US ARMY CORPS OF ENGINEERS
NEW ENGLAND DISTRICT
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Task Order No. 0001

FINAL
PLAN FOR THE SAMPLING OF AMBIENT AIR PCB CONCENTRATIONS TO SUPPORT DECISIONS TO ENSURE THE PROTECTION OF THE PUBLIC DURING REMEDIATION ACTIVITIES

New Bedford Harbor Superfund Site
New Bedford, MA

Revised November 2006 by
Jacobs Engineering Group
Bourne, MA

Modified in January 2004 by
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New England District
Concord, Massachusetts

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Revision	Date	Prepared By	Approved By	Pages Affected
2	1/15/2004	Patricia Sumner	Kerry LeBlanc	All
3	11/28/2006	Steve Fox	Mike Anderson	All

TABLE OF CONTENTS

Figures

Tables

Attachments

ACRONYMS AND ABBREVIATIONS

AAR	After-Action Report
CDF	confined disposal facility
DMU	dredge management unit
EPA	U.S. Environmental Protection Agency
FW	Foster Wheeler Environmental Corporation
ISC3	Industrial Source Complex Model
Jacobs	Jacobs Engineering Group, Inc.
mg/kg/day	milligrams per kilogram per day
NAE	U.S. Army Corps of Engineers – New England District
ng/m^3	nanograms per cubic meter
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PETS	Public Exposure Tracking System
PUF	polyurethane foam
SSHP	Site-Specific Health and Safety Plan
WWTP	Waste Water Treatment Plant

1.0 INTRODUCTION

Foster Wheeler Environmental Corporation (FW) prepared the original Air Management Plan (the Plan) under USACE TERC Contract No. DACW33-94-D-0002, which was to be implemented over the course of the New Bedford Harbor Remediation Project (FW 2003). In January 2004, prior to the initiation of remediation activities, the U.S. Army Corps of Engineers – New England District (NAE) modified the Plan (Revision No. 2 to the Plan) to incorporate the changes in the remediation approach.

The purpose of this third revision (Plan Revision No. 3) of the Air Management Plan is to modify the Plan based upon the following three factors:

1. The results of the 2004 and 2005 ambient air sampling program;
2. The results of the 2005 air modeling efforts that utilized previous modeling programs, historical data, and 2004 field data collected by Jacobs Engineering Group (Jacobs); and
3. Numerous meetings between representatives of the U.S. Environmental Protection Agency (EPA), the NAE, and Jacobs at which the sampling and modeling results were discussed. During the most recent meeting (March 29, 2006), a path forward for the 2006 remediation season was agreed upon.

This Plan presents the rationale for the locations and the overall sampling strategy for collecting ambient air polychlorinated biphenyl (PCB) concentration data at sampling station locations during remediation activities. The ambient air PCB data collected during the 2004 and 2005 remediation seasons was used in a comparative evaluation with established health-based exposure budgets to proactively manage releases of PCBs during remedial activities. The development of the health-based cumulative exposure budgets is presented in the *Draft Final Development of PCB Air Action Levels for the Protection of the Public* (FW 2001a) (the Development Document). The principal components associated with the implementation of the cumulative exposure tracking program are described in the document *Draft Final Implementation Plan for the Protection of the Public from Volatilized PCBs During Contaminated Sediment Remediation at the New Bedford Harbor Superfund Site* (FW 2001b) (the Implementation Plan).

The Implementation Plan provided guidelines for implementing the principal components of an air sampling program including: locating sampling stations, collecting air samples, evaluating air sample data, tracking cumulative exposures, and recommending appropriate responses to reduce or mitigate potential PCB inhalation exposures to the public. The tracking of cumulative exposures includes identifying when "triggers" occur (i.e., conditions that indicate when follow-up analysis of projected emissions sources or their potential impact on exposures to the public is warranted).

The Harbor is geographically divided into three areas. The "Upper Harbor" refers to that portion of the Harbor north of the Coggeshall Street Bridge. The "Lower Harbor" refers to that part of the Harbor south of the Coggeshall Street Bridge and north of the Hurricane Barrier. The "Outer Harbor" is that portion of the Harbor south of the Hurricane Barrier.

This Air Management Plan (Revision No. 3 of the Plan) is divided into five sections. Section 2.0 provides an overall summary of cumulative exposure budgeting and tracking. A discussion of the role of atmospheric dispersion modeling also is presented in Section 2.0. Section 3.0 describes how the time series of airborne PCB concentrations will be developed and the use of a network of sampling station locations to collect the data needed to track projected exposures relative to the established budgets. Section 3.0 specifies the locations, sampling schedules and sampling frequencies for the sampling station locations. Section 4.0 discusses the role of annual review of the Plan, and Section 5.0 lists the references cited in this Plan.

2.0 CUMULATIVE EXPOSURE TRACKING

This section reviews the overall approach being used to proactively track potential cumulative public exposures to PCB concentrations in ambient air during remedial activities at New Bedford Harbor. In general, this includes the measurement of ambient air PCB concentrations around New Bedford Harbor during remedial and selected background activities. The collected data is being analyzed to identify and track air quality trends at the sampling locations and to track projected cumulative exposures at nearby potential points of public exposure. The process for defining the cumulative exposure budget for a sampling location is reviewed in Section 2.1. The role of air dispersion modeling in the overall air management effort is discussed in Section 2.2, and the approach for tracking cumulative exposures to PCBs in air to the public is summarized in Section 2.3.

2.1 CUMULATIVE EXPOSURE BUDGETS

As described in the FW document *Draft Final Development of PCB Air Action Levels for the Protection of the Public* (FW 2001a), an exposure budget is a target ambient air concentration trend over time that if achieved will document that public exposures to PCBs are below acceptable health-based target levels. The adverse health effects associated with PCB inhalation are associated in the literature with long-term, or chronic, exposure. As such, the exposure budget is designed to be "cumulative" to reflect that the measured concentrations and projected inhalation exposures should be managed over time as the remediation operations are performed. The measurement of ambient air PCB concentrations and the tracking of projected cumulative exposures relative to an appropriate health-based budget began at the start of the full-scale remedial activities in 2004.

As is presented in the Development Document, the slope of the cumulative exposure budget line is the allowable ambient PCB concentration (see Section 2.1.1) at the sampling station that is protective of the most sensitive target receptor. This slope is

quantitatively dependent on three primary established risk assessment criteria factors (as defined in the Development Document):

- the Allowable Ambient Limit assuming a Target Risk of 1×10^{-5}; a Cancer Slope Factor of 0.4 milligrams per kilogram per day $(mg/kg/day)^{-1}$; and an exposure duration of 26 years (EPA-estimated project duration);
- the Annual Average Background Concentration of airborne PCBs at the point of potential exposure; and
- the Air Dispersion Factor between the sampling station and the assumed point of exposure.

Each of the three primary factors affecting the slope of the budget line for a particular sampling location is briefly discussed below.

2.1.1 Allowable Ambient Limits

The Development Document presents the development and calculation of the Allowable Ambient Limits used in cumulative exposure budgeting (FW 2001a). The health-based Allowable Ambient Limits forming the basis of the cumulative exposure budgets were developed for exposures to either a resident or a commercial worker (whichever was associated with the activities at the potential exposure point). On-site worker protection is regulated by the Occupational Safety and Health Administration (OSHA) and is addressed in the Site-Specific Health and Safety Plan (SSHP) and, therefore, is not addressed in this Revision No. 3 to the Plan. Both child and adult residents were considered in developing an Allowable Ambient Limit. Appropriate body weights, breath (lung) volumes, and breathing rates were assumed for each receptor. The Allowable Ambient Limits are also seen above to be a direct function of the potential exposure period. In the Development Document, the health-based levels were developed assuming either a 5-year or a 10-year potential public exposure period. However, due to budgetary constraints briefly discussed below, in general, the exposure tracking program will be implemented using the more conservative health-based levels based on an assumed 26 years of exposure. As the anticipated, overall project schedule changes, the

exposure tracking program will be adjusted to match the revised, projected duration of the remedial activities.

Prior to the initiation of the 2004 remediation activities, the Allowable Ambient Limit (daily average exposure of PCBs) for a child resident assuming a 10-year exposure period was calculated to be 409 nanograms per cubic meter (ng/m^3)(FW 2001a). The Allowable Ambient Limit for a commercial worker (10-year exposure) was calculated to be 894 ng/m^3 (FW 2001a). These daily exposure values were based on an assumed 10-year duration of remedial activities at New Bedford Harbor.

However, in 2005, at the request of the EPA, the estimated duration of the New Bedford Harbor remediation was increased to 26 years. This increase in project duration was based upon the projected limited funding for the project. Subsequently, for the 2005 remediation season, the Allowable Ambient Limit, daily average exposure of PCBs for a child resident and commercial worker were re-calculated for a 26-year exposure period and were calculated as 202 and 344 ng/m^3, respectively. It is anticipated that for 2006 these two values will be used to establish the cumulative exposure budgets for the community residents and the results of air monitoring and dispersion modeling will be tracked against each of these exposure budgets.

2.1.2 Background Concentrations

Emissions of PCBs from sediment remediation activities add to current (pre-remediation) background ambient air levels. These background or baseline levels are attributable to current conditions in the Harbor, such as volatilization of PCBs from exposed sediments, and other possible sources of PCB emissions in the vicinity. These additional potential sources of PCB emissions are described in more detail in Section 2.2.2. During the Baseline Ambient Air Sampling and Analysis Program, (which was conducted from June 1999 through May 2000), FW collected ambient air samples from six baseline background sampling stations on a monthly basis, and in some cases on a more frequent basis. From this data, a yearly average was derived for these stations and presented in the Development Document. These averages are presented again in Table 2-1.

In the January 2004, Revision No. 2 to the Plan, the NAE proposed that the annual average PCB concentrations presented in Table 2-1 be used, during periods of non-activity, for the calculation of the cumulative exposure lines. This topic was discussed in several subsequent meetings with EPA. Before the 2005 season, the EPA made the decision to use the quarterly baseline concentrations, instead of the annual averages, for the development of these exposure lines. The Baseline Air Quality stations and the associated quarterly average baseline concentrations for the selected 2005 air sampling stations are presented in Table 2-2.

2.2 AIR DISPERSION FACTORS AND AIR DISPERSION MODELING

Since 2004, Jacobs has conducted dispersion modeling for two purposes. The first was to aid in the placement of sampling stations prior to the initiation of 2004 mobilization and subsequent remediation activities. This air dispersion modeling analysis is described below in Section 2.2.1. The second purpose for air dispersion modeling was to predict the ambient air concentrations at locations a distance away from the various remediation and background source areas. In Revision No. 2 to the Plan, it was anticipated that mobile sampling stations would be located at strategic public receptor locations during each sampling event. However, due to the results of the initial air dispersion modeling, stationary sampling stations were used for the public receptor locations. As site-specific air sampling data has been collected at various receptor areas, the air modeling was refined to more closely represent the actual site sampling results in an effort to improve model predictions. The rationale behind this analysis is described in Section 2.2.2.

2.2.1 Dispersion Modeling to Support the Placement of Sampling Stations

Prior to the initiation of 2004 remediation activities, Jacobs conducted a series of EPA SCREEN3 air modeling runs to support the placement of sampling stations near suspected elevated point source emissions of PCBs. In the original FW Plan and the subsequent Revision No. 2 to the Plan, the primary release of PCB was anticipated to be from stacks and other facility openings at the Desanding (Area C) and the Dewatering Facilities (Area D).

The purpose of the 2004 Jacobs modeling was to further refine the location and concentration of maximum ground impact (i.e., the highest ground level ambient air concentration of released PCBs). This was especially important for elevated point sources because, depending upon the exhaust parameters and environmental factors such as ambient temperature, predominant wind direction and wind speed, the point of maximum ground level public impact may not be immediately next to the source but at some distance downwind. Since the modeling results were primarily based on the dispersion of documented source concentrations, it was critical that the initial model input data reflect the maximum starting concentrations to avoid underestimating the potential exposure to downwind receptors.

The emission rates for the dredging activity at Dredge Management Unit 2 (DMU-2) (area source), the desanding plant operation at Area C (a combination of desanding plant source and Cell #1 area source), and the dewatering operation at Area D (dewatering point source), were assumed based on previous studies. The air monitoring stations used for the 2004 season were 24, 24D, 25, 41, 47, 48, 49, 50, 51, 52, 53, 54, 55, and 56 (Figure 2-1).

2.2.2 Dispersion Modeling to Estimate the Concentration Attenuation Effect

Both FW and Jacobs have performed air dispersion modeling for the purpose of predicting concentrations of ambient air PCBs generated by dredging and the associated treatment facilities. In addition, both FW and Jacobs utilized the Industrial Source Complex Model (ISC3) in their modeling efforts, which are described in detail in the following reports:

- The December 2001 FW document titled *Draft Final Development of PCB Air Action Levels for the Protection of the Public, New Bedford Harbor Superfund Site, New Bedford* (FW 2001b); and
- The October 2005 Jacobs document titled *Air Dispersion Modeling of Emission Sources 2004 and 2005 Operations New Bedford Harbor Superfund Site, New Bedford, Massachusetts* (Jacobs 2005b).

During the development of the remedial actions plans, FW conducted emission calculations and testing to estimate PCB emission rates for various sources and processes associated with different aspects of the remedial actions (FW 2001b). FW also performed air dispersion modeling to predict concentrations of PCBs generated by dredging and treatment facilities for the proposed remedial dredging action. The sediment removal operation was assumed to be completed by utilizing mechanical dredging methods that would proceed from the north (Upper Harbor) to the south (Outer Harbor). FW estimated that the remedial activities would take approximately 4 years to complete.

While recognizing the overall remediation objectives, EPA and NAE jointly decided that a different approach would be followed in the near future based on funding considerations. Specifically, PCB mass removal in 2004, 2005, and 2006 would not occur from a north to south progression, but would focus on first remediating DMUs with the greatest amount of PCB mass. In addition, hydraulic dredging, rather than mechanical, would be used as the primary sediment removal method. Sediment transport and treatment processes were also revised to better suit the selected dredge operation.

