified under other Sections. The excavating, trenching and backfilling for these utilities and other pertinent structures shall be done under this Section.

B. Trenches for utility lines shall be excavated of all peat, silt and other materials, which the Architect deems not stable and backfilled as called for in paragraph 3.04, H to form a stable foundation for laying the utility lines.

3.06 SUBGRADE PREPARATION

A. Bring all areas to required subgrade levels as specified and as determined from the Drawings.

B. Maintain all subgrades for site improvements in satisfactory condition, protected against traffic and properly drained, until the surface improvement is placed. In areas to receive pavement or other surface materials, at top and bottom of embankments, along swales and elsewhere, place sufficient grade stakes to facilitate checking the subgrade levels. Correct all irregularities, compacting thoroughly any fill materials.

C. Check all manhole covers, grates, valve boxes and similar structures for correct elevation and position and make, or have made, any necessary adjustments in such structures.

D. All subgrades must be inspected and approved by the Architect before paving, loaming or other site improvements are made.

3.07 WARNING TAPE OVER BURIED GAS. ELECTRIC. CABLE TV. TELEPHONE

A. Provide and install plastic warning tape over all buried gas, electric and water lines as specified.

B. Warning tape shall be installed according to Manufacturer's recommendations and a minimum of twelve (12) inches below finished grades.

3.08 DUST CONTROL

A. The Contractor shall employ all possible methods and/or materials to prevent the spread of dust. Chemical materials may not be used on subgrades of areas to be seeded or planted.

3.09 CLEAN UP

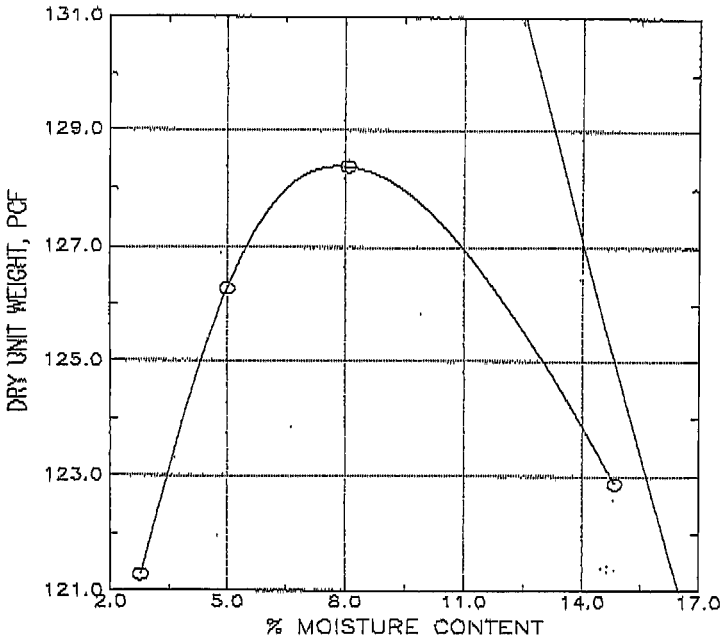
A. The Contractor shall remove all debris, construction equipment and scrap material from all areas within the limit of work prior to inspection for acceptance.

**END OF SECTION**

| MILLER ENGINEERING & TESTING, INC. | Boring No. : N/A<br>Sample No.: L040503<br>Tested by : DM/BM<br>Filename : L040503 | Project: KEITH MIDDLE SCHOOL<br>Project No. : 04.169.NH<br>Location: MIX STOCKPILE # 2<br>Date : Tue Jun 22 2004 |
|---|---|---|

# PROCTOR–GRADATION TEST RESULTS

COMPACTION



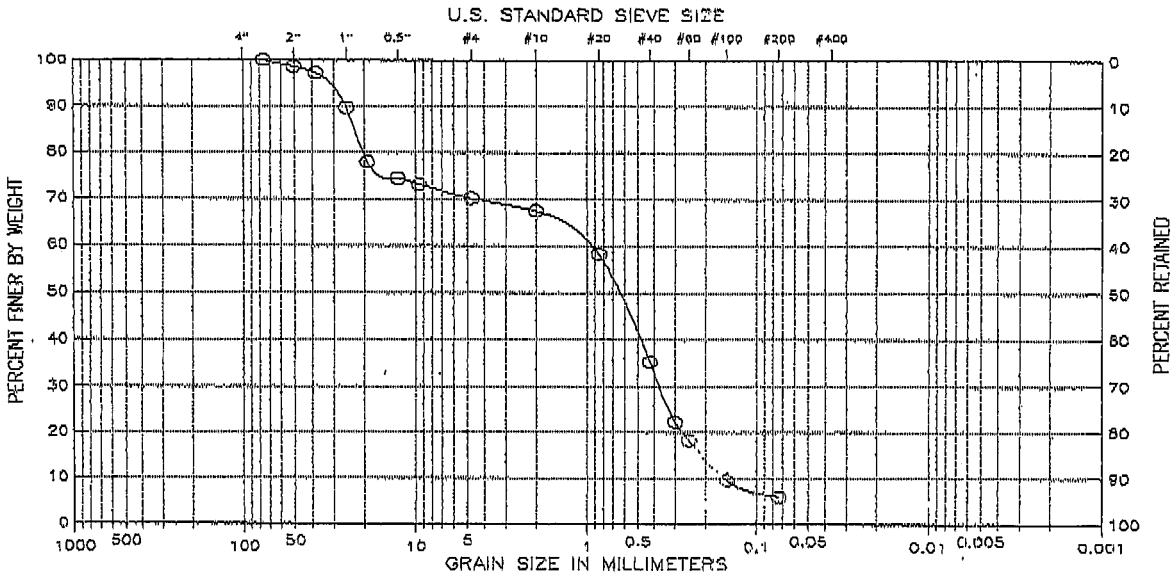

Sample Description :
MIX STOCKPILE # 2

Compaction Test Designation : ASTM D1557–D

Maximum Dry Density : 128.4 PCF

Optimum Moisture Content : 7.9 %

GRAIN SIZE DISTRIBUTION




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

UNIFIED SOIL CLASSIFICATION SYSTEM

Figure 1

Clean Granular Fill

Fri Jun 18 10:33:42 2004



GEOTECHNICAL LABORATORY TEST DATA

Project : KEITH MIDDLE SCHOOL
Project No. : 04.169.NH
Boring No. : N/A
Sample No. : L040503
Location : MIX STOCKPILE # 2
Soil Description : MIX STOCKPILE # 2
Remarks : ASAP

Depth : N/A
Test Date : 6-18-04
Test Method : ASTM

Filename : L040503
Elevation : N/A
Tested by : DM/BM
Checked by : BC

COARSE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (lb) | Cumulative Weight Retained (lb) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| 6" | | | | | 100 | 100 |
| 3" | 3.000 | 76.20 | 11.10 | 11.10 | 100 | |
| 2" | 2.000 | 50.80 | 11.80 | 11.80 | 99 | |
| 1.5" | 1.500 | 38.10 | 11.80 | 12.50 | 97 | |
| 1" | 1.000 | 25.40 | 14.90 | 16.30 | 90 | |
| 0.75" | 0.752 | 19.10 | 17.10 | 22.30 | 78 | |
| 0.5" | 0.500 | 12.70 | 12.60 | 24.00 | 75 | 50 - 85 |
| 0.375" | 0.375 | 9.52 | 11.80 | 24.70 | 73 | |
| #4 | 0.187 | 4.75 | 12.60 | 26.20 | 70 | 40 - 75 |

Total Weight of Sample = 61.7
Tare Weight = 11.1

FINE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (gm) | Cumulative Weight Retained (gm) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| #10 | 0.079 | 2.00 | 13.30 | 13.30 | 68 | |
| #20 | 0.033 | 0.85 | 47.60 | 60.90 | 58 | |
| #40 | 0.017 | 0.43 | 116.60 | 177.50 | 35 | |
| #50 | 0.012 | 0.30 | 65.50 | 243.00 | 22 | 8 - 28 |
| #60 | 0.010 | 0.25 | 20.30 | 263.30 | 18 | |
| #100 | 0.006 | 0.15 | 44.00 | 307.30 | 10 | |
| #200 | 0.003 | 0.07 | 18.50 | 325.80 | 6 | 0 - 8 |
| Pan | | | 30.30 | 356.10 | 0 | |

Total Weight of Sample = 356.1
Tare Weight = 0
Moisture Content = 0

D85 : 22.6736 mm
D60 : 1.0054 mm
D50 : 0.6645 mm
D30 : 0.3695 mm
D15 : 0.2060 mm
D10 : 0.1534 mm

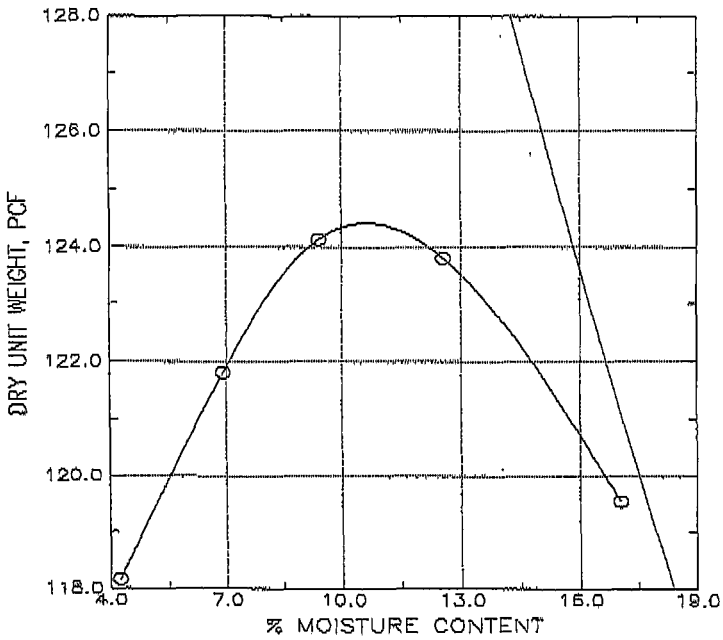
Soil Classification

ASTM Group Symbol : N/A
ASTM Group Name : N/A
AASHTO Group Symbol : A-1-b(0)
AASHTO Group Name : Stone Fragments, Gravel and Sand

| MILLER ENGINEERING & TESTING, INC. | Boring No. : N/A<br>Sample No: L040418B<br>Tested by : DM/BM<br>Filename : L040418B | Project: KEITH MIDDLE SCHOOL<br>Project No. : 04.169.NH<br>Location: KINGSTON PIT MIX 4 TO 1 WITH 3/4 INCH STONE<br>Date : Wed Jun 02 2004 |
|---|---|---|

# PROCTOR–GRADATION TEST RESULTS

COMPACTION




Sample Description :
GRADED FILL

Compaction Test Designation : ASTM D1557–C

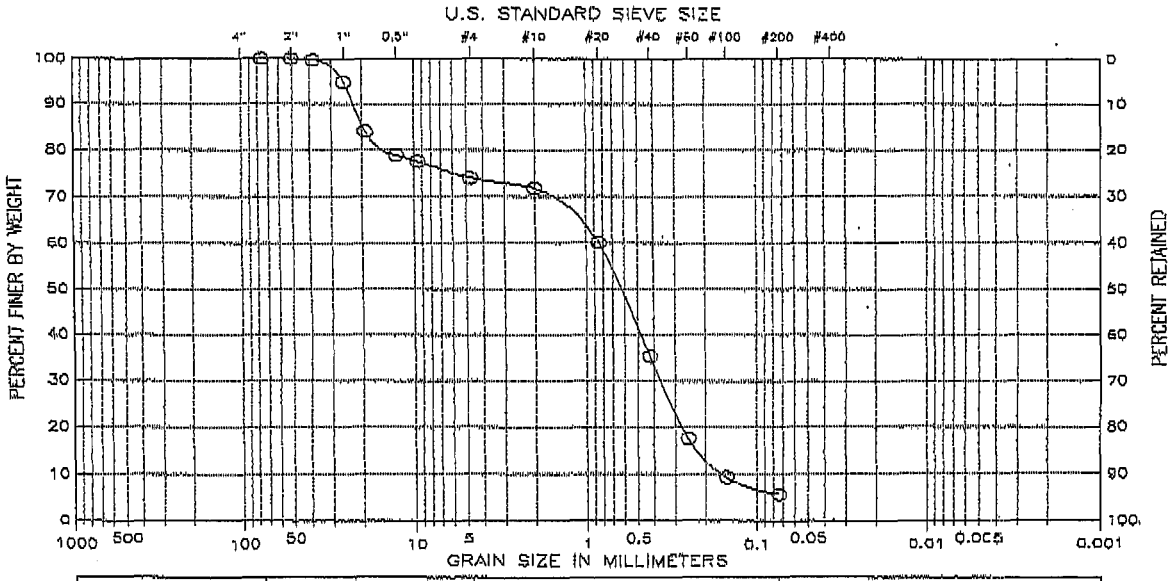
Maximum Dry Density : 124.4 PCF

Optimum Moisture Content : 10.6 %

CORRECTED MAXIMUM DRY DENSITY: 129.2 PCF

CORRECTED OPTIMUM MOISTURE CONTENT: 8.9 %

GRAIN SIZE DISTRIBUTION




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

UNIFIED SOIL CLASSIFICATION SYSTEM

Figure 1

Select Granular Fill

Tue Jun 01 08:37:20 2004



# GEOTECHNICAL LABORATORY TEST DATA

Project : KEITH MIDDLE SCHOOL
Project No. : 04.169.NH
Boring No. : N/A
Sample No. : L040418B
Location : KINGSTON PIT MIX 4 TO 1 WITH 3/4 INCH STONE
Soil Description : GRADED FILL
Remarks : ASAP

Depth : N/A
Test Date : 6-1-04
Test Method : ASTM

Filename : L040418B
Elevation : N/A
Tested by : DM/BM
Checked by : BC

## COARSE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (lb) | Cumulative Weight Retained (lb) | Percent Finer (%) | |
|---|---|---|---|---|---|---|
| 6" | | | | | 100 | 100 |
| 3" | 3.000 | 76.20 | 11.90 | 11.90 | 100 | |
| 2" | 2.000 | 50.80 | 11.90 | 11.90 | 100 | |
| 1.5" | 1.500 | 38.10 | 12.10 | 12.10 | 100 | |
| 1" | 1.000 | 25.40 | 15.40 | 15.60 | 95 | |
| 0.75" | 0.752 | 19.10 | 19.50 | 23.20 | 84 | |
| 0.5" | 0.500 | 12.70 | 15.50 | 26.80 | 79 | 50 - 85 |
| 0.375" | 0.375 | 9.52 | 12.90 | 27.80 | 77 | |
| #4 | 0.187 | 4.75 | 14.40 | 30.30 | 74 | 40 - 75 |

