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Environmental
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Five-Year Review Report

Second Five-Year Review Report
for
Standard Steel & Metal Salvage Yard (USDOT)

Anchorage, Alaska

March 2008

FINAL

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FOR:

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List of Acronyms

ADEC	Alaska Department of Environmental Conservation
ARAR	Applicable or Relevant and Appropriate Requirement
ARLIS	Alaska Resource Library and Information Services
ARRC	Alaska Railroad Corporation
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EPA	United States Environmental Protection Agency
ESD	Explanation of Significant Difference
FRA	Federal Railroad Administration
HVOC	Halogenated Volatile Organic Compounds
IC	Institutional Controls
MCL	Maximum Contaminant Level
mg/kg	Milligrams per kilogram
MW	Monitoring Well
NCP	National Contingency Plan
ND	non-detect
NPL	National Priorities List
O&M	Operation and Maintenance
PAH	Polyaromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
ppb	parts per billion
PQL	Practical Quantitation Limit
PRP	Potentially Responsible Party
RA	Remedial Action
RA-C	Remedial Action - Construction
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RD/RA	Remedial Design/Remedial Action

RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SDWA	Safe Drinking Water Act
TSCA	Toxic Substances Control Act
ug/L	Micrograms per Liter
USDOT	US Department of Transportation
VOC	Volatile Organic Compound

Executive Summary

The remedy selected for the Standard Steel & Metals Salvage Yard Superfund Site in Anchorage, Alaska includes: removal and offsite disposal of regulated material stockpiled onsite; offsite disposal of scrap metal and debris; excavation, stabilization and capping of contaminated soils on site; maintenance of the cap and erosion control structures on Ship Creek; institutional controls; and groundwater monitoring. The site consists of one Operable Unit; therefore this five year review covers sitewide conditions. The site achieved Construction Completion with the signing of the Final Close Out Report on June 26, 2002. The site was deleted from the National Priorities List on September 30, 2002. An initial five-year review was triggered by the actual start of construction on April 23, 1998. This second five-year review was triggered by the completion date of the first five-year review, April 23, 2003.

The remedy at Standard Steel is protective of human health and the environment, and exposure pathways that could result in unacceptable risks are being controlled. The remedy is functioning as intended in accordance with the Record of Decision signed on July 16, 1996. The immediate threats have been addressed and the remedy is expected to remain protective of human health and the environment.

The Superfund Program tracks progress at cleanup sites using several indicators, to comply with mandates of the Government Performance and Results Act (GPRA). The sitewide human exposure environmental indicator is designed to document long-term human health protection on a sitewide basis by measuring the incremental progress achieved in controlling unacceptable human exposures at a Superfund site. The ground water environmental indicator demonstrates that all information on known and reasonably expected ground water contamination has been reviewed and that the migration of contaminated ground water is stabilized and there is no unacceptable discharge to surface water. The Sitewide Ready for Anticipated Use (RAU) measure reports that all cleanup goals in the Record of Decision have been achieved for media that may affect current and reasonably anticipated future land uses of the site, so that there are no unacceptable risks; and all institutional or other controls required in the Record of Decision have been put in place.

As of March 31, 2008 for the Standard Steel Site:

- The Human Health Environmental Indicator Status is Long Term Human Health Protected.
- The Ground Water Environmental Indicator Status is Under Control.
- The Cross Program Measure Status is Ready for Anticipated Use (11.12 acres).

As of March 2008, nine years of groundwater monitoring has been completed and demonstrates that onsite groundwater is not adversely impacted by the stabilized material and no offsite migration is occurring that could affect Ship Creek. After the Fall

2008 groundwater monitoring event is completed, further evaluation of continued groundwater monitoring should be conducted. A recommendation to discontinue groundwater monitoring after the 2008 event should be considered.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name *(from WasteLAN)*: **Standard Steel & Metal Salvage Yard (USDOT)**		
EPA ID *(from WasteLAN)*: **AKD980978787**		
Region: 10	**State: AK**	**City/County: Anchorage**
SITE STATUS		
NPL status: Final **X** Deleted Other (specify)		
Remediation status (choose all that apply): Under Construction Operating **X** Complete		
Multiple OUs?* YES **X** NO	**Construction completion date:** 06/ 26 / 2002	
Has site been put into reuse? **X** YES NO		
REVIEW STATUS		
Lead agency: **X** EPA State Tribe Other Federal Agency _____		
Author name: Lisa Geist		
Author title: Environmental Scientist	**Author affiliation:** US Army Corps of Engineers, Alaska District	
Review period:** 09 / 26 / 2007 to 04 / 23 / 2008		
Date(s) of site inspection: 09 / 26 / 2007		
Type of review: **X** Post-SARA Pre-SARA NPL-Removal only Non-NPL Remedial Action Site NPL State/Tribe-lead Regional Discretion		
Review number: 1 (first) **X** 2 (second) 3 (third) Other (specify) _____		
Triggering action: Actual RA Onsite Construction at OU #____ G Actual RA Start at OU#____ Construction Completion **X** Previous Five-Year Review Report Other (specify)		
Triggering action date *(from WasteLAN)*: 04 / 23 / 2003		
Due date *(five years after triggering action date)*: 04 / 23 / 2008		

* ["OU" refers to operable unit.]
** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Five-Year Review Summary Form, cont'd.

Issues:

The ADEC reported that new information obtained during a 2007 investigation by the Alaska Railroad shows PCBs were detected in surface soil samples collected from a former drainage ditch adjacent to southwest corner of the Standard Steel site. The ADEC requested additional sampling be conducted to characterize the drainage ditch. Two of the 5 drainage ditch samples exceeded the soil cleanup level specified by the ROD for flood plain soils of 1 mg/kg PCBs. The concentrations ranged from 0.05 to 2.13 mg/kg. The Alaska Railroad conducted the investigation under a separate Administrative Order on Consent with the US EPA. The current EPA project manager is Jacques Gusmano in the Alaska Operations Office. A draft Feasibility Study completed by the ARRC indicates they intend to remove the PCBs above 1 mg/kg in the ditch and treat the soil by incineration. The sampled area is not an active drainage pathway for the landfill cell, site land use is still industrial, thus the remedy remains protective. The data does not suggest the remedy is failing.

Recommendations and Follow-up Actions:

Continue annual operation and maintenance activities to ensure the integrity of the solidified material and cap. Continue yearly site inspections for the landfill consolidation cell, cap, and drainage system. As of March 2008, nine years of groundwater monitoring has been completed and demonstrates that onsite groundwater is not adversely impacted by the stabilized material and no offsite migration is occurring that could affect Ship Creek. After the Fall 2008 groundwater monitoring event is completed, further evaluation of continued groundwater monitoring should be conducted. A recommendation to discontinue groundwater monitoring after the 2008 event should be considered. Next 5 year review should verify that PCBs detected in former drainage ditch adjacent to the landfill containment cell were addressed under separate regulatory action between US EPA and the Alaska Railroad.

Protectiveness Statement(s):

Because the remedial actions are protective, the site is protective of human health and the environment.

Other Comments:

None.

Five-Year Review Report

I. Introduction

The purpose of this second five-year review is to determine whether the remedy at the Standard Steel & Metal Salvage Yard (USDOT) is protective of human health and the environment. The methods, findings, and conclusions of Five Year Reviews are documented in the Five Year Review Reports. The five year review report identifies issues found during the review, if any, and identifies recommendations to address them.

This five year review report is being prepared pursuant to the authority in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121 and the National Contingency Plan (NCP). CERCLA Section 121 states:

> *If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often that each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section 104 of 106, the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.*

The NCP, at 40 Code of Federal Regulations (CFR) Section 300.340(f)(4)(ii) states:

> *If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after the initiation of the selected remedial action.*

The United States Environmental Protection Agency (EPA), Region 10, is the lead Agency for the Standard Steel & Metal Salvage Yard Superfund site (Standard Steel). This is the second five year review for the site. The triggering action for this review is the date of the first five year review, as shown in EPA's WasteLAN database: April 28, 2003. A first five year review was conducted between February and April 2003, after construction of an onsite containment cell for hazardous substances. The site consists of only one operable unit (OU), therefore this review covers sitewide conditions. Although the Standard Steel Superfund site was deleted from the National Priorities List (NPL) in September 2002, periodic five year reviews must continue because contaminants remain capped onsite and land use is restricted to industrial use.

At the request of the EPA, the U.S. Army Corps of Engineers prepared the second five year review of the remedy implemented at the site in Anchorage, Alaska. This review was conducted by staff from the Alaska District office on Elmendorf Air Force Base in Anchorage, Alaska, during September 2007 – March 2008. This report documents the results of the review.

II. Site Chronology

Table 1: Chronology of Site Events

Event	Date
Metals recycling and salvaging operations	1955 - 1993
Standard Steel & Metals leases the site	1982
Alaska Railroad Corporation purchases site from Federal Railroad Administration	1985
Initial discovery of problem or contamination	October 28, 1985
Pre-NPL Removal Actions	June 2, 1986 – June 29, 1988
NPL listing	August 30, 1990
Administrative Order on Consent to Conduct Remedial Investigation/Feasibility Study	September 23, 1992
Remedial Investigation/Feasibility Study complete	January 30, 1996
ROD signature	July 16, 1996
Partial Consent Decree for Recovery of Removal Costs	December 11, 1996
CERCLA Remedial Design/Remedial Action (RD/RA) Consent Decree	January 26, 1998
Remedial Design Start	October 4, 1996
Remedial Design Complete	April 23, 1998
Actual Remedial Action Start	April 23, 1998
Explanation of Significant Differences	November 18, 1998
Construction Finish	August 1, 1999
Final Inspection	August 27, 2001
Construction Completion Date	June 26, 2002
Final Close-out Report	June 26, 2002
Deletion from NPL	September 30, 2002
First Five Year Review	April 23, 2003
Second Five Year Review Start	September 27, 2007

III. Background

Physical Characteristics

The Standard Steel & Metals Salvage Yard site was an 11 acre metal salvage yard in Anchorage, Alaska. The site is located north of downtown Anchorage near the intersection of Railroad Avenue and Yakutat Street, adjacent to Ship Creek. See Figure 1 for a site location and vicinity map. The site is zoned I-2, which denotes a heavy industrial district, by the Municipality of Anchorage. The property is owned by the Alaska Railroad Corporation (ARRC). The site is located within the Municipality of Anchorage. Anchorage is the largest metropolitan area in the state, with a population of over 260,000 persons. A residential area is located one half mile southeast of the site, across Ship Creek. Elmendorf Air Force Base is located one third mile northeast of the site. Ship Creek is a designated anadramous fish stream by the Alaska Department of Fish and Game.