The Jacobs 2005 air dispersion modeling incorporated both the changes in the remediation strategy (PCB mass removal) along with the changes in the assumed source areas, which were not identified in the FW model. Jacobs classified the sources into the two following categories: background sources and remediation sources (Jacobs 2005b). The identified background sources included the following:

- Harbor mudflat and inter-tidal sediments;
- Point or area land sources with previous PCB sediments;
- PCB-contaminated soil piles;
- Holding ponds for PCB contaminated sediments; and
- A source at Aerovox

The remediation emission sources are those sources that only contribute contamination to the atmosphere during periods of active remediation. They include the dredging

operation, debris removal activities, and releases from the desanding plant operated at Area C and the Waste Water Treatment Plant (WWTP) operated at Area D. However, based on the 2004 and 2005 air monitoring results from the immediate vicinity of the Area C desanding plant (Stations 47, 48, and 49) and the Area D WWTP (Stations 50, 51, and 52), it appears that neither the desanding plant nor the WWTP are major sources of airborne PCBs as predicted by the earlier FW modeling efforts. The modeling efforts in 2005 and 2006 considered this data and made adjustments in model calibration accordingly.

2.3 CUMULATIVE EXPOSURE TRACKING

Utilizing the 2004 and 2005 ambient air sampling data, the potential cumulative exposure for either residential or commercial worker receptors to inhaled PCBs has been tracked against appropriate budget lines as outlined in the Implementation Plan. This Implementation Plan describes a set of calculations that facilitate the tracking of cumulative exposures over the course of the remediation activities. The set of calculations also identify various "triggers" that are associated with specified ambient air PCB concentration or cumulative exposure trends that could indicate that a closer assessment of PCB emission sources and their potential impact on exposures to the public may be warranted.

Since the initiation of remediation activities in 2004, these calculations have been performed using a spreadsheet. FW developed a prototype program that uses a set of linked computational spreadsheets to perform these calculations. This prototype FW program is called the Public Exposure Tracking System (PETS) and was presented in the FW Implementation Plan (FW 2001b). The PETS curves graphically represent the exposure budget (the risk-based allowable PCB intake by either a commercial worker or a resident) versus the monitored exposure (as determined by the ambient air PCB concentrations for the active remediation periods and the ambient air background concentrations as determined by 1999 and 2000 background data collected by FW).

As an output from this prototype program, a graded scale of response action priority was defined to facilitate matching a site management response (in terms of PCB emission source management) to the severity of the potential consequences of the triggering condition. Using this program, a brief standardized summary report is generated for each sampling station that uses real data collected or calculated exposure concentrations from the dispersion model following each sampling event. That report contains the current plot of the comparison of the estimated cumulative exposures to the established budget line and a review of any triggers present during that sampling period. Further details are presented in the Implementation Plan and the PETS curves for the 2004 and 2005 dredging seasons are presented in the 2004 and 2005 After Action Reports (AAR) (Jacobs 2006, 2005a).

3.0 DEVELOPING AMBIENT AIR PCB CONCENTRATION TIME TRENDS

The cumulative exposure budgets discussed in Section 2.0 provide a benchmark against which a time series of airborne PCB concentrations have been compared to evaluate potential inhalation risks to the public. The series of PCB concentrations at a location have been established using a combination of actual sample results and dispersion modeling.

The following sections describe the principal elements of the Plan, specifically the:

- Proposed locations of the sampling stations (Section 3.1); and the
- Schedule of operation and frequency of sampling at the sampling station locations (Section 3.2).

The results of the Baseline Ambient Air Sampling and Analysis Program and air sampling performed in conjunction with past removal or construction efforts has been used to provide suitable estimates of ambient air PCB levels during the off season. This information has been used to "fill in" or verify portions of the time series of ambient PCB concentrations when remediation activities are not taking place. The use of a combination of these different sets of ambient air measurements has been used as a cost-effective approach for collecting the information needed to implement the airborne PCB tracking program for the protection of the public.

3.1 LOCATIONS OF THE SAMPLING STATIONS

This section presents the network of sampling station locations that have been be used in tracking cumulative exposure budgets relative to potential public exposure points located around New Bedford Harbor during the 2004 and 2005 season and for the upcoming 2006 season. A primary goal in establishing the sampling locations is to position the stations where the airborne PCB concentrations may be the highest. Additional goals include verifying the model and developing time trends.

In establishing locations for the network of sampling stations, the following elements were considered:

- The locations of the Desanding Operations Area (near the Sawyer Street Confined Disposal Facility [CDF]) and the Dewatering Building and Dewatered Sediment Load-Out Facility (at Area D) were recognized as the sites of nearly continuous operation during remediation and elevated (i.e., stack or vent-type) point PCB emission sources;
- The dredge areas were recognized as areas of PCB emission sources;
- The site-specific meteorological data collected to date were reviewed to identify the prevailing wind directions at different times of the year;
    - Summer – During the summer, the prevailing winds are from the south or southwest (off the ocean, toward the land), and would generally transport PCBs toward the north or northeast;
    - Fall – During the fall, the prevailing winds are typically from either the northwest or the south/southwest, and would generally transport PCBs toward the southeast or the north/northeast, respectively;
    - Winter – During the winter, the prevailing winds are from the northwest (off the land, toward the ocean) with secondary peak winds from the northeast and southeast, and would generally transport PCBs toward the southeast;
    - Spring – During the spring, the prevailing winds are transitional, but most typically from either the northwest with secondary easterly component winds (north or south of east), and would generally transport PCBs toward the southeast or components of the west, respectively; and
- The survey of the potential public exposure points described in the Development Document was used to identify locations around the Harbor where residential, commercial or other sensitive public inhalation exposure could be expected. The abutters to the Dewatering Building were explicitly considered with regard to possible exposure.

The proposed sampling stations were located based on one or more of the following considerations:

A. Proximity to hot spot dredging operations in the Upper Harbor;
B. Proximity to and potentially downwind from constructed remediation facilities that may be stationary sources of PCB emissions (i.e., the Dewatering Building Area and the Desanding Operation [Sawyer Street CDF] Area); and
C. Funding considerations and associated schedule implications. As discussed in Section 2.2.2, during the preparation of the Plan, FW assumed that remedial activities

would take about 4 years to complete based on remediation ongoing most of the year (FW 2001). However, in the current program dredging will be conducted only 2 to 3 months per year over a much longer timeframe. Therefore, the dredging operations have been (2004 and 2005), and will typically be conducted in the late summer and early fall timeframes in the foreseeable future.

Based on a late summer and early fall schedule of dredging in the Upper Harbor, the set of proposed sampling locations was presented to both the EPA and NAE prior to the 2004 remediation season. Table 3-1 identifies the set of potential ambient air sampling locations and these locations are presented in Figure 2-1.

In addition to the change in dredging strategy, which was reflected in selection of air sampling locations, the air sampling methodology was also modified prior to the 2004 season. During previous FW sampling events, Graseby brand Model PS-1 polyurethane foam (PUF) high volume samplers were used to collect ambient samples at the New Bedford Site. However, these units require a 120-volt power supply and are not particularly mobile. Thus, Jacobs proposed and pilot tested the low flow analytical method (EPA TO-10A), inherently more mobile and self contained than the previous sampling methods. The low flow sampling method was approved by the EPA and NAE and implemented for the 2004 and 2005 seasons. The low flow sampling methodology is outlined in detail in the 2004 After Action Report (AAR) (Jacobs 2005a).

3.2 STATION IDENTIFICATION, OPERATION AND SAMPLING FREQUENCY

The proposed plan for establishing operating schedules and the frequency at which ambient air samples should be collected at each operating station location is presented in this section. The air sampling frequencies and operation schedule for each of the identified station locations for the upcoming 2006 season has been modified based on the results of the 2004 and 2005 ambient air sampling activities. As previously discussed, the changes to the air sampling approach are based upon the following three factors:

1. The results of the 2004 and 2005 ambient air sampling program;
2. The 2005 air modeling efforts that utilized Jacobs' 2004 field data; and

3. Numerous meetings between representatives of the EPA, the NAE, and Jacobs where the sampling and modeling results were discussed and a path forward for the 2006 remediation season was agreed upon.

Section 3.2.1 will briefly summarize the 2004 and 2005 ambient air sampling results and Section 3.2.2 will present the proposed 2006 ambient air sampling program as agreed upon during a March 29, 2006 meeting between EPA, NAE, and Jacobs.

3.2.1 Summary of 2004 and 2005 Ambient Air Sampling Activities

During the 2004 and 2005 seasons, the majority of the ambient air sampling was conducted when dredging and the remediation facilities were operating. The remediation facilities are identified as the desanding plant (Area C) and the dewatering plant (Area D). EPA has decided that the findings from previous baseline and operational monitoring have eliminated the need for additional pre-mobilization and post-operational sampling. The existing baseline data has been incorporated into the exposure line as daily representative exposure information when operations are down.

During the 2004 and 2005 seasons, sampling was conducted with the following sampling frequencies followed during each dredging season:

- One sampling round prior to the initiation of mobilization activities to collect additional background data;
- One month of weekly sampling events at the stations sampled during the pre-dredge sampling events. In addition, the dredge was also sampled during these events;
- Two months of sampling once a month; and
- One post-demobilization round of sampling.

The ambient air analytical results for the 2004 and 2005 remediation seasons were presented in the 2004 and 2005 AAR documents (Jacobs 2006, 2005a) and are presented in Attachment A for informational purposes. The 2004 data is presented in Table A-1 and the 2005 data is presented in Table A-2 (Attachment A). The PETS curves for the 2005 remediation season also are presented in Attachment B for informational purposes.

The 2005 PETS curves were generated for the following nine sampling locations (Figure 2-1):

- 24 Aerovox;
- 25 Cliftex;
- 42 Nstar;
- 46 Coffin Avenue;
- 48 Area C crosswind;
- 49 Area C downwind;
- 50 Area D downwind;
- 55 Aerovox West; and
- 56 Acushnet Park.

With the exception of the PETS curve for 24 Aerovox, the monitored exposures for the remaining eight locations were well below the exposure budget for the 2004 and 2005 seasons. Of particular significance are the PETS curves for the ambient air samples collected from Area C (48 Area C crosswind and 49 Area C downwind), Area D (Area D downwind), and the residential samples (55 Aerovox West and 56 Acushnet Park). Prior to the initiation of the 2004 dredging activities, it was thought that the processing activities at the Desanding Plant (Area C) and the Dewatering Plant (Area D) may release significant concentrations of PCBs to the air. However, based on the low concentrations detected in the vicinity of Areas C and D, it appears that the impacts of these operations are minimal.

In addition, it is encouraging that the ambient air PCB concentrations detected at residential monitoring locations 55 and 56 are well below the exposure budget for these locations. The concentrations observed in the field compare favorably with those predicted by the Jacobs 2005 air modeling activities that were summarized in the Jacobs October 2005 report titled *Air Dispersion Modeling of Emission Sources 2004 and 2005 Dredging Operations, New Bedford Harbor Superfund Site* (Jacobs 2005b).

3.2.2 Proposed 2006 Ambient Air Sampling Activities

The 2004 and 2005 ambient air PCB sampling data was reviewed during a March 29, 2006 meeting between EPA, NAE, and Jacobs along with the results of the Jacobs modeling efforts. The following conclusions were reached during the March 29, 2006 meeting:

- **Impact of Processing Facilities** – The 2004 and 2005 ambient air PCB results indicate that the processing activities conducted at the desanding plant (Area C) and the dewatering plant (Area D) are not releasing significant PCB concentrations into the atmosphere. Therefore, it was recommended that the future air monitoring activities in the immediate vicinity of these facilities be limited to downwind of these areas (Station 49 at Area C and Station 50 at Area D). The upwind and cross wind locations from Area C and the upwind location from Area D were eliminated from the sampling program for 2006.
- **Residential Sampling** – Both the 2004 and 2005 air monitoring results and the modeling summarized in the 2005 Modeling Report indicate that the dredging activities are not impacting residential receptors (Jacobs 2005b). However, it was recommended that in 2006 air samples be collected from Station 25 (Cliftex) since this facility is being converted into a residential facility. In addition, to further ensure that the Area C activities are not impacting the residential area to the north of Area C, it also was recommended that Station 46 (Coffin Ave) be sampled during the 2006 season.
- **Aerovox, Station 24** – This is the only air sampling location where a low trigger was identified during both the 2004 and 2005 sampling activities. Therefore, it was recommended that air sampling activities continue at this Station while dredging activities are active in the northern portion of the Upper Harbor.
- **Dredge, Station 53** – The air sampling at the Dredge will continue during the 2006 season. This air PCB data is being collected to provide source concentrations for the modeling activities to be conducted following the 2006 season.
- **Sampling Frequency** – During the March 29, 2006 meeting between EPA, NAE, and Jacobs, it was agreed to reduce the air sampling frequency during the first month of sampling from weekly to monthly. Also, since the intent of the sampling is to collect ambient air PCB concentration data to confirm the results of the modeling activities, it was decided that all of the samples will be submitted for analysis on a standard turn around time.

During the upcoming 2006 dredge season, ambient air samples will be collected from the following sampling locations as presented on Figure 2-1:

- Station 24 – Aerovox;
- Station 25 – Cliftex;
- Station 46 – Coffin Avenue;
- Station 49 – the downwind location at Area C;
- Station 50 – the downwind location at Area D; and
- Station 53 – the dredge.

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4.0 ANNUAL REVIEW

This Air Management Plan document presents a technically defensible air sampling approach to provide ambient air PCB concentration data for the purpose of tracking and documenting public exposure to airborne PCBs relative to the cumulative exposure budgets. The planned remediation of New Bedford Harbor will occur over a number of years. During the project, it is anticipated that the plans for remediation will continue to be updated in response to changes in the project. It is recommended that the approach outlined in this document be reviewed annually as the remediation of the Harbor progresses to ensure that it remains appropriate for accomplishing the stated objectives of the Air Management Plan. Based upon this annual review, changes to the sampling approach may be appropriate and can be incorporated as a modification to this document.