Total Weight of Sample = 82.5
Tare Weight = 11.9

## FINE SIEVE SET

| Sieve Mesh | Sieve Openings Inches | Sieve Openings Millimeters | Weight Retained (gm) | Cumulative Weight Retained (gm) | Percent Finer (%) | | |
|---|---|---|---|---|---|---|---|
| #10 | 0.079 | 2.00 | 10.10 | 10.10 | 72 | | |
| #20 | 0.033 | 0.85 | 54.80 | 64.90 | 60 | | |
| #40 | 0.017 | 0.43 | 115.20 | 180.10 | 35 | 21 | 8 - 28 |
| #60 | 0.010 | 0.25 | 82.50 | 262.60 | 18 | | |
| #100 | 0.006 | 0.15 | 38.90 | 301.50 | 9 | | |
| #200 | 0.003 | 0.07 | 16.80 | 318.30 | 6 | | 0 - 8 |
| Pan | | | 26.00 | 344.30 | 0 | | |

Total Weight of Sample = 344.3
Tare Weight = 0
Moisture Content = 0

D85 : 19.6155 mm
D60 : 0.8500 mm
D50 : 0.6423 mm
D30 : 0.3630 mm
D15 : 0.2140 mm
D10 : 0.1576 mm

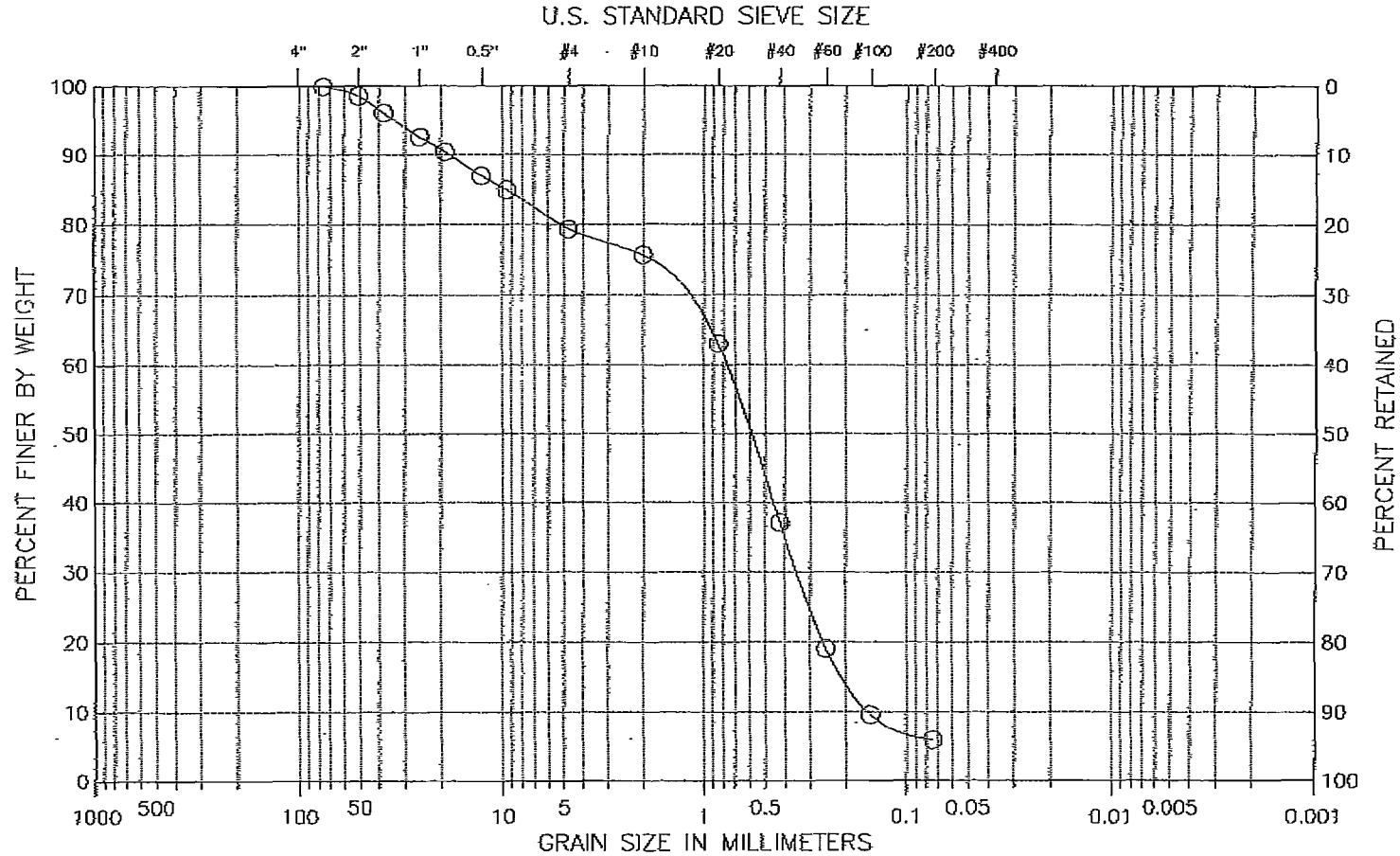
Soil Classification
ASTM Group Symbol : N/A
ASTM Group Name : N/A
AASHTO Group Symbol : A-1-b(0)
AASHTO Group Name : Stone Fragments, Gravel and Sand

# GRAIN SIZE DISTRIBUTION - AGGREGATE GRADING

MILLER ENGINEERING & TESTING, INC.

Boring No. : N/A
Sample No: L040418A
Tested by : DM/BM
Filename : L040418A

Project : KEITH MIDDLE SCHOOL
Project No.: 04.169.NH
Location: KINGSTON PIT SAMPLED FROM ON SITE STOCKPILE
Date : Tue Jun 01 2004




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | COARSE | FINE | COARSE | MEDIUM | FINE | |

Classification :
()
Visual Description :
GRADED FILL

Remarks :
ASAP

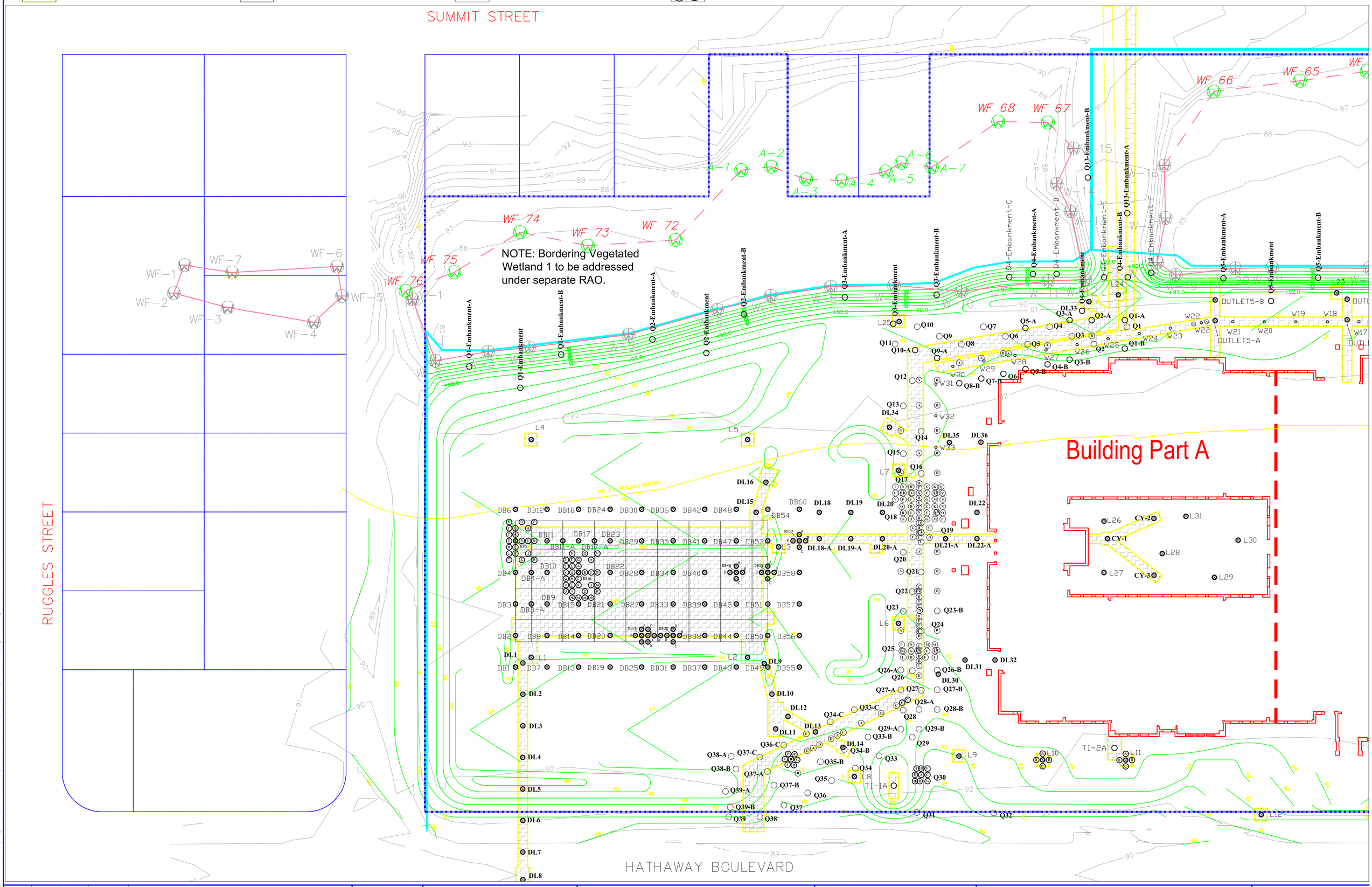
Figure 1

**Figure 1.1**

Sample Location Plan
South Side

LEGEND

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 92 | EXISTING ELEVATION | | EXCAVATION AREA | | PROPERTY LINE | | WETLANDS LINE |
| 92 | PROPOSED FINAL ELEVATION | | BUILDING FOOTPRINT | | SECURITY FENCE | | SAMPLE LOCATION |




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

# McCoy Field

New Bedford, Massachusetts


BETA Group, Inc.
Engineers·Scientists·Planners
315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com


SCALE: 1" = 20'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request Rev. 1

## Figure 1.1 Rev. 1

## Sample Location Plan - South Side

JOB 02685

FILE NO. Figure 1.dwg

PLOT DATE June 2005

SHEET

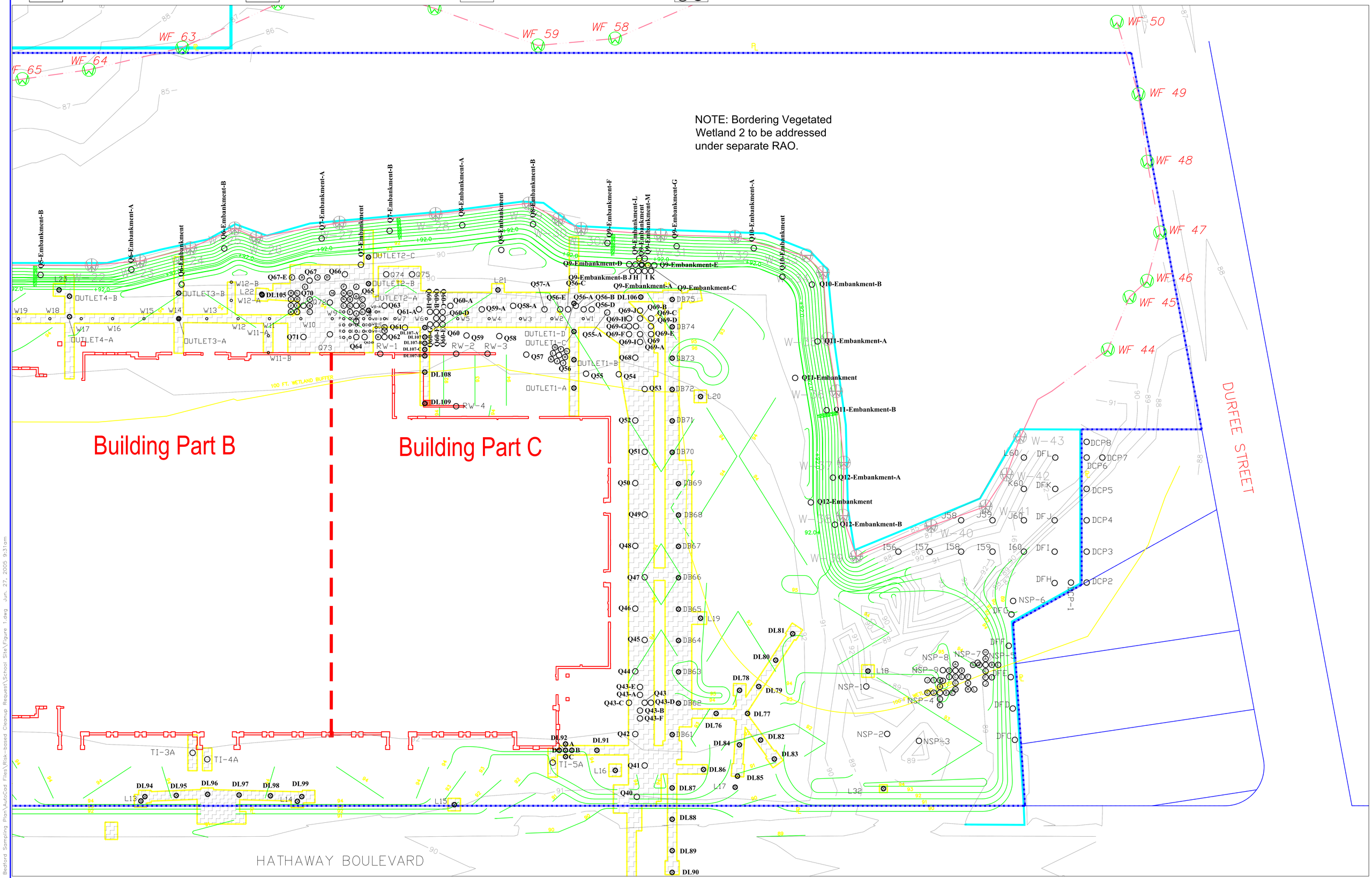
J:\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\Risk-based Cleanup Request\School Site\Figure 1.dwg Jun. 27, 2005 9:34am

**Figure 1.2**

Sample Location Plan
North Side

LEGEND

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 92 | EXISTING ELEVATION | | EXCAVATION AREA | RL | PROPERTY LINE | | WETLANDS LINE |
| 92 | PROPOSED FINAL ELEVATION | | BUILDING FOOTPRINT | | SECURITY FENCE | | SAMPLE LOCATION |




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

# McCoy Field

New Bedford, Massachusetts


BETA Group, Inc.
Engineers·Scientists·Planners
315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com


SCALE: 1" = 20'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request Rev. 1