Land Use & History of Contamination

The Federal Railroad Administration (FRA), part of the U.S. Department of Transportation (USDOT), acquired the land in the 1920s. Metal recycling and salvage businesses operated on the site beginning in 1955 and until 1993. Site activities included reclamation of copper from electrical transformers containing polychlorinated biphenyls (PCBs), salvaging of assorted batteries, and processing of various types of equipment and drums from nearby military bases. Releases of hazardous substances occurred from these activities and the inappropriate handling of transformer oils. In 1982, the land was leased to Standard Steel & Metals. The site contained transformers, bulk tanks, an incinerator, a metal crusher, drums and other containers, and additional items associated with salvage operations. FRA owned and leased the property until 1985, when it was purchased by the State of Alaska and managed by the Alaska Railroad Corporation. The Alaska Railroad Corporation (ARRC) is an independent corporation owned by the State of Alaska. The entire site is within the ARRC's Post Road Industrial Lease Lots. The ARRC currently leases the majority of the site (Lots 53-57) to K&T Enterprises, who subleases it for warehouse, truck maintenance, and storage operations. The remainder of the site (Lot 58A) is utilized for storage of trailers and piles of steel by R.J.H. (doing business as (dba) STEELFAB) under a special land use permit with the ARRC. The site is adjacent to Ship Creek, a stream used for sport fishing. Recent improvements to the Ship Creek corridor include extension of a recreational trail along the southern bank of the creek. The potential removal of dams to allow fish passage upstream is also under consideration. The future land use of the site is expected to remain the same, there are no known changes anticipated at this time. A recent aerial view of the Standard Steel site is shown in Figure 2.

Initial Response

The EPA conducted a series of removal actions from 1986 through 1988 to address site contamination. EPA removed all polychlorinated biphenyls (PCBs)-contaminated liquids, eighty-two 55 gallon drums of Resource Conservation and Recovery Act (RCRA) hazardous waste, 10,450 gallons of waste oil, 185 electrical transformers contaminated with PCBs, and 781,000 pounds of lead-acid batteries. Contaminated soils were stockpiled, and a security fence and erosion-control wall were built. EPA proposed adding the site to the National Priorities List (NPL) of Superfund Sites on July 14, 1989. The Standard Steel site was listed on the NPL on August 30, 1990.

Basis for Taking Action

A Remedial Investigation/Feasibility Study (RI/FS) was completed in January 1996. The study identified PCBs and lead as the primary contaminants of concern at the site. The site posed potential threats to human health and the environment through ingestion, dermal contact, and inhalation of contaminated soils. Offsite groundwater was not impacted. Sampling results from the Feasibility Study detected a maximum of 24,000 mg/kg lead and 2,700 mg/kg PCBs. The excess cancer risks for a long-term worker exceeded the 1E-4 target risk range at the site and the hazard index exceeded a level of exposure which may result in adverse health effects. The risks associated with either residential or industrial exposure to elevated concentrations of lead in site soil were determined to present significant risks to human health.

The ecological risk assessment determined that the most sensitive ecological habitat in the site vicinity was found in Ship Creek. It further concluded the data indicated that conditions within Ship Creek, within the study area, were not significantly impacted by contamination from the site. The ecological risk assessment observed that the highest contamination concentrations were measured in the area where former site operations were concentrated and because of the gravely fill material and shotcrete cap, little ecological habitat was present in this area. Based on the information presented in the ecological risk assessment, the risk to ecological receptors appeared small, due to the poor habitat of the site. Concentrations of PCBs outside the existing fence and adjacent to Ship Creek posed a risk to ecological receptors.

IV. Remedial Actions

Remedy Selection

Based on the results of the RI/FS and information contained in the Administrative Record, the Regional Administrator for EPA Region 10 signed a Record of Decision (ROD) on July 16, 1996 selecting remedial actions for the Standard Steel site The remedial action objectives (RAOs) identified for the site are:

- Prevent exposure by inhalation, ingestion, and dermal contact with contaminated soils that would result in an excess lifetime carcinogenic risk above 1E-4 for industrial use, and off-site non-industrial use;

- Prevent exposure by inhalation, ingestion, and dermal contact with contaminated soils that would result in noncarcinogenic health effect as indicated by an HI greater than 1.0;

- Prevent off-site migration of contaminants caused by mechanical transport, surface water runoff, flood events, and wind erosion;

- Prevent leaching or migration of soil contaminants into groundwater that would result in groundwater contamination in excess of regulatory standards.

According to the 1996 ROD, the key components of the selected remedy include:

- Removal of regulated material stockpiled on-site and investigation derived wastes with subsequent disposal in a RCRA Subtitle C or D landfill, or recycling of materials;

- Off-site disposal of remaining scrap debris by recycling or disposal in a RCRA Subtitle D landfill or, if the debris is a characteristic hazardous waste or contains greater than 50 mg/kg PCBs or 10 ug/100cm^2 by standard wipe tests, treatment and disposal in a RCRA Subtitle C or TSCA landfill;

- Excavation and consolidation of all soils exceeding cleanup levels (10 mg/kg PCBs or 1,000 mg/kg lead);

- Treatment of all soils at or greater than 1,000 mg/kg lead or 50 mg/kg PCB by stabilization/solidification;

- On-site disposal of stabilized/solidified soils and excavated soils between 10 mg/kg and 50 mg/kg PCBs in TSCA landfill;

- Excavation of soils impacted above 1 mg/kg PCBs and 500 mg/kg lead from the flood plain and consolidation of these soils elsewhere on the site;

- Maintenance and repair of erosion control structure on bank of Ship Creek;

- Maintenance of solidified/stabilized soils and the landfill;

- Institutional controls to limit land uses of the site and, if appropriate, access;

- Monitoring of groundwater at the site to ensure the effectiveness of the remedial action.

Remedy Implementation

On January 26, 1998, the United States District Court for the District of Alaska approved a Remedial Design and Remedial Action Consent Decree for performance of the remedy at the Standard Steel Site. The Consent Decree was entered into by the United States, on behalf of the EPA, and Chugach Electric Association, Inc., Montgomery Ward and Company, J.C. Penney Company, Inc., Bridgestone/Firestone, Inc., Sears Roebuck and Company, and Westinghouse Electric Corporation (Settling Defendants or PRP Group) and the Alaska Railroad Corporation (ARRC) as the Owner Settling Defendant. The ARRC signed the Consent Decree exclusively for the purpose of agreeing to provide access and implement institutional controls. The Settling Defendants/PRP Group agreed to perform the remedial design/remedial actions selected in the ROD and other Work required by the Consent Decree.

The remedial design work was conducted in accordance with the approved ROD and statement of work for the Consent Decree. The remedial action was formally initiated in April 1998. The contractor conducted the remedial actions pursuant to the approved remedial design/remedial action work plans. Potential unexploded ordnance was encountered during the implementation of the remedy. However, the work plans anticipated this possibility and the remedial actions proceeded with some changes. All suspected ordnance and explosives, and unexploded ordnance was removed and treated by the U.S. Army's military explosives ordnance detachment from Fort Richardson, Alaska.

A Toxic Substances Control Act (TSCA) disposal cell is located on 2.5 acres along the northeast boundary of the site. The waste consolidation cell measures approximately 320 by 340 feet and extends to a depth of about 15 feet below finished grade. The cell holds approximately 55,000 tons of contaminated material, of which 22,272 tons were stabilized. The contaminated soils are covered with closed cell foam insulation, a 40 mil geomembrane cover, geocomposite drainage layer, and three feet of clean soil. The cell is designed to be utilized for vehicle/equipment storage or a future building area. The cell is surrounded on three sides by a 14,000 ton rip rap barrier wall designed to protect against a 500 year (minimum) flood event. Figure 3 depicts the consolidation cell and drainage ditches.

The selected remedy was enhanced by the following approved design changes, which were implemented in 1998 and 1999:

- Excavating all upland surface soils outside the limits of the TSCA landfill which exceeded 1 mg/kg PCBs or 250 mg/kg lead to a depth of three feet; and disposal in the onsite TSCA landfill (note that per the draft Site Closeout Report, stricter cleanup levels were selected by the PRP group).
- Including a geomembrane cover system consisting of a four-inch foam insulation layer, 40 mil liner, geonet drainage layer, lifter fabric, and three feet of clean soil

over the landfill.

- Creation of a flood protection barrier on three sides of the landfill.
- Replacement of the rip rap erosion control wall adjacent to Ship Creek with an Alaska Department of Fish and Game requested natural erosion protection system. This system incorporated native vegetation and artificial logs to secure the stream bank and provide habitat.

Based on these changes, an Explanation of Significant Differences (ESD) was signed on November 18, 1998 which waived the requirement of 40 CFR 761.75(B)(9)(i) for a fence around the TSCA landfill.

A Remedial Action Report was signed on August 1, 1999 and a Final Closeout Report was signed on June 26, 2002 which documented that all work at the site has been completed and all cleanup levels established in the ROD have been achieved through the remedial actions.

Operations and Maintenance (O&M)

Pursuant to the Consent Decree, Chugach Electric Association, Inc., J.C. Penney Company, Inc., Bridgestone/Firestone, Inc., Sears Roebuck and Company, and Westinghouse Electric Corporation (CBS Corporation is its successor) are responsible for operation and maintenance procedures. The remedy requires maintenance of the landfill to ensure it retains its structural integrity and prevents the release of PCBs and lead through erosion, leaching or excavation. The Operations and Maintenance Plan (revised) (ALTA Geosciences, July 2000) contains the detailed requirements for ongoing O&M activities, as well as recommended operating limitations for site activities or future building construction. O&M activities include verification that the construction components of the remedy are intact and operating properly, groundwater monitoring, and periodic maintenance of the landfill cap and surface drainage systems.