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5.0 REFERENCES

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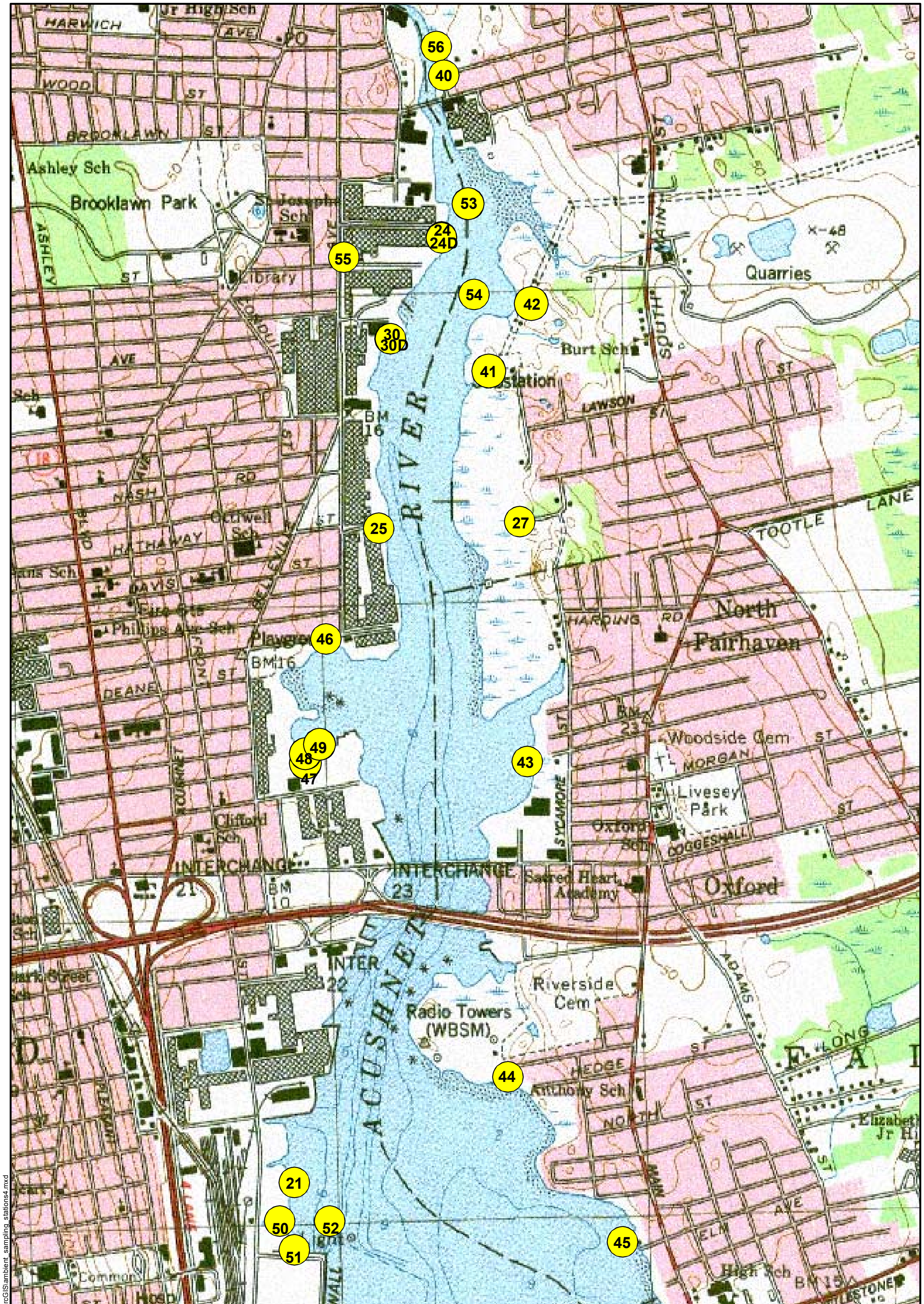
FIGURE



Legend

Ambient Air Sampling Locations

Sample Station

N

0 750 1,500 Feet

1:18,000

JACOBS

Ambient Air Sampling Station Locations

New Bedford Harbor Superfund Site

NAME: croberts DATE: 2/9/2006

Figure 2-1

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TABLES

Table 2-1
Annual Average PCB Background Concentrations at the Baseline Sampling Locations at New Bedford Harbor

Air Quality Site Number [1]	Air Quality Site Location	Annual Average PCB Background Concentration (ng/m^3)
21	CDF D Area	16.7
22	Brooklawn Park	2.3
23	Acushnet Substation	23.0
24 and 24D	Aerovox	75.0
25	Cliftex	26.1
26	Sawyer Street	56.0
28 [2]	Early Action Area	21.4[2]

Notes:
[1] See Figure 3-2, Appendix M of the Development Document
[2] The concentration shown for Air Quality Site 28 reflects the results of ambient air sampling in September 2000 prior to the performance of the Early Action sediment removal activity in the Upper Harbor. As such, this average value is not a full year average concentration.

Table 2-2
Quarterly Average PCB Background Concentrations at the Baseline Sampling Locations at New Bedford Harbor

Baseline Air Quality Site Number [1]	Air Quality Site Location	2005 Air Monitoring Station	Quarterly PCB Background Concentration Averages (ng/m^3) [1, 2]
21	CDF D Area	50, 51, and 52	3.2, 35, 46, and 22
23	Acushnet Substation	42	9.9, 29, 31, and 24
24 and 24D	Aerovox	24	32, 76, 130, 67
25	Cliftex	25 and 46	3.2, 35, 46, and 22
26	Sawyer Street	47, 48, and 49	89, 61, 33, and 43
40	Wood Street	55 and 56 [3]	5.2

Notes:

[1] Quarterly average PCB background concentrations were presented in Appendix D: (Average/Maximum Total PCB Concentrations) of the March 2001 FW document titled *Final Annual Report Baseline Ambient Air Sampling & Analysis, 1 June 1999 – 30 May 2000, Operable Unit #1, New Bedford Harbor Superfund Site, New Bedford, Massachusetts* (FW 2001c).

[2] The quarterly averages represent the following quarterly timeframes for each year: 12/1 - 2/28; 3/1 - 5/31; 6/1 – 8/31; and 9/1 – 11/30.

[3] The concentration for Stations 55 and 56 reflect a maximum concentration for Station 40 (Wood Street). Quarterly average PCB concentrations were not available for Station 40 from the 1999 through 2000 FW sampling event.

Table 3-1
Ambient PCB Sample Station Locations
New Bedford Harbor Superfund Site - 2006 Season

Station Number	Station Type	Location	City/Town	Northing	Easting
21	M	New Bedford Welding	New Bedford	2696913.00000	814013.00000
24	M	Aerovox NE corner	New Bedford	2706941.00000	815574.00000
24D	M	Aerovox duplicate	New Bedford	2706932.00000	815574.00000
25	M	Cliftex, Manomet Street	New Bedford	2703854.00000	814907.00000
27	M	Francis St (Porter)	Fairhaven	2703925.00000	816405.00000
30	M	Fiber Leather	New Bedford	2705861.00000	815029.00000
30D	M	Fiber Leather duplicate	New Bedford	2705864.00000	815034.00000
40	M	Wood St (Titleist)	Acushnet	2705820.00000	814933.00000
41	M	NSTAR substation	Acushnet	2705524.00000	816074.00000
42	M	NSTAR North	Fairhaven	2706236.00000	816524.00000
43	M	Bus Terminal Lot	Fairhaven	2701377.00000	816482.00000
44	M	Taber St (Pumping Station)	Fairhaven	2698035.00000	816277.00000
45	M	Cozy Cove Marina	Fairhaven	2684279.00000	817739.00000
46	M	Coffin Ave	New Bedford	2703796.00000	814947.00000
47	S	Area C Downwind	New Bedford	2701361.00000	814129.00000
48	S	Area C Crosswind	New Bedford	2701462.00000	814128.00000
49	S	Area C Upwind	New Bedford	2701564.00000	814279.00000
50	S	Area D Downwind	New Bedford	2696198.00000	814012.00000
51	S	Area D Crosswind	New Bedford	2696500.00000	812858.00000
52	S	Area D Upwind	New Bedford	2695390.00000	814397.00000
53	S	DMU2 Dredge	Varies	2706636.00000	815839.00000
54	M	DMU2 DW on barge	Varies	2706333.00000	815917.00000
55	M	Aerovox West (R7 receptor)	New Bedford	2706728.00000	814540.00000
56	M	Acushnet Park	New Bedford	2708962.00000	815519.00000

ATTACHMENT A

Ambient Air Analytical Results

Table A-1
Ambient Monitoring Program - Total Detectable PCB in Air
New Bedford Superfund Site - 2004 Season

Sampling [2] Period	Station 24 Aerovox [3]	Station 53 DMU-2 Dredge [3]	Station 25 Cliftex [3]	Station 46 Coffin [3] Ave	Station 47 Area C UW	Station 48 Area C CW	Station 49 Area C DW	Station 50 Area D DW	Station 51 Area D UW	Station 52 Area D CW	Duplicate	Blank ng/m^3 Sample
6.28/29	2286	NS[1]	NS[1]	NS[1]	NS[1]	NS[1]	NS[1]	NS[1]	56	NS[1]	NS[1]	0.27
9.8/9	1024	723	167	145	28	37	56	19	16	47	1088	1.4
9.13/14	1449	98	229	48	64	64	86	38	39	61	QC [4]	0.77
9.22/23	588	1212	97	5	7	10	19	6	5	19	5	0.46
9.27/28	9557	2734	423	342	35	165	207	80	75	115	QC [4]	1.23
10.18/19	559	704	259	36	47	48	66	17	74	100	47	0.6
11.4/5	578	351	61	80	NS[1]	NS[1]	28	NS[1]	NS[1]	29	QC [4]	37
12.1/2	30	NS[1]	27	15	22	NS[1]	26	22	NS[1]	31	31	0.4

Notes:

(1) NS = Not Sampled. This was a performance test on new low flow method.

(2) Sampled and analyzed using EPA TO-10a methodology.

(3) All results reported for 24-hour time-weighted average in nanograms per cubic meter of air (ng/m ^{3}).

(4) Duplicate sent to USACE laboratory. The 11/4 duplicate sample was collected from Station 49.

(5) Duplicate samples - 9/8 (Station 24), 9/22 (Station 47), 10/18 (Station 48), and 12/1 (Station 52).

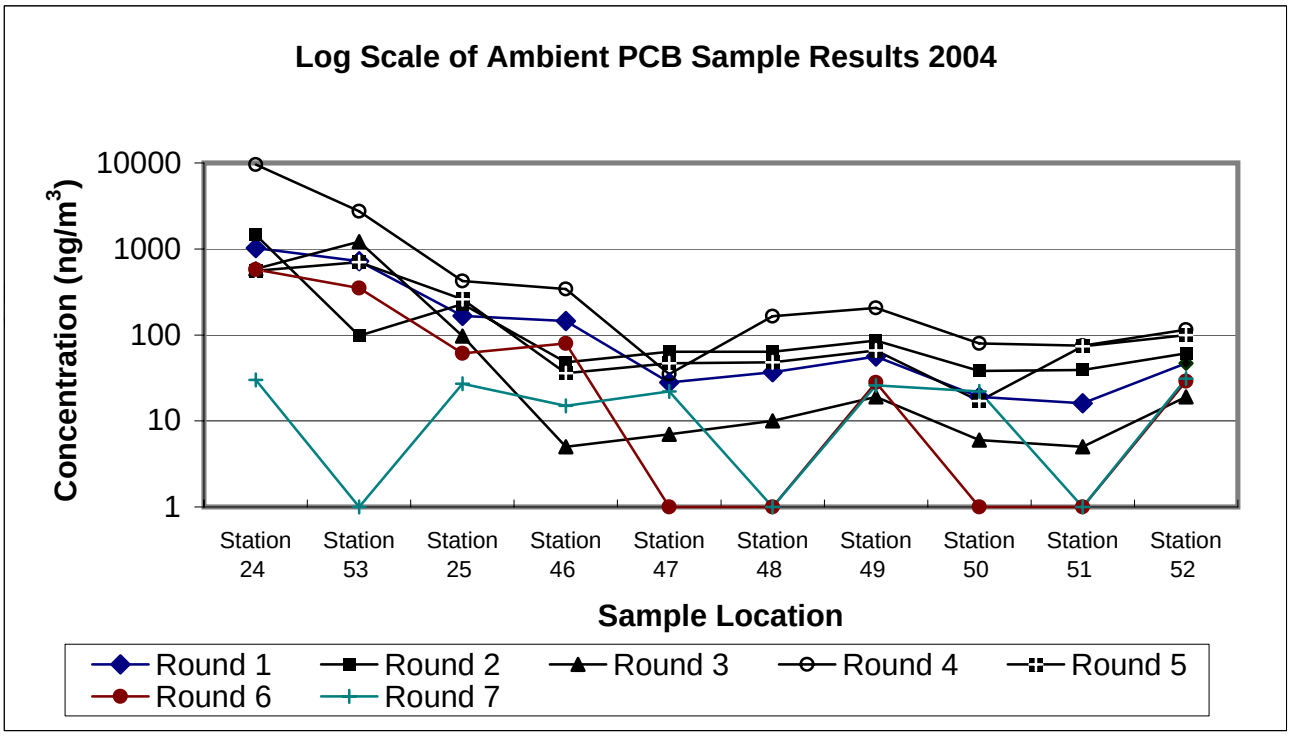
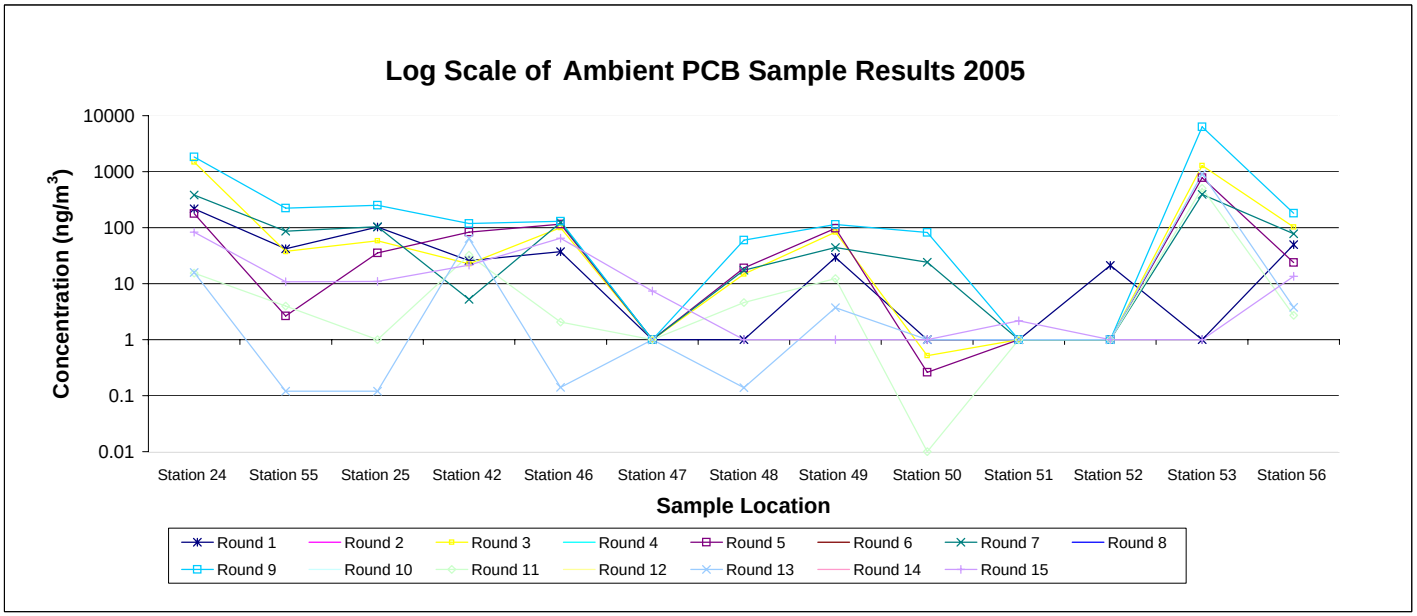