## Figure 1.2 Rev. 1

## Sample Location Plan - North Side

JOB 02685

FILE NO. Figure 1.dwg

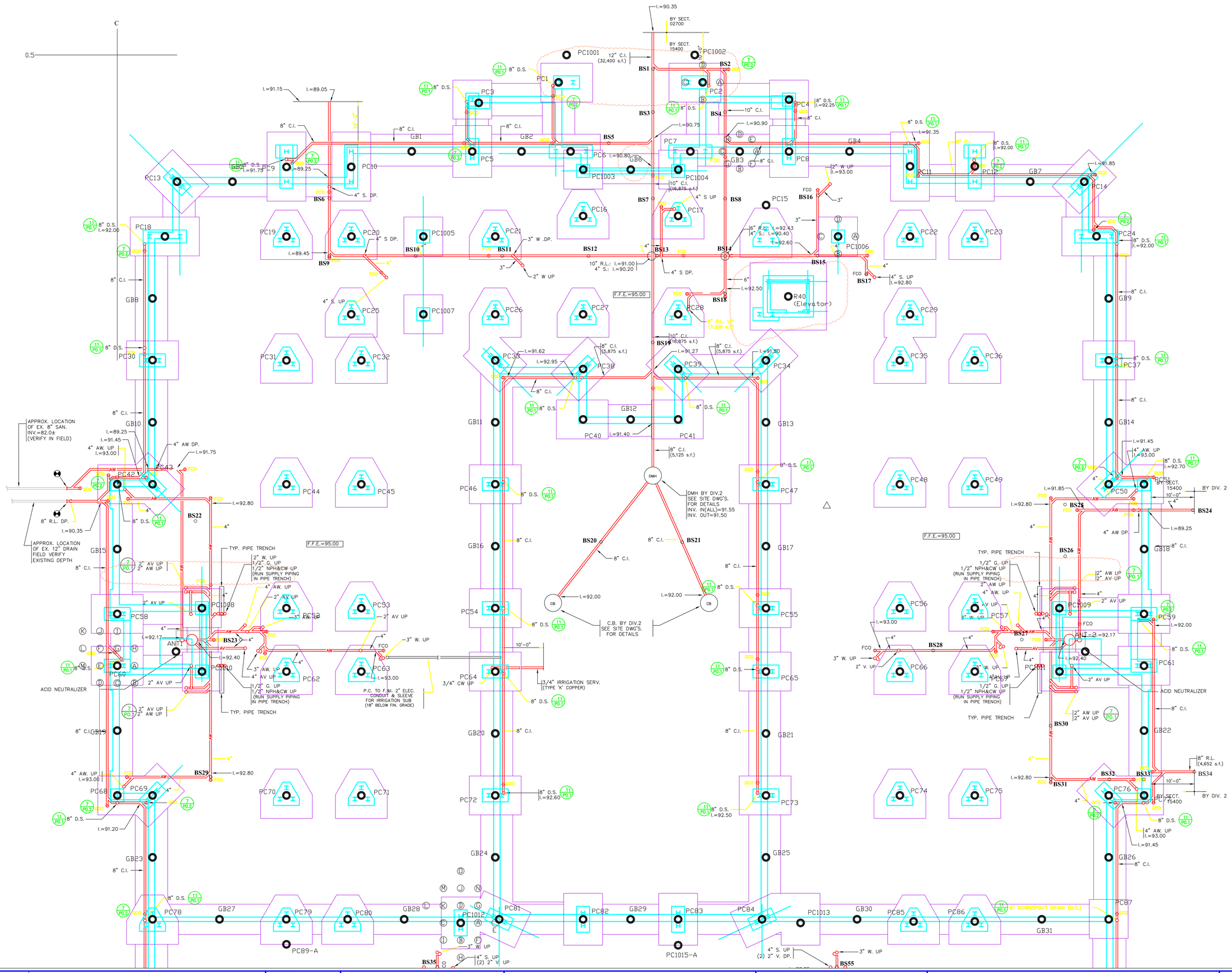
PLOT DATE June 2005

SHEET

J:\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\Risk-based Cleanup Request\School Site\Figure 1.dwg Jun. 27, 2005 9:31am

**Figure 1.3**

Building Part A
Pile Caps, Grade Beams &
Utilities




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

**BETA Group, Inc.**
Engineers·Scientists·Planners

315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com

**McCoy Field**
New Bedford, Massachusetts

SCALE: 1/8" = 1'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

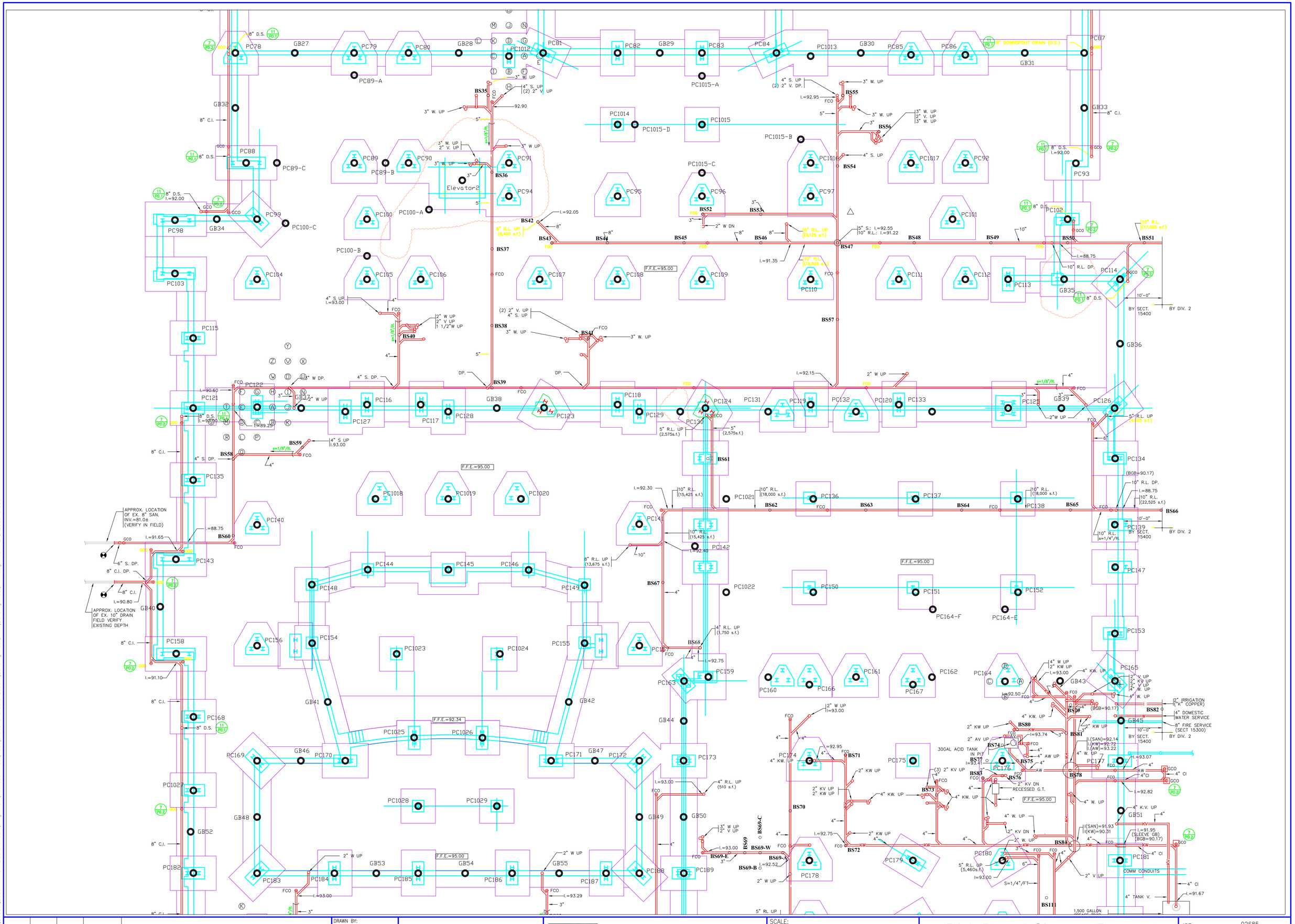
# Risk-Based Cleanup Request
## Figure 1.3
### Building Part A
Pile Caps, Grade Beams & Utilities

JOB 02685
FILE NO. Building Footprint.dwg
PLOT DATE June 2005
SHEET

\\BETA-MA2\Share\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\McCoy Site Characterization\Building Footprint\Building Footprint.dwg Jun 27, 2005 9:38am

**Figure 1.4**

Building Part B
Pile Caps, Grade Beams &
Utilities




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

**BETA Group, Inc.**
Engineers·Scientists·Planners

315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com

**McCoy Field**
New Bedford, Massachusetts

SCALE: 1/8" = 1'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request
## Figure 1.4
### Building Part B
Pile Caps, Grade Beams & Utilities

JOB 02685

FILE NO. Building Footprint.dwg

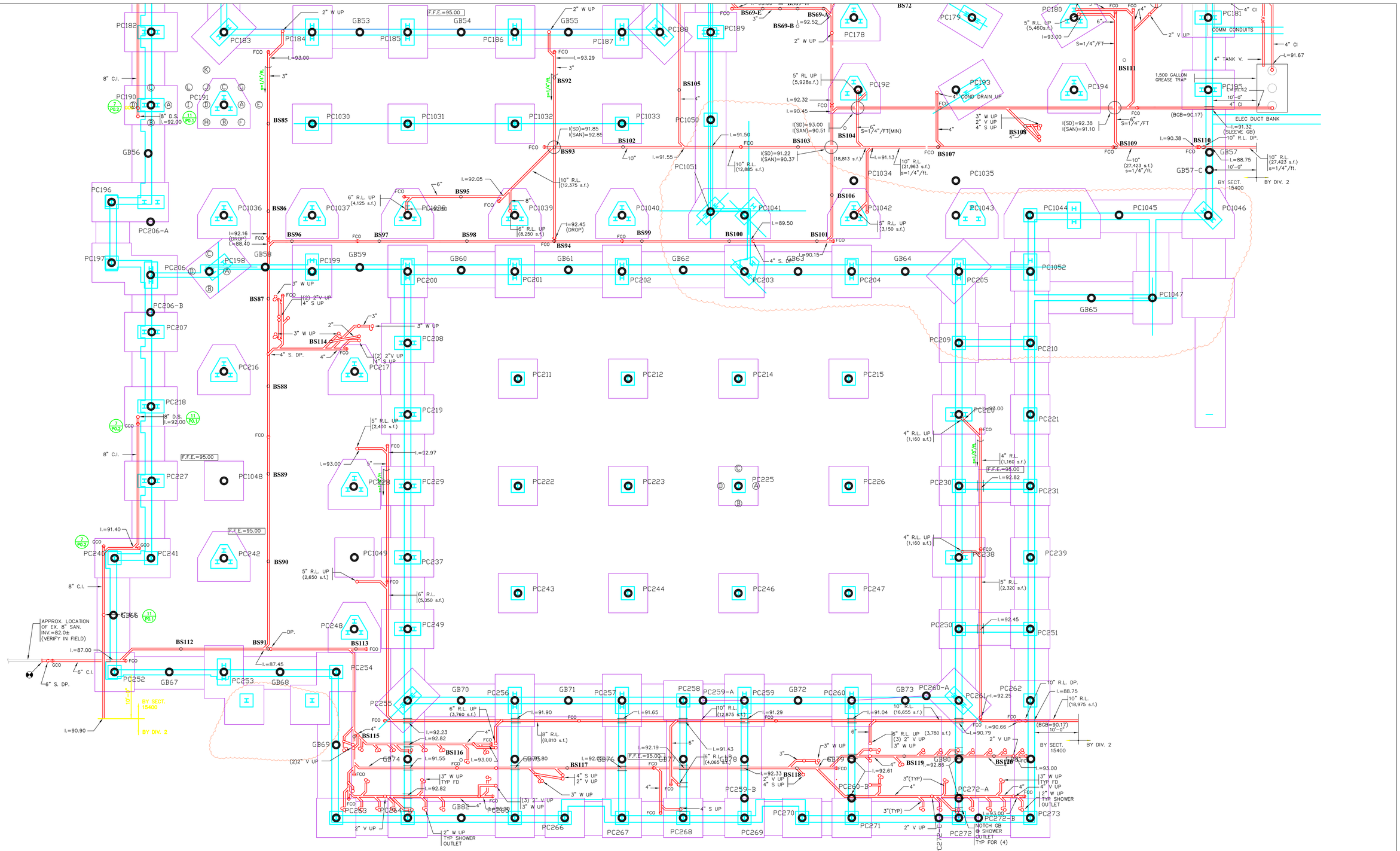
PLOT DATE June 2005

SHEET

\\BETA-MA2\Share\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\McCoy Site Characterization\Building Footprint\Building Footprint.dwg Jun. 27, 2005 9:39am

**Figure 1.5**

Building Part C
Pile Caps, Grade Beams &
Utilities




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:


BETA Group, Inc.
Engineers·Scientists·Planners
315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com


**McCoy Field**
New Bedford, Massachusetts

SCALE: 1/8" = 1'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request
## Figure 1.5
### Buidling Part C
Pile Caps, Grade Beams & Utilities