The O&M Plan (Revised) required site inspections of the consolidation landfill cell twice per year for the first 3 years after implementation (1998-2001); site inspections have been conducted since that time at the same rate. Inspections should also be made following major flood events, earthquakes, or other events with the potential to damage the landfill cell. The O&M Plan (Revised) states groundwater monitoring will continue for a minimum of 5 years following implementation of the remedy. Groundwater monitoring occurred twice yearly (semiannual) for the first 2 years after construction completion (1999, 2000), once yearly (annual) during 2001-2002, and was reduced to once every 2 years (biennial) beginning in 2004, with the approval of the EPA.

The ROD required twice yearly groundwater monitoring for PCBs and lead during the first two years of operation of the remedy. The ROD states that after ten years an assessment of the groundwater data will be conducted to determine whether

groundwater monitoring is still required or whether the frequency will be altered. The groundwater standards to be achieved are 0.5 micrograms per liter (ug/L) for PCBs and 15 ug/L for lead. The federal and state drinking water standards for PCBs and lead have not changed since the ROD was signed. The groundwater monitoring requirements include analysis for pH, specific conductance, and chlorinated organics to ensure the landfill is not contributing to contamination of groundwater, nor altering groundwater conditions. The Groundwater Monitoring Plan (ALTA Geosciences, 1998) specified sampling and analysis of groundwater from one upgradient (MW22) and four downgradient wells (MW13, MW14, MW15, and MW24). See Figure 3 for monitoring well locations.

Operation and maintenance activities have been occurring as required. During the July 2004 groundwater monitoring event, one monitoring well (MW14 located west of the southwest corner of the landfill cell) was discovered damaged. The well head was rebuilt by replacing a portion of the PVC pipe and installing a new outer protective casing. All monitoring wells were found to be well maintained during the September 2006 sampling event.

Site inspections occur twice per year, according to the PRP group's consultant, ALTA Geosciences. The ARRC also performs random observations and inspections of the site when it deems appropriate. No significant events or other unusual incidents have been reported which may affect the site remedy. Occasional trash dumping has occurred. There have been no unexpected issues or additional costs in the past five years, besides minimal maintenance.

Institutional Controls

The objectives and restrictions on use required by the ROD are:

- Ensure that site use continues to be industrial or commercial and prevent use of the site for commercial developments that involve potential chronic exposures of children to soil (e.g., use of the site for a day care center).
- Restrict activities at the site that could potentially impair the integrity of the TSCA landfill.
- Prevent movement of soil containing greater that 1,000 mg/kg lead or 10 mg/kg PCBs to the surface or within the top foot of soil where chronic long-term worker exposure could occur.
- Groundwater use restrictions which prevent the installation of groundwater supply wells at the site and restrict use of groundwater underlying the site for any purpose. Property owner will provide written notification of restrictions and site conditions to local, regional, and state agencies, departments, and utilities.

Institutional Controls required by the ROD have been implemented at the Standard Steel Site. As stated above, the ARRC agreed in the Consent Decree to implement required access and land use restrictions. The Consent Decree set forth specifically what the access and use restrictions would be. The ARRC executed and filed equitable servitudes on the title of the property comprising the Superfund site restricting uses of the property. The equitable servitudes are titled "Declaration of Restrictive Covenants and Notice of Remedial Action" and were filed with the local land recording district office in Anchorage, per the requirements of the Consent Decree so as to run with the land and be enforceable against future landowners, lessees, or other interest holders. EPA is designated as third-party beneficiary in the Declaration. Likewise, the Consent Decree requires that the ARRC require any user of the site or transferee of any interest in the site, including lessees, to comply with the access and use restrictions.

The ARRC has leased a portion of the property to K&T Enterprises for a 30-year term for commercial purposes. The ground lease between ARRC and K&T Enterprises contains the required access and land use restrictions and also includes the requirement that K&T Enterprise impose all such restrictions on any subtenant or assignee. The ground lease also stipulates that K &T Enterprises must provide the ARRC advance notice of any sublease or assignment and review copy of the sublease before execution, which is another safety net by which the ARRC can assure current users of the site comply with the required restrictions. K&T Enterprises subleases the property to Bob Benson Trucking. The sublease is currently being renewed and the lease language EPA has reviewed includes the required restrictions.

The special land use permit issued to R.J.H. (dba STEELFAB) effective February 1, 2002 also includes the required notifications per paragraph 14(e) Special Provision which states the Permittee acknowledges and agrees that the Permit Area is subject to certain restrictions of record...as set forth in the Declaration of Restrictive Covenants and Notice of Remedial Action, of which a copy of said Declaration is an attachment to the Permit. The special land use permit expired on January 31, 2005, but according to Paragraph 4 Term, "any continued use of the Permit Area by Permittee after the expiration of the original term, absent prior approval by ARRC, shall be under the same terms and conditions as the original permit".

A notice of the remedy and Declaration of Restrictive Covenants was also provided to applicable state and local government agencies and all local utility companies.

The long-term Institutional Controls required by the ROD are being implemented through commitments made in the RD/RA Consent Decree, the recording of the Declaration of Restrictive Covenants which runs with the land, and through contractual requirements imposed by leases or assignments. The Institutional Controls cover the entire site.

Table 2 below shows the estimated annual O&M costs for the Standard Steel site. These costs reflect maintenance and monitoring expenses after the completion of the onsite remedial action construction in August 1999. The reported cost of the onsite remedial action construction, according to the August 1999 Completion Report is $5.25 million.

Table 2. Annual Operations & Maintenance Costs

Dates	Total Costs (rounded)	Description
YEAR 1 1999	$12,000	Two GW monitoring events
YEAR 2 2000	$12,000	Two GW monitoring events, MW22 replaced with flush mounting
YEAR 3 2001	$12,000	One GW monitoring event
YEAR 4 2002	$10,000	One GW monitoring event
YEAR 5 2003	$3,000	Site inspection, no GW monitoring
YEAR 6 2004	$10,000	One GW monitoring event, repaired MW14
YEAR 7 2005	$2,000	Site inspection, no GW monitoring
YEAR 8 2006	$8,000	One GW monitoring event
YEAR 9 2007	$5,000	Site inspection, brush removal from ditches and riprap, no GW monitoring
YEAR 10 2008	$8,000	One GW monitoring event (planned)

V. Progress Since the Last Review

The initial five-year review for the Standard Steel Site was completed in April 2003. The first five-year review concluded the remedy was functioning as intended and protective of human health and the environment. No issues were identified from the First Five-Year Review (2003). Since the first five-year review was completed, groundwater monitoring was reduced from annually to once every two years (biennial) beginning in 2004, with the approval of the EPA.

VI. Five-Year Review Process

Administrative Components

Members of the Standard Steel and Metals Salvage Yard Potentially Responsible Party (PRP) Group, project managers from the Alaska Department of Environmental Conservation (ADEC), natural resource trustees, and other interested parties or individuals were notified of the initiation of the second five year review in December 2007. The five year review team was led by Christopher Cora of the EPA Region 10. Louis Howard of the ADEC assisted in the review as the representative of the support

agency. Alex Tula of ALTA Geosciences representing the PRP Group assisted in the review to ensure technical accuracy. Lisa Geist of the US Army Corps of Engineers, Alaska District coordinated and prepared the review documentation.

Community Notification and Involvement

The EPA published notification of the second five year review in the Anchorage Daily News on December 19 and 22, 2007 (see Attachment 15). In addition, approximately seventy seven letters were mailed on December 14, 2007 to inform interested parties (see Attachments 2 and 6) of the second five year review. EPA sent interview questionnaires via electronic mail to key officials (see Attachment 3) from December 20-26, 2007 and requested the forms be returned by January 11, 2008. Completed interview questionnaires are in Attachment 5. EPA received no responses from the general public or other local stakeholders. Input received from regulatory agencies and the PRP group or site owners was positive. The US Fish & Wildlife Service, one of the natural resources trustees, had no comments on the site.

EPA will issue a public notice and fact sheet to announce the availability of the second five year review. The results of the review will be made available to the public at the Alaska Resources Library and Information Services (ARLIS) located at the University of Alaska Anchorage Consortium Library, 3211 Providence Drive, Anchorage, Alaska, and at the EPA Region 10 website at http://www.epa.gov/region10.

Document Review

This five year review consisted of a review of relevant documents including the ROD (July 1996), Consent Decrees (December 1996, January 1998), Explanation of Significant Differences (November 1998), O&M Plan (Revised) (July 2000), July 2004 Bi-Annual Groundwater Monitoring Report, September 2006 Biennial Groundwater Monitoring Report, Title Search (September 2007), ARRC Lease Agreements, Municipality of Anchorage land use status, and Interview Questionnaire responses. A complete list of documents that were reviewed is provided in Attachment 1.

Data Review

Groundwater monitoring has been conducted at the Standard Steel site since the 1980's. During the remedial investigation (1993), three sets of groundwater data were obtained from twenty wells over approximately a one year period. Sampling was conducted at high and low groundwater events. Data from Rounds 2 and 3 were used for evaluating metals and PCBs.

Lead was detected at 3 of 9 downgradient groundwater monitoring locations in Round 2 at concentrations of 0.0016 to 0.0031 mg/L. Lead was not detected at any of 8 downgradient locations in Round 3. Lead concentrations in Rounds 2 and 3 were low relative to the EPA promulgated action level of 0.015 mg/L. PCBs were detected in

none of 12 well locations during Round 2. During Round 3, PCBs were detected at 2 of 9 well locations ranging from 0.000023 mg/L to 0.000032 mg/L. The concentrations were about 20 times lower than the maximum contaminant level (MCL) of 0.0005 mg/L.

Considering the low frequency of detection and the low concentrations detected relative to action levels, the ROD did not retain any contaminants of concern for groundwater. However, the ROD did require groundwater monitoring to assess the effectiveness of the remedy for protecting groundwater, as well as ensuring the landfill is not contributing contamination to groundwater, nor altering groundwater conditions. The ROD required monitoring for lead, PCBs, chlorinated organics, pH, and specific conductance.