Table A-2
Ambient Monitoring Program - Total Detectable PCB in Air
New Bedford Harbor Superfund Site - 2005 Season

Sampling [1] Period	Aerovox [2] Station 24	Aerovox West Upwind Station 55	Cliftex Station 25	Nstar Station 42	Coffin Ave Station 46	Area C Downwind Station 47	Area C Crosswind Station 48	Area C Downwind Station 49	Area D Downwind Station 50	Area D Downwind Station 51	Area D Downwind Station 52	Dredge Station 53	Achusnet Park Station 56	Duplicate	Blank	ng/m^3 Sample	Comments
8.10 to 8.11	216	42.1	103	25.9	37.2	NS [3]	NS	29.3	NS	NS	21.3	NS	49.9	44.1	0.32		Duplicate sample
Round 1																	Aerovox West
9.14 to 9.15	1,490	37.6	58.2	22.5	99.8	NS	14.9	83.6	0.52	NS	NS	1,280	102	NS	0.26		No Duplicate Sample
Round 2																	
9.22 to 9.23	178	2.64	35.2	83.3	115	NS	19.1	97	0.26	NS	NS	780	23.9	18.8	0.54		Duplicate sample
Round 3																	Station 48, Area C
9.28 to 9.29	383	87	104	5.28	124	NS	17.3	44.2	24.2	NS	NS	391	77.9	QA[6]	1.16		Duplicate sample sent
Round 4																	to Corps Lab
10.5 to 10.6	1,822	222	251	119	130	NS	60.1	114	81.7	NS	NS	6,315	180	1,708	0.96		Duplicate sample
Round 5																	Aerovox Station 24
10.27 to 10.28	15.4	3.97	NS [4]	32.3	2.06	NS	4.61	12.3	0.01	NS	NS	505	2.73	QA[6]	0.42		Duplicate sample sent
Round 6																	to Corps lab
11.17 to 11.18	15.9	0.12	0.12	63.6	0.14	NS	0.139	3.71	NS[5]	NS	NS	913	3.76	14.9	1.73		Duplicate sample
Round 7																	Aerovox Station 24
12.28 to 12.29	83.2	10.8	10.9	21.4	65.1	7.42	NS	NS	NS	2.18	NS	NS	13.5	QA[6]	0.33		Duplicate sample sent
Round 8																	to Corps lab

Notes:
(1) Sampled and analyzed using EPA TO-10A Methodology.
(2) All results reported for 24-hour time-weighted average in nanograms per cubic meter of air (ng/m^3).
(3) NS = Not Sampled.
(4) Sample tube for 25 Cliftex was broken during transport.
(5) Sample tube for 50 Area D was broken during analysis preparation.
(6) Duplicate sent to USACE laboratory.



ATTACHMENT B

2005 PETS Curves

Air Sampling Status

New Bedford Harbor Superfund Site

Station #: 24 Aerovox
Exposure Budget Slope (EBS) = 344 (ng/m^3-day)

Collection Date: 12/29/2005

Construction Activity: The 2005 dredging activities were completed on November 18, 2005.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Vol sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

The results from the Baseline Ambient Air Sampling program were used to assign background concentrations for each air sampling location. For Station 24 Aerovox, the quarterly average ambient air PCB concentrations for the June 1999 through May 2000 baseline sampling were used as background concentrations. These background concentrations were used for the inactive field times from 11/12/02 through 9/8/04 and for the period from 12/4/04 through 8/10/05 to close the inactive field season. Low triggers were identified, which will be evaluated for potential necessary response.

Monitoring Station		24 Aerovox
Exposure Budget Slope	[ng/m^3-day]	344
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	75

Sample Results, Calculated Budget and Exposure Values

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#]	[month/day/year]	[days]	Runnig Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	67	67.00	67.00	NC	NC	NC	NC	NC	NC
2	11/30/2002	18	18	9477	67	67.00	67.00	6192	6192	1206.0	1,206.0	19.5%	19.5%
3	12/1/2002	1	19	9476	32	49.50	66.08	344	6536	49.5	1,255.5	14.4%	19.2%
4	2/28/2003	89	108	9387	32	32.00	38.00	30616	37152	2848.0	4,103.5	9.3%	11.0%
5	5/31/2003	92	200	9295	76	54.00	45.36	31648	68800	4968.0	9,071.5	15.7%	13.2%
6	8/31/2003	92	292	9203	130	103.00	63.52	31648	100448	9476.0	18,547.5	29.9%	18.5%
7	11/30/2003	91	383	9112	67	98.50	71.83	31304	131752	8963.5	27,511.0	28.6%	20.9%
8	2/28/2004	90	473	9022	32	49.50	67.58	30960	162712	4455.0	31,966.0	14.4%	19.6%
9	5/31/2004	93	566	8929	76	54.00	65.35	31992	194704	5022.0	36,988.0	15.7%	19.0%
10	8/31/2004	92	658	8837	130	103.00	70.61	31648	226352	9476.0	46,464.0	29.9%	20.5%
11	9/8/2004	8	666	8829	67	98.50	70.95	2752	229104	788.0	47,252.0	28.6%	20.6%
12	9/9/2004	1	667	8828	1024	545.50	71.66	344	229448	545.5	47,797.5	158.6%	20.8%
13	9/14/2004	5	672	8823	1449	1236.50	80.33	1720	231168	6182.5	53,980.0	359.4%	23.4%
14	9/23/2004	9	681	8814	588	1018.50	92.73	3096	234264	9166.5	63,146.5	296.1%	27.0%
15	9/27/2004	4	685	8810	9557	5072.50	121.81	1376	235640	20290.0	83,436.5	1474.6%	35.4%
16	10/19/2004	22	707	8788	559	5058.00	275.41	7568	243208	111276.0	194,712.5	1470.3%	80.1%
17	11/5/2004	17	724	8771	578	568.50	282.29	5848	249056	9664.5	204,377.0	165.3%	82.1%
18	12/3/2004	28	752	8743	30	304.00	283.10	9632	258688	8512.0	212,889.0	88.4%	82.3%
19	2/28/2005	87	839	8656	32	31.00	256.96	29928	288616	2697.0	215,586.0	9.0%	74.7%
20	5/31/2005	92	931	8564	76	54.00	236.90	31648	320264	4968.0	220,554.0	15.7%	68.9%
21	8/10/2005	71	1002	8493	130	103.00	227.41	24424	344688	7313.0	227,867.0	29.9%	66.1%
22	8/11/2005	1	1003	8492	216	173.00	227.36	344	345032	173.0	228,040.0	50.3%	66.1%
23	9/15/2005	35	1038	8457	1490	853.00	248.45	12040	357072	29855.0	257,895.0	248.0%	72.2%
24	9/23/2005	8	1046	8449	178	834.00	252.93	2752	359824	6672.0	264,567.0	242.4%	73.5%
25	9/29/2005	6	1052	8443	383	280.50	253.09	2064	361888	1683.0	266,250.0	81.5%	73.6%
26	10/6/2005	7	1059	8436	1822	1102.50	258.70	2408	364296	7717.5	273,967.5	320.5%	75.2%
27	10/28/2005	22	1081	8414	15.4	918.70	272.14	7568	371864	20211.4	294,178.9	267.1%	79.1%
28	11/18/2005	21	1102	8393	15.9	15.65	267.25	7224	379088	328.7	294,507.6	4.5%	77.7%
29	12/29/2005	41	1143	8352	83.2	49.55	259.44	14104	393192	2031.6	296,539.1	14.4%	75.4%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

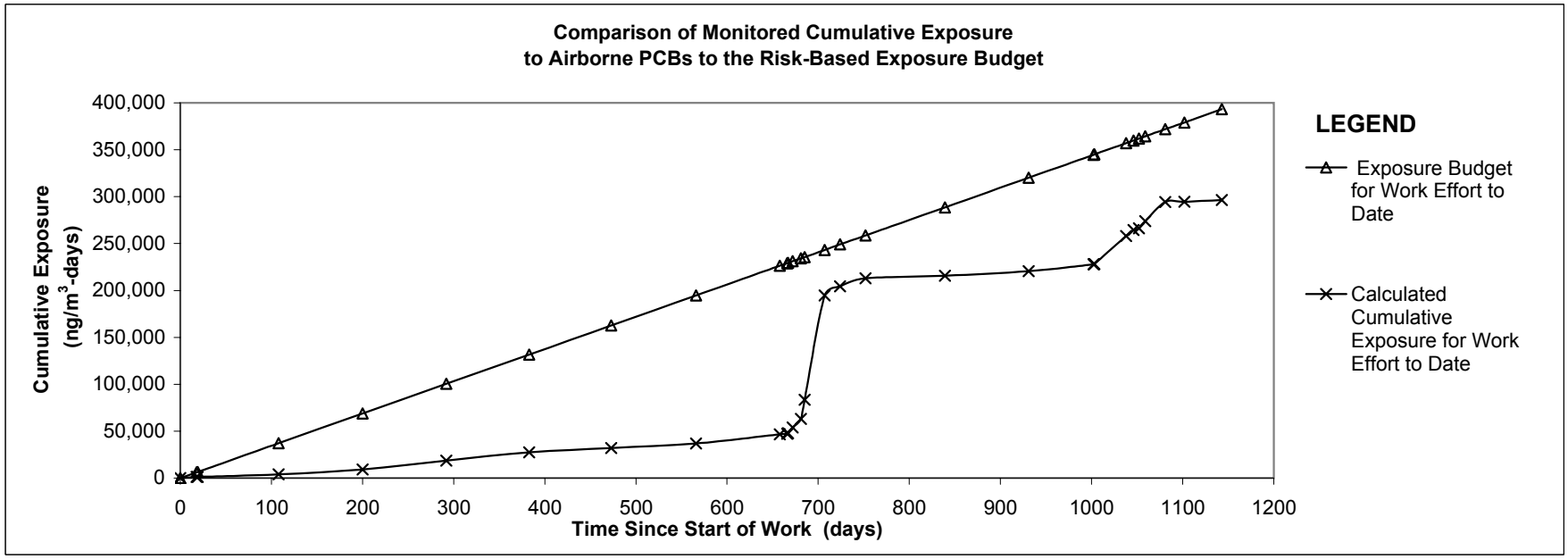
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	24 Aerovox
Collection Date:	12/29/2005
Measured PCB Concentration (ng/m^3):	83.2
Exposure Budget Expended During This Period:	14.4%
Cumulative Exposure Budget Expended to Date:	75.4%
Response Level:	LOW
Response:	Evaluate the Cause and Significance of the Triggering Conditions

Triggers:



Air Sampling Status

New Bedford Harbor Superfund Site

Station #: 25 Cliftex
Exposure Budget Slope (EBS) = 344 (ng/m^3-day)

Collection Date: 12/29/2005

Construction Activity: The 2005 dredging activities were completed on November 18, 2005.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Vol sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

The results from the Baseline Ambient Air Sampling program were used to assign background concentrations for each air sampling location. For Station 25 Cliftex, the quarterly average ambient air PCB concentrations were used as a background concentration, which represent the quarterly baseline averages for the period of June 1999 through May 2000. These background concentrations were used for the inactive field times from 11/12/02 through 9/8/04 and for the period from 12/4/04 through 8/10/05 to close the inactive field season. No triggers were identified, therefore, no action is required.

Monitoring Station		25 Cliftex
Exposure Budget Slope	[ng/m^3-day]	344
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	23

Sample Results, Calculated Budget and Exposure Values

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#]	[month/day/year]	[days]	Runnig Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	22	22.00	22.00	NC	NC	NC	NC	NC	NC
2	11/30/2002	18	18	9477	22	22.00	22.00	6192	6192	396.0	396.0	6.4%	6.4%
3	12/1/2002	1	19	9476	3.2	12.60	21.51	344	6536	12.6	408.6	3.7%	6.3%
4	2/28/2003	89	108	9387	3.2	3.20	6.42	30616	37152	284.8	693.4	0.9%	1.9%
5	5/31/2003	92	200	9295	35	19.10	12.25	31648	68800	1757.2	2,450.6	5.6%	3.6%
6	8/31/2003	92	292	9203	46	40.50	21.15	31648	100448	3726.0	6,176.6	11.8%	6.1%
7	11/30/2003	91	383	9112	22	34.00	24.21	31304	131752	3094.0	9,270.6	9.9%	7.0%
8	2/28/2004	90	473	9022	3.2	12.60	22.00	30960	162712	1134.0	10,404.6	3.7%	6.4%
9	5/31/2004	93	566	8929	35	19.10	21.52	31992	194704	1776.3	12,180.9	5.6%	6.3%
10	8/31/2004	92	658	8837	46	40.50	24.17	31648	226352	3726.0	15,906.9	11.8%	7.0%
11	9/8/2004	8	666	8829	22	34.00	24.29	2752	229104	272.0	16,178.9	9.9%	7.1%
12	9/9/2004	1	667	8828	167	94.50	24.40	344	229448	94.5	16,273.4	27.5%	7.1%
13	9/14/2004	5	672	8823	229	198.00	25.69	1720	231168	990.0	17,263.4	57.6%	7.5%
14	9/23/2004	9	681	8814	97	163.00	27.50	3096	234264	1467.0	18,730.4	47.4%	8.0%
15	9/28/2004	5	686	8809	423	260.00	29.20	1720	235984	1300.0	20,030.4	75.6%	8.5%
16	10/19/2004	21	707	8788	259	341.00	38.46	7224	243208	7161.0	27,191.4	99.1%	11.2%
17	11/15/2004	27	734	8761	61	160.00	42.93	9288	252496	4320.0	31,511.4	46.5%	12.5%
18	12/3/2004	18	752	8743	27	44.00	42.96	6192	258688	792.0	32,303.4	12.8%	12.5%
19	2/28/2005	87	839	8656	3.2	15.10	40.07	29928	288616	1313.7	33,617.1	4.4%	11.6%
20	5/31/2005	92	931	8564	35	19.10	38.00	31648	320264	1757.2	35,374.3	5.6%	11.0%
21	8/10/2005	71	1002	8493	46	40.50	38.17	24424	344688	2875.5	38,249.8	11.8%	11.1%
22	8/11/2005	1	1003	8492	103	74.50	38.21	344	345032	74.5	38,324.3	21.7%	11.1%
23	9/15/2005	35	1038	8457	58.2	80.60	39.64	12040	357072	2821.0	41,145.3	23.4%	11.5%
24	9/23/2005	8	1046	8449	35.2	46.70	39.69	2752	359824	373.6	41,518.9	13.6%	11.5%
25	9/29/2005	6	1052	8443	104	69.60	39.86	2064	361888	417.6	41,936.5	20.2%	11.6%
26	10/6/2005	7	1059	8436	251	177.50	40.77	2408	364296	1242.5	43,179.0	51.6%	11.9%
27	11/18/2005	43	1102	8393	0.12	125.56	44.08	14792	379088	5399.1	48,578.1	36.5%	12.8%
28	12/29/2005	41	1143	8352	10.9	5.51	42.70	14104	393192	225.9	48,804.0	1.6%	12.4%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