JOB 02685
FILE NO. Building Footprint.dwg
PLOT DATE June 2005
SHEET

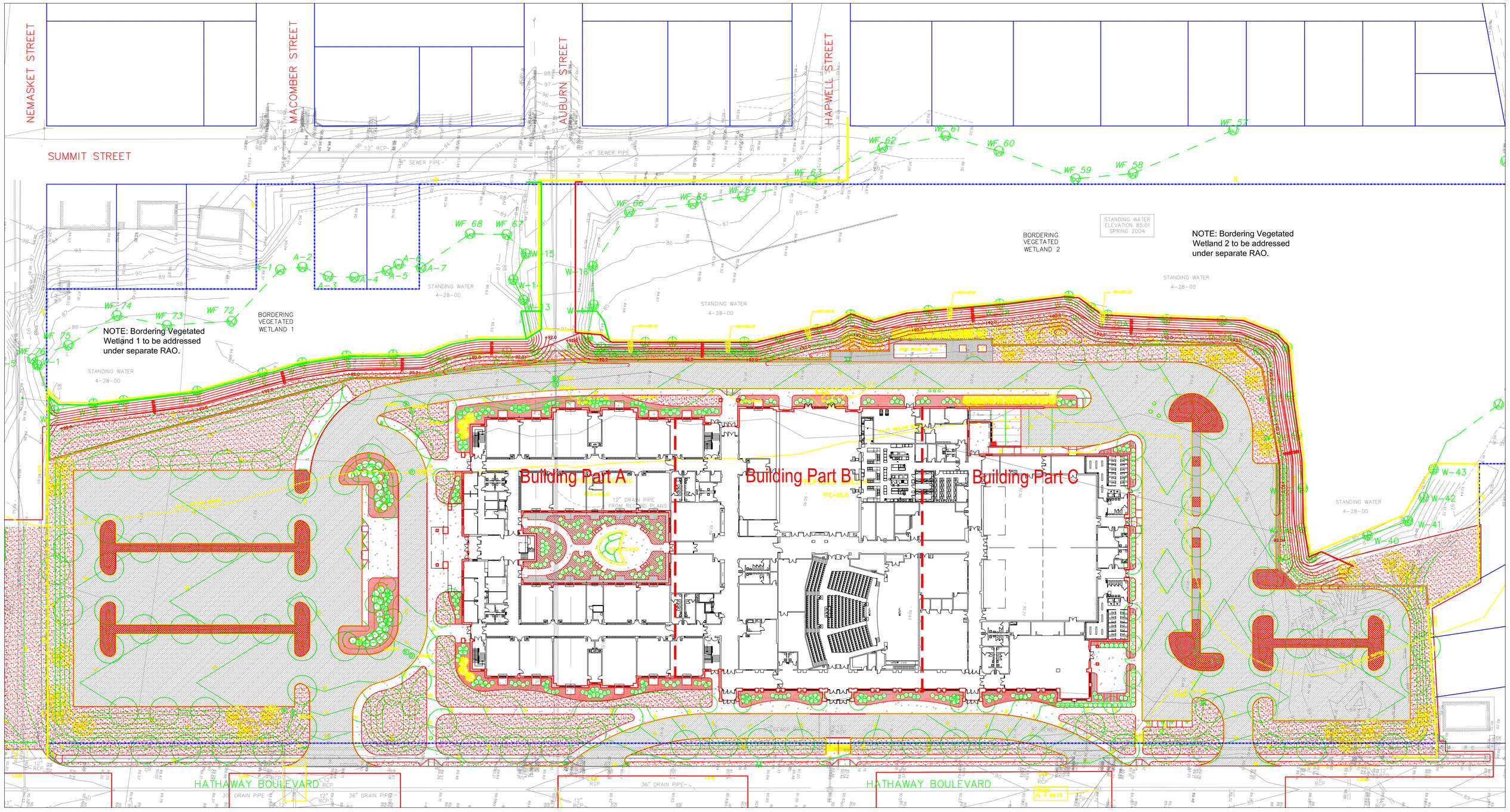
\\BETA-MA2\Share\Projects\2600s\2685 - New Bedford Sampling Plan\AutoCad Files\McCoy Site Characterization\Building Footprint\Building Footprint.dwg Jun 27, 2005 9:40am

## Figure 2

Land Use Plan

LEGEND

- EXISTING ELEVATION
- PROPOSED FINAL ELEVATION
- LANDSCAPED AREA
- PAVED AREA
- PAVED AREA
- TREES




| NUMBER | DATE | MADE BY | CHECKED BY | DESCRIPTION |
|---|---|---|---|---|
| | | | | |

REVISIONS

DRAWN BY:

DEPT. CHECK:

PROJ. CHECK:

# McCoy Field

New Bedford, Massachusetts


BETA Group, Inc.
Engineers·Scientists·Planners
315 Norwood Park South
Norwood, MA 02062
781.255.1982 fax: 781.255.1974
email: BETA@BETA-inc.com


SCALE: 1" = 30'

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

# Risk-Based Cleanup Request

## Figure 2

## Land Use Plan

JOB 02685

FILE NO. Figure 2 – Land Use.dw

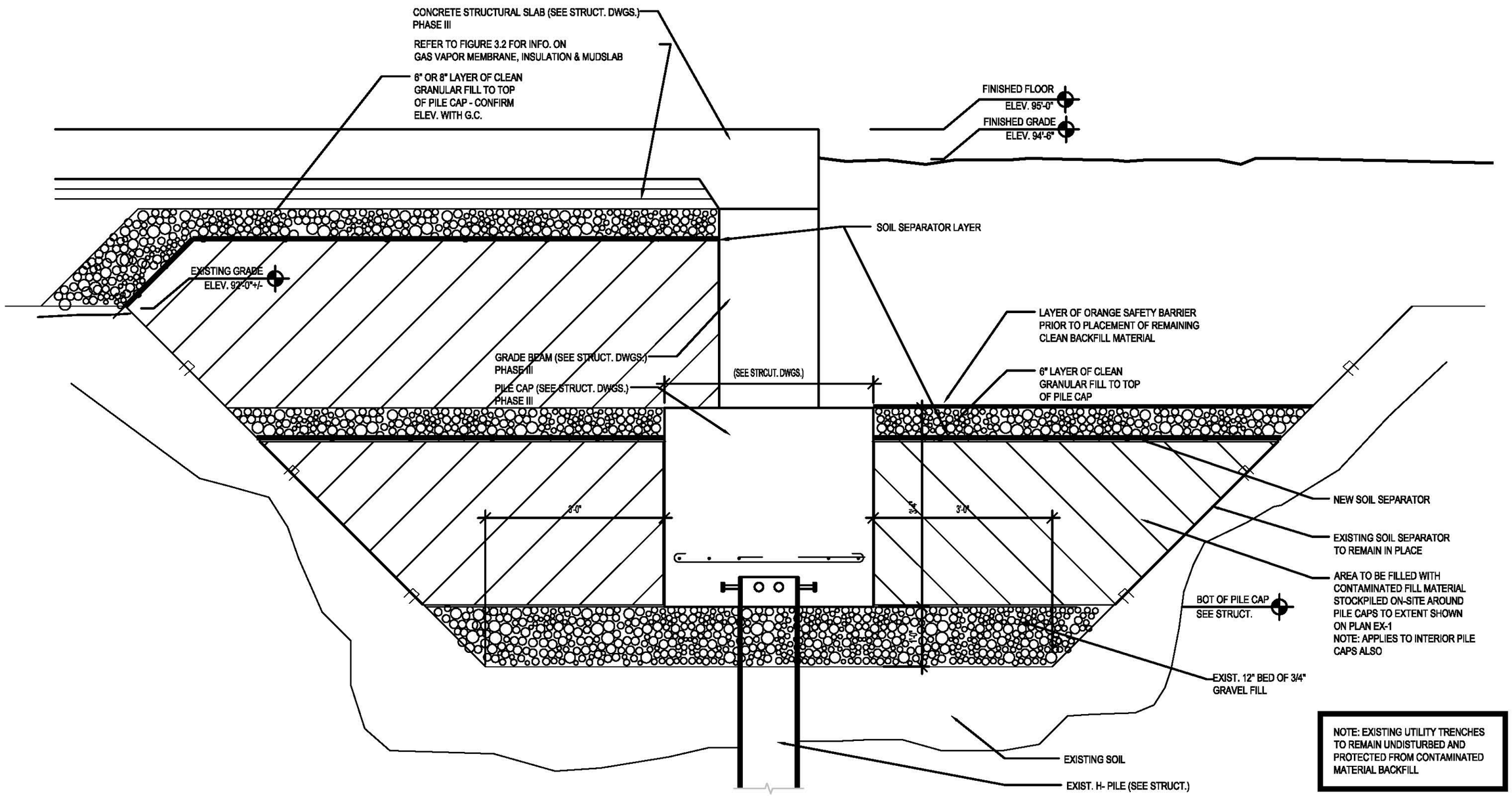
PLOT DATE June 2005

SHEET

J:\Projects\2600s\2685 – New Bedford Sampling Plan\AutoCad Files\Risk-based Cleanup Request\School Site\Figure 2 – Land Use.dwg Jun. 27, 2005 9:42am

**Figure 3.1**

Typical Backfill Detail for
Pile Caps and Grade Beams




BETA Group, Inc.
Engineers · Scientists · Planners

315 Norwood Park South
Norwood, MA 02062 781.255.1982
email: BETA@BETA-inc.com

**McCoy Field**

New Bedford, Massachusetts

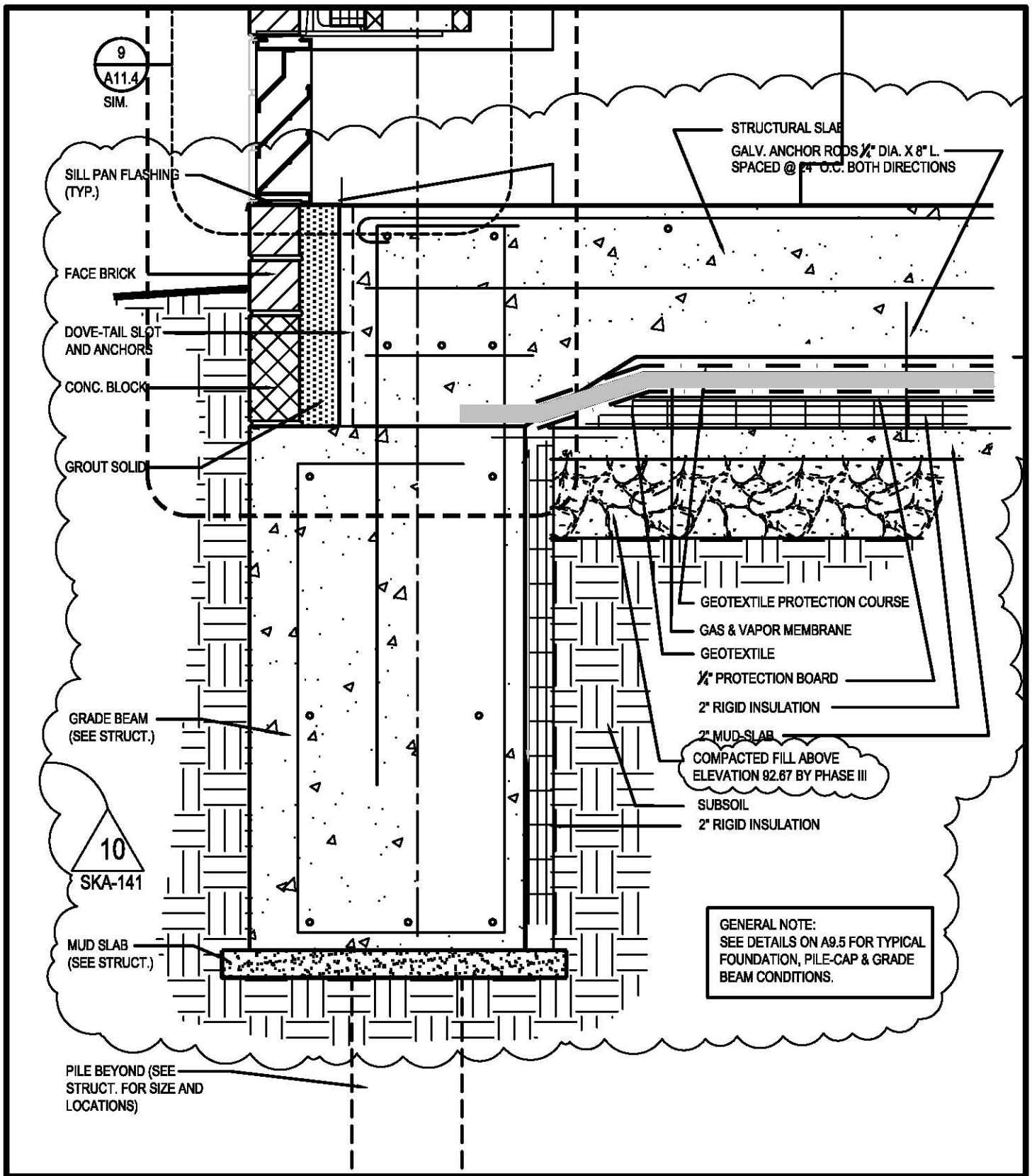
Scale: 1" = 20'

# Figure 3.1

## Typical Backfill Detail for Pile Caps and Grade Beams

**Figure 3.2**

Detail on Gas Vapor Membrane, Insulation & Mudslab




BETA Group, Inc.
Engineers • Scientists • Planners
315 Norwood Park South
Norwood, MA 02062 781.255.1982
email: BETA@BETA-inc.com

**McCoy Field**
New Bedford, Massachusetts

Scale: N.T.S.

# Figure 3.2

**Detail on Gas Vapor Membrane, Insulation & Mudslab**

**(refer to Figure 3.1)**

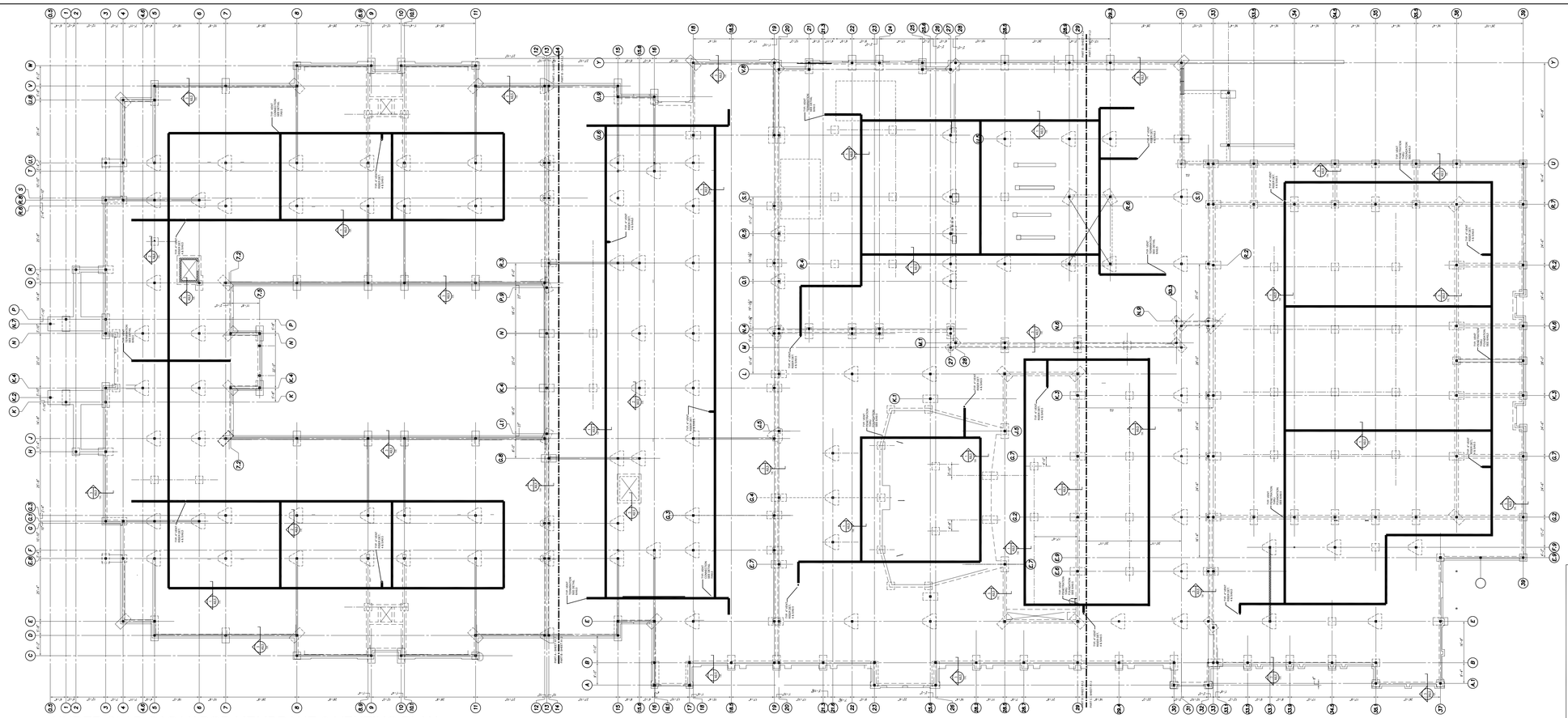
## Figure 4

Gas Vapor Barrier &
Venting Plan Details

Draft Risk-Based Cleanup Request

# FIGURE 4

Figure 4 – Gas Vapor Barrier & Venting Plan Details – Hardcopy only (extracted from Phase III Contract Documents A9.5). See BETA hardcopy of Risk-Based Cleanup Request. Above “title block” was taped over A9.5 and copied.