Groundwater monitoring was required for a minimum of 10 years following implementation of the remedy (1998). One upgradient and four downgradient wells were designated for sampling and analysis in the Groundwater Monitoring Plan (November 1998). See Figure 3 for monitoring well locations. Groundwater monitoring occurred twice yearly (semiannual) for the first 2 years (1999, 2000) after construction completion, once yearly (annual) during 2001 and 2002, and was reduced to once every 2 years (biennial) beginning in 2004, with the approval of the EPA. After ten years, an assessment of the groundwater data will be conducted to determine whether groundwater monitoring is still required or whether the frequency will be altered. The groundwater standards to be achieved are 0.5 micrograms per liter (ug/L) for PCBs and 15 ug/L for lead. The federal and state drinking water standards for PCBs and lead have not changed since the ROD was signed.

Post-ROD groundwater monitoring results indicate no adverse impacts from lead, PCBs, or halogenated VOCs. The most recent groundwater monitoring event reports (July 2004 and September 2006) are found in Attachments 10 and 11. A summary of the results by year is presented in Table 3.

Table 3. Summary of Groundwater Monitoring Data 1999-2006

Contaminant	Action Levels [a] ug/L (ppb)	Concentration in ug/L (ppb)							
		MAY 1999	OCT 1999	MAY 2000	SEP 2000	AUG 2001	AUG 2002	JUN 2004	SEP 2006
PCBs	0.5	ND (0.1)	ND (0.1)	ND (0.5)	ND (0.5)	ND (0.099)	ND (0.1)	ND (0.1)	ND (0.1)
Lead	15	ND (5.6)	0.88 – 1.1	ND (5.6)	ND (13.9-14.2)	ND (2)	2.28	ND (2)	ND (1)
VOCs	Varies	ND (1-8)	ND [b]	ND (1)	ND [c] (1)	ND [d]	ND [e]	ND (0.5-1)	ND [f] (0.5-5)

Maximum detected concentration shown from the 5 monitoring wells.
[a] PCBs and lead action levels are the Maximum Contaminant Levels for drinking water, as specified in the ROD.
[b] Methylene chloride detected in one MW at a concentration of 2.6 ppb, but below screening levels.
[c] Two VOCs (chloromethane and methylene chloride) were detected at 1.2 to 1.5 ppb, but considered lab contaminants.
[d] Tetrachloroethane was detected in one MW at an estimated concentration of 0.37 ppb.

[e] Several VOCs (naphthalene, tetrachloroethane, tetrachloroethylene, trichlorobenzene, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, and trichloroflouromethane) also detected in either MW14, MW15 or MW24 at estimated concentrations, ranging from 0.33 to 1.29 ppb, but below screening levels.
[f] Chloroform also detected in MW22 at a concentration of 2.31 ppb, but considered anomalous because also detected in the equipment blank at 2.33 ppb. Toluene also detected in MW14 at 7.9 ppb, but well below screening levels.
ND not detected (practical quantitation level); ppb parts per billion; ug/L micrograms per Liter; VOCs volatile organic compounds

Site Inspection

Site visits were conducted by the US Army Corps of Engineers on September 27, 2007 and December 12, 2007. A representative of the US EPA was present during the September site visit. A representative of the ARRC was present during both site visits. The purpose of the site inspection was to assess the protectiveness of the remedy, including the integrity of the onsite landfill cell, the condition of the cover, runoff and drainage systems. Photos of site conditions are included at the end of this report. Attachment 7 also contains the Site Visit Reports.

No significant issues were identified during the site visits. The condition of the landfill cover appears satisfactory, the drainage ditches and runoff systems were clear of debris and functioning well. At the time of both inspections there was little snow cover or ice on the ground at the facility.

The institutional controls that are in place include prohibitions on: residential use or activities, commercial uses that would involve exposure of children to the soil, impairing the integrity of the landfill cover, disturbing or excavating other soils onsite, and groundwater use. No activities were observed that would have violated the institutional controls. The cap and the surrounding area were undisturbed. No new groundwater monitoring wells were observed. Vehicle storage is allowed. Various trucks, trailers, and other equipment were observed parked on the capped area. No cracks, sloughing, erosion, or other impacts to the cap were noted during the inspection.

Institutional controls were further evaluated by reviewing zoning maps of the Municipality of Anchorage and a title search for the property dated August 2007. There are no municipal ordinances (http://www.muni.org/assembly2/resolutions_ordinances.cfm) which affect the site. The property is zoned I-2, heavy industrial use district. The Municipality of Anchorage Code, Chapter 21.40.210, (http://www.municode.com/resources/gateway.asp?pid=12717&sid=2) defines prohibited uses and structures for I-2 heavy industrial use zones as the following: dwellings; hotels, motels, roominghouses, mobile home parks; camper parks; correctional institutions; child care centers; hospitals and nursing facilities; adult care facilities; and residential care facilities. Any change to site zoning requires approval by the Planning and Zoning Commission, as well as the Anchorage Assembly. Zoning variance requests are heard by the Zoning Board of Examiners and Appeals. The Anchorage Municipal Code also requires land use permits, right-of-way permits (utility and driveway construction), building permits, and land clearing and grading permits. The Project Management and Engineering department must approve final design plans for any work in a municipal

right-of-way. Any work within flood plains, as identified by the Federal Emergency Management Agency (FEMA) maps, requires project review and approval to ensure potential impacts on floodways are adequately considered. A small area of floodplain soils is present at the south and southwest portions of the site, adjacent to Ship Creek. The onsite landfill is constructed entirely outside the limits of the 100-year floodplain.

The Municipality of Anchorage regulates the installation of private water wells for domestic purposes and requires a permit prior to any drilling. Anchorage Municipal Code Chapter 15.55.010 ensures that sources utilized for potable water within the Municipality of Anchorage are constructed and maintained in such a manner as to provide a safe supply of water for domestic use. This chapter applies to all sources of potable water used by single family residences within the municipality that are not licensed and/or regulated by the State of Alaska.

The Alaska Department of Natural Resources, Division of Mining, Land and Water, controls water rights in the state. A water right is a legal right to use surface or ground water under the Alaska Water Use Act (AS 46.15). A water right allows a specific amount of water from a specific water source to be diverted, impounded, or withdrawn for a specific use. An online review of Current Water Rights & Reservations of Water (http://www.dnr.state.ak.us/mlw/mapguide/water/wr_start_tok.cfm) indicates the Municipality of Anchorage Water and Wastewater Utility has a permit for surface water rights in the vicinity of the site.

The Alaska Department of Environmental Conservation maintains an online database of contaminated sites (http://www.dec.state.ak.us/spar/csp/db_search.htm), including conditional closure details for sites with ongoing restrictions. The database indicates the Standard Steel site is subject to a deed notice, industrial land use restriction, maintenance of inspection/engineering controls, groundwater restrictions, and excavation/soil movement restrictions. See Attachment 8.

The Ground Lease (amended and restated, dated January 30, 2003) between the Alaska Railroad Corporation and K&T Enterprises, Contract No. 7085 was reviewed. The lease is effective for a period of 30 years, beginning in January 1996. The lease conditions include provisions for environmental restrictions related to the Standard Steel Superfund Site (Article 1, Section 1.07). As described above, the lease complies with ARRC's commitments in the Consent Decree. The Special Use Permit (supplement dated March 22, 2004) issued to R.J.H. was also reviewed. The permit conditions include notification of the environmental restrictions contained in the Declaration of Restrictive Covenants and Notice of Remedial Action. See Attachment 12.

To review and evaluate the effectiveness of the Declaration of Restrictive Covenants, EPA requested the ARRC to conduct a title search on the property comprising the Superfund site in order to: (1) confirm the Declaration of Restrictive Covenants was properly recorded; (2) see that the Declaration appeared in a commercially-prepared

title search; and (3) determine if there were any prior recorded interests that were not subject to the restrictions. The ARRC provided a title search, dated August 29, 2007, conducted for the Standard Steel PRP Group and the Alaska Railroad by Fidelity Title Agency, Anchorage, AK. The report confirms the Declaration of Restrictive Covenants is properly recorded on the title. See Attachment 9. The report reflects that there are no prior recorded interests that may eliminate the Declaration in the future.

The ARRC represents that they inform prospective tenants of the limitations on use and other impacts of the Consent Decree whenever inquires are made to lease the site. The ARRC has a comprehensive Lease Application Packet and Long-Term Lease Policy which is available on their website (http://www.akrr.com/arrc100.html) and contains detailed information regarding lease procedures.

VII. Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents?

The review of the Consent Decrees, O&M Plan, Groundwater Monitoring Plan, O&M reports, Groundwater Monitoring reports, site inspections, and interview questionnaires, etc. indicates that the remedy is functioning as intended by the ROD and modified by the ESD. The stabilization and capping of contaminated soils in a TSCA landfill cell has achieved the remedial action objectives to minimize the migration of contaminants to groundwater, and to prevent exposure of onsite workers to contaminants in soils. Institutional Control requirements have been implemented and maintained, are functioning as intended, and are effectively meeting remedial objectives.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of remedy selection still valid?

Yes. The remedy selection was based on an industrial use scenario and evaluation of risks for short-term workers, long-term workers, and future adult residents. The industrial exposure assumptions are considered to be conservative and reasonable in evaluating risk and developing risk-based cleanup levels. No change to these assumptions, or the cleanup levels developed from them is warranted. There has been no change to the standardized risk assessment methodology that could affect the protectiveness of the remedy.

Toxicity data has not changed for the primary contaminants of concern, PCBs and lead. After completion of the Baseline Risk Assessment, EPA lowered the screening level for lead to 400 mg/kg in soils (residential use). This change does not affect the conclusions of the risk assessment at the Standard Steel site. The TSCA landfill requirements are unchanged. The remedial action objectives to be achieved through groundwater monitoring are 0.5 micrograms per liter (ug/L) for PCBs and 15 ug/L for lead. The federal and state drinking water standards for PCBs and lead have not changed since the ROD was signed.