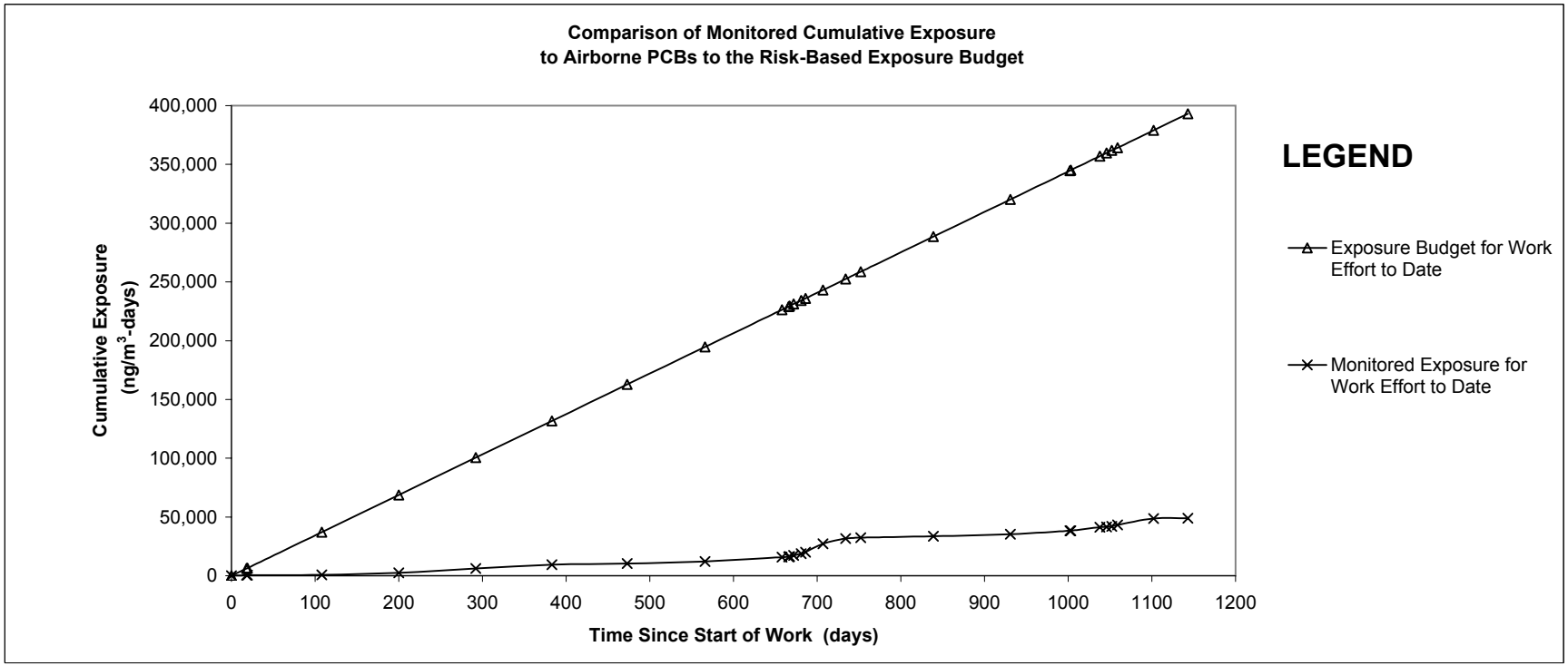
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	25 Cliftex
Collection Date:	12/29/2005
Measured PCB Concentration (ng/m^3):	10.9
Exposure Budget Expended During This Period:	1.6%
Cumulative Exposure Budget Expended to Date:	12.4%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers:



Air Sampling Status

New Bedford Harbor Superfund Site

Station #: 42 NSTAR N

Exposure Budget Slope (EBS) = 344 (ng/m^3-day)

Collection Date: 12/29/2005

Construction Activity: The 2005 dredging activities were completed on November 18, 2005.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Vol sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

The results from the Baseline Ambient Air Sampling program were used to assign background concentrations for each air sampling location. For Station 42 NSTAR N, the quarterly average ambient air PCB concentrations were used as a background concentration, which represent the quarterly baseline averages from Station 23 - Achusnet Substation, for the period of June 1999 through May 2000. These background concentrations were used for the inactive field times from 11/12/02 through 9/8/04 and for the period from 12/4/04 through 8/10/05 to close the inactive field season. No triggers were identified, therefore, no action is required.

Monitoring Station		42 NSTAR N
Exposure Budget Slope	[ng/m^3-day]	344
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	23

Sample Results, Calculated Budget and Exposure Values

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#]	[month/day/year]	[days]	Runnig Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	24	24.00	24.00	NC	NC	NC	NC	NC	NC
2	11/30/2002	18	18	9477	24	24.00	24.00	6192	6192	432.0	432.0	7.0%	7.0%
3	12/1/2002	1	19	9476	9.9	16.95	23.63	344	6536	17.0	449.0	4.9%	6.9%
4	2/28/2003	89	108	9387	9.9	9.90	12.32	30616	37152	881.1	1,330.1	2.9%	3.6%
5	5/31/2003	92	200	9295	29	19.45	15.60	31648	68800	1789.4	3,119.5	5.7%	4.5%
6	8/31/2003	92	292	9203	31	30.00	20.14	31648	100448	2760.0	5,879.5	8.7%	5.9%
7	11/30/2003	91	383	9112	24	27.50	21.88	31304	131752	2502.5	8,382.0	8.0%	6.4%
8	2/28/2004	90	473	9022	9.9	16.95	20.95	30960	162712	1525.5	9,907.5	4.9%	6.1%
9	5/31/2004	93	566	8929	29	19.45	20.70	31992	194704	1808.9	11,716.3	5.7%	6.0%
10	8/31/2004	92	658	8837	31	30.00	22.00	31648	226352	2760.0	14,476.3	8.7%	6.4%
11	11/4/2004	65	723	8772	24	27.50	22.49	22360	248712	1787.5	16,263.8	8.0%	6.5%
12	11/5/2004	1	724	8771	73	48.50	22.53	344	249056	48.5	16,312.3	14.1%	6.5%
13	12/3/2004	28	752	8743	40	56.50	23.80	9632	258688	1582.0	17,894.3	16.4%	6.9%
14	2/28/2005	87	839	8656	9.9	24.95	23.92	29928	288616	2170.7	20,065.0	7.3%	7.0%
15	5/31/2005	92	931	8564	29	19.45	23.47	31648	320264	1789.4	21,854.4	5.7%	6.8%
16	8/10/2005	71	1002	8493	31	30.00	23.94	24424	344688	2130.0	23,984.4	8.7%	7.0%
17	8/11/2005	1	1003	8492	25.9	28.45	23.94	344	345032	28.5	24,012.8	8.3%	7.0%
18	9/15/2005	35	1038	8457	22.5	24.20	23.95	12040	357072	847.0	24,859.8	7.0%	7.0%
19	9/23/2005	8	1046	8449	83.3	52.90	24.17	2752	359824	423.2	25,283.0	15.4%	7.0%
20	9/29/2005	6	1052	8443	5.28	44.29	24.29	2064	361888	265.7	25,548.7	12.9%	7.1%
21	10/6/2005	7	1059	8436	119	62.14	24.54	2408	364296	435.0	25,983.7	18.1%	7.1%
22	10/28/2005	22	1081	8414	32.3	75.65	25.58	7568	371864	1664.3	27,648.0	22.0%	7.4%
23	11/18/2005	21	1102	8393	63.6	47.95	26.00	7224	379088	1007.0	28,655.0	13.9%	7.6%
24	12/29/2005	41	1143	8352	21.4	42.50	26.59	14104	393192	1742.5	30,397.5	12.4%	7.7%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

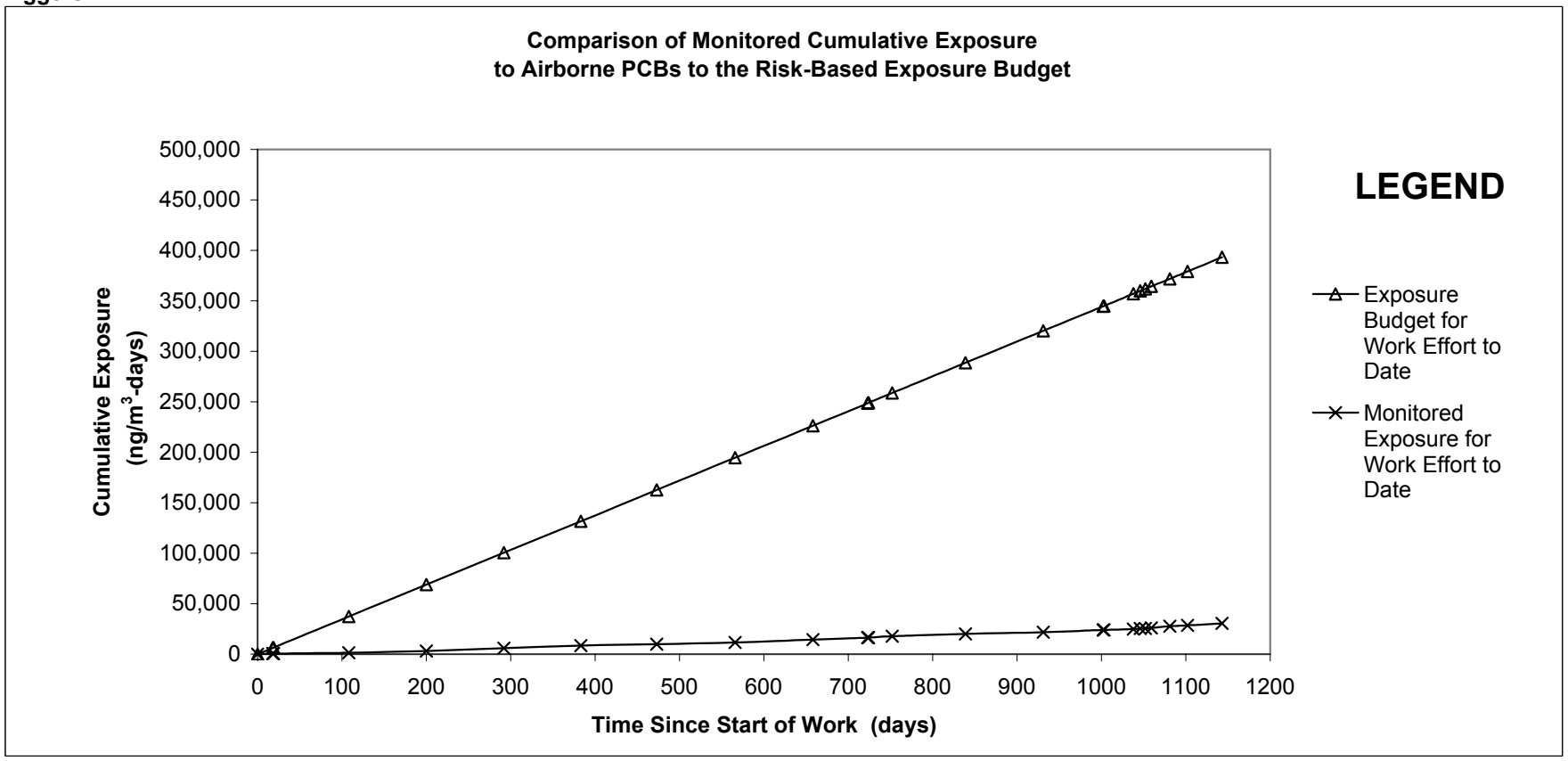
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	42 NSTAR N
Collection Date:	12/29/2005
Measured PCB Concentration (ng/m^3):	21.4
Exposure Budget Expended During This Period:	12.4%
Cumulative Exposure Budget Expended to Date:	7.7%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers:



Air Sampling Status

New Bedford Harbor Superfund Site

Station #: 46 Coffin Ave
Exposure Budget Slope (EBS) = 344 (ng/m^3-day)

Collection Date: 12/29/2005

Construction Activity: The 2005 dredging activities were completed on November 18, 2005.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Vol sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

The results from the Baseline Ambient Air Sampling program were used to assign background concentrations for each air sampling location. For Station 46 Coffin Ave., the quarterly ambient air PCB concentrations were used for background concentrations. These values represent the quarterly baseline averages from Stations 21 and 25 - Cliftex, for the period of June 1999 through May 2000. These background concentrations were used for the inactive field times from 11/12/02 through 9/8/04 and for the period from 12/4/04 through 8/10/05 to close the inactive field season. No triggers were identified, therefore, no action is required.