## UNDER SLAB GAS VAPOR MEMBRANE & VENTING PLAN

1" = 20'-0"

NOTES:

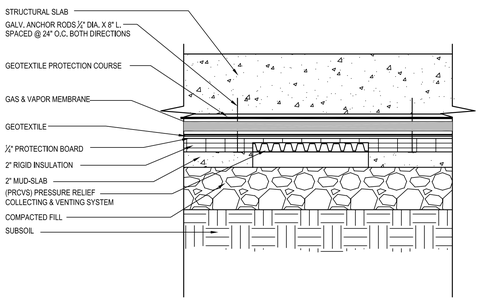
1. THIS PLAN IS A DIAGRAMMATIC REPRESENTATION OF A POTENTIAL VENTING LAYOUT & RISER LOCATION PLAN. FINAL COORDINATION & LAYOUT TO BE INCLUDED AS PART OF THE SUBMITTAL PROCESS AND APPROVED BY THE ARCHITECT.

2. A VENT RISER IS TO BE PROVIDED FOR EVERY 7500 S.F. OF UNDER SLAB AREA. THIS CONTRACTOR TO LEAVE A 6" STUB ABOVE THE FIN. FLR. FOR CONTINUATION THRU THE ROOF BY PLUMBING SUB-CONTRACTOR.

3. FOR PILE CAP & GRADE BEAM LAYOUT & DETAILS REFER TO STRUCTURAL DRAWINGS S1.1 THRU S1.3.

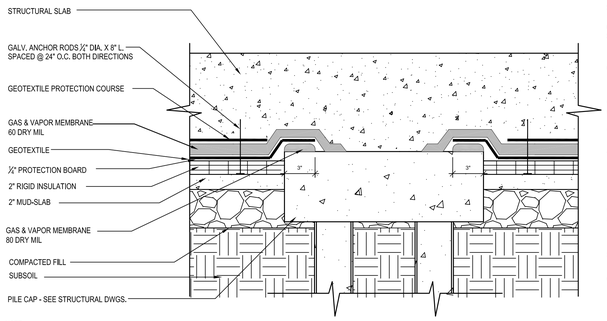
4. FOR BELOW SLAB PLUMBING LAYOUT REFER TO DRAWINGS P1.1 THRU P1.3.

5. A COMPLETE GAS MEMBRANE & VENTING SYSTEM INSTALLATION TO BE PERFORMED BY DIV. 07100.




## MEMBRANE & VENT DETAIL (1)

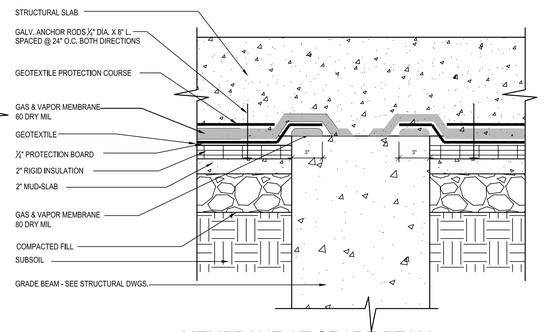
1 1/2" = 1'-0" TYPICAL




NOTE:
BRING THE MEMBRANE 3" ONTO THE PILE CAP. THE GEOTEXTILE IS THEN ENCAPSULATED IN THE MEMBRANE

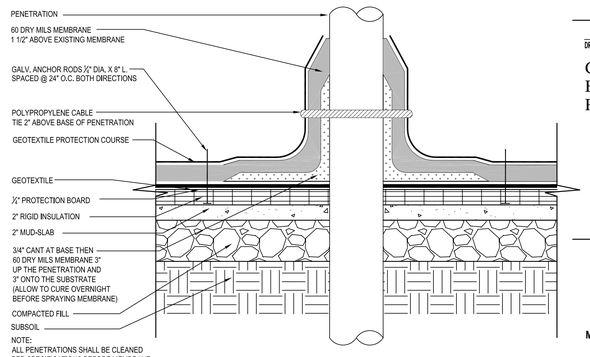
## MEMBRANE AT PILE CAP (2)

1 1/2" = 1'-0" TYPICAL




## MEMBRANE AT GRADE BEAM (3)

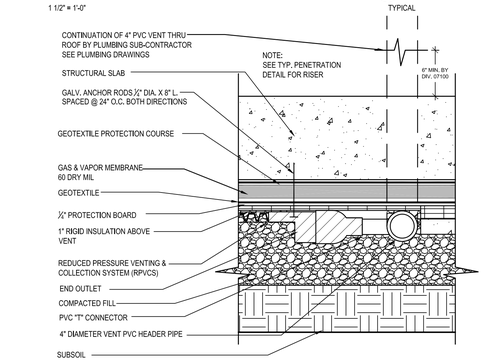
1 1/2" = 1'-0" TYPICAL




NOTE:
ALL PENETRATIONS SHALL BE CLEANED PER SPECIFICATIONS BEFORE MEMBRANE IS APPLIED. DETAIL SHOWN PRIOR TO PLACEMENT OF SLAB.

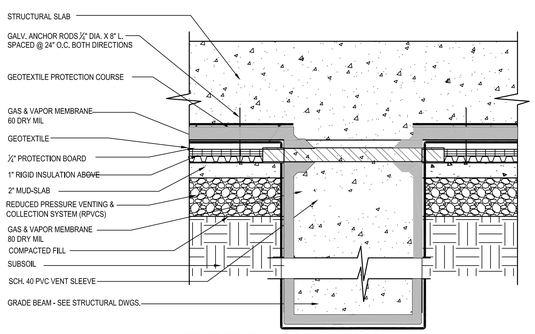
## TYPICAL PENETRATION (4)

1 1/2" = 1'-0" TYPICAL



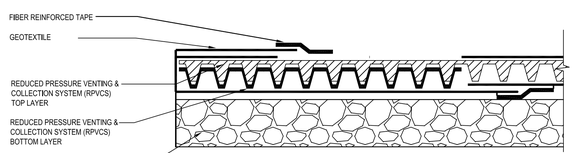

## VENT CONNECTION TO HEADER PIPE & RISER (5)

1 1/2" = 1'-0" TYPICAL



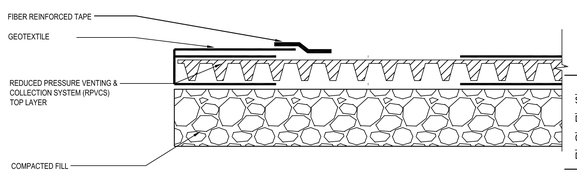

## VENT THRU FOUNDATION (6)

1 1/2" = 1'-0" TYPICAL




## (RPVCS) VENT CONNECTION (7)

1 1/2" = 1'-0" TYPICAL




## (RPVCS) VENT TERMINATION (8)

1 1/2" = 1'-0" TYPICAL

CONSULTANTS

REVISIONS

PROJECT NUMBER 20005.00

KEITH MIDDLE SCHOOL
New Bedford, Ma.

DRAWING TITLE
GAS VAPOR BARRIER & VENTING PLAN & DETAILS


Mount Vernon Group Architects, Inc.
20 Cabot Road
Woburn, Massachusetts 01801

781 937 9720 T
781 937 9728 F
info@mvgarchitects.com E


SEAL

SCALE AS NOTED
DRAWN BY
CHECKED
DATE

DRAWING NUMBER
A9.5

Xref G:\Projects\20005-NewBedford-KeithMS\Drawings\4.0.0-ConsDocs\4.1.0-Architectural\BLOCKS\DATE.dwg

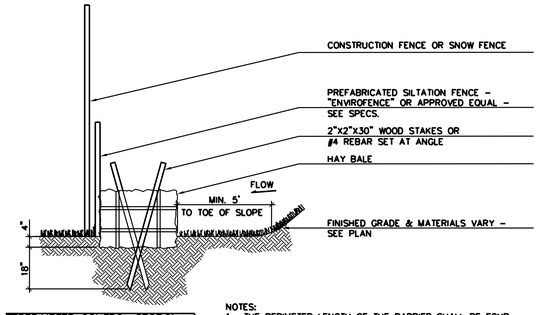
**Figure 5**

Paved Area Cross Section

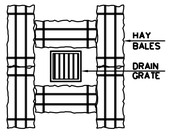
Draft Risk-Based Cleanup Request

# FIGURE 5

Figure 5 – Paved Area Cross-Sections – Hardcopy only (extracted from Phase III Contract Documents L6). See BETA hardcopy of Risk-Based Cleanup Request. Above "title block" was taped over L6 and copied.



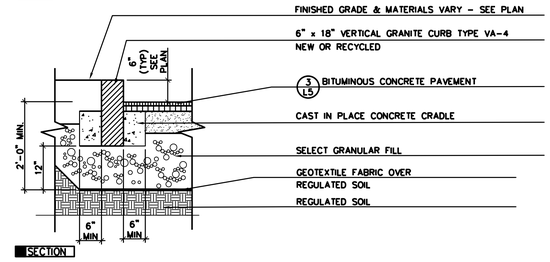

PERIMETER CONTROL SECTION




PLAN AT DRAINAGE INLETS

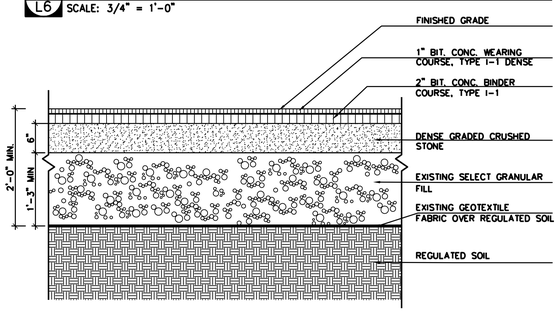
NOTES:
1. THE PERIMETER LENGTH OF THE BARRIER SHALL BE FOUR TIMES THE PERIMETER LENGTH OF THE DRAINAGE INLET. THE TOP OF THE BARRIER SHALL BE LEVEL AND UNIFORM FOR THIS LENGTH.
2. THE BARRIER SHALL BE INSTALLED IMMEDIATELY AFTER THE INLETS ARE INSTALLED AND MAINTAINED UNTIL THE AREA IS PAVED OR TURF HAS BEEN ESTABLISHED.
3. WHERE STAKING IS NOT PRACTICAL, BALES TO BE TIED TOGETHER TO PREVENT MOVEMENT OR OPENINGS IN THE BARRIER.
4. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALE.
5. EACH BALE SHALL BE IMBEDDED IN THE SOIL A MINIMUM OF 4".
6. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOSLY LAID BALE TO FORCE BALES TOGETHER.
7. INSPECTION SHALL BE MADE FREQUENTLY AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
8. REMOVE ALL SEDIMENT PRIOR TO REMOVING HAYBALES.

## 1 / L6 EROSION CONTROL
SCALE: N.T.S.



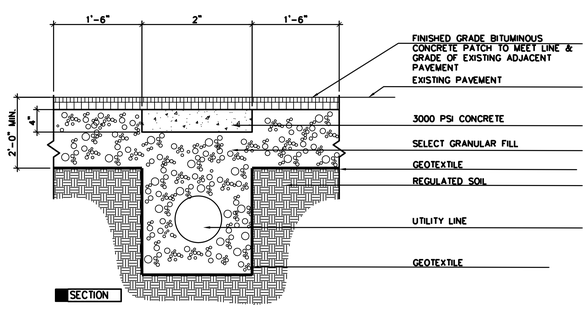

SECTION

## 2 / L6 VERTICAL GRANITE CURB
SCALE: 3/4" = 1'-0"



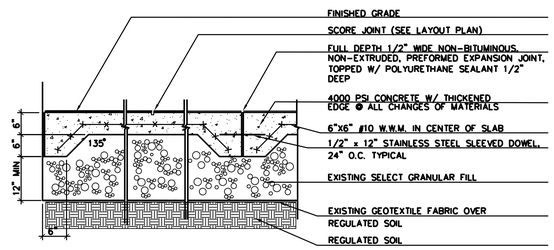

SECTION

## 3 / L6 BITUMINOUS CONCRETE ROADWAY PAVEMENT
SCALE: 1"=1'-0"




SECTION

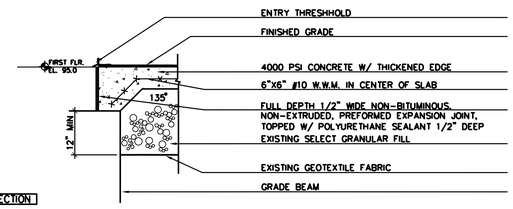
## 4 / L6 BITUMINOUS CONCRETE ROADWAY REPAIR
SCALE: 1" = 1'-0"




SECTION

NOTES:
1. PROVIDE EXPANSION JOINTS WHEREVER CONCRETE PAVING MEETS VERTICAL AND HORIZANTAL MASONRY SURFACES, AND NOT MORE THAN 30' OC IN ANY DIRECTION.
2. CONCRETE SHALL BE BROOM FINISHED, PERPENDICULAR TO THE DIRECTION OF TRAVEL, OR AS DIRECTED BY THE ARCHITECT.