The ROD specified a range of soil cleanup levels for the site.

- No action was required for soils with PCBs < 1 mg/kg and lead < 500 mg/kg.
- Excavation and consolidation of soils elsewhere onsite was required for flood plain soils only with PCBs between 1 and 9.9 mg/kg and lead between 500 and 999 mg/kg.
- Excavation and consolidation of soils containing between 10 and 49 mg/kg PCBs in the onsite landfill.
- Excavation of soils containing 50 mg/kg or greater PCBs and 1,000 mg/kg or greater lead; treat by solidification/ stabilization and dispose in onsite landfill.

The implemented remedy actually achieved a stricter cleanup level and all soils (upland and floodplain) across the site that exceeded 1 mg/kg PCBs or 250 mg/kg lead were excavated and consolidated in the onsite TSCA landfill cell. The onsite landfill was constructed entirely outside the limits of the 100-year floodplain.

Since the remedy was implemented, the residential cleanup level for unrestricted access to soil has been modified to 400 mg/kg lead. The industrial cleanup level for sites remains 1,000 mg/kg lead. Thus, the 250 mg/kg lead level is still protective of the designated land use at the site. The soil cleanup level of 1 mg/kg PCBs for unrestricted land use under TSCA has not changed since remedy completion.

After the ROD was signed, as documented in the ESD (1998), the approved design was enhanced by excavating and consolidating all upland surface soils outside the limits of the TSCA landfill which exceed 1 mg/Kg PCBs or 500 mg/Kg lead and adding a Geomembrane cover system, consisting of a four inch foam layer, 40-mil Geomembrane impermeable liner, geonet drainage layer, geonet filter fabric and three feet of clean soil. The addition of the Geomembrane cover system and three feet of soil exceeds the design requirements of the ROD and satisfies the intent of 40 CFR 761.75(b)(9)(i).

Institutional Controls contained in the ROD and agreed to by the Alaska Railroad Corporation in the Consent Decree provided notice of the TSCA landfill, land and water use restrictions to the state of Alaska, the Municipality of Anchorage, local utilities, and all lessees, and will prevent excavation, construction, or other incompatible uses at the Site. A title search for the property, effective August 27, 2007, confirmed the Declaration of Restrictive Covenants and Notice of Remedial Action appears in the property records and land use restrictions are still in place to prevent exposure to the consolidated landfill cell contents. A search of Municipality of Anchorage Code, confirmed that Chapter 15.55 Water Wells (as amended effective Jan 1, 2006 by Anchorage Ordinance AO No. 2005-130 and No. 2005-172) prohibits the installation of unpermitted water wells for domestic purposes, and requires a minimum non-perforated casing length of 40 feet in unconsolidated materials and bedrock. The Municipality of

Anchorage code Title 21 Land Use Planning requires approval by ordinance of the Assembly for any zoning map amendments for a property. The Municipality of Anchorage also requires acquiring permits for building construction, excavations, and other related activities.

There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No extreme flood events or other weather conditions have affected the protectiveness of the remedy. There is no other new information that calls into question the protectiveness of the remedy.

Technical Assessment Summary

According to the site inspection, documents, and data reviewed, the remedy is functioning as intended by the ROD. The achievement of more stringent soil cleanup levels beyond the flood plain soils to include all upland soils enhances the protectiveness of the remedy. Institutional controls remain effective for the Standard Steel Superfund site. The site operators are aware of activity restrictions and the PRP Group continues to conduct site inspections and periodic groundwater monitoring. Land use remains industrial and no changes are anticipated which could affect site operations.

VIII. Issues

The ADEC reported that new information obtained during a 2007 investigation by the Alaska Railroad shows PCBs were detected in surface soil samples collected from a former drainage ditch adjacent to southwest corner of the Standard Steel site. The ADEC requested additional sampling be conducted to characterize the drainage ditch. Two of the 5 drainage ditch samples exceeded the soil cleanup level specified by the ROD for flood plain soils of 1 mg/kg PCBs. The concentrations ranged from 0.05 to 2.13 mg/kg. The Alaska Railroad conducted the investigation under a separate Administrative Order on Consent with the US EPA. The current EPA project manager is Jacques Gusmano in the Alaska Operations Office. A draft Feasibility Study completed by the ARRC indicates they intend to remove the PCBs above 1 mg/kg in the ditch and treat the soil by incineration. The sampled area is not an active drainage pathway for the landfill cell, site land use is still industrial, thus the remedy remains protective. The data does not suggest the remedy is failing.

IX. Recommendations and Follow-Up Actions

The ROD requires a minimum of ten years of groundwater monitoring to ensure there are no adverse impacts to site groundwater or offsite migration of contaminants. The groundwater monitoring program to date has demonstrated the effectiveness of the landfill containment cell; no significant detections of contaminants of concern have been observed. As of March 2008, nine years of groundwater monitoring data has been collected.

Biennial groundwater monitoring should be continued through the upcoming Fall 2008 monitoring event. After the 2008 groundwater monitoring event is completed, further evaluation of continued monitoring should be conducted. A recommendation to discontinue groundwater monitoring after the 2008 event should be considered if the groundwater data continues to demonstrate no adverse impacts.

Yearly site inspections of the landfill cap, drainage swales, and runoff systems should be continued to ensure site activities, tenant operations, and extreme weather or other unusual events do not result in adverse impacts to the cap integrity.

The next 5 year review should also verify that the PCBs detected above 1 mg/kg in a former drainage ditch adjacent to and southwest of the landfill consolidation cell were addressed through a separate action between the Alaska Railroad and the US EPA.

Table 4. Recommendations and Follow-Up Actions

Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness? (Y/N)	
					Current	Future
Continue groundwater monitoring	Conduct Fall 2008 groundwater monitoring event, evaluate data to determine future requirements	PRP Group	US EPA	12/2008	N	N
Soil sampling results from adjacent ditch show PCBs > 1 mg/kg	Address remedial actions under separate enforcement agreement between ARRC and US EPA. Verify actions completed during next 5 year review.	ARRC Owner Settling Defendant	US EPA	4/23/2013	N	N

X. Protectiveness Statement(s)

Because the remedial actions completed at the Standard Steel & Metals Salvage Yard site are protective, the site is protective of human health and the environment.

All exposure pathways that could result in unacceptable risks are being controlled. All threats at the site have been addressed through stabilization and capping of contaminated soils, and the implementation of institutional controls. All monitoring data indicates the landfill containment cell is functioning as required to prevent exposure to the contaminated materials, and prevent offsite migration of contaminants.

XI. Next Review

The next five year review for the Standard Steel & Metals Salvage Yard site is required by April 2013, five years from the date of this review. The integrity of the landfill cap and institutional controls should be reviewed to ensure the land use and groundwater restrictions are still in place.

The next 5 year review should also verify that the PCBs detected above 1 mg/kg in a former drainage ditch adjacent to and southwest of the landfill consolidation cell were addressed through a separate action between the Alaska Railroad and the US EPA.

FIGURES

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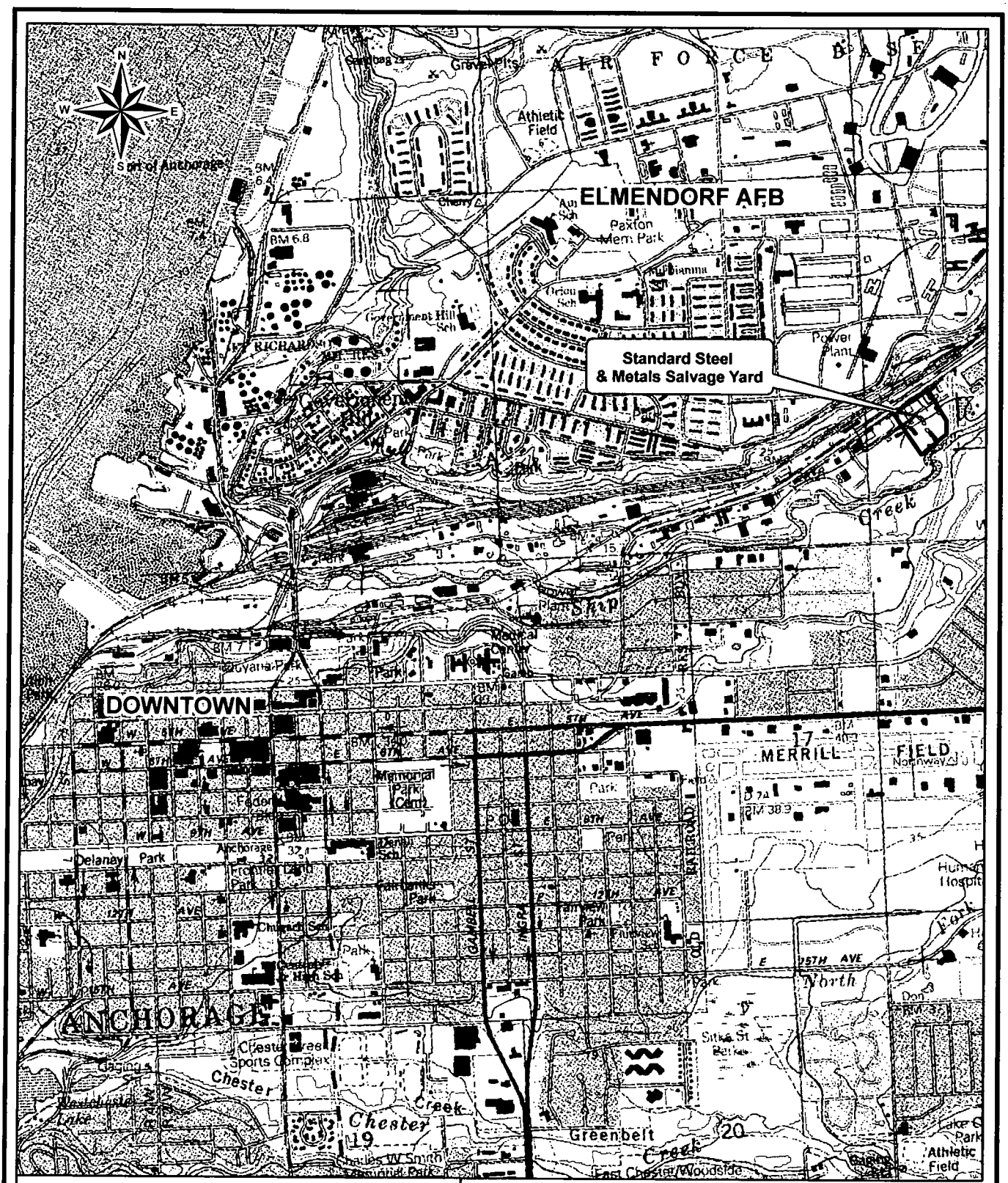