Monitoring Station		46 Coffin Ave
Exposure Budget Slope	[ng/m^3-day]	344
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	26.1

Sample Results, Calculated Budget and Exposure Values

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#]	[month/day/year]	[days]	Runnig Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	22	22.00	22.00	NC	NC	NC	NC	NC	NC
2	11/30/2002	18	18	9477	22	22.00	22.00	6192	6192	396.0	396.0	6.4%	6.4%
3	12/1/2002	1	19	9476	3.2	12.60	21.51	344	6536	12.6	408.6	3.7%	6.3%
4	2/28/2003	89	108	9387	3.2	3.20	6.42	30616	37152	284.8	693.4	0.9%	1.9%
5	5/31/2003	92	200	9295	35	19.10	12.25	31648	68800	1757.2	2,450.6	5.6%	3.6%
6	8/31/2003	92	292	9203	46	40.50	21.15	31648	100448	3726.0	6,176.6	11.8%	6.1%
7	11/30/2003	91	383	9112	22	34.00	24.21	31304	131752	3094.0	9,270.6	9.9%	7.0%
8	2/28/2004	90	473	9022	3.2	12.60	22.00	30960	162712	1134.0	10,404.6	3.7%	6.4%
9	5/31/2004	93	566	8929	35	19.10	21.52	31992	194704	1776.3	12,180.9	5.6%	6.3%
10	8/31/2004	92	658	8837	46	40.50	24.17	31648	226352	3726.0	15,906.9	11.8%	7.0%
11	9/8/2004	8	666	8829	22	34.00	24.29	2752	229104	272.0	16,178.9	9.9%	7.1%
12	9/9/2004	1	667	8828	145	83.50	24.38	344	229448	83.5	16,262.4	24.3%	7.1%
13	9/14/2004	5	672	8823	48	96.50	24.92	1720	231168	482.5	16,744.9	28.1%	7.2%
14	9/23/2004	9	681	8814	5	26.50	24.94	3096	234264	238.5	16,983.4	7.7%	7.2%
15	9/28/2004	5	686	8809	342	173.50	26.02	1720	235984	867.5	17,850.9	50.4%	7.6%
16	10/19/2004	21	707	8788	36	189.00	30.86	7224	243208	3969.0	21,819.9	54.9%	9.0%
17	11/5/2004	17	724	8771	80	58.00	31.50	5848	249056	986.0	22,805.9	16.9%	9.2%
18	12/3/2004	28	752	8743	15	47.50	32.10	9632	258688	1330.0	24,135.9	13.8%	9.3%
19	2/28/2005	87	839	8656	3.2	9.10	29.71	29928	288616	791.7	24,927.6	2.6%	8.6%
20	5/31/2005	92	931	8564	35	19.10	28.66	31648	320264	1757.2	26,684.8	5.6%	8.3%
21	8/10/2005	71	1002	8493	46	40.50	29.50	24424	344688	2875.5	29,560.3	11.8%	8.6%
22	8/11/2005	1	1003	8492	37.2	41.60	29.51	344	345032	41.6	29,601.9	12.1%	8.6%
23	9/15/2005	35	1038	8457	99.8	68.50	30.83	12040	357072	2397.5	31,999.4	19.9%	9.0%
24	9/23/2005	8	1046	8449	115	107.40	31.41	2752	359824	859.2	32,858.6	31.2%	9.1%
25	9/29/2005	6	1052	8443	124	119.50	31.92	2064	361888	717.0	33,575.6	34.7%	9.3%
26	10/6/2005	7	1059	8436	130	127.00	32.54	2408	364296	889.0	34,464.6	36.9%	9.5%
27	10/28/2005	22	1081	8414	2.06	66.03	33.23	7568	371864	1452.7	35,917.3	19.2%	9.7%
28	11/18/2005	21	1102	8393	0.14	1.10	32.61	7224	379088	23.1	35,940.4	0.3%	9.5%
29	12/29/2005	41	1143	8352	65.1	32.62	32.61	14104	393192	1337.4	37,277.8	9.5%	9.5%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

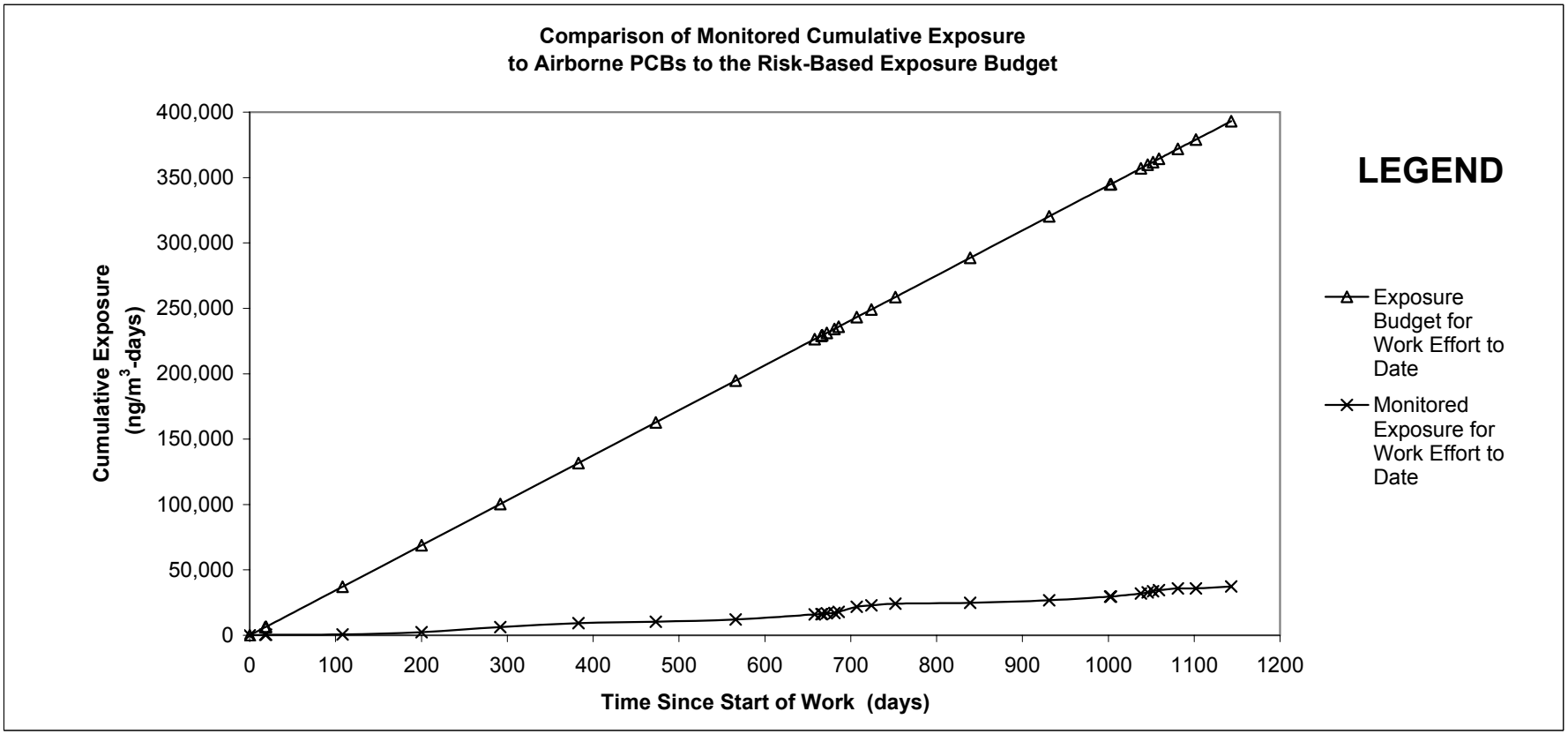
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	46 Coffin Ave
Collection Date:	12/29/2005
Measured PCB Concentration (ng/m^3):	65.1
Exposure Budget Expended During This Period:	9.5%
Cumulative Exposure Budget Expended to Date:	9.5%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers:



Air Sampling Status

New Bedford Harbor Superfund Site

Station #: 48 Area C Crosswind
Exposure Budget Slope (EBS) = 344 (ng/m^3-day)

Collection Date: 11/18/2005

Construction Activity: The 2005 dredging activities were completed on November 18, 2005.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Vol sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

The results from the Baseline Ambient Air Sampling program were used to assign background concentrations for each air sampling location. For Station 48 Area C Crosswind, the quarterly average ambient air PCB concentrations were used for background. These values represent the quarterly baseline averages from Station 26 - Sawyer for the period of June 1999 through May 2000. These background concentrations were used for the inactive field times from 11/12/02 through 9/8/04 and for the period from 12/4/04 through 9/14/05 to close the inactive field season. No triggers were identified, therefore, no action is required.

Monitoring Station		48 Area C Crosswind
Exposure Budget Slope	[ng/m^3-day]	344
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	56

Sample Results, Calculated Budget and Exposure Values

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#]	[month/day/year]	[days]	Runnig Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	43	43.00	43.00	NC	NC	NC	NC	NC	NC
2	11/30/2002	18	18	9477	43	43.00	43.00	6192	6192	774.0	774.0	12.5%	12.5%
3	12/1/2002	1	19	9476	89	66.00	44.21	344	6536	66.0	840.0	19.2%	12.9%
4	2/28/2003	89	108	9387	89	89.00	81.12	30616	37152	7921.0	8,761.0	25.9%	23.6%
5	5/31/2003	92	200	9295	61	75.00	78.31	31648	68800	6900.0	15,661.0	21.8%	22.8%
6	8/31/2003	92	292	9203	33	47.00	68.44	31648	100448	4324.0	19,985.0	13.7%	19.9%
7	11/30/2003	91	383	9112	43	38.00	61.21	31304	131752	3458.0	23,443.0	11.0%	17.8%
8	2/28/2004	90	473	9022	89	66.00	62.12	30960	162712	5940.0	29,383.0	19.2%	18.1%
9	5/31/2004	93	566	8929	61	75.00	64.24	31992	194704	6975.0	36,358.0	21.8%	18.7%
10	8/31/2004	92	658	8837	33	47.00	61.83	31648	226352	4324.0	40,682.0	13.7%	18.0%
11	9/8/2004	8	666	8829	43	38.00	61.54	2752	229104	304.0	40,986.0	11.0%	17.9%
12	9/9/2004	1	667	8828	37	40.00	61.51	344	229448	40.0	41,026.0	11.6%	17.9%
13	9/14/2004	5	672	8823	64	50.50	61.43	1720	231168	252.5	41,278.5	14.7%	17.9%
14	9/23/2004	9	681	8814	10	37.00	61.10	3096	234264	333.0	41,611.5	10.8%	17.8%
15	9/28/2004	5	686	8809	165	87.50	61.30	1720	235984	437.5	42,049.0	25.4%	17.8%
16	10/19/2004	21	707	8788	48	106.50	62.64	7224	243208	2236.5	44,285.5	31.0%	18.2%
17	11/30/2004	42	749	8746	43	45.50	61.68	14448	257656	1911.0	46,196.5	13.2%	17.9%
18	2/28/2005	90	839	8656	89	66.00	62.14	30960	288616	5940.0	52,136.5	19.2%	18.1%
19	5/31/2005	92	931	8564	61	75.00	63.41	31648	320264	6900.0	59,036.5	21.8%	18.4%
20	8/31/2005	92	1023	8472	33	47.00	61.94	31648	351912	4324.0	63,360.5	13.7%	18.0%
21	9/14/2005	14	1037	8458	43	38.00	61.61	4816	356728	532.0	63,892.5	11.0%	17.9%
22	9/15/2005	1	1038	8457	14.9	28.95	61.58	344	357072	29.0	63,921.5	8.4%	17.9%
23	9/23/2005	8	1046	8449	19.1	17.00	61.24	2752	359824	136.0	64,057.5	4.9%	17.8%
24	9/29/2005	6	1052	8443	17.3	18.20	60.99	2064	361888	109.2	64,166.7	5.3%	17.7%
25	10/6/2005	7	1059	8436	60.1	38.70	60.85	2408	364296	270.9	64,437.6	11.3%	17.7%
26	10/28/2005	22	1081	8414	4.61	32.36	60.27	7568	371864	711.8	65,149.4	9.4%	17.5%
27	11/18/2005	21	1102	8393	0.139	2.37	59.16	7224	379088	49.9	65,199.2	0.7%	17.2%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

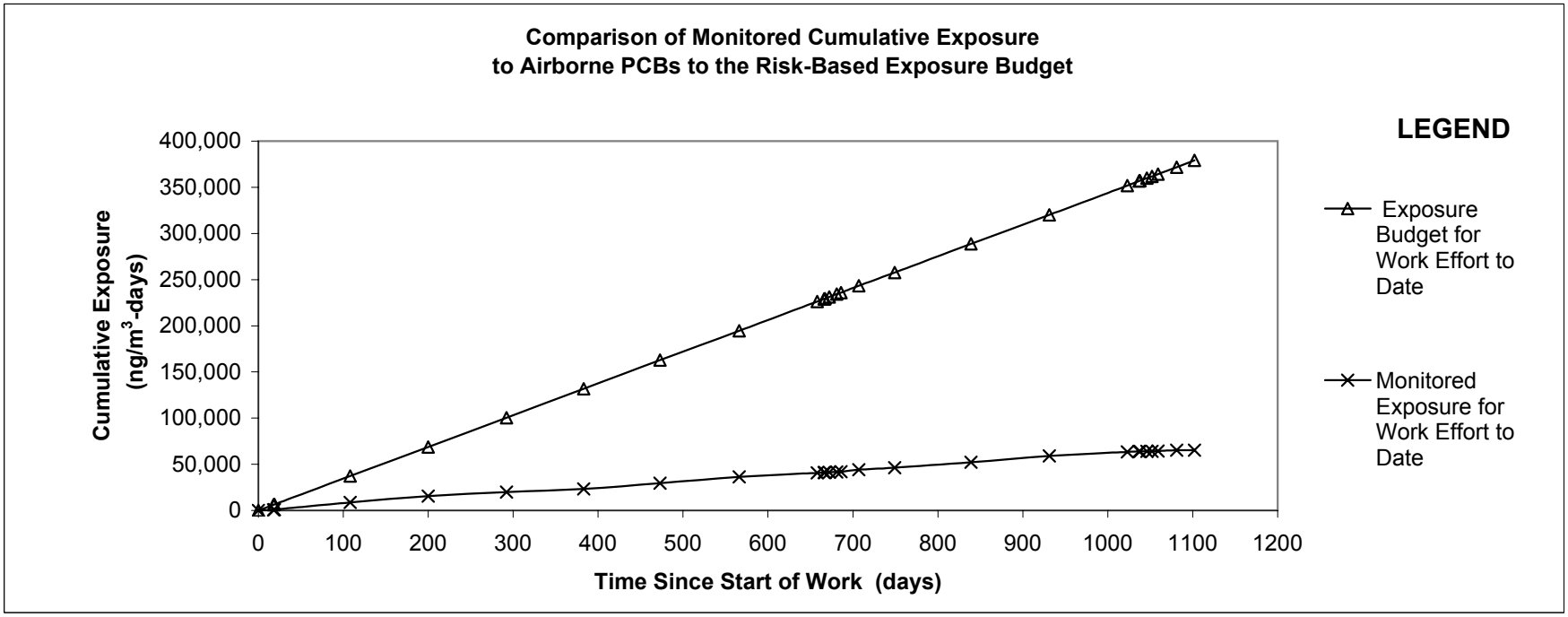
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	48 Area C Crosswind
Collection Date:	11/18/2005
Measured PCB Concentration (ng/m^3):	0.139
Exposure Budget Expended During This Period:	0.7%
Cumulative Exposure Budget Expended to Date:	17.2%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers:



Air Sampling Status

New Bedford Harbor Superfund Site

Station #: 49 Area C Downwind
Exposure Budget Slope (EBS) = 344 (ng/m^3-day)

Collection Date: 12/29/2005

Construction Activity: The 2005 dredging activities were completed on November 18, 2005.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Vol sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

The results from the Baseline Ambient Air Sampling program were used to assign background concentrations for each air sampling location. For Station 49 Area C Upwind, the quarterly average ambient air PCB concentrations were used for background. For the December 2005 sampling event, the results from Station 47 were used to represent Area D downgradient air PCB concentrations. These represent the average quarterly baseline averages from Station 26 - Sawyer, for the period of June 1999 through May 2000. These background concentrations were used for the inactive field times from 11/12/02 through 9/8/04 and for the period from 12/4/04 through 8/10/05 to close the inactive field season. No triggers were identified, therefore, no action is required.