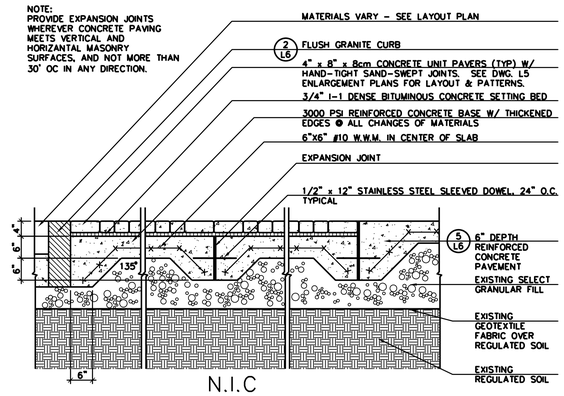
## 5 / L6 CONCRETE PAVING/JOINT TREATMENT
SCALE: 3/4" = 1'-0"




SECTION

## 6 / L6 CONC. PAVING / JOINT TREATMENT @ DOOR THRESHOLD
SCALE: 3/4" = 1'-0"

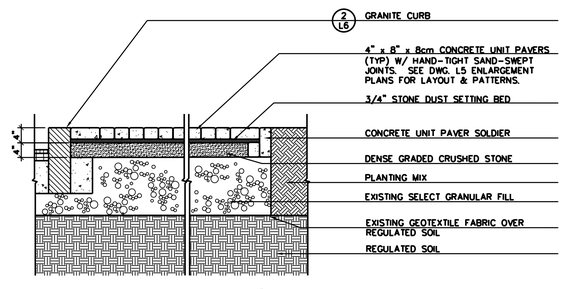
NOTE:
PROVIDE EXPANSION JOINTS WHEREVER CONCRETE PAVING MEETS VERTICAL AND HORIZANTAL MASONRY SURFACES, AND NOT MORE THAN 30' OC IN ANY DIRECTION.




N.I.C

SECTION

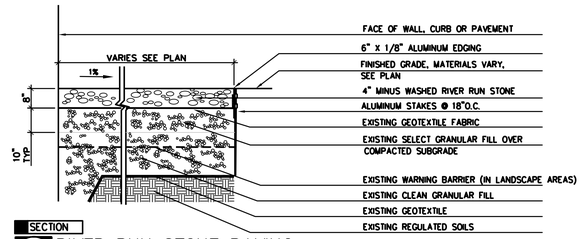
## 7 / L6 CONCRETE UNIT PAVERS ON CONCRETE BASE
SCALE: 3/4"=1'-0"




N.I.C

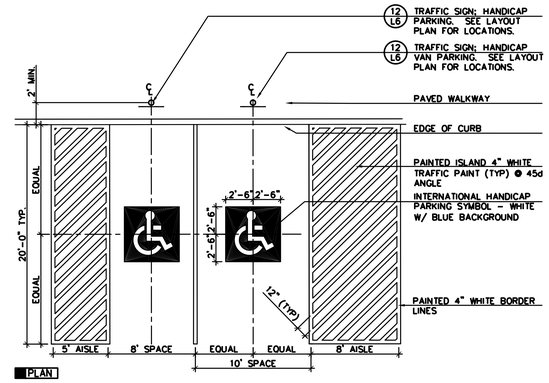
SECTION

## 8 / L6 DRY LAID CONCRETE UNIT PAVERS
SCALE: 3/4"=1'-0"



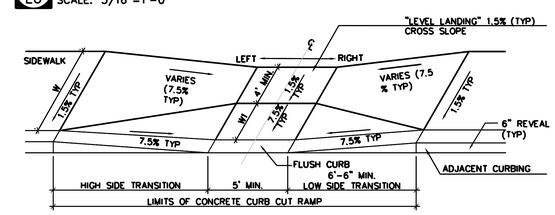

SECTION

## 9 / L6 RIVER RUN STONE PAVING
SCALE: 1/2"=1'-0"




PLAN

## 10 / L6 HANDICAP PARKING SPACES
SCALE: 3/16"=1'-0"




| ROADWAY PROFILE GRADE | HIGH SIDE TRANSITION LENGTH ROUNDED LENGTH 0.1 m (4") |
|---|---|
| % G | ENGLISH UNITS |
| 0 | 6'-6" |
| 0.00 1 0.01 | 7'-6" |
| 2 | 9'-0" |
| 0.02 | 11'-0" |
| 0.03 | 14'-0" |
| 0.04 0.04 | 15'-0" MAX. |

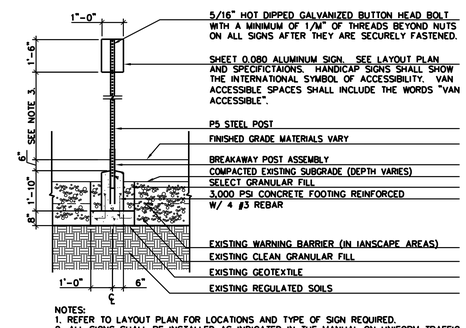
LEGEND

HSL=HIGH SIDE FRONT TRANSITION LENGTH
W=SIDEWALK WIDTH
W1=PERPENDICULAR RAMP LENGTH

NOTES:
1. HANDICAP CURB CUT RAMP SLOPE AND SIDE SLOPES (TRANSITIONS) SHALL NOT EXCEED 1:12. (8.0 % MAXIMUM, 7.5% PREFERRED). SLOPES MAY BE FLATTER THAN 1:12 WHERE REQUIRED BY ADJACENT CONDITIONS. "LEVEL LANDINGS" AND ALL RAMP CROSS SLOPES SHALL NOT EXCEED 1.6% (1.5% PREFFERED).
2. WHERE ROAD PROFILES EXCEED 4%, CURB TRANSITION LENGTHS SHALL BE 15'.
3. HANDICAP CURB CUT RAMPS SHALL NOT BE LOCATED BEHIND STOP LINES.
4. FIXED OBJECTS (E.G., UTILITY POLES, HYDRANTS, ETC.) SHALL NOT ENCROACH ON ANY PART OF HANDICAP CURB CUT RAMPS, INCLUDING TRANSITION SLOPES.
5. CROSSWALK HANDICAP CURB CUT RAMPS SHALL NOT BE LOCATED OUTSIDE OF THE CROSSWALK (EXCLUDING CURB TRANSITIONS). RAMP ENTRANCES SHALL BE CENTERED IN THE CROSSWALK WHENEVER POSSIBLE.
6. HANDICAP CURB CUT RAMP ENTRANCES SHALL MEET FLUSH WITH ADJACENT ROADWAY PAVEMENT.
7. THE LINE OF RAMP SURFACE SLOPES SHALL BE STRAIGHT AND SHALL NOT HAVE DEVIATIONS GREATER THAN 1/4".

ISOMETRIC

## 11 / L6 HANDICAP CURB CUT RAMP
SCALE: N.T.S.




NOTES:
1. REFER TO LAYOUT PLAN FOR LOCATIONS AND TYPE OF SIGN REQUIRED.
2. ALL SIGNS SHALL BE INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
3. HEIGHT FOR HANDICAPPED PARKING AND HANDICAPPED VAN PARKING SHALL BE 5'-0"; HEIGHT FOR ALL OTHER TRAFFIC SIGNS SHALL BE 7'-0" MINIMUM.

SECTION

## 12 / L6 TRAFFIC SIGN
SCALE: 3/8" = 1'-0"


CONSULTANTS

Moriece & Gary
Landscape Architects
Fifty-Six Roland Street
Charlestown, MA 02129
Tel. 617/776-7600 Fax 617/776-1075
EMail: bgary@mgary.com


| REVISIONS | |
|---|---|
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| | |
| | |
| | |
| | |
| ENTIRE DWG. | 5/13/05 |
| 10 ENTIRE DWG. | 12/13/04 |

20005.00

PROJECT NUMBER

KEITH MIDDLE SCHOOL
New Bedford, MA
PHASE III

DRAWING TITLE

SITE DETAILS


MVG
MOUNT VERNON GROUP ARCHITECTS
Mount Vernon Group Architects, Inc.
20 Cabot Road
Woburn, Massachusetts 01801

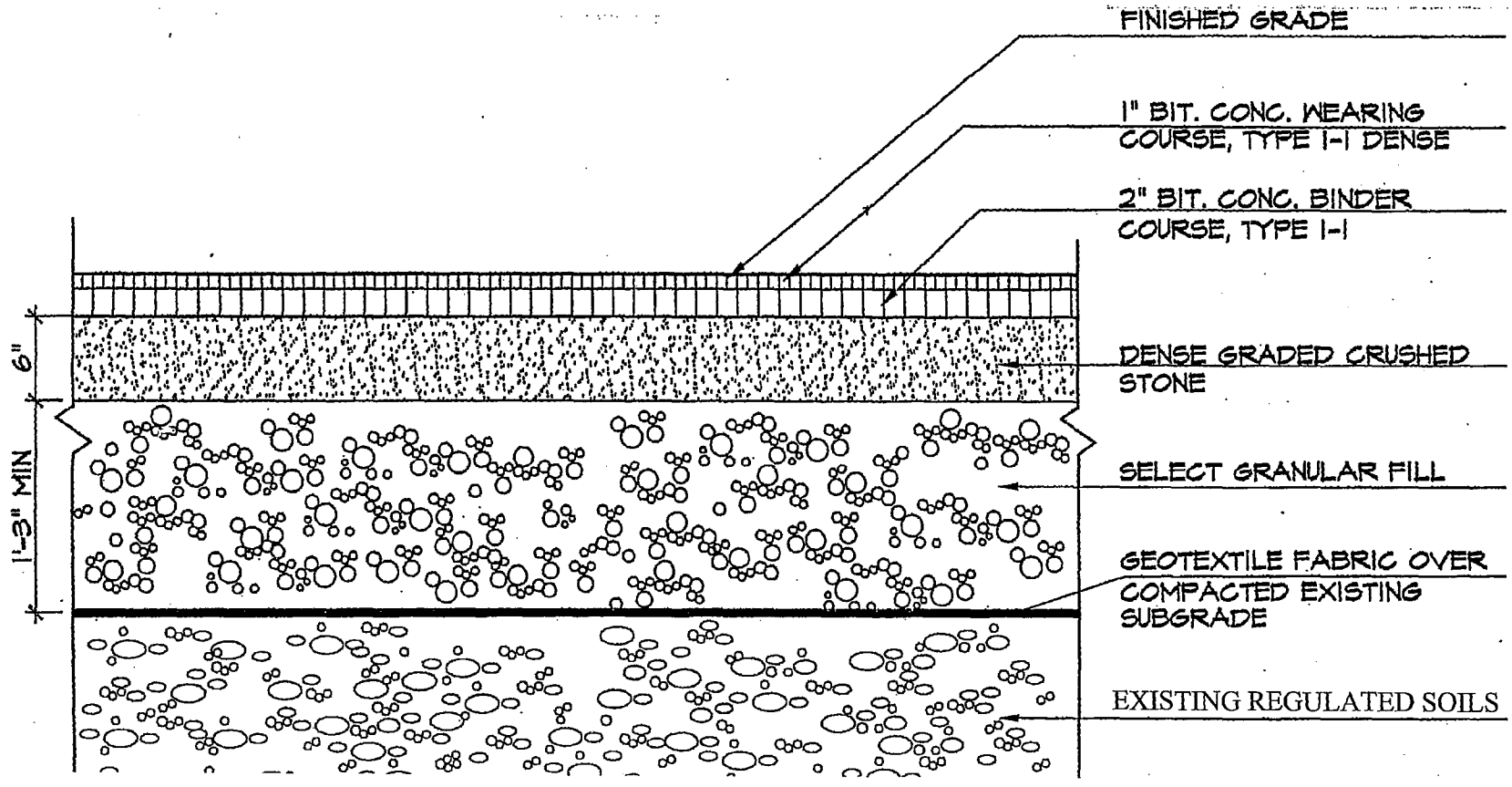
781 937 9720 T
781 937 9728 F
info@mvgarchitects.com E


SEAL

| | |
|---|---|
| SCALE | AS NOTED |
| DRAWN BY | PAT |
| CHECKED | BWG/JAM |
| DATE | OCTOBER 6, 2004 |

DRAWING NUMBER

L6




SECTION

3 L6 BITUMINOUS CONCRETE ROADWAY PAVEMENT

SCALE: 1"=1'-0"

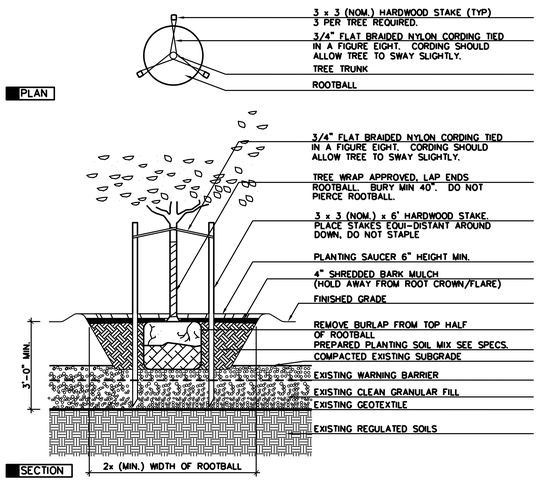
**Figure 6**

Landscaped Area
Cross Section

Draft Risk-Based Cleanup Request

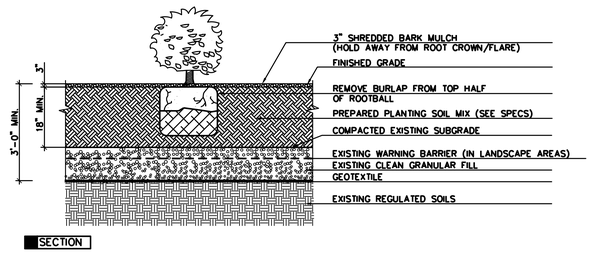
# FIGURE 6

Figure 4 – Landscaped Area Cross-Sections – Hardcopy only (extracted from Phase III Contract Documents L9). See BETA hardcopy of Risk-Based Cleanup Request. Above "title block" was taped over L9 and copied.

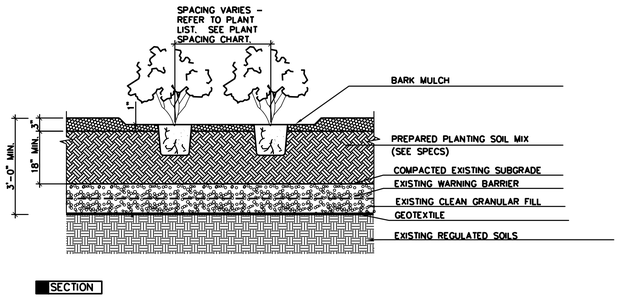



NOTES:
1. DO NOT CUT MAIN LEADER.
2. REMOVE ALL TWINE, ROPES & TAGS FROM TREE BRANCHES & TRUNK.
3. PLANT TREE SO THAT TRUNK/ ROOT FLARE JUNCTION IS 1-2" ABOVE FINISHED GRADE.