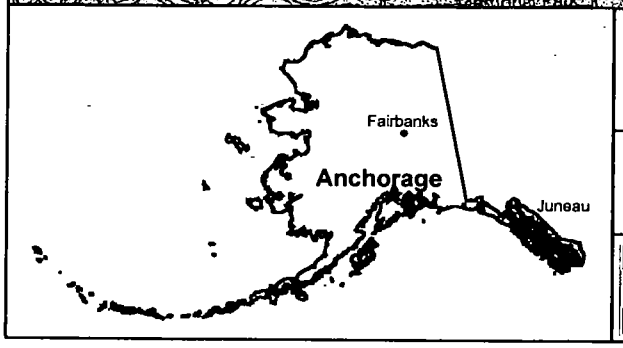


FIGURE 1 **LOCATION AND VICINITY MAPS**
Standard Steel & Metals Salvage Yard
Anchorage, Alaska

US Army
Corps of Engineers
Alaska District

0 0.25 0.5
Miles

Drawn: LKG
Date: 02/2008
Source: USGS Quads
Anchorage A-8 NW and NE

Legend

- Standard Steel Site
- Landfill Containment Cell

N
W E
S

Source: Aerial photography from Elmendorf Air Force Base (2006)

FIGURE 2

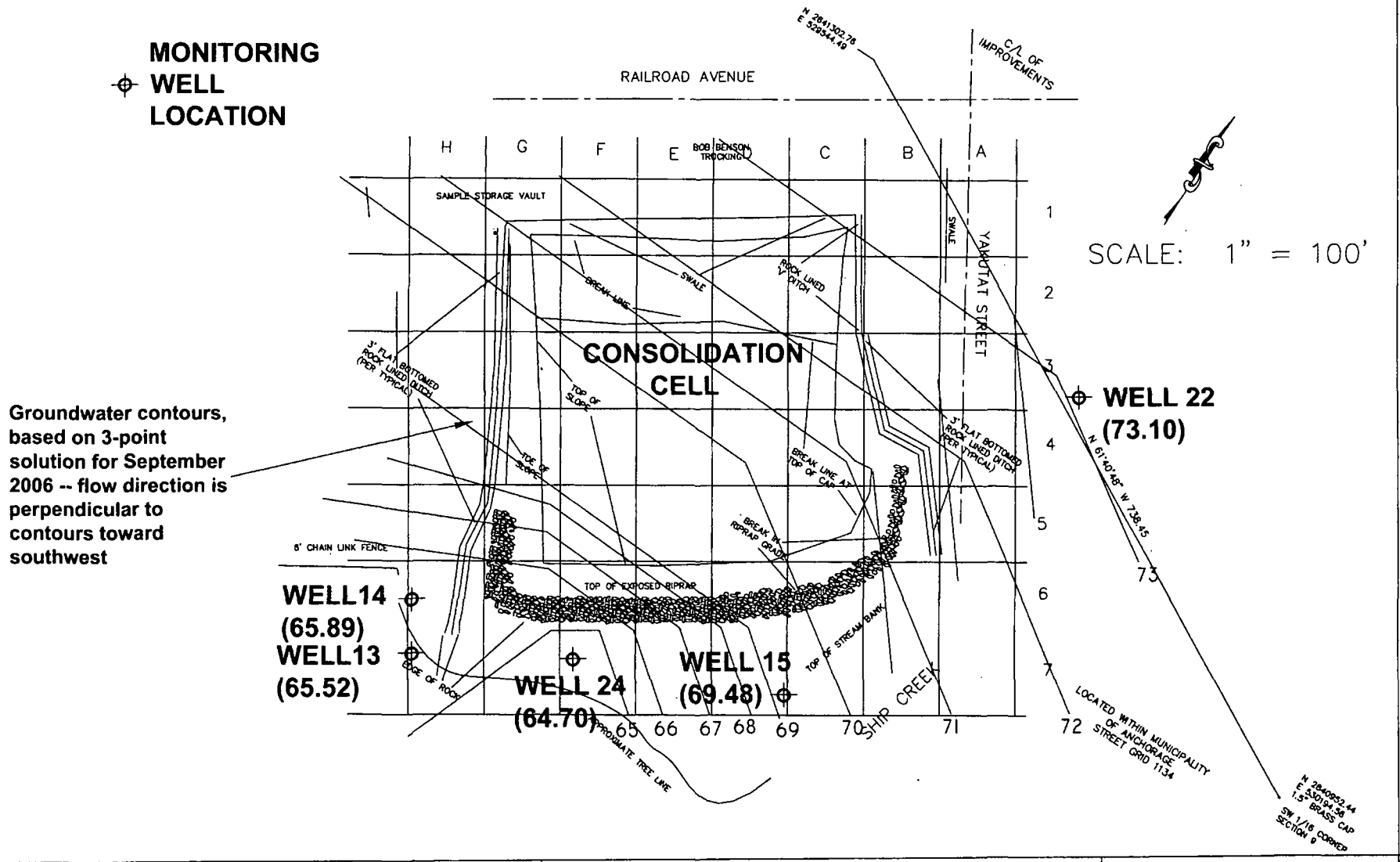
AERIAL VIEW
Standard Steel & Metals Salvage Yard
Anchorage, Alaska

US Army
Corps of Engineers
Alaska District

0 50 100 150 200 250 Feet

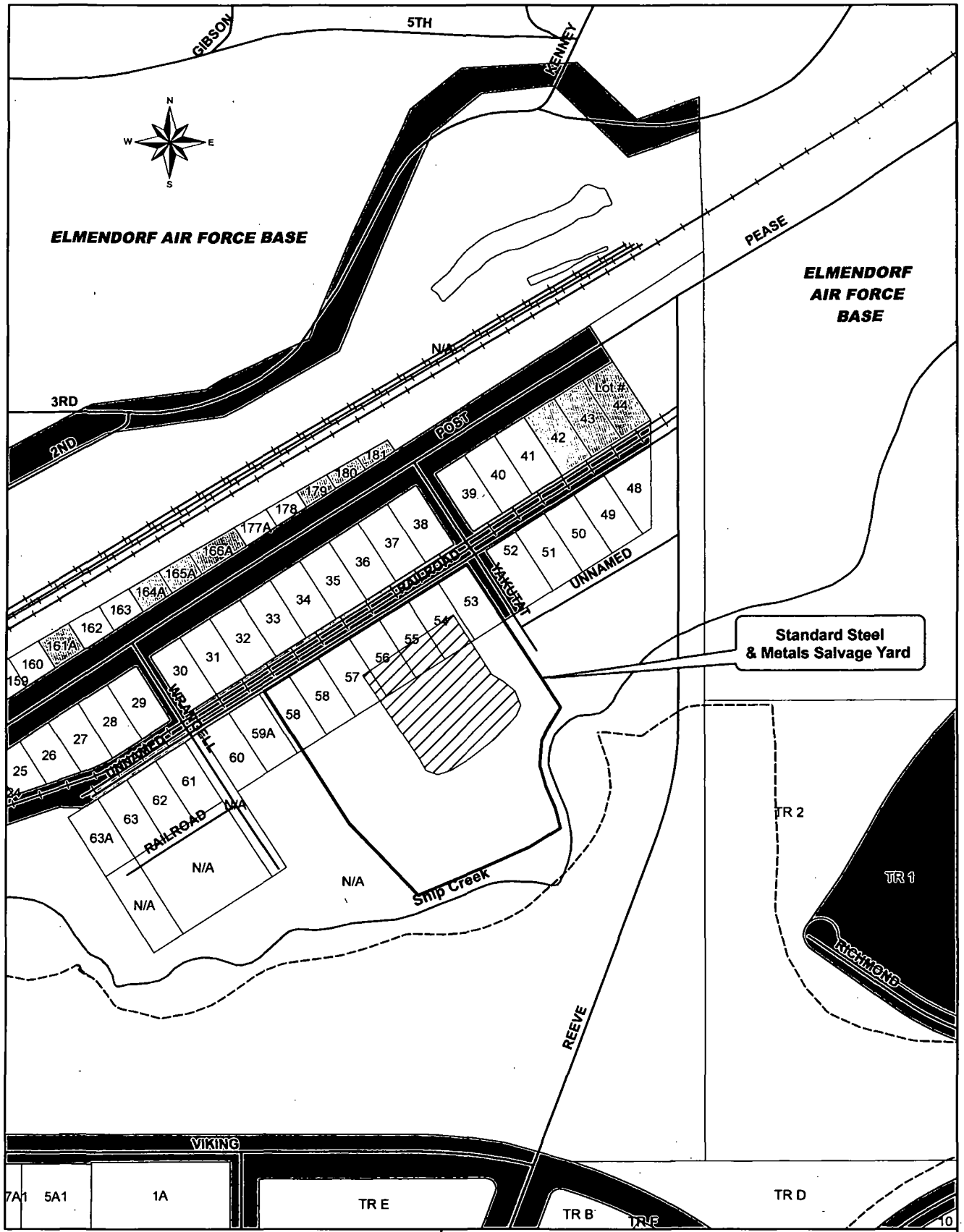
1 inch equals 250 feet

Drawn: LKG
Date: 03/2008



STANDARD STEEL & METALS SALVAGE YARD
Superfund Site
Anchorage, Alaska

ALTA GEOSCIENCES, INC. Bothell, Washington	GROUNDWATER MONITORING REPORT September 2006	MONITORING WELL LOCATIONS	FIGURE 3