Monitoring Station		49 Area C Downwind
Exposure Budget Slope	[ng/m^3-day]	344
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	56

Sample Results, Calculated Budget and Exposure Values

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#]	[month/day/year]	[days]	Runnig Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	43	43.00	43.00	NC	NC	NC	NC	NC	NC
2	11/30/2002	18	18	9477	43	43.00	43.00	6192	6192	774.0	774.0	12.5%	12.5%
3	12/1/2002	1	19	9476	89	66.00	44.21	344	6536	66.0	840.0	19.2%	12.9%
4	2/28/2003	89	108	9387	89	89.00	81.12	30616	37152	7921.0	8,761.0	25.9%	23.6%
5	5/31/2003	92	200	9295	61	75.00	78.31	31648	68800	6900.0	15,661.0	21.8%	22.8%
6	8/31/2003	92	292	9203	33	47.00	68.44	31648	100448	4324.0	19,985.0	13.7%	19.9%
7	11/30/2003	91	383	9112	43	38.00	61.21	31304	131752	3458.0	23,443.0	11.0%	17.8%
8	2/28/2004	90	473	9022	89	66.00	62.12	30960	162712	5940.0	29,383.0	19.2%	18.1%
9	5/31/2004	93	566	8929	61	75.00	64.24	31992	194704	6975.0	36,358.0	21.8%	18.7%
10	8/31/2004	92	658	8837	33	47.00	61.83	31648	226352	4324.0	40,682.0	13.7%	18.0%
11	9/8/2004	8	666	8829	43	38.00	61.54	2752	229104	304.0	40,986.0	11.0%	17.9%
12	9/9/2004	1	667	8828	56	49.50	61.52	344	229448	49.5	41,035.5	14.4%	17.9%
13	9/14/2004	5	672	8823	86	71.00	61.59	1720	231168	355.0	41,390.5	20.6%	17.9%
14	9/23/2004	9	681	8814	17	51.50	61.46	3096	234264	463.5	41,854.0	15.0%	17.9%
15	9/28/2004	5	686	8809	207	112.00	61.83	1720	235984	560.0	42,414.0	32.6%	18.0%
16	10/19/2004	21	707	8788	66	136.50	64.05	7224	243208	2866.5	45,280.5	39.7%	18.6%
17	11/5/2004	17	724	8771	28	47.00	63.65	5848	249056	799.0	46,079.5	13.7%	18.5%
18	12/3/2004	28	752	8743	26	27.00	62.28	9632	258688	756.0	46,835.5	7.8%	18.1%
19	2/28/2005	87	839	8656	89	57.50	61.79	29928	288616	5002.5	51,838.0	16.7%	18.0%
20	5/31/2005	92	931	8564	61	75.00	63.09	31648	320264	6900.0	58,738.0	21.8%	18.3%
21	8/10/2005	71	1002	8493	33	47.00	61.95	24424	344688	3337.0	62,075.0	13.7%	18.0%
22	8/11/2005	1	1003	8492	29.3	31.15	61.92	344	345032	31.2	62,106.2	9.1%	18.0%
23	9/15/2005	35	1038	8457	83.6	56.45	61.74	12040	357072	1975.8	64,081.9	16.4%	17.9%
24	9/23/2005	8	1046	8449	97	90.30	61.95	2752	359824	722.4	64,804.3	26.3%	18.0%
25	9/29/2005	6	1052	8443	44.2	70.60	62.00	2064	361888	423.6	65,227.9	20.5%	18.0%
26	10/6/2005	7	1059	8436	114	79.10	62.12	2408	364296	553.7	65,781.6	23.0%	18.1%
27	10/28/2005	22	1081	8414	12.3	63.15	62.14	7568	371864	1389.3	67,170.9	18.4%	18.1%
28	11/18/2005	21	1102	8393	3.71	8.01	61.11	7224	379088	168.1	67,339.0	2.3%	17.8%
29	12/29/2005	41	1143	8352	7.42	5.57	59.11	14104	393192	228.2	67,567.2	1.6%	17.2%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

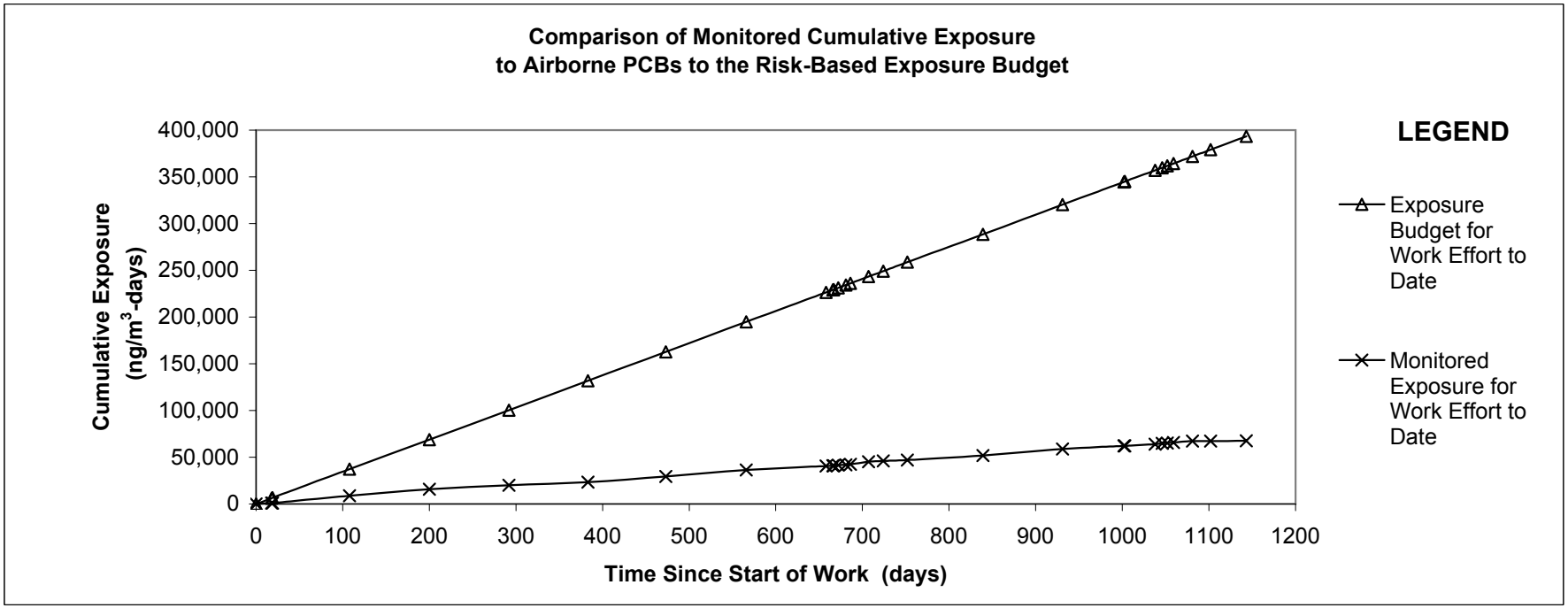
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	49 Area C Downwind
Collection Date:	12/29/2005
Measured PCB Concentration (ng/m^3):	7.42
Exposure Budget Expended During This Period:	1.6%
Cumulative Exposure Budget Expended to Date:	17.2%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers:



Air Sampling Status

New Bedford Harbor Superfund Site

Station #: 50 Area D Downwind

Exposure Budget Slope (EBS) = 344 (ng/m^3-day)

Collection Date: 12/29/2005

Construction Activity: The October 28, 2005 sample was broken during analysis. The 2005 dredging activities were completed on November 18, 200

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Vol sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

The results from the Baseline Ambient Air Sampling program were used to assign background concentrations for each air sampling location. However, for the August 2005 background sampling event, the results from Station 52 were used to represent Area D downgradient air PCB concentrations. For the December 2005 post-dredging sampling event, the results from Station 51 were used to represent Area D downgradient air PCB concentrations. For Station 50 Area D, the average quarterly air PCB concentrations were used as background concentrations, which represent the average quarterly from Station 21 - New Bedford Welding, for the period of June 1999 through May 2000. These background concentrations were used for the inactive field times from 11/12/02 through 9/8/04 and for the period from 12/4/04 through 8/10/05 to close the inactive field season. No triggers were identified, therefore, potential necessary response is not necessary.

Monitoring Station		50 Area D Downwind
Exposure Budget Slope	[ng/m^3-day]	344
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	16.7

Sample Results, Calculated Budget and Exposure Values

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#]	[month/day/year]	[days]	Runnig Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	5.9	5.90	5.90	NC	NC	NC	NC	NC	NC
2	11/30/2002	18	18	9477	5.9	5.90	5.90	6192	6192	106.2	106.2	1.7%	1.7%
3	12/1/2002	1	19	9476	3.4	4.65	5.83	344	6536	4.7	110.9	1.4%	1.7%
4	2/28/2003	89	108	9387	3.4	3.40	3.83	30616	37152	302.6	413.5	1.0%	1.1%
5	5/31/2003	92	200	9295	6.8	5.10	4.41	31648	68800	469.2	882.7	1.5%	1.3%
6	8/31/2003	92	292	9203	12	9.40	5.98	31648	100448	864.8	1,747.5	2.7%	1.7%
7	11/30/2003	91	383	9112	5.9	8.95	6.69	31304	131752	814.5	2,561.9	2.6%	1.9%
8	2/28/2004	90	473	9022	3.4	4.65	6.30	30960	162712	418.5	2,980.4	1.4%	1.8%
9	5/31/2004	93	566	8929	6.8	5.10	6.10	31992	194704	474.3	3,454.7	1.5%	1.8%
10	8/31/2004	92	658	8837	12	9.40	6.56	31648	226352	864.8	4,319.5	2.7%	1.9%
11	9/8/2004	8	666	8829	5.9	8.95	6.59	2752	229104	71.6	4,391.1	2.6%	1.9%
12	9/9/2004	1	667	8828	20	12.95	6.60	344	229448	13.0	4,404.1	3.8%	1.9%
13	9/14/2004	5	672	8823	38	29.00	6.77	1720	231168	145.0	4,549.1	8.4%	2.0%
14	9/23/2004	9	681	8814	6	22.00	6.97	3096	234264	198.0	4,747.1	6.4%	2.0%
15	9/28/2004	5	686	8809	80	43.00	7.23	1720	235984	215.0	4,962.1	12.5%	2.1%
16	10/19/2004	21	707	8788	17	48.50	8.46	7224	243208	1018.5	5,980.6	14.1%	2.5%
17	12/3/2004	45	752	8743	22	19.50	9.12	15480	258688	877.5	6,858.1	5.7%	2.7%
18	2/28/2005	87	839	8656	3.4	12.70	9.49	29928	288616	1104.9	7,963.0	3.7%	2.8%
19	5/31/2005	92	931	8564	6.8	5.10	9.06	31648	320264	469.2	8,432.2	1.5%	2.6%
20	8/10/2005	71	1002	8493	12	9.40	9.08	24424	344688	667.4	9,099.6	2.7%	2.6%
21	8/11/2005	1	1003	8492	21.3	16.65	9.09	344	345032	16.7	9,116.2	4.8%	2.6%
22	9/15/2005	35	1038	8457	0.52	10.91	9.15	12040	357072	381.9	9,498.1	3.2%	2.7%
23	9/23/2005	8	1046	8449	0.26	0.39	9.08	2752	359824	3.1	9,501.2	0.1%	2.6%
24	9/29/2005	6	1052	8443	24.2	12.23	9.10	2064	361888	73.4	9,574.6	3.6%	2.6%
25	10/6/2005	7	1059	8436	81.7	52.95	9.39	2408	364296	370.7	9,945.2	15.4%	2.7%
26	10/28/2005	22	1081	8414	0.01	40.86	10.03	7568	371864	898.8	10,844.0	11.9%	2.9%
27	12/29/2005	62	1143	8352	2.18	1.10	9.55	21328	393192	67.9	10,911.9	0.3%	2.8%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