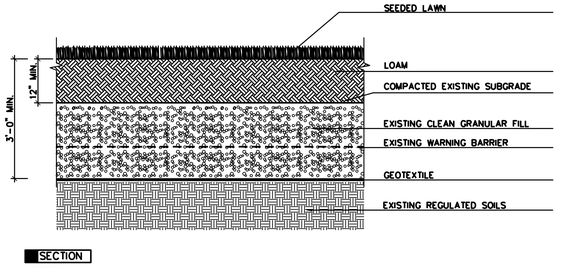
## 1 / L9 DECIDUOUS TREE PLANTING AND STAKING
SCALE: N.T.S



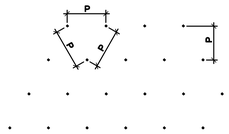

## 3 / L9 SHRUB PLANTING
SCALE: N.T.S.




## 5 / L9 PERENNIAL / GROUNDCOVER PLANTING
SCALE: N.T.S.




## 4 / L9 LAWN SEEDING
SCALE: N.T.S.




FOR USE WHEN PLANTS ARE TO BE SPACED EQUIDISTANT FROM ONE ANOTHER AS SHOWN

R=ROW SPACING
P=PLANT SPACING

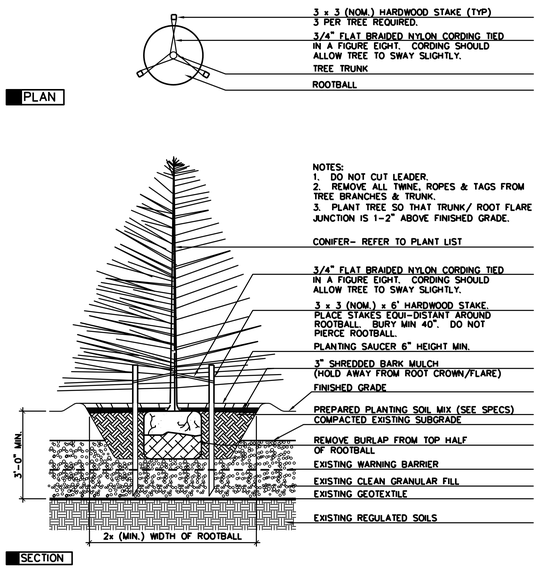
NO. OF PLANTS =AREA/AREA PER PLANT

AREA PER PLANT = R X P

| SPACING "P" | ROW "R" | NO. OF PLANTS | AREA UNIT |
|---|---|---|---|
| 6" O.C. | 5.20" | 4.61 | 1 SQ. FT. |
| 8" O.C. | 6.96" | 2.80 | |
| 10" O.C. | 8.66" | 1.66 | |
| 12" O.C. | 10.40" | 1.15 | |
| 15" O.C. | 13.00" | 7.38 | 10 SQ. FT. |
| 18" O.C. | 15.60" | 5.12 | |
| 24" O.C. | 20.80" | 2.90 | |
| 30" O.C. | 26.00" | 1.85 | |
| 36" O.C. | 30.00" | 1.28 | |

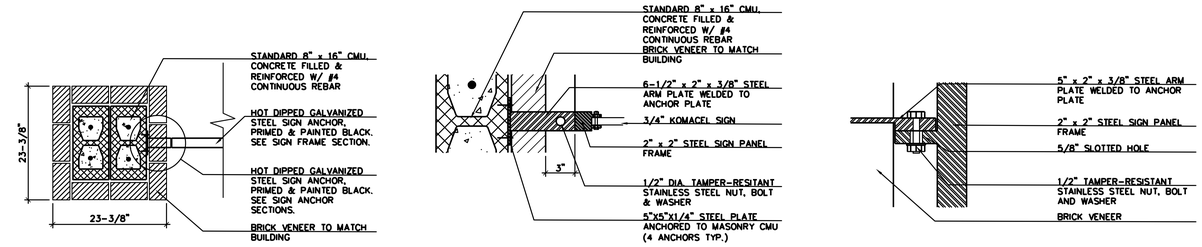
| SPACING "P" | ROW "R" | NO. OF PLANTS | AREA UNIT |
|---|---|---|---|
| 4' O.C. | 3.46' | 7.25 | 100 SQ. FT. |
| 5' O.C. | 4.33' | 4.61 | |
| 6' O.C. | 5.20' | 3.20 | |
| 8' O.C. | 6.93' | 1.80 | |
| 10' O.C. | 8.66' | 1.16 | 1,000 SQ. FT. |
| 12' O.C. | 10.40' | 8.00 | |
| 15' O.C. | 13.00' | 5.15 | |
| 20' O.C. | 17.30' | 2.88 | |
| 25' O.C. | 21.65' | 1.85 | |
| 30' O.C. | 26.00' | 1.29 | |
| 40' O.C. | 34.60' | 7.22 | 10,000 SQ. FT. |

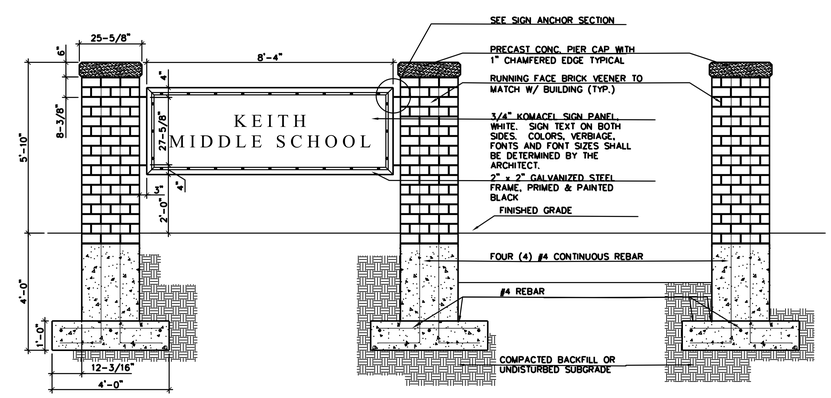
## 6 / L9 PLANT SPACING CHART
SCALE: N.T.S.

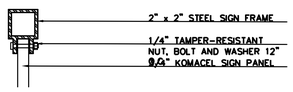



NOTES:
1. DO NOT CUT LEADER.
2. REMOVE ALL TWINE, ROPES & TAGS FROM TREE BRANCHES & TRUNK.
3. PLANT TREE SO THAT TRUNK/ ROOT FLARE JUNCTION IS 1-2" ABOVE FINISHED GRADE.

## 2 / L9 CONIFEROUS TREE PLANTING AND STAKING
SCALE: N.T.S




NOTES:
1. SUBMIT SHOP DRAWINGS FOR ALL COMPONENTS INCLUDING SIGN AND FRAME FOR APPROVAL BY THE ARCHITECT.
2. REINFORCEMENT SHALL MAINTAIN 2" CLEARANCE FROM ALL CONCRETE FACES.
3. CONSTRUCTION OF BRICK PIER MASONRY SHALL CLOSELY MATCH CONSTRUCTION OF BUILDING EXTERIOR WALLS.
4. SIGN COLORS, VERBIAGE, FONTS AND FONT SIZES SHALL BE DETERMINED BY THE ARCHITECT.
5. ALL SIGN FRAME HARDWARE SHALL BE TAMPER-RESISTANT.
6. ALL EXPSOED STEEL SIGN FRAME MEMBERS SHALL BE HOT-DIPPED GALVANIZED, PRIMED & PAINTED BLACK.
7. REFER TO SPECIFICATION SECTION 05500 MISC. METALS FOR SIGN FRAME AND 09900 FOR FINISH PAINT.
8. MASONRY PIERS SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH SPECIFICATION SECTION 04200 UNIT MASONRY.

## 6 / L9 SCHOOL IDENTIFICATION SIGN
SCALE: AS NOTED


CONSULTANTS
Moriece & Gary
Landscape Architects
Fifty-Six Roland Street
Charlestown, MA 02129
Tel. 617/776-7600 Fax 617/776-1075
EMail: bgary@mgary.com


REVISIONS

| | |
|---|---|
| ENTIRE DWG. | 5/13/05 |
| 10 SKL-12 | 12/13/04 |
| 4 SKL-2 | 11/01/04 |

20005.00
PROJECT NUMBER

KEITH MIDDLE SCHOOL
New Bedford, MA
PHASE III

DRAWING TITLE

SITE DETAILS


MVG
MOUNT VERNON GROUP ARCHITECTS
Mount Vernon Group Architects, Inc.
20 Cabot Road
Woburn, Massachusetts 01801
781 937 9720 T
781 937 9728 F
info@mvgarchitects.com E


SEAL

| | |
|---|---|
| SCALE | AS NOTED |
| DRAWN BY | PAT |
| CHECKED | BWG/JAM |
| DATE | OCTOBER 6, 2004 |

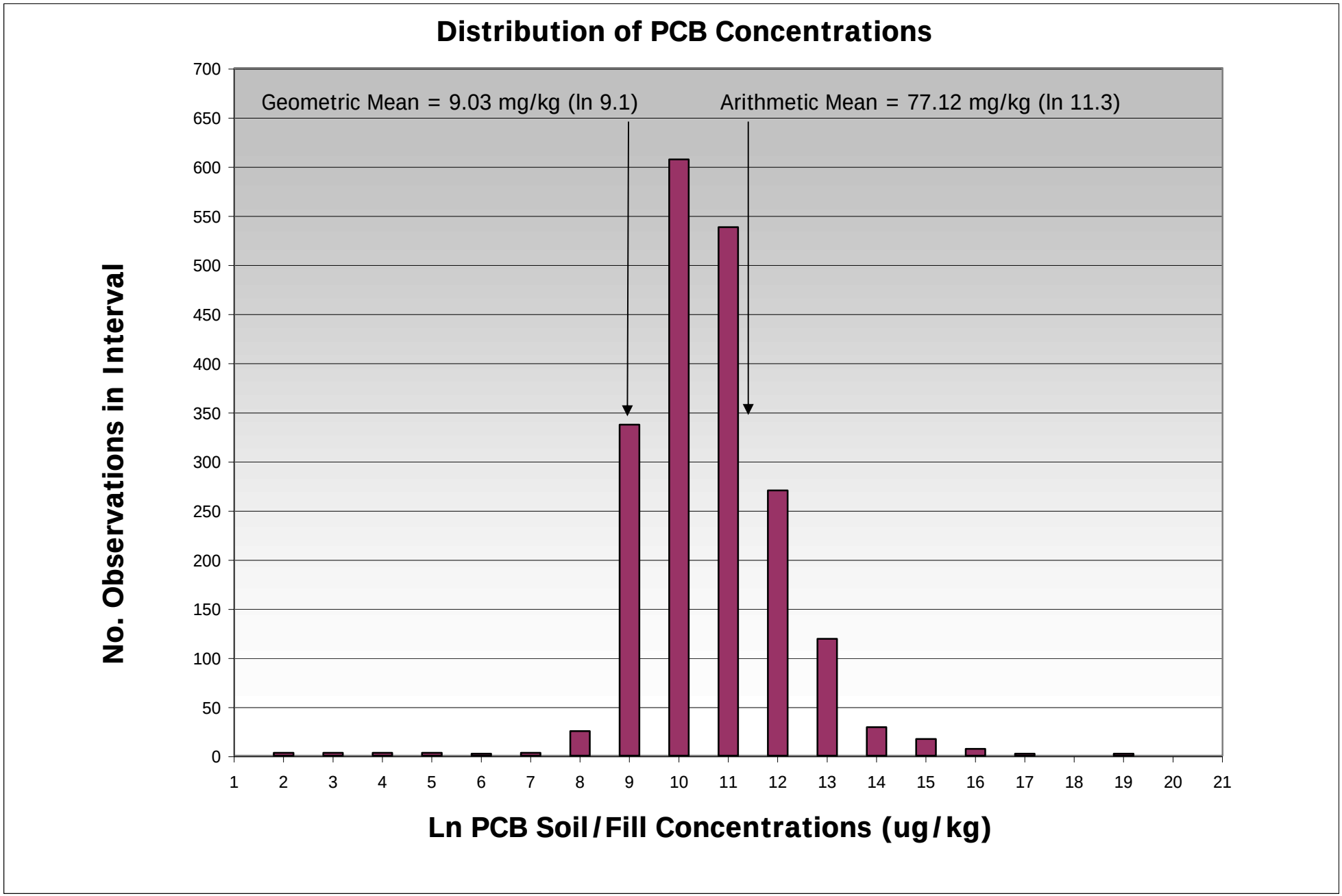
DRAWING NUMBER

L9

## Figure 7

Distribution of PCB Concentrations

**Figure 7**


Distribution of PCB Concentrations
Geometric Mean = 9.03 mg/kg (ln 9.1)
Arithmetic Mean = 77.12 mg/kg (ln 11.3)
No. Observations in Interval
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
Ln PCB Soil/Fill Concentrations (ug/kg)

**RE: TECHNICAL SUPPORT DOCUMENT – McCoy Field Risk-Based Approval**

**To: McCoy Field File**
**Date: August 24, 2005**

## SUMMARY

The proposed action is to approve the City of New Bedford's request to clean up and dispose of PCB-contaminated materials at its property known as McCoy Field located on Hathaway Boulevard, New Bedford, Massachusetts (the Approval). This approach is consistent with remedies undertaken at other Superfund and RCRA sites within the region to address soils contaminated with PCBs and/or other hazardous constituents. This approach has also been used at similar end-use sites (e.g. schools) in New England.

## BACKGROUND

*McCoy Field*

McCoy Field (the Site) comprises approximately 7 acres and is located across from the New Bedford High School. The New Bedford High School site operated as the former City burn dump until the late 1960's/early 70's. Historically, burn debris from the burn dump was placed at McCoy Field. In addition, burn material was excavated from the burn dump and placed (piled) on McCoy Field during construction of the High School (at the burn dumpsite) in the 1970's. In or about 1994, the burn debris was purportedly spread across McCoy Field and graded for the purposes of athletic field construction.

As part of its school rebuilding projects, the City selected the McCoy Field site for construction of its new Keith Middle School. Subsequent and limited Site investigations identified low concentrations of PCBs in the debris, as well as metals and semi-volatile organic compounds (SVOCs). As part of the construction project, excavation and off-site disposal of debris was required, and additional sampling was conducted to characterize these materials for off-site disposal. This sampling, conducted in March 2004, identified PCB concentrations at greater than 50 parts per million (ppm). Due to the nature of the contamination, cleanup and disposal of these PCB-contaminated materials are regulated under the federal PCB regulations at 40 CFR Part 761.

The City and EPA entered into a Consent Agreement and Final Order on May 21, 2004 (CAFO) to settle violations of improper disposal of PCBs at the McCoy Field site under 40 CFR Part 761. Under the CAFO, the City paid a civil penalty of $27,500 (for improper disposal of PCBs) and developed a work plan to fully characterize PCB contamination in utility corridors and beneath the proposed new Keith Middle School building footprint. By entering into the CAFO, the City was allowed to dispose of excavated materials based on their existing PCB concentration (e.g. < 50 ppm PCB waste

could be disposed of at a state-approved non-hazardous waste landfill). Without the CAFO, the City would have been required to dispose of all excavated PCB-contaminated material, regardless of concentration, at a PCB chemical waste landfill or at a hazardous waste landfill.

The CAFO specifically focused on the utility corridors and the building footprint since materials from these areas were actively being excavated as part of the Site construction activities. The CAFO was amended in October 2004 to incorporate the excavation and off-site disposal of PCB contaminated materials from the remainder of the Site and adjacent residential properties. During the characterization activities, PCB concentrations up to 46,500 ppm were identified in the Site debris.

The City submitted a request for a risk-based cleanup and disposal approval under the federal PCB regulations at §761.61(c) to address the remaining (unexcavated) PCB contamination at the Site which exceeds the prescribed, allowable level of < 1 ppm (without institutional controls) under the federal PCB regulations. The proposed cleanup includes: (1) removal of PCBs at ≥ 100 ppm in the excavation areas; (2) installation of clean utility corridors; (3) installation of a minimum 3-foot clean soil cap in the landscaped areas; (4) installation of a minimum 2-foot clean cap underneath paved areas; (5) installation of a passive vent system, solid vapor barrier, and 2-foot clean cap in the building footprint; (6) filing of an Activity and Use Limitation, which will detail permitted and non-permitted uses on the Site (i.e. an institutional control used to prevent recreational uses); and (7) long-term monitoring and maintenance of the caps and monitoring of groundwater and indoor air quality in the new Keith Middle School. The purpose of the long-term maintenance and monitoring is to ensure that the integrity of the physical controls (e.g. the caps) is maintained and to ensure that the PCBs do not migrate from the Site.

*Adjacent Wetlands, Private Properties, New Bedford High School and Other Properties*

The City's request does not directly address PCB-contamination in the adjacent wetlands, on private properties, or at the existing New Bedford High School. Based on the available information to date, PCBs, metals, and/or SVOCs have also been found at the High School property and in the wetlands.

- The High School sits on the former burn dump site. While no PCBs have been found in surface soils, PCBs at < 50 ppm are present in subsurface soils. Additional assessment is required to complete contaminant characterization in the soils. Remediation is planned for 2006. Since no PCB concentrations > 50 ppm have been identified at this site, no final determination has been made on EPA's regulatory role in remediation of the High School soils. In addition, no assessment of potential PCBs sources inside the High School has been conducted. Given that the High School is located on the former burn dump site and that the High School was constructed in 1970, the PCB Approval requires that the City conduct an assessment of potential PCB sources at the High School, both indoors and outdoors. The Approval also requires the City to submit its cleanup plan to

EPA for review and approval and/or to provide information to justify that no cleanup is required under the federal PCB regulations and that the cleanup is governed under the MADEP regulations.

- PCB contamination has been found in wetland sediments at up to 18 ppm and appears to be attributable to overland run-off of soils from the McCoy Field site. The City submitted a separate cleanup plan to address contamination in the wetlands on June 21, 2005. The City has proposed a PCB cleanup standard of less than or equal to 1 ppm (≤ 1 ppm) PCBs. This cleanup plan is currently under review by EPA. EPA has posted the proposed wetland cleanup plan on its website. It is estimated that remediation of the wetlands may occur as soon as mid-to-late fall, 2005 under a separate EPA-TSCA approval. The wetlands are located down gradient of McCoy Field. It is unlikely that PCBs will migrate from the McCoy Field site into the wetlands via the groundwater pathway due to the physical and chemical nature of PCBs. Overland migration is highly unlikely since the Site will be covered with clean soil and/or asphalt. Regardless, long-term groundwater and sediment monitoring will be required to determine if PCBs are migrating from the Site and into the wetlands. The Approval allows EPA to require additional remedial measures to address off-site migration.

- At this time, the City has obtained access agreements to some of the nearby private properties to determine the extent of PCB impacts. The City has met with the remaining potentially impacted property owners and is working to secure access agreements to these properties. A sampling plan for assessment of these properties is under review by both EPA and ATSDR. Samples collected in right-of-way areas adjacent to privately-owned properties, indicate PCB contamination at < 50 ppm. As with the High School site, the Approval requires the City to submit its cleanup plan to EPA for review and approval and/or to provide information to justify that no cleanup is required under the federal PCB regulations and that the cleanup is governed under the MADEP regulations.

- Several athletic fields and the existing Keith Middle School are located in close proximity to the High School and to McCoy Field. Thus, there is a possibility that contamination from the burn debris may exist at these locations. Based on information provided verbally by the City to EPA, soil sampling has been conducted at the existing Keith Middle School and no contaminants of concern were identified. No sampling information is currently available on the athletic fields. Given the current use of these properties, the Approval requires the City to conduct an assessment and (if PCBs are found) to submit its cleanup plan to EPA for review and approval and/or to-provide information to justify that no cleanup is required under the federal PCB regulations and that the cleanup is governed under the MADEP regulations.

## NATURE OF ACTION

The PCB regulations provide great flexibility for cleanup and disposal of PCB-contaminated materials by allowing the responsible party to select a cleanup approach. One of the options, the risk-based cleanup and disposal option, allows a site owner to leave on-site residual PCB contamination above the default cleanup levels, provided there is no unreasonable risk to human health or the environment. A site owner must present documentation to EPA to support the cleanup proposal (normally in the form of a risk assessment) and must receive approval from EPA prior to performing any work.

### *Risk Assessment*

The City provided a human health risk assessment to support its remedial approach at the Keith Site. This assessment and the proposed remedial standards were reviewed by EPA's risk assessment contractors and were found to be consistent with EPA methodologies and within risk guidelines. The risk assessment considered the risk from dermal, ingestion, and inhalation exposures to site contaminants (both outside and inside the proposed school building), including PCBs, metals, and SVOCs. Given that a cap and a vapor barrier are proposed as part of the remedial actions, no complete exposure pathways were identified, and therefore no quantitative risk determination could be made. If the vapor barrier and caps are properly built and maintained, there will be no complete exposure pathways and there will be no quantifiable risk to site users.

However, as a conservative measure and to provide additional information on possible risk, EPA required the City to consider the risk from exposure to PCBs in indoor air if the vapor barrier was not used underneath the building footprint. For children, the cancer risk for indoor inhalation of volatilized PCBs (in the absence of a vapor barrier) indicates an excess lifetime cancer risk of $7 \times 10^{-10}$ and a non-carcinogenic effect of 0.0008. The cancer risk for adults from indoor inhalation of volatilized PCBs (in the absence of a vapor barrier) indicates an excess lifetime cancer risk of $8 \times 10^{-9}$ and a non-carcinogenic effect of 0.003. In considering all site contaminants including PCBs (in the absence of a vapor barrier), the calculated excess cancer risk is $6 \times 10^{-7}$ with a 0.02 non-carcinogenic effect. All these results are still well below EPA's acceptable cancer risk range of $1 \times 10^{-4}$ to $1 \times 10^{-6}$ and acceptable non-carcinogenic effect of 1.0 under Superfund. Therefore, the addition of the vapor barrier as well as the long term monitoring and maintenance plan, provide additional levels of protection to ensure there will be no complete exposure pathways and no risk to site users as long as the vapor barrier and caps are properly built and maintained. This will be monitored by the results of the groundwater, sediment, vent gas and indoor air monitoring which will be submitted to EPA and the MADEP.

### *Approval Conditions*

The attached Approval allows the City to clean up and dispose of PCB-contaminated media under a risk-based cleanup and disposal approach at the McCoy Field site. The Approval requires the City to submit for EPA review and approval, work plans for the

long-term monitoring and maintenance program for the caps, for groundwater and sediment monitoring, and for vent gas and indoor air monitoring. These work plans must include specific details on the monitoring and maintenance activities, including the actions that will be taken to address any potential repair of the cap and actions to be taken should PCBs be found during groundwater, sediment, vent gas, or indoor air monitoring. Such actions will require EPA review and approval.

To address public concerns raised during public meetings, the Approval also requires: (1) the City to submit a communication plan which details how the monitoring/maintenance activities and results will be communicated to Site users, the public and other stakeholders; and (2) the City to submit a worker training plan which details requirements for on-going training of workers conducting routine site work, such as landscapers, so as not to disturb the controls in place. The Approval also reserves EPA's right to require the City to undertake additional measures if EPA determines that the PCBs at the Site are creating an unacceptable risk to site users and/or if PCBs are migrating from the Site.

Given that PCBs above 1 ppm will remain at the Site, following completion of remedial activities, the City must record an Activity and Use Limitation with the property's deed, which will identify permitted and prohibited activities at the Site, including use as recreational areas.

## STATE AND LOCAL REGULATORY COORDINATION

Given the contaminants (PCBs, SVOCs and metals) present, cleanup of the Site is regulated under both the federal PCB regulations and the state regulations under the MCP. EPA and the Massachusetts Department of Environmental Protection (MADEP) have been coordinating closely on this project. While EPA's Approval will only address PCBs, the risk evaluation did consider all site contaminants. Further, the long-term monitoring and maintenance work plans will consider all site contaminants. MADEP will be reviewing the adequacy of these plans with respect to non-PCB site contaminants, and will make any additional adjustments necessary to protect public health through its own regulatory process.

The TSCA PCB Regulations do not require public participation. However, given the public interest in this cleanup and site reuse, EPA published notification of a public comment period on the draft PCB Risk-Based Cleanup and Disposal Approval in the *New Bedford Standard Times* on June 14, 2005. This notification was also sent to over 200 PIP participants. EPA also held a public information meeting on June 22, 2005 to provide information on the remedial plan, to answer questions, and to clarify that EPA was seeking comment on the technical elements of the draft approval. During the meeting, the following issues were identified and discussed:

Some attendees stated that:

- The Site repository (documentation of site characterization, design plan, etc) was not well organized and information was missing and/or hard to find; and
- The public had not been informed of what was being proposed for McCoy Field since documents were not readily available.

  *EPA Answer:* As follow-up to this meeting, EPA posted all documents relevant to the McCoy Field Remediation on EPA's website. In addition, a formal process for document review was put in place by the City to assure that the repository documents were maintained and were entact. EPA also extended the comment period for an additional 2 weeks. The comment period ended July 29, 2005.

- Concern was expressed over the City's decision to site the Keith Middle School on a contaminated property.

  *EPA Answer:* EPA has regularly attended these public meetings and has repeatedly stated that EPA's responsibility is to ensure that the school is safe (that users are protected from exposure to contaminants at the Site), and that EPA does not have authority over local school siting decisions.

- An attendee opined that EPA should not approve the cleanup plan as proposed, and should require all contamination to be removed before the school is constructed.

  *EPA Answer:* As previously discussed, the PCB Regulations allow PCBs to be left in place provided that the PCBs pose no unreasonable risk to public health or the environment.

- Concern was expressed over the City's ability to follow through with the long term monitoring and maintenance requirements.

  *EPA Answer:* EPA will oversee the City to ensure that it follows through with its requirements.

- There was a question as to EPA's regulatory and enforcement authority to ensure the City meets its obligations on the cleanup and on the long-term monitoring/maintenance.

  *EPA Answer:* EPA has the authority to ensure that the conditions of the Approval are met, and will monitor compliance.

- EPA was heavily criticized for not taking enforcement action against the City for beginning construction prior to issuance of the TSCA Approval.

  *EPA Answer:* EPA advised the City that it was proceeding at its own risk. EPA also advised the City that no activities should be conducted that would impede the City's ability to implement the technical design proposed in the Application or any additional measures EPA could potentially require under the final approval. The City assured EPA that contamination at the Site would not be disturbed. EPA reserved its right to take any appropriate enforcement action.

- Allegations of environmental injustice were made.

  *EPA Answer:* EPA does not find grounds to support these allegations, as the project is protective of human health and the environment.

*Public Comments*

During the comment period, EPA received two sets of written comments related to technical remedial design issues, to risk assessment methodologies, and to long-term monitoring/maintenance. These comments and EPA's responses are found in Attachment 3, EPA Response to Comments.

EPA was also requested to incorporate the Superfund Public Participation process in its review of the McCoy Field cleanup by extending the comment period until August 1, 2005; allowing a response period of 60 days; and conducting a 30 day public hearing process. EPA did consider this request but opted not to act on the request for the following reasons. The PCB regulations under the Toxic Substances Control Act (TSCA) do not require any public participation. In this matter, EPA had already decided to provide an extended public review/comment period; the public thus had adequate time to review and to comment; and, there was little potential for new information to be submitted that would alter EPA's evaluation of the proposed cleanup.

## RECOMMENDATION

Based on EPA's review of the information provided by the City and in consideration of the comments submitted by the public and raised through public meetings, the City's proposed risk-based cleanup and disposal plan complies with EPA regulatory requirements for remediation of the PCB-contaminated materials. Based on the risk assessment, following implementation of the remedial activities, there will be no unreasonable risk to public health or the environment. This will be monitored per approved work plans and EPA has the ability to impose any additional measures should that become necessary. Monitoring must continue until both EPA and MADEP

determine monitoring is no longer necessary or required. Finally, this approach has been used at school sites in New England contaminated with chemicals having similar chemical properties to PCBs, with successful results that have not compromised public health. For example, under MADEP oversight, the Stoklosa Middle School in Lowell, MA and two schools in Everett (the Lafayette School and Madeline English School) were constructed on contaminated sites. The physical controls used at McCoy Field are similar to the controls used at these sites. Therefore, EPA recommends the issuance of the attached Approval.

*City of New Bedford*
**OFFICE OF THE CITY SOLICITOR**

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*Special Counsel*

June 14, 2005

Doug Gutro, Special Assistant to the
Regional Administrator
UPS EPA – Region I
1 Congress Street Suite 1100
Boston, MA 02114

RE: KEITH MIDDLE SCHOOL SITE, HATHAWAY BOULEVARD, NEW BEDFORD, MA

Dear Mr. Gutro:

Please accept this letter as written confirmation of the representations I made earlier today during a series of telephone conversations regarding the erection of structural steel on the above referenced site. As I have stated, the City understands that the comment period on the draft approval of the site remediation has only begun. It has never been, nor is it presently, the City's intention to authorize any work on the environmental cap until the comment period has closed and a final approval has been issued by the EPA.

At the present time, the City has authorized the erection of structural steel on the site. The vertical steel members will be directly attached to the previously constructed pile caps and grade beams. Horizontal steel members for the second floor, third floor and roof will then be attached to the vertical steel members. No work will take place to construct the first floor as this can only be done once the final approval is received. At no time will any contaminated soil on the site be disturbed as part of this process. The erection of the structural steel will in no way compromise the ability to construct the cap in its final approved configuration.

133 William Street, Room 203, New Bedford, Massachusetts 02740-6163
Tel. (508) 979-1460 Fax: (508) 979-1515

Thank you for your cooperation and understanding in this matter. Please contact me if you have any questions or comments.

Very truly yours,

Matthew J. Thomas
City Solicitor

MJT/mcb