Legend

COMMERCIAL	TRANSPORTATION	Trails
INDUSTRIAL	VACANT	Streams
INSTITUTIONAL	WATER	Streets
RR/ROW	PARK	Railroad
		Standard Steel Site
		Landfill Containment Cell

source: Municipality of Anchorage, GIS Web Server https://munimaps.muni.org (December 2007)

FIGURE 4

LAND USE STATUS
Standard Steel & Metals Salvage Yard

US Army Corps of Engineers Alaska District

0 100 200 400 Feet

1 inch equals 400 feet

Drawn: LKG
Date: 3/2008

PHOTOS

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Photos of Site Conditions – Standard Steel & Metal Salvage Yard Site

Photo 1. Composite picture from N corner of site looking SW (26 Sep 2007)

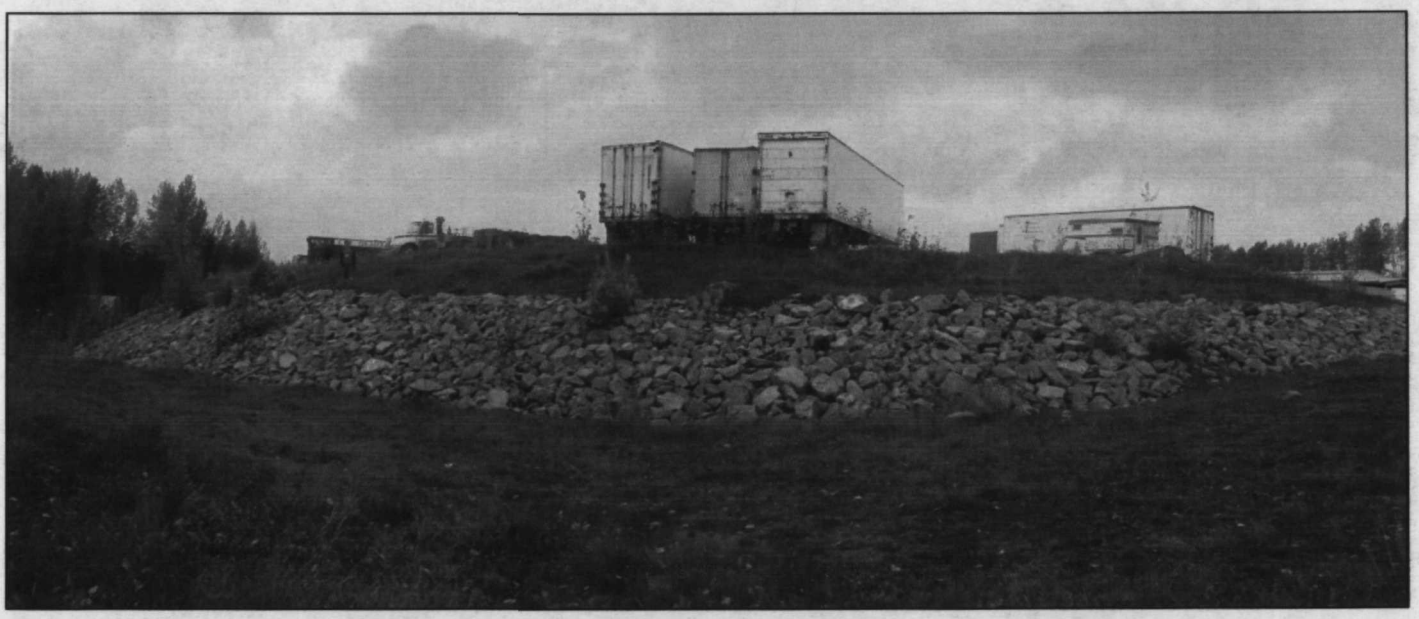

Photo 2 Composite picture from SE corner of site looking NE (26 Sep 2007)

Photos of Site Conditions – Standard Steel & Metal Salvage Yard Site

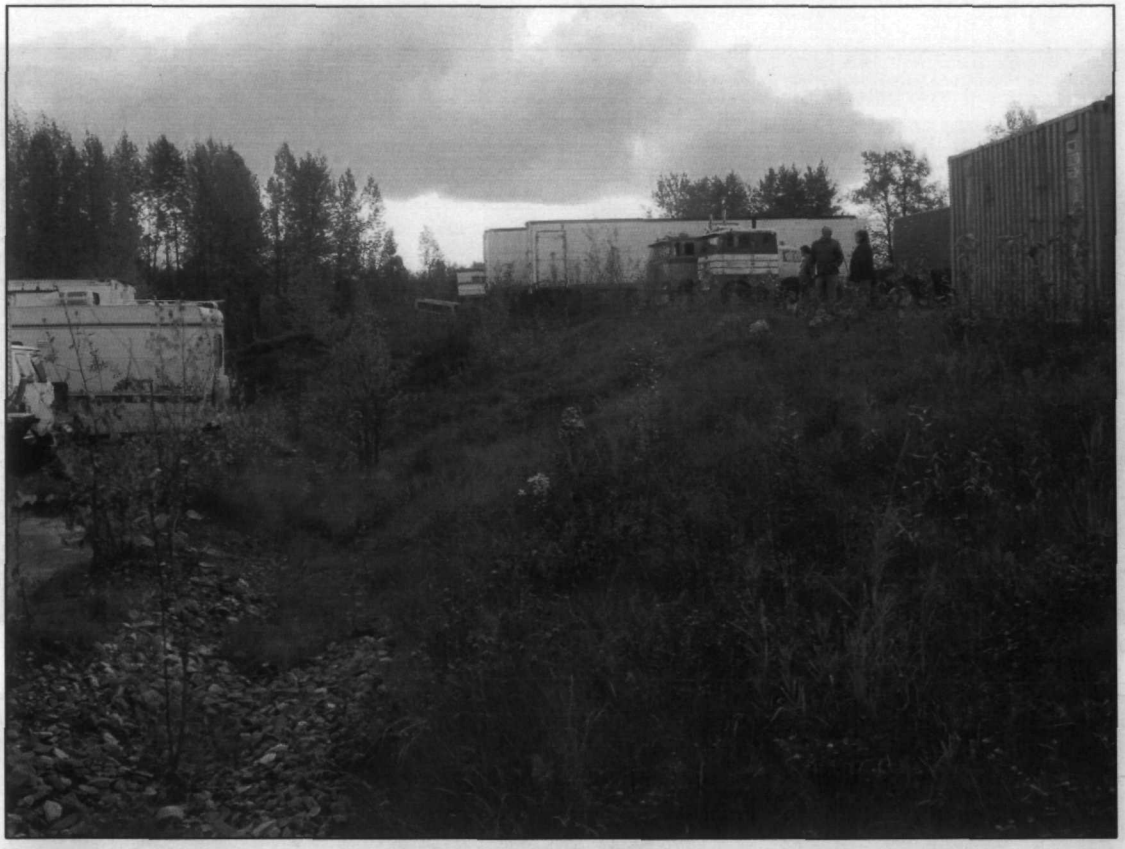

Photo 3. View from N corner looking SE along ditch (26 Sep 2007)

Photo 4. View from N corner looking S-SE along ditch (3 Dec 2007)

Photo 5. View at SE corner of site, culvert at end of drainage ditch, looking SE towards Ship Creek (26 Sep 2007)

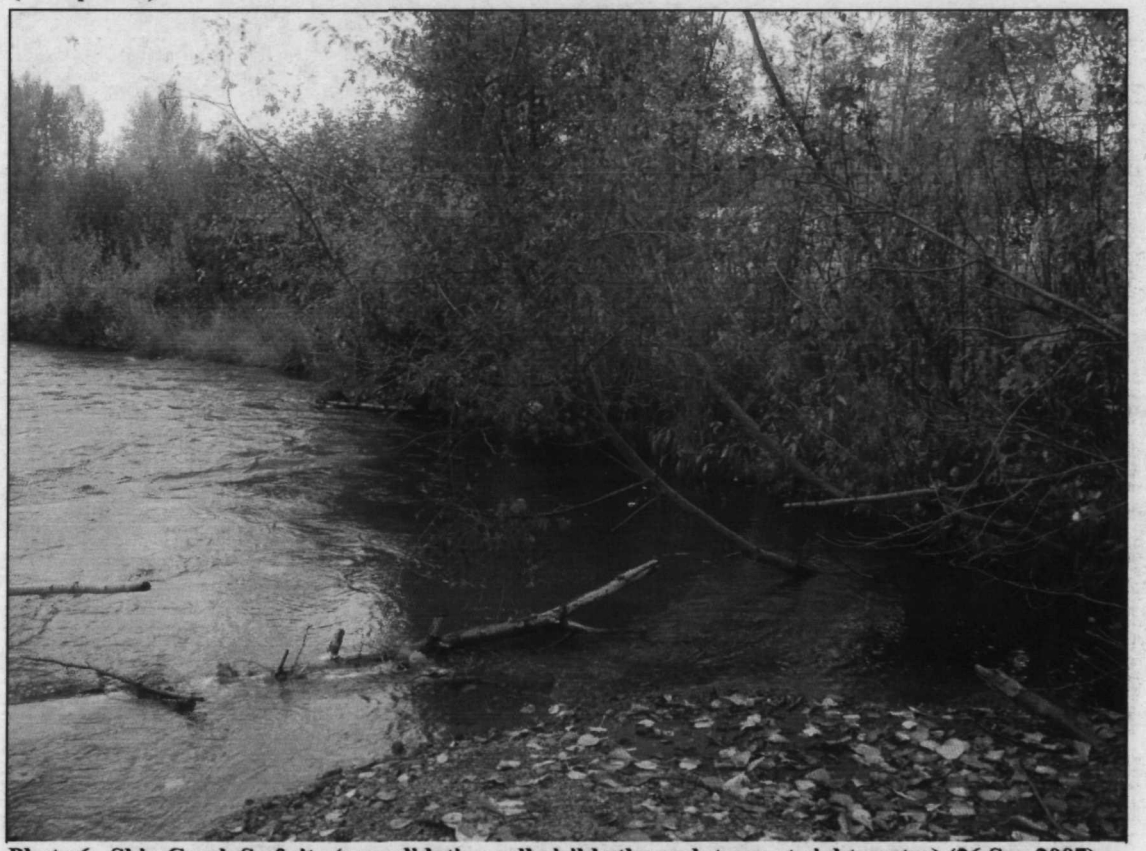

Photo 6. Ship Creek S of site (consolidation cell visible through trees at right center) (26 Sep 2007)

Photos of Site Conditions – Standard Steel & Metal Salvage Yard Site

Photo 7. View from top of landfill cell, view S towards Ship Creek (3 Dec 2007)

Photo 8. Below top of consolidation cell looking S toward Ship Creek, large boulders (energy dissipation) in foreground and monitoring well at mid-picture (26 Sep 2007)

Photos of Site Conditions – Standard Steel & Metal Salvage Yard Site

Photo 9. At S corner of site, looking N toward consolidation cell (26 Sep 2007)

Photo 10. View from SE of site, below toe of consolidation cell, looking NW (left) and N (right) (26 Sep 2007)

Photos of Site Conditions – Standard Steel & Metal Salvage Yard Site

Photo 11. Top of consolidation cell near SE side, looking SNW Railroad Avenue (behind building) (26 Sep 2007)

Photo 12. Top of consolidation cell, near SW side, view N towards Railroad Ave (3 Dec 2007)

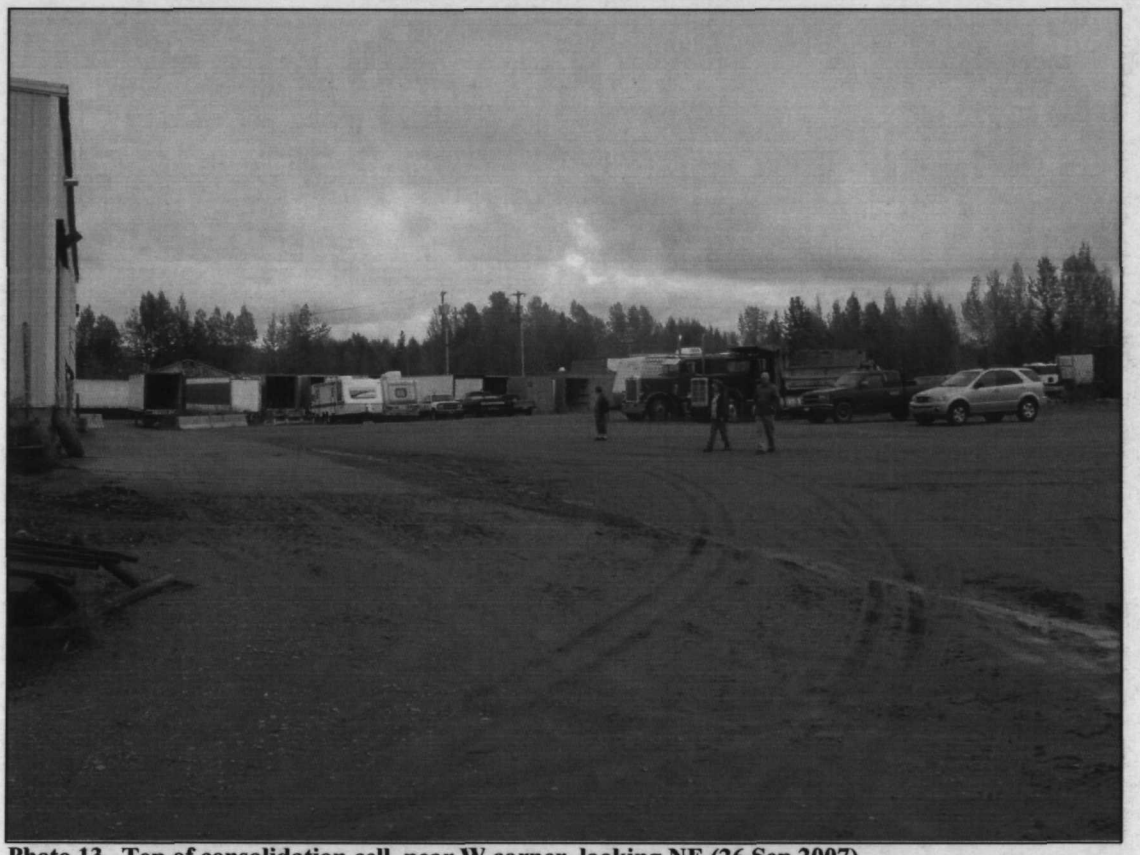

Photo 13. Top of consolidation cell, near W corner, looking NE (26 Sep 2007)

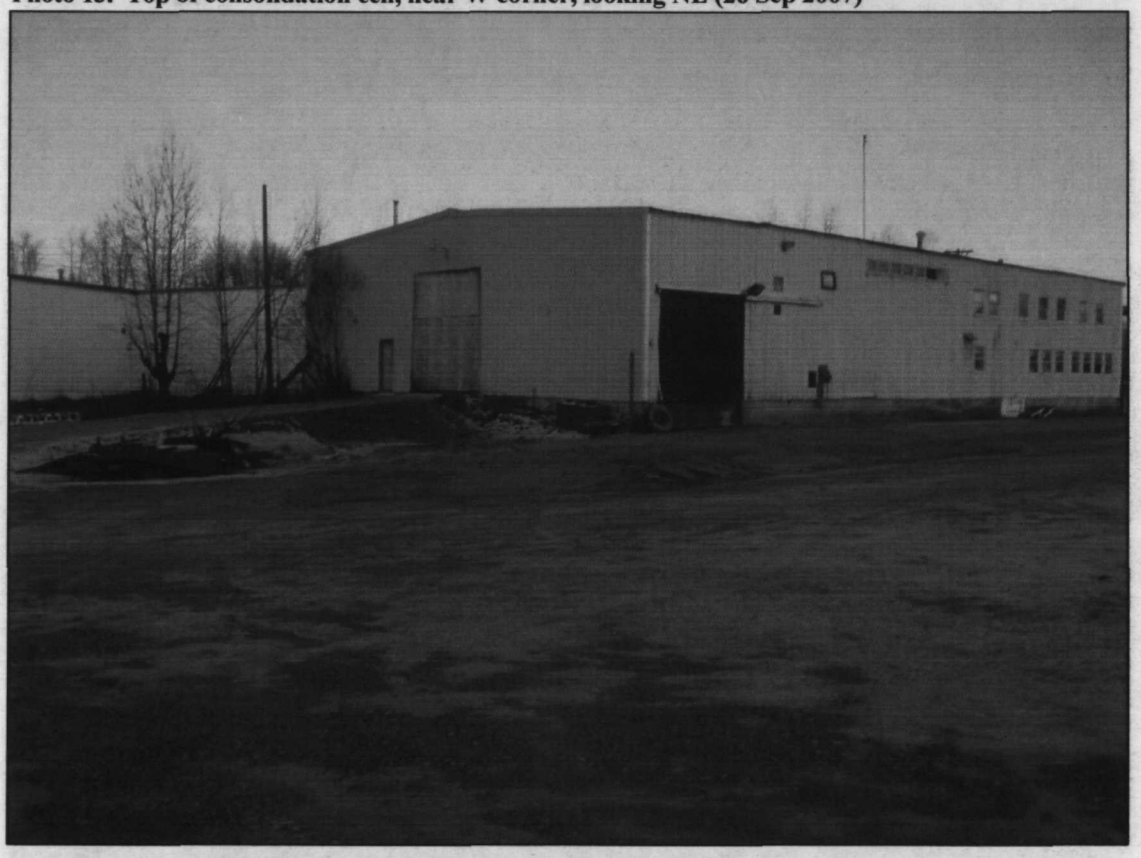

Photo 14. Top of consolidation cell, near NW corner (3 Dec 2007)

Photos of Site Conditions – Standard Steel & Metal Salvage Yard Site

Photo 15. At S corner of site below toe of consolidation cell, looking SW (26 Sep 2007)

Photo 16. View from SW corner of consolidation cell, view NW showing drainage ditch (3 Dec 2007)

Five-Year Review Report

Second Five-Year Review Report
for
Standard Steel & Metal Salvage Yard (USDOT)

Anchorage, Alaska

March 2008

Attachments (provided on CD-ROM)

ATTACHMENT 1	List of Documents Reviewed
ATTACHMENT 2	List of Interested Parties
ATTACHMENT 3	List of Potential Interviewees
ATTACHMENT 4	Blank Interview Questionnaire
ATTACHMENT 5	Completed Interview Questionnaires and Records
ATTACHMENT 6	Mailing List
ATTACHMENT 7	Site Visit Reports, Site Inspection Checklist
ATTACHMENT 8	ADEC Contaminated Sites Database Report
ATTACHMENT 9	Title Search Report
ATTACHMENT 10	Groundwater Monitoring Report July 2004
ATTACHMENT 11	Groundwater Monitoring Report September 2006
ATTACHMENT 12	Ground Lease and Special Use Permit
ATTACHMENT 13	Municipality of Anchorage Public Parcel Inquiry Report
ATTACHMENT 14	Operations & Maintenance Plan (Revised) July 2000
ATTACHMENT 15	Public Notice of 5 Year Review
ATTACHMENT 16	O&M Checklists
ATTACHMENT 17	Record of Decision (1996)
ATTACHMENT 18	CERCLA Consent Decree RD/RA (1998)
ATTACHMENT 19	Explanation of Significant Differences (1998)
ATTACHMENT 20	Declaration of Restrictive Covenants and Notice of Remedial Action

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 10
1200 SIXTH AVENUE
SEATTLE, WA 98101

TARGET SHEET

The following document was not imaged.
This is due to the Original being:

	Oversized
X	CD Rom
	Computer Disk
	Video Tape
	DVD
	Other:

**A copy of the document may be requested from the Superfund Records Center.

Document Information

Document ID #:	1260916
File #:	26.6
Site Name:	Standard Steel & Metals (SSMFF)

Final Complete Report and Attachments
March 2008