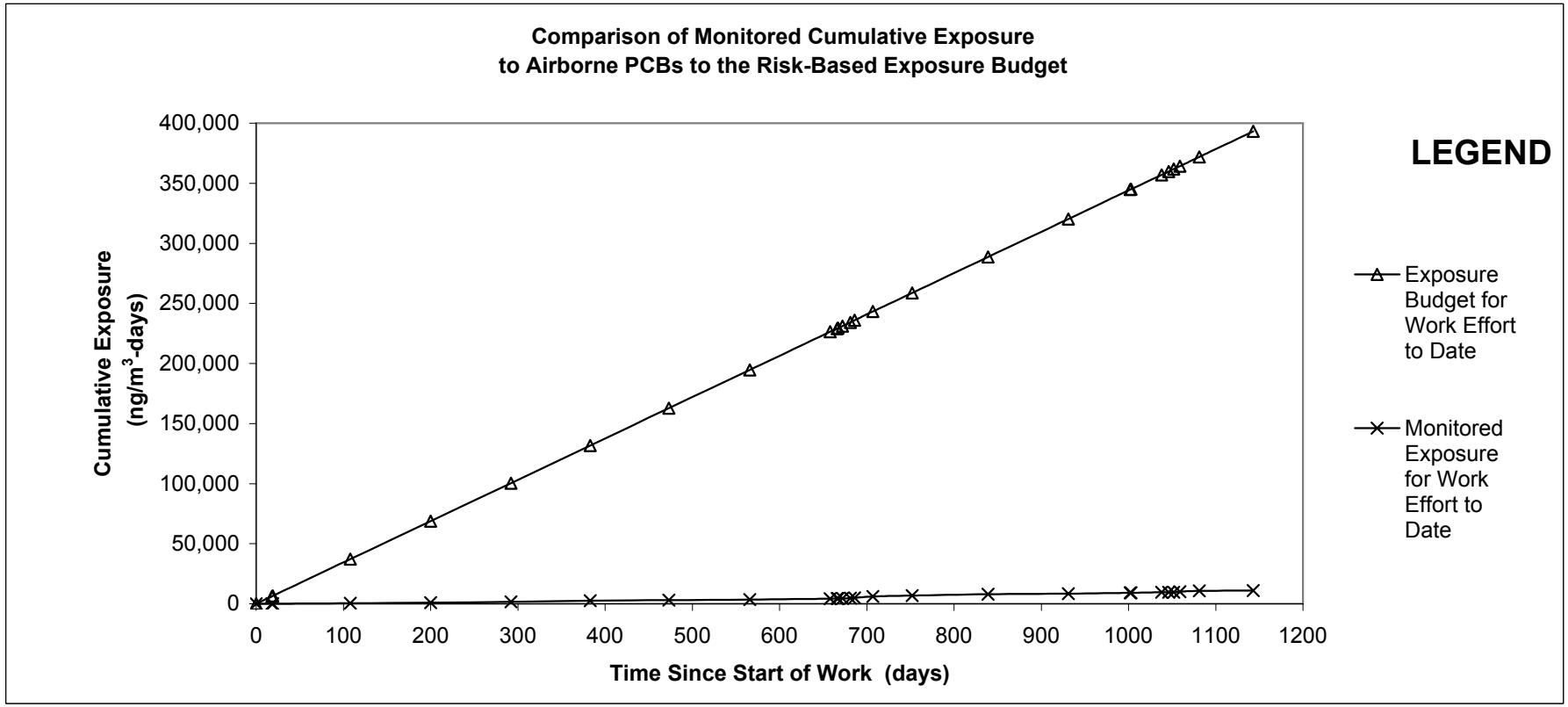
NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	50 Area D Downwind
Collection Date:	12/29/2005
Measured PCB Concentration (ng/m^3):	2.18
Exposure Budget Expended During This Period:	0.3%
Cumulative Exposure Budget Expended to Date:	2.8%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers:



Air Sampling Status

New Bedford Harbor Superfund Site

Station #: 55 Aerovox West
Exposure Budget Slope (EBS) = 202 (ng/m^3-day)

Collection Date: 12/29/2005

Construction Activity: The 2005 dredging activities were completed on November 18, 2005.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Vol sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

This is a new sample location that was first sampled on December 3, 2004. Due to elevated concentrations on the East side of the facility, this location was selected to demonstrate what a local resident receptor (child receptor) might be seeing during remedial work. The results from the Baseline Ambient Air Sampling program were used to assign background concentrations for each air sampling location. For Station 55 Aerovox West, the maximum baseline result of 5.2 ng/m3 was used, which represents the maximum baseline result from Station 40 - Wood Street (Titleist), during the pre-construction sampling round on 11/18/02. Since there were no background concentrations measured at this location, the maximum concentration was used. These background concentrations were used for the inactive field times from 11/12/02 through 9/8/04 and for the period from 12/4/04 through 8/10/05 to close the inactive field season. No triggers were identified, therefore, no action is required.

Monitoring Station		55 Aerovox West
Exposure Budget Slope	[ng/m^3-day]	202
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	5.2

Sample Results, Calculated Budget and Exposure Values

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#]	[month/day/year]	[days]	Runnig Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	5	5.00	5.00	NC	NC	NC	NC	NC	NC
2	11/4/2004	723	723	8772	5	5.00	5.00	146046	146046	3615.0	3,615.0	2.5%	2.5%
3	11/5/2004	1	724	8771	28	16.50	5.02	202	146248	16.5	3,631.5	8.2%	2.5%
4	12/3/2004	28	752	8743	9	18.50	5.52	5656	151904	518.0	4,149.5	9.2%	2.7%
5	8/10/2005	250	1002	8493	5	7.00	5.89	50500	202404	1750.0	5,899.5	3.5%	2.9%
6	8/11/2005	1	1003	8492	42.1	23.55	5.91	202	202606	23.6	5,923.1	11.7%	2.9%
7	9/15/2005	35	1038	8457	37.6	39.85	7.05	7070	209676	1394.8	7,317.8	19.7%	3.5%
8	9/23/2005	8	1046	8449	2.64	20.12	7.15	1616	211292	161.0	7,478.8	10.0%	3.5%
9	9/29/2005	6	1052	8443	87	44.82	7.36	1212	212504	268.9	7,747.7	22.2%	3.6%
10	10/6/2005	7	1059	8436	222	154.50	8.34	1414	213918	1081.5	8,829.2	76.5%	4.1%
11	10/28/2005	22	1081	8414	3.97	112.99	10.47	4444	218362	2485.7	11,314.9	55.9%	5.2%
12	11/18/2005	21	1102	8393	0.12	2.05	10.31	4242	222604	42.9	11,357.8	1.0%	5.1%
13	12/29/2005	41	1143	8352	10.8	5.46	10.13	8282	230886	223.9	11,581.7	2.7%	5.0%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

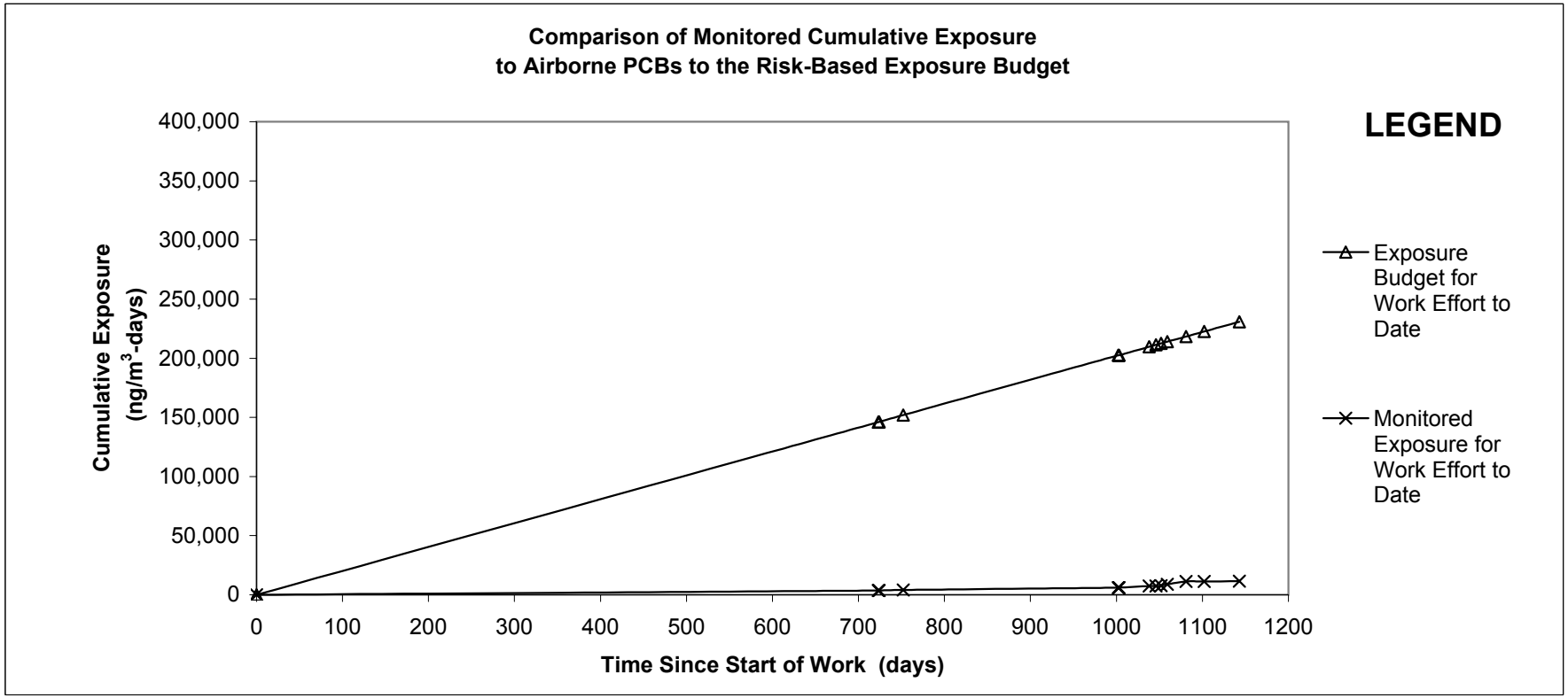
NC = Not Calculated

Shading represents actual data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	55 Aerovox West
Collection Date:	12/29/2005
Measured PCB Concentration (ng/m^3):	10.8
Exposure Budget Expended During This Period:	2.7%
Cumulative Exposure Budget Expended to Date:	5.0%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers:



Air Sampling Status

New Bedford Harbor Superfund Site

Station #: 56 Achushnet Park
Exposure Budget Slope (EBS) = 202 (ng/m^3-day)

Collection Date: 12/29/2005

Construction Activity: The 2005 dredging activities were completed on November 18, 2005.

This report summarizes sample results for the above referenced location and date. The samples were collected on polyurethane foam (PUF)/XAD sample media with a glass fiber pre-filter using a BGI, PQ-1 Low-Vol sampler. The samples were analyzed using high-resolution mass spectrometry (HRGCMS) for total PCB homologue groups. Results are evaluated relative to the Exposure Budget Tracking Process described in the Development of PCB Air Action Levels for the Protection of the Public, New Bedford Superfund Site, August 2001. Cumulative data for this reporting period are included on pages 3 and 4.

Summary of This Sampling Period:

This is a new sample location that was first sampled on December 3, 2004. Due to elevated concentrations on the East side of the facility, this location was selected to demonstrate what a local resident receptor (child receptor) might be seeing during remedial work. The results from the Baseline Ambient Air Sampling program were used to assign background concentrations for each air sampling location. For Station 56 Acushnet Park, the maximum baseline result of 5.2 ng/m3 was used, which represents the maximum result from Station 40 - Wood Street (Titleist), during the NWS pre-construction sampling round on 11/18/05. Since there were no background concentrations measured at this location, the maximum concentration was used. These background concentrations were used for the inactive field times from 11/12/02 through 9/8/04 and for the period from 12/4/04 through 8/10/05 to close the inactive field season. No triggers were identified, therefore, no action is required.

Monitoring Station		56 Achushnet Park
Exposure Budget Slope	[ng/m^3-day]	202
Work Start Date	[mm/dd/yyyy]	11/12/2002
Projected Work End Date	[mm/dd/yyyy]	11/10/2028
Occupational Limit Used as Ceiling	[ng/m^3]	500,000
TEL for Worker in Public	[ng/m^3]	50,000
NTEL for Worker in Public	[ng/m^3]	1,789
Minimum of TEL/NTEL	[ng/m^3]	1,789
Baseline Average Concentration	[ng/m^3]	5.2

Sample Results, Calculated Budget and Exposure Values

(A) Event	(B) Sampling Date	(C) Days Since Previous Sampling Event	(D) Work Effort Elapsed Time	(E) Estimated Work Effort Remaning	(F) PCB Concentration Result	(G) Average of Most Recent Two Concentration Results	(H) Weighted Average of Concentration Results	(I) Exposure Budget for the Period	(J) Cumulative Exposure Budget for Work Effort to Date	(K) Measured Exposure During the Period	(L) Calculated Cumulative Exposure for Work Effort to Date	(M) Exposure Budget Expended During the Period	(N) Cumulative Exposure Expended for Work Effort to Date
[#]	[month/day/year]	[days]	Runnig Sum of Column (C) to Date [days]	[days]	[ng/m^3]	[ng/m^3]	Column (L)/Column (D) [ng/m^3]	EBS[1] * Column (C) [ng/m^3-days]	Sum of Column (I) [ng/m^3-days]	Column (G)* Column (C) [ng/m^3-days]	Sum of Column (K) [ng/m^3-days]	Column (K) /Column (I) [%]	Column (L) /Column (J) [%]
1	11/12/2002	0	0	9495	5.2	5.20	5.20	NC	NC	NC	NC	NC	NC
2	11/4/2004	723	723	8772	5.2	5.20	5.20	146046	146046	3759.6	3,759.6	2.6%	2.6%
3	11/5/2004	1	724	8771	39	22.10	5.22	202	146248	22.1	3,781.7	10.9%	2.6%
4	12/3/2004	28	752	8743	2	20.50	5.79	5656	151904	574.0	4,355.7	10.1%	2.9%
5	8/10/2005	250	1002	8493	5.2	3.60	5.25	50500	202404	900.0	5,255.7	1.8%	2.6%
6	8/11/2005	1	1003	8492	49.9	27.55	5.27	202	202606	27.6	5,283.3	13.6%	2.6%
7	9/15/2005	35	1038	8457	102	75.95	7.65	7070	209676	2658.3	7,941.5	37.6%	3.8%
8	9/23/2005	8	1046	8449	23.9	62.95	8.07	1616	211292	503.6	8,445.1	31.2%	4.0%
9	9/29/2005	6	1052	8443	77.9	50.90	8.32	1212	212504	305.4	8,750.5	25.2%	4.1%
10	10/6/2005	7	1059	8436	180	128.95	9.12	1414	213918	902.7	9,653.2	63.8%	4.5%
11	10/28/2005	22	1081	8414	2.73	91.37	10.79	4444	218362	2010.0	11,663.2	45.2%	5.3%
12	11/18/2005	21	1102	8393	3.76	3.25	10.65	4242	222604	68.1	11,731.3	1.6%	5.3%
13	12/29/2005	41	1143	8352	13.5	8.63	10.57	8282	230886	353.8	12,085.2	4.3%	5.2%

Notes:

[1]EBS: Exposure Budget Slope= ng/m^3-day

NC = Not Calculated

Shading represents actual sampling data. All other numbers represent projected PCB concentrations for that period.

Air Sampling Status Report

Sample Station :	56 Achushnet Park
Collection Date:	12/29/2005
Measured PCB Concentration (ng/m^3):	13.5
Exposure Budget Expended During This Period:	4.3%
Cumulative Exposure Budget Expended to Date:	5.2%
Response Level:	No Triggers Identified
Response:	No Response Necessary

Triggers: