Draft

Preliminary Risk Screening Evaluation Report

FWA 102 Former Communications Site
Fort Wainwright, Alaska

Prepared for

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Abbreviations

1, 2, DCA	1,2-dichloroethane
1,2,3 TCP	1,2,3-trichloropropane
95UCL	95 percent upper confidence limit
µg/L	micrograms per liter
µg/m3	micrograms per cubic liter
EAFB	Eielson Air Force Base, Fairbanks, AK
AAC	*Alaska Administrative Code*
ADEC	Alaska Department of Environmental Conservation
BAP	benzo(a)pyrene
bgs	below ground surface
CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COPC	chemical of potential concern
COPEC	chemical of potential ecological concern
CSM	conceptual site model
DBA	dibenzo(a,h)anthracene
d/f	dioxin/furan
DNAPL	dense non-aqueous phase liquid
DPW	Directorate of Public Works
DRMO	Defense Reutilization and Marketing Office
DRO	diesel range organics
EcoSSL	ecological soil screening level
EPA	United States Environmental Protection Agency
ERBSC	ecological risk-based screening concentration
EXP	explosive
FCS	Former Communications Site
FFA	Federal Facilities Agreement

FNSB	Fairbanks North Star Borough
GRO	gasoline range organics
gpm	gallon(s) per minute
GRO	gasoline range organics
GW	groundwater
HERB	herbicide
LNAPL	light nonaqueous-phase liquid
MDL	method detection limit
MEC	munitions and explosives of concern
mg/kg	milligram(s) per kilogram
MI	multi-incremental
NCP	National Contingency Plan
NOAA	National Oceanic and Atmospheric Administration
NL	no listed value
NPL	National Priorities List
NV	no value
NWI	North Wind, Inc.
PAHs	polynuclear aromatic hydrocarbons
PCE	tetrachloroethene
PCBs	polychlorinated biphenyls
PCE	tetrachloroethene
PEST	pesticide
PID	photoionization detector
POL	petroleum, oil, and lubricants
PRGs	preliminary risk goals
PRSE	Preliminary Risk Screening Evaluation
RCRA	Resource Conservation and Recovery Act
RDX	hexahydro-1,3,5-trinitro-1,3,5-triazine
RI	Remedial Investigation
RIWP	RI work plan

RRO	residual range organics
SARA	Superfund Amendments and Reauthorization Act
SAS	School Age Services
SL	screening level
SLERA	screening-level ecological evaluation
SO	soil
MI	multi-incremental
MS/SD	matrix spike/matrix spike duplicate
TCE	trichloroethene
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey

SECTION 1

Introduction

This report has been prepared to present the results of preliminary risk screening evaluations for environmental media at the Former Communications Site (FCS), also known as Taku Gardens Family Housing development, on Fort Wainwright, Alaska. This Preliminary Risk Screening Evaluation (PRSE) Report was prepared by CH2M HILL for the U.S. Army Corps of Engineers (USACE) under Modification 3 (dated March 25, 2008) Task Order 013 of Contract No. W911KB-05-D-0010, Task Order 00013.

Fort Wainwright is within the Fairbanks North Star Borough (FNSB) in central Alaska and covers approximately 918,000 acres on the eastern side of the City of Fairbanks (Figure 1-1). Fort Wainwright is a federally owned facility managed by U.S. Army Garrison, Fort Wainwright, an installation-level command overseen by its higher headquarters, U.S. Army Garrison, Alaska.

The housing development subdivision was constructed to house Fort Wainwright personnel, but is unoccupied because of concerns about environmental contamination and munitions-related hazards encountered during its construction. The contamination consists of polychlorinated biphenyls (PCBs) and petroleum, oil, and lubricants (POL) contaminated soils; as well as buried debris such as crushed drums, scrapped equipment, and ordnance-related debris from troop training activities in the 1940s and 1950s. The housing units will not be released for occupancy until the ongoing site investigation and any remedial activities have been completed, and USACE, the Alaska Department of Environmental Conservation (ADEC), and the U.S. States Environmental Protection Agency (EPA) agree that the site is appropriate for residential occupation.

1.1 Purpose

The purpose of the PRSE is to compare analytical results from 2007 remedial investigation (RI) efforts at the FCS and from relevant pre-RI sample collection efforts to risk-based screening levels to guide and focus planning efforts for 2008 activities that will complete the data sets necessary for completing the RI. The PRSE is not the RI report, nor is it a risk assessment. The RI report and baseline risk assessment will be completed after the 2008 sampling effort is complete.

1.2 Federal Facility Agreement

In August 1990, Fort Wainwright was placed on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Priorities List (NPL). Current environmental assessment and remediation activities at Fort Wainwright comply with CERCLA requirements, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986. Activities also comply with a March 1992 Federal Facilities Agreement (FFA) between the EPA, the U.S. Department of Defense, and ADEC. The FFA identifies the authorities and responsibilities of the parties and integrates CERCLA

requirements with other relevant federal and state remedial programs, such as the Resource Conservation and Recovery Act (RCRA). Also in 1992, the Army and the State of Alaska signed a Two-Party Agreement specifically addressing petroleum contamination, which is generally associated with leaking underground storage tanks or surface spills of petroleum products.

The general purposes of the FFA, as defined in Section III of the agreement, are as follows:

- To ensure that environmental impacts associated with past and present activities at the site are thoroughly investigated and appropriate removal and/or remedial action(s) is taken as necessary to protect the public health, welfare, and the environment
- To establish a procedural framework and schedule for developing, implementing, and monitoring appropriate response actions at the site in accordance with CERCLA, the National Contingency Plan (NCP), national Superfund guidance and policy, RCRA, national RCRA guidance and policy, and applicable state law
- To facilitate cooperation, exchange of information, and participation of the parties in such actions

1.3 Background

The housing development includes 110 new duplexes (in 55 buildings). The buildings are intended to house Fort Wainwright personnel, but are currently unoccupied. An additional 10 unfinished buildings planned for the development would house another 20 dwellings. Although the recent transfer of the 172nd Stryker Brigade to Fort Wainwright has created a pressing need to use this new housing, potential risks to human health and the environment associated with prior site uses must be addressed first.

The development is located between Alder and Neely roads, east of White Street, and west of the Fort Wainwright Power Plant. Figure 1-2 shows the layout of the subdivision. The area was selected for military family housing in 2002 and 2003. Preconstruction geotechnical samples were collected in late 2003 and again in 2004. Geophysical testing completed during that time indicated several large debris areas. Work began in mid-2005 on foundations and underground utilities necessary for construction of the 55 duplex buildings and 2 mechanical buildings.

During construction in July 2005, equipment operators uncovered PCB and POL petroleum contamination. They also unearthed an extensive array of buried debris, including crushed drums, scrapped equipment, and ordnance-related debris used during troop training in the 1940s and 1950s. Any munitions encountered during construction were removed and properly disposed of.

The majority of the housing units have been finished, with the exception of installation of major appliances. No additional subgrade activities are being conducted because of concerns about the potential presence of munitions. The contractor has completed aboveground construction, with the intent of winterizing the units by activating the electrical systems, steam mains, and glycol heat exchangers. Fencing of the entire site was

completed in the summer of 2007. As indicated in Figure 1-2, the housing units planned for the southwestern portion of Subarea E (Buildings 50 through 59) will not be constructed.

For the purposes of the RI, the former FCS site was divided into five subareas (subareas A through E) on the basis of historical usage and the types of contamination encountered during preliminary investigations. These subareas were further refined during finalization of the RI work plan and its amendments (CH2M HILL, 2008). The subareas are shown in Figure 1-2 and described below:

- **Subarea A** consists of the northeast quadrant of the housing development, where buried debris containing ordnance and possible munitions and explosives of concern (MEC) has been identified.
- **Subarea B** is located along the northern boundary of the development, where company headquarters and barracks buildings were constructed over a filled former oxbow of the Chena River names Hoppe's Slough, and POL contamination was identified during preliminary investigations. Samples collected in the undesignated subarea south of Subarea B were analyzed for the same target analyte list and evaluated in the same manner as samples collected within Subarea B.
- **Subarea C** is located along the northeastern corner of the development, where company headquarters and barracks buildings were constructed over a Hoppe's Slough, the filled former oxbow of the Chena River.
- **Subarea D** consists of the southeast corner of the development that was part of the salvage yard in the 1940s and was potentially used for ammunition storage in the 1950s, and where the Golden Valley Electric Association station was constructed in the late 1970s.
- **Subarea E** occupies the southwest corner of the development and consists of land that housed communications operations in the 1950s but was cleared and used for personal gardens through the late 1990s. During initial construction activities, soil in the area was found to be contaminated with high concentrations of PCBs and other types of contaminants. Buildings 50 through 59 in the southwest portion of Subarea E were not constructed and are no longer planned.

Significant drum and debris removal efforts were conducted during the summer and fall 2007 field season. Therefore, the 2004 magnetic gradient information previously presented on FCS maps and the March 2007 EM61 magnetic gradient information are no longer accurate. The March 2007 EM61 survey is shown in the background of the FCS figures (Figure 1-3) included in this report, and the surveyed boundaries of the areas that were excavated as part of the 2007 drum and debris investigation are identified in the figures.

1.4 Sources of Information Used in this Report

Information and analytical data provided in the following documents were used in the development of this report:

- CH2M HILL. February 2008. *2007 Field Data Report, Taku Gardens Former Communications Site, Fort Wainwright, Alaska.*

- CH2M HILL. September 2007. *Draft Remedial Investigation Management Plan*.
- CH2M HILL. May 2007. *Draft Remedial Investigation Work Plan* (draft RI work plan).
- CH2M HILL. July 2007. *Addendum 1 to the Remedial Investigation Work Plan Sound Berm Investigation, Rev 1*.
- CH2M HILL. September 2007. *Addendum 2 to the Remedial Investigation Work Plan Soil Piles Investigation, Final*.
- CH2M HILL. August 2007. *Addendum 3 to the Remedial Investigation Work Plan Soil Gas Investigation, Final.*
- CH2M HILL. September 2007. *Addendum 4 to the Remedial Investigation Work Plan Groundwater Investigation, Final*.
- Jacobs Engineering Group, Inc. (Jacobs). September 2007. *Munitions and Explosives of Concern Support Work Plan.*
- Jacobs Engineering Group, Inc. (Jacobs). August 2007. *Former Communications Site PCB Removal Action, Final.*
- Northwind, Inc. May 2007. *Preliminary Source Evaluation II Report Taku Gardens, Fort Wainwright, Alaska (Final*). Prepared for Department of the Army, U.S. Army Corps of Engineers, Alaska District, Elmendorf, Air Force Base, Alaska.
- Oasis Environmental, Inc. Anchorage Alaska. March 2007. *Preliminary Source Evaluation 1 Narrative Report, Former Communications Site, Fort Wainwright, Alaska*.

1.5 Report Organization

In addition to this introductory section, this PRSE report consists of the following sections:

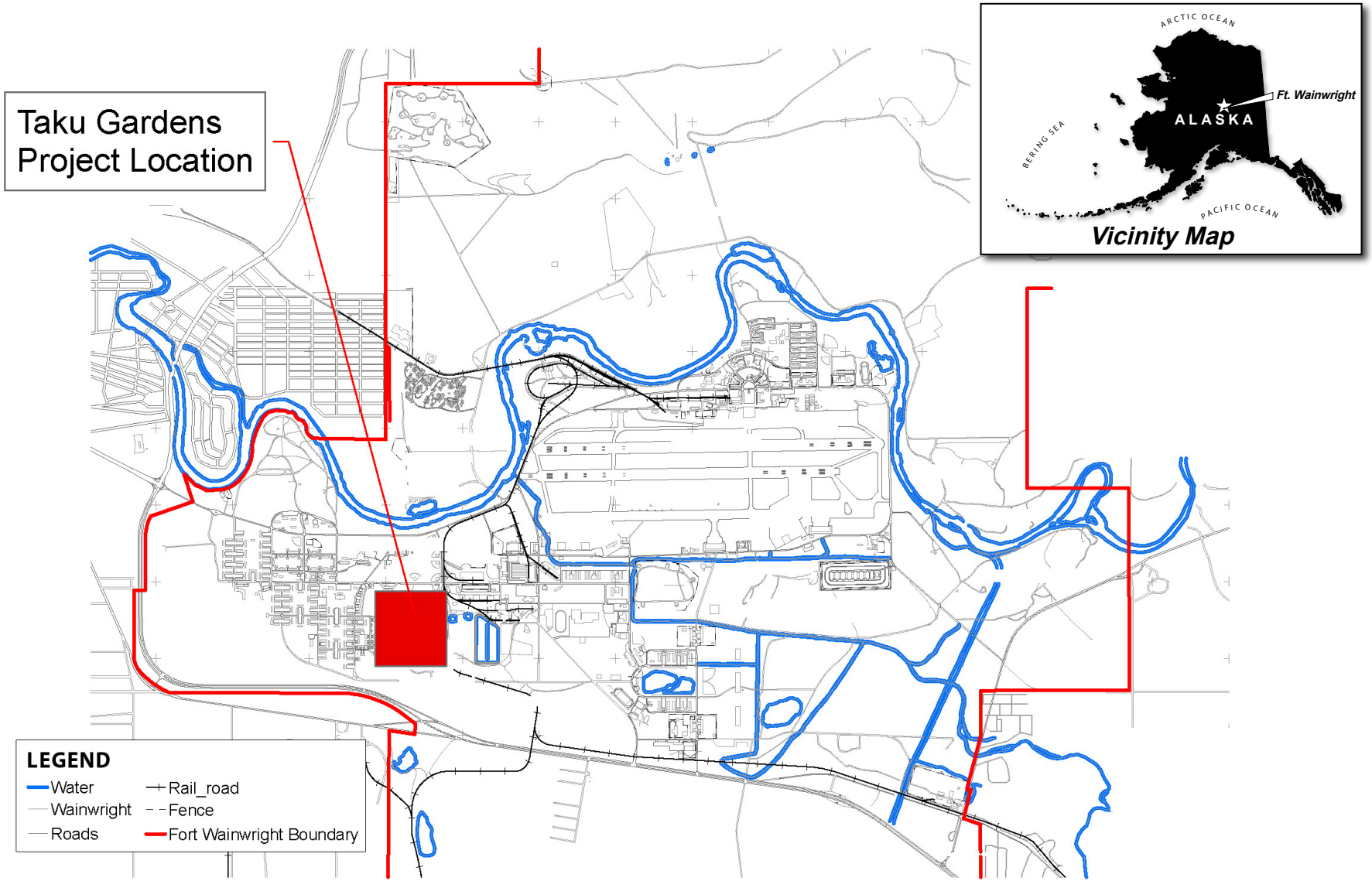
- **Section 2, Data Evaluation Process,** describes the data evaluation process, including the origins of samples and screening levels used in the evaluations.
- **Section 3, Risk Screening Evaluation Results,** provides the results of the preliminary risk screening evaluations, including comparisons of soil, groundwater, and soil gas results to human health risk-based screening levels; and compares drainage swale sediment results and selected groundwater sample results to ecologically based screening levels.
- **Section 4. Conceptual Site Model Update,** presents refinements to conceptual site models (CSMs) based on the preliminary risk screening results.
- **Section 5, Data Needs and Proposed Field Investigation,** identifies the additional data required to complete the RI and presents proposed sample designs and target analytes for the 2008 RI field effort.
- **Section 6, References,** identifies the source documents used in preparing this report.

Tables and figures referenced in each section of the report are provided at the end of the respective section. In accordance with the statement of work, all survey data in this report

(such as northings and eastings for sample locations) are presented in the WGS84 UTM Zone 6N Coordinate System.

Supporting documentation and results for several evaluations summarized in this PRSE are provided in the following appendixes:

- **Appendix A,** Vapor Intrusion Evaluation
- **Appendix B,** Screening-Level Ecological Screening Assessment
- **Appendix C,** 95UCL-adjusted Results for Soil Pile Samples
- **Appendix D,** 95UCL-adjusted Results for Sound Berm Samples



North

0 2.5 5

Approximate scale in feet

Source: NorthWind, Inc., 2006.

FIGURE 1-1
Site Location Map
Preliminary Risk Screening Evaluation Report
Former Communications Site, Fort Wainwright, Alaska

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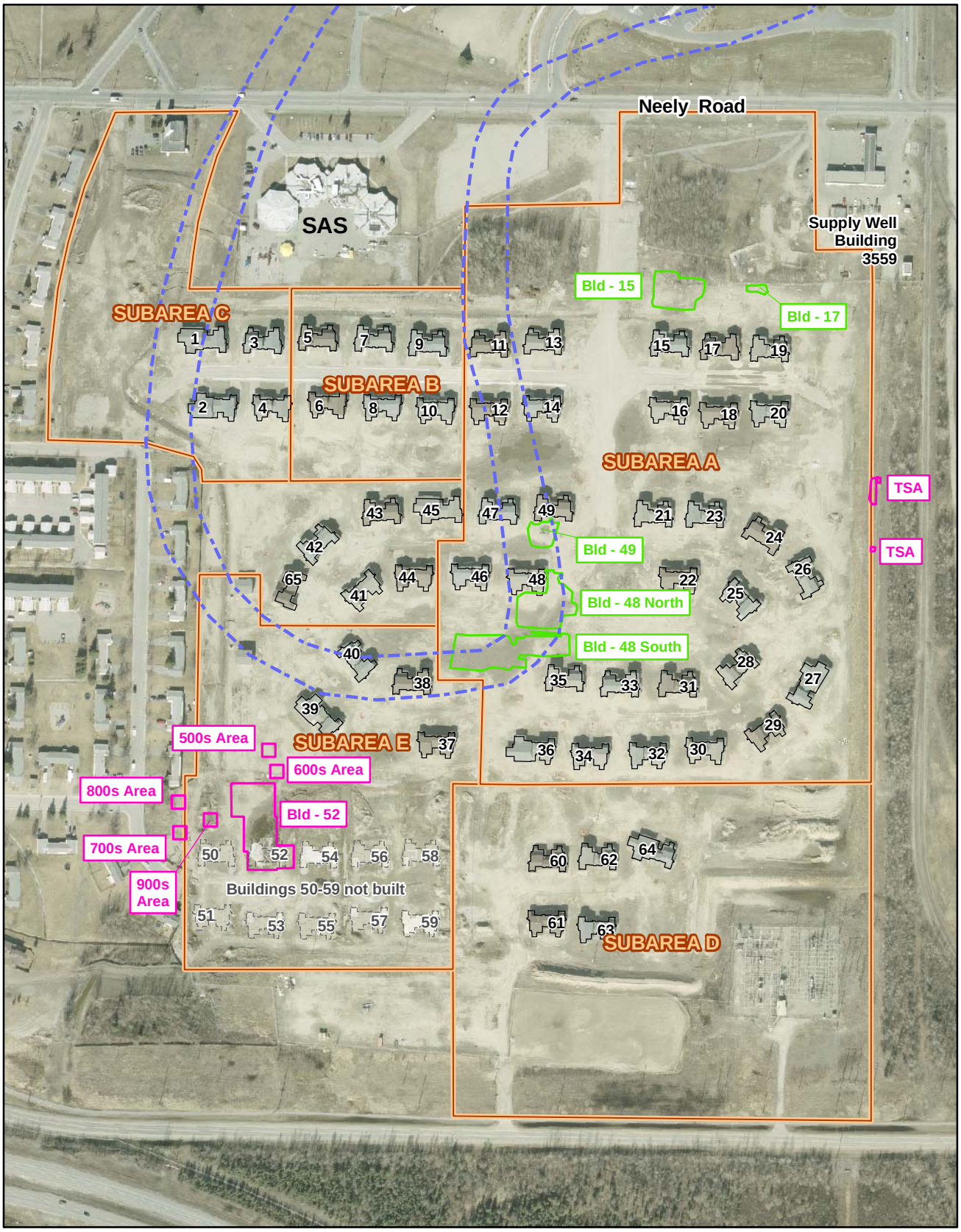

LEGEND

- 2007 PCB Investigation Area
- 2007 Drum and Debris Excavation Area
- Former Hoppe's Slough

0 350
Feet

N

FIGURE 1-2
Location of FCS Subareas
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

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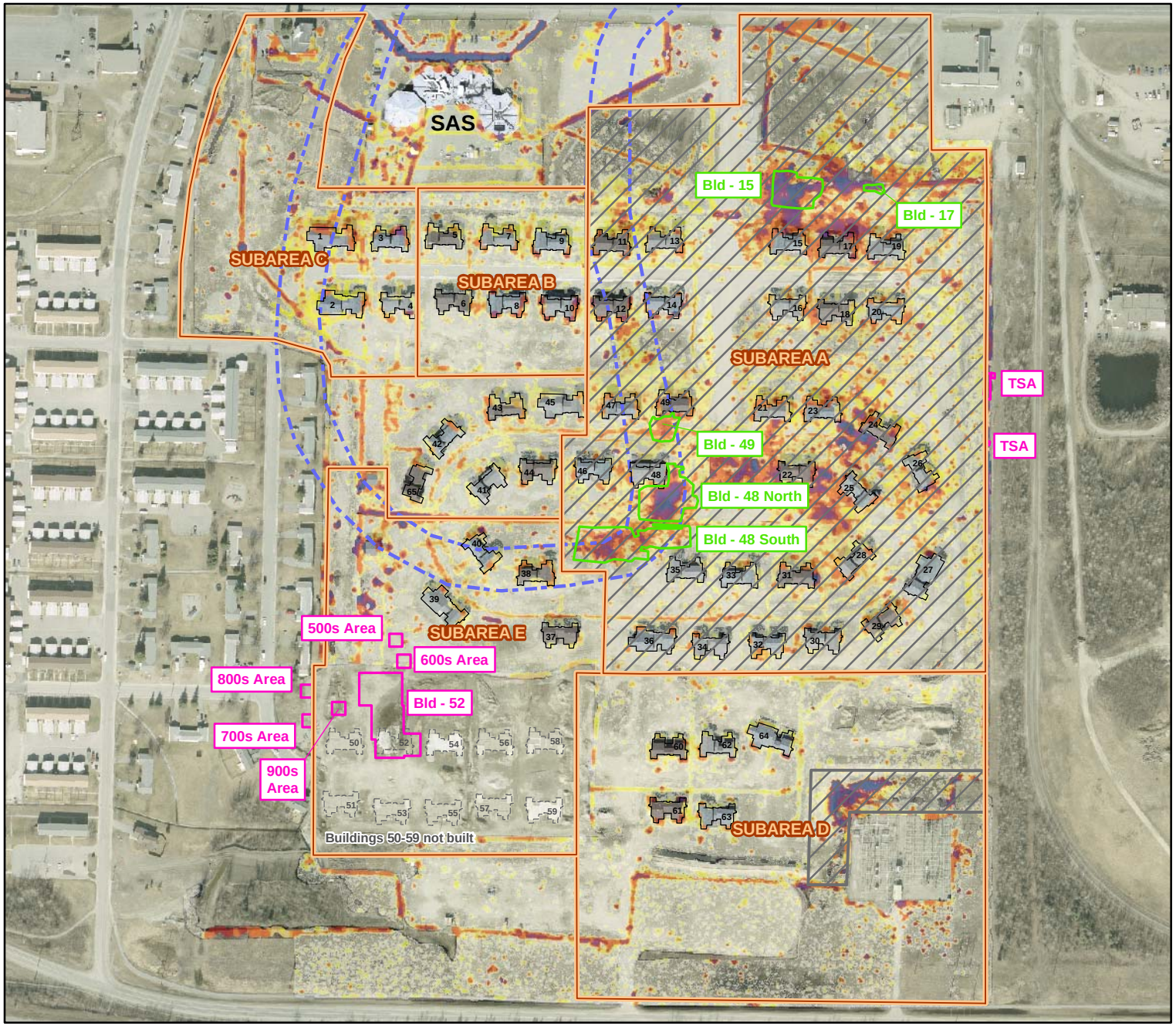
Date: April 26, 2008



LEGEND

- 2007 PCB Investigation Area
- 2007 Drum and Debris Excavation Area
- Moderate to High probability MEC area
- Former Hoppe's Slough

March 2007 Magnetic Data
EM61 Results (mV)

- -1500
- -20
- 20
- 30
- 50
- 75
- 100
- 200
- 300
- 500
- 1000
- 2000

0 375
Feet

N

FIGURE 1-3
2007 Geophysical Survey Map
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

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SECTION 2

Data Evaluation Process

The draft RI work plan (RIWP) and amendments (CH2M HILL, 2007a) described the data collection and evaluation processes conducted to accomplish the following objectives after completion of the 2007 field sampling effort:

- Characterize soil piles for possible disposal at the Fort Wainwright landfill
- Assess soil conditions in the sound berms along the boundaries of subareas A and D
- Evaluate soil conditions at the bottoms and sidewalls of excavations following removal of PCB-contaminated soil in the PCB exclusion zone
- Evaluate soil conditions at the bottoms and sidewalls of excavations following removal of buried drums and debris at select anomaly locations
- Characterize the nature and extent of soil and groundwater contamination, identify source areas, and evaluate the need for additional data to complete the RI and baseline risk assessments
- Characterize soil gas and evaluate the potential for contaminants to affect indoor and outdoor air
- Assess conditions in drainage swale sediment relative to ecological benchmarks
- Assess groundwater conditions along the northern boundary of the site relative to ecological benchmarks for surface water

This section presents the data evaluation process for each of these efforts, including brief summaries of the evaluation approaches and listings of the samples and screening levels used in the evaluations.

2.1 Soil Pile Characterization

There were 47 designated soil piles at the FCS. These piles were created during construction onsite and generally originate from the areas near their current locations, as shown in Figure 2-1. The objective of the soil pile investigation was to characterize the soil for possible disposal in the Fort Wainwright Class I landfill. In accordance with Addendum 2 to the draft RI work plan (CH2M HILL, 2007a), the primary method used to investigate the soil piles was multi-incremental (MI) sampling.

2.1.1 Evaluation Process

The soil pile characterization process involved comparing the MI decision unit sample results to the Fort Wainwright landfill screening criteria. Stockpile soils with concentrations below the criteria may be used as cover in the landfill. Stockpile soils with concentrations

above the criteria will be processed and disposed of by the Fort Wainwright Defense Reutilization and Marketing Office (DRMO).

2.1.2 Sample Groups

Since the soil piles vary in volume from approximately 10 cubic yards to several hundred cubic yards, smaller piles were grouped into single MI decision units, and larger piles were divided into multiple MI decision units ranging in size from 100 cubic yards to a maximum of 500 cubic yards, as reported in the 2007 field data report (CH2M HILL, 2008). A decision unit is "the defined area or volume in question, that is, that area or volume about which we need to make a decision" (ADEC, 2007).

A total of 36 MI decision units were sampled between August 8 and September 21, 2007. Thirty subsamples were obtained within each decision unit to make up the MI sample. Table 2-1 lists general sample information for each MI decision unit sample. More information about the sampling program is provided in the 2007 field data report (CH2M HILL, 2008).

In accordance with MI sampling guidance (ADEC, 2007), triplicate MI samples were collected at approximately 10 percent of the MI decision units. The 95 percent upper confidence limit (95UCL) values calculated for analytes detected in the triplicate MI samples were used to adjust the detected results for all other MI samples associated with the respective triplicate groups. Triplicate samples were obtained at sample locations SP06-01, SP13-05, SPA, and SP27. Table 2-1 indicates which MI decision unit samples are associated with each MI triplicate.

During the course of MI sampling in Soil Pile 06 (decision unit SP06-05), a high photoionization detector (PID) reading indicated the possible presence of contaminated soil. Soil from this portion of the pile was not incorporated into an MI sample. A discrete sample was collected at this location, as shown in Figure 2-1 and listed in Table 2-1.

Two soil piles, soil piles 11 and 12, were removed by Fort Wainwright environmental contractor based on pre-RI sample results. Discrete confirmation samples were collected from surface soil beneath former soil pile 11 and soil pile 12 location. These samples were not used to characterize the soil piles for disposal, but were incorporated in the overall nature and extent of contamination evaluation for in situ soils at the site.

2.1.3 Screening Levels

The landfill acceptance criteria consist primarily of the Method 2 Migration to Groundwater Soil Cleanup Levels in Table B1/B2 of Title 18, Chapter 75, of the *Alaska Administrative Code,* (18 AAC 75), which are listed in Table 2-2.

2.2 Sound Berm Soil Evaluation

The sound berm is a 6- to 10-foot-high earthen structure that runs from the northeast corner of the site approximately 1,200 feet along the eastern boundary of Subarea A toward the south perimeter, where it extends approximately 1,000 feet to the west in Subarea D. The sound berm was constructed from surface soil and organic matter obtained during site clearing at the FCS and from additional soil from other Fort Wainwright construction sites

(CH2M HILL, 2007b). The objective of the sound berm sampling program was to determine whether sound berm soils contained elevated concentrations of target analytes that might require further delineation to support future baseline risk assessment evaluations.

2.2.1 Evaluation Process

An MI sampling approach was used for the initial sampling and risk screening effort for the sound berms. If the concentrations of target analytes in an MI decision unit exceed screening levels (or background, in the case of some metals), then a follow-up sampling program consisting of discrete surface soil samples will be conducted to obtain appropriate data for use in risk assessment. Otherwise, the soil in the decision unit is considered clean and no further sampling or assessment of risk will be conducted.

2.2.2 Sample Groups

In accordance with Addendum 1 to draft RI work plan (CH2M HILL, 2007a), the sound berm was divided into nine decision units, each approximately 200 to 400 feet long (Figure 2-1). Thirty subsamples were obtained within each decision unit to make up the MI sample. Table 2-3 lists general sample information for each MI decision unit sample at the sound berms. More information about the sampling program is provided in the 2007 field data report (CH2M HILL, 2008).

In accordance with MI sampling guidance (ADEC, 2007), triplicate MI samples were collected at Decision Unit 9 (Location DB09). The 95UCL values calculated for analytes detected in these samples were used to adjust the detected results for the other MI decision unit samples.

2.2.3 Screening Levels

The screening levels used to evaluate the sound berm sample results are based on the following human heath risk-based criteria:

- **Region 6 preliminary risk goals (PRGs) for residential exposure.** In the case of carcinogens, the Region 6 PRGs are used as screening levels without modification because they are based on a 1×10^{-6} excess lifetime cancer risk level. The Region 6 PRG values for noncarcinogens are based on a hazard index of 1, so the screening levels for these chemical are the Region 6 PRGs divided by 10.
- **ADEC Method 2 cleanup levels for residential exposure** (published in 18 AAC 75 and subsequent updates [ADEC 2003, ADEC 2006]). Since the ADEC cleanup levels are based on a 1×10^{-5} excess lifetime cancer risk for carcinogens and a hazard index of 1 for noncarcinogens, screening levels based on these criteria consist of the cleanup levels divided by 10.

The Region 6 PRGs were used primarily as the source of screening levels for soil; ADEC cleanup levels were employed for target analytes without Region 6 PRGs and for PCBs. The soil screening levels used for the sound berm evaluations, and for other in situ soil evaluation, are identified in Table 2-4.

The target analyte lists for the sound berms and other soils include a number of metals that occur naturally in site soils. The screening levels for certain metals, such as arsenic, are

significantly lower than the naturally occurring background levels. Therefore, the results for metals that exceed the screening levels were further screened against the background levels developed for soils south of the Chena River at Fort Wainwright (USACE, 1994). These values are listed in Table 2-5.

2.3 Confirmation Sample Evaluation

Previous investigations of the FCS, including magnetic geophysical investigations, identified two primary areas of buried metal debris near buildings 48 and 49. Building 49 drum removals and Building 48 anomaly investigations occurred during the 2007 field season. In October 2007, investigation of geophysical anomalies identified near buildings 15 and 17, were added to the 2007 fieldwork schedule. Jacobs Engineering, Inc. (Jacobs) was contracted to perform the debris investigations through excavation, to field screen soil removed from the excavations, and to characterize any waste that was removed. CH2M HILL then performed confirmation sampling of the excavation floor and sidewalls to evaluate possible residual levels of contamination in the underlying and surrounding soil.

Similarly, areas with elevated concentrations of PCBs had been identified during previous investigations in the Exclusion Zone (Subarea E) and the Transformer Service Area of the sound berm. For this RI, Jacobs was contracted to remove the PCB-contaminated soil and conduct field screening. CH2M HILL then performed confirmation sampling of the excavation floor and sidewalls to evaluate possible residual levels of PCBs in underlying and surrounding soil.

2.3.1 Evaluation Process

Discrete samples were used to characterize soil conditions following debris and PCB-contaminated removal efforts. More information about sample collection and target analytes for each set of confirmation samples is provided in the 2007 field data report (CH2M HILL, 2008). The individual results for each excavation were compared to soil screening levels and background, as appropriate, to determine whether areas of elevated concentration remain in site soils, and if they do, whether additional sampling or removal activities are needed to address the contamination. For the most part, sample results between 1 and 10 times the screening level will be incorporated into the baseline risk assessment without further delineation or removal efforts. Results of higher magnitude (greater than 10 times the screening level) may not require further assessment if adequately delineated by existing sample location. In the case of PCBs, any exceedance of the screening level of 1 milligram per kilogram (mg/kg) merits removal followed by confirmation sampling.

2.3.2 Sample Groups

The confirmation samples associated with each excavation are listed in Table 2-6 and shown in Figures 2-2 through 2-7. More information about the confirmation sampling program conducted at each excavation is provided in the 2007 field data report (CH2M HILL, 2008).

2.3.3 Screening Levels

The same screening levels used for the sound berm evaluation were used in the confirmation sample evaluations.

2.4 Soil and Groundwater Evaluation

The objectives of the soil and groundwater evaluation were to identify the chemicals of potential concern (COPCs) for soil and groundwater at the FCS and to evaluate the distribution of the COPCs in site media to identify possible data gaps that need to be filled to complete the RI and support the baseline risk assessment.

2.4.1 Evaluation Process

Soil COPCs were identified by comparing the results for all in situ soil samples (inclusive of confirmation samples at the excavations) to soil screening levels and background levels, as appropriate. Groundwater COPCs were similarly identified by comparing the results for all groundwater samples (including pre-RI samples) to groundwater screening levels. Any target analyte with one or more exceedances of a screening level (and background, in the case of metals) was identified as a COPC.

Potential source areas, groundwater plumes, and other areas of interest were identified by examining exceedance location maps for possible patterns in the distribution of COPCs.

2.4.2 Samples Used in the Evaluation

The in situ soil samples used in the soil evaluation are listed in Table 2-7 and shown in Figure 2-8. The confirmation samples obtained at the excavations (see Table 2-6 and Figures 2-2 through 2-7) were included in the COPC identification portion of the evaluation.

The in situ soil sample list includes 845 pre-RI soil samples with sample depths between zero and 25 feet below ground surface (bgs), and 198 soil samples obtained during the 2007 sampling effort. Most of the 2007 soil samples were obtained from soil borings used for installation of monitoring wells. Up to three intervals were sampled in each boring: near surface soil (~ 2 to 4 feet bgs), vadose zone soil (~ 8 to 9 feet bgs), and the interval just above the water table (~ 10 to 12 feet bgs). The in situ soil sample list includes three samples obtained from the surface of the drainage swales leading from the FCS toward the Chena River. These samples are evaluated as soil in the human health risk screening evaluation, and as sediment in the ecological risk screening portion of this report. More information about the 2007 soil sampling effort is provided in the 2007 field data report (CH2M HILL, 2008).

The groundwater samples used in the groundwater evaluation are listed in Table 2-8. The samples were obtained from the wells shown in Figure 2-9. Most of these wells were installed as part of the 2007 field effort and have been sampled only once. With the exception of MW06B, MW39, and MW40, all of the wells are screened in the upper portion of the aquifer. The screens for the three deeper wells are set 5 to 15 feet deeper than those of the shallow wells. More information about monitoring well construction and sampling details is provided in the 2007 field data report (CH2M HILL, 2008).

2.4.3 Screening Levels

The soil screening levels listed in Table 2-4 and background concentrations in Table 2-5 were used to identify COPCs and screening level exceedances in soil.

The screening levels used to evaluate groundwater results are based on the following human heath risk-based criteria:

- **Region 6 PRGs for residential exposure by tap water route.** In the case of carcinogens, the Region 6 PRGs were used as screening levels without modification because they are based on a 1×10^{-6} excess lifetime cancer risk level. The Region 6 PRG values for noncarcinogens are based on a hazard index of 1, so the screening levels for these chemical are the Region 6 PRGs divided by 10.
- **ADEC Method 2 cleanup levels for residential exposure by drinking water** route (published in 18 AAC 75 and subsequent updates [ADEC, 2003; ADEC, 2006]). Since the ADEC cleanup levels are based on a 1×10^{-5} excess lifetime cancer risk for carcinogens and a hazard index of 1 for noncarcinogens, screening levels based on these criteria consist of the cleanup levels divided by 10.

The Region 6 PRGs were used primarily as the source of screening levels for groundwater; ADEC cleanup levels were employed for target analytes without Region 6 PRGs. The groundwater screening levels are identified in Table 2-9.

The target analytes lists for groundwater include a number of metals that occur naturally. The screening levels for certain metals, such as arsenic, are significantly lower than the naturally occurring background levels. Therefore, the results for metals that exceed screening levels were further screened against the background levels developed for groundwater at Fort Wainwright (USACE, 1994) and other Fairbanks area locations (U.S. Geological Survey [USGS], 2001; EPA, 1994). These values are listed in Table 2-5.

2.5 Soil Gas/Vapor Intrusion Evaluation

The objective of the soil gas evaluation is to provide initial interpretation of soil gas data and to identify any data gaps associated with this medium. In addition, the results will provide a preliminary indication of the potential for vapor intrusion from buildings and selected areas at the housing development site. Soil gas sample results were also used to identify contaminant source areas and will provide information for the baseline risk assessment.

2.5.1 Evaluation Process

The evaluation process generally consisted of identifying COPCs in soil gas by comparison to screening levels for indoor air, then assessing potential impacts to indoor air at each building by using the Johnston and Ettinger model. Detailed information about the evaluation process is provided in Appendix A.

2.4.2 Samples Used in the Evaluation

The soil gas samples used in the evaluation are listed in Table 2-10 and shown in Figure 2-10. These samples were obtained during two rounds of soil gas sampling

conducted in 2007. More information about the 2007 soil gas sampling effort is provided in the 2007 field data report (CH2M HILL, 2008).

2.4.3 Screening Levels

The soil gas screening levels used in the initial COPC identification effort consist of the Region 6 PRGs for ambient air multiplied by a factor of 10 (to account for attenuation between the soil gas and indoor environments). These values and their derivation are presented in Appendix A.

2.6 Screening Level Ecological Evaluation

The primary purpose of the screening level ecological evaluation is to evaluate existing data for drainage swale sediment and shallow groundwater in downgradient monitoring wells nearest to the Chena River, in order to identify whether any data gaps exist related to assessing potential ecological risk at the site. Because of the very conservative assumptions inherent in the screening methodology, this evaluation should not be construed as a risk evaluation. Once a complete data set is available following completion of the RI, a final ecological risk evaluation will be included as a component of the baseline risk assessment for the site.

2.6.1 Evaluation Process

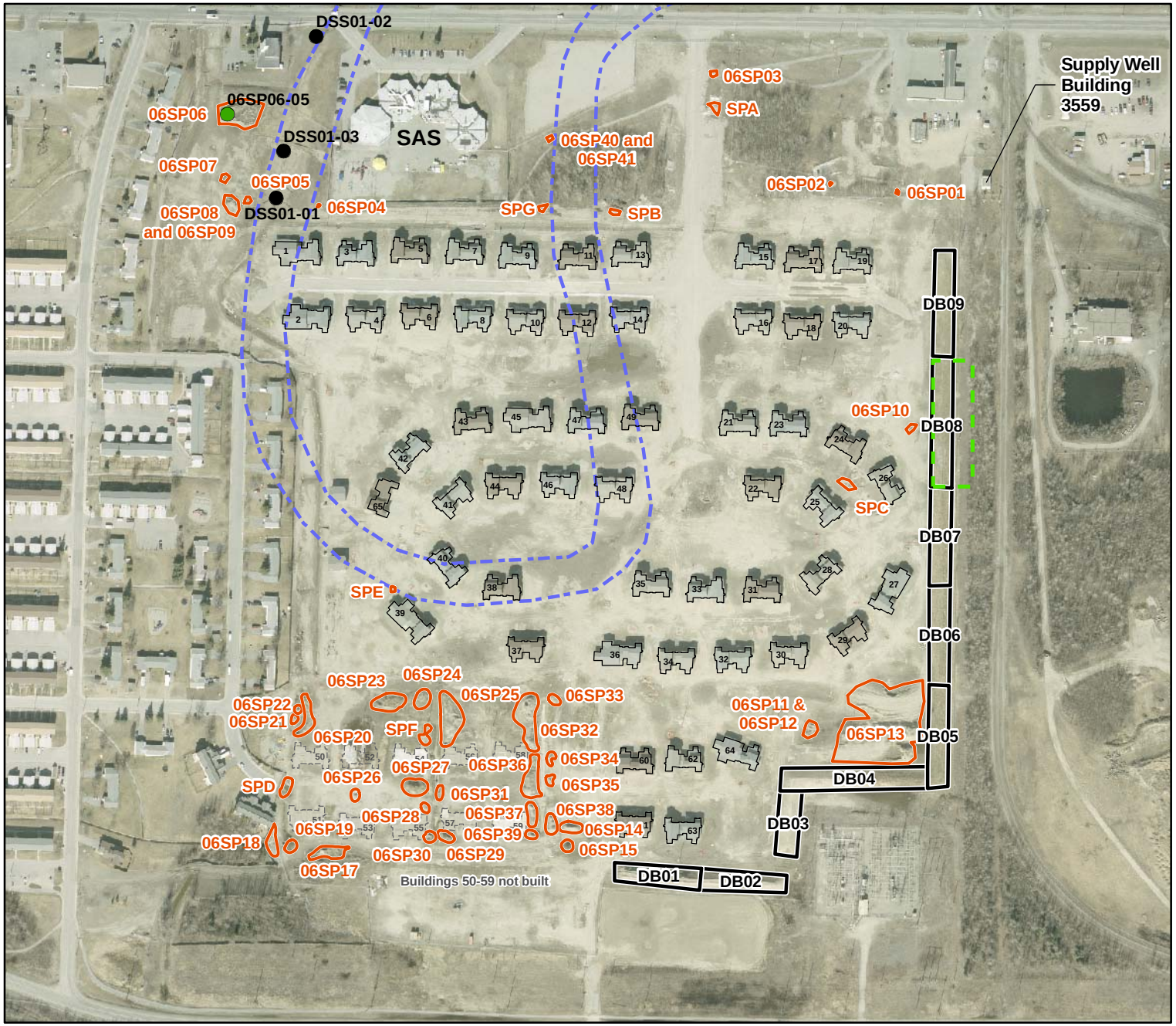
The screening level ecological evaluation consisted of identifying preliminary chemicals of potential ecological concern (COPECs), followed by comparison of sample results to relevant ecological benchmarks. If concentrations of COPECs exceed the benchmarks, additional sampling and/or evaluation may be needed to complete the ecological portions of the baseline risk assessment. Detailed information about the screening evaluations is presented in Appendix B.

2.6.2 Samples Used in the Evaluation

The samples used in the ecological evaluation include drainage swale sediment samples collected during the 2007 field investigation (shown in Figure 2-1) and groundwater samples obtained from shallow monitoring wells along the northern boundary of the FCS.

2.6.3 Screening Levels

The ecological risk-based screening levels used to identify COPECs and identify possible data gaps are described in Appendix B.



Legend

- Discrete Sample Location
- Drainage Swale Sediment Sample
- Transformer Service Area
- Soil Pile
- Multi Incremental Decision Unit Boundary
- Former Hoppe's Slough

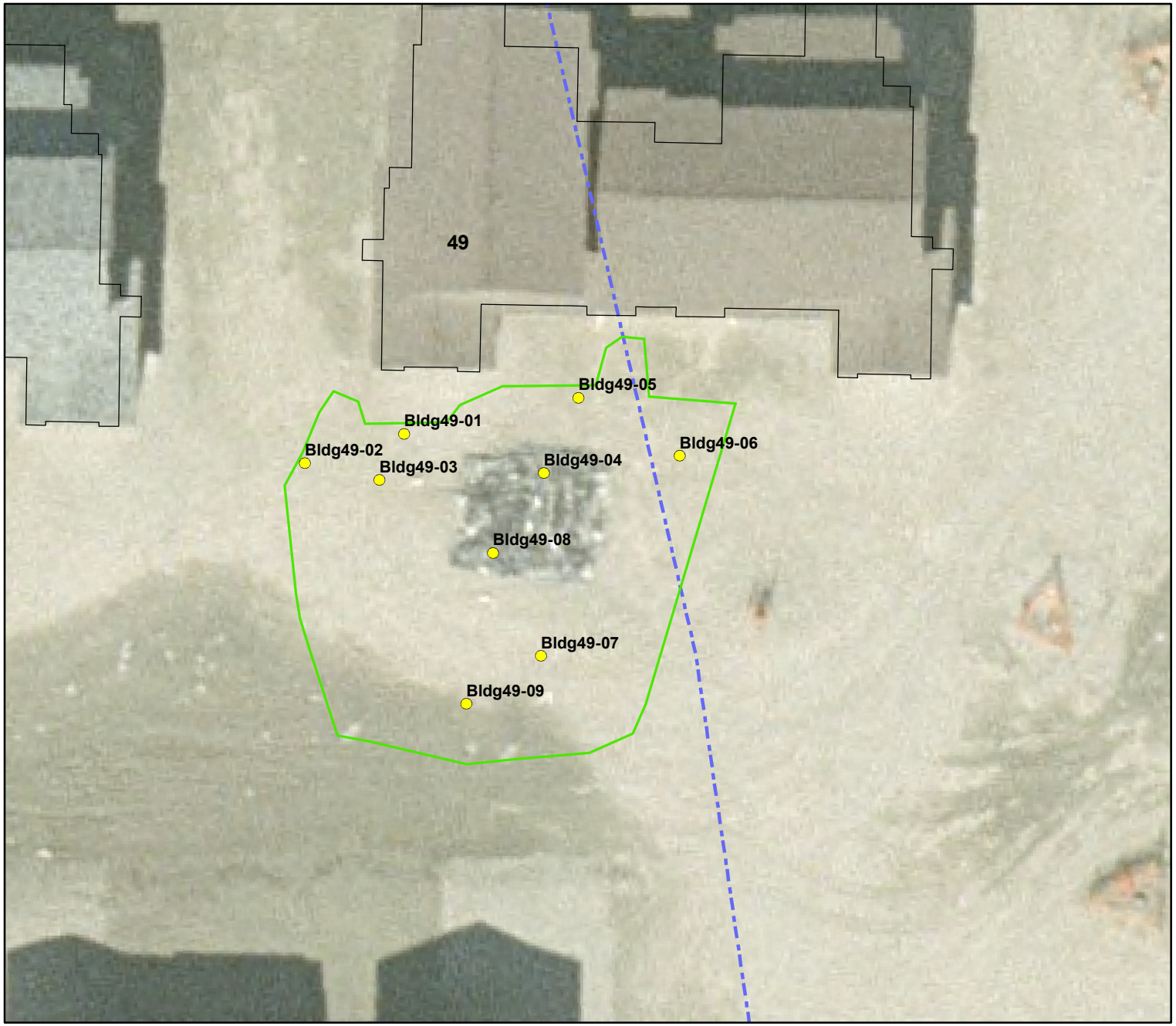
0 375
Feet

N

FIGURE 2-1
Sound Berm, Soil Pile, and Drainage Swale Sample Locations
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

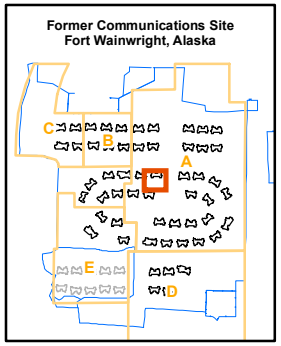
CH2MHILL

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig2-1_SoundBerm.mxd, Date: April 26, 2008



Legend

- Sample Location
- 2007 Drum and Debris Excavation Area
- Former Hoppe's Slough

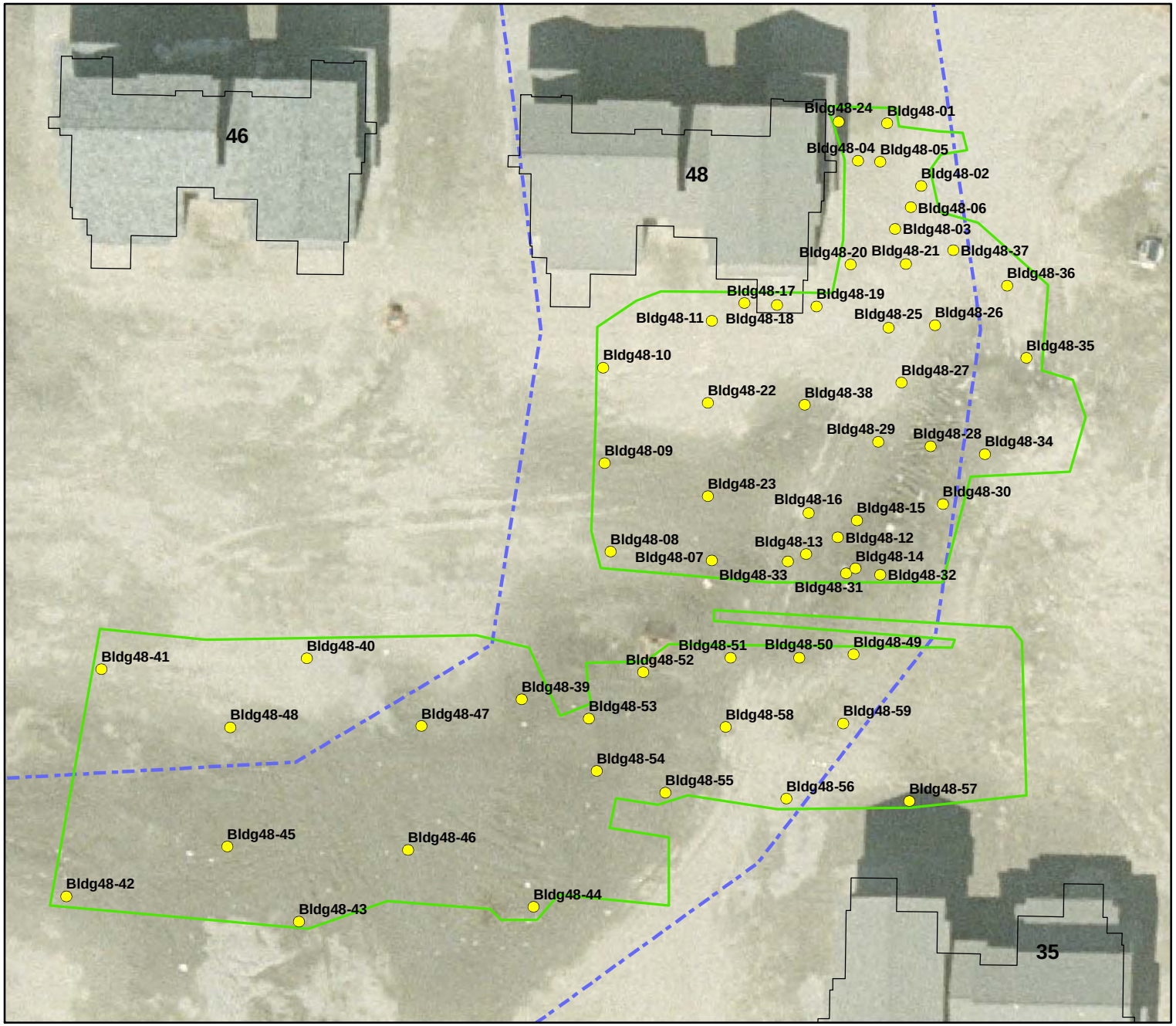


0 25
Feet

N

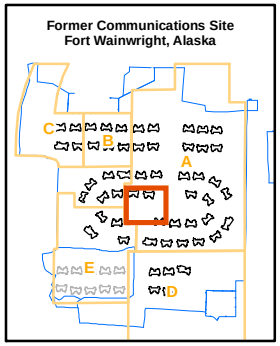
FIGURE 2-2
2007 Building 49 Drum and Debris Investigation Confirmation Soil Sample Locations
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

CH2MHILL



Legend

- Sample Location
- 2007 Drum and Debris Excavation Area
- Former Hoppe's Slough



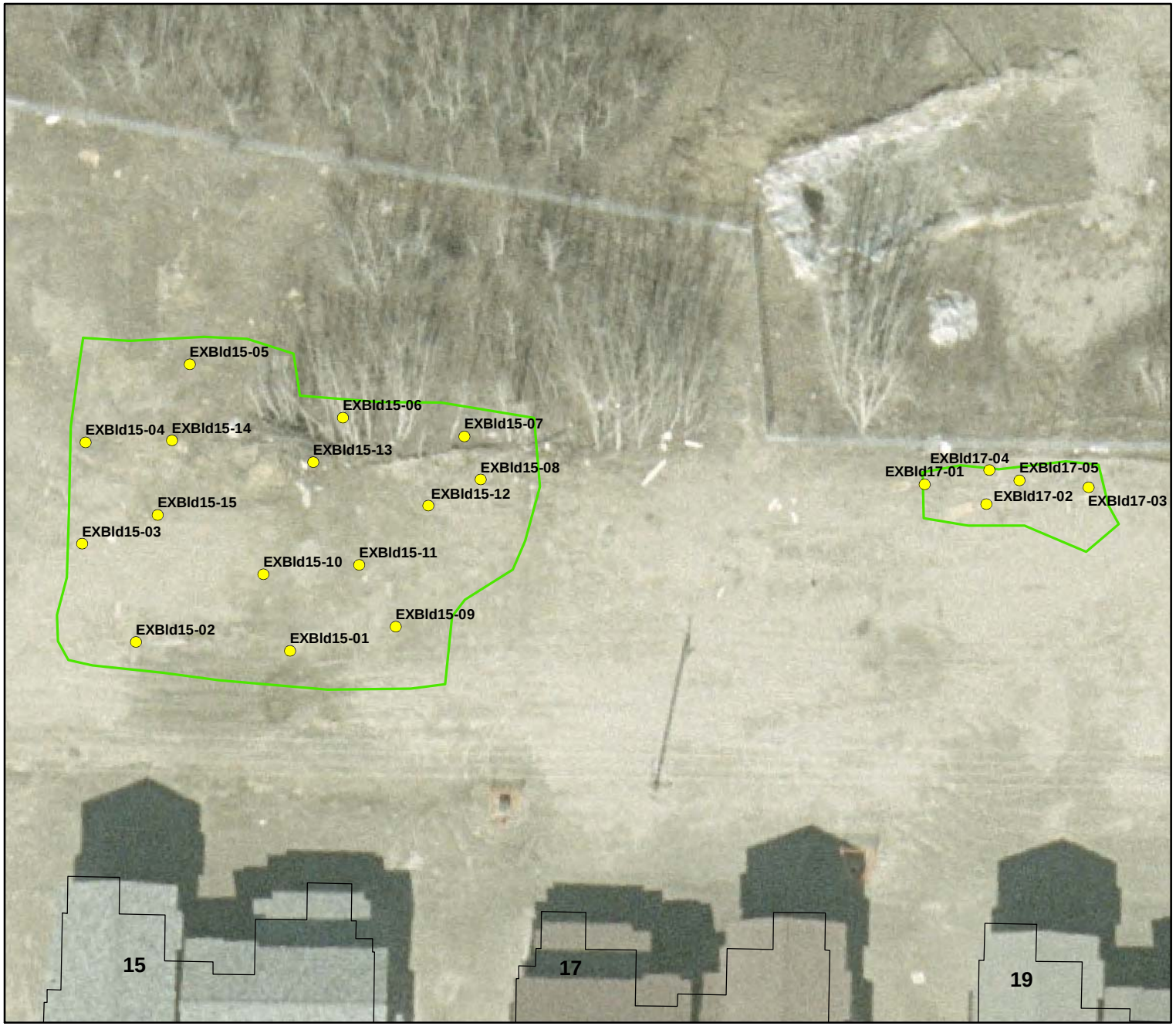
0 45
Feet

N

FIGURE 2-3
2007 Building 48 Drum and Debris Investigation Confirmation Soil Sample Locations
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

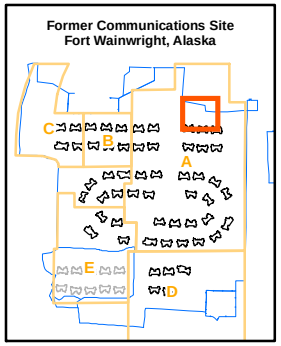
CH2MHILL

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig2-3_Bld48_SoilSamp.mxd, Date: April 26, 2008



Legend

- Sample Location
- 2007 Drum and Debris Excavation Area



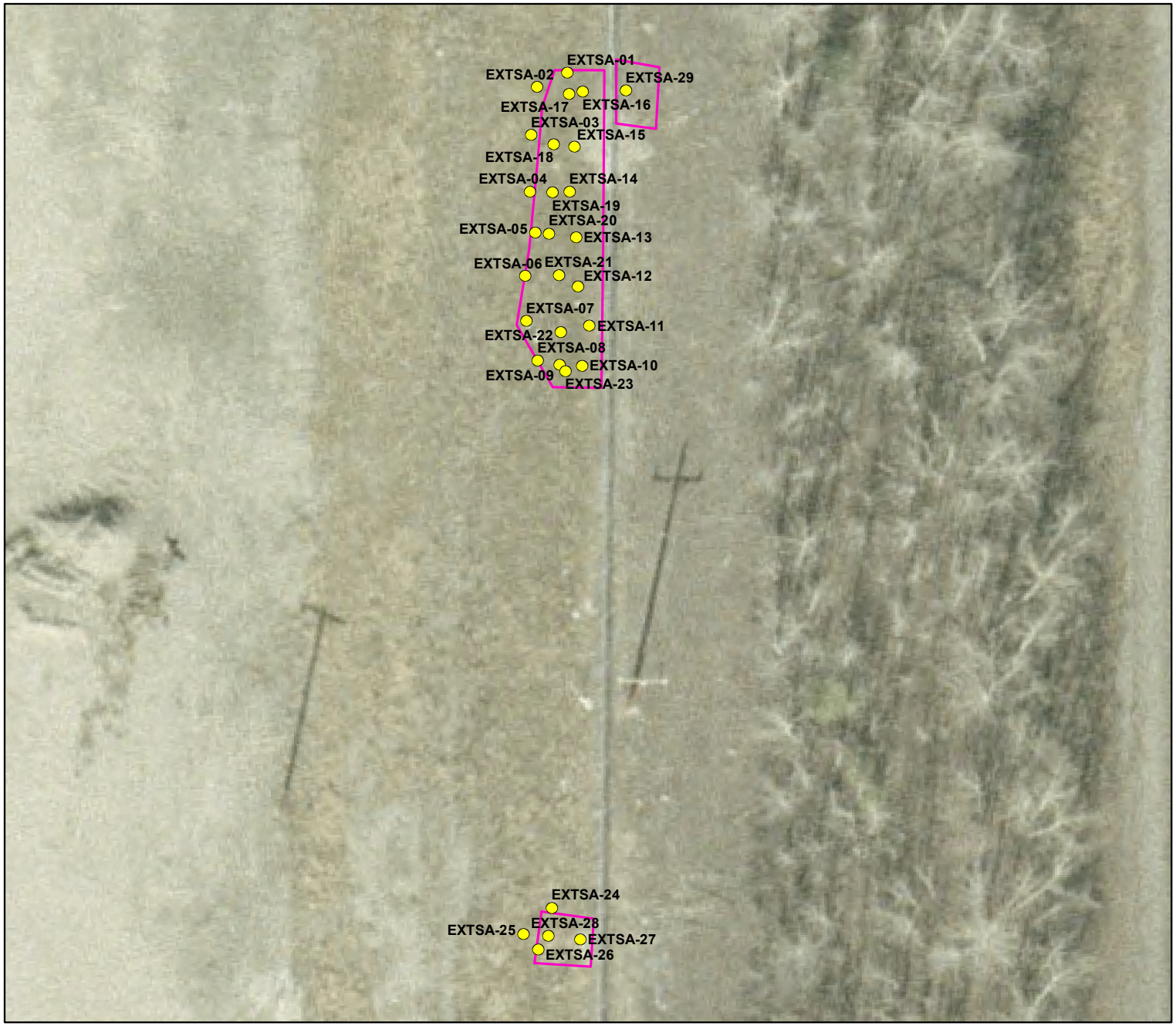
0 40
Feet

N

FIGURE 2-4
2007 Building 15 & 17 Drum and Debris Investigation Confirmation Soil Sample Locations
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

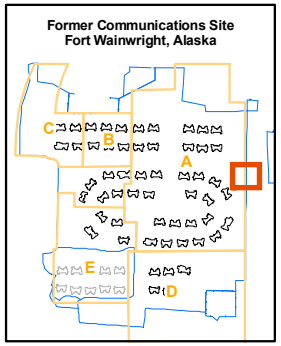
CH2MHILL

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig2-4_Bld15_17_SoilSamp.mxd, Date: April 26, 2008



Legend

- Sample Location
- 2007 PCB Investigation Area



0 30
Feet

N

FIGURE 2-5
2007 PCB Investigation Transformer Service Area Confirmation Soil Sample Locations
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

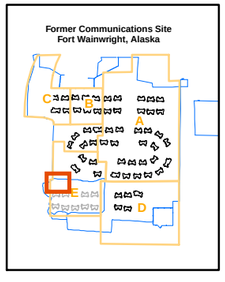
CH2MHILL

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig2-5_TSA_SoilSamp.mxd, Date: April 26, 2008

LEGEND

Sample Location

2007 PCB Investigation Area



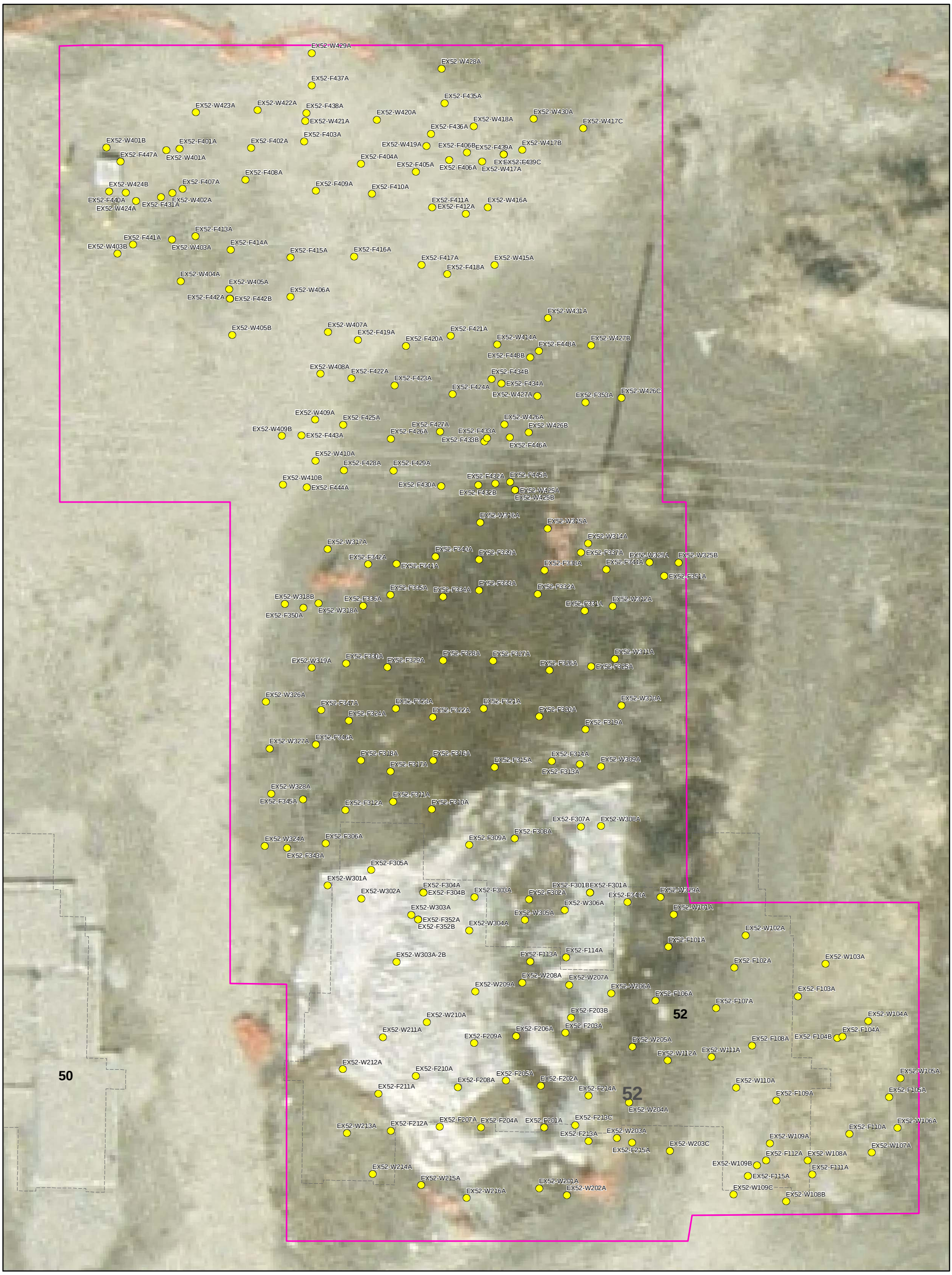
0 25
Feet

N

FIGURE 2-6
2007 PCB Investigation Subarea E
Confirmation Soil Sample Locations
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

CH2MHILL

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig2-6_AreaE_SoilSamp.mxd, Date: April 28, 2008



LEGEND

- Sample Location
- 2007 PCB Investigation Area

N

0 17
Feet

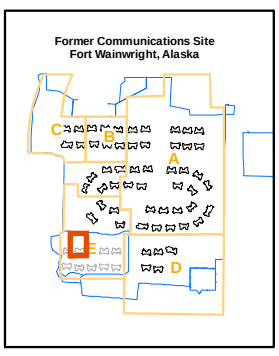


FIGURE 2-7
2007 PCB Investigation Building 52
Confirmation Soil Sample Locations
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

CH2MHILL

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig2-7_Bld52_SoilSamp.mxd, Date: April 26, 2008

Legend

- Soil Sample Location
- 2007 Drum and Debris Excavation Area
- 2007 PCB Investigation Area
- Former Hoppe's Slough

March 2007 Magnetic Data
EM61 Results (mV)

- -1500
- -20
- 20
- 30
- 50
- 75
- 100
- 200
- 300
- 500
- 1000
- 2000

NOTE:
This figure includes both pre-RI soil sample locations and 2007 soil sample locations with the exception of 2007 confirmation samples taken during the Drum and Debris Excavation and PCB Investigation

0 275
Feet

N

FIGURE 2-8
In-Situ Soil Sample Locations (Excluding 2007 Confirmation Samples)
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Legend

- Groundwater Sample Locations
- 1,700 gpm Pumping Rate Water Supply Capture Zone
- 1,000 gpm Pumping Rate Water Supply Capture Zone
- 2007 PCB Investigation Area
- 2007 Drum and Debris Excavation Area
- Former Hoppe's Slough

March 2007 Magnetic Data
EM61 Results (mV)

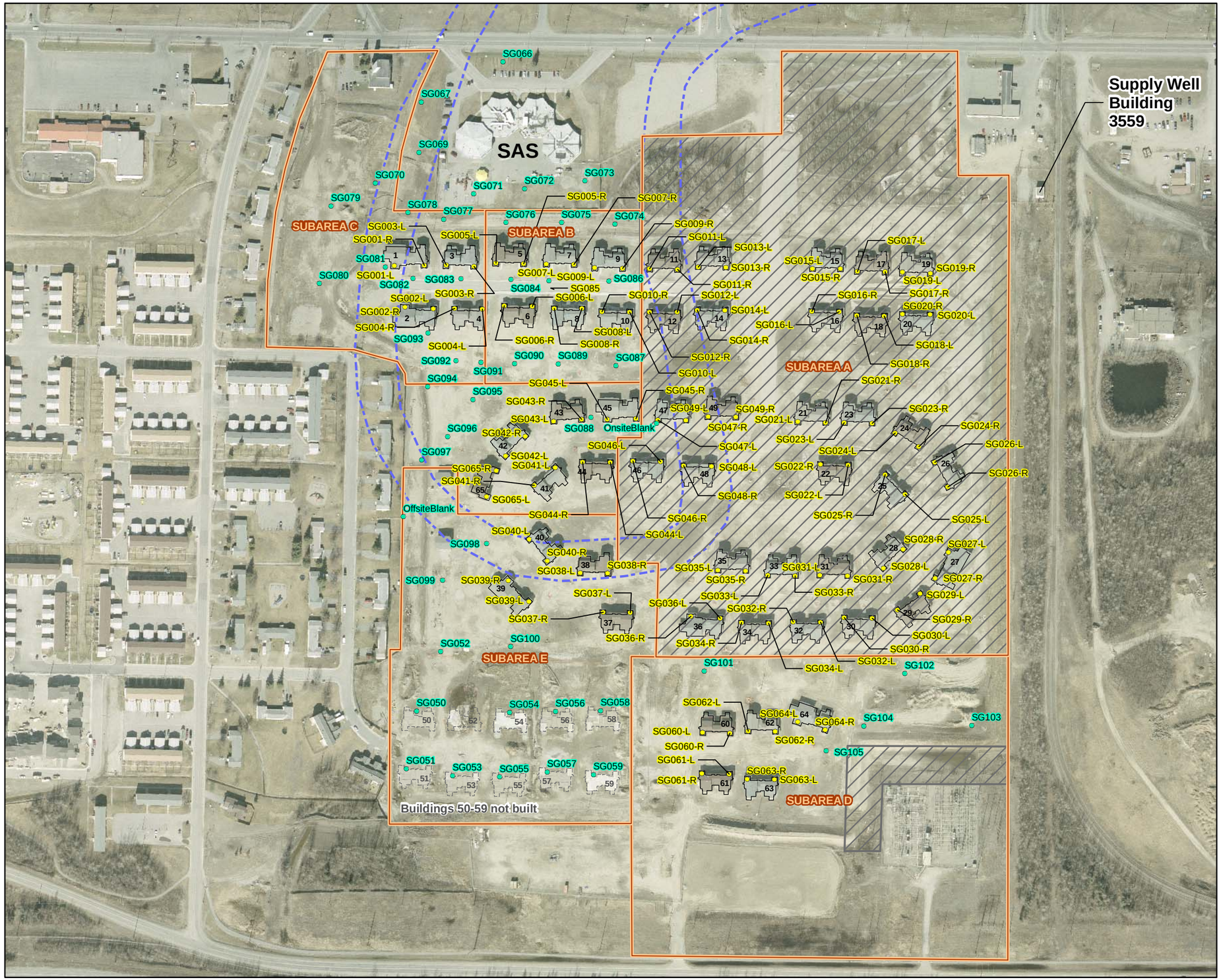
- -1500
- -20
- 20
- 30
- 50
- 75
- 100
- 200
- 300
- 500
- 1000
- 2000

0 275
Feet

FIGURE 2-9
Groundwater Sample Locations (2007 and Pre-RI Samples)
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

CH2MHILL

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig2-9_Sample_loc_2007.mxd, Date: April 26, 2008



Legend

- Soil Gas Sample Locations, Not Inside Garages
- Soil Gas Sample Locations, Inside Garages
- Moderate to High probability MEC area
- Former Hoppe's Slough

0 275 Feet

N

FIGURE 2-10
Soil Gas Sample Locations
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

CH2MHILL

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig2-10_SoilGasLoc.mxd, Date: April 26, 2008

TABLE 2-1
Soil Pile Sample Information
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Triplicate Group	Location ID	Sample ID	Depth (feet bgs)	Date	Matrix	Sample Type	Comments
06SP06-01	06SP06-01	07FW-T-SP06-01-01		8/8/2007	SO	MI	MS/SD
	06SP06-01	07FW-T-SP06-01-02		8/8/2007	SO	MI	Duplicate
	06SP06-01	07FW-T-SP06-01-03		8/8/2007	SO	MI	Triplicate
	06SP06-02	07FW-T-SP06-02		8/9/2007	SO	MI	
	06SP06-03	07FW-T-SP06-03		8/10/2007	SO	MI	
	06SP06-04	07FW-T-SP06-04		8/11/2007	SO	MI	
	SPGROUP2(4,5,7)	07FW-C-SPG02		8/7/2007	SO	MI	
	SPGROUP3(8,9)	07FW-C-SPG03		8/11/2007	SO	MI	
NA	06SP06-05	07FW-T-SP06-05	1 - 2	8/11/2007	SO	Grab	high PID; discrete sample
	06SP11 and 06SP12	07FW-CONF-SP12-01	0 - 0.5	9/12/2007	SO	Grab	confirmation sample after soil pile removed
	06SP11 and 06SP12	07FW-CONF-SP12-02	0 - 0.5	9/12/2007	SO	Grab	confirmation sample after soil pile removed
	06SP11 and 06SP12	07FW-CONF-SP12-03	0 - 0.5	9/12/2007	SO	Grab	confirmation sample after soil pile removed
	06SP11 and 06SP12	07FW-CONF-SP12-04	0 - 0.5	9/12/2007	SO	Grab	confirmation sample after soil pile removed
	06SP11 and 06SP12	07FW-CONF-SP12-05	0 - 0.5	9/12/2007	SO	Grab	confirmation sample after soil pile removed
06SP13-05	06SP13-01	07FW-D-SP13-01		8/16/2007	SO	MI	
	06SP13-02	07FW-D-SP13-02		8/16/2007	SO	MI	
	06SP13-03	07FW-D-SP13-03		8/17/2007	SO	MI	
	06SP13-04	07FW-D-SP13-04		8/18/2007	SO	MI	
	06SP13-05	07FW-D-SP13-05-01		8/30/2007	SO	MI	MS/SD
	06SP13-05	07FW-D-SP13-05-02		8/30/2007	SO	MI	Duplicate
	06SP13-05	07FW-D-SP13-05-03		8/30/2007	SO	MI	Triplicate
	06SP13-06	07FW-D-SP13-06		8/31/2007	SO	MI	
	06SP13-07	07FW-D-SP13-07		8/18/2007	SO	MI	
	06SP13-08	07FW-D-SP13-08		8/18/2007	SO	MI	
	06SP13-09	07FW-D-SP13-09		9/20/2007	SO	MI	
	06SP13-10	07FW-D-SP13-10		9/21/2007	SO	MI	
06SP27	06SP17	07FW-E-SP17		9/13/2007	SO	MI	
	06SP18	07FW-E-SP18		9/12/2007	SO	MI	
	06SP20	07FW-E-SP20		8/28/2007	SO	MI	
	06SP27	07FW-E-SP27-01		8/25/2007	SO	MI	
	06SP27	07FW-E-SP27-02		8/25/2007	SO	MI	Duplicate
	06SP27	07FW-E-SP27-03		8/25/2007	SO	MI	Triplicate
	06SP29	07FW-E-SP29		8/14/2007	SO	MI	
	06SP38	07FW-E-SP38		8/27/2007	SO	MI	
	SPGROUP10-01(32)	07FW-E-SPG10-01		8/15/2007	SO	MI	
	SPGROUP10-02(32)	07FW-E-SPG10-02		8/15/2007	SO	MI	
	SPGROUP11(33,34,35)	07FW-E-SPG11		8/14/2007	SO	MI	
	SPGROUP12(36)	07FW-E-SPG12		8/29/2007	SO	MI	
	SPGROUP13(37,39)	07FW-E-SPG13		8/27/2007	SO	MI	
	SPGROUP14(D,E,F)	07FW-E-SPG14		8/28/2007	SO	MI	
	SPGROUP4(10,C)	07FW-A-SPG04		8/13/2007	SO	MI	
	SPGROUP6(14,15)	07FW-E-SPG06		8/13/2007	SO	MI	
	SPGROUP7(19,21,22,26)	07FW-E-SPG07		8/29/2007	SO	MI	
	SPGROUP8-01(25)	07FW-E-SPG08-01		8/15/2007	SO	MI	
	SPGROUP8-02(23,24)	07FW-E-SPG08-02		8/15/2007	SO	MI	
	SPGROUP9(28,30,31)	07FW-E-SPG09		8/14/2007	SO	MI	
SPA	SPA	07FW-T-SPA01		9/5/2007	SO	MI	MS/SD
	SPA	07FW-T-SPA02		9/5/2007	SO	MI	Duplicate
	SPA	07FW-T-SPA03		9/5/2007	SO	MI	Triplicate
	SPGROUP1(1,2,3,40,41,B,G)	07FW-T-SPG01		9/11/2007	SO	MI	

bgs = below ground surface
MI = multi-incremental
MS/SD - matrix spike/matrix spike duplicate
SO = soil

TABLE 2-2
Fort Wainwright Landfill Acceptance Criteria
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Chem Group	CAS No.	Analyte	Landfill Criteria[1]	Unit
VOC	71556	1,1,1-Trichloroethane	1	mg/kg
VOC	630206	1,1,1,2-Tetrachloroethane	NA	mg/kg
VOC	79345	1,1,2,2-Tetrachloroethane	0.017	mg/kg
VOC	7311	1,1,2-Trichloro-1,2,2-trifluoroethane	NA	mg/kg
VOC	79005	1,1,2-Trichloroethane	0.017	mg/kg
VOC	75354	1,1,-Dichloroethene	0.03	mg/kg
VOC	75343	1,1-Dichloroethane	12	mg/kg
VOC	78999	1,1-Dichloropropane	NA	mg/kg
VOC	563586	1,1-Dichloropropene	NA	mg/kg
VOC	120821	1,2,4-Trichlorobenzene	2	mg/kg
VOC	95636	1,2,4-Trimethylbenzene	NA	mg/kg
VOC	108678	1,3,5-Trimethylbenzene	NA	mg/kg
VOC	87616	1,2,3-Trichlorobenzene	NA	mg/kg
VOC	96184	1,2,3-Trichloropropane	NA	mg/kg
VOC	96128	1,2-Dibromo-3-chloropropane	NA	mg/kg
VOC	106934	1,2-Dibromoethane	3.06E-05	mg/kg
VOC	95501	1,2-Dichlorobenzene	7	mg/kg
VOC	107062	1,2-Dichloroethane	0.015	mg/kg
VOC	78875	1,2-Dichloropropane	0.017	mg/kg
VOC	541731	1,3-Dichlorobenzene	12.1	mg/kg
VOC	142289	1,3-Dichloropropane	NA	mg/kg
VOC	106467	1,4-Dichlorobenzene	0.8	mg/kg
VOC	78933	2-Butanone (MEK)	60	mg/kg
VOC	591786	2-Hexanone	NA	mg/kg
VOC	594207	2,2-Dichloropropane	NA	mg/kg
VOC	108101	4-Methyl-2-pentanone (MIBK)	NA	mg/kg
VOC	67641	Acetone	10	mg/kg
VOC	71432	Benzene	0.02	mg/kg
VOC	108861	Bromobenzene	NA	mg/kg
VOC	74975	Bromochloromethane	NA	mg/kg
VOC	75274	Bromodichloromethane	NA	mg/kg
VOC	75252	Bromoform	0.38	mg/kg
VOC	74839	Bromomethane (Methyl bromide)	NA	mg/kg
VOC	75150	Carbon Disulfide	17	mg/kg
VOC	56235	Carbon Tetrachloride	0.03	mg/kg
VOC	108907	Chlorobenzene	0.6	mg/kg
VOC	75003	Chloroethane	NA	mg/kg
VOC	67663	Chloroform	0.34	mg/kg
VOC	74873	Chloromethane	NA	mg/kg
VOC	156592	cis-1,2-Dichloroethene	0.2	mg/kg
VOC	10061015	cis-1,3-Dichloropropene	0.02	mg/kg
VOC	110827	Cyclohexane	NA	mg/kg
VOC	124481	Dibromochloromethane	NA	mg/kg
VOC	74953	Dibromomethane	NA	mg/kg
VOC	75718	Dichlorodifluoromethane	60	mg/kg
VOC	100414	Ethylbenzene	5.5	mg/kg
VOC	98828	Isopropylbenzene	227	mg/kg
VOC	79209	Methyl Acetate	NA	mg/kg
VOC	1634044	Methyl tert-Butyl Ether	NA	mg/kg
VOC	108872	Methylcyclohexane	NA	mg/kg

TABLE 2-2
Fort Wainwright Landfill Acceptance Criteria
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Chem Group	CAS No.	Analyte	Landfill Criteria[1]	Unit
VOC	75092	Methylene Chloride	0.015	mg/kg
VOC	63072446	Methyl pentanone	NA	mg/kg
VOC	100425	Styrene	1.3	mg/kg
VOC	127184	Tetrachloroethene	0.03	mg/kg
VOC	108883	Toluene	5.4	mg/kg
VOC	156605	trans-1,2-Dichloroethene	0.4	mg/kg
VOC	10061026	trans-1,3-Dichloropropene	0.02	mg/kg
VOC	79016	Trichloroethene	0.027	mg/kg
VOC	75694	Trichlorofluoromethane	NA	mg/kg
VOC	26523648	Trichlorotriflouroethane	NA	mg/kg
VOC	75014	Vinyl Chloride	0.009	mg/kg
VOC	1330207	Xylene (total)	78	mg/kg
VOC	136777612	m&p-Xylene	NA	mg/kg
VOC	95476	o-Xylene	NA	mg/kg
SVOC	92524	1,1'-Biphenyl	NA	mg/kg
SVOC	103651	n-Propylbenzene	NA	mg/kg
SVOC	108601	2,2'-oxybis(1-Chloropropane)	NA	mg/kg
SVOC	95954	2,4,5-Trichlorophenol	90	mg/kg
SVOC	88062	2,4,6-Trichlorophenol	0.6	mg/kg
SVOC	94757	2,4-D	NA	mg/kg
SVOC	120832	2,4-Dichlorophenol	0.45	mg/kg
SVOC	105679	2,4-Dimethylphenol	4	mg/kg
SVOC	51285	2,4-Dinitrophenol	0.2	mg/kg
SVOC	121142	2,4-Dinitrotoluene	0.005	mg/kg
SVOC	606202	2,6-Dinitrotoluene	0.0044	mg/kg
SVOC	110758	2-Chloroethylvinyl ether	NA	mg/kg
SVOC	91587	2-Chloronaphthalene	70	mg/kg
SVOC	95578	2-Chlorophenol	1.4	mg/kg
SVOC	95498	2-Chlorotoluene	NA	mg/kg
SVOC	90120	1-Methylnaphthalene	43	mg/kg
SVOC	110496	2-Methoxyethyl acetate	NA	mg/kg
SVOC	91576	2-Methylnaphthalene	60.9	mg/kg
SVOC	95487	2-Methylphenol	7	mg/kg
SVOC	88744	2-Nitroaniline	NA	mg/kg
SVOC	88755	2-Nitrophenol	NA	mg/kg
SVOC	91941	3,3'-Dichlorobenzidine	0.02	mg/kg
SVOC	34MP	3,4-Methylphenol*	NA	mg/kg
SVOC	108394	3-Methylphenol	NA	mg/kg
SVOC	99092	3-Nitroaniline	NA	mg/kg
SVOC	534521	4,6-Dinitro-2-methylphenol	NA	mg/kg
SVOC	101553	4-Bromophenyl-phenylether	NA	mg/kg
SVOC	59507	4-Chloro-3-methylphenol	NA	mg/kg
SVOC	106478	4-Chloroaniline	0.5	mg/kg
SVOC	7005723	4-Chlorophenyl-phenylether	NA	mg/kg
SVOC	106434	4-Chlorotoluene	NA	mg/kg
SVOC	99876	4-Isopropyltoluene	NA	mg/kg
SVOC	106445	4-Methylphenol	NA	mg/kg
SVOC	100016	4-Nitroaniline	NA	mg/kg
SVOC	100027	4-Nitrophenol	NA	mg/kg
SVOC	83329	Acenaphthene	210	mg/kg

TABLE 2-2
Fort Wainwright Landfill Acceptance Criteria
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Chem Group	CAS No.	Analyte	Landfill Criteria[1]	Unit
SVOC	208968	Acenaphthylene	210	mg/kg
SVOC	98862	Acetophenone	NA	mg/kg
SVOC	62533	Aniline	NA	mg/kg
SVOC	120127	Anthracene	4300	mg/kg
SVOC	1912249	Atrazine	NA	mg/kg
SVOC	100527	Benzaldehyde	NA	mg/kg
SVOC	56553	Benzo (a) anthracene	6	mg/kg
SVOC	50328	Benzo (a) pyrene	3	mg/kg
SVOC	205992	Benzo (b) fluoranthene	20	mg/kg
SVOC	191242	Benzo (g,h,i) perylene	1500	mg/kg
SVOC	207089	Benzo (k) fluoranthene	200	mg/kg
SVOC	65850	Benzoic Acid	390	mg/kg
SVOC	100516	Benzyl alcohol	NA	mg/kg
SVOC	117817	bis (2-Ethylhexyl) phthalate	1200	mg/kg
SVOC	111911	bis(2-Chloroethoxy)methane	NA	mg/kg
SVOC	111444	bis(2-Chloroethyl)ether	0.002	mg/kg
SVOC	39638329	bis(2-Chloroisopropyl)ether	NA	mg/kg
SVOC	85687	Butylbenzylphthalate	5600	mg/kg
SVOC	105602	Caprolactam	NA	mg/kg
SVOC	86748	Carbazole	2	mg/kg
SVOC	218019	Chrysene	620	mg/kg
SVOC	53703	Dibenzo (a,h) anthracene	6	mg/kg
SVOC	84662	Diethylphthalate	190	mg/kg
SVOC	131113	Dimethylphthalate	1400	mg/kg
SVOC	84742	Di-n-butylphthalate	1700	mg/kg
SVOC	117840	Di-n-octylphthalate	810000	mg/kg
SVOC	206440	Fluoranthene	2100	mg/kg
SVOC	86737	Fluorene	270	mg/kg
SVOC	118741	Hexachlorobenzene	0.73	mg/kg
SVOC	87683	Hexachlorobutadiene	8	mg/kg
SVOC	77474	Hexachlorocyclopentadiene	130	mg/kg
SVOC	67721	Hexachloroethane	1.6	mg/kg
SVOC	193395	Indeno (1,2,3-cd) pyrene	54	mg/kg
SVOC	78591	Isophorone	3	mg/kg
SVOC	104518	n-Butylbenzene	NA	mg/kg
SVOC	91203	Naphthalene	21	mg/kg
SVOC	98953	Nitrobenzene	0.06	mg/kg
SVOC	62759	N-Nitrosodimethylamine	3.4	mg/kg
SVOC	621647	N-Nitroso-di-n-propylamine	0.00036	mg/kg
SVOC	86306	N-Nitrosodiphenylamine	3.4	mg/kg
SVOC	87865	Pentachlorophenol	0.01	mg/kg
SVOC	85018	Phenanthrene	4300	mg/kg
SVOC	108952	Phenol	67	mg/kg
SVOC	129000	Pyrene	1500	mg/kg
SVOC	483658	Retene	NA	mg/kg
SVOC	135988	sec-Butylbenzene	NA	mg/kg
SVOC	98066	tert-Butylbenzene	NA	mg/kg
TPH	GRO	Gasoline Range Organics (GRO)	300	mg/kg
TPH	DRO	Diesel Range Organics (DRO)	250	mg/kg
TPH	RRO	Residual Range Organics (RRO)	11000	mg/kg

TABLE 2-2
Fort Wainwright Landfill Acceptance Criteria
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Chem Group	CAS No.	Analyte	Landfill Criteria[1]	Unit
D/F	35822469	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	NA	mg/kg
D/F	67562394	1,2,3,4,6,7,8-HPCDF	NA	mg/kg
D/F	55673897	1,2,3,4,7,8,9-HPCDF	NA	mg/kg
D/F	39227286	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	NA	mg/kg
D/F	70648269	1,2,3,4,7,8-HXCDF	NA	mg/kg
D/F	57653857	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	NA	mg/kg
D/F	19408743	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	NA	mg/kg
D/F	72918219	1,2,3,7,8,9-HXCDF	NA	mg/kg
D/F	57117416	1,2,3,7,8-Pentachlorodibenzofuran	NA	mg/kg
D/F	40321764	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	NA	mg/kg
D/F	60851345	2,3,4,6,7,8-HXCDF	NA	mg/kg
D/F	57117314	2,3,4,7,8-PECDF	NA	mg/kg
D/F	1746016	2,3,7,8-TCDD	NA	mg/kg
D/F	51207319	2,3,7,8-Tetrachlorodibenzofuran	NA	mg/kg
D/F	132649	Dibenzofuran	7.78	mg/kg
D/F	3268879	OCDD	NA	mg/kg
D/F	39001020	OCDF	NA	mg/kg
D/F	37871004	HPCDD, total	NA	mg/kg
D/F	38998753	HPCDF, total	NA	mg/kg
D/F	34465468	HXCDD, total	NA	mg/kg
D/F	55684941	HXCDF, total	NA	mg/kg
D/F	36088229	PeCDD, total	NA	mg/kg
D/F	30402154	PeCDF, total	NA	mg/kg
D/F	41903575	TCDD, total	NA	mg/kg
D/F	55722275	TCDF, total	NA	mg/kg
PEST	309002	Aldrin	1.6	mg/kg
PEST	319846	alpha-BHC	0.0026	mg/kg
PEST	5103719	alpha-Chlordane	NA	mg/kg
PEST	319857	beta-BHC	0.009	mg/kg
PEST	12789036	Chlordane	3	mg/kg
PEST	72548	4,4'-DDD	47	mg/kg
PEST	72559	4,4'-DDE	150	mg/kg
PEST	50293	4,4'-DDT	88	mg/kg
PEST	319868	delta-BHC	NA	mg/kg
PEST	Dichloprop	Dichloropropanol	NA	mg/kg
PEST	60571	Dieldrin	0.015	mg/kg
PEST	959988	Endosulfan I	7	mg/kg
PEST	33213659	Endosulfan II	7	mg/kg
PEST	1031078	Endosulfan Sulfate	NA	mg/kg
PEST	72208	Endrin	0.3	mg/kg
PEST	7421934	Endrin aldehyde	NA	mg/kg
PEST	53494705	Endrin ketone	NA	mg/kg
PEST	57749	gamma Chlordane	NA	mg/kg
PEST	58899	gamma-BHC (Lindane)	0.003	mg/kg
PEST	76448	Heptachlor	8	mg/kg
PEST	1024573	Heptachlor epoxide	0.2	mg/kg
PEST	72435	Methoxychlor	52	mg/kg
PEST	8001352	Toxaphene	10	mg/kg
Metal	7429905	Aluminum	NA	mg/kg
Metal	7440360	Antimony	3.6	mg/kg

TABLE 2-2
Fort Wainwright Landfill Acceptance Criteria
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Chem Group	CAS No.	Analyte	Landfill Criteria[1]	Unit
Metal	7440382	Arsenic	2	mg/kg
Metal	7440393	Barium	1100	mg/kg
Metal	7440417	Beryllium	42	mg/kg
Metal	7440439	Cadmium	5	mg/kg
Metal	7440702	Calcium	NA	mg/kg
Metal	7440473	Chromium	26	mg/kg
Metal	7440484	Cobalt	NA	mg/kg
Metal	7440508	Copper	7000	mg/kg
Metal	7439896	Iron	NA	mg/kg
Metal	7439921	Lead	NA	mg/kg
Metal	7439954	Magnesium	NA	mg/kg
Metal	7439965	Manganese	NA	mg/kg
Metal	7439976	Mercury	1.4	mg/kg
Metal	7440020	Nickel	87	mg/kg
Metal	NO3/NO2	Nitrate/Nitrite	NA	mg/kg
Metal	7440097	Potassium	NA	mg/kg
Metal	7782492	Selenium	3.5	mg/kg
Metal	7440224	Silver	21	mg/kg
Metal	7440235	Sodium	NA	mg/kg
Metal	14808798	Sulfate	NA	mg/kg
Metal	7440280	Thallium	NA	mg/kg
Metal	7440622	Vanadium	3400	mg/kg
Metal	7440666	Zinc	9100	mg/kg
PCB	12674112	Aroclor 1016	NA	mg/kg
PCB	11104282	Aroclor 1221	NA	mg/kg
PCB	11141165	Aroclor 1232	NA	mg/kg
PCB	53469219	Aroclor 1242	NA	mg/kg
PCB	12672296	Aroclor 1248	NA	mg/kg
PCB	11097691	Aroclor 1254	NA	mg/kg
PCB	11096825	Aroclor 1260	NA	mg/kg
PCB	1336363	PCBs, total	10	mg/kg

[1] ADEC Table B1/B2 Soil Cleanup Levels - Migration to Groundwater Pathway for all analytes, except PCBs

df = dioxin/furan
EXP = explosive
mg/kg = milligrams per kilogram
NA = not applicable
PCBs = polyc polychlorinated biphenyls
PEST = pesticide
SVOC = semivolatile organic compound
TPH = total petroleum hydrocarbon
VOC = volatile organic compound

TABLE 2-3
Sound Berm Sample Information
Former Communications Site, Fort Wainwright, Alaska
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Location ID	Sample ID	Depth (feet bgs)	Date	Matrix	Sample Type	Comments
DB01	07FW-DB01-071807	0-2	7/17/2007	SO	MI	
DB01	07FW-DB01-073007	0-2	7/30/2007	SO	MI	
DB02	07FW-DB02-071807	0-2	7/18/2007	SO	MI	
DB02	07FW-DB02-073007	0-2	7/30/2007	SO	MI	
DB03	07FW-DB03-080307	0-2	8/3/2007	SO	MI	
DB04	07FW-DB04-080307	0-2	8/3/2007	SO	MI	
DB05	07FW-DB05-073007	0-2	7/30/2007	SO	MI	
DB06	07FW-DB06-073107	0-2	7/30/2007	SO	MI	
DB06	07FW-DB06-073107	0-2	7/31/2007	SO	MI	
DB07	07FW-DB07-073107	0-2	7/30/2007	SO	MI	
DB07	07FW-DB07-073107	0-2	7/31/2007	SO	MI	
DB08	07FW-DB08-080207	0-2	8/2/2007	SO	MI	
DB09-01	07FW-DB09-01-080107	0-2	8/1/2007	SO	MI	MS/SD
DB09-02	07FW-DB09-02-080107	0-2	8/1/2007	SO	MI	Duplicate
DB09-03	07FW-DB09-03-080107	0-2	8/1/2007	SO	MI	Triplicate

bgs = gelow ground surface
MI = multi-incremental
MS/SD = matrix spike/matrix spike duplicate
SO = soil

TABLE 2-4
Human Health Risk-Based Soil Screening Levels
Former Communications Site, Fort Wainwright, Alaska
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Chemical Group	Analyte	CAS	Soil Screening Level (mg/kg)	Screening Level Source
D/F	2,3,7,8-TCDD (dioxin)	1746-01-6	3.90E-06	C
EXP	1,3,5-Trinitrobenzene	99-35-4	183	N
EXP	1,3-Dinitrobenzene	99-65-0	0.61	N
EXP	2,4,6-Trinitrotoluene	118-96-7	16	C
EXP	2,4-Dinitrotoluene	121-14-2	12	N
EXP	2,6-Dinitrotoluene	606-20-2	6.1	N
EXP	2-Amino-4,6-dinitrotoluene	35572-78-2	NA	NA
EXP	2-Nitrotoluene	88-72-2	2.8	C
EXP	3-Nitrotoluene	99-08-1	156	N
EXP	4-Amino-2,6-dinitrotoluene	19406-51-0	NA	NA
EXP	4-Nitrotoluene	99-99-0	40	C
EXP	HMX	2691-41-0	306	N
EXP	Nitrobenzene	98-95-3	2.0	N
EXP	RDX	121-82-4	4.4	C
EXP	Tetryl	479-45-8	24	N
Herb	2,4,5-T	93-76-5	61	N
Herb	2,4-D	94-75-7	69	N
Herb	2,4-DB	94-82-6	49	N
Herb	4-Nitrophenol	100-02-7	49	N
Herb	Dalapon	75-99-0	183	N
Herb	Dicamba	1918-00-9	183	N
Herb	Dichlorprop	120-36-5	NA	NA
Herb	Dinoseb	88-85-7	6.1	N
Herb	MCPA	94-74-6	3.1	N
Herb	Mecoprop	93-65-2	6.1	N
Herb	Pentachlorophenol	87-86-5	3.0	C
Herb	Silvex (2,4,5-TP)	93-72-1	49	N
Metal	Aluminum	7429-90-5	7,733	N
Metal	Antimony	7440-36-0	3.1	N
Metal	Arsenic	7440-38-2	8.46	B
Metal	Barium	7440-39-3	1,564	N
Metal	Beryllium	7440-41-7	16	N
Metal	Boron	7440-42-8	1,562	N
Metal	Cadmium	7440-43-9	3.9	N
Metal	Calcium	7440-70-2	NA	NA
Metal	Chromium	7440-47-3	211	C
Metal	Cobalt	7440-48-4	903	C
Metal	Copper	7440-50-8	291	N
Metal	Iron	7439-89-6	5,475	N
Metal	Lead	7439-92-1	400	M
Metal	Magnesium	7439-95-4	NA	NA
Metal	Manganese	7439-96-5	347	N
Metal	Mercury (elemental)	7439-97-6	NA	NA
Metal	Mercury and compounds	7487-94-7	2.3	N
Metal	Nickel	7440-02-0	156	N
Metal	Potassium	7440-09-7	NA	NA
Metal	Selenium	7782-49-2	39	N
Metal	Silver	7440-22-4	39	N
Metal	Sodium	7440-23-5	NA	NA
Metal	Thallium	7440-28-0	5.5	NA

TABLE 2-4
Human Health Risk-Based Soil Screening Levels
Former Communications Site, Fort Wainwright, Alaska
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Chemical Group	Analyte	CAS	Soil Screening Level (mg/kg)	Screening Level Source
Metal	Vanadium	7440-62-2	39	N
Metal	Zinc	7440-66-6	2,346	N
PCB	Aroclor 1016	12674-11-2	1.00	A
PCB	Aroclor 1221	11104-28-2	1.00	A
PCB	Aroclor 1232	11141-16-5	1.00	A
PCB	Aroclor 1242	53469-21-9	1.00	A
PCB	Aroclor 1248	12672-29-6	1.00	A
PCB	Aroclor 1254	11097-69-1	1.00	A
PCB	Aroclor 1260	11096-82-5	1.00	A
PCB	Aroclor 1262	37324-23-5	1.00	A
PCB	Aroclor 1268	11100-14-4	1.00	A
PCB	PCBs, total	1336-36-3	1.00	A
Pest	4,4'-DDD	72-54-8	2.4	C
Pest	4,4'-DDE	72-55-9	1.7	C
Pest	4,4'-DDT	50-29-3	1.7	C
Pest	Aldrin	309-00-2	0.029	C
Pest	alpha-BHC	319-84-6	0.090	C
Pest	alpha-Chlordane	5103-71-9	1.6	C(s)
Pest	beta-BHC	319-85-7	0.32	C
Pest	delta-BHC	319-86-8	NA	NA
Pest	Dieldrin	60-57-1	0.030	C
Pest	Endosulfan	115-29-7	37	N
Pest	Endosulfan I	959-98-8	37	N(s)
Pest	Endosulfan II	33213-65-9	37	N(s)
Pest	Endosulfan sulfate	1031-07-8	NA	NA
Pest	Endrin	72-20-8	1.8	N
Pest	Endrin aldehyde	7421-93-4	NA	NA
Pest	Endrin ketone	53494-70-5	NA	NA
Pest	gamma-BHC (Lindane)	58-89-9	0.44	C
Pest	gamma-Chlordane	5103-74-2	1.6	C(s)
Pest	Heptachlor	76-44-8	0.11	C
Pest	Heptachlor epoxide	1024-57-3	0.053	C
Pest	Methoxychlor	72-43-5	31	N
Pest	Toxaphene	8001-35-2	0.44	C
SVOC	1,2,4-Trichlorobenzene	120-82-1	14	N
SVOC	1,2-Dichlorobenzene	95-50-1	28	N
SVOC	1,3-Dichlorobenzene	541-73-1	6.9	N
SVOC	1,4-Dichlorobenzene	106-46-7	3.2	C
SVOC	2,4,5-Trichlorophenol	95-95-4	611	N
SVOC	2,4,6-Trichlorophenol	88-06-2	44	C
SVOC	2,4-Dichlorophenol	120-83-2	18	N
SVOC	2,4-Dimethylphenol	105-67-9	122	N
SVOC	2,4-Dinitrophenol	51-28-5	12	N
SVOC	2,4-Dinitrotoluene	121-14-2	12	N
SVOC	2,6-Dinitrotoluene	606-20-2	6.1	N
SVOC	2-Chloronaphthalene	91-58-7	386	N
SVOC	2-Chlorophenol	95-57-8	6.4	N
SVOC	2-Methylnaphthalene	91-57-6	203	1/10th_ADEC_Table_B1/B2
SVOC	2-Methylphenol	95-48-7	31	N(s)
SVOC	2-Nitroaniline	88-74-4	18	N

TABLE 2-4
Human Health Risk-Based Soil Screening Levels
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Chemical Group	Analyte	CAS	Soil Screening Level (mg/kg)	Screening Level Source
SVOC	2-Nitrophenol	88-75-5	NA	NA
SVOC	3,3'-Dichlorobenzidine	91-94-1	1.1	C
SVOC	3-Methylphenol	108-39-4	NA	NA
SVOC	3-Nitroaniline	99-09-2	NA	NA
SVOC	4,6-Dinitro-2-methylphenol	534-52-1	NA	NA
SVOC	4-Bromophenyl phenyl ether	101-55-3	NA	NA
SVOC	4-Chloro-3-methylphenol	59-50-7	NA	NA
SVOC	4-Chloroaniline	106-47-8	24	N
SVOC	4-Chlorophenyl phenyl ether	7005-72-3	NA	NA
SVOC	4-Methylphenol	106-44-5	31	N
SVOC	4-Nitroaniline	100-01-6	NA	NA
SVOC	4-Nitrophenol	100-02-7	49	N
SVOC	Acenaphthene	83-32-9	368	N
SVOC	Acenaphthylene	208-96-8	610	1/10th_ADEC_Table_B1/B2
SVOC	Anthracene	120-12-7	2,190	N
SVOC	Benz(a)anthracene	56-55-3	0.15	C
SVOC	Benzo(a)pyrene	50-32-8	0.015	C
SVOC	Benzo(b)fluoranthene	205-99-2	0.15	C
SVOC	Benzo(ghi)perylene	191-24-2	300	1/10th_ADEC_Table_B1/B2
SVOC	Benzo(k)fluoranthene	207-08-9	1.5	C
SVOC	Benzoic acid	65-85-0	100,000	max
SVOC	Benzyl alcohol	100-51-6	1,833	N
SVOC	bis(2-Chloroethoxy)methane	111-91-1	NA	NA
SVOC	bis(2-Chloroethyl) ether	111-44-4	0.21	C
SVOC	bis(2-Chloroisopropyl) ether	108-60-1	2.9	C
SVOC	bis(2-Ethylhexyl) phthalate	117-81-7	35	C
SVOC	Butyl benzyl phthalate	85-68-7	240	sat
SVOC	Carbazole	86-74-8	24	C
SVOC	Chrysene	218-01-9	15	C
SVOC	Dibenz(a,h)anthracene	53-70-3	0.015	C
SVOC	Dibenzofuran	132-64-9	15	N
SVOC	Diethyl phthalate	84-66-2	4,888	N
SVOC	Dimethyl phthalate	131-11-3	100,000	max
SVOC	Di-n-butyl phthalate	84-74-2	611	N
SVOC	Di-n-octyl phthalate	117-84-0	200	1/10th_ADEC_Table_B1/B2
SVOC	Fluoranthene	206-44-0	229	N
SVOC	Fluorene	86-73-7	264	N
SVOC	Hexachlorobenzene	118-74-1	0.30	C
SVOC	Hexachlorobutadiene	87-68-3	6.2	C
SVOC	Hexachloroethane	67-72-1	35	C
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	0.15	C
SVOC	Isophorone	78-59-1	512	C
SVOC	Naphthalene	91-20-3	12	N
SVOC	Nitrobenzene	98-95-3	2.0	N
SVOC	N-Nitrosodimethylamine	62-75-9	0.0023	C
SVOC	N-Nitrosodi-n-propylamine	621-64-7	0.069	C
SVOC	N-Nitrosodiphenylamine	86-30-6	99	C
SVOC	Pentachlorophenol	87-86-5	3.0	C
SVOC	Phenanthrene	85-01-8	3,000	1/10th_ADEC_Table_B1/B2
SVOC	Phenol	108-95-2	1,833	N

TABLE 2-4
Human Health Risk-Based Soil Screening Levels
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Chemical Group	Analyte	CAS	Soil Screening Level (mg/kg)	Screening Level Source
SVOC	Pyrene	129-00-0	231	N
TPH	Diesel Range Organics (DRO)	DRO	1,025	1/10th_ADEC_Table_B1/B2
TPH	Gasoline Range Organics (GRO)	GRO	140	1/10th_ADEC_Table_B1/B2
TPH	Residual Range Organics (RRO)	RRO	1,000	1/10th_ADEC_Table_B1/B2
VOC	1,1,1,2-Tetrachloroethane	630-20-6	3.0	C
VOC	1,1,1-Trichloroethane	71-55-6	1,385	sat
VOC	1,1,2,2-Tetrachloroethane	79-34-5	0.38	C
VOC	1,1,2-Trichloroethane	79-00-5	0.84	C
VOC	1,1-Dichloroethane	75-34-3	85	N
VOC	1,1-Dichloroethene	75-35-4	28	N
VOC	1,1-Dichloropropene	563-58-6	NA	NA
VOC	1,2,3-Trichlorobenzene	87-61-6	NA	NA
VOC	1,2,3-Trichloropropane	96-18-4	0.32	C
VOC	1,2,4-Trichlorobenzene	120-82-1	14	N
VOC	1,2,4-Trimethylbenzene	95-63-6	5.7	sat
VOC	1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	0.0026	C
VOC	1,2-Dibromoethane (EDB)	106-93-4	0.028	C
VOC	1,2-Dichlorobenzene	95-50-1	28	N
VOC	1,2-Dichloroethane	107-06-2	0.35	C
VOC	1,2-Dichloropropane	78-87-5	0.35	C
VOC	1,3,5-Trimethylbenzene	108-67-8	2.1	N
VOC	1,3-Dichlorobenzene	541-73-1	6.9	N
VOC	1,3-Dichloropropane	142-28-9	11	N
VOC	1,3-Dichloropropene	542-75-6	0.70	C
VOC	1,4-Dichlorobenzene	106-46-7	3.2	C
VOC	2,2-Dichloropropane	594-20-7	NA	NA
VOC	2-Butanone (MEK)	78-93-3	3,209	N
VOC	2-Chlorotoluene	95-49-8	16	N
VOC	2-Hexanone	591-78-6	NA	NA
VOC	4-Chlorotoluene	106-43-4	NA	NA
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	580	N
VOC	Acetone	67-64-1	1,415	N
VOC	Benzene	71-43-2	0.66	C
VOC	Bromobenzene	108-86-1	7.3	N
VOC	Bromochloromethane	74-97-5	NA	NA
VOC	Bromodichloromethane	75-27-4	1.0	C
VOC	Bromoform	75-25-2	62	C
VOC	Bromomethane	74-83-9	0.87	N
VOC	Carbon disulfide	75-15-0	721	sat
VOC	Carbon tetrachloride	56-23-5	0.24	C
VOC	Chlorobenzene	108-90-7	27	N
VOC	Chloroethane	75-00-3	3.0	C
VOC	Chloroform	67-66-3	0.25	C
VOC	Chloromethane	74-87-3	11	N
VOC	cis-1,2-Dichloroethene	156-59-2	4.3	N
VOC	cis-1,3-Dichloropropene	10061-01-5	0.70	C(s)
VOC	Dibromochloromethane	124-48-1	1.0	C
VOC	Dibromomethane	74-95-3	14	N
VOC	Dichlorodifluoromethane (Freon 12)	75-71-8	9.4	N
VOC	Ethylbenzene	100-41-4	234	sat

TABLE 2-4
Human Health Risk-Based Soil Screening Levels
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Chemical Group	Analyte	CAS	Soil Screening Level (mg/kg)	Screening Level Source
VOC	Hexachlorobutadiene	87-68-3	6.2	C
VOC	Isopropylbenzene	98-82-8	37	N
VOC	m & p-xylene	108-38-3/1	214	sat+
VOC	Methyl tert-butyl ether (MTBE)	1634-04-4	32	C
VOC	Methylene chloride	75-09-2	8.9	C
VOC	m-Xylene	108-38-3	214	sat
VOC	Naphthalene	91-20-3	12	N
VOC	n-Butylbenzene	104-51-8	14	N
VOC	n-Propylbenzene	103-65-1	14	N
VOC	o-Xylene	95-47-6	282	sat
VOC	p-Isopropyltoluene	99-87-6	NA	NA
VOC	p-Xylene	106-42-3	375	sat
VOC	sec-Butylbenzene	135-98-8	11	N
VOC	Styrene	100-42-5	1,734	sat
VOC	tert-Butylbenzene	98-06-6	13	N
VOC	Tetrachloroethene	127-18-4	0.55	C
VOC	Toluene	108-88-3	521	sat
VOC	trans-1,2-Dichloroethene	156-60-5	12	N
VOC	trans-1,3-Dichloropropene	10061-02-6	0.70	C(s)
VOC	Trichloroethene	79-01-6	0.043	C
VOC	Trichlorofluoromethane (Freon 11)	75-69-4	39	N
VOC	Vinyl chloride	75-01-4	0.043	C
VOC	Xylenes, total	1330-20-7	214	sat

Source	Description
(s)	PRG based on surrogate
+	based on m-xylene (lowest of m- & p-xylene PRG)
1/10th_ADEC	1/10th ADEC Table C1 ingestion (no Region 6 PRG available)
1/10th_ADEC	1/10th ADEC Table B1/B2 ingestion, under 40-inch zone, noncancer (no Region 6 PRG available)
A	ADEC Table B1 unrestricted landuse (PCBs in soil)
B	Fort Wainwright background (soil south of Chena River)
C	cancer (Region VI residential PRG)
M	Region VI residential PRG - Integrated Exposure Uptake Biokinetic Model for lead in children
max	Region VI residential PRG - ceiling limit
N	noncancer (1/10th Region VI residential PRG)
NA	not applicable (no Region 6 PRG or ADEC value available)
sat	Region VI residential PRG - soil saturation

TABLE 2-5
Background Concentrations of Metals
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

	Soil		Groundwater		
Analyte	**Soil Background (mg/kg)**	**Source**	**GW Background (ug/L)**	**Source**	**Other Values**
Aluminum	NL		7538	EAFB (total)	10 - 16,000 ug/L per USGS paper
Antimony	NL		NL		0.1 to 59.3 ug/L per USGS paper
Arsenic	8.46	Ft WW (south of Chena R)	36.24	Ft WW background (total)	3 - 1670 ug/L per USGS paper
Barium	85.2	Ft WW (south of Chena R)	551.22	Ft WW background (total)	0.3 - 280 ug/L per USGS paper
Beryllium	NL		NL		
Boron	NL		NL		
Cadmium	0.58	Ft WW (south of Chena R)	5.38	Ft WW background (total)	
Calcium	NL		58625	EAFB (total)	60 - 280,000 per USGS paper
Chromium	14.62	Ft WW (south of Chena R)	53.01	Ft WW background (total)	1 - 20 ug/L per USGS paper
Cobalt	NL		NL		0.02 - 32 ug/L per USGS paper
Copper	NL		75	EAFB (total)	0.5 - 310 ug/L per USGS paper
Iron	NL		16938	EAFB (total)	50 - 74,000 ug/L per USGS paper
Lead	11.44	Ft WW (south of Chena R)	34.07	Ft WW background (total)	0.05 - 120 ug/L per USGS paper
Magnesium	NL		17375	EAFB (total)	40 - 91,000 ug/L per USGS paper
Manganese	NL		3875	EAFB (total)	0.3 - 5,900 ug/L per USGS paper
Mercury	NL		NL		
Nickel	NL		31	EAFB (total)	0.1 - 48 ug/L per USGS paper
Potassium	NL		5650	EAFB (total)	5 - 1,000 ug/L per USGS paper
Selenium	NL		NL		
Silver	NL		NL		
Sodium	NL		8363	EAFB (total)	2,090 - 303,000 ug/L per USGS paper
Thallium	NL		NL		
Vanadium	NL		24	EAFB (total)	0.05 - 7200 ug/l per USGS paper
Zinc	NL		63	EAFB (total)	

EAFB - Eielson Air Force Base, Fairbanks, AK
Ft WW - Fort Wainwright, Fairbanks, AK
NL = no listed value
ug/L = micrograms per liter
USGS - United States Geological Survey

Sources:
USGS, 2001. Ground-Water Studies in Fairbanks, Alaska—A Better Understanding of Some of the United States' Highest Natural Arsenic Concentrations
USACE, 1994. Background Data Analysis for Arsenic, Barium, Cadmium, Chromium, and Lead on Ft. Wainwright, Alaska
Average Metals Concentrations in Background Groundwater Samples - 1994 (in Final Five-year ROD Review Report, Eielson Air Force Base, Alaska, January 2004)

TABLE 2-6
Confirmation Samples by Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Excavation	Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
Bldg 49	Bldg49-01	7189108.67	468433.56	9/11/2007	SO	4.5	5	07FW-C-EXDrum01
	Bldg49-01	7189108.67	468433.56	10/5/2007	SO	4.5	5	07FW-C-EXDrum01R1
	Bldg49-01	7189108.67	468433.56	10/5/2007	SO	4.5	5	07FW-C-EXDrum01R1B
	Bldg49-02	7189104.97	468430.83	9/11/2007	SO	4.5	5	07FW-C-EXDrum02
	Bldg49-02	7189104.97	468430.83	10/5/2007	SO	4.5	5	07FW-C-EXDrum02R1
	Bldg49-03	7189104.11	468434.67	9/11/2007	SO	9	9.5	07FW-C-EXDrum03
	Bldg49-03	7189104.11	468434.67	10/5/2007	SO	9	9.5	07FW-C-EXDrum03R1
	Bldg49-04	7189104.46	468443.13	9/12/2007	SO	12	12.5	07FW-C-EXDrum04
	Bldg49-04	7189104.46	468443.13	10/5/2007	SO	12	12.5	07FW-C-EXDrum04R1
	Bldg49-05	7189112.72	468444.91	9/12/2007	SO	4	4.5	07FW-C-EXDrum05
	Bldg49-05	7189112.72	468444.91	10/5/2007	SO	4	4.5	07FW-C-EXDrum05R1
	Bldg49-06	7189105.34	468450.12	9/12/2007	SO	4.5	5	07FW-C-EXDrum06-01
	Bldg49-06	7189105.34	468450.12	10/5/2007	SO	4.5	5	07FW-C-EXDrum06R1
	Bldg49-07	7189095.05	468442.98	9/13/2007	SO	8	8.5	07FW-C-EXDrum07-01
	Bldg49-07	7189095.05	468442.98	9/13/2007	SO	8	8.5	07FW-C-EXDrum07-02
	Bldg49-07	7189095.05	468442.98	10/5/2007	SO	8	8.5	07FW-C-EXDrum07R1
	Bldg49-08	7189100.35	468440.52	9/19/2007	SO	8	8.5	07FW-C-EXDrum08
	Bldg49-08	7189100.35	468440.52	10/5/2007	SO	8	8.5	07FW-C-EXDrum08R1
	Bldg49-09	7189092.6	468439.16	9/19/2007	SO	4.5	5	07FW-C-EXDrum09
	Bldg49-09	7189092.6	468439.16	10/5/2007	SO	4.5	5	07FW-C-EXDrum09R1
Bldg 48 Exc	Bldg48-01	7189070.87	468448.58	9/13/2007	SO	4	5	07FW-A-EXBLD4801
	Bldg48-01	7189070.87	468448.58	10/6/2007	SO	4	5	07FW-A-EXBld4801R1
	Bldg48-02	7189065.07	468451.77	9/13/2007	SO	5	6	07FW-A-EXBLD4802
	Bldg48-02	7189065.07	468451.77	10/6/2007	SO	5	6	07FW-A-EXBld4802R1
	Bldg48-04	7189067.39	468445.9	9/13/2007	SO	6	7	07FW-A-EXBLD4804
	Bldg48-04	7189067.39	468445.9	10/6/2007	SO	6	7	07FW-A-EXBld4804R1
	Bldg48-05	7189067.31	468447.94	9/13/2007	SO	7	8	07FW-A-EXBLD4805
	Bldg48-05	7189067.31	468447.94	10/6/2007	SO	7	8	07FW-A-EXBld4805R1
	Bldg48-06	7189063.06	468450.77	9/13/2007	SO	7	8	07FW-A-EXBLD4806
	Bldg48-06	7189063.06	468450.77	10/6/2007	SO	7	8	07FW-A-EXBld4806R1
	Bldg48-06	7189063.06	468450.77	10/6/2007	SO	7	8	07FW-A-EXBld4806R1B
	Bldg48-07	7189030.38	468432.36	10/1/2007	SO	2	2.5	07FW-A-EXBld48-07
	Bldg48-08	7189031.21	468422.98	10/1/2007	SO	3	3.5	07FW-A-EXBld48-08
	Bldg48-08	7189031.21	468422.98	10/6/2007	SO	3	3.5	07FW-A-EXBld4808R1
	Bldg48-09	7189039.38	468422.42	10/1/2007	SO	2	2.5	07FW-A-EXBld48-09
	Bldg48-10	7189048.22	468422.29	10/1/2007	SO	3	4	07FW-A-EXBld48-10
	Bldg48-10	7189048.22	468422.29	10/8/2007	SO	3	4	07FW-A-EXBld48-10R1
	Bldg48-11	7189052.57	468432.35	10/2/2007	SO	2	2.5	07FW-A-EXBld48-11
	Bldg48-11	7189052.57	468432.35	10/8/2007	SO	2	2.5	07FW-A-EXBld48-11R1
	Bldg48-12	7189032.53	468444.04	10/3/2007	SO	9	9.5	07FW-A-EXBld48-12
	Bldg48-12	7189032.53	468444.04	10/3/2007	SO	9	9.5	07FW-A-EXBld48-12B
	Bldg48-12	7189032.53	468444.04	10/8/2007	SO	9	9.5	07FW-A-EXBld48-12R1
	Bldg48-12	7189032.53	468444.04	10/8/2007	SO	9	9.5	07FW-A-EXBld48-12R1B
	Bldg48-13	7189030.99	468441.11	10/3/2007	SO	5	5.5	07FW-A-EXBld48-13
	Bldg48-13	7189030.99	468441.11	10/8/2007	SO	5	5.5	07FW-A-EXBld48-13R1
	Bldg48-14	7189029.63	468445.66	10/3/2007	SO	8	8.5	07FW-A-EXBld48-14
	Bldg48-14	7189029.63	468445.66	10/8/2007	SO	8	8.5	07FW-A-EXBld48-14R1
	Bldg48-15	7189034.07	468445.8	10/3/2007	SO	10	10.5	07FW-A-EXBld48-15
	Bldg48-15	7189034.07	468445.8	10/8/2007	SO	10	10.5	07FW-A-EXBld48-15R1
	Bldg48-16	7189034.8	468441.33	10/3/2007	SO	9	9.5	07FW-A-EXBld48-16
	Bldg48-16	7189034.8	468441.33	10/8/2007	SO	9	9.5	07FW-A-EXBld48-16R1
	Bldg48-17	7189054.22	468435.38	10/4/2007	SO	4	5	07FW-A-EXBld48-17
	Bldg48-18	7189054.03	468438.42	10/4/2007	SO	4	5	07FW-A-EXBld48-18
	Bldg48-19	7189053.89	468442.07	10/4/2007	SO	3	3.5	07FW-A-EXBld48-19
	Bldg48-19	7189053.89	468442.07	10/4/2007	SO	3	3.5	07FW-A-EXBld48-19B
	Bldg48-19	7189053.89	468442.07	10/8/2007	SO	3	3.5	07FW-A-EXBld48-19R1
	Bldg48-19	7189053.89	468442.07	10/8/2007	SO	3	3.5	07FW-A-EXBld48-19R1B
	Bldg48-20	7189057.79	468445.2	10/4/2007	SO	3	3.5	07FW-A-EXBld48-20
	Bldg48-20	7189057.79	468445.2	10/8/2007	SO	3	3.5	07FW-A-EXBld48-20R1
	Bldg48-21	7189057.84	468450.33	10/4/2007	SO	7	8	07FW-A-EXBld48-21
	Bldg48-21	7189057.84	468450.33	10/8/2007	SO	7	8	07FW-A-EXBld48-21R1
	Bldg48-22	7189044.98	468431.97	10/4/2007	SO	6	7	07FW-A-EXBld48-22
	Bldg48-22	7189044.98	468431.97	10/8/2007	SO	6	7	07FW-A-EXBld48-22R1
	Bldg48-23	7189036.33	468431.98	10/4/2007	SO	5	6	07FW-A-EXBld48-23
	Bldg48-23	7189036.33	468431.98	10/8/2007	SO	5	6	07FW-A-EXBld48-23R1
	Bldg48-24	7189070.99	468444.11	10/8/2007	SO	6	6.5	07FW-A-EXBld48-24
	Bldg48-25	7189051.92	468448.73	10/8/2007	SO	7	7.5	07FW-A-EXBld48-25
	Bldg48-26	7189052.14	468453.05	10/8/2007	SO	6	6.5	07FW-A-EXBld48-26
	Bldg48-27	7189046.85	468449.93	10/8/2007	SO	6	6.5	07FW-A-EXBld48-27
	Bldg48-28	7189040.96	468452.63	10/8/2007	SO	5	5.5	07FW-A-EXBld48-28

TABLE 2-6
Confirmation Samples by Excavation
Former Communications Site, Fort Wainwright, Alaska
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Excavation	Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
Bldg 48 Exc (continued)	Bldg48-29	7189041.37	468447.76	10/8/2007	SO	5.5	6	07FW-A-EXBld48-29
	Bldg48-30	7189035.61	468453.75	10/8/2007	SO	2.5	3	07FW-A-EXBld48-30
	Bldg48-31	7189029.18	468444.8	10/8/2007	SO	2.5	3	07FW-A-EXBld48-31
	Bldg48-33	7189030.3	468439.4	10/9/2007	SO	3	3.5	07FW-A-EXBld48-33
	Bldg48-35	7189049.12	468461.47	10/9/2007	SO	2.5	3	07FW-A-EXBld48-35
	Bldg48-37	7189059.12	468454.7	10/9/2007	SO	3	3.5	07FW-A-EXBld48-37
	Bldg48-38	7189044.77	468440.95	10/9/2007	SO	6	6.5	07FW-A-EXBld48-38
	Bldg48-39	7189017.54	468414.77	10/10/2007	SO	2.5	3	07FW-A-EXBLD48-39
	Bldg48-40	7189021.34	468394.88	10/10/2007	SO	1.5	2	07FW-A-EXBLD48-40
	Bldg48-41	7189020.32	468375.83	10/10/2007	SO	1.5	2	07FW-A-EXBld48-41
	Bldg48-42	7188999.29	468372.57	10/10/2007	SO	1	1.5	07FW-A-EXBLD48-42
	Bldg48-43	7188996.96	468394.14	10/10/2007	SO	2.5	3	07FW-A-EXBLD48-43
	Bldg48-44	7188998.34	468415.87	10/10/2007	SO	2	2.5	07FW-A-EXBLD48-44
	Bldg48-45	7189003.93	468387.49	10/10/2007	SO	5	5.5	07FW-A-EXBLD48-45
	Bldg48-46	7189003.59	468404.25	10/10/2007	SO	3.5	4	07FW-A-EXBLD48-46
	Bldg48-47	7189015.04	468405.46	10/10/2007	SO	5	5.5	07FW-A-EXBLD48-47
	Bldg48-47	7189015.04	468405.46	10/10/2007	SO	5	5.5	07FW-A-EXBLD48-47B
	Bldg48-48	7189014.93	468387.79	10/10/2007	SO	3.5	4	07FW-A-EXBLD48-48
	Bldg48-49	7189021.7	468445.49	10/15/2007	SO	1	1.5	07FW-A-EXBld48-49
	Bldg48-50	7189021.36	468440.43	10/15/2007	SO	2.5	3	07FW-A-EXBld48-50
	Bldg48-50	7189021.36	468440.43	10/15/2007	SO	2.5	3	07FW-A-EXBld48-50B
	Bldg48-51	7189021.38	468434.08	10/15/2007	SO	2	2.5	07FW-A-EXBld48-51
	Bldg48-52	7189020.06	468426	10/15/2007	SO	3	3.5	07FW-A-EXBld48-52
	Bldg48-53	7189015.76	468420.97	10/15/2007	SO	3.5	4	07FW-A-EXBld48-53
	Bldg48-54	7189010.9	468421.72	10/16/2007	SO	5	5.5	07FW-A-EXBld48-54
	Bldg48-55	7189008.87	468428.06	10/16/2007	SO	3.5	4	07FW-A-EXBld48-55
	Bldg48-56	7189008.34	468439.28	10/16/2007	SO	2	2.5	07FW-A-EXBld48-56
	Bldg48-57	7189008.1	468450.65	10/16/2007	SO	3	3.5	07FW-A-EXBld48-57
	Bldg48-58	7189014.96	468433.66	10/16/2007	SO	8	8.5	07FW-A-EXBld48-58
	Bldg48-59	7189015.3	468444.54	10/16/2007	SO	7.5	8	07FW-A-EXBld48-59
Bldg 15 &17 Exc	EXBld15-01	7189272.47	468542.98	10/24/2007	SO	6	6.5	07FW-A-EXBld15-01
	EXBld15-01	7189272.47	468542.98	10/24/2007	SO	6	6.5	07FW-A-EXBld15-01B
	EXBld15-02	7189273.19	468530.3	10/24/2007	SO	5	5.5	07FW-A-EXBld15-02
	EXBld15-03	7189281.27	468525.86	10/24/2007	SO	5	5.5	07FW-A-EXBld15-03
	EXBld15-04	7189289.62	468526.13	10/24/2007	SO	5	5.5	07FW-A-EXBld15-04
	EXBld15-05	7189296.03	468534.71	10/24/2007	SO	5	5.5	07FW-A-EXBld15-05
	EXBld15-06	7189291.64	468547.31	10/24/2007	SO	3.5	4	07FW-A-EXBld15-06
	EXBld15-07	7189290.1	468557.33	10/24/2007	SO	4	4.5	07FW-A-EXBld15-07
	EXBld15-08	7189286.55	468558.64	10/24/2007	SO	3.5	4	07FW-A-EXBld15-08
	EXBld15-09	7189274.44	468551.66	10/24/2007	SO	3.5	4	07FW-A-EXBld15-09
	EXBld15-10	7189278.75	468540.76	10/24/2007	SO	7	7.5	07FW-A-EXBld15-10
	EXBld15-10	7189278.75	468540.76	10/24/2007	SO	7	7.5	07FW-A-EXBld15-10B
	EXBld15-11	7189279.55	468548.66	10/24/2007	SO	7	7.5	07FW-A-EXBld15-11
	EXBld15-12	7189284.39	468554.36	10/24/2007	SO	7	7.5	07FW-A-EXBld15-12
	EXBld15-13	7189288.01	468544.87	10/24/2007	SO	7	7.5	07FW-A-EXBld15-13
	EXBld15-14	7189289.78	468533.24	10/24/2007	SO	7	7.5	07FW-A-EXBld15-14
	EXBld15-15	7189283.64	468532.07	10/24/2007	SO	7	7.5	07FW-A-EXBld15-15
	EXBld17-01	7189286.16	468595.2	10/24/2007	SO	3.5	4	07FW-A-EXBld17-01
	EXBld17-01	7189286.16	468595.2	10/24/2007	SO	3.5	4	07FW-A-EXBld17-01B
	EXBld17-02	7189284.54	468600.28	10/24/2007	SO	5	5.5	07FW-A-EXBld17-02
	EXBld17-03	7189285.91	468608.68	10/24/2007	SO	2	2.5	07FW-A-EXBld17-03
	EXBld17-04	7189287.32	468600.53	10/24/2007	SO	3.5	4	07FW-A-EXBld17-04
	EXBld17-05	7189286.47	468603	10/24/2007	SO	6	6.5	07FW-A-EXBld17-05
PCB Bldg 52 (100s, 200s, 300s, 400s)	EX52-W101A	7188863.66	468239.38	10/11/2007	SO	2.5	3.5	07FW-E-EX52-W101A
	EX52-W102A	7188862.51	468243.31	10/11/2007	SO	3	4	07FW-E-EX52-W102A
	EX52-W103A	7188860.95	468247.69	10/11/2007	SO	1.5	2.5	07FW-E-EX52-W103A
	EX52-W104A	7188857.83	468250.03	10/11/2007	SO	1	2	07FW-E-EX52-W104A
	EX52-W105A	7188854.71	468251.79	10/11/2007	SO	2	3	07FW-E-EX52-W105A
	EX52-W106A	7188851.99	468251.61	10/11/2007	SO	2	3	07FW-E-EX52-W106A
	EX52-W107A	7188850.65	468250.21	10/11/2007	SO	2.5	3.5	07FW-E-EX52-W107A
	EX52-W108B	7188847.96	468245.52	10/23/2007	SO	2	3	07FW-E-EX52-W108B
	EX52-W109C	7188848.34	468242.65	10/31/2007	SO	3	4	07FW-E-EX52-W109C
	EX52-W110A	7188854.19	468242.79	10/11/2007	SO	2	3	07FW-E-EX52-W110A
	EX52-W111A	7188855.86	468241.45	10/11/2007	SO	2.5	3.5	07FW-E-EX52-W111A
	EX52-W112A	7188855.68	468239.04	10/11/2007	SO	2	3	07FW-E-EX52-W112A
	EX52-W112A	7188855.68	468239.04	10/11/2007	SO	2	3	07FW-E-EX52-W112AFD
	EX52-W202A	7188848.29	468233.52	10/3/2007	SO	2	3	07FW-E-EX52-W202A
	EX52-W203C	7188850.71	468239.17	10/15/2007	SO	4	5	07FW-E-EX52-W203C
	EX52-W204A	7188853.38	468236.93	10/3/2007	SO	2	3	07FW-E-EX52-W204A

TABLE 2-6
Confirmation Samples by Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Excavation	Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
PCB Bldg 52 (100s, 200s, 300s, 400s) (continued)	EX52-W205A	7188856.42	468237.11	10/3/2007	SO	2	3	07FW-E-EX52-W205A
	EX52-W206A	7188859.34	468235.96	10/3/2007	SO	2	3	07FW-E-EX52-W206A
	EX52-W207A	7188859.81	468233.66	10/3/2007	SO	2	3	07FW-E-EX52-W207A
	EX52-W208A	7188859.92	468231.07	10/3/2007	SO	2	3	07FW-E-EX52-W208A
	EX52-W209A	7188859.44	468228.52	10/3/2007	SO	2	3	07FW-E-EX52-W209A
	EX52-W210A	7188857.78	468225.85	10/3/2007	SO	2	3	07FW-E-EX52-W210A
	EX52-W210A	7188857.78	468225.85	10/3/2007	SO	2	3	07FW-E-EX52-W210AFD
	EX52-W211A	7188856.95	468223.46	10/3/2007	SO	2.5	3.5	07FW-E-EX52-W211A
	EX52-W212A	7188855.19	468221.25	10/3/2007	SO	2	3	07FW-E-EX52-W212A
	EX52-W213A	7188851.7	468221.5	10/3/2007	SO	2.5	3.5	07FW-E-EX52-W213A
	EX52-W214A	7188849.46	468222.9	10/3/2007	SO	2	3	07FW-E-EX52-W214A
	EX52-W215A	7188848.85	468225.56	10/3/2007	SO	2	3	07FW-E-EX52-W215A
	EX52-W216A	7188848.15	468228.03	10/3/2007	SO	2	3	07FW-E-EX52-W216A
	EX52-W301A	7188865.25	468220.43	10/8/2007	SO	5	6	07FW-E-EX52-W301A
	EX52-W302A	7188864.53	468222.27	10/8/2007	SO	5	6	07FW-E-EX52-W302A
	EX52-W303A-2B	7188861.06	468224.21	10/27/2007	SO	7	8	07FW-E-EX52-W303A-2B
	EX52-W304A	7188862.79	468228.18	10/8/2007	SO	5	6	07FW-E-EX52-W304A
	EX52-W305A	7188863.36	468231.22	10/8/2007	SO	5	6	07FW-E-EX52-W305A
	EX52-W306A	7188863.9	468233.41	10/8/2007	SO	5	6	07FW-E-EX52-W306A
	EX52-W308A	7188868.51	468235.39	10/8/2007	SO	2.5	3.5	07FW-E-EX52-W308A
	EX52-W309A	7188871.75	468235.4	10/8/2007	SO	2.5	3.5	07FW-E-EX52-W309A
	EX52-W310A	7188875.09	468236.52	10/8/2007	SO	2.5	3.5	07FW-E-EX52-W310A
	EX52-W311A	7188877.65	468236.16	10/8/2007	SO	2.5	3.5	07FW-E-EX52-W311A
	EX52-W312A	7188880.53	468236.03	10/8/2007	SO	4	5	07FW-E-EX52-W312A
	EX52-W314A	7188883.96	468234.7	10/8/2007	SO	4	5	07FW-E-EX52-W314A
	EX52-W315A	7188884.78	468232.47	10/8/2007	SO	4	5	07FW-E-EX52-W315A
	EX52-W317A	7188883.66	468220.42	10/8/2007	SO	2.5	3.5	07FW-E-EX52-W317A
	EX52-W318B	7188880.66	468218.08	10/16/2007	SO	5	6	07FW-E-EX52-W318B
	EX52-W319A	7188877.17	468219.57	10/8/2007	SO	2.5	3.5	07FW-E-EX52-W319A
	EX52-W324A	7188867.41	468217	10/10/2007	SO	2.5	3.5	07FW-E-EX52-W324A
	EX52-W325B	7188882.92	468239.65	10/23/2007	SO	2.5	3.5	07FW-E-EX52-W325B
	EX52-W326A	7188875.31	468217.06	10/12/2007	SO	4	5	07FW-E-EX52-W326A
	EX52-W327A	7188872.74	468217.27	10/12/2007	SO	4	5	07FW-E-EX52-W327A
	EX52-W328A	7188870.27	468217.34	10/12/2007	SO	4	5	07FW-E-EX52-W328A
	EX52-W329A	7188864.61	468238.65	10/11/2007	SO	5	6	07FW-E-EX52-W329A
	EX52-W401B	7188905.63	468208.32	10/24/2007	SO	3	4	07FW-E-EX52-W401B
	EX52-W403B	7188899.82	468208.92	10/23/2007	SO	3	4	07FW-E-EX52-W403B
	EX52-W404A	7188898.31	468212.38	9/25/2007	SO	2.5	3.5	07FW-E-EX52-SW01
	EX52-W405B	7188895.36	468215.2	10/23/2007	SO	3	4	07FW-E-EX52-W405B
	EX52-W406A	7188897.46	468218.39	10/11/2007	SO	2.5	3.5	07FW-E-EX52-W406A
	EX52-W407A	7188895.53	468220.46	10/11/2007	SO	4	5	07FW-E-EX52-W407A
	EX52-W408A	7188893.25	468220.03	10/11/2007	SO	4	5	07FW-E-EX52-W408A
	EX52-W409B	7188889.86	468217.93	10/23/2007	SO	4	5	07FW-E-EX52-W409B
	EX52-W410B	7188887.18	468217.97	10/23/2007	SO	4	5	07FW-E-EX52-W410B
	EX52-W414A	7188894.85	468229.72	10/11/2007	SO	1	2	07FW-E-EX52-W414A
	EX52-W415A	7188899.2	468229.57	10/11/2007	SO	1	2	07FW-E-EX52-W415A
	EX52-W416A	7188902.35	468229.2	10/11/2007	SO	4	5	07FW-E-EX52-W416A
	EX52-W417C	7188906.69	468234.42	10/30/2007	SO	4.5	5.5	07FW-E-EX52-W417C
	EX52-W418A	7188906.78	468228.44	9/26/2007	SO	2.5	3.5	07FW-E-EX52-NW05
	EX52-W420A	7188907.15	468223.13	9/26/2007	SO	2.5	3.5	07FW-E-EX52-NW03
	EX52-W422A	7188907.68	468216.6	9/26/2007	SO	2.5	3.5	07FW-E-EX52-NW01
	EX52-W423A	7188907.55	468213.21	9/26/2007	SO	2.5	3.5	07FW-E-EX52-NW00
	EX52-W423A	7188907.55	468213.21	9/26/2007	SO	2.5	3.5	07FW-E-EX52-NW00FD
	EX52-W424B	7188903.22	468208.46	10/23/2007	SO	3	4	07FW-E-EX52-W424B
	EX52-W425B	7188886.88	468230.68	10/23/2007	SO	3.5	4.5	07FW-E-EX52-W425B
	EX52-W426C	7188891.92	468236.51	11/1/2007	SO	4	5	07FW-E-EX52-W426C
	EX52-W427B	7188894.8	468234.85	10/24/2007	SO	4	5	07FW-E-EX52-W427B
	EX52-W428A	7188909.95	468226.66	10/12/2007	SO	2.5	3.5	07FW-E-EX52-W428A
	EX52-W429A	7188910.8	468219.56	10/12/2007	SO	2.5	3.5	07FW-E-EX52-W429A
	EX52-W430A	7188907.2	468231.7	10/30/2007	SO	4.5	5.5	07FW-E-EX52-W430A
	EX52-W431A	7188896.3	468232.49	10/31/2007	SO	4	5	07FW-E-EX52-W431A
	EX52-F101A	7188861.89	468239.09	10/11/2007	SO	4	4.5	07FW-E-EX52-F101A
	EX52-F102A	7188860.76	468242.69	10/11/2007	SO	5	5.5	07FW-E-EX52-F102A
	EX52-F103A	7188859.19	468246.18	10/11/2007	SO	3	3.5	07FW-E-EX52-F103A
	EX52-F104B	7188856.89	468248.33	10/23/2007	SO	4	4.5	07FW-E-EX52-F104BFD
	EX52-F105A	7188853.67	468251.17	10/11/2007	SO	4	4.5	07FW-E-EX52-F105AFD

TABLE 2-6
Confirmation Samples by Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Excavation	Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
PCB Bldg 52 (100s, 200s, 300s, 400s) (continued)	EX52-F106A	7188858.95	468238.39	10/11/2007	SO	4	4.5	07FW-E-EX52-F106A
	EX52-F107A	7188858.53	468241.69	10/11/2007	SO	6	6.5	07FW-E-EX52-F107A
	EX52-F108A	7188856.49	468243.66	10/11/2007	SO	5	5.5	07FW-E-EX52-F108A
	EX52-F109A	7188853.49	468245	10/11/2007	SO	4	4.5	07FW-E-EX52-F109A
	EX52-F110A	7188851.66	468248.99	10/11/2007	SO	4	4.5	07FW-E-EX52-F110A
	EX52-F111A	7188849.44	468246.95	10/23/2007	SO	5.5	6	07FW-E-EX52-F111A
	EX52-F112A	7188850.2	468244.44	10/23/2007	SO	4	4.5	07FW-E-EX52-F112A
	EX52-F113A	7188861.09	468231.52	10/25/2007	SO	3	3.5	07FW-E-EX52-F113AFD
	EX52-F114A	7188861.31	468233.49	10/25/2007	SO	5	5.5	07FW-E-EX52-F114A
	EX52-F114A	7188861.31	468233.49	10/25/2007	SO	5	5.5	07FW-E-EX52-F114AFD
	EX52-F115A	7188849.34	468243.44	10/31/2007	SO	5.5	6	07FW-E-EX52-F115A
	EX52-F201A	7188852.01	468232.29	10/3/2007	SO	5	5.5	07FW-E-EX52-F201A
	EX52-F202A	7188854.29	468232.1	10/3/2007	SO	5	5.5	07FW-E-EX52-F202A
	EX52-F203B	7188858.02	468233.75	10/15/2007	SO	8	8.5	07FW-E-EX52-F203BFD
	EX52-F204A	7188852	468228.82	10/3/2007	SO	5	5.5	07FW-E-EX52-F204A
	EX52-F205A	7188854.57	468230.18	10/3/2007	SO	5	5.5	07FW-E-EX52-F205A
	EX52-F205A	7188854.57	468230.18	10/3/2007	SO	5	5.5	07FW-E-EX52-F205AFD
	EX52-F206A	7188857.01	468230.76	10/3/2007	SO	5	5.5	07FW-E-EX52-F206A
	EX52-F207A	7188852.06	468226.57	10/3/2007	SO	5	5.5	07FW-E-EX52-F207A
	EX52-F208A	7188854.2	468227.57	10/3/2007	SO	5	5.5	07FW-E-EX52-F208A
	EX52-F209A	7188856.63	468228.44	10/3/2007	SO	5	5.5	07FW-E-EX52-F209A
	EX52-F210A	7188854.82	468225.25	10/3/2007	SO	5	5.5	07FW-E-EX52-F210A
	EX52-F211A	7188853.86	468223.21	10/3/2007	SO	5	5.5	07FW-E-EX52-F211A
	EX52-F212A	7188851.83	468223.89	10/3/2007	SO	5	5.5	07FW-E-EX52-F212AFD
	EX52-F213C	7188852.14	468233.98	10/15/2007	SO	7	7.5	07FW-E-EX52-F213C
	EX52-F214A	7188853.75	468234.71	10/3/2007	SO	5.5	6	07FW-E-EX52-F214A
	EX52-F215A	7188851.17	468237.08	10/15/2007	SO	8	8.5	07FW-E-EX52-F215A
	EX52-F301B	7188864.87	468234.8	10/23/2007	SO	12	12.5	07FW-E-EX52-F301B
	EX52-F302A	7188864.48	468231.45	10/8/2007	SO	8	8.5	07FW-E-EX52-F302A
	EX52-F303A	7188864.61	468228.47	10/8/2007	SO	8	8.5	07FW-E-EX52-F303A
	EX52-F304B	7188864.87	468225.68	10/16/2007	SO	12	12.5	07FW-E-EX52-F304B
	EX52-F305A	7188866.1	468222.81	10/8/2007	SO	8	8.5	07FW-E-EX52-F305A
	EX52-F306A	7188867.56	468220.33	10/12/2007	SO	6.5	7	07FW-E-EX52-F306A
	EX52-F307A	7188868.47	468234.3	10/8/2007	SO	5	5.5	07FW-E-EX52-F307A
	EX52-F308A	7188867.82	468230.66	10/10/2007	SO	6.5	7	07FW-E-EX52-F308A
	EX52-F309A	7188867.47	468228.18	10/10/2007	SO	6.5	7	07FW-E-EX52-F309A
	EX52-F310A	7188869.41	468226.12	10/10/2007	SO	6	6.5	07FW-E-EX52-F310A
	EX52-F311A	7188869.84	468224.01	10/8/2007	SO	6	6.5	07FW-E-EX52-F311A
	EX52-F312A	7188869.38	468221.41	10/12/2007	SO	8	8.5	07FW-E-EX52-F312A
	EX52-F313A	7188871.89	468234.23	10/8/2007	SO	5	5.5	07FW-E-EX52-F313A
	EX52-F314A	7188872.05	468232.7	10/8/2007	SO	5	5.5	07FW-E-EX52-F314A
	EX52-F315A	7188871.72	468229.56	10/8/2007	SO	5	5.5	07FW-E-EX52-F315A
	EX52-F316A	7188872.09	468226.22	10/8/2007	SO	5	5.5	07FW-E-EX52-F316A
	EX52-F317A	7188871.49	468223.87	10/8/2007	SO	5	5.5	07FW-E-EX52-F317A
	EX52-F318A	7188872.09	468222.24	10/8/2007	SO	5	5.5	07FW-E-EX52-F318A
	EX52-F319A	7188873.78	468234.54	10/8/2007	SO	5	5.5	07FW-E-EX52-F319A
	EX52-F320A	7188874.49	468232.01	10/8/2007	SO	5	5.5	07FW-E-EX52-F320A
	EX52-F321A	7188874.93	468228.96	10/8/2007	SO	5	5.5	07FW-E-EX52-F321A
	EX52-F322A	7188874.46	468226.19	10/8/2007	SO	5	5.5	07FW-E-EX52-F322A
	EX52-F323A	7188874.92	468224.17	10/8/2007	SO	5	5.5	07FW-E-EX52-F323A
	EX52-F324A	7188874.26	468221.58	10/8/2007	SO	5	5.5	07FW-E-EX52-F324A
	EX52-F325A	7188877.23	468234.85	10/8/2007	SO	5	5.5	07FW-E-EX52-F325A
	EX52-F326A	7188877.03	468232.58	10/8/2007	SO	5	5.5	07FW-E-EX52-F326A
	EX52-F327A	7188877.54	468229.49	10/8/2007	SO	5	5.5	07FW-E-EX52-F327A
	EX52-F328A	7188877.56	468226.76	10/8/2007	SO	5	5.5	07FW-E-EX52-F328A
	EX52-F329A	7188877.18	468223.71	10/9/2007	SO	5	5.5	07FW-E-EX52-F329A
	EX52-F330A	7188877.4	468221.44	10/9/2007	SO	5	5.5	07FW-E-EX52-F330A
	EX52-F331A	7188880.28	468234.5	10/11/2007	SO	8	8.5	07FW-E-EX52-F331A
	EX52-F332A	7188881.2	468231.92	10/11/2007	SO	8	8.5	07FW-E-EX52-F332A
	EX52-F333A	7188881.4	468228.71	10/9/2007	SO	5	5.5	07FW-E-EX52-F333A
	EX52-F334A	7188881.05	468226.75	10/9/2007	SO	5	5.5	07FW-E-EX52-F334AFD
	EX52-F335A	7188881.14	468223.87	10/9/2007	SO	5	5.5	07FW-E-EX52-F335AFD
	EX52-F336A	7188880.55	468222.37	10/9/2007	SO	5	5.5	07FW-E-EX52-F336A
	EX52-F337A	7188883.47	468234.3	10/11/2007	SO	8	8.5	07FW-E-EX52-F337A
	EX52-F338A	7188882.5	468232.3	10/11/2007	SO	8	8.5	07FW-E-EX52-F338A

TABLE 2-6
Confirmation Samples by Excavation
Former Communications Site, Fort Wainwright, Alaska
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Excavation	Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
PCB Bldg 52 (100s, 200s, 300s, 400s) (continued)	EX52-F339A	7188883.08	468228.72	10/9/2007	SO	5	5.5	07FW-E-EX52-F339A
	EX52-F340A	7188883.25	468226.34	10/9/2007	SO	5	5.5	07FW-E-EX52-F340A
	EX52-F341A	7188882.85	468224.21	10/9/2007	SO	5	5.5	07FW-E-EX52-F341A
	EX52-F342A	7188882.82	468222.64	10/9/2007	SO	5	5.5	07FW-E-EX52-F342A
	EX52-F343A	7188867.31	468218.2	10/10/2007	SO	5	5.5	07FW-E-EX52-F343AFD
	EX52-F344A	7188882.54	468235.69	10/10/2007	SO	6	6.5	07FW-E-EX52-F344A
	EX52-F345A	7188869.95	468219.07	10/12/2007	SO	6	6.5	07FW-E-EX52-F345AFD
	EX52-F346A	7188872.96	468219.78	10/12/2007	SO	6	6.5	07FW-E-EX52-F346A
	EX52-F347A	7188874.85	468220.07	10/12/2007	SO	6	6.5	07FW-E-EX52-F347A
	EX52-F348A	7188864.34	468236.85	10/11/2007	SO	8	8.5	07FW-E-EX52-F348A
	EX52-F350A	7188880.44	468219.1	10/16/2007	SO	6	6.5	07FW-E-EX52-F350A
	EX52-F351A	7188882.18	468238.85	10/23/2007	SO	6	6.5	07FW-E-EX52-F351A
	EX52-F352A	7188863.4	468225.39	10/27/2007	SO	12	12.5	07FW-E-EX52-F352A
	EX52-F353A	7188891.69	468234.54	11/2/2007	SO	5.5	6	07FW-E-EX52-F353A
	EX52-F401A	7188905.56	468212.33	9/26/2007	SO	5	5.5	07FW-E-EX52-FL13
	EX52-F401A	7188905.56	468212.33	9/26/2007	SO	5	5.5	07FW-E-EX52-FL13FD
	EX52-F402A	7188905.6	468216.25	9/26/2007	SO	3.5	4	07FW-E-EX52-FL08
	EX52-F403A	7188905.95	468219.14	9/26/2007	SO	5	5.5	07FW-E-EX52-FL09
	EX52-F404A	7188904.74	468222.25	9/26/2007	SO	5	5.5	07FW-E-EX52-FL10
	EX52-F405A	7188904.3	468225.25	9/26/2007	SO	5	5.5	07FW-E-EX52-FL11
	EX52-F406B	7188905.35	468228.05	10/24/2007	SO	8	8.5	07FW-E-EX52-F406BFD
	EX52-F407A	7188903.37	468212.49	10/11/2007	SO	5	5.5	07FW-E-EX52-F407A
	EX52-F408A	7188903.87	468215.94	9/25/2007	SO	5	5.5	07FW-E-EX52-FL03
	EX52-F409A	7188903.26	468219.79	10/11/2007	SO	5	5.5	07FW-E-EX52-F409A
	EX52-F410A	7188903.1	468222.85	9/25/2007	SO	5	5.5	07FW-E-EX52-FL07
	EX52-F410A	7188903.1	468222.85	10/11/2007	SO	5	5.5	07FW-E-EX52-F410A
	EX52-F411A	7188902.36	468226.14	10/11/2007	SO	5	5.5	07FW-E-EX52-F411A
	EX52-F412A	7188902	468227.99	10/11/2007	SO	5	5.5	07FW-E-EX52-F412A
	EX52-F413A	7188900.78	468213.19	9/25/2007	SO	3.5	4	07FW-E-EX52-FL01
	EX52-F414A	7188900.03	468215.12	9/25/2007	SO	5	5.5	07FW-E-EX52-FL02
	EX52-F415A	7188899.61	468218.4	10/11/2007	SO	5	5.5	07FW-E-EX52-F415AFD
	EX52-F416A	7188899.66	468221.89	10/11/2007	SO	5	5.5	07FW-E-EX52-F416A
	EX52-F417A	7188899.2	468225.56	10/11/2007	SO	2	2.5	07FW-E-EX52-F417A
	EX52-F418A	7188898.7	468226.97	10/11/2007	SO	2	2.5	07FW-E-EX52-F418A
	EX52-F420A	7188894.78	468224.71	10/11/2007	SO	5	5.5	07FW-E-EX52-F420AFD
	EX52-F421A	7188895.33	468227.17	10/11/2007	SO	2	2.5	07FW-E-EX52-F421A
	EX52-F423A	7188892.61	468224.1	10/11/2007	SO	5	5.5	07FW-E-EX52-F423A
	EX52-F424A	7188892.14	468227.26	10/11/2007	SO	2	2.5	07FW-E-EX52-F424A
	EX52-F425A	7188890.46	468221.27	9/25/2007	SO	5	5.5	07FW-E-EX52-FL06
	EX52-F425A	7188890.46	468221.27	10/11/2007	SO	5	5.5	07FW-E-EX52-F425A
	EX52-F426A	7188889.7	468223.9	10/11/2007	SO	5	5.5	07FW-E-EX52-F426A
	EX52-F427A	7188890.08	468226.58	10/11/2007	SO	2	2.5	07FW-E-EX52-F427A
	EX52-F428A	7188887.96	468221.32	10/11/2007	SO	5	5.5	07FW-E-EX52-F428A
	EX52-F429A	7188887.96	468224.03	10/11/2007	SO	5	5.5	07FW-E-EX52-F429A
	EX52-F430A	7188887.1	468226.65	10/11/2007	SO	2	2.5	07FW-E-EX52-F430A
	EX52-F431A	7188902.92	468211.3	10/12/2007	SO	5	5.5	07FW-E-EX52-F431A
	EX52-F431A	7188902.92	468211.3	10/12/2007	SO	5	5.5	07FW-E-EX52-F431AFD
	EX52-F432B	7188887.16	468228.68	10/29/2007	SO	7	7.5	07FW-E-EX52-F432B
	EX52-F433B	7188889.55	468229.01	10/29/2007	SO	7	7.5	07FW-E-EX52-F433B
	EX52-F434B	7188892.97	468229.41	10/29/2007	SO	7	7.5	07FW-E-EX52-F434B
	EX52-F435A	7188908.05	468226.83	10/12/2007	SO	5	5.5	07FW-E-EX52-F435A
	EX52-F436A	7188906.38	468226.08	10/12/2007	SO	5	5.5	07FW-E-EX52-F436A
	EX52-F437A	7188909.03	468219.57	10/12/2007	SO	5	5.5	07FW-E-EX52-F437A
	EX52-F438A	7188907.52	468219.26	10/12/2007	SO	5	5.5	07FW-E-EX52-F438A
	EX52-F439C	7188905.25	468230.07	11/2/2007	SO	9.5	10	07FW-E-EX52-F439C
	EX52-F440A	7188903.17	468209.38	10/23/2007	SO	5.5	6	07FW-E-EX52-F440A
	EX52-F441A	7188900.32	468209.79	10/23/2007	SO	5.5	6	07FW-E-EX52-F441A
	EX52-F442B	7188897.35	468215.08	10/31/2007	SO	5	5.5	07FW-E-EX52-F442B
	EX52-F443A	7188889.87	468219	10/23/2007	SO	6	6.5	07FW-E-EX52-F443A
	EX52-F444A	7188887.04	468219.28	10/23/2007	SO	6	6.5	07FW-E-EX52-F444A
	EX52-F445A	7188887.33	468230.41	10/23/2007	SO	4	4.5	07FW-E-EX52-F445A
	EX52-F446A	7188889.77	468230.41	10/23/2007	SO	4	4.5	07FW-E-EX52-F446A
	EX52-F447A	7188904.87	468209.09	10/24/2007	SO	6	6.5	07FW-E-EX52-F447A
	EX52-F448B	7188894.15	468231.53	10/31/2007	SO	6.5	7	07FW-E-EX52-F448B

TABLE 2-6
Confirmation Samples by Excavation
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Excavation	Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
PCB Exc 500	EXSB105-F502B	7188938.22	468233.89	10/15/2007	SO	6	6.5	07FW-E-EX52-F502B
	EXSB105-F503	7188935.33	468232.34	10/6/2007	SO	1	1.5	07FW-E-EXSB105-F503
	EXSB105-F504	7188934.64	468233.79	10/6/2007	SO	1	1.5	07FW-E-EXSB105-F504
	EXSB105-F505	7188935.28	468235.58	10/6/2007	SO	1	1.5	07FW-E-EXSB105-F505
PCB Exc 600	EXSB98-F601	7188919.77	468240.11	10/6/2007	SO	3	3.5	07FW-E-EXSB98-F601FD
	EXSB98-F602	7188921.46	468239.99	10/6/2007	SO	2	2.5	07FW-E-EXSB98-F602
	EXSB98-F603	7188920.07	468238.4	10/6/2007	SO	1.5	2	07FW-E-EXSB98-F603
	EXSB98-F604	7188918.81	468240.33	10/6/2007	SO	1	1.5	07FW-E-EXSB98-F604
	EXSB98-F605	7188919.41	468241.44	10/6/2007	SO	2	2.5	07FW-E-EXSB98-F605
PCB Ex 700	EX52-F701A	7188877.68	468163.96	10/17/2007	SO	2	2.5	07FW-E-EX52-F701A
	EX52-F702A	7188873.5	468163.52	10/17/2007	SO	2	2.5	07FW-E-EX52-F702A
	EX52-F703A	7188869.53	468163.43	10/17/2007	SO	2	2.5	07FW-E-EX52-F703A
	EX52-W701A	7188879.46	468163.47	10/17/2007	SO	1	2	07FW-E-EX52-W701A
	EX52-W702A	7188877.27	468161.87	10/17/2007	SO	1	2	07FW-E-EX52-W702A
	EX52-W703A	7188873.21	468161.73	10/17/2007	SO	1	2	07FW-E-EX52-W703A
	EX52-W704A	7188869.33	468161.58	10/17/2007	SO	1	2	07FW-E-EX52-W704A
	EX52-W705A	7188867.31	468163.42	10/17/2007	SO	1	2	07FW-E-EX52-W705A
	EX52-W706A	7188870.15	468164.78	10/17/2007	SO	1	2	07FW-E-EX52-W706A
	EX52-W707A	7188872.8	468164.94	10/17/2007	SO	1	2	07FW-E-EX52-W707A
	EX52-W708A	7188877.53	468165.67	10/17/2007	SO	1	2	07FW-E-EX52-W708A
PCB Ex 800	EX52-F801B	7188896.07	468165.14	10/25/2007	SO	4	4.5	07FW-E-EX52-F801B
	EX52-F802A	7188894.22	468163.74	10/25/2007	SO	4	4.5	07FW-E-EX52-F802A
	EX52-W801A	7188897.17	468165.18	10/17/2007	SO	1	2	07FW-E-EX52-W801A
	EX52-W802B	7188894.97	468163.08	10/25/2007	SO	2	3	07FW-E-EX52-W802B
	EX52-W802B	7188894.97	468163.08	10/25/2007	SO	2	3	07FW-E-EX52-W802BFD
	EX52-W803A	7188893.93	468165.05	10/17/2007	SO	1	2	07FW-E-EX52-W803A
	EX52-W804A	7188894.86	468166.78	10/17/2007	SO	1	2	07FW-E-EX52-W804A
PCB Ex 900	EX52-W901A	7188883.93	468189.96	10/17/2007	SO	4	5	07FW-E-EX52-W901A
	EX52-W902A	7188883.56	468188.48	10/17/2007	SO	3.5	4.5	07FW-E-EX52-W902A
	EX52-W903A	7188881.43	468188.95	10/17/2007	SO	4	5	07FW-E-EX52-W903A
	EX52-W904A	7188882.03	468190.78	10/17/2007	SO	3.5	4.5	07FW-E-EX52-W904A
	EX52-F901A	7188882.78	468189.81	10/17/2007	SO	5.5	6	07FW-E-EX52-F901A
TSA Exc	EXTSA-01	7189141.89	468690.52	10/3/2007	SO	1	1.5	07FW-A-EXTSA-01
	EXTSA-01	7189141.89	468690.52	10/3/2007	SO	1	1.5	07FW-A-EXTSA-01FD
	EXTSA-02	7189141	468688.65	10/3/2007	SO	2	2.5	07FW-A-EXTSA-02
	EXTSA-03	7189138.06	468688.3	10/3/2007	SO	2	2.5	07FW-A-EXTSA-03
	EXTSA-04	7189134.53	468688.23	10/3/2007	SO	2	2.5	07FW-A-EXTSA-04
	EXTSA-05	7189132.03	468688.53	10/3/2007	SO	2	2.5	07FW-A-EXTSA-05
	EXTSA-06	7189129.34	468687.92	10/3/2007	SO	2	2.5	07FW-A-EXTSA-06
	EXTSA-07	7189126.58	468688	10/3/2007	SO	2	2.5	07FW-A-EXTSA-07
	EXTSA-08	7189124.12	468688.68	10/3/2007	SO	2	2.5	07FW-A-EXTSA-08
	EXTSA-09	7189123.86	468690.05	10/3/2007	SO	1	1.5	07FW-A-EXTSA-09
	EXTSA-10	7189123.8	468691.43	10/3/2007	SO	1	1.5	07FW-A-EXTSA-10
	EXTSA-11	7189126.26	468691.88	10/3/2007	SO	1	1.5	07FW-A-EXTSA-11
	EXTSA-12	7189128.7	468691.18	10/3/2007	SO	1	1.5	07FW-A-EXTSA-12
	EXTSA-13	7189131.74	468691.06	10/3/2007	SO	1	1.5	07FW-A-EXTSA-13
	EXTSA-14	7189134.54	468690.66	10/3/2007	SO	1	1.5	07FW-A-EXTSA-14
	EXTSA-15	7189137.31	468690.93	10/3/2007	SO	1	1.5	07FW-A-EXTSA-15
	EXTSA-16	7189140.71	468691.48	10/3/2007	SO	1	1.5	07FW-A-EXTSA-16
	EXTSA-17	7189140.58	468690.63	10/3/2007	SO	3	3.5	07FW-A-EXTSA-17
	EXTSA-18	7189137.48	468689.67	10/3/2007	SO	3	3.5	07FW-A-EXTSA-18
	EXTSA-19	7189134.49	468689.58	10/3/2007	SO	3	3.5	07FW-A-EXTSA-19
	EXTSA-20	7189131.96	468689.37	10/3/2007	SO	3	3.5	07FW-A-EXTSA-20
	EXTSA-21	7189129.4	468690.01	10/3/2007	SO	3	3.5	07FW-A-EXTSA-21
	EXTSA-22	7189125.88	468690.13	10/3/2007	SO	3	3.5	07FW-A-EXTSA-22
	EXTSA-23	7189123.48	468690.4	10/3/2007	SO	3	3.5	07FW-A-EXTSA-23
	EXTSA-24	7189090.34	468689.57	10/3/2007	SO	1.5	2	07FW-A-EXTSA-24
	EXTSA-24	7189090.34	468689.57	10/3/2007	SO	1.5	2	07FW-A-EXTSA-24FD
	EXTSA-25	7189088.73	468687.81	10/3/2007	SO	2.5	3	07FW-A-EXTSA-25
	EXTSA-26	7189087.75	468688.73	10/3/2007	SO	1	1.5	07FW-A-EXTSA-26
	EXTSA-27	7189088.4	468691.31	10/3/2007	SO	1	1.5	07FW-A-EXTSA-27
	EXTSA-28	7189088.6	468689.33	10/3/2007	SO	3	3.5	07FW-A-EXTSA-28
	EXTSA-29	7189140.7	468693.24	10/15/2007	SO	3	3.5	07FW-A-EXTSA-29

SO = soil

TABLE 2-7
Soil Samples Used in In-situ Soil Evaluation
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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
06BERMS03	7188759.6	468462.14	7/24/2006	SO	4	4	06BERMS03
06BERMS04	7188760.04	468458.07	7/24/2006	SO	4	4	06BERMS04
06BERMS10	7188764.32	468432.63	7/24/2006	SO	4	4	06BERMS10
06BERMS11	7188773.86	468435.33	7/24/2006	SO	4	4	06BERMS11
06DP01	7189279.06	468368.83	6/11/2006	SO	0	2	06DP01S01
06DP01	7189279.06	468368.83	6/11/2006	SO	0	2	06DP01S02
06DP01	7189279.06	468368.83	6/11/2006	SO	0	2	06DP01S03
06DP01	7189279.06	468368.83	6/11/2006	SO	0	2	06DP01S04
06DP01	7189279.06	468368.83	6/11/2006	SO	0	2	06DP01S05
06DP01	7189279.06	468368.83	6/11/2006	SO	0	2	06DP01S06
06DP02	7189279.27	468380.9	6/11/2006	SO	0	2	06DP02S01
06DP02	7189279.27	468380.9	6/11/2006	SO	0	2	06DP02S02
06DP03	7189282.71	468415.27	6/27/2006	SO	0	2	06DP03S01
06DP04	7189284.49	468441.42	6/25/2006	SO	0	2	06DP04S01
06DP04	7189284.49	468441.42	6/25/2006	SO	0	2	06DP04S02
06DP04	7189284.49	468441.42	6/25/2006	SO	0	2	06DP04S03
06SB01	7189181.22	468199.59	7/21/2006	SO	5.5	7.5	06SB01S01
06SB01	7189181.22	468199.59	7/21/2006	SO	10.5	12	06SB01S02
06SB02	7189175.36	468189.89	7/21/2006	SO	5.5	5.5	06SB02S01
06SB02	7189175.36	468189.89	7/21/2006	SO	7.5	11	06SB02S02
06SB03	7189180.89	468197.58	7/21/2006	SO	5.5	7.5	06SB03S01
06SB03	7189180.89	468197.58	7/21/2006	SO	7.5	10.5	06SB03S02
06SB04	7189180.72	468200.46	7/21/2006	SO	6.5	7	06SB04S01
06SB04	7189180.72	468200.46	7/21/2006	SO	10	12	06SB04S02
06SB124	7188864.46	468242	11/20/2006	SO	1	1	06SB124S02
06SB57	7188857.2	468216.45	8/16/2006	SO	1	1	06SB57S01
06SB57	7188857.2	468216.45	8/16/2006	SO	1	1	06SB57S02
06SB80	7188894.92	468195.64	8/18/2006	SO	1	1	06SB80S01
06SB80	7188894.92	468195.64	8/18/2006	SO	1	1	06SB80S02
06SI01	7189080.11	468445.25	8/22/2006	SO	4	4	06SI01S01
06SI01	7189080.11	468445.25	8/22/2006	SO	12	12	06SI01S02
06SI02	7189077.4	468432.88	8/22/2006	SO	8	8	06SI02S01
06SI02	7189077.4	468432.88	8/22/2006	SO	12	12	06SI02S02
06SI03	7189077.26	468423.66	8/22/2006	SO	8	8	06SI03S01
06SI03	7189077.26	468423.66	8/22/2006	SO	12	12	06SI03S02
06SI04	7189077.33	468413.7	8/22/2006	SO	8	8	06SI04S01
06SI04	7189077.33	468413.7	8/22/2006	SO	12	12	06SI04S02
06SI05	7189257.66	468172.52	8/24/2006	SO	4	4	06SI05S01
06SI05	7189257.66	468172.52	8/24/2006	SO	12	12	06SI05S02
06SI06	7189258.14	468184.17	8/24/2006	SO	4	4	06SI06S01
06SI06	7189258.14	468184.17	8/24/2006	SO	12	12	06SI06S02
06SI06	7189258.14	468184.17	8/24/2006	SO	12	12	06SI06S03
06SI07	7189257.42	468191.54	8/24/2006	SO	4	4	06SI07S01
06SI07	7189257.42	468191.54	8/24/2006	SO	8	8	06SI07S02
06SI08	7189255.47	468199.03	8/24/2006	SO	4	4	06SI08S01
06SI08	7189255.47	468199.03	8/24/2006	SO	12	12	06SI08S02
06SI08	7189255.47	468199.03	8/24/2006	SO	12	12	06SI08S03
06SI09	7189254.11	468452.68	8/24/2006	SO	4	4	06SI09S01
06SI09	7189254.11	468452.68	8/24/2006	SO	8	8	06SI09S02
06SI10	7189254.84	468444.46	8/24/2006	SO	4	4	06SI10S01
06SI10	7189254.84	468444.46	8/24/2006	SO	12	12	06SI10S02
06SI11	7189255.46	468437.1	8/24/2006	SO	4	4	06SI11S01
06SI11	7189255.46	468437.1	8/24/2006	SO	8	8	06SI11S02

TABLE 2-7
Soil Samples Used in In-situ Soil Evaluation
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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
06SI12	7189255	468429.48	8/24/2006	SO	4	4	06SI12S01
06SI12	7189255	468429.48	8/24/2006	SO	12	12	06SI12S02
06SI12	7189255	468429.48	8/24/2006	SO	12	12	06SI12S03
06SI13	7189282.36	468301.28	8/24/2006	SO	4	4	06SI13S01
06SI13	7189282.36	468301.28	8/24/2006	SO	8	8	06SI13S02
06SI13	7189282.36	468301.28	8/24/2006	SO	12	12	06SI13S03
06SI13	7189282.36	468301.28	8/24/2006	SO	12	12	06SI13S04
06SI13	7189282.36	468301.28	8/24/2006	SO	16	16	06SI13S05
06SI13	7189282.36	468301.28	8/25/2006	SO	20	20	06SI13S06
06SI13	7189282.36	468301.28	8/25/2006	SO	24	24	06SI13S07
06SI14	7189281.99	468273.89	8/24/2006	SO	4	4	06SI14S01
06SI14	7189281.99	468273.89	8/24/2006	SO	8	8	06SI14S02
06SI14	7189281.99	468273.89	8/24/2006	SO	12	12	06SI14S03
06SI14	7189281.99	468273.89	8/24/2006	SO	16	16	06SI14S04
06SI15	7189281.43	468328.42	8/25/2006	SO	8	8	06SI15S01
06SI15	7189281.43	468328.42	8/25/2006	SO	12	12	06SI15S02
06SI16	7189102.92	468438.65	8/25/2006	SO	8	8	06SI16S01
06SI16	7189102.92	468438.65	8/25/2006	SO	12	12	06SI16S02
06SI17	7189110.09	468443.17	8/25/2006	SO	8	8	06SI17S01
06SI17	7189110.09	468443.17	8/25/2006	SO	12	12	06SI17S02
06SI18	7189130.89	468452.57	8/25/2006	SO	8	8	06SI18S01
06SI18	7189130.89	468452.57	8/25/2006	SO	12	12	06SI18S02
06SI18	7189130.89	468452.57	8/25/2006	SO	12	12	06SI18S03
06SI19	7189130.58	468440.64	8/25/2006	SO	8	8	06SI19S01
06SI19	7189130.58	468440.64	8/25/2006	SO	12	12	06SI19S02
06SI20	7189230.55	468341.14	8/29/2006	SO	4	4	06SI20S01
06SI20	7189230.55	468341.14	8/29/2006	SO	12	12	06SI20S02
06SI20	7189230.55	468341.14	8/29/2006	SO	16	16	06SI20S03
06SI21	7189230.72	468314.39	8/29/2006	SO	12	12	06SI21S01
06SI21	7189230.72	468314.39	8/29/2006	SO	16	16	06SI21S02
06SI22	7189231.51	468286.46	8/29/2006	SO	12	12	06SI22S01
06SI22	7189231.51	468286.46	8/29/2006	SO	16	16	06SI22S02
06SI23	7189257.39	468172.75	8/29/2006	SO	3	3	06SI23S01
06SI23	7189257.39	468172.75	8/29/2006	SO	5	5	06SI23S02
06SI23	7189257.39	468172.75	8/29/2006	SO	8	8	06SI23S03
06SI24	7189256.41	468191.15	8/29/2006	SO	3	3	06SI24S01
06SI24	7189256.41	468191.15	8/29/2006	SO	5	5	06SI24S02
06SI24	7189256.41	468191.15	8/29/2006	SO	8	8	06SI24S03
06SI25	7189230.14	468365.8	8/31/2006	SO	4	4	06SI25S01
06SI25	7189230.14	468365.8	8/31/2006	SO	16	16	06SI25S02
06SI28	7189185.13	468322.53	9/6/2006	SO	12	12	06SI28S01
06SI28	7189185.13	468322.53	9/6/2006	SO	16	16	06SI28S02
06SI29	7189207.74	468352.38	9/6/2006	SO	14	14	06SI29S01
06SI31	7189208.71	468339.98	9/8/2006	SO	12	12	06SI31S01
06SI33	7189178.36	468356.29	9/8/2006	SO	12	12	06SI33S01
06SI34	7189254.95	468313.83	9/11/2006	SO	16	16	06SI34S01
06SI35	7188921.37	468516.08	9/14/2006	SO	3	3	06SI35S01
06SI35	7188921.37	468516.08	9/14/2006	SO	12	12	06SI35S02
06SI36	7188920.16	468521.73	9/14/2006	SO	3	3	06SI36S01
06SI37	7188919.93	468529.39	9/14/2006	SO	3	3	06SI37S01
06SI37	7188919.93	468529.39	9/14/2006	SO	12	12	06SI37S02
06SI41	7188944.36	468510.24	9/14/2006	SO	6	6	06SI41S01
06SI44	7188972.45	468544.88	9/15/2006	SO	4	4	06SI44S01

TABLE 2-7
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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
06SI46	7188979.98	468521.8	9/15/2006	SO	4	4	06SI46S01
06SI46	7188979.98	468521.8	9/15/2006	SO	12	12	06SI46S02
06SI47	7188998.72	468542.65	9/15/2006	SO	4	4	06SI47S01
06SI48	7188996.75	468554.82	9/15/2006	SO	4	4	06SI48S01
06SS12	7188921.19	468196.22	9/18/2006	SO	0	1	06SS12S01
06SS14	7188868.93	468142.09	9/17/2006	SO	0	1	06SS14S01
06SS15	7188861.2	468148.39	9/17/2006	SO	0	1	06SS15S01
06SS16	7188861.3	468155.77	9/17/2006	SO	0	1	06SS16S01
06SS17	7188869.27	468148.07	9/17/2006	SO	0	1	06SS17S01
06SS20	7188878.15	468148.19	9/17/2006	SO	0	1	06SS20S01
06SS21	7188877.81	468155.4	9/17/2006	SO	0	1	06SS21S01
06SS23	7188886.61	468139.26	9/17/2006	SO	0	1	06SS23S01
06SS24	7188886.62	468148.22	9/17/2006	SO	0	1	06SS24S01
06SS25	7188886.63	468156.03	9/17/2006	SO	0	1	06SS25S01
06SS26	7188886.59	468163.83	9/17/2006	SO	0	1	06SS26S01
06SS27	7188896	468139.69	9/17/2006	SO	0	1	06SS27S01
06SS28	7188895.15	468148.49	9/17/2006	SO	0	1	06SS28S01
06SS32	7188877.29	468139.81	9/17/2006	SO	0	1	06SS32S01
06SS33	7188859.83	468163.15	9/17/2006	SO	0	1	06SS33S01
06SS34	7188852.67	468156.83	9/17/2006	SO	0	1	06SS34S01
06SS35	7188902.97	468147.74	9/17/2006	SO	0	1	06SS35S01
06TP01	7189086.35	468582.45	6/8/2006	SO	2	2	06TP01S01
06TP01	7189086.35	468582.45	6/8/2006	SO	3	3	06TP01S02
06TP02	7189065.87	468595.95	6/9/2006	SO	4	4	06TP02S01
06TP02	7189065.87	468595.95	6/9/2006	SO	8	8	06TP02S02
06TP03	7189036.25	468613.17	6/9/2006	SO	4	4	06TP03S01
06TP03	7189036.25	468613.17	6/9/2006	SO	8	8	06TP03S02
06TP04	7189013.01	468606.3	6/10/2006	SO	4	4	06TP04S01
06TP05	7189039.93	468656.03	6/10/2006	SO	4	4	06TP05S01
06TP05	7189039.93	468656.03	6/10/2006	SO	8	8	06TP05S02
06TP06	7189066.85	468655.61	6/10/2006	SO	2	2	06TP06S01
06TP06	7189066.85	468655.61	6/10/2006	SO	4	4	06TP06S02
06TP06	7189066.85	468655.61	6/10/2006	SO	8	8	06TP06S03
06TP07	7189088.76	468641.49	6/10/2006	SO	4	4	06TP07S01
06TP07	7189088.76	468641.49	6/10/2006	SO	8	8	06TP07S02
06TP08	7189120.64	468610.55	6/10/2006	SO	4	4	06TP08S01
06TP09	7189111.53	468608.95	6/12/2006	SO	4	4	06TP09S01
06TP09	7189111.53	468608.95	6/12/2006	SO	8	8	06TP09S02
06TP10	7188991.76	468561.69	6/12/2006	SO	4	4	06TP10S01
06TP10	7188991.76	468561.69	6/12/2006	SO	8	8	06TP10S02
06TP11	7188936.47	468639.09	6/12/2006	SO	4	4	06TP11S01
06TP11	7188936.47	468639.09	6/12/2006	SO	8	8	06TP11S02
06TP12	7188960.31	468662.65	6/12/2006	SO	4	4	06TP12S01
06TP12	7188960.31	468662.65	6/12/2006	SO	8	8	06TP12S02
06TP13	7188975.15	468665.61	6/12/2006	SO	4	4	06TP13S01
06TP13	7188975.15	468665.61	6/12/2006	SO	8	8	06TP13S02
06TP16	7189073.04	468589.4	6/20/2006	SO	1	1	06TP16S01
06TP16	7189073.04	468589.4	6/20/2006	SO	1	1	06TP16S02
06TP19	7189270.22	468592.35	7/12/2006	SO	3	3	06TP19S03
06TP19	7189270.22	468592.35	7/12/2006	SO	6	6	06TP19S01
06TP19	7189270.22	468592.35	7/12/2006	SO	6	6	06TP19S02
06TP19	7189270.22	468592.35	7/12/2006	SO	11	11	06TP19S04
06TP20	7189261.39	468529.85	7/13/2006	SO	4	4	06TP20S01

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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
06TP20	7189261.39	468529.85	7/13/2006	SO	4	4	06TP20S02
06TP20	7189261.39	468529.85	7/13/2006	SO	4	4	06TP20S03
06TP21W	7189171.32	468266.15	7/18/2006	SO	5	5	06TP21S01
06TP22	7189262.94	468189.95	7/19/2006	SO	2	2	06TP22S01
06TP22	7189262.94	468189.95	7/19/2006	SO	2	2	06TP22S02
06TP23	7189241.22	468643.54	7/19/2006	SO	4	4	06TP23S01
06TP23	7189241.22	468643.54	7/19/2006	SO	4	4	06TP23S02
06TP23	7189241.22	468643.54	7/19/2006	SO	9	9	06TP23S03
06TP24	7189131.11	468565.73	7/20/2006	SO	4	4	06TP24S01
06TP24	7189131.11	468565.73	7/20/2006	SO	8	8	06TP24S02
06TP25	7189103.14	468582.06	7/20/2006	SO	4	4	06TP25S01
06TP26	7189087.84	468581.74	7/26/2006	SO	4	4	06TP26S01
06TP26	7189087.84	468581.74	7/26/2006	SO	4	4	06TP26S02
06TP26	7189087.84	468581.74	7/26/2006	SO	4	4	06TP27S01
06TP26	7189087.84	468581.74	7/26/2006	SO	6	6	06TP26S03
06TP26	7189087.84	468581.74	7/26/2006	SO	6	6	06TP26S04
06TP28	7189055.05	468524.95	7/28/2006	SO	1.5	1.5	06TP28S01
06TP28	7189055.05	468524.95	7/28/2006	SO	2.5	2.5	06TP28S03
06TP28	7189055.05	468524.95	7/28/2006	SO	3	3	06TP28S02
16W	7189189.44	468514.47	9/4/2005	SO	0	1	05FTW-16W-SO
1C1	7189031.18	468298.49	9/11/2005	SO	0	1	05FTW-1C1-SO
1C10	7189039.08	468551.05	9/11/2005	SO	0	1	05FTW-1C10-SO
1C4	7189039.63	468416.38	9/11/2005	SO	0	1	05FTW-1C4-SO
1C7S	7189020.59	468460.72	9/11/2005	SO	0	2	05FTW-1C7S-SO
1C8N	7189048.96	468478.68	9/11/2005	SO	0	1	05FTW-1C8N-SO
1C8S	7189020.72	468466.82	9/11/2005	SO	0	1	05FTW-1C8S-SO
1C-N	7189251.6	468207.15	9/4/2005	SO	0	4	05FTW-1C-N-SO
2C10	7189024.41	468563.19	9/11/2005	SO	0	1	05FTW-2C10-SO
2C2	7189037.43	468337.96	9/11/2005	SO	0	1	05FTW-2C2-SO
2C3	7189037.11	468363.05	9/11/2005	SO	0	1	05FTW-2C3-SO
2C8S	7189035.74	468480.84	9/11/2005	SO	0	1	05FTW-2C8S-SO
2C9N	7189050.45	468502.04	9/11/2005	SO	0	1	05FTW-2C9N-SO
3C11	7189025.89	468576.79	9/11/2005	SO	0	1	05FTW-3C11-SO
3C9N	7189053.56	468513.07	9/11/2005	SO	0	1	05FTW-3C9N-SO
3C9S	7189040.02	468502.59	9/11/2005	SO	0	1	05FTW-3C9S-SO
4C-1	7189169.95	468215.54	9/4/2005	SO	0	4	05FTW-4C-1-SO
4C-2	7189170.89	468236.08	9/4/2005	SO	0	4	05FTW-4C-2-SO
4C-3	7189158.34	468235.01	9/4/2005	SO	0	2	05FTW-4C-3-SO
A10N1	7189206.12	468348.33	9/6/2005	SO	0	1	05FTW A10N1 SO
A10S2	7189184.52	468360.2	9/6/2005	SO	0	1	05FTW A10S2 SO
A11N2	7189249.51	468400.99	9/4/2005	SO	0	1	05FTW-A11N2-SO
A11S3	7189230.28	468412.92	9/5/2005	SO	0	1	05FTW-A11S3-SO
A12N3	7189204.7	468412.8	9/6/2005	SO	0	1	05FTW A12N3 SO
A12S3	7189179.74	468409.97	9/6/2005	SO	0	1	05FTW A12S3 SO
A13N2	7189252.94	468442.95	9/4/2005	SO	0	1	05FTW-A13N2-SO
A13S1	7189232.5	468428.57	9/5/2005	SO	0	1	05FTW-A13S1-SO
A14N3	7189206.12	468453.18	9/6/2005	SO	0	1	05FTW A14N3 SO
A15N3	7189253.56	468546.09	9/4/2005	SO	0	1	05FTW-A15N3-SO
A15N3	7189253.56	468546.09	9/6/2005	SO	0	1	05FTW A15N3 SO
A15S3	7189229.63	468549.3	9/5/2005	SO	0	1	05FTW-A15S3-SO
A15SW1	7189232.41	468515	9/5/2005	SO	0	1	05FTW-A15SW1-SO
A16N2	7189202.92	468537.14	9/6/2005	SO	0	1	05FTW A16N2 SO
A16S2	7189183.23	468536.31	9/6/2005	SO	0	1	05FTW A16S2 SO

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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
A17N1	7189250.21	468568.28	9/6/2005	SO	0	1	05FTW A17N1 SO
A17N2	7189248.46	468576.02	9/4/2005	SO	0	1	05FTW-A17N2-SO
A17N2	7189248.46	468576.02	9/6/2005	SO	0	1	05FTW A17N2 SO
A17-NW	7189247.89	468561.12	9/4/2005	SO	0	1	05FTW-A17-NW-SO
A17S3	7189227.59	468587.55	9/5/2005	SO	0	1	05FTW-A17S3-SO
A18N3	7189202.08	468587.61	9/6/2005	SO	0	1	05FTW A18N3 SO
A18S3	7189177.83	468583.17	9/6/2005	SO	0	1	05FTW A18S3 SO
A19	7189227.25	468608.14	9/4/2005	SO	0	4	05FTW-A19-SO
A19-E	7189223.46	468619.09	9/4/2005	SO	0	1	05FTW-A19-E-SO
A19N2	7189246.76	468613.6	9/5/2005	SO	0	1	05FTW-A19N2-SO
A19S2	7189228.37	468613.89	9/5/2005	SO	0	1	05FTW-A19S2-SO
A19S3	7189225.46	468626.45	9/6/2005	SO	0	1	05FTW A19S3 SO
A1-C1	7189235.31	468208.06	9/4/2005	SO	0	4	05FTW-A1-C1-SO
A1-C2	7189248.74	468207.78	9/4/2005	SO	0	4	05FTW-A1-C2-SO
A1N2	7189253.59	468187.81	9/4/2005	SO	0	1	05FTW-A1N2-SO
A1S1	7189232.42	468176.18	9/5/2005	SO	0	1	05FTW-A1S1-SO
A2	7189193.21	468214.85	9/4/2005	SO	0	4	05FTW-A2-SO
A20-E	7189205.99	468616.45	9/4/2005	SO	0	1	05FTW-A20-E-SO
A20E4	7189188.15	468633.73	9/6/2005	SO	0	1	05FTW A20E4 SO
A20N3	7189203.11	468624.83	9/6/2005	SO	0	1	05FTW A20N3 SO
A20S1	7189178.81	468603.95	9/6/2005	SO	0	1	05FTW A20S1 SO
A21S3	7189101.96	468536.43	9/10/2005	SO	0	1	05FTW-A21S3-SO
A22N1	7189078.68	468533.94	9/10/2005	SO	0	1	05FTW-A22N1-SO
A22S3	7189052.65	468553.04	9/10/2005	SO	0	1	05FTW-A22S3-SO
A23S1	7189100.78	468553.83	9/10/2005	SO	0	1	05FTW-A23S1-SO
A24N1	7189111.9	468606.04	9/9/2005	SO	0	1	05FTW-A24N1-SO
A24N2	7189107.59	468614.15	9/9/2005	SO	0	1	05FTW-A24N2-SO
A24S2	7189090.06	468602.11	9/10/2005	SO	0	1	05FTW-A24S2-SO
A25N3	7189049.97	468608.4	9/10/2005	SO	0	1	05FTW-A25N3-SO
A25S1	7189047.31	468573.59	9/10/2005	SO	0	1	05FTW-A25S1-SO
A25S3	7189034.06	468589.25	9/10/2005	SO	0	1	05FTW-A25S3-SO
A26N1	7189078.47	468646.16	9/9/2005	SO	0	1	05FTW-A26N1-SO
A26N2	7189071.49	468649.61	9/9/2005	SO	0	1	05FTW-A26N2-SO
A26S2	7189061.5	468629.2	9/10/2005	SO	0	1	05FTW-A26S2-SO
A27N3	7189001.01	468636.11	9/9/2005	SO	0	1	05FTW-A27N3-SO
A27S2	7188978.91	468647.28	9/9/2005	SO	0	1	05FTW-A27S2-SO
A28N1	7189000.57	468574.59	9/9/2005	SO	0	1	05FTW-A28N1-SO
A28N2	7189003.82	468582.88	9/9/2005	SO	0	1	05FTW-A28N2-SO
A28S2	7188990.81	468594.85	9/9/2005	SO	0	1	05FTW-A28S2-SO
A28S3	7188995.99	468605.06	9/9/2005	SO	0	1	05FTW-A28S3-SO
A29N1	7188955.72	468592.12	9/9/2005	SO	0	1	05FTW-A29N1-SO
A29S2	7188941.71	468615.23	9/9/2005	SO	0	1	05FTW-A29S2-SO
A2N3	7189210.12	468208.42	9/5/2005	SO	0	1	05FTW-A2N3-SO
A2S3	7189183.21	468202.09	9/6/2005	SO	0	1	05FTW A2S3 SO
A3	7189243.07	468209.7	9/4/2005	SO	0	1	05FTW-A3-SO
A30N1	7188949.73	468551.96	9/12/2005	SO	0	1	05FTW-A30N1-SO
A30N3	7188949.9	468576.86	9/10/2005	SO	0	1	05FTW-A30N3-SO
A30S1	7188925.34	468556.26	9/10/2005	SO	0	1	05FTW-A30S1-SO
A31N2	7188992.83	468543.44	9/9/2005	SO	0	1	05FTW-A31N2-SO
A31S2	7188975.62	468541.77	9/9/2005	SO	0	1	05FTW-A31S2-SO
A31S3	7188972.62	468554.97	9/9/2005	SO	0	1	05FTW-A31S3-SO
A32N3	7188944.32	468533.43	9/10/2005	SO	0	1	05FTW-A32N3-SO
A32S1	7188921.31	468510.62	9/10/2005	SO	0	1	05FTW-A32S1-SO

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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
A33N1	7188995.67	468492.3	9/9/2005	SO	0	1	05FTW-A33N1-SO
A33N3	7188996	468508.35	9/9/2005	SO	0	1	05FTW-A33N3-SO
A33S2	7188975.29	468499.16	9/9/2005	SO	0	1	05FTW-A33S2-SO
A33S3	7188973.45	468512.19	9/9/2005	SO	0	1	05FTW-A33S3-SO
A34N3	7188945.02	468489.88	9/10/2005	SO	0	1	05FTW-A34N3-SO
A34S1	7188921.05	468467.22	9/10/2005	SO	0	1	05FTW-A34S1-SO
A35N2	7188997.31	468457.4	9/9/2005	SO	0	1	05FTW-A35N2-SO
A35S1	7188976.12	468444.68	9/9/2005	SO	0	1	05FTW-A35S1-SO
A36N1	7188948.71	468423.73	9/11/2005	SO	0	1	05FTW-A36N1-SO
A36N2	7188947.01	468435.23	9/10/2005	SO	0	1	05FTW-A36N2-SO
A36S2	7188926.09	468436.25	9/10/2005	SO	0	1	05FTW-A36S2-SO
A37N1	7188953.66	468347.85	9/10/2005	SO	0	1	05FTW-A37N1-SO
A37S1	7188929.65	468353.35	9/10/2005	SO	0	1	05FTW-A37S1-SO
A37S3	7188930.07	468367.31	9/11/2005	SO	0	1	05FTW-A37S3-SO
A38N1	7188998.8	468335.2	9/9/2005	SO	0	1	05FTW-A38N1-SO
A38N3	7188999.78	468352.34	9/9/2005	SO	0	1	05FTW-A38N3-SO
A38S1	7188974.78	468329.7	9/9/2005	SO	0	1	05FTW-A38S1-SO
A38S3	7188973.58	468355.36	9/9/2005	SO	0	1	05FTW-A38S3-SO
A39N2	7188968.04	468282.17	9/10/2005	SO	0	1	05FTW-A39N2-SO
A3N3	7189256.65	468236.23	9/4/2005	SO	0	1	05FTW-A3N3-SO
A3S2	7189235.32	468228.05	9/5/2005	SO	0	1	05FTW-A3S2-SO
A40N1	7189018.32	468302.09	9/9/2005	SO	0	1	05FTW-A40N1-SO
A40N2	7189011.39	468307.47	9/9/2005	SO	0	1	05FTW-A40N2-SO
A40S1	7189005.72	468282.74	9/9/2005	SO	0	1	05FTW-A40S1-SO
A40S2	7188997.97	468292.64	9/9/2005	SO	0	1	05FTW-A40S2-SO
A41N1	7189057.81	468285.66	9/10/2005	SO	0	1	05FTW-A41N1-SO
A41N2	7189063.59	468298.84	9/10/2005	SO	0	1	05FTW-A41N2-SO
A41S1	7189040.61	468303.67	9/10/2005	SO	0	1	05FTW-A41S1-SO
A41S3	7189054.7	468319.03	9/10/2005	SO	0	1	05FTW-A41S3-SO
A42N2	7189097.27	468265.81	9/10/2005	SO	0	1	05FTW-A42N2-SO
A42S1	7189075	468270.45	9/10/2005	SO	0	1	05FTW-A42S1-SO
A43N1	7189125.47	468309.53	9/10/2005	SO	0	1	05FTW-A43N1-SO
A43S3	7189102.69	468333.67	9/10/2005	SO	0	1	05FTW-A43S3-SO
A44N1	7189083.26	468333.69	9/10/2005	SO	0	1	05FTW-A44N1-SO
A44S3	7189055.68	468354.22	9/10/2005	SO	0	1	05FTW-A44S3-SO
A45N2	7189126.37	468367.08	9/10/2005	SO	0	1	05FTW-A45N2-SO
A45S3	7189104.12	468378.94	9/10/2005	SO	0	1	05FTW-A45S3-SO
A46N1	7189079.23	468374.19	9/10/2005	SO	0	1	05FTW-A46N1-SO
A46N2	7189074.66	468386.76	9/10/2005	SO	0	1	058FTW-A46N2-SO
A46N3	7189079.23	468398.31	9/10/2005	SO	0	1	05FTW-A46N3-SO
A46S3	7189054.09	468397.28	9/10/2005	SO	0	1	05FTW-A46S3-SO
A4700AN2	7189067.63	468215.71	9/12/2005	SO	0	1	05FTW-A4700AN2-SO
A4700AS3	7189037.65	468217.02	9/12/2005	SO	0	1	05FTW-A4700AS3-SO
A4700BN1	7189013.11	468208.4	9/12/2005	SO	0	1	05FTW-A4700BN1-SO
A4700BS1	7188995.18	468208.52	9/12/2005	SO	0	1	05FTW-A4700BS1-SO
A47N2	7189123.49	468407.28	9/10/2005	SO	0	1	05FTW-A47N2-SO
A47S2	7189106.53	468405.98	9/10/2005	SO	0	1	05FTW-A47S2-SO
A48S1	7189053.72	468419.98	9/10/2005	SO	0	1	05FTW-A48S1-SO
A49N1	7189127.49	468438.23	9/10/2005	SO	0	1	05FTW-A49N1-SO
A4N3	7189208.01	468248.5	9/6/2005	SO	0	1	05FTW A4N3 SO
A4S2	7189187.52	468236.41	9/6/2005	SO	0	1	05FTW A4S2 SO
A50-N3	7188871.72	468192.27	8/31/2005	SO	0	2	05FTW-A50-N3-0-24-SO
A50-N5	7188869.79	468201.32	8/31/2005	SO	0	2	05FTW-A50-N5-0-24-SO

TABLE 2-7
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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
A50-W1	7188855.89	468177.8	8/31/2005	SO	0	2	05FTW-A50-W1-0-24-SO
A51-S10	7188788.44	468196.21	8/28/2005	SO	2	4	05FTW-A51-S10-24-48-SO
A51-S11	7188785.49	468195.58	8/31/2005	SO	0	2	05FTW-A51-S11-0-24-SO
A51-S13	7188783.88	468198.23	8/31/2005	SO	0	2	05FTW-A51-S13-0-24-SO
A51S2	7188800.21	468197.7	8/26/2005	SO	0	2	05FTW-A51S2-0-1-SO
A51-S3	7188801.42	468189.05	8/28/2005	SO	0	2	05FTW-A51-S3-0-24-SO
A51-S4	7188799.09	468175.47	8/28/2005	SO	2	4	05FTW-A51-S4-24-48-SO
A51-S5	7188803.72	468175.25	8/28/2005	SO	0	2	05FTW-A51-S5-0-24-SO
A51-S6	7188791.62	468196.23	8/28/2005	SO	2	4	05FTW-A51-S6-24-48-SO
A51-S7	7188793.99	468201.91	8/28/2005	SO	0	2	05FTW-A51-S7-0-24-SO
A51-S8	7188794.1	468179.48	8/28/2005	SO	2	4	05FTW-A51-S8-24-48-SO
A51-S9	7188788.11	468183.34	8/28/2005	SO	0	2	05FTW-A51-S9-0-24-SO
A51-W2	7188811.98	468175.87	8/24/2005	SO	0	24	05-FTW-A51-W2-024-SO
A51-W2	7188811.98	468175.87	8/24/2005	SO	2	4	05-FTW-A51-W2-24-48-SO
A52-NE12	7188865.19	468246.84	8/27/2005	SO	6	8	05-FTW-A52-NE12-72-96-SO
A52-NE5	7188869.44	468240.38	8/27/2005	SO	0	2	05-FTW-A52-NE5-0-24-SO
A52-NE9	7188868.85	468244.35	8/27/2005	SO	0	2	05-FTW-A52-NE9-0-24-SO
A52-S5	7188840.9	468238.08	8/27/2005	SO	0	2	05-FTW-A52-S5-0-24-SO
A52-S7	7188847.38	468240.89	8/27/2005	SO	0	2	05-FTW-A52-S7-0-24-SO
A52-SW10	7188840.81	468228.52	8/27/2005	SO	2	4	05FTW-A52-SW10-24-48-SO
A53-S3	7188794.1	468235.91	8/31/2005	SO	0	2	05FTW-A53-S3-0-24-SO
A54-N10	7188867.05	468274.77	8/28/2005	SO	2	4	05FTW-A54-N10-24-48-SO
A54-N11	7188868.46	468280.99	8/28/2005	SO	0	2	05FTW-A54-N11-0-24-SO
A54-N12	7188868.25	468283.9	8/28/2005	SO	2	4	05FTW-A54-N12-24-48-SO
A54-N13	7188867.4	468289.45	8/28/2005	SO	0	2	05FTW-A54-N13-0-24-SO
A54-N14	7188865.86	468287.34	8/28/2005	SO	2	4	05FTW-A54-N14-24-48-SO
A54-N5	7188866.47	468257.02	8/28/2005	SO	0	2	05FTW-A54-N5-0-24-SO
A54-N6	7188869.35	468258.75	8/28/2005	SO	2	4	05FTW-A54-N6-24-48-SO
A54-N7	7188870.21	468263.73	8/28/2005	SO	0	2	05FTW-A54-N7-0-24-SO
A54-N8	7188867.53	468265.94	8/28/2005	SO	2	4	05FTW-A54-N8-24-48-SO
A54-N9	7188869.83	468270.53	8/28/2005	SO	0	2	05FTW-A54-N9-0-24-SO
A54-NW3	7188862.6	468257.91	8/28/2005	SO	0	2	05FTW-A54-NW3-0-24-SO
A54-NW4	7188863.97	468261	8/28/2005	SO	2	4	05FTW-A54-NW4-24-48-SO
A55-S3	7188792.92	468262.06	8/31/2005	SO	0	2	05FTW-A55-S3-0-24-SO
A55-S5	7188793.9	468277.52	8/31/2005	SO	0	2	05FTW-A55-S5-0-24-SO
A56E1	7188860.53	468325.91	8/26/2005	SO	0	1	05FTW-A56E1-0-1-SO
A56N1	7188868.1	468303.79	8/26/2005	SO	0	1	05FTW-A56N1-0-1-SO
A56-N10	7188873.49	468321.59	8/27/2005	SO	2	4	05FTW-A56-N10-24-48-SO
A56-N12	7188864.81	468312.07	8/28/2005	SO	2	4	05FTW-A56-N12-24-48-SO
A56-N13	7188876.45	468322.13	8/28/2005	SO	0	2	05FTW-A56-N13-0-24-SO
A56-N14	7188862.29	468312.21	8/28/2005	SO	2	4	05FTW-A56-N14-24-48-SO
A56-N3	7188869.99	468299.15	8/27/2005	SO	0	2	05FTW-A56-N3-0-24-SO
A56-N4	7188866.26	468296.07	8/27/2005	SO	2	4	05FTW-A56-N4-24-48-SO
A56-N5	7188868.8	468310.25	8/27/2005	SO	0	2	05FTW-A56-N5-0-24-SO
A56-N6	7188862.16	468296.86	8/27/2005	SO	2	4	05FTW-A56-N6-24-48-SO
A56-N7	7188872.58	468312.37	8/27/2005	SO	0	2	05FTW-A56-N7-0-24-SO
A56-N8	7188864.41	468298.05	8/27/2005	SO	2	4	05FTW-A56-N8-24-48-SO
A56-N9	7188868.8	468321.74	8/27/2005	SO	0	2	05FTW-A56-N9-0-24-SO
A56-NE15	7188865.67	468324.95	8/28/2005	SO	0	2	05FTW-A56-NE15-0-24-SO
A56-NE16	7188868.25	468324.25	8/28/2005	SO	2	4	05FTW-A56-NE16-24-48-SO
A57-E2	7188802.75	468326.36	8/29/2005	SO	0	2	05FTW-A57-E2-0-24-SO
A57-S3	7188798.68	468290.54	8/29/2005	SO	0	2	05FTW-A57-S3-0-24-SO
A57-S5	7188796.82	468300.21	8/29/2005	SO	0	2	05FTW-A57-S5-0-24-SO

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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
A57-S7	7188798.53	468308.08	8/29/2005	SO	0	2	05FTW-A57-S7-0-24-SO
A57-S9	7188795.97	468316.68	8/31/2005	SO	0	4	05FTW-A57-S9-0-48-SO
A58-01-TSW	7188861.69	468365.7	8/31/2005	SO	2	3	05FTW-A58-01-TSW-SO
A58N1	7188868.65	468332.3	8/26/2005	SO	0	1	05FTW-A58N1-0-1-SO
A58-N11	7188869.33	468338.62	8/30/2005	SO	0	2	05FTW-A58-N11-0-24-SO
A58-N3	7188871.07	468355.48	8/30/2005	SO	0	2	05FTW-A58-N3-0-24-SO
A58-N5	7188866.84	468362.75	8/30/2005	SO	0	2	05FTW-A58-N5-0-24-SO
A58-N7	7188871.44	468366.54	8/30/2005	SO	0	2	05FTW-A58-N7-0-24-SO
A58-N9	7188875.6	468349.79	8/30/2005	SO	0	2	05FTW-A58-N9-0-24-SO
A58-S1	7188845.1	468334.66	8/30/2005	SO	0	2	05FTW-A58-S1-0-24-SO
A58-S3	7188849.42	468348.81	8/30/2005	SO	0	2	05FTW-A58-S3-0-24-SO
A58-S5	7188844.73	468359.59	8/30/2005	SO	0	2	05FTW-A58-S5-0-24-SO
A58-WI	7188851.81	468329.19	8/30/2005	SO	0	2	05FTW-A58-WI-0-24-SO
A59-03-TSW	7188803.53	468365.03	8/31/2005	SO	2	3	05FTW-A59-03-TSW-SO
A59-N3	7188823.32	468361.23	8/29/2005	SO	0	2	05FTW-A59-N3-0-24-SO
A59-N5	7188818.61	468346.9	8/30/2005	SO	0	2	05FTW-A59-N5-0-24-SO
A59-N7	7188816.85	468350.62	8/30/2005	SO	0	2	05FTW-A59-N7-0-24-SO
A59-S3	7188793.33	468334.17	8/29/2005	SO	0	2	05FTW-A59-S3-0-24-SO
A59-S5	7188795.19	468343.85	8/29/2005	SO	0	2	05FTW-A59-S5-0-24-SO
A59-S7	7188794.64	468355.46	8/29/2005	SO	0	2	05FTW-A59-S7-0-24-SO
A59-S9	7188793.96	468362.48	8/29/2005	SO	0	2	05FTW-A59-S9-0-24-SO
A59-W1	7188801.91	468331.79	8/29/2005	SO	0	2	05FTW-A59-W1-0-24-SO
A5E-1	7189251.1	468291.7	9/4/2005	SO	0	1	05FTW-A5E-1-SO
A5E-2	7189245.16	468290.64	9/4/2005	SO	0	1	05FTW-A5E-2-SO
A5E-3	7189237.93	468290.14	9/4/2005	SO	0	1	05FTW-A5E-3-SO
A5N1	7189258.03	468261.92	9/4/2005	SO	0	1	05FTW-A5N1-SO
A5S1	7189235.94	468258.79	9/5/2005	SO	0	1	05FTW-A5S1-SO
A60N1	7188863.01	468432.83	9/12/2005	SO	0	0.33	05FTW-A60N1-SO
A60S3	7188841.92	468460.57	9/12/2005	SO	0	0.33	05FTW-A60S3-SO
A60SURSO	7188849.94	468449.11	9/4/2005	SO	0	1	05FTW-A60SURSO-SO
A61N2	7188814.26	468446.9	9/12/2005	SO	0	1	05FTW-A61N2-SO
A61S1	7188795.78	468438.53	9/12/2005	SO	0	1	05FTW-A61S1-SO
A61SURSO	7188801.13	468447.48	9/4/2005	SO	0	0.33	05FTW-A61SURSO-SO
A62N3	7188863.62	468485.79	9/12/2005	SO	0	1	05FTW-A62N3-SO
A62S1	7188837.46	468473.98	9/12/2005	SO	0	1	05FTW-A62S1-SO
A62SURSO	7188848.99	468481.98	9/4/2005	SO	0	0.33	05FTW-A62SURSO-SO
A63N1	7188814.15	468470.28	9/12/2005	SO	0	1	05FTW-A63N1-SO
A63S1	7188790.67	468475.04	9/12/2005	SO	0	1	05FTW-A63S1-SO
A63SURSO	7188795.78	468484.46	9/4/2005	SO	0	0.33	05FTW-A63SURSO-SO
A64N2	7188867.67	468527.85	9/12/2005	SO	0	1	05FTW-A64N2-SO
A64S3	7188844.58	468534.51	9/12/2005	SO	0	1	05FTW-A64S3-SO
A65N1	7189047.52	468235.85	9/12/2005	SO	0	1	05FTW-A65N1-SO
A65S3	7189063.33	468264.42	9/12/2005	SO	0	1	05FTW-A65S3-SO
A6N1	7189209.72	468265.79	9/6/2005	SO	0	1	05FTW A6N1 SO
A6S1	7189187.18	468270.48	9/6/2005	SO	0	1	05FTW A6S1 SO
A6-TSW	7189196.98	468296.72	9/4/2005	SO	0	4	05FTW-A6-TSW-SO
A7N3	7189257.49	468322.29	9/4/2005	SO	0	1	05FTW-A7N3-SO
A7NSwale-1	7189251.13	468292.96	10/13/2005	SO	0	1	05FTW-A7NSwale-1-SO
A7NSwale-2	7189245.19	468291.9	10/13/2005	SO	0	1	05FTW-A7NSwale-2-SO
A7NSwale-3	7189237.95	468291.4	10/13/2005	SO	0	1	05FTW-A7NSwale-3-SO
A7S2	7189236.51	468313.8	9/5/2005	SO	0	1	05FTW-A7S2-SO
A8N3	7189207.27	468332.56	9/6/2005	SO	0	1	05FTW A8N3 SO
A8S2	7189186.51	468319.61	9/6/2005	SO	0	1	05FTW A8S2 SO

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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
A8-TSW	7189197.11	468301.73	9/4/2005	SO	0	4	05FTW-A8-TSW-SO
A9N3	7189253.74	468361.09	9/4/2005	SO	0	1	05FTW-A9N3-SO
A9S3	7189231.71	468364.97	9/5/2005	SO	0	1	05FTW-A9S3-SO
AP-8913	7189187.53	468111.57	12/9/2003	SO	2.5	4	03FHFW01SL
AP-8914	7189237.02	468145.48	12/9/2003	SO	0	1	03FHFW02SL
AP-8914	7189237.02	468145.48	12/9/2003	SO	9.5	11	03FHFW03SL
AP-8914	7189237.02	468145.48	12/9/2003	SO	9.5	12	03FHFW26SL
AP-8915	7189250.37	468202.71	12/9/2003	SO	2.5	4	03FHFW04SL
AP-8916	7189234.36	468220.92	12/10/2003	SO	4.5	6	03FHFW05SL
AP-8917	7189226.77	468266.41	12/10/2003	SO	0	1	03FHFW06SL
AP-8919	7189175.41	468233.2	12/10/2003	SO	4.5	6	03FHFW07SL
AP-8919	7189175.41	468233.2	12/10/2003	SO	4.5	6	03FHFW27SL
AP-8920	7189050.05	468203.68	12/10/2003	SO	0	1	03FHFW08SL
AP-8920	7189050.05	468203.68	12/10/2003	SO	2.5	4	03FHFW09SL
AP-8921	7189081.89	468231.46	12/11/2003	SO	0	1	03FHFW10SL
AP-8923	7189054.14	468292.15	12/11/2003	SO	0	1	03FHFW11SL
AP-8924	7189113.41	468292.75	12/11/2003	SO	2.5	4	03FHFW12SL
AP-8924	7189113.41	468292.75	12/11/2003	SO	4.5	6	03FHFW13SL
AP-8925	7189154	468305.14	12/11/2003	SO	2.5	4	03FHFW24SL
AP-8926	7189153.6	468233.18	12/11/2003	SO	4.5	6	03FHFW23SL
AP-8927	7189119.38	468232.14	12/12/2003	SO	4.5	6	03FHFW14SL
AP-8927	7189119.38	468232.14	12/12/2003	SO	14.5	16	03FHFW15SL
AP-8929	7189000.14	468229.21	12/12/2003	SO	4.5	6	03FHFW16SL
AP-8929	7189000.14	468229.21	12/12/2003	SO	4.5	6	03FHFW28SL
AP-8929	7189000.14	468229.21	12/14/2003	SO	4.5	6	03FHFW28SL
AP-8930	7188995.43	468336.38	12/11/2003	SO	2.5	4	03FHFW25SL
AP-8931	7188932.71	468294	12/13/2003	SO	0	1	03FHFW17SL
AP-8931	7188932.71	468294	12/13/2003	SO	4.5	6	03FHFW18SL
AP-8931	7188932.71	468294	12/13/2003	SO	14.5	16	03FHFW29SL
AP-8933	7188937.16	468252.29	12/13/2003	SO	0	1	03FHFW19SL
AP-8934	7188804.56	468196.33	12/14/2003	SO	2.5	4	03FHFW20SL
AP-8934	7188804.56	468196.33	12/14/2003	SO	9.5	11	03FHFW21SL
AP-8934-a	7188833.43	468200.53	2/17/2004	SO	2.5	4	04FHFW51SO
AP-8934-a	7188833.43	468200.53	2/17/2004	SO	2.5	4	04FHFW52SO
AP-8934-b	7188857.32	468203.65	2/17/2004	SO	2.5	4	04FHFW53SO
AP-8934-b	7188857.32	468203.65	2/17/2004	SO	2.5	4	04FHFW54SO
AP-8934-c	7188830.65	468214.08	2/17/2004	SO	2.5	4	04FHFW55SO
AP-8934-c	7188830.65	468214.08	2/17/2004	SO	2.5	4	04FHFW56SO
AP-8934-d	7188828.17	468237.89	2/17/2004	SO	2.5	4	04FHFW57SO
AP-8934-d	7188828.17	468237.89	2/17/2004	SO	2.5	4	04FHFW58SO
AP-8934-e	7188811.4	468195.89	2/17/2004	SO	2.5	4	04FHFW59SO
AP-8934-e	7188811.4	468195.89	2/17/2004	SO	2.5	4	04FHFW60SO
AP-8934-e	7188811.4	468195.89	2/17/2004	SO	2.5	4	04FHFW62SO
AP-8934-f	7188805.3	468195.93	2/18/2004	SO	2.5	4	04FHFW63SO
AP-8934-f	7188805.3	468195.93	2/18/2004	SO	2.5	4	04FHFW64SO
AP-8934-f	7188805.3	468195.93	2/18/2004	SO	2.5	4	04FHFW65SO
AP-8934-f	7188805.3	468195.93	2/18/2004	SO	2.5	4	04FHFW66SO
AP-8934-g	7188798.31	468196.09	2/18/2004	SO	9	10.5	04FHFW67SO
AP-8934-g	7188798.31	468196.09	2/18/2004	SO	9	10.5	04FHFW68SO
AP-8934-g	7188798.31	468196.09	2/18/2004	SO	9	10.5	04FHFW69SO
AP-8934-h	7188804.76	468214.36	2/18/2004	SO	2.5	4	04FHFW70SO
AP-8934-h	7188804.76	468214.36	2/18/2004	SO	2.5	4	04FHFW71SO
AP-8934-i	7188810.89	468214.3	2/18/2004	SO	2.5	4	04FHFW72SO

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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
AP-8934-i	7188810.89	468214.3	2/18/2004	SO	2.5	4	04FHFW73SO
AP-8934-j	7188804.57	468205.24	2/18/2004	SO	0	1	04FHFW74SO
AP-8934-j	7188804.57	468205.24	2/18/2004	SO	0	1	04FHFW75SO
AP-8934-j	7188804.57	468205.24	2/18/2004	SO	0	1	04FHFW76SO
AP-8934-k	7188804.21	468186.84	2/18/2004	SO	9	10.5	04FHFW77SO
AP-8934-k	7188804.21	468186.84	2/18/2004	SO	9	10.5	04FHFW78SO
AP-8934-k	7188804.21	468186.84	2/18/2004	SO	9	10.5	04FHFW79SO
AP-8934-k	7188804.21	468186.84	2/18/2004	SO	9	10.5	04FHFW80SO
AP-8934-l	7188804	468177.61	2/18/2004	SO	2.5	4	04FHFW81SO
AP-8934-l	7188804	468177.61	2/18/2004	SO	2.5	4	04FHFW82SO
AP-8935	7188854.47	468319.99	12/14/2003	SO	2.5	4	03FHFW22SL
AP-8943	7188923.71	468532.08	2/8/2004	SO	0	1	04FHFW34SL
AP-8943	7188923.71	468532.08	2/8/2004	SO	2.5	4	04FHFW35SL
AP-8944	7189241.57	468397.1	1/27/2004	SO	0	1	04FHFW10SL
AP-8944	7189241.57	468397.1	1/27/2004	SO	0	1	04FHFW11SL
AP-8945	7189240.86	468470.35	1/27/2004	SO	9.5	11	04FHFW12SL
AP-8945	7189240.86	468470.35	1/27/2004	SO	9.5	11	04FHFW13SL
AP-8946	7189239.87	468540.89	1/25/2004	SO	0	0.5	04FHFW05SL
AP-8946	7189239.87	468540.89	1/25/2004	SO	0	1	04FHFW05SL
AP-8947	7189241.77	468617.75	1/26/2004	SO	2.5	2.5	04FHFW06SL
AP-8947	7189241.77	468617.75	1/26/2004	SO	2.5	4	04FHFW06SL
AP-8948	7189229.4	468679.78	2/5/2004	SO	2.5	4	04FHFW24SL
AP-8948	7189229.4	468679.78	2/5/2004	SO	9.5	11	04FHFW25SL
AP-8949	7189172.36	468393.54	1/24/2004	SO	2.5	2.5	04FHFW02SL
AP-8949	7189172.36	468393.54	1/24/2004	SO	2.5	4	04FHFW02SL
AP-8950	7189170.84	468460.62	1/23/2004	SO	4.5	6	04FHFW01SL
AP-8950	7189170.84	468460.62	1/23/2004	SO	4.5	6	04FHFW09SL
AP-8950	7189170.84	468460.62	1/23/2004	SO	5	5	04FHFW01SL
AP-8950	7189170.84	468460.62	1/23/2004	SO	25	25	04FHFW09SL
AP-8951	7189151.29	468637.91	1/26/2004	SO	9.5	11	04FHFW07SL
AP-8951	7189151.29	468637.91	1/26/2004	SO	10	10	04FHFW07SL
AP-8952	7189167.81	468682.64	1/26/2004	SO	14.5	16	04FHFW08SL
AP-8952	7189167.81	468682.64	1/26/2004	SO	15	15	04FHFW08SL
AP-8953	7189115.95	468392.12	1/25/2004	SO	2.5	2.5	04FHFW03SL
AP-8953	7189115.95	468392.12	1/25/2004	SO	2.5	4	04FHFW03SL
AP-8954	7189111.12	468464.07	2/9/2004	SO	4.5	6	04FHFW38SL
AP-8955	7189113.11	468536.14	2/9/2004	SO	0	1	04FHFW36SL
AP-8956	7189111.29	468605.87	2/11/2004	SO	9.5	11	04FHFW40SL
AP-8957	7189110.27	468675.83	2/2/2004	SO	14.5	16	04FHFW14SL
AP-8957	7189110.27	468675.83	2/2/2004	SO	14.5	16	04FHFW15SL
AP-8958	7189057.01	468390.64	1/25/2004	SO	0	0.5	04FHFW04SL
AP-8958	7189057.01	468390.64	1/25/2004	SO	0	1	04FHFW04SL
AP-8960	7189053.03	468532.4	2/5/2004	SO	4.5	6	04FHFW26SL
AP-8961	7189051.51	468605.14	2/6/2004	SO	4.5	6	04FHFW29SL
AP-8962	7189049.67	468674.9	2/2/2004	SO	0	1	04FHFW16SL
AP-8964	7188991.94	468460.77	2/14/2004	SO	0	1	04FHFW48SL
AP-8965	7188993.42	468532.87	2/7/2004	SO	0	1	04FHFW31SL
AP-8965	7188993.42	468532.87	2/7/2004	SO	0	1	04FHFW32SL
AP-8966	7188992.52	468602.37	2/7/2004	SO	2.5	4	04FHFW30SL
AP-8967	7188991.53	468674.35	2/3/2004	SO	2.5	4	04FHFW17SL
AP-8968	7188935.46	468387.32	2/4/2004	SO	0	1	04FHFW19SL
AP-8969	7188932.75	468459.21	2/4/2004	SO	9.5	11	04FHFW21SL
AP-8969	7188932.75	468459.21	2/4/2004	SO	9.5	11	04FHFW22SL

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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
AP-8970	7188927.62	468603.66	2/7/2004	SO	9.5	11	04FHFW33SL
AP-8971	7188931.59	468676.45	2/3/2004	SO	0	1	04FHFW18SL
AP-8972	7188860.01	468385.11	2/4/2004	SO	2.5	4	04FHFW20SL
AP-8973	7188858.56	468457.14	2/13/2004	SO	2.5	4	04FHFW45SL
AP-8974	7188859.06	468529.21	2/13/2004	SO	2.5	4	04FHFW46SL
AP-8975	7188858.4	468601.11	2/11/2004	SO	2.5	4	04FHFW41SL
AP-8977	7188801.25	468381.68	2/6/2004	SO	2.5	4	04FHFW27SL
AP-8977	7188801.25	468381.68	2/6/2004	SO	2.5	4	04FHFW28SL
AP-8979	7188797.28	468527.36	2/12/2004	SO	9.5	11	04FHFW42SL
AP-8980	7188818.01	468550.72	2/12/2004	SO	0	1	04FHFW43SL
AP-8980	7188818.01	468550.72	2/12/2004	SO	4.5	6	04FHFW44SL
BH110N2	7188901.36	468247.05	9/16/2005	SO	0	2	05FTW-BH110N2-0-24-SO
BH110S2	7188888.06	468244.72	9/16/2005	SO	0	2	05FTW-BH110S2-0-24-SO
BH17N2	7189251.74	468577.15	9/6/2005	SO	2	4	05FTW-BH17N2-24-48-SO
BH4700-001-JB	7189057.72	468205.28	9/20/2005	SO	0	2	05FTW-BH4700-001-JB-0-24-
BH4700-002-JB	7189057.18	468222.73	9/20/2005	SO	0	2	05FTW-BH4700-002-JB-0-24-
BH4700-003	7189002.57	468203.05	9/20/2005	SO	0	2	05FTW-BH4700-003-0-24-SO
BH4700-005-JB	7189001.88	468222.34	9/20/2005	SO	0	2	05FTW-BH4700-005-JB-0-24-
BHA10N1	7189210.81	468348.15	9/8/2005	SO	0	2	05FTW-BHA10N1-0-24-SO
BHA10S2	7189178.99	468372.65	9/10/2005	SO	0	2	05FTW-BHA10S2-0-24-SO
BHA11N1	7189253.2	468389.01	9/7/2005	SO	0	2	05FTW-BHA11N1-0-24-SO
BHA11N2	7189253.81	468401.4	9/7/2005	SO	0	2	05FTW-BHA11N2-0-24-SO
BHA11NE1	7189256.63	468417.6	9/7/2005	SO	0	2	05FTW-BHA11NE1-0-24-SO
BHA11NE2	7189253.92	468417.6	9/7/2005	SO	0	2	05FTW-BHA11NE2-0-24-SO
BHA11S2	7189230.73	468405.29	9/8/2005	SO	0	4	05FTW-BHA11S2-0-48-SO
BHA12N1	7189210.65	468388.93	9/9/2005	SO	0	2	05FTW-BHA12N1-0-24-SO
BHA12N2	7189207.87	468411.85	9/9/2005	SO	0	2	05FTW-BHA12N2-0-24-SO
BHA12S2	7189177.18	468409.98	9/10/2005	SO	0	2	05FTW-BHA12S2-0-24-SO
BHA13N1	7189256.63	468429.9	9/7/2005	SO	0	2	05FTW-BHA13N1-0-24-SO
BHA13N2	7189258.47	468450.61	9/7/2005	SO	0	2	05FTW-BHA13N2-0-24-SO
BHA14E1	7189193.46	468458.95	9/10/2005	SO	0	2	05FTW-BHA14E1-0-24-SO
BHA14N1	7189211.06	468428.29	9/9/2005	SO	0	2	05FTW-BHA14N1-0-24-SO
BHA14N2	7189210.87	468453.39	9/9/2005	SO	0	2	05FTW-BHA14N2-0-24-SO
BHA14S1	7189179.59	468432.02	9/10/2005	SO	0	2	05FTW-BHA14S1-0-24-SO
BHA14S2	7189179.25	468450.55	9/10/2005	SO	0	2	05FTW-BHA14S2-0-24-SO
BHA15N1	7189254.92	468526.28	9/7/2005	SO	0	4	05FTW-BHA15N1-0-48-SO
BHA15N2	7189254.48	468550.39	9/7/2005	SO	0	2	05FTW-BHA15N2-0-24-SO
BHA15S1	7189225.01	468524.52	9/9/2005	SO	0	2	05FTW-BHA15S1-0-24-SO
BHA15W1	7189240.69	468514.74	9/7/2005	SO	0	2	05FTW-BHA15W1-0-24-SO
BHA16N1	7189210.07	468523.42	9/9/2005	SO	0	2	05FTW-BHA16N1-0-24-SO
BHA16S1	7189181.49	468524.71	9/9/2005	SO	0	2	05FTW-BHA16S1-0-24-SO
BHA16W1	7189192.37	468511.79	9/9/2005	SO	0	2	05FTW-BHA16W1-0-24-SO
BHA16WRD1	7189192.53	468501.33	9/10/2005	SO	0	2	05FTW-BHA16WRD1-0-24-SO
BHA17N1	7189251.99	468570.06	9/7/2005	SO	0	4	05FTW-BHA17N1-0-48-SO
BHA17N2	7189252.14	468576.6	9/6/2005	SO	0	2	05FTW-BHA17N2-0-24-SO
BHA17S2	7189224.1	468587.03	9/9/2005	SO	0	2	05FTW-BHA17S2-0-24-SO
BHA18N2	7189208.33	468588.41	9/9/2005	SO	0	2	05FTW-BHA18N2-0-24-SO
BHA18S1	7189175.2	468566.68	9/9/2005	SO	0	2	05FTW-BHA18S1-24-48-SO
BHA18S2	7189175.04	468583.37	9/9/2005	SO	0	2	05FTW-BHA18S2-0-24-SO
BHA19E1	7189241.72	468632.78	9/6/2005	SO	0	2	05FTW-BHA19E1-0-24-SO
BHA19N2	7189249.09	468622.53	9/6/2005	SO	0	2	05FTW-BHA19N2-0-24-SO
BHA19S2	7189222.85	468627.02	9/9/2005	SO	0	2	05FTW-BHA19S2-0-24-SO
BHA1N1	7189259.51	468171.66	9/8/2005	SO	0	2	05FTW-BHA1N1-0-24-SO

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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
BHA1N2	7189251.61	468203.36	9/8/2005	SO	0	2	05FTW-BHA1N2-0-24-SO
BHA1S1	7189231.47	468172.59	9/8/2005	SO	0	2	05FTW-BHA1S1-0-24-SO
BHA1W1	7189249.31	468159.61	9/8/2005	SO	0	2	05FTW-BHA1W1-0-24-SO
BHA20N2	7189201.13	468625	9/9/2005	SO	0	2	05FTW-BHA20N2-0-24-SO
BHA20S1	7189177.14	468604.12	9/9/2005	SO	0	2	05FTW-BHA20S1-0-24-SO
BHA20S2	7189176.59	468620.35	9/9/2005	SO	0	2	05FTW-BHA20S2-0-24-SO
BHA21N1	7189125.65	468513.64	9/11/2005	SO	0	2	05FTW-BHA21N1-0-24-SO
BHA21N1	7189125.65	468513.64	9/11/2005	SO	2	4	05FTW-BHA21N1-24-48-SO
BHA21S1	7189099.38	468511.09	9/12/2005	SO	0	2	05FTW-BHA21S1-0-24-SO
BHA21W2	7189114.75	468504.64	9/11/2005	SO	0	2	05FTW-BHA21W2-0-24-SO
BHA22N1	7189076.88	468532.18	9/12/2005	SO	0	2	05FTW-BHA22N1-0-24-SO
BHA22N100	7189073.9	468507.91	9/13/2005	SO	0	2	05FTW-BHA22N100-0-24-SO
BHA22N2	7189076.41	468542.66	9/12/2005	SO	0	2	05FTW-BHA22N2-0-24-SO
BHA22N2	7189076.41	468542.66	9/12/2005	SO	2	4	05FTW-BHA22N2-24-48-SO
BHA22S1	7189051.02	468534.69	9/13/2005	SO	0	2	05FTW-BHA22S1-0-24-SO
BHA22S100	7189049.59	468520.21	9/13/2005	SO	0	2	05FTW-BHA22S100-0-24-SO
BHA22S101	7189059.66	468508.68	9/13/2005	SO	0	2	05FTW-BHA22S101-0-24-SO
BHA22S102	7189054.63	468503.67	9/13/2005	SO	0	2	05FTW-BHA22S102-0-24-SO
BHA22S103	7189052.54	468483.59	9/13/2005	SO	0	2	05FTW-BHA22S103-0-24-SO
BHA22S2	7189054.98	468544.44	9/13/2005	SO	0	2	05FTW-BHA22S2-0-24-SO
BHA23N1	7189125	468557.72	9/11/2005	SO	0	2	05FTW-BHA23N1-0-24-SO
BHA23N2	7189122.28	468562.51	9/11/2005	SO	0	2	05FTW-BHA23N2-0-24-SO
BHA23S1	7189100.53	468550.61	9/12/2005	SO	0	2	05FTW-BHA23S1-0-24-SO
BHA24N2	7189111.01	468616.2	9/11/2005	SO	0	2	05FTW-BHA24N2-0-24-SO
BHA24N2-2	7189105.17	468612.65	9/11/2005	SO	0	2	05FTW-BHA24N2-2-0-24-SO
BHA24S1	7189092.59	468595.37	9/12/2005	SO	0	2	05FTW-BHA24S1-0-24-SO
BHA24S1	7189092.59	468595.37	9/15/2005	SO	0	2	05FTW-BHA24S1-0-24-SO
BHA24S2	7189087.39	468603.54	9/12/2005	SO	0	2	05FTW-BHA24S2-0-24-SO
BHA25N1	7189064.93	468591.66	9/12/2005	SO	0	2	05FTW-BHA25N1-0-24-SO
BHA25N2	7189054.24	468604.11	9/12/2005	SO	0	2	05FTW-BHA25N2-0-24-SO
BHA25S1	7189047.3	468575.88	9/13/2005	SO	0	2	05FTW-BHA25S1-0-24-SO
BHA25S2	7189044.52	468585.53	9/12/2005	SO	0	2	05FTW-BHA25S2-0-24-SO
BHA25S2	7189044.52	468585.53	9/13/2005	SO	0	2	05FTW-BHA25S2-0-24-SO
BHA26N1	7189081.42	468644.76	9/11/2005	SO	0	2	05FTW-BHA26N1-0-24-SO
BHA26N2	7189071.2	468646.85	9/11/2005	SO	0	2	05FTW-BHA26N2-0-24-SO
BHA26NNWI	7189090.59	468636.42	9/11/2005	SO	0	2	05FTW-BHA26NNWI-0-24-SO
BHA26S1	7189071.83	468621.2	9/12/2005	SO	0	2	05FTW-BHA26S1-0-24-SO
BHA27N1	7188973.79	468620.86	9/15/2005	SO	0	2	05FTW-BHA27N1-0-24-SO
BHA27N2	7188988.64	468626.55	9/15/2005	SO	0	2	05FTW-BHA27N2-0-24-SO
BHA27S2	7188979.1	468652.97	9/15/2005	SO	0	2	05FTW-BHA27S2-0-24-SO
BHA28N1	7188994.32	468570.42	9/15/2005	SO	0	2	05FTW-BHA28N1-0-24-SO
BHA28N1	7188994.32	468570.42	9/15/2005	SO	2	4	05FTW-BHA28N1-24-48-SO
BHA28N2	7189003.86	468578.31	9/15/2005	SO	0	2	05FTW-BHA28N2-0-24-SO
BHA28N2	7189003.86	468578.31	9/15/2005	SO	2	4	05FTW-BHA28N2-24-48-SO
BHA28S1	7188978.55	468593.35	9/15/2005	SO	0	2	05FTW-BHA28S1-0-24-SO
BHA28S1	7188978.55	468593.35	9/15/2005	SO	2	4	05FTW-BHA28S1-24-48-SO
BHA28S2	7188985.34	468599.77	9/15/2005	SO	0	2	05FTW-BHA28S2-0-24-SO
BHA29N1	7188957.67	468595.12	9/15/2005	SO	0	2	05FTW-BHA29N1-0-24-SO
BHA29N1	7188957.67	468595.12	9/15/2005	SO	2	4	05FTW-BHA29N1-24-48-SO
BHA29N2	7188964.37	468601	9/15/2005	SO	0	2	05FTW-BHA29N2-0-24-SO
BHA29S1	7188927.3	468609.33	9/15/2005	SO	0	2	05FTW-BHA29S1-0-24-SO
BHA29S2	7188931.71	468618.48	9/15/2005	SO	0	2	05FTW-BHA29S2-0-24-SO
BHA29S2	7188931.71	468618.48	9/15/2005	SO	2	4	05FTW-BHA29S2-24-48-SO

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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
BHA2N1	7189207.24	468178.34	9/8/2005	SO	0	2	05FTW-BHA2N1-0-24-SO
BHA2S1	7189182.51	468177.71	9/10/2005	SO	0	2	05FTW-BHA2S1-0-24-SO
BHA2SW1	7189184.27	468208.83	9/10/2005	SO	0	2	05FTW-BHA2SW1-0-24-SO
BHA2W1	7189200.66	468171.73	9/8/2005	SO	0	2	05FTW-BHA2W1-0-24-SO
BHA30N1	7188953.59	468555.26	9/15/2005	SO	0	2	05FTW-BHA30N1-0-24-SO
BHA30N2	7188952.94	468563.92	9/15/2005	SO	0	2	05FTW-BHA30N2-0-24-SO
BHA30S1	7188919.46	468556.89	9/15/2005	SO	0	2	05FTW-BHA30S1-0-24-SO
BHA30S2	7188919.46	468565.55	9/15/2005	SO	0	2	05FTW-BHA30S2-0-24-SO
BHA31N1	7188999.11	468533.37	9/14/2005	SO	0	2	05FTW-BHA31N1-0-24-SO
BHA31N2	7188998.54	468543.64	9/14/2005	SO	0	2	05FTW-BHA31N2-0-24-SO
BHA31S1	7188966.82	468530.25	9/15/2005	SO	0	2	05FTW-BHA31S1-0-24-SO
BHA31S1	7188966.82	468530.25	9/15/2005	SO	2	4	05FTW-BHA31S1-24-48-SO
BHA31S2	7188969.02	468542.91	9/15/2005	SO	0	2	05FTW-BHA31S2-0-24-SO
BHA32N1	7188951.14	468510.17	9/14/2005	SO	0	2	05FTW-BHA32N1-0-24-SO
BHA32N2	7188950.33	468521.77	9/14/2005	SO	0	2	05FTW-BHA32N2-0-24-SO
BHA32S1	7188916.04	468509.52	9/14/2005	SO	0	2	05FTW-BHA32S1-0-24-SO
BHA32S1	7188916.04	468509.52	9/14/2005	SO	0	2	05FTW-BHA32S1-2-0-24-SO
BHA32S1	7188916.04	468509.52	9/14/2005	SO	2	4	05FTW-BHA32S1-24-48-SO
BHA32S1	7188916.04	468509.52	9/15/2005	SO	0	2	05FTW-BHA32S1-0-24-SO
BHA32S2	7188915.38	468518.67	9/14/2005	SO	0	2	05FTW-BHA32S2-0-24-SO
BHA33N1	7188999.82	468486.78	9/14/2005	SO	0	2	05FTW-BHA33N1-0-24-SO
BHA33N2	7188999.27	468499.8	9/14/2005	SO	0	2	05FTW-BHA33N2-0-24-SO
BHA33S2	7188969.2	468499.25	9/14/2005	SO	0	2	05FTW-BHA33S2-0-24-SO
BHA34N1	7188949.21	468464.26	9/14/2005	SO	0	2	05FTW-BHA34N1-0-24-SO
BHA34N2	7188947.97	468478.37	9/14/2005	SO	0	2	05FTW-BHA34N2-0-24-SO
BHA34S1	7188914.81	468465.04	9/14/2005	SO	0	2	05FTW-BHA34S1-0-24-SO
BHA34S2	7188916.82	468477.75	9/14/2005	SO	0	2	05FTW-BHA34S2-0-24-SO
BHA35N2	7189002.99	468457.61	9/14/2005	SO	0	2	05FTW-BHA35N2-0-24-SO
BHA35S1	7188974.63	468444.03	9/14/2005	SO	0	2	05FTW-BHA35S1-0-24-SO
BHA35S2	7188976.89	468457.61	9/14/2005	SO	0	2	05FTW-BHA35S2-0-24-SO
BHA36N1	7188949.73	468417.11	9/14/2005	SO	0	2	05FTW-BHA36N1-0-24-SO
BHA36N2	7188951.28	468435.02	9/14/2005	SO	0	2	05FTW-BHA36N2-0-24-SO
BHA36S1	7188922.07	468416.59	9/14/2005	SO	0	2	05FTW-BHA36S1-0-24-SO
BHA36S2	7188922.42	468432.24	9/14/2005	SO	0	2	05FTW-BHA36S2-0-24-SO
BHA37N1	7188957.73	468351.07	9/14/2005	SO	0	2	05FTW-BHA37N1-0-24-SO
BHA37N2	7188952.25	468356.34	9/14/2005	SO	0	2	05FTW-BHA37N2-0-24-SO
BHA37S1	7188928.34	468346.68	9/14/2005	SO	0	2	05FTW-BHA37S1-0-24-SO
BHA37S2	7188925.7	468359.41	9/14/2005	SO	0	2	05FTW-BHA37S2-0-24-SO
BHA38N1	7188999.45	468332.13	9/14/2005	SO	0	2	05FTW-BHA38N1-0-24-SO
BHA38N2	7188994.47	468342.1	9/14/2005	SO	0	2	05FTW-BHA38N2-0-24-SO
BHA38S1	7188971.91	468331.21	9/14/2005	SO	0	2	05FTW-BHA38S1-0-24-SO
BHA38S2	7188973.1	468341.29	9/14/2005	SO	0	2	05FTW-BHA38S2-0-24-SO
BHA3N1	7189257.06	468218.09	9/7/2005	SO	0	2	05FTW-BHA3N1-0-24-SO
BHA3N1	7189257.06	468218.09	9/8/2005	SO	0	2	05FTW-BHA3N1-0-24-SO
BHA3N2	7189257.42	468239.64	9/8/2005	SO	0	2	05FTW-BHA3N2-0-24-SO
BHA3W2	7189251.56	468211.36	9/7/2005	SO	0	2	05FTW-BHA3W2-0-24-SO
BHA40N1	7189017.84	468305.87	9/13/2005	SO	0	2	05FTW-BHA40N1-0-24-SO
BHA40N1	7189017.84	468305.87	9/13/2005	SO	0	2	05FTW-BHA40N1-2-0-24-SO
BHA40N2	7189008.39	468306.56	9/13/2005	SO	0	2	05FTW-BHA40N2-0-24-SO
BHA40S1	7189004.61	468279.58	9/14/2005	SO	0	2	05FTW-BHA40S1-0-24-SO
BHA40S2	7188993.63	468287.62	9/14/2005	SO	0	2	05FTW-BHA40S2-0-24-SO
BHA41N1	7189057.7	468288.48	9/13/2005	SO	0	2	05FTW-BHA41N1-0-24-SO
BHA41N2	7189066.4	468300.61	9/13/2005	SO	0	2	05FTW-BHA41N2-0-24-SO

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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
BHA41S1	7189040.29	468308.46	9/13/2005	SO	0	2	05FTW-BHA41S1-0-24-SO
BHA41S2	7189049.5	468309.66	9/13/2005	SO	0	2	05FTW-BHA41S2-0-24-SO
BHA42NE1	7189106.12	468281.98	9/10/2005	SO	0	2	05FTW-BHA42NE1-0-24-SO
BHA42S1	7189071.96	468272.59	9/13/2005	SO	0	2	05FTW-BHA42S1-0-24-SO
BHA43S1	7189098.46	468308.82	9/13/2005	SO	0	2	05FTW-BHA43S1-0-24-SO
BHA43W1	7189117.81	468298.47	9/10/2005	SO	0	2	05FTW-BHA43W1-0-24-SO
BHA43W2	7189099.03	468301.34	9/10/2005	SO	0	2	05FTW-BHA43W2-0-24-SO
BHA44N1	7189078.72	468330.87	9/13/2005	SO	0	2	05FTW-BHA44N1-0-24-SO
BHA44N2	7189078.14	468344.1	9/13/2005	SO	0	2	05FTW-BHA44N2-0-24-SO
BHA44S1	7189053.05	468333.95	9/13/2005	SO	0	2	05FTW-BHA44S1-0-24-SO
BHA44S2	7189058.21	468342.95	9/13/2005	SO	0	2	05FTW-BHA44S2-0-24-SO
BHA45N2	7189124.72	468366.43	9/11/2005	SO	0	2	05FTW-BHA45N2-0-24-SO
BHA45NI	7189130.16	468351.36	9/11/2005	SO	0	2	05FTW-BHA45NI-0-24-SO
BHA45S2	7189107.14	468366.01	9/13/2005	SO	0	2	05FTW-BHA45S2-0-24-SO
BHA46N1	7189080.54	468373.58	9/13/2005	SO	0	2	05FTW-BHA46N1-0-24-SO
BHA46N2	7189077.22	468385.27	9/13/2005	SO	0	2	05FTW-BHA46N2-0-24-SO
BHA46S1	7189056.64	468379.56	9/13/2005	SO	0	2	05FTW-BHA46S1-0-24-SO
BHA46S2	7189057.08	468385.84	9/13/2005	SO	0	2	05FTW-BHA46S2-0-24-SO
BHA47N1	7189128.31	468397.06	9/11/2005	SO	0	2	05FTW-BHA47N1-0-24-SO
BHA47N2	7189127.14	468414.34	9/11/2005	SO	0	2	05FTW-BHA47N2-0-24-SO
BHA47S1	7189102.35	468395.32	9/12/2005	SO	0	2	05FTW-BHA47S1-0-24-SO
BHA47S2	7189103.17	468405.52	9/12/2005	SO	0	2	05FTW-BHA47S2-0-24-SO
BHA48N1	7189079	468416.11	9/12/2005	SO	0	2	05FTW-BHA48N1-0-24-SO
BHA48N100	7189078.9	468418.6	9/13/2005	SO	0	2	05FTW-BHA48N100-0-24-SO
BHA48N2	7189076.09	468427.86	9/12/2005	SO	0	2	05FTW-BHA48N2-0-24-SO
BHA48S2	7189057.79	468430.15	9/13/2005	SO	0	2	05FTW-BHA48S2-0-24-SO
BHA49ERD1	7189114.75	468487.45	9/11/2005	SO	0	2	05FTW-BHA49ERD1-0-24-SO
BHA49N1	7189129.56	468440.56	9/11/2005	SO	0	2	05FTW-BHA49N1-0-24-SO
BHA49N2	7189129.29	468446.98	9/11/2005	SO	0	2	05FTW-BHA49N2-0-24-SO
BHA4N1	7189207.02	468225.95	9/8/2005	SO	0	2	05FTW-BHA4N1-0-24-SO
BHA4N2	7189209.02	468244.49	9/8/2005	SO	0	2	05FTW-BHA4N2-0-24-SO
BHA4S2	7189183.34	468250.31	9/10/2005	SO	0	2	05FTW-BHA4S2-0-24-SO
BHA51N1	7188823.38	468178.15	9/16/2005	SO	0	2	05FTW-BHA51N1-0-24-SO
BHA51N2	7188819.72	468191.99	9/16/2005	SO	0	2	05FTW-BHA51N2-0-24-SO
BHA53N1	7188822.02	468219.42	9/16/2005	SO	0	2	05FTW-BHA53N1-0-24-SO
BHA53N2	7188818	468231.07	9/16/2005	SO	0	2	05FTW-BHA53N2-0-24-SO
BHA53S1	7188794.01	468220.63	9/16/2005	SO	0	2	05FTW-BHA53S1-0-24-SO
BHA54S1	7188841.81	468262.18	9/16/2005	SO	0	2	05FTW-BHA54S1-0-24-SO
BHA54S2	7188841.66	468270.49	9/16/2005	SO	0	2	05FTW-BHA54S2-0-24-SO
BHA54S2	7188841.66	468270.49	9/16/2005	SO	2	4	05FTW-BHA54S2-24-48-SO
BHA55N1	7188821.13	468258.75	9/16/2005	SO	0	2	05FTW-BHA55N1-0-24-SO
BHA55N2	7188815.8	468269.52	9/16/2005	SO	0	2	05FTW-BHA55N2-0-24-SO
BHA56S1	7188840.77	468296.19	9/16/2005	SO	0	2	05FTW-BHA56S1-0-24-SO
BHA56S2	7188841.55	468310.13	9/16/2005	SO	0	2	05FTW-BHA56S2-0-24-SO
BHA57N1	7188823.11	468295.85	9/16/2005	SO	0	4	05FTW-BHA57N1-0-48-SO
BHA57N2	7188820.88	468309.63	9/16/2005	SO	0	2	05FTW-BHA57N2-0-24-SO
BHA5N1	7189258.5	468257.96	9/7/2005	SO	0	2	05FTW-BHA5N1-0-24-SO
BHA5N1	7189258.5	468257.96	9/8/2005	SO	0	2	05FTW-BHA5N1-0-24-SO
BHA5N2	7189258.57	468281.21	9/7/2005	SO	0	2	05FTW-BHA5N2-0-24-SO
BHA5N2	7189258.57	468281.21	9/8/2005	SO	0	2	05FTW-BHA5N2-0-24-SO
BHA60N1	7188869.67	468436.46	9/15/2005	SO	0	2	05FTW-BHA60N1-0-24-SO
BHA60N2	7188866.26	468446.08	9/15/2005	SO	0	2	05FTW-BHA60N2-0-24-SO
BHA60S1	7188840.57	468433.83	9/15/2005	SO	0	2	05FTW-BHA60S1-0-24-SO

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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
BHA60S2	7188840.57	468443.86	9/15/2005	SO	0	2	05FTW-BHA60S2-0-24-SO
BHA60W1	7188856.24	468424.22	9/15/2005	SO	0	2	05FTW-BHA60W1-0-24-SO
BHA61N1	7188821.98	468433.69	9/15/2005	SO	0	2	05FTW-BHA61N1-0-24-SO
BHA61N2	7188816.77	468446.99	9/15/2005	SO	0	2	05FTW-BHA61N2-0-24-SO
BHA61S1	7188793.63	468436.43	9/15/2005	SO	0	2	05FTW-BHA61S1-0-24-SO
BHA61S2	7188792.52	468450.41	9/15/2005	SO	0	2	05FTW-BHA61S2-0-24-SO
BHA61W1	7188811.56	468423.27	9/15/2005	SO	0	2	05FTW-BHA61W1-0-24-SO
BHA62N1	7188867.67	468473.96	9/16/2005	SO	0	4	05FTW-BHA62N1-0-48-SO
BHA62N2	7188863.86	468483.38	9/15/2005	SO	0	2	05FTW-BHA62N2-0-24-SO
BHA62S1	7188840.81	468471.15	9/15/2005	SO	0	2	05FTW-BHA62S1-0-24-SO
BHA62S2	7188839.81	468481.28	9/15/2005	SO	0	2	05FTW-BHA62S2-0-24-SO
BHA63E1	7188797.23	468500.26	9/15/2005	SO	0	2	05FTW-BHA63E1-0-24-SO
BHA63N1	7188815.51	468474.14	9/15/2005	SO	0	2	05FTW-BHA63N1-0-24-SO
BHA63N2	7188813.9	468480.25	9/15/2005	SO	0	2	05FTW-BHA63N2-0-24-SO
BHA63S1	7188788.2	468475.39	9/15/2005	SO	0	2	05FTW-BHA63S1-0-24-SO
BHA63S2	7188788.92	468482.94	9/15/2005	SO	0	2	05FTW-BHA63S2-0-24-SO
BHA64N1	7188873.88	468519.68	9/15/2005	SO	0	2	05FTW-BHA64N1-0-24-SO
BHA64N2	7188869.47	468531.31	9/15/2005	SO	0	2	05FTW-BHA64N2-0-24-SO
BHA64S2	7188851.03	468522.09	9/15/2005	SO	0	2	05FTW-BHA64S2-0-24-SO
BHA6551	7189032.7	468254.49	9/14/2005	SO	0	2	05FTW-BHA6551-0-24-SO
BHA65N1	7189050.96	468237.32	9/14/2005	SO	0	2	05FTW-BHA65N1-0-24-SO
BHA65N2	7189064.62	468238.61	9/14/2005	SO	0	2	05FTW-BHA65N2-0-24-SO
BHA65S1	7189041.12	468259.66	9/14/2005	SO	0	2	05FTW-BHA65S1-0-24-SO
BHA65S1	7189041.12	468259.66	9/14/2005	SO	0	2	05FTW-BHA65S1-2-0-24-SO
BHA65S2	7189054.72	468261.66	9/14/2005	SO	0	2	05FTW-BHA65S2-0-24-SO
BHA6N1	7189214.3	468263.48	9/8/2005	SO	0	2	05FTW-BHA6N1-0-24-SO
BHA6N2	7189213.99	468291.6	9/8/2005	SO	0	2	05FTW-BHA6N2-0-24-SO
BHA6S1	7189184.31	468267.43	9/10/2005	SO	0	2	05FTW-BHA6S1-0-24-SO
BHA6S2	7189182.85	468285.44	9/10/2005	SO	0	2	05FTW-BHA6S2-0-24-SO
BHA7N1	7189259.41	468302.19	9/7/2005	SO	0	2	05FTW-BHA7N1-0-24-SO
BHA7N2	7189257.15	468318.63	9/7/2005	SO	0	2	05FTW-BHA7N2-0-24-SO
BHA7N2	7189257.15	468318.63	9/8/2005	SO	0	2	05FTW-BHA7N2-0-24-SO
BHA8N1	7189212.21	468308.14	9/8/2005	SO	0	2	05FTW-BHA8N1-0-24-SO
BHA8N2	7189212.75	468332.58	9/8/2005	SO	0	2	05FTW-BHA8N2-0-24-SO
BHA8S1	7189181.05	468310	9/10/2005	SO	0	2	05FTW-BHA8S1-0-24-SO
BHA8S2	7189181.88	468328.2	9/10/2005	SO	0	2	05FTW-BHA8S2-0-24-SO
BHA9N1	7189255.19	468343.76	9/7/2005	SO	0	2	05FTW-BHA9N1-0-24-SO
BHA9N1	7189255.19	468343.76	9/8/2005	SO	0	2	05FTW-BHA9N1-0-24-SO
BHA9N2	7189254.92	468364.4	9/7/2005	SO	0	2	05FTW-BHA9N2-0-24-SO
BHA9N2	7189254.92	468364.4	9/8/2005	SO	0	2	05FTW-BHA9N2-0-24-SO
BHAPP7S2	7189156.05	468550.95	9/9/2005	SO	2	4	05FTW-BHAPP7S2-24-48-SO
BHAVX-001	7189104.77	468201.9	9/20/2005	SO	0	2	05FTW-BHAVX-001-0-24-SO
BHAVX-002	7189128.6	468249.91	9/20/2005	SO	0	2	05FTW-BHAVX-002-0-24-SO
BHAVX-003	7189028.21	468343.53	9/20/2005	SO	0	2	05FTW-BHAVX-003-0-24-SO
BHAVX-004	7189028.74	468395.06	9/20/2005	SO	0	2	05FTW-BHAVX-004-0-24-SO
BHAVX-006	7189024.71	468487.2	9/20/2005	SO	0	2	05FTW-BHAVX-006-0-24-SO
BHAVX-007	7189021.64	468550.66	9/20/2005	SO	0	2	05FTW-BHAVX-007-0-24-SO
BHAVX-008	7189019.1	468650.39	9/20/2005	SO	0	2	05FTW-BHAVX-008-0-24-SO
BHLY-001	7188759.65	468389.15	9/20/2005	SO	0	2	05FTW-BHLY-001-0-24-SO
BHLY-002	7188761.05	468370.75	9/20/2005	SO	0	2	05FTW-BHLY-002-0-24-SO
BHLY-003	7188761.35	468354.69	9/20/2005	SO	0	2	05FTW-BHLY-003-0-24-SO
BHLY-004	7188763.03	468338.31	9/20/2005	SO	0	2	05FTW-BHLY-004-0-24-SO
BHLY-005	7188759.84	468317.43	9/20/2005	SO	0	2	05FTW-BHLY-005-0-24-SO

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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
BHLY-006	7188761.04	468299.14	9/20/2005	SO	0	2	05FTW-BHLY-006-0-24-SO
BHLY-007	7188762.58	468279.1	9/20/2005	SO	0	2	05FTW-BHLY-007-0-24-SO
BHLY-008	7188762.12	468263.96	9/20/2005	SO	0	2	05FTW-BHLY-008-0-24-SO
BHLY-010	7188740.97	468393.93	9/20/2005	SO	0	2	05FTW-BHLY-010-0-24-SO
BHLY-011	7188744.68	468373.5	9/20/2005	SO	0	2	05FTW-BHLY-011-0-24-SO
BHLY-012	7188735.5	468359.58	9/20/2005	SO	0	2	05FTW-BHLY-012-0-24-SO
BHLY-013	7188740.24	468347.8	9/20/2005	SO	0	2	05FTW-BHLY-013-0-24-SO
BHLY-014	7188743.15	468332.35	9/20/2005	SO	0	2	05FTW-BHLY-014-0-24-SO
BHLY-015	7188744.09	468276.96	9/20/2005	SO	0	2	05FTW-BHLY-015-0-24-SO
BHLY-015	7188744.09	468276.96	9/20/2005	SO	2	4	05FTW-BHLY-015-24-48-SO
BHLY-016	7188746.06	468255.69	9/20/2005	SO	0	2	05FTW-BHLY-016-0-24-SO
BHLY-017	7188717.6	468387.79	9/20/2005	SO	0	2	05FTW-BHLY-017-0-24-SO
BHLY-018	7188719.73	468357.98	9/20/2005	SO	0	2	05FTW-BHLY-018-0-24-SO
BHLY-019	7188719.1	468326.1	9/20/2005	SO	0	2	05FTW-BHLY-019-0-24-SO
BHLY-020	7188719.77	468301.32	9/20/2005	SO	0	2	05FTW-BHLY-020-0-24-SO
BHLY-021	7188729.74	468263.22	9/20/2005	SO	0	2	05FTW-BHLY-021-0-24-SO
BHNRE1	7189260.84	468506.33	9/7/2005	SO	0	2	05FTW-BHNRE1-0-24-SO
BHPP13N1	7188901.42	468285.32	9/16/2005	SO	0	2	05FTW-BHPP13N1-0-24-SO
BHPP13N1	7188901.42	468285.32	9/16/2005	SO	2	4	05FTW-BHPP13N1-24-48-SO
BHPP14N1	7188894.47	468332.06	9/16/2005	SO	0	2	05FTW-BHPP14N1-0-24-SO
BHPP14N1	7188894.47	468332.06	9/16/2005	SO	2	4	05FTW-BHPP14N1-24-48-SO
BHPP14N2	7188895.52	468347.23	9/16/2005	SO	0	2	05FTW-BHPP14N2-0-24-SO
BHPP14N2	7188895.52	468347.23	9/16/2005	SO	2	4	05FTW-BHPP14N2-24-48-SO
BHPP17N2	7188901.39	468546.53	9/15/2005	SO	0	1	05FTW-BHPP17N2-SO
BHPP17N2	7188901.39	468546.53	9/15/2005	SO	0	2	05FTW-BHPP17N2-0-24-SO
BHPP17S2	7188885.09	468564.58	9/15/2005	SO	0	2	05FTW-BHPP17S2-0-24-SO
BHPP18N1	7188897.22	468600.34	9/15/2005	SO	0	2	05FTW-BHPP18N1-0-24-SO
BHPP18N2	7188904.8	468618.08	9/15/2005	SO	0	2	05FTW-BHPP18N2-0-24-SO
BHPP18S1	7188873.94	468606.55	9/15/2005	SO	0	2	05FTW-BHPP18S1-0-24-SO
BHPP18S2	7188874.92	468621.63	9/15/2005	SO	0	2	05FTW-BHPP18S2-0-24-SO
BHPP25S1	7188772.22	468555.92	9/10/2005	SO	0	2	05FTW-BHPP25S1-0-24-SO
BHPP2S2	7189156.96	468249.24	9/10/2005	SO	0	2	05FTW-BHPP2S2-0-24-SO
BHPP4S1	7189152.02	468346.67	9/10/2005	SO	0	2	05FTW-BHPP4S1-0-24-SO
BHPP4S2	7189155.6	468354.17	9/10/2005	SO	0	2	05FTW-BHPP4S2-0-24-SO
BHPP5S1	7189153.1	468398.15	9/10/2005	SO	0	2	05FTW-BHPP5S1-0-24-SO
BHPP5S2	7189151.47	468413.21	9/10/2005	SO	0	2	05FTW-BHPP5S2-0-24-SO
BHPP6S1	7189155.63	468457.26	9/10/2005	SO	0	2	05FTW-BHPP6S1-0-24-SO
BHPP7S1	7189158.54	468541.14	9/9/2005	SO	0	2	05FTW-BHPP7S1-0-24-SO
BHPP7S2	7189156.14	468548.27	9/9/2005	SO	0	2	05FTW-BHPP7S2-0-24-SO
BHPP7WRD1	7189138.64	468487.42	9/10/2005	SO	0	2	05FTW-BHPP7WRD1-0-24-SO
BHPP8S2	7189154.31	468570.38	9/9/2005	SO	0	2	05FTW-BHPP8S2-0-24-SO
BHPP9S1	7189149.65	468592.47	9/9/2005	SO	0	2	05FTW-BHPP9S1-0-24-SO
DSS01-01	7189288.49	468167.81	9/21/2007	SO	0	0.5	07FWCDSS01-01
DSS01-02	7189413.24	468198.81	9/21/2007	SO	0	0.5	07FWCDSS01-02
DSS01-03	7189324.74	468173.83	9/21/2007	SO	0	0.5	07FWCDSS01-03
DSS01-03	7189324.74	468173.83	9/21/2007	SO	0	0.5	07FWCDSS01-03FD
SB01	7188884.77	468163.69	9/17/2005	SO	8	10	05FTW-MW-1-1-SO
SB01	7188884.77	468163.69	9/17/2005	SO	12	14	05FTW-MW-1-2-SO
SB02	7188916.05	468213.05	9/17/2005	SO	7	9	05FTW-MW-2-1-SO
SB02	7188916.05	468213.05	9/17/2005	SO	9	12	05FTW-MW-2-2-SO
SB03	7188960.68	468213.77	9/18/2005	SO	6	8	05FTW-MW-3-1 6-8-SO
SB03	7188960.68	468213.77	9/18/2005	SO	10	12	05FTW-MW-3-2 10-12-SO
SB13	7188850.7	468561.99	9/26/2007	SO	3.5	4.5	07FWDMW13-3.5

TABLE 2-7
Soil Samples Used in In-situ Soil Evaluation
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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
SB13	7188850.7	468561.99	9/26/2007	SO	3.5	4.5	07FWDMW13-3.5FD
SB13	7188850.7	468561.99	9/26/2007	SO	8	9	07FWDMW13-8.0
SB13	7188850.7	468561.99	9/26/2007	SO	10.1	11.1	07FWDMW13-10.1
SB14	7188828.85	468452.11	9/27/2007	SO	3.1	4.1	07FWDMW14-3.1
SB14	7188828.85	468452.11	9/27/2007	SO	7.8	8.8	07FWDMW14-7.8
SB14	7188828.85	468452.11	9/27/2007	SO	10.7	11.7	07FWDMW14-10.7
SB15	7188865.54	468349.18	10/5/2007	SO	3.5	4.1	07FWEMW15-3.5
SB15	7188865.54	468349.18	10/5/2007	SO	3.5	4.1	07FWEMW15-3.5B
SB15	7188865.54	468349.18	10/5/2007	SO	8.1	9.1	07FWEMW15-8.1
SB15	7188865.54	468349.18	10/5/2007	SO	10.2	11.2	07FWEMW15-10.2
SB16	7188811.08	468236.77	10/5/2007	SO	3.2	4.2	07FWEMW16-3.2
SB16	7188811.08	468236.77	10/5/2007	SO	8.5	9.5	07FWEMW16-8.5
SB16	7188811.08	468236.77	10/5/2007	SO	12.5	13.5	07FWEMW16-12.5
SB17	7188899.8	468198.9	10/11/2007	SO	3.5	4.5	07FWEMW17-3.5
SB17	7188899.8	468198.9	10/11/2007	SO	7.5	9.5	07FWEMW17-7.5
SB17	7188899.8	468198.9	10/11/2007	SO	10	12	07FWEMW17-10.0
SB18	7188874.18	468509.64	9/26/2007	SO	3.5	4.5	07FWDMW18-3.5
SB18	7188874.18	468509.64	9/26/2007	SO	8.3	9.3	07FWDMW18-8.3
SB18	7188874.18	468509.64	9/26/2007	SO	10.3	11.3	07FWDMW18-10.3
SB19	7189041.39	468219.13	9/25/2007	SO	3.5	4.5	07FWEMW19-3.5
SB19	7189041.39	468219.13	9/25/2007	SO	8.1	9.1	07FWEMW19-8.1
SB19	7189041.39	468219.13	9/25/2007	SO	11	12	07FWEMW19-11
SB20	7189007.2	468251.94	9/25/2007	SO	2.5	4.5	07FWEMW20-2.5
SB20	7189007.2	468251.94	9/25/2007	SO	2.5	4.5	07FWEMW20-2.5FD
SB20	7189007.2	468251.94	9/25/2007	SO	8.4	9.4	07FWEMW20-8.4
SB20	7189007.2	468251.94	9/25/2007	SO	10.6	11.6	07FWEMW20-10.6
SB21	7188980.3	468324.56	9/25/2007	SO	3.3	4.3	07FWEMW21-3.3
SB21	7188980.3	468324.56	9/25/2007	SO	8.5	9.5	07FWEMW21-8.5
SB21	7188980.3	468324.56	9/25/2007	SO	10.5	11.5	07FWEMW21-10.5
SB22	7189014.43	468345.14	9/27/2007	SO	3.2	4.2	07FWEMW22-3.2
SB22	7189014.43	468345.14	9/27/2007	SO	3.2	4.2	07FWEMW22-3.2FD
SB22	7189014.43	468345.14	9/27/2007	SO	7.9	8.9	07FWEMW22-7.9
SB22	7189014.43	468345.14	9/27/2007	SO	10.6	11.6	07FWEMW22-10.6
SB23	7189071.28	468363.42	9/21/2007	SO	3.5	4.5	07FWBMW23-3.5
SB23	7189071.28	468363.42	9/21/2007	SO	8.1	9.1	07FWBMW23-8.1
SB23	7189071.28	468363.42	9/21/2007	SO	10	11	07FWBMW23-10
SB24	7189110.7	468339.58	9/21/2007	SO	3.5	4.5	07FWBMW24-3.5
SB24	7189110.7	468339.58	9/21/2007	SO	8.5	9.5	07FWBMW24-8.5
SB24	7189110.7	468339.58	9/21/2007	SO	10.5	11.5	07FWBMW24-10.5
SB25	7189155.07	468275.29	9/19/2007	SO	3.5	4.5	07FWBMW25-3.5
SB25	7189155.07	468275.29	9/19/2007	SO	7.5	8.5	07FWBMW25-7.5
SB25	7189155.07	468275.29	9/19/2007	SO	10.5	11.5	07FWBMW25-10.5
SB26	7189114.22	468221.23	9/19/2007	SO	3.2	4.2	07FWBMW26-3.2
SB26	7189114.22	468221.23	9/19/2007	SO	3.2	4.2	07FWBMW26-3.2FD
SB26	7189114.22	468221.23	9/19/2007	SO	8.5	9.5	07FWBMW26-8.5
SB26	7189114.22	468221.23	9/19/2007	SO	10.7	11.7	07FWBMW26-11.7
SB27	7189153.43	468361.92	9/21/2007	SO	2.5	4.5	07FWBMW27-2.5
SB27	7189153.43	468361.92	9/21/2007	SO	2.5	4.5	07FWBMW27-2.5FD
SB27	7189153.43	468361.92	9/21/2007	SO	8.5	9.5	07FWBMW27-8.5
SB27	7189153.43	468361.92	9/21/2007	SO	10.5	11.5	07FWBMW27-10.5
SB28	7189192.17	468292.68	9/18/2007	SO	3.5	4.5	07FWBMW28-3.5
SB28	7189192.17	468292.68	9/18/2007	SO	8.5	9.5	07FWBMW28-8.5
SB28	7189192.17	468292.68	9/18/2007	SO	10.5	11.5	07FWBMW28-10.5

TABLE 2-7
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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
SB29	7189198.58	468258.96	9/18/2007	SO	2.5	4.5	07FWBMW29-2.5
SB29	7189198.58	468258.96	9/18/2007	SO	2.5	4.5	07FWBMW29-2.5FD
SB29	7189198.58	468258.96	9/18/2007	SO	7.5	9	07FWBMW29-7.5
SB29	7189198.58	468258.96	9/18/2007	SO	12.5	13	07FWBMW29-12.5
SB30	7189206.87	468172.53	9/18/2007	SO	3.5	4.5	07FWCMW30-3.5
SB30	7189206.87	468172.53	9/18/2007	SO	8.2	9.2	07FWCMW30-8.2
SB30	7189206.87	468172.53	9/18/2007	SO	11	12	07FWCMW30-11
SB31	7189239.33	468166.12	9/14/2007	SO	2.5	4	07FWCMW31-2.5
SB31	7189239.33	468166.12	9/14/2007	SO	7.5	8.5	07FWCMW31-7.5
SB31	7189239.33	468166.12	9/14/2007	SO	12.5	13.5	07FWCMW31-12.5
SB32	7189241.33	468251.38	9/15/2007	SO	2.5	3.5	07FWBMW32-2.5
SB32	7189241.33	468251.38	9/15/2007	SO	11	12	07FWBMW32-11
SB32	7189241.33	468251.38	9/15/2007	SO	12.5	14.5	07FWBMW32-12.5
SB33	7189236.57	468332.98	9/15/2007	SO	3.5	4.5	07FWBMW33-3.5
SB33	7189236.57	468332.98	9/15/2007	SO	8.5	9.5	07FWBMW33-8.5
SB33	7189236.57	468332.98	9/15/2007	SO	12.5	14.5	07FWBMW33-12.5
SB34	7189315.68	468166.03	9/22/2007	SO	3.5	4.5	07FWCMW34-3.5
SB34	7189315.68	468166.03	9/22/2007	SO	6	7	07FWCMW34-6.0
SB34	7189315.68	468166.03	9/22/2007	SO	7.5	8.5	07FWCMW34-7.5
SB35	7189378.38	468207.02	9/22/2007	SO	2.7	3.7	07FWBMW35-2.7
SB35	7189378.38	468207.02	9/22/2007	SO	2.7	3.7	07FWBMW35-2.7FD
SB35	7189378.38	468207.02	9/22/2007	SO	8.2	9.2	07FWBMW35-8.2
SB35	7189378.38	468207.02	9/22/2007	SO	10.5	11.5	07FWBMW35-10.5
SB36	7189446.34	468131.82	9/24/2007	SO	3.5	4.5	07FWBMW36-3.5
SB36	7189446.34	468131.82	9/24/2007	SO	3.5	4.5	07FWBMW36-3.5FD
SB36	7189446.34	468131.82	9/24/2007	SO	8.2	9.2	07FWBMW36-8.2
SB36	7189446.34	468131.82	9/24/2007	SO	10.8	11.8	07FWBMW36-10.8
SB37	7189412.24	468265.22	9/24/2007	SO	3	4	07FWBMW37-3.0
SB37	7189412.24	468265.22	9/24/2007	SO	7.3	8.3	07FWBMW37-7.3
SB37	7189412.24	468265.22	9/24/2007	SO	10.5	11.5	07FWBMW37-10.5
SB38	7189389.76	468453.5	9/24/2007	SO	3.5	4.5	07FWBMW38-3.5
SB38	7189389.76	468453.5	9/24/2007	SO	8.5	9.5	07FWBMW38-8.5
SB38	7189389.76	468453.5	9/24/2007	SO	10.5	11.5	07FWBMW38-10.5
SB39	7189278.62	468651.8	9/25/2007	SO	0	3	07FWAMW39-3.0
SB39	7189278.62	468651.8	9/25/2007	SO	3	6	07FWAMW39-6.0
SB39	7189278.62	468651.8	9/29/2007	SO	10.8	11.8	07FWAMW39-10.8
SB39	7189278.62	468651.8	9/29/2007	SO	10.8	11.8	07FWAMW39-10.8FD
SB40	7189325.57	468643.28	9/29/2007	SO	0	3	07FWAMW40-3.0
SB40	7189325.57	468643.28	9/29/2007	SO	3	6	07FWAMW40-6.0
SB40	7189325.57	468643.28	10/1/2007	SO	10.5	11.5	07FWAMW40-10.5
SB41	7189332	468573.98	9/29/2007	SO	0	3	07FWAMW41-3.0
SB41	7189332	468573.98	9/29/2007	SO	0	3	07FWAMW41-3.0FD
SB41	7189332	468573.98	9/29/2007	SO	3	6	07FWAMW41-6.0
SB41	7189332	468573.98	10/1/2007	SO	10.8	11.8	07FWAMW41-10.8
SB42	7189306.32	468524.89	9/25/2007	SO	0	3	07FWAMW42-3.0
SB42	7189306.32	468524.89	9/25/2007	SO	3	6	07FWAMW42-6.0
SB42	7189306.32	468524.89	10/2/2007	SO	10.4	11.4	07FWAMW42-10.4
SB43	7189333.33	468398.34	9/29/2007	SO	0	3	07FWAMW43-3.0
SB43	7189333.33	468398.34	9/29/2007	SO	0	3	07FWAMW43-3.0FD
SB43	7189333.33	468398.34	9/29/2007	SO	3	7	07FWAMW43-7.0
SB43	7189333.33	468398.34	10/2/2007	SO	10.4	11.4	07FWAMW43-10.4
SB44	7189231.47	468402.26	9/26/2007	SO	0	3	07FWAMW44-3.0
SB44	7189231.47	468402.26	9/26/2007	SO	3	6.5	07FWAMW44-6.5

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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
SB44	7189231.47	468402.26	10/3/2007	SO	10.3	11.3	07FWAMW44-10.3
SB45	7189202.24	468515.28	9/25/2007	SO	0	3	07FWAMW45-3.0
SB45	7189202.24	468515.28	9/25/2007	SO	3	7	07FWAMW45-7.0
SB45	7189202.24	468515.28	9/29/2007	SO	10.8	11.8	07FWAMW45-10.8
SB46	7189230.6	468575.66	9/25/2007	SO	0	3	07FWAMW46-3.0
SB46	7189230.6	468575.66	9/25/2007	SO	0	3	07FWAMW46-3.0FD
SB46	7189230.6	468575.66	9/25/2007	SO	3	7	07FWAMW46-7.0
SB46	7189230.6	468575.66	9/29/2007	SO	10.8	11.8	07FWAMW46-10.8
SB47	7189196.45	468639.85	9/25/2007	SO	0	3	07FWAMW47-3.0
SB47	7189196.45	468639.85	9/25/2007	SO	3	6	07FWAMW47-6.0
SB47	7189196.45	468639.85	10/2/2007	SO	10.4	11.4	07FWAMW47-10.4
SB48	7189130.27	468629.17	9/25/2007	SO	0	3	07FWAMW48-3.0
SB48	7189130.27	468629.17	9/25/2007	SO	3	6	07FWAMW48-6.0
SB48	7189130.27	468629.17	9/28/2007	SO	10.6	11.6	07FWAMW48-10.6
SB49	7189078.44	468622.2	9/26/2007	SO	0	3	07FWAMW49-3.0
SB49	7189078.44	468622.2	9/26/2007	SO	3	6.5	07FWAMW49-6.5
SB49	7189078.44	468622.2	9/28/2007	SO	10.6	11.6	07FWAMW49-10.6
SB50	7189103.42	468564.35	9/29/2007	SO	0	3	07FWAMW50-3.0
SB50	7189103.42	468564.35	9/29/2007	SO	3	6	07FWAMW50-6.0
SB50	7189103.42	468564.35	10/3/2007	SO	10.3	11.3	07FWAMW50-10.3
SB51	7189074.81	468523.13	9/26/2007	SO	0	3	07FWAMW51-3.0
SB51	7189074.81	468523.13	9/26/2007	SO	0	3	07FWAMW51-3.0FD
SB51	7189074.81	468523.13	9/26/2007	SO	3	7.5	07FWAMW51-7.5
SB51	7189074.81	468523.13	10/3/2007	SO	10.8	11.8	07FWAMW51-10.8
SB52	7189075.01	468426.02	9/29/2007	SO	0	3	07FWAMW52-3.0
SB52	7189075.01	468426.02	9/29/2007	SO	3	6	07FWAMW52-6.0
SB52	7189075.01	468426.02	10/4/2007	SO	11	12	07FWAMW52-11
SB53	7189013.73	468475.46	9/26/2007	SO	0	3	07FWAMW53-3.0
SB53	7189013.73	468475.46	9/26/2007	SO	3	6	07FWAMW53-6.0
SB53	7189013.73	468475.46	10/4/2007	SO	10.4	11.4	07FWAMW53-10.4
SB54	7188991.38	468385.04	9/26/2007	SO	0	3.5	07FWAMW54-3.5
SB54	7188991.38	468385.04	9/26/2007	SO	3.5	6	07FWAMW54-6.0
SB54	7188991.38	468385.04	10/4/2007	SO	10.3	11.3	07FWAMW54-10.3
SB55	7188947.15	468413.9	9/26/2007	SO	0	3.5	07FWAMW55-3.5
SB55	7188947.15	468413.9	9/26/2007	SO	3.5	6	07FWAMW55-6.0
SB55	7188947.15	468413.9	9/27/2007	SO	11	12	07FWAMW55-11
SB56	7189152.9	468453.61	9/25/2007	SO	0	4	07FWAMW56-4.0
SB56	7189152.9	468453.61	9/25/2007	SO	4	6	07FWAMW56-6.0
SB56	7189152.9	468453.61	10/3/2007	SO	10.7	11.7	07FWAMW56-10.7
SB57	7188950.88	468657.77	9/26/2007	SO	0	3	07FWAMW57-3.0
SB57	7188950.88	468657.77	9/26/2007	SO	3	7	07FWAMW57-7.0
SB57	7188950.88	468657.77	9/28/2007	SO	10.7	11.7	07FWAMW57-10.7
SB57	7188950.88	468657.77	9/28/2007	SO	10.7	11.7	07FWAMW57-10.7FD
SB58	7189310.72	468272.02	9/22/2007	SO	3.5	4.5	07FWBMW58-3.5
SB58	7189310.72	468272.02	9/22/2007	SO	8.2	9.2	07FWCMW58-8.2
SB58	7189310.72	468272.02	9/22/2007	SO	10.5	11.5	07FWCMW58-10.5
SB59	7189123.3	468423.66	10/4/2007	SO	0	3	07FWAMW59-3.0
SB59	7189123.3	468423.66	10/4/2007	SO	3	6	07FWAMW59-6.0
SB59	7189123.3	468423.66	10/6/2007	SO	10.4	11.4	07FWAMW59-10.4
SB60	7189078.6	468488.6	10/4/2007	SO	0	3	07FWAMW60-3.0
SB60	7189078.6	468488.6	10/4/2007	SO	3	6	07FWAMW60-6.0
SB60	7189078.6	468488.6	10/6/2007	SO	10.7	11.7	07FWAMW60-10.7
SB61	7189181.49	468442.33	10/11/2007	SO	0	3	07FWAMW61-3.0

TABLE 2-7
Soil Samples Used in In-situ Soil Evaluation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Beginning Depth (feet)	Sample Ending Depth (feet)	Sample Name
SB61	7189181.49	468442.33	10/11/2007	SO	0	3	07FWAMW61-3.0B
SB61	7189181.49	468442.33	10/11/2007	SO	0	3	07FWAMW61-6.0
SB61	7189181.49	468442.33	10/12/2007	SO	10.5	12	07FWAMW61-10.5
SB62	7189252.68	468400.42	10/11/2007	SO	0	3	07FWAMW62-3.0
SB62	7189252.68	468400.42	10/11/2007	SO	0	3	07FWAMW62-6.0
SB62	7189252.68	468400.42	10/12/2007	SO	10	12	07FWAMW62-10.0
SB63	7189251.66	468352.58	10/9/2007	SO	3.5	4.5	07FWBMW63-3.5
SB63	7189251.66	468352.58	10/9/2007	SO	8.5	9.5	07FWBMW63-8.5
SB63	7189251.66	468352.58	10/9/2007	SO	11	12	07FWBMW63-11.0
SB64	7189276.65	468362.94	10/8/2007	SO	3.5	4.5	07FWBMW64-3.5
SB64	7189276.65	468362.94	10/8/2007	SO	8.2	9.2	07FWBMW64-8.2
SB64	7189276.65	468362.94	10/8/2007	SO	10.5	12	07FWBMW64-10.5
SB64	7189276.65	468362.94	10/9/2007	SO	10.5	12	07FWBMW64-10.5
SB65	7189276.42	468323.19	10/10/2007	SO	3.5	4.5	07FWBMW65-3.5
SB65	7189276.42	468323.19	10/10/2007	SO	7.5	9	07FWBMW65-7.5
SB65	7189276.42	468323.19	10/10/2007	SO	11	12	07FWBMW65-11.0
SB67	7189278.12	468266.33	10/9/2007	SO	3.5	4.5	07FWBMW67-3.5
SB67	7189278.12	468266.33	10/9/2007	SO	3.5	4.5	07FWBMW67-3.5B
SB67	7189278.12	468266.33	10/9/2007	SO	8.5	9.5	07FWBMW67-8.5
SB67	7189278.12	468266.33	10/9/2007	SO	10	12	07FWBMW67-10.0
SB68	7189126.05	468563.35	10/12/2007	SO	0	3	07FWAMW68-3.0
SB68	7189126.05	468563.35	10/12/2007	SO	3	6	07FWAMW68-6.0
SB68	7189126.05	468563.35	10/13/2007	SO	10	12	07FWAMW68-10
SB69	7189099.52	468587.25	10/13/2007	SO	3	6	07FWAMW69-3.0
SB69	7189099.52	468587.25	10/13/2007	SO	6	7	07FWAMW69-6.0
SB69	7189099.52	468587.25	10/14/2007	SO	10	12	07FWAMW69-10.0
SB70	7189006.01	468579.53	10/12/2007	SO	0	3	07FWAMW70-3.0
SB70	7189006.01	468579.53	10/12/2007	SO	0	3	07FWAMW70-3.0B
SB70	7189006.01	468579.53	10/12/2007	SO	3	6	07FWAMW70-6.0
06SP11 and 06SP12			9/12/2007	SO	0	0,5	07FW-CONF-SP12-01
06SP11 and 06SP12			9/12/2007	SO	0	0,5	07FW-CONF-SP12-02
06SP11 and 06SP12			9/12/2007	SO	0	0,5	07FW-CONF-SP12-03
06SP11 and 06SP12			9/12/2007	SO	0	0,5	07FW-CONF-SP12-04
06SP11 and 06SP12			9/12/2007	SO	0	0,5	07FW-CONF-SP12-05
PLG-SE1	7188850.91	468174.8	8/29/2005	SO	0	1	05FTW-PLG-SE1-SO
PLG-SE2	7188857.31	468171.02	8/29/2005	SO	0	1	05FTW-PLG-SE2-SO

Highlighting indicates drainage swale samples (also evaluated as sediment in ecological screening).
SO = soil

TABLE 2-8
Groundwater Samples Used in Groundwater Evaluation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Name
MW01	7188884.77	468163.69	9/21/2005	WG	05FTW-TK-MW-1-W
MW01	7188884.77	468163.69	7/11/2006	WG	06MW01S01
MW01	7188884.77	468163.69	5/15/2007	WG	07MW01S01
MW01	7188884.77	468163.69	10/18/2007	WG	07FWEMW01-GW
MW02	7188916.05	468213.05	9/22/2005	WG	05FTW-TK-MW-2-W
MW02	7188916.05	468213.05	7/12/2006	WG	06MW02S01
MW02	7188916.05	468213.05	5/15/2007	WG	07MW02S01
MW02	7188916.05	468213.05	10/18/2007	WG	07FWEMW02-GW
MW03	7188960.68	468213.77	9/22/2005	WG	05FTW-TK-MW-3-W
MW03	7188960.68	468213.77	7/12/2006	WG	06MW03S01
MW03	7188960.68	468213.77	7/12/2006	WG	06MW03S02
MW03	7188960.68	468213.77	5/11/2007	WG	07MW03S01
MW03	7188960.68	468213.77	10/18/2007	WG	07FWEMW03-GW
MW04	7188945.34	468332.34	9/22/2005	WG	05FTW-TK-MW-04-W
MW04	7188945.34	468332.34	9/18/2006	WG	06MW04S01
MW04	7188945.34	468332.34	5/11/2007	WG	07MW04S01
MW04	7188945.34	468332.34	10/18/2007	WG	07FWEMW04-GW
MW05	7189287.71	468101.55	9/18/2006	WG	06MW05S01
MW05	7189287.71	468101.55	5/14/2007	WG	07MW05S01
MW05	7189287.71	468101.55	10/15/2007	WG	07FWCMW05-GW
MW06A	7189283.14	468300.13	9/20/2006	WG	06MW06AS01
MW06A	7189283.14	468300.13	9/25/2006	WG	06MW06AS01
MW06A	7189283.14	468300.13	5/17/2007	WG	07MW06AS01
MW06A	7189283.14	468300.13	10/17/2007	WG	07FWBMW06A-GW
MW06B	7189283.08	468304.21	9/13/2006	WG	06MW06BS01
MW06B	7189283.08	468304.21	5/17/2007	WG	07MW06BS01
MW07	7189286.86	468610.77	9/20/2006	WG	06MW07S01
MW07	7189286.86	468610.77	9/25/2006	WG	06MW07S01
MW07	7189286.86	468610.77	5/11/2007	WG	07MW07S01
MW07	7189286.86	468610.77	5/14/2007	WG	07MW07S01
MW07	7189286.86	468610.77	10/16/2007	WG	07FWAMW07-GW
MW08	7189084.58	468672.38	9/21/2006	WG	06MW08S01
MW08	7189084.58	468672.38	5/14/2007	WG	07MW08S01
MW08	7189084.58	468672.38	5/14/2007	WG	07MW08S02
MW08	7189084.58	468672.38	10/16/2007	WG	07FWAMW08-GW
MW09	7188850.37	468669.25	9/26/2006	WG	06MW09S01
MW09	7188850.37	468669.25	5/15/2007	WG	07MW09S01
MW09	7188850.37	468669.25	10/16/2007	WG	07FWDMW09-GW
MW10	7189149.3	468412.13	9/19/2006	WG	06MW10S01
MW10	7189149.3	468412.13	5/16/2007	WG	07MW10S01
MW10	7189149.3	468412.13	10/14/2007	WG	07FWAMW10-GW
MW11	7189130.55	468529.01	9/19/2006	WG	06MW11S01
MW11	7189130.55	468529.01	5/16/2007	WG	07MW11S01
MW11	7189130.55	468529.01	5/16/2007	WG	07MW11S02
MW11	7189130.55	468529.01	10/16/2007	WG	07FWAMW11-GW
MW12	7188916.05	468213.05	9/21/2006	WG	06MW12S01
MW12	7188916.05	468213.05	9/25/2006	WG	06MW12S01
MW12	7189208.03	468341.29	5/17/2007	WG	07MW12S01

TABLE 2-8
Groundwater Samples Used in Groundwater Evaluation
Former Communications Site, Fort Wainwright, Alaska
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Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Name
MW13	7188850.7	468561.99	10/9/2007	WG	07FWDMW13-GW
MW14	7188828.85	468452.11	10/9/2007	WG	07FWDMW14-GW
MW15	7188865.54	468349.18	10/20/2007	WG	07FWEMW15-GW
MW16	7188811.08	468236.77	10/16/2007	WG	07FWEMW16-GW
MW17	7188899.8	468198.9	10/16/2007	WG	07FWEMW17-GW
MW18	7188874.18	468509.64	10/9/2007	WG	07FWDMW18-GW
MW19	7189041.39	468219.13	10/8/2007	WG	07FWEMW19-GW
MW20	7189007.2	468251.94	10/8/2007	WG	07FWEMW20-GW
MW21	7188980.3	468324.56	10/8/2007	WG	07FWEMW21-GW
MW22	7189014.43	468345.14	10/20/2007	WG	07FWEMW22-GW
MW23	7189071.28	468363.42	10/13/2007	WG	07FWBMW23-GW
MW24	7189110.7	468339.58	10/12/2007	WG	07FWBMW24-GW
MW25	7189155.07	468275.29	10/6/2007	WG	07FWBMW25-GW
MW26	7189114.22	468221.23	10/12/2007	WG	07FWBMW26-GW
MW27	7189153.43	468361.92	10/6/2007	WG	07FWBMW27-GW
MW28	7189192.17	468292.68	10/13/2007	WG	07FWBMW28-GW
MW29	7189198.58	468258.96	10/5/2007	WG	07FWBMW29-GW
MW30	7189206.87	468172.53	10/4/2007	WG	07FWCMW30-GW
MW31	7189239.33	468166.12	10/4/2007	WG	07FWCMW31-GW
MW32	7189241.33	468251.38	10/4/2007	WG	07FWCMW32-GW
MW33	7189236.57	468332.98	10/12/2007	WG	07FWBMW33-GW
MW34	7189315.68	468166.03	10/5/2007	WG	07FWCMW34-GW
MW35	7189378.38	468207.02	10/16/2007	WG	07FWBMW35-GW
MW36	7189446.34	468131.82	10/15/2007	WG	07FWBMW36-GW
MW37	7189412.24	468265.22	10/13/2007	WG	07FWBMW37-GW
MW38	7189389.76	468453.5	10/13/2007	WG	07FWBMW38-GW
MW39	7189278.62	468651.8	10/15/2007	WG	07FWAMW39-GW
MW40	7189325.57	468643.28	10/15/2007	WG	07FWAMW40-GW
MW41	7189332	468573.98	10/14/2007	WG	07FWAMW41-GW
MW42	7189306.32	468524.89	10/12/2007	WG	07FWAMW42-GW
MW43	7189333.33	468398.34	10/19/2007	WG	07FWAMW43-GW
MW44	7189231.47	468402.26	10/17/2007	WG	07FWAMW44-GW
MW45	7189202.24	468515.28	10/12/2007	WG	07FWAMW45-GW
MW46	7189230.6	468575.66	10/11/2007	WG	07FWAMW46-GW
MW47	7189196.45	468639.85	10/17/2007	WG	07FWAMW47-GW
MW48	7189130.27	468629.17	10/10/2007	WG	07FWAMW48-GW
MW49	7189078.44	468622.2	10/10/2007	WG	07FWAMW49-GW
MW50	7189103.42	468564.35	10/20/2007	WG	07FWAMW50-GW
MW51	7189074.81	468523.13	10/17/2007	WG	07FWAMW51-GW
MW52	7189075.01	468426.02	10/17/2007	WG	07FWAMW52-GW
MW53	7189013.73	468475.46	10/17/2007	WG	07FWAMW53-GW
MW54	7188991.38	468385.04	10/17/2007	WG	07FWAMW54-GW
MW55	7188947.15	468413.9	10/11/2007	WG	07FWAMW55-GW
MW56	7189152.9	468453.61	10/16/2007	WG	07FWAMW56-GW
MW57	7188950.88	468657.77	10/10/2007	WG	07FWAMW57-GW
MW58	7189310.72	468272.02	10/13/2007	WG	07FWBMW58-GW
MW59	7189123.3	468423.66	10/18/2007	WG	07FWAMW59-GW
MW60	7189078.6	468488.6	10/18/2007	WG	07FWAMW60-GW

TABLE 2-8
Groundwater Samples Used in Groundwater Evaluation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Location Name	Northing	Easting	Sample Date	Sample Matrix	Sample Name
MW61	7189181.49	468442.33	10/21/2007	WG	07FWAMW61-GW
MW62	7189252.68	468400.42	10/22/2007	WG	07FWAMW62-GW
MW63	7189251.66	468352.58	10/22/2007	WG	07FWBMW63-GW
MW64	7189276.65	468362.94	10/17/2007	WG	07FWBMW64-GW
MW65	7189276.42	468323.19	10/19/2007	WG	07FWBMW65-GW
MW67	7189278.12	468266.33	10/19/2007	WG	07FWBMW67-GW
MW68	7189126.05	468563.35	10/19/2007	WG	07FWAMW68-GW
MW69	7189099.52	468587.25	10/21/2007	WG	07FWAMW69-GW
MW70	7189006.01	468579.53	10/19/2007	WG	07FWAMW70-GW
MW70	7189006.01	468579.53	10/20/2007	WG	07FWAMW70-GW
MW71	7188983.07	468518.38	10/18/2007	WG	07FWAMW71-GW
MW72	7188947.85	468560.63	10/18/2007	WG	07FWAMW72-GW
MW73	7188940.85	468498.14	10/19/2007	WG	07FWAMW73-GW
MW73	7188940.85	468498.14	10/20/2007	WG	07FWAMW73-GW
MW74	7188874.75	468189.63	10/19/2007	WG	07FWEMW74-GW
MW76	7188802.5	468190.84	10/20/2007	WG	07FWEMW76-GW
TW-6	7188856.9	468214.46	9/21/2005	WG	05FTW-TK-TW-6-W
TW-8	7188856.9	468214.46	9/21/2005	WG	05FTW-TK-TW-8-W

Highlighting indicates samples collected from wells near northern boundary (results also evaluated in ecological screening).

WG = groundwater

TABLE 2-9
Human Health Risk-Based Groundwater Screening Levels
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Chem Group	Analyte	CAS	GW Screening Level (ug/L)	Screening Level Source
EXP	1,3,5-Trinitrobenzene	99-35-4	110	N
EXP	1,3-Dinitrobenzene	99-65-0	0.37	N
EXP	2,4,6-Trinitrotoluene	118-96-7	2.2	C
EXP	2,4-Dinitrotoluene	121-14-2	7.3	N
EXP	2,6-Dinitrotoluene	606-20-2	3.7	N
EXP	2-Amino-4,6-dinitrotoluene	35572-78-2	NA	NA
EXP	2-Nitrotoluene	88-72-2	0.29	C
EXP	3-Nitrotoluene	99-08-1	12	N
EXP	4-Amino-2,6-dinitrotoluene	19406-51-0	NA	NA
EXP	4-Nitrotoluene	99-99-0	4.2	C
EXP	HMX	2691-41-0	183	N
EXP	Nitrobenzene	98-95-3	0.34	N
EXP	RDX	121-82-4	0.61	C
EXP	Tetryl	479-45-8	15	N
Herb	2,4,5-T	93-76-5	37	N
Herb	2,4-D	94-75-7	37	N
Herb	2,4-DB	94-82-6	29	N
Herb	4-Nitrophenol	100-02-7	29	N
Herb	Dalapon	75-99-0	110	N
Herb	Dicamba	1918-00-9	110	N
Herb	Dichlorprop	120-36-5	NA	NA
Herb	Dinoseb	88-85-7	3.7	N
Herb	MCPA	94-74-6	1.8	N
Herb	Mecoprop	93-65-2	3.7	N
Herb	Pentachlorophenol	87-86-5	0.56	C
Herb	Silvex (2,4,5-TP)	93-72-1	29	N
Metal	Aluminum	7429-90-5	3,650	N
Metal	Antimony	7440-36-0	1.5	N
Metal	Arsenic	7440-38-2	36.240	B
Metal	Barium	7440-39-3	730	N
Metal	Beryllium	7440-41-7	7.3	N
Metal	Boron	7440-42-8	730	N
Metal	Cadmium	7440-43-9	1.8	N
Metal	Calcium	7440-70-2	NA	NA
Metal	Chromium	7440-47-3	NA	NA
Metal	Cobalt	7440-48-4	73	N
Metal	Copper	7440-50-8	136	N
Metal	Iron	7439-89-6	2,555	N
Metal	Lead	7439-92-1	15	M
Metal	Magnesium	7439-95-4	NA	NA
Metal	Manganese	7439-96-5	170	N
Metal	Mercury (elemental)	7439-97-6	0.063	N
Metal	Mercury and compounds	7487-94-7	1.1	N
Metal	Nickel	7440-02-0	73	N
Metal	Potassium	7440-09-7	NA	NA
Metal	Selenium	7782-49-2	18	N
Metal	Silver	7440-22-4	18	N
Metal	Sodium	7440-23-5	NA	NA
Metal	Thallium	7440-28-0	0.26	N

TABLE 2-9
Human Health Risk-Based Groundwater Screening Levels
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Chem Group	Analyte	CAS	GW Screening Level (ug/L)	Screening Level Source
Metal	Vanadium	7440-62-2	18	N
Metal	Zinc	7440-66-6	1,095	N
PCB	Aroclor 1016	12674-11-2	0.96	C
PCB	Aroclor 1221	11104-28-2	0.034	C
PCB	Aroclor 1232	11141-16-5	0.034	C
PCB	Aroclor 1242	53469-21-9	0.034	C
PCB	Aroclor 1248	12672-29-6	0.034	C
PCB	Aroclor 1254	11097-69-1	0.034	C
PCB	Aroclor 1260	11096-82-5	0.034	C
PCB	Aroclor 1262	37324-23-5	NA	NA
PCB	Aroclor 1268	11100-14-4	NA	NA
PCB	PCBs, total	1336-36-3	0.034	C
Pest	4,4'-DDD	72-54-8	0.28	C
Pest	4,4'-DDE	72-55-9	0.20	C
Pest	4,4'-DDT	50-29-3	0.20	C
Pest	Aldrin	309-00-2	0.0040	C
Pest	alpha-BHC	319-84-6	0.011	C
Pest	alpha-Chlordane	5103-71-9	0.19	C(s)
Pest	beta-BHC	319-85-7	0.037	C
Pest	delta-BHC	319-86-8	NA	NA
Pest	Dieldrin	60-57-1	0.0042	C
Pest	Endosulfan	115-29-7	22	N
Pest	Endosulfan I	959-98-8	22	N(s)
Pest	Endosulfan II	33213-65-9	22	N(s)
Pest	Endosulfan sulfate	1031-07-8	NA	NA
Pest	Endrin	72-20-8	1.1	N
Pest	Endrin aldehyde	7421-93-4	NA	NA
Pest	Endrin ketone	53494-70-5	NA	NA
Pest	gamma-BHC (Lindane)	58-89-9	0.052	C
Pest	gamma-Chlordane	5103-74-2	0.19	C(s)
Pest	Heptachlor	76-44-8	0.015	C
Pest	Heptachlor epoxide	1024-57-3	0.0074	C
Pest	Methoxychlor	72-43-5	18	N
Pest	Toxaphene	8001-35-2	0.061	C
SVOC	1,2,4-Trichlorobenzene	120-82-1	0.82	N
SVOC	1,2-Dichlorobenzene	95-50-1	4.9	N
SVOC	1,3-Dichlorobenzene	541-73-1	1.4	N
SVOC	1,4-Dichlorobenzene	106-46-7	0.47	C
SVOC	2,4,5-Trichlorophenol	95-95-4	365	N
SVOC	2,4,6-Trichlorophenol	88-06-2	6.1	C
SVOC	2,4-Dichlorophenol	120-83-2	11	N
SVOC	2,4-Dimethylphenol	105-67-9	73	N
SVOC	2,4-Dinitrophenol	51-28-5	7.3	N
SVOC	2,4-Dinitrotoluene	121-14-2	7.3	N
SVOC	2,6-Dinitrotoluene	606-20-2	3.7	N
SVOC	2-Chloronaphthalene	91-58-7	49	N
SVOC	2-Chlorophenol	95-57-8	3.0	N
SVOC	2-Methylnaphthalene	91-57-6	78	1/10th_ADEC_Table C1
SVOC	2-Methylphenol	95-48-7	18	N(s)

TABLE 2-9
Human Health Risk-Based Groundwater Screening Levels
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Chem Group	Analyte	CAS	GW Screening Level (ug/L)	Screening Level Source
SVOC	2-Nitroaniline	88-74-4	11	N
SVOC	2-Nitrophenol	88-75-5	NA	NA
SVOC	3,3'-Dichlorobenzidine	91-94-1	0.15	C
SVOC	3-Methylphenol	108-39-4	NA	NA
SVOC	3-Nitroaniline	99-09-2	NA	NA
SVOC	4,6-Dinitro-2-methylphenol	534-52-1	NA	NA
SVOC	4-Bromophenyl phenyl ether	101-55-3	NA	NA
SVOC	4-Chloro-3-methylphenol	59-50-7	NA	NA
SVOC	4-Chloroaniline	106-47-8	15	N
SVOC	4-Chlorophenyl phenyl ether	7005-72-3	NA	NA
SVOC	4-Methylphenol	106-44-5	18	N
SVOC	4-Nitroaniline	100-01-6	NA	NA
SVOC	4-Nitrophenol	100-02-7	29	N
SVOC	Acenaphthene	83-32-9	37	N
SVOC	Acenaphthylene	208-96-8	220	1/10th_ADEC_Table C1
SVOC	Anthracene	120-12-7	183	N
SVOC	Benz(a)anthracene	56-55-3	0.029	C
SVOC	Benzo(a)pyrene	50-32-8	0.0029	C
SVOC	Benzo(b)fluoranthene	205-99-2	0.029	C
SVOC	Benzo(ghi)perylene	191-24-2	110	1/10th_ADEC_Table C1
SVOC	Benzo(k)fluoranthene	207-08-9	0.29	C
SVOC	Benzoic acid	65-85-0	14,600	N
SVOC	Benzyl alcohol	100-51-6	1,095	N
SVOC	bis(2-Chloroethoxy)methane	111-91-1	NA	NA
SVOC	bis(2-Chloroethyl) ether	111-44-4	0.0098	C
SVOC	bis(2-Chloroisopropyl) ether	108-60-1	0.27	C
SVOC	bis(2-Ethylhexyl) phthalate	117-81-7	4.8	C
SVOC	Butyl benzyl phthalate	85-68-7	730	N
SVOC	Carbazole	86-74-8	3.4	C
SVOC	Chrysene	218-01-9	2.9	C
SVOC	Dibenz(a,h)anthracene	53-70-3	0.0029	C
SVOC	Dibenzofuran	132-64-9	1.2	N
SVOC	Diethyl phthalate	84-66-2	2,920	N
SVOC	Dimethyl phthalate	131-11-3	36,500	N
SVOC	Di-n-butyl phthalate	84-74-2	365	N
SVOC	Di-n-octyl phthalate	117-84-0	70	1/10th_ADEC_Table C1
SVOC	Fluoranthene	206-44-0	146	N
SVOC	Fluorene	86-73-7	24	N
SVOC	Hexachlorobenzene	118-74-1	0.042	C
SVOC	Hexachlorobutadiene	87-68-3	0.86	C
SVOC	Hexachloroethane	67-72-1	4.8	C
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5	0.029	C
SVOC	Isophorone	78-59-1	71	C
SVOC	Naphthalene	91-20-3	0.62	N
SVOC	Nitrobenzene	98-95-3	0.34	N
SVOC	N-Nitrosodimethylamine	62-75-9	4.22E-04	C
SVOC	N-Nitrosodi-n-propylamine	621-64-7	0.0096	C
SVOC	N-Nitrosodiphenylamine	86-30-6	14	C
SVOC	Pentachlorophenol	87-86-5	0.56	C

TABLE 2-9
Human Health Risk-Based Groundwater Screening Levels
Former Communications Site, Fort Wainwright, Alaska
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Chem Group	Analyte	CAS	GW Screening Level (ug/L)	Screening Level Source
SVOC	Phenanthrene	85-01-8	1,100	1/10th_ADEC_Table C1
SVOC	Phenol	108-95-2	1,095	N
SVOC	Pyrene	129-00-0	18	N
TPH	Diesel Range Organics (DRO)	DRO	150	1/10th_ADEC_Table C1
TPH	Gasoline Range Organics (GRO)	GRO	130	1/10th_ADEC_Table C1
TPH	Residual Range Organics (RRO)	RRO	110	1/10th_ADEC_Table C1
VOC	1,1,1,2-Tetrachloroethane	630-20-6	0.43	C
VOC	1,1,1-Trichloroethane	71-55-6	7,300	N
VOC	1,1,2,2-Tetrachloroethane	79-34-5	0.055	C
VOC	1,1,2-Trichloroethane	79-00-5	0.20	C
VOC	1,1-Dichloroethane	75-34-3	122	N
VOC	1,1-Dichloroethene	75-35-4	34	N
VOC	1,1-Dichloropropene	563-58-6	NA	NA
VOC	1,2,3-Trichlorobenzene	87-61-6	NA	NA
VOC	1,2,3-Trichloropropane	96-18-4	0.034	C
VOC	1,2,4-Trichlorobenzene	120-82-1	0.82	N
VOC	1,2,4-Trimethylbenzene	95-63-6	1.3	N
VOC	1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	2.04E-04	C
VOC	1,2-Dibromoethane (EDB)	106-93-4	0.0056	C
VOC	1,2-Dichlorobenzene	95-50-1	4.9	N
VOC	1,2-Dichloroethane	107-06-2	0.12	C
VOC	1,2-Dichloropropane	78-87-5	0.16	C
VOC	1,3,5-Trimethylbenzene	108-67-8	1.2	N
VOC	1,3-Dichlorobenzene	541-73-1	1.4	N
VOC	1,3-Dichloropropane	142-28-9	12	N
VOC	1,3-Dichloropropene	542-75-6	0.40	C
VOC	1,4-Dichlorobenzene	106-46-7	0.47	C
VOC	2,2-Dichloropropane	594-20-7	NA	NA
VOC	2-Butanone (MEK)	78-93-3	706	N
VOC	2-Chlorotoluene	95-49-8	12	N
VOC	2-Hexanone	591-78-6	NA	NA
VOC	4-Chlorotoluene	106-43-4	NA	NA
VOC	4-Methyl-2-pentanone (MIBK)	108-10-1	199	N
VOC	Acetone	67-64-1	548	N
VOC	Benzene	71-43-2	0.35	C
VOC	Bromobenzene	108-86-1	2.3	N
VOC	Bromochloromethane	74-97-5	NA	NA
VOC	Bromodichloromethane	75-27-4	0.18	C
VOC	Bromoform	75-25-2	8.5	C
VOC	Bromomethane	74-83-9	0.87	N
VOC	Carbon disulfide	75-15-0	104	N
VOC	Carbon tetrachloride	56-23-5	0.17	C
VOC	Chlorobenzene	108-90-7	9.1	N
VOC	Chloroethane	75-00-3	3.9	C
VOC	Chloroform	67-66-3	0.17	C
VOC	Chloromethane	74-87-3	19	N
VOC	cis-1,2-Dichloroethene	156-59-2	6.1	N
VOC	cis-1,3-Dichloropropene	10061-01-5	0.40	C(s)
VOC	Dibromochloromethane	124-48-1	0.13	C

TABLE 2-9
Human Health Risk-Based Groundwater Screening Levels
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Chem Group	Analyte	CAS	GW Screening Level (ug/L)	Screening Level Source
VOC	Dibromomethane	74-95-3	6.1	N
VOC	Dichlorodifluoromethane (Freon 12)	75-71-8	39	N
VOC	Ethylbenzene	100-41-4	134	N
VOC	Hexachlorobutadiene	87-68-3	0.86	C
VOC	Isopropylbenzene	98-82-8	66	N
VOC	m & p-xylene	108-38-3/1	21	N
VOC	Methyl tert-butyl ether (MTBE)	1634-04-4	11	C
VOC	Methylene chloride	75-09-2	4.3	C
VOC	m-Xylene	108-38-3	21	N
VOC	Naphthalene	91-20-3	0.62	N
VOC	n-Butylbenzene	104-51-8	6.1	N
VOC	n-Propylbenzene	103-65-1	6.1	N
VOC	o-Xylene	95-47-6	7,300	N
VOC	p-Isopropyltoluene	99-87-6	NA	NA
VOC	p-Xylene	106-42-3	NA	NA
VOC	sec-Butylbenzene	135-98-8	6.1	N
VOC	Styrene	100-42-5	164	N
VOC	tert-Butylbenzene	98-06-6	6.1	N
VOC	Tetrachloroethene	127-18-4	0.10	C
VOC	Toluene	108-88-3	228	N
VOC	trans-1,2-Dichloroethene	156-60-5	11	N
VOC	trans-1,3-Dichloropropene	10061-02-6	0.40	C(s)
VOC	Trichloroethene	79-01-6	0.028	C
VOC	Trichlorofluoromethane (Freon 11)	75-69-4	129	N
VOC	Vinyl chloride	75-01-4	0.015	C
VOC	Xylenes, total	1330-20-7	20	N

Source	Description
1/10th_ADEC	1/10th ADEC Table C1 ingestion (no Region 6 PRG available)
+	based on m-xylene (lowest of m- & p-xylene PRG)
C	cancer (Region VI tap water PRG)
B	Fort Wainwright background
N	noncancer (1/10th Region VI tap water PRG)
NA	not applicable (no Region 6 PRG or ADEC value available)
(s)	PRG based on surrogate
M	Region VI PRG - Integrated Exposure Uptake Biokinetic Model for lead in children

ADEC = Alaska Department of Environmental Conservation
CAS = Chemical Abstracts Service
EXP = explosive
GW = groundwater
HERB = herbicide
PCB = polychlorinated biphenyl
PEST = pesticide
SVOC = semivolatile organic compound
ug/L = micrograms per liter
VOC = volatile organic compound

TABLE 2-10
Soil Gas Sample Information
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Location ID	Sample ID	Depth (feet bgs)	Date	Matrix	Sample Type	Comments
SG001-L	07FWCSG001	0.5 - 0.5	8/29/2007	SG	Grab	
SG001-R	07FWCSG001-2	0.5 - 0.5	10/18/2007	SG	Grab	
SG002-L	07FWCSG002	0.5 - 0.5	8/29/2007	SG	Grab	
SG002-R	07FWCSG002-2	0.5 - 0.5	10/18/2007	SG	Grab	
SG003-L	07FWCSG003	0.5 - 0.5	8/29/2007	SG	Grab	
SG003-R	07FWCSG003-2	0.5 - 0.5	10/18/2007	SG	Grab	
SG004-L	07FWCSG004	0.5 - 0.5	8/30/2007	SG	Grab	
SG004-L	07FWCSG994	0.5 - 0.5	8/30/2007	SG	Grab	field duplicate
SG004-R	07FWCSG004-2	0.5 - 0.5	10/18/2007	SG	Grab	
SG004-R	07FWCSG0798-2	0.5 - 0.5	10/18/2007	SG	Grab	field duplicate
SG005-L	07FWBSG005	0.5 - 0.5	8/28/2007	SG	Grab	
SG005-R	07FWBSG005-2	0.5 - 0.5	10/18/2007	SG	Grab	
SG006-L	07FWBSG006	0.5 - 0.5	8/28/2007	SG	Grab	
SG006-R	07FWBSG006-2	0.5 - 0.5	10/18/2007	SG	Grab	
SG007-L	07FWBSG007	0.5 - 0.5	8/28/2007	SG	Grab	
SG007-R	07FWBSG007-2	0.5 - 0.5	10/18/2007	SG	Grab	
SG007-R	07FWBSG799-2	0.5 - 0.5	10/18/2007	SG	Grab	field duplicate
SG008-L	07FWBSG008	0.5 - 0.5	8/28/2007	SG	Grab	
SG008-R	07FWBSG008-2	0.5 - 0.5	10/19/2007	SG	Grab	
SG009-L	07FWBSG009	0.5 - 0.5	8/28/2007	SG	Grab	
SG009-L	07FWBSG995	0.5 - 0.5	8/28/2007	SG	Grab	field duplicate
SG009-R	07FWBSG009-2	0.5 - 0.5	10/12/2007	SG	Grab	
SG010-L	07FWBSG010	0.5 - 0.5	8/28/2007	SG	Grab	
SG010-R	07FWBSG010-2	0.5 - 0.5	10/19/2007	SG	Grab	
SG011-L	07FWBSG011	0.5 - 0.5	8/28/2007	SG	Grab	
SG011-R	07FWBSG011-2	0.5 - 0.5	10/18/2007	SG	Grab	
SG012-L	07FWBSG012	0.5 - 0.5	8/28/2007	SG	Grab	
SG012-R	07FWBSG012-2	0.5 - 0.5	10/20/2007	SG	Grab	
SG012-R	07FWBSG797-2	0.5 - 0.5	10/20/2007	SG	Grab	field duplicate
SG013-L	07FWASG013	0.5 - 0.5	8/28/2007	SG	Grab	
SG013-R	07FWASG013-2	0.5 - 0.5	10/12/2007	SG	Grab	
SG014-L	07FWBSG014	0.5 - 0.5	8/28/2007	SG	Grab	
SG014-R	07FWBSG014-2	0.5 - 0.5	10/20/2007	SG	Grab	
SG015-L	07FWASG015	0.5 - 0.5	8/25/2007	SG	Grab	
SG015-R	07FWASG015-2	0.5 - 0.5	10/11/2007	SG	Grab	
SG016-L	07FWASG016	0.5 - 0.5	8/25/2007	SG	Grab	
SG016-R	07FWASG016-2	0.5 - 0.5	10/11/2007	SG	Grab	
SG017-L	07FWASG017	0.5 - 0.5	8/25/2007	SG	Grab	
SG017-R	07FWASG017-2	0.5 - 0.5	10/11/2007	SG	Grab	
SG018-L	07FWASG018	0.5 - 0.5	8/25/2007	SG	Grab	
SG018-R	07FWASG018-2	0.5 - 0.5	10/11/2007	SG	Grab	
SG019-L	07FWASG019	0.5 - 0.5	8/26/2007	SG	Grab	
SG019-L	07FWASG997	0.5 - 0.5	8/26/2007	SG	Grab	field duplicate
SG019-R	07FWASG019-2	0.5 - 0.5	10/11/2007	SG	Grab	
SG020-L	07FWASG020	0.5 - 0.5	8/25/2007	SG	Grab	
SG020-R	07FWASG020-2	0.5 - 0.5	10/11/2007	SG	Grab	
SG021-L	07FWASG021	0.5 - 0.5	8/25/2007	SG	Grab	
SG021-R	07FWASG021-2	0.5 - 0.5	10/26/2007	SG	Grab	
SG022-L	07FWASG022	0.5 - 0.5	8/25/2007	SG	Grab	
SG022-R	07FWASG022-2	0.5 - 0.5	10/26/2007	SG	Grab	no power
SG023-L	07FWASG023	0.5 - 0.5	8/27/2007	SG	Grab	

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Location ID	Sample ID	Depth (feet bgs)	Date	Matrix	Sample Type	Comments
SG023-R	07FWASG023-2	0.5 - 0.5	10/26/2007	SG	Grab	
SG024-L	07FWASG024	0.5 - 0.5	8/25/2007	SG	Grab	
SG024-R	07FWASG024-2	0.5 - 0.5	10/26/2007	SG	Grab	
SG025-L	07FWASG025-2	0.5 - 0.5	10/26/2007	SG	Grab	
SG025-R	07FWASG025	0.5 - 0.5	8/24/2007	SG	Grab	no power
SG026-L	07FWASG026	0.5 - 0.5	8/25/2007	SG	Grab	
SG026-R	07FWASG026-2	0.5 - 0.5	10/26/2007	SG	Grab	
SG027-L	07FWASG027	0.5 - 0.5	8/23/2007	SG	Grab	
SG027-R	07FWASG027-2	0.5 - 0.5	10/25/2007	SG	Grab	
SG028-L	07FWASG028	0.5 - 0.5	8/24/2007	SG	Grab	
SG028-R	07FWASG028-2	0.5 - 0.5	10/25/2007	SG	Grab	no power
SG029-L	07FWASG029	0.5 - 0.5	8/23/2007	SG	Grab	
SG029-R	07FWASG029-2	0.5 - 0.5	10/25/2007	SG	Grab	
SG030-L	07FWASG030	0.5 - 0.5	8/23/2007	SG	Grab	
SG030-R	07FWASG030-2	0.5 - 0.5	10/24/2007	SG	Grab	
SG031-L	07FWASG031	0.5 - 0.5	8/23/2007	SG	Grab	
SG031-R	07FWASG031-2	0.5 - 0.5	10/25/2007	SG	Grab	no power
SG032-L	07FWASG032	0.5 - 0.5	8/23/2007	SG	Grab	
SG032-R	07FWASG032-2	0.5 - 0.5	10/24/2007	SG	Grab	
SG033-L	07FWASG033	0.5 - 0.5	8/23/2007	SG	Grab	
SG033-R	07FWASG033-2	0.5 - 0.5	10/25/2007	SG	Grab	no power
SG034-L	07FWASG034	0.5 - 0.5	8/23/2007	SG	Grab	
SG034-R	07FWASG034-2	0.5 - 0.5	10/24/2007	SG	Grab	
SG035-L	07FWASG035	0.5 - 0.5	8/23/2007	SG	Grab	
SG035-L	07FWASG999	0.5 - 0.5	8/23/2007	SG	Grab	field duplicate
SG035-R	07FWASG035-2	0.5 - 0.5	10/25/2007	SG	Grab	no power
SG036-L	07FWASG036	0.5 - 0.5	8/23/2007	SG	Grab	
SG036-R	07FWASG036-2	0.5 - 0.5	10/24/2007	SG	Grab	
SG037-L	07FWESG037	0.5 - 0.5	8/24/2007	SG	Grab	
SG037-R	07FWESG037-2	0.5 - 0.5	10/24/2007	SG	Grab	
SG038-L	07FWESG038	0.5 - 0.5	8/24/2007	SG	Grab	
SG038-R	07FWESG038-2	0.5 - 0.5	10/24/2007	SG	Grab	no power
SG039-L	07FWESG039	0.5 - 0.5	8/24/2007	SG	Grab	
SG039-R	07FWESG039-2	0.5 - 0.5	10/26/2007	SG	Grab	
SG040-L	07FWESG040	0.5 - 0.5	8/24/2007	SG	Grab	
SG040-L	07FWESG998	0.5 - 0.5	8/24/2007	SG	Grab	field duplicate
SG040-R	07FWESG040-2	0.5 - 0.5	10/23/2007	SG	Grab	no power
SG041-L	07FWFSG041	0.5 - 0.5	8/27/2007	SG	Grab	
SG041-R	07FWFSG041-2	0.5 - 0.5	10/23/2007	SG	Grab	no power
SG042-L	07FWFSG042	0.5 - 0.5	8/27/2007	SG	Grab	
SG042-R	07FWFSG042-2	0.5 - 0.5	10/20/2007	SG	Grab	
SG042-R	07FWFSG796-2	0.5 - 0.5	10/20/2007	SG	Grab	
SG043-L	07FWFSG043	0.5 - 0.5	8/27/2007	SG	Grab	
SG043-L	07FWFSG996	0.5 - 0.5	8/27/2007	SG	Grab	field duplicate
SG043-R	07FWFSG043-2	0.5 - 0.5	10/23/2007	SG	Grab	
SG044-L	07FWFSG044	0.5 - 0.5	8/27/2007	SG	Grab	
SG044-R	07FWFSG044-2	0.5 - 0.5	10/23/2007	SG	Grab	no power
SG045-L	07FWFSG045	0.5 - 0.5	8/27/2007	SG	Grab	
SG045-R	07FWFSG045-2	0.5 - 0.5	10/23/2007	SG	Grab	
SG046-L	07FWFSG046	0.5 - 0.5	8/26/2007	SG	Grab	
SG046-R	07FWFSG046-2	0.5 - 0.5	10/23/2007	SG	Grab	no power

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Location ID	Sample ID	Depth (feet bgs)	Date	Matrix	Sample Type	Comments
SG047-L	07FWFSG047	0.5 - 0.5	8/27/2007	SG	Grab	
SG047-R	07FWFSG047-2	0.5 - 0.5	10/21/2007	SG	Grab	
SG047-R	07FWFSG795-2	0.5 - 0.5	10/21/2007	SG	Grab	field duplicate
SG048-L	07FWFSG048-2	0.5 - 0.5	10/23/2007	SG	Grab	
SG048-R	07FWFSG048	0.5 - 0.5	8/26/2007	SG	Grab	no power
SG049-L	07FWASG049-2	0.5 - 0.5	10/23/2007	SG	Grab	
SG049-R	07FWASG049	0.5 - 0.5	8/26/2007	SG	Grab	
SG050	07FWESG050	6 - 6	9/8/2007	SG	Grab	
SG051	07FWESG051	6 - 6	9/8/2007	SG	Grab	
SG052	07FWESG052	6 - 6	9/8/2007	SG	Grab	
SG053	07FWESG053	6 - 6	9/8/2007	SG	Grab	
SG054	07FWESG054	6 - 6	9/8/2007	SG	Grab	
SG054	07FWESG991	6 - 6	9/8/2007	SG	Grab	
SG055	07FWESG055	6 - 6	9/8/2007	SG	Grab	
SG056	07FWESG056	6 - 6	9/8/2007	SG	Grab	
SG057	07FWESG057	6 - 6	9/8/2007	SG	Grab	
SG058	07FWESG058	6 - 6	9/8/2007	SG	Grab	
SG059	07FWESG059	6 - 6	9/8/2007	SG	Grab	
SG060-L	07FWDSG060	0.5 - 0.5	8/22/2007	SG	Grab	
SG060-R	07FWDSG060-2	0.5 - 0.5	10/26/2007	SG	Grab	
SG061-L	07FWDSG061	0.5 - 0.5	8/22/2007	SG	Grab	
SG061-R	07FWDSG061-2	0.5 - 0.5	10/25/2007	SG	Grab	
SG062-L	07FWDSG062	0.5 - 0.5	8/22/2007	SG	Grab	
SG062-R	07FWDSG062-2	0.5 - 0.5	10/26/2007	SG	Grab	
SG063-L	07FWDSG063	0.5 - 0.5	8/23/2007	SG	Grab	
SG063-R	07FWDSG063-2	0.5 - 0.5	10/26/2007	SG	Grab	
SG063-R	07FWDSG794-2	0.5 - 0.5	10/26/2007	SG	Grab	field duplicate
SG064-L	07FWDSG064	0.5 - 0.5	8/22/2007	SG	Grab	
SG064-R	07FWDSG064-2	0.5 - 0.5	10/26/2007	SG	Grab	
SG065-L	07FWFSG065	0.5 - 0.5	8/27/2007	SG	Grab	
SG065-R	07FWFSG065-2	0.5 - 0.5	10/20/2007	SG	Grab	
SG066	07FWSSG066	6 - 6	9/9/2007	SG	Grab	
SG067	07FWCSG067	6 - 6	9/9/2007	SG	Grab	
SG069	07FWCSG069	6 - 6	9/24/2007	SG	Grab	
SG070	07FWCSG070	6 - 6	9/24/2007	SG	Grab	
SG071	07FWSSG071	6 - 6	9/9/2007	SG	Grab	
SG071	07FWSSG992	6 - 6	9/9/2007	SG	Grab	field duplicate
SG072	07FWSSG072	6 - 6	9/9/2007	SG	Grab	
SG073	07FWSSG073	6 - 6	9/9/2007	SG	Grab	
SG074	07FWBSG074	6 - 6	9/12/2007	SG	Grab	
SG075	07FWBSG075	6 - 6	9/24/2007	SG	Grab	
SG076	07FWBSG076	6 - 6	9/24/2007	SG	Grab	
SG077	07FWCSG077	6 - 6	9/24/2007	SG	Grab	
SG078	07FWCSG078	6 - 6	9/24/2007	SG	Grab	
SG079	07FWCSG079	6 - 6	9/10/2007	SG	Grab	
SG080	07FWCSG080	6 - 6	9/10/2007	SG	Grab	
SG081	07FWCSG081	6 - 6	9/10/2007	SG	Grab	
SG082	07FWBSG082	6 - 6	9/29/2007	SG	Grab	
SG083	07FWBSG083	6 - 6	9/29/2007	SG	Grab	
SG084	07FWBSG084	6 - 6	9/24/2007	SG	Grab	
SG084	07FWBSG899	6 - 6	9/24/2007	SG	Grab	field duplicate

TABLE 2-10
Soil Gas Sample Information
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Location ID	Sample ID	Depth (feet bgs)	Date	Matrix	Sample Type	Comments
SG085	07FWBSG085	6 - 6	9/24/2007	SG	Grab	
SG086	07FWBSG086	6 - 6	9/24/2007	SG	Grab	
SG087	07FWFSG087	6 - 6	9/7/2007	SG	Grab	
SG088	07FWFSG088	6 - 6	9/8/2007	SG	Grab	
SG088	07FWFSG993	6 - 6	9/8/2007	SG	Grab	field duplicate
SG089	07FWBSG089	6 - 6	9/7/2007	SG	Grab	
SG090	07FWFSG090	6 - 6	9/7/2007	SG	Grab	
SG091	07FWCSG091	6 - 6	9/6/2007	SG	Grab	
SG092	07FWCSG092	6 - 6	9/7/2007	SG	Grab	
SG093	07FWCSG093	6 - 6	9/10/2007	SG	Grab	
SG094	07FWFSG094	6 - 6	9/8/2007	SG	Grab	
SG095	07FWFSG095	6 - 6	9/10/2007	SG	Grab	
SG096	07FWFSG096	6 - 6	9/10/2007	SG	Grab	
SG096	07FWFSG990	6 - 6	9/10/2007	SG	Grab	field duplicate
SG097	07FWFSG097	6 - 6	9/10/2007	SG	Grab	
SG098	07FWESG098	6 - 6	9/10/2007	SG	Grab	
SG099	07FWESG099	6 - 6	9/10/2007	SG	Grab	
SG100	07FWESG100	6 - 6	9/10/2007	SG	Grab	
SG101	07FWDSG101	6 - 6	9/10/2007	SG	Grab	
SG102	07FWDSG102	6 - 6	9/10/2007	SG	Grab	
SG103	07FWDSG103	6 - 6	9/10/2007	SG	Grab	
SG104	07FWDSG104	6 - 6	9/10/2007	SG	Grab	
SG105	07FWDSG105	6 - 6	9/10/2007	SG	Grab	

bgs = below ground surface
SG = soil gas

SECTION 3

Risk Screening Evaluation Results

This section presents a summarized results for the preliminary risk screening evaluations described in Section 2, Data Evaluation Process. Additional information and data related to several of these evaluations are provided in appendixes, as follows:

- Appendix A, Vapor Intrusion Evaluation
- Appendix B, Screening-Level Ecological Screening Assessment
- Appendix C, 95UCL-adjusted Results for Soil Pile Samples
- Appendix D, 95UCL-adjusted Results for Sound Berm Samples

3.1 Soil Pile Characterization Results

The objective of the soil pile investigation was to characterize the soil for possible disposal in the Fort Wainwright Class I landfill. The soil pile characterization process involved comparing the MI decision unit sample results (adjusted to account for 95UCL values calculated for the triplicate samples) to the Fort Wainwright landfill screening criteria. Stockpile soils with concentrations below the criteria may be used as cover in the landfill. Stockpile soils with concentrations above the criteria will be processed and disposed of by the Fort Wainwright DRMO.

The 95UCL-adjusted sample results for all MI decision unit samples for the soil piles were below the landfill criteria (see Appendix C). The discrete soil sample result for SP06-05 contained 1,100 mg /kg total petroleum hydrocarbons as diesel range organics (DRO), which exceeded the landfill criterion for DRO. Consequently, the portion of Soil Pile 06 omitted from MI sampling (Figure 3-1) will be characterized and disposed of separately by the Fort Wainwright DRMO.

3.2 Sound Berm Evaluation Results

The objective of the sound berm sampling program was to determine whether sound berm soils contain elevated concentrations of target analytes that might require further delineation to support future baseline risk assessment evaluations. The sound berm characterization process involved comparing the MI decision unit samples results (adjusted to account for 95UCL values for the triplicate sample) to the soil screening levels and background levels. If the concentrations of target analytes in an MI decision unit exceed these criteria, a follow-up sampling program consisting of discrete surface soil samples will be conducted to obtain appropriate data for use in risk assessment.

The data used to calculate the 95UCL values for the triplicate samples collected at DB09 are listed, along with adjustment factors for the other MI samples, in Table 3-1. A 95UCL and adjustment factor was calculated only if an analyte was detected in at least one of the three triplicate samples. If an analyte was not detected in all three samples, then the 95UCL

calculations used the method detection limit (MDL) for the non-detects was used as a proxy value.

The 95UCL-adjusted results for the sound berm decision unit samples are summarized in Table 3-2. The table lists the number of samples collected (triplicates are represented as one sample because the 95UCL value replaces the three original sample results), the number of detections, the ranges of detected concentrations and MDLs, and the results of the screening level and background comparisons for both detects and nondetects. The individual 95UCL adjusted results for each sample are listed in Appendix D.

As shown in Table 3-2 and Figure 3-2, concentrations of benzo(a)pyrene in two sound berm MI decision units (DB04 and DB06) exceeded the screening level of 0.015 mg /kg. Therefore, additional discrete surface soil samples are needed from these decision units to support evaluation of possible risk associated with benzo(a)pyrene in surface soil during the baseline risk assessment.

3.3 Confirmation Sampling Evaluation Results

The objective of the confirmation sampling effort was to assess conditions at the bottoms and sidewalls of excavations following removal of drums, debris, and contaminated soils in order to determine whether additional soil removal or confirmation samples are needed.

The analytical results for each excavation were compared to the soil screening levels and background, as appropriate, to identify possible locations for additional work. The results of these comparisons are summarized in Tables 3-3 (Building 49), 3-4 Building 48), 3-5 (Buildings 15 and 17), and 3-6 (PCB excavations).

The limited number of samples with exceedances of screening levels are listed by excavation in Table 3-7 and shown in Figures 3-3, 3-4, and 3-5. For the most part, the exceedances identified in confirmation samples are low in magnitude (less than 10 times the screening level) or surrounded by samples with no exceedances and, consequently, do not merit further assessment or removal. A factor of 10 or less is significant because the screening levels used in this evaluation are one-tenth of the values that represent acceptable levels of risk to potential human receptors (excess lifetime cancer risk of 10^{-5} for carcinogens, and hazard index of 1 for noncarcinogens).

Exceptions are limited to the PCB exceedances at Building 52, where concentrations of PCB-1260 in two sidewall samples and one excavation floor sample exceed the 1 mg /kg screening and cleanup level for PCBs. The sidewall samples were collected where underground structures (glycol line and steam vault) prevented further excavation using mechanical equipment. The excavation floor sample was collected from soil just above the water table; this soil was later removed. However, freezing conditions prevented collection of confirmation soil samples in the saturated zone. Additional soil removal followed by confirmation sampling will be conducted at the three locations.

3.4 Soil and Groundwater Evaluation Results

The objectives of the soil and groundwater contamination evaluation were to identify the COPCs for soil and groundwater at the FCS and to evaluate the distribution of the COPCs in site media to identify possible data gaps that need to be filled to complete the RI and support the baseline risk assessment.

Soil and groundwater COPCs were identified by comparing the results for all in situ soil samples to the soil screening levels and background levels, as appropriate. Summary statistics and results of the COPC evaluations for soil and groundwater are provided in Tables 3-8 and 3-9. The tables contain the same summary statistic categories for soil and groundwater as is presented for sound berm soil, but are organized so that analytes identified as COPCs are listed at the tops of the tables, followed by undetected analytes with a significant number of MDLs above the screening levels (analytes with uncertain COPC status), and analytes that are not COPCs at the end of the table.

As noted in Section 3.3, exceedance magnitudes of 10 or less are significant because the screening levels used in the evaluations are one-tenth of the values that represent acceptable levels of risk to potential human receptors. The locations of screening level exceedances for the organic COPCs were mapped using the following color-coded system:

- **Grey:** sample locations with no screening level exceedances
- **Green:** sample locations with one or more screening level exceedances, where the magnitudes of exceedance for all results are > 1 and ≤ 10 times the screening level.
- **Gold:** sample locations with one or more screening level exceedances, where the magnitude of exceedance for one or more results is >10 and ≤ 100 times the screening level
- **Red:** sample locations with one or more screening level exceedances, where the magnitude of exceedance for one or more results is > 100 times the screening level

If more than one set of groundwater sample results for a monitoring well exceeded a screening level for a particular COPC, the results for the maximum detected concentration for the COPC was mapped. Similarly, for either soil or groundwater, if more than one COPC exceeded its screening level at a location, the COPC with the highest magnitude of exceedance was used to determine the color code for the sample location.

Screening level and background exceedances for arsenic and other metals in soil and groundwater at the FCS were not mapped because most detected concentrations were in the statistical range of established background levels or were collected in areas/intervals where metal debris was found. While these metals have not been mapped, their presence will be considered in the baseline risk assessment.

Potential source areas, groundwater plumes, and other areas of interest were identified by examining the maps for possible patterns in the distribution of COPCs. Special attention was paid to exceedances of screening levels in wells within the anticipated capture zones for the water supply well. These capture zones were modeled by using aquifer testing data

collected in 2007 and estimated pumping rates of 1,000 gallons per minute (gpm) (the usual pumping rate) and an estimated pumping rate of 1,700 gpm (the maximum rate).

3.4.1 Distribution of COPC Exceedances in Soil

The following patterns of COPC occurrence and areas of interest were identified in the review of the soil exceedances map (Figure 3-6):

- **Petroleum Hydrocarbons.** Sample locations with exceedances of the screening levels for DRO and gasoline range organics (GRO) occur in the portion of Subarea B where a POL plume was suspected based on pre-RI sampling results. Although a few low-magnitude (≤ 10 times) exceedance of screening levels are present in near surface soil around the site, the higher magnitude (> 10 times) exceedances of screening levels are at depth, just above the water where released POL would accumulate and spread. The extent of the higher magnitude exceedances appear to be delineated by existing sample locations. Therefore, no further investigation is necessary to support RI and baseline risk assessment activities.

- **PCBs.** The evaluation identified two pre-RI sample locations in Subarea E with concentrations of PCBs greater than the screening and cleanup level for PCBs. Soil removal and confirmation sampling will be conducted in 2008.

- **Chloroform.** Elevated concentrations of chloroform occurred in a number of subsurface soil samples, with no apparent pattern to the exceedances. The magnitudes of exceedance for the samples are low (≤ 10 times the screening level); no further investigation is necessary to support RI and baseline risk assessment activities.

- **TCE**. A single exceedance of the TCE soil screening level was identified just above the water table in the western portion of Subarea B. Reportedly, a large volume of VOC-contaminated soil (determined by high PID readings) was removed from this area before construction of the housing units. The magnitude of exceedance in the sample is less than 10 times the screening level, other soil samples in the area do not contain elevated concentrations of TCE, and groundwater at the location is not affected by TCE. Therefore, no further investigation is necessary to support RI and baseline risk assessment activities.

- **PAHs.** Several surface and near-surface soil samples around the FCS contain concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenzo(a,h)anthrace, and indeno(1,2,3-cd)pyrene at levels above their respective screening levels. Most of the sample results have magnitudes of exceedance less than 10 times the screening levels and are surrounded by samples without exceedances. The exception is a single surface soil sample at SB62, north of Building 11. Aside from sampling in the Building 11 area, no further investigation is necessary to support RI and baseline risk assessment activities.

- **Pesticides.** DDD, DDE, and DDT were detected at concentrations above their respective screening levels at several soil sample locations. Of these, only one DDT result from a pre-RI surface soil sample exceeded the screening level by 10 times or more. The sample location is somewhat collocated; with the high-magnitude PAH exceedance at SB62,

additional investigation is recommended to confirm and delineate the extent of the PAHs and PCBs.

- **n-Nitrosodi-n-propylamine.** This contaminant was detected above its screening level in two pre-RI subsurface soil samples. Both exceedances are of low magnitude; no further investigation is necessary to support the baseline risk assessment and RI.

3.4.2 Distribution of COPC Exceedances in Groundwater

The following patterns of COPC occurrence and areas of interest were identified in the review of the groundwater exceedances map (Figure 3-7):

- **DRO/GRO.** Monitoring wells with elevated concentrations of DRO, GRO, and naphthalene are located in Subarea B where a POL plume was suspected, based on pre-RI sampling results, and where high-magnitude exceedances of soil screening levels for DRO and GRO were found in subsurface soil during the 2007 field investigation. The POL plume extends northward toward the School Age Services building and appears to be delineated by the existing monitoring well network. The plume is not within the capture zone for the water supply well and does not extend to FCS boundary. Further delineation is not necessary to complete the RI and baseline risk assessment.

- **RRO.** Petroleum hydrocarbons in the form of residual range organics (RRO) were reported at concentrations above the screening level in groundwater samples obtained from a number of monitoring wells. Most of the exceedances occur in wells outside the POL plume, and the reported concentrations in the wells are quite similar to one another—suggesting that naturally occurring, longer-chain organic compounds may have been detected during the analysis. All RRO exceedances are less than 10 times the screening level, and further delineation is not necessary to complete the RI and baseline risk assessment.

- **Trichloroethene (TCE) and tetrachloroethene (PCE).** A long, somewhat narrow plume of dissolved TCE and PCE was identified in the western portion of Subarea A. Other chlorinated organic compounds, which may be degradation products for TCE and PCE, are also present in the plume. Based on concentration gradients, the plume appears to originate in the vicinity of MW61 and follows the general northward trend of the former slough channel. Additional monitoring wells and sampling are needed to complete delineation of the TCE/PCE plume.

- **1,2,3-Trichloropropane.** 1,2,3-trichloropropane was detected above the screening level in two monitoring wells located adjacent to the capture zone for the water supply well (MW08 and MW47). The reported concentrations in both wells are more than 10 times the screening level. The compound was not detected in any other well at the FCS, and—per discussions at the April 15, 2008, FFA meeting—the compound may be a misidentified C3-substituted benzene rather than 1,2,3-trichloropropane. Additional laboratory data have been requested to evaluate this possibility.

- **Pesticides.** Dieldrin and heptachlor were detected above screening levels in single samples within the overall groundwater data set. The heptachlor at MW06B co-occurs with other COPCs, including DRO and several explosives-related compounds. No other COPCs were detected above screening levels at MW03. The magnitudes of exceedance

for both samples are less than 10 times the screening level and do not require further delineation.

- **Explosives.** RDX [hexahydro-1,3,5-trinitro-1,3,5-triazine] and nitrobenzene have been detected above screening levels during several monitoring events at MW06A, MW06B, and MW12. As indicated in the RIWP, the presence of high concentrations of DRO in samples may cause interference in the analytical method used to quantify these compounds, so their actual presence in site groundwater is uncertain. The magnitudes of exceedance are low (less than 10 times the screening level), and their extent appears to be delineated by existing wells. No additional wells are needed to delineate the extent of these compounds.

3.5 Soil Gas Evaluation Results

Six analytes detected in soil gas were identified as COPCs for indoor air based on comparison of the soil gas data to the ambient air screening levels (Table 3-12). The 45 soil gas sample locations where one or more detected result exceeded a screening level are shown in Figure 3-8. Twenty-two additional analytes were undetected but had MDLs that exceeded the ambient air screening level. The MDLs for many of these analytes were elevated because of the unanticipated presence of high levels of Freon-related compounds in the soil gas. The Freon-related compounds may be related to foam board and spray insulation construction of the housing development. These Freon compounds were not considered target analytes for the RI. The distribution of Freon-related compounds in the soil gas is shown in Appendix A, Figure A-1.

Analytical data for each COPC were further evaluated to provide a preliminary indication of the potential for migration into indoor air at each residential housing unit. The *Johnson and Ettinger (1991) Model for Subsurface Vapor Intrusion into Buildings, Updated 2003* (SG-ADV Version 3.1; 02/04) (EPA, 2003) was used to estimate exposure from vapor intrusion. Building dimensions, foundation thickness, sample depth, and other model parameters used in the vapor intrusion model were determined from the residential housing plans used at the FCS. Many of the exposure and modeling assumptions were the defaults specified in the guidance. However, additional site-specific factors were adjusted from the default values to provide site-specific estimates of exposure to vapors at the FCS. More information about the input parameters for the model is provided in Appendix A.

Johnson and Ettinger model risks were estimated for the 45 locations with screening level exceedances. For these locations, the excess lifetime cancer risk (ELCR) estimates ranged from non-detect to $8x10^{-6}$ at location SG042-L. None of the locations where COPCs were detected had estimated ELCR estimates exceeding $1x10^{-5}$ of noncancer hazard index estimates exceeding 1.0. Although these results are favorable, there is some uncertainty associated with the levels of detection and interferences encountered during the soil gas investigation.

3.6 Ecological Screening Evaluation Results

As indicated in Appendix B, the risk to terrestrial wildlife and offsite aquatic resources potentially exposed to COPECs occurring in the drainage swale and groundwater is

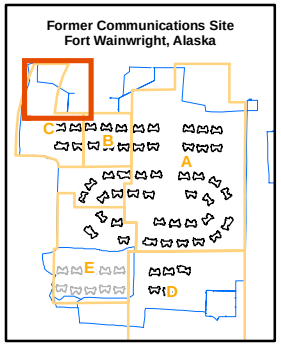
believed to be low. This conclusion was drawn in consideration of the relatively low magnitudes by which COPEC concentrations exceed relevant screening levels, indicating that unacceptable risk to ecological populations is unlikely. Given these findings, no data gaps were identified that would require additional sampling from the drainage swale or perimeter well points to address ecological risk.

LEGEND

- Security Fence
- Former Hoppe's Slough
- Multi Incremental Decision Unit Boundary
- Soil Pile

Magnitude of Exceedance

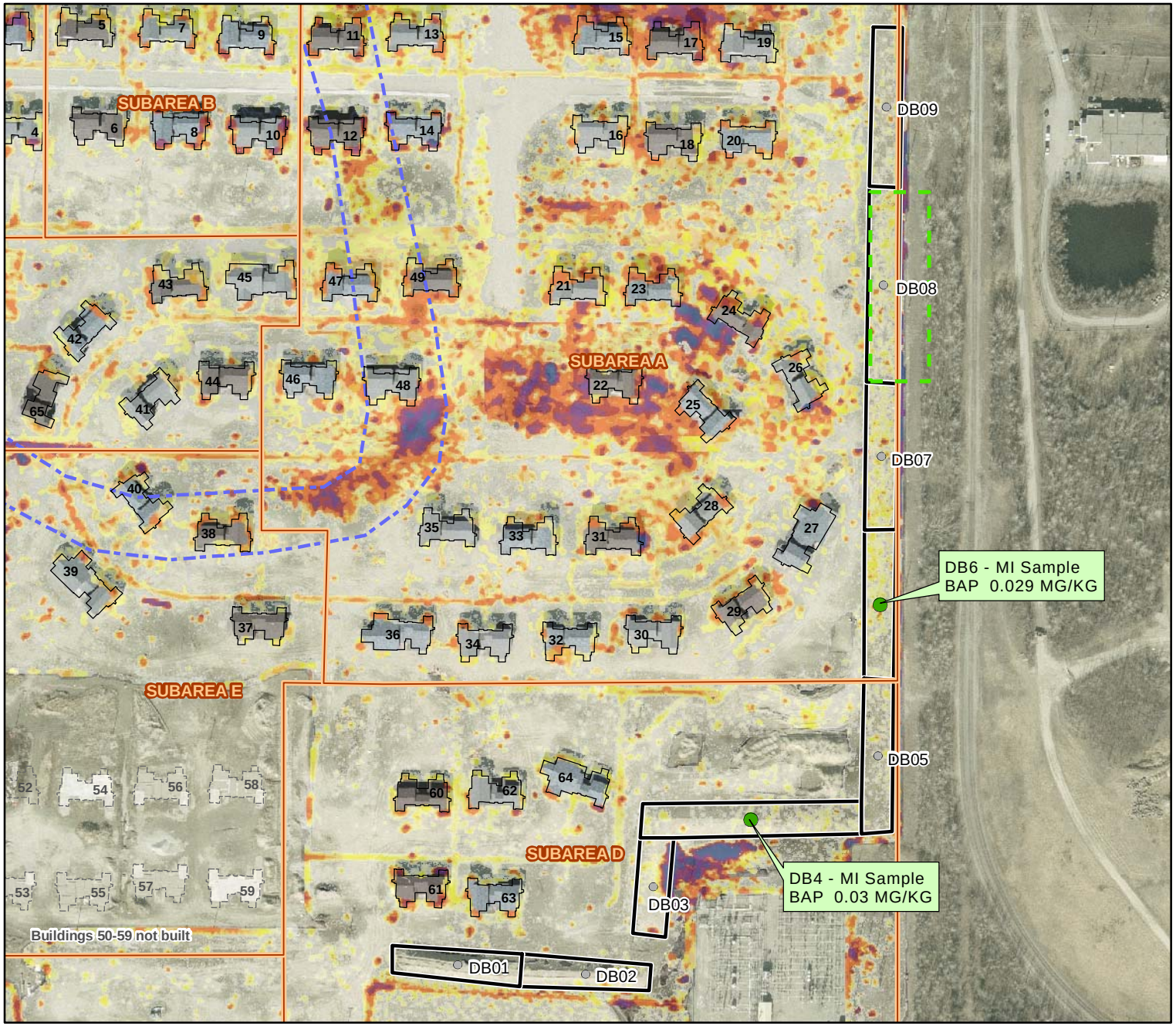
- Concentrations >1 and <= 10X the screening level



0 75
Feet

N

FIGURE 3-1
Soil Pile Sample Results with Exceedances of Landfill Acceptance Criteria
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report



LEGEND

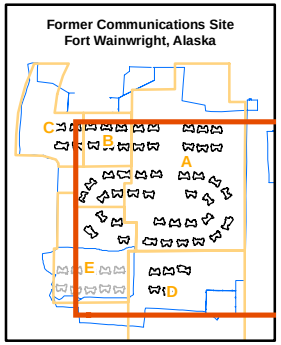
- Transformer Service Area
- Former Hoppe's Slough
- Multi Incremental Decision Unit Boundary

Magnitude of Exceedance

- Concentrations >1 and <= 10X the screening level
- Concentrations less than the screening level

March 2007 Magnetic Data
EM61 Results (mV)

-1500	100
-20	200
20	300
30	500
50	1000
75	2000



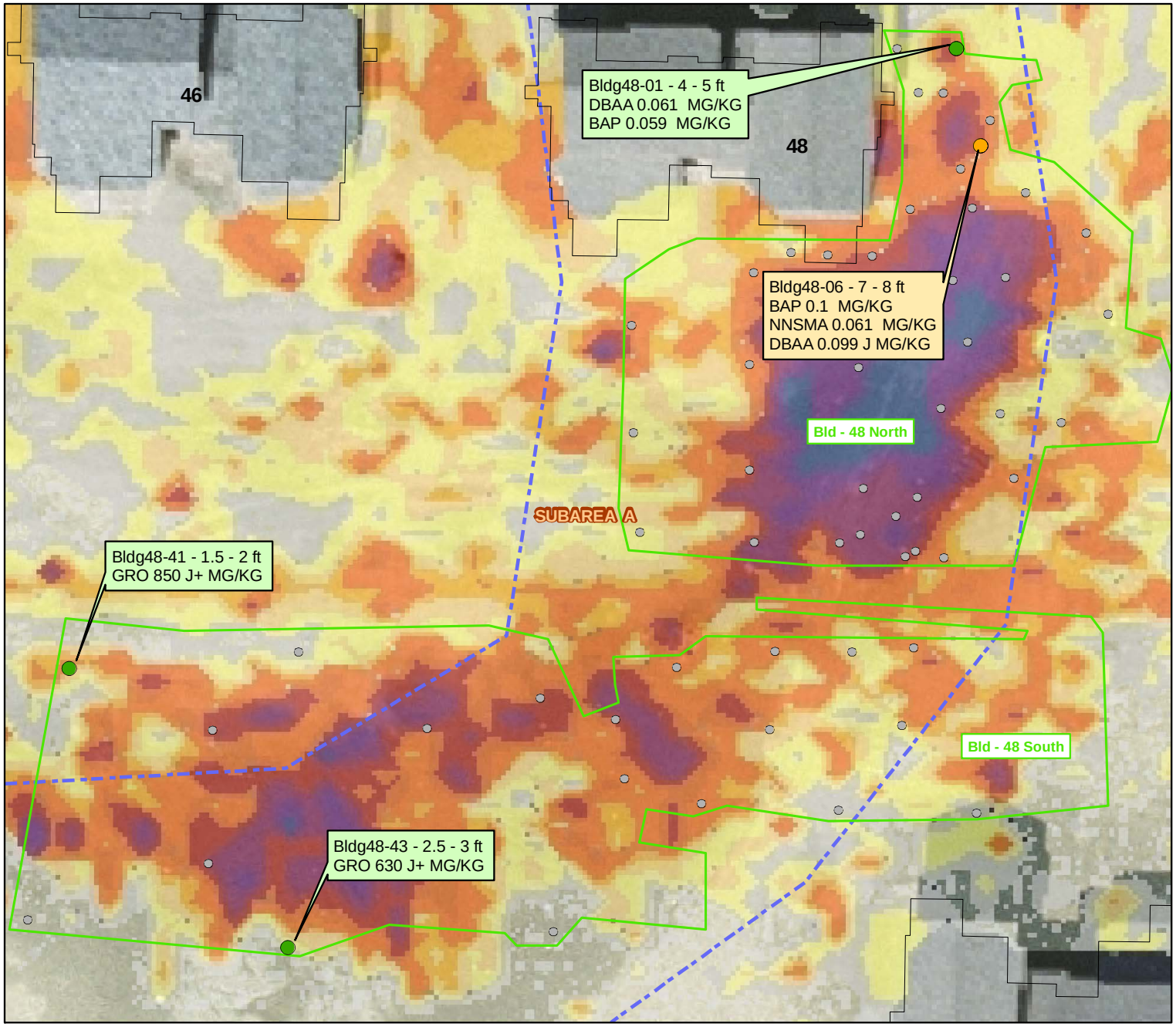
0 250
Feet

N

FIGURE 3-2
Sound Berm Multi-Incremental Sample Results
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

CH2MHILL

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig3-2_SoundBerm_MI_Results.mxd, Date: April 26, 2008



LEGEND

2007 Drum and Debris Excavation Area

Former Hoppe's Slough

Magnitude of Exceedance

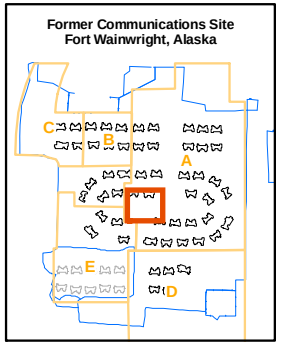
Concentration >10 and <=100x the screening level

Concentration >1 and <=10 X the screening level

Concentration less than the screening level

March 2007 Magnetic Data
EM61 Results (mV)

-1500	100
-20	200
20	300
30	500
50	1000
75	2000



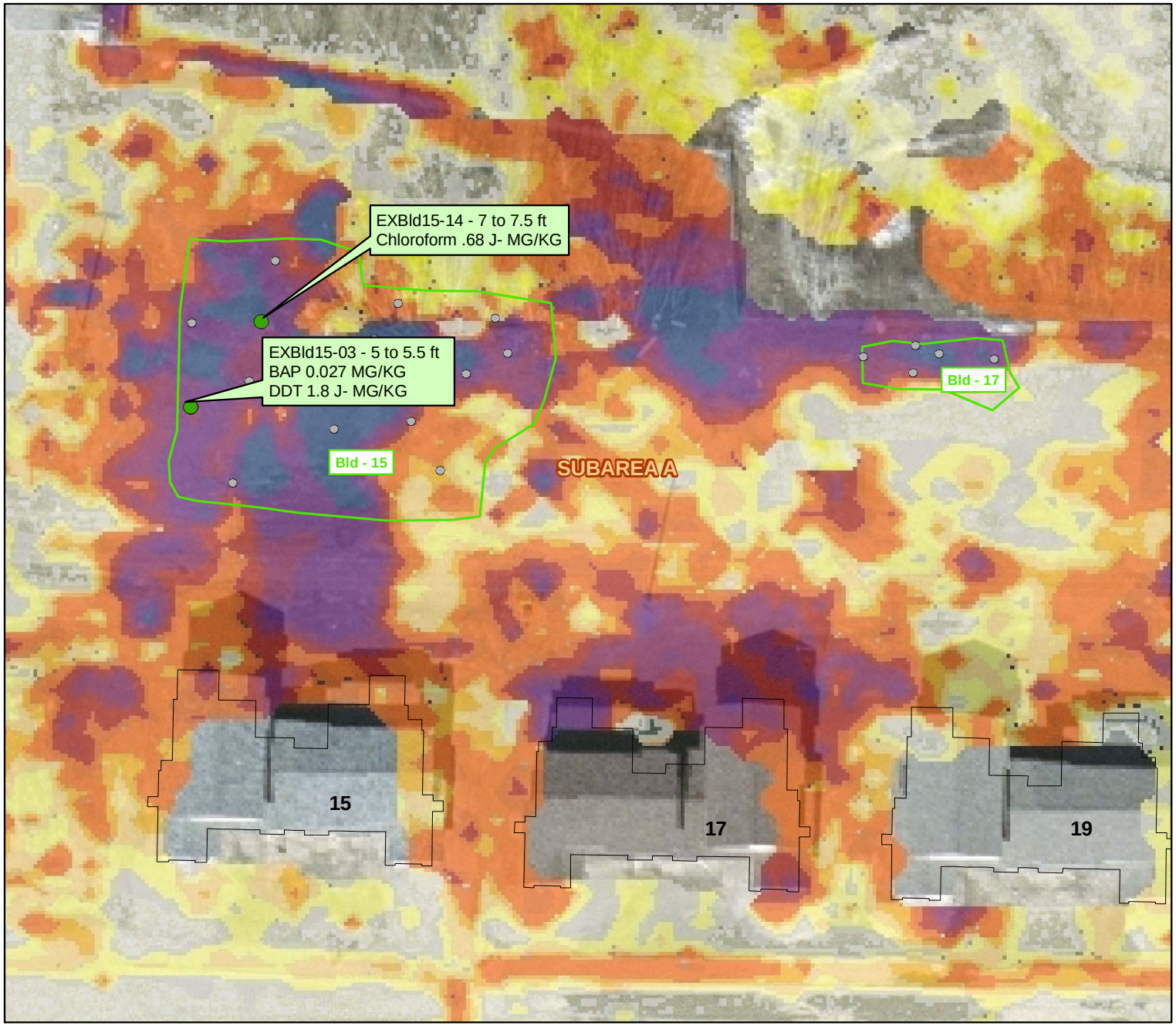
0 40
Feet

N

FIGURE 3-3
Building 48 Drum and Debris Investigation Confirmation Samples with Exceedance of Screening Level
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

CH2MHILL

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig3-3_Building48_ExceedanceLevel.mxd, Date: April 26, 2008 12:18:46 PM



LEGEND

2007 Drum and Debris Excavation Area

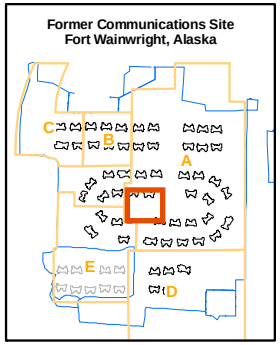
Magnitude of Exceedance

Concentrations >1 and <1=10X the screening level

Concentration less than the screening level

March 2007 Magnetic Data EM61 Results (mV)

-1500	100
-20	200
20	300
30	500
50	1000
75	2000



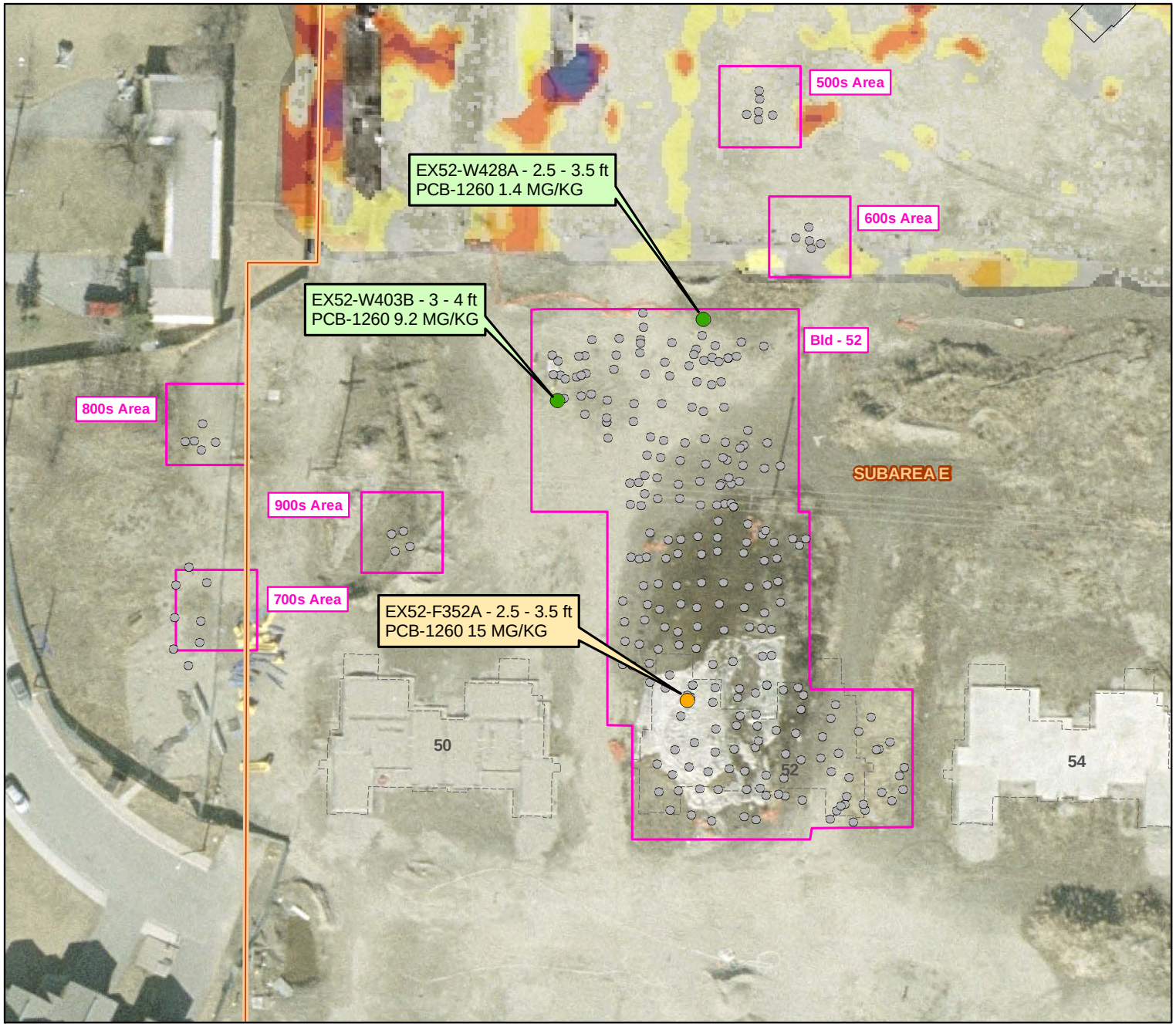
0 50
Feet

N

FIGURE 3-4
Building 15 and 17 Drum and Debris Investigation Confirmation Samples with Exceedances of Screening Levels
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

CH2MHILL

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig3-4_Building15_17_ExceedanceLevel.mxd, Date: April 26, 2008 12:44:02 PM



LEGEND

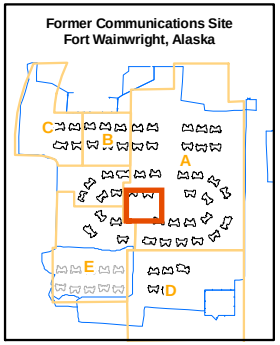
2007 PCB Investigation Area

Magnitude of Exceedance

- Concentrations >1 and <1=10X the screening level
- Concentrations >10 and <= to 100X the screening level
- Concentration less than the screening level

March 2007 Magnetic Data EM61 Results (mV)

-1500	100
-20	200
20	300
30	500
50	1000
75	2000



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Feet

N

FIGURE 3-5
Building 52 PCB Investigation Confirmation Samples with Exceedances of Screening Levels
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

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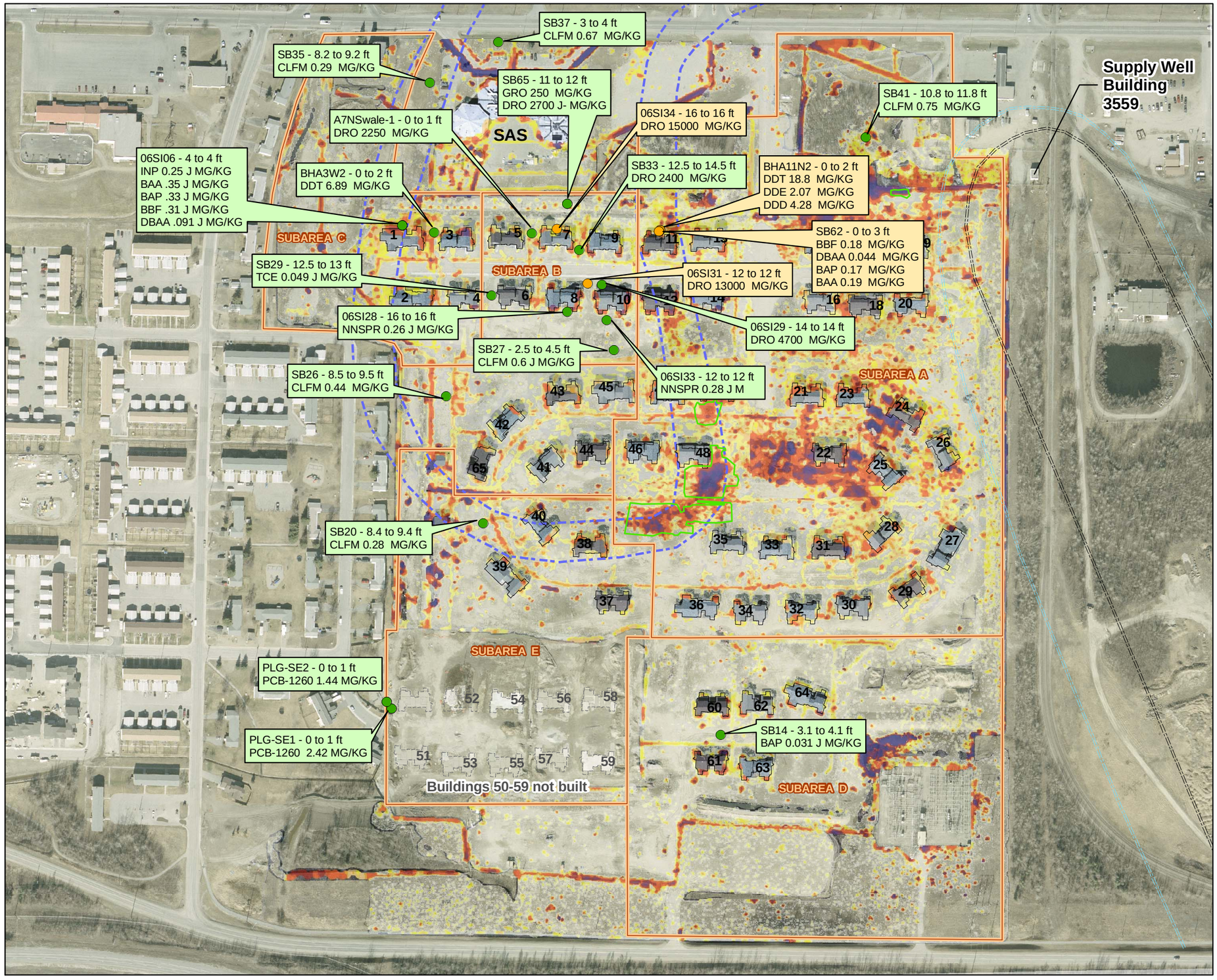
File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig3-5_Building52_PCB_ExceedanceLevel.mxd, Date: April 26, 2008 12:52:09 PM



LEGEND

1,700 gpm Pumping Rate Water Supply Capture Zone

1,000 gpm Pumping Rate Water Supply Capture Zone

2007 Drum and Debris Excavation Area

Former Hoppe's Slough

Magnitude of Exceedance

- Concentration >10 and <=100x the screening level
- Concentration >1 and <=10 X the screening level
- Concentration less than the screening level

March 2007 Magnetic Data

EM61 Results (mV)

- -1500
- -20
- 20
- 30
- 50
- 75
- 100
- 200
- 300
- 500
- 1000
- 2000

NOTE:
This figure includes both pre-RI soil sample locations and 2007 soil sample locations with the exception of 2007 comfirmation samples taken during the Drum and Debris Excavation and PCB Investigation

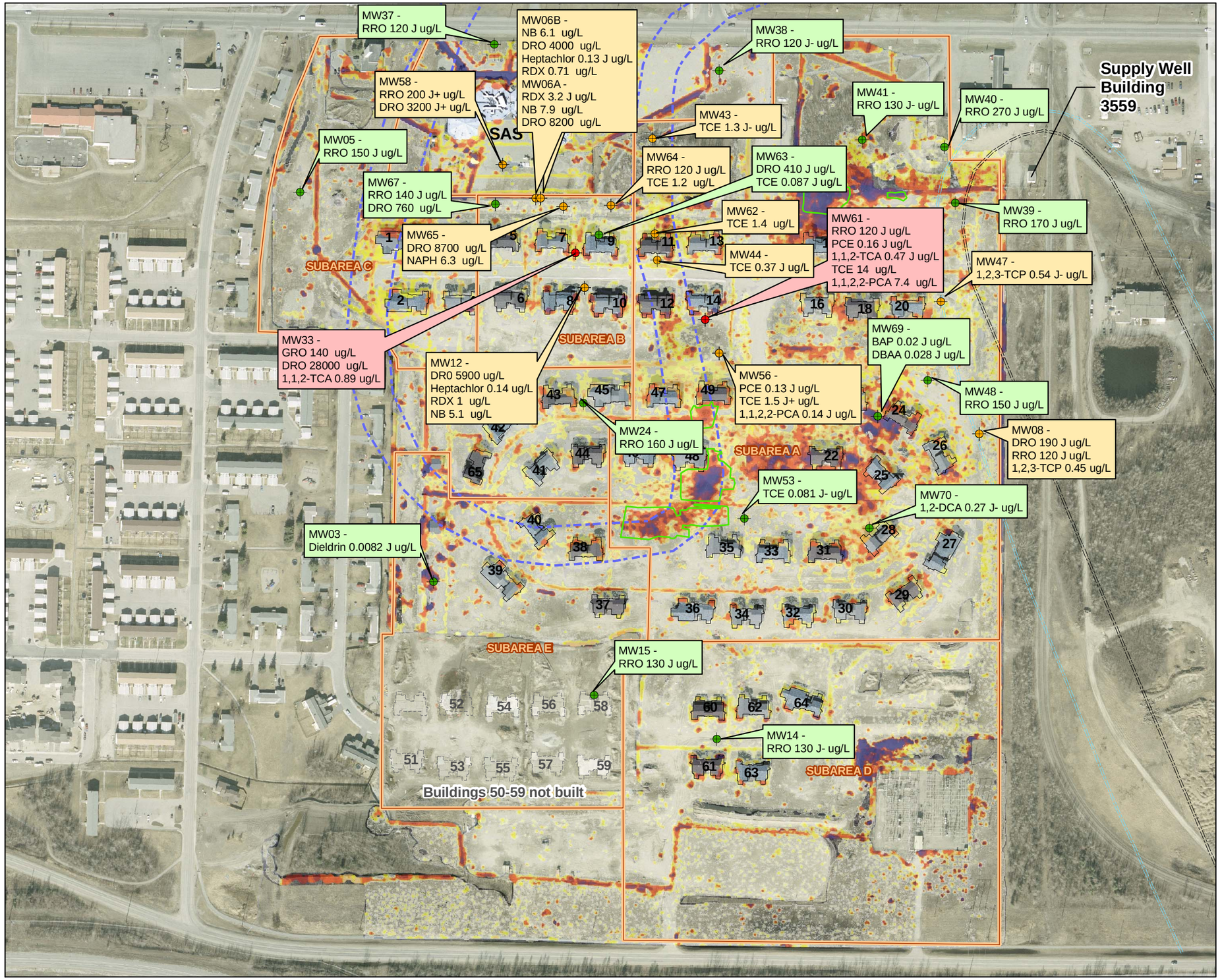
0 275
Feet

N

FIGURE 3-6
In-Situ Soil Sample Locations with Exceedances of Screening Levels (Excluding 2007 Confirmation Samples)
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

CH2MHILL

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig3-6_SS_Exceed.mxd, Date: April 28, 2008 10:20:00 AM



LEGEND

1,700 gpm Pumping Rate Water Supply Capture Zone

1,000 gpm Pumping Rate Water Supply Capture Zone

2007 Drum and Debris Excavation Area

Former Hoppe's Slough

Magnitude of Exceedance

- Concentration > 100 X the screening level
- Concentration >10 and <=100x the screening level
- Concentration >1 and <=10 X the screening level
- Concentration less than the screening level

March 2007 Magnetic Data

EM61 Results (mV)

- -1500
- -20
- 20
- 30
- 50
- 75
- 100
- 200
- 300
- 500
- 1000
- 2000

FIGURE 3-7
Groundwater Sample Locations with Exceedances of Screening Levels
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig3-7_GW_Exceed.mxd, Date: April 28, 2008 10:47:49 AM

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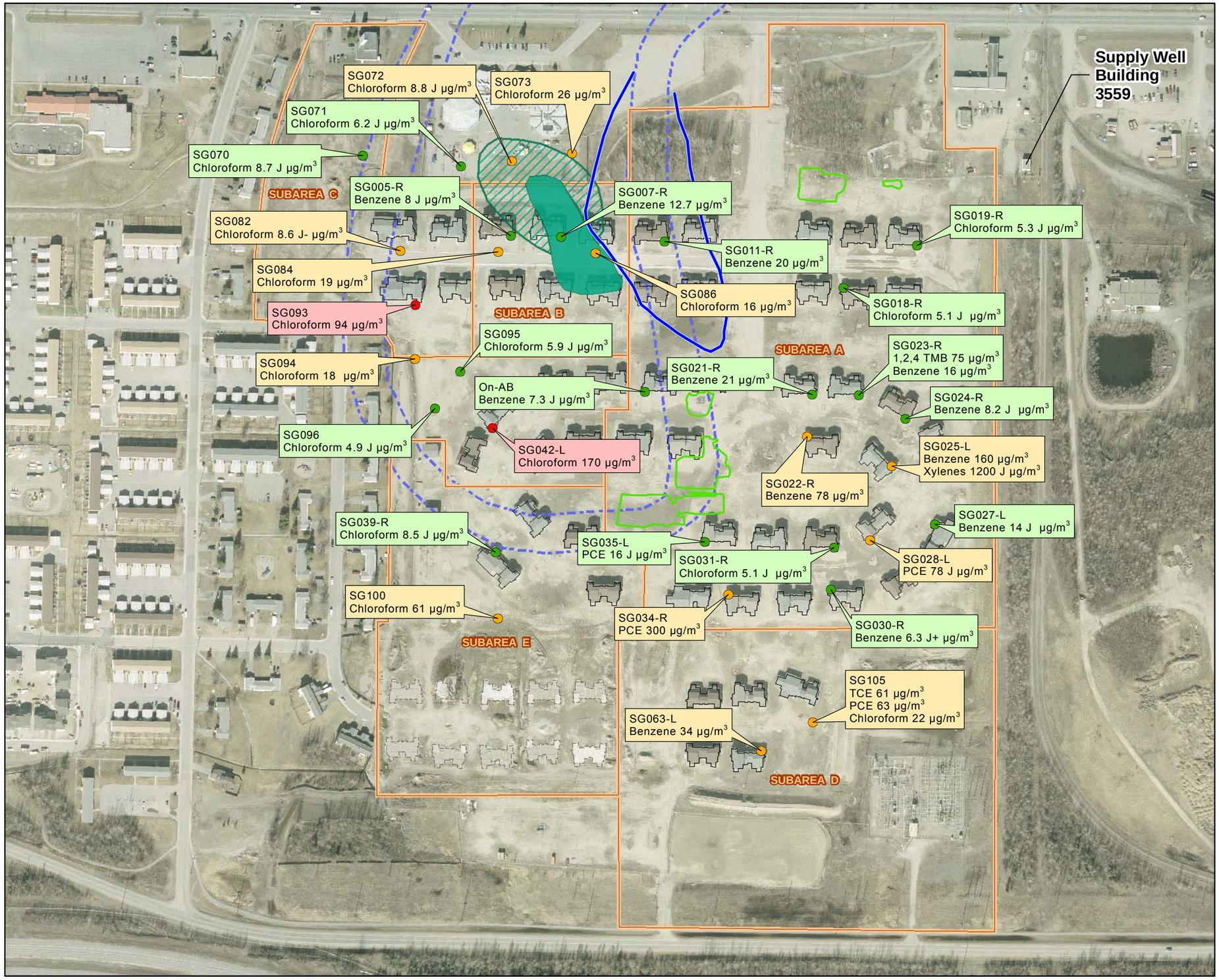

FIGURE 3-8
Soil Gas Sample Locations
with Exceedances of Screening Levels
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

CH2MHILL

File Path: \\Simba\Proj\USArmyCorpsOfEnginee\357465TakuGardens\GIS\MapDocuments\PRSE_Report\Fig3-8_SoilGas_Exceed.mxd, Date: April 28, 2008

TABLE 3-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in DB09 Triplicate Samples
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Location	Sample	CAS Number	Analyte	Result	Result Flag	Units	X	S	RSD	t	SQRT n	95UCL	Adj Factor
DB09-01	07FW-DB09-01-080107	78-93-3	2-Butanone	0.027	U	mg/kg							
DB09-02	07FW-DB09-02-080107	78-93-3	2-Butanone	0.027	U	mg/kg							
DB09-03	07FW-DB09-03-080107	78-93-3	2-Butanone	0.056		mg/kg							
			2-Butanone				0.04	0.02	45.66	2.92	1.73	0.06	0.03
DB09-01	07FW-DB09-01-080107	72-54-8	4,4'-DDD	0.056	J	mg/kg							
DB09-02	07FW-DB09-02-080107	72-54-8	4,4'-DDD	0.047	J	mg/kg							
DB09-03	07FW-DB09-03-080107	72-54-8	4,4'-DDD	0.047		mg/kg							
			4,4'-DDD				0.05	0.01	10.39	2.92	1.73	0.06	0.01
DB09-01	07FW-DB09-01-080107	72-55-9	4,4'-DDE	0.052	J	mg/kg							
DB09-02	07FW-DB09-02-080107	72-55-9	4,4'-DDE	0.051	J	mg/kg							
DB09-03	07FW-DB09-03-080107	72-55-9	4,4'-DDE	0.058		mg/kg							
			4,4'-DDE				0.05	0.00	7.05	2.92	1.73	0.06	0.01
DB09-01	07FW-DB09-01-080107	50-29-3	4,4'-DDT	0.58	J	mg/kg							
DB09-02	07FW-DB09-02-080107	50-29-3	4,4'-DDT	0.32	J	mg/kg							
DB09-03	07FW-DB09-03-080107	50-29-3	4,4'-DDT	0.38		mg/kg							
			4,4'-DDT				0.43	0.14	31.91	2.92	1.73	0.66	0.23
DB09-01	07FW-DB09-01-080107	67-64-1	Acetone	0.19	J	mg/kg							
DB09-02	07FW-DB09-02-080107	67-64-1	Acetone	0.1	UJ	mg/kg							
DB09-03	07FW-DB09-03-080107	67-64-1	Acetone	0.18		mg/kg							
			Acetone				0.16	0.05	31.49	2.92	1.73	0.24	0.08
DB09-01	07FW-DB09-01-080107	7429-90-5	Aluminum	8860		mg/kg							
DB09-02	07FW-DB09-02-080107	7429-90-5	Aluminum	9290		mg/kg							
DB09-03	07FW-DB09-03-080107	7429-90-5	Aluminum	9530		mg/kg							
			Aluminum				9226.67	339.46	3.68	2.92	1.73	9798.95	572.28
DB09-01	07FW-DB09-01-080107	7440-36-0	Antimony	0.51	J	mg/kg							
DB09-02	07FW-DB09-02-080107	7440-36-0	Antimony	0.47	J	mg/kg							
DB09-03	07FW-DB09-03-080107	7440-36-0	Antimony	1.4		mg/kg							
			Antimony				0.79	0.53	66.27	2.92	1.73	1.68	0.89
DB09-01	07FW-DB09-01-080107	7440-38-2	Arsenic	8.4		mg/kg							
DB09-02	07FW-DB09-02-080107	7440-38-2	Arsenic	8		mg/kg							
DB09-03	07FW-DB09-03-080107	7440-38-2	Arsenic	8.1		mg/kg							
DB09-02	07FW-DB09-02-080107	7440-39-3	Barium	111		mg/kg							
DB09-03	07FW-DB09-03-080107	7440-39-3	Barium	105		mg/kg							
DB09-01	07FW-DB09-01-080107	71-43-2	Benzene	0.0034	U	mg/kg							
DB09-02	07FW-DB09-02-080107	71-43-2	Benzene	0.0034	U	mg/kg							
DB09-03	07FW-DB09-03-080107	71-43-2	Benzene	0.0052		mg/kg							
			Benzene				0.00	0.00	25.98	2.92	1.73	0.01	0.00
DB09-01	07FW-DB09-01-080107	7440-41-7	Beryllium	0.029	J	mg/kg							
DB09-02	07FW-DB09-02-080107	7440-41-7	Beryllium	0.028	J	mg/kg							
DB09-03	07FW-DB09-03-080107	7440-41-7	Beryllium	0.14		mg/kg							

TABLE 3-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in DB09 Triplicate Samples
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Location	Sample	CAS Number	Analyte	Result	Result Flag	Units	X	S	RSD	t	SQRT n	95UCL	Adj Factor
			Beryllium				0.07	0.06	98.04	2.92	1.73	0.17	0.11
DB09-01	07FW-DB09-01-080107	117-81-7	bis-(2-Ethylhexyl)phthalate	0.025	UJ	mg/kg							
DB09-02	07FW-DB09-02-080107	117-81-7	bis-(2-Ethylhexyl)phthalate	0.025	U	mg/kg							
DB09-03	07FW-DB09-03-080107	117-81-7	bis-(2-Ethylhexyl)phthalate	0.058		mg/kg							
			bis-(2-Ethylhexyl)phthalate				0.04	0.02	52.92	2.92	1.73	0.07	0.03
DB09-01	07FW-DB09-01-080107	7440-42-8	Boron	0.77	J	mg/kg							
DB09-02	07FW-DB09-02-080107	7440-42-8	Boron	0.89	J	mg/kg							
DB09-03	07FW-DB09-03-080107	7440-42-8	Boron	0.86		mg/kg							
			Boron				0.84	0.06	7.43	2.92	1.73	0.95	0.11
DB09-01	07FW-DB09-01-080107	7440-43-9	Cadmium	0.2		mg/kg							
DB09-02	07FW-DB09-02-080107	7440-43-9	Cadmium	0.19		mg/kg							
DB09-03	07FW-DB09-03-080107	7440-43-9	Cadmium	0.2		mg/kg							
			Cadmium				0.20	0.01	2.94	2.92	1.73	0.21	0.01
DB09-01	07FW-DB09-01-080107	7440-70-2	Calcium	6160		mg/kg							
DB09-02	07FW-DB09-02-080107	7440-70-2	Calcium	6470		mg/kg							
DB09-03	07FW-DB09-03-080107	7440-70-2	Calcium	6540		mg/kg							
			Calcium				6390.00	202.24	3.16	2.92	1.73	6730.94	340.94
DB09-01	07FW-DB09-01-080107	7440-47-3	Chromium	18.5		mg/kg							
DB09-02	07FW-DB09-02-080107	7440-47-3	Chromium	17.5		mg/kg							
DB09-03	07FW-DB09-03-080107	7440-47-3	Chromium	17.5		mg/kg							
			Chromium				17.83	0.58	3.24	2.92	1.73	18.81	0.97
DB09-01	07FW-DB09-01-080107	7440-48-4	Cobalt	8.4		mg/kg							
DB09-02	07FW-DB09-02-080107	7440-48-4	Cobalt	8.1		mg/kg							
DB09-03	07FW-DB09-03-080107	7440-48-4	Cobalt	7.2		mg/kg							
			Cobalt				7.90	0.62	7.91	2.92	1.73	8.95	1.05
DB09-01	07FW-DB09-01-080107	7440-50-8	Copper	23.4		mg/kg							
DB09-02	07FW-DB09-02-080107	7440-50-8	Copper	22.2		mg/kg							
DB09-03	07FW-DB09-03-080107	7440-50-8	Copper	24		mg/kg							
			Copper				23.20	0.92	3.95	2.92	1.73	24.75	1.55
DB09-01	07FW-DB09-01-080107	60-57-1	Dieldrin	0.017	U	mg/kg							
DB09-02	07FW-DB09-02-080107	60-57-1	Dieldrin	0.0099	J	mg/kg							
DB09-03	07FW-DB09-03-080107	60-57-1	Dieldrin	0.012		mg/kg							
			Dieldrin				0.01	0.00	28.13	2.92	1.73	0.02	0.01
DB09-01	07FW-DB09-01-080107	100-41-4	Ethylbenzene	0.0068	U	mg/kg							
DB09-02	07FW-DB09-02-080107	100-41-4	Ethylbenzene	0.0068	U	mg/kg							
DB09-03	07FW-DB09-03-080107	100-41-4	Ethylbenzene	0.0068		mg/kg							
			Ethylbenzene				0.01	0.00	0.00	2.92	1.73	0.01	0.00
DB09-01	07FW-DB09-01-080107	7439-89-6	Iron	18900		mg/kg							
DB09-02	07FW-DB09-02-080107	7439-89-6	Iron	19700		mg/kg							
DB09-03	07FW-DB09-03-080107	7439-89-6	Iron	19700		mg/kg							

TABLE 3-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in DB09 Triplicate Samples
Former Communications Site, Fort Wainwright, Alaska
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Location	Sample	CAS Number	Analyte	Result	Result Flag	Units	X	S	RSD	t	SQRT n	95UCL	Adj Factor
			Iron				19433.33	461.88	2.38	2.92	1.73	20212.00	778.67
DB09-01	07FW-DB09-01-080107	7439-92-1	Lead	14		mg/kg							
DB09-02	07FW-DB09-02-080107	7439-92-1	Lead	14.4		mg/kg							
DB09-03	07FW-DB09-03-080107	7439-92-1	Lead	13.9		mg/kg							
			Lead				14.10	0.26	1.88	2.92	1.73	14.55	0.45
DB09-01	07FW-DB09-01-080107	7439-95-4	Magnesium	5300		mg/kg							
DB09-02	07FW-DB09-02-080107	7439-95-4	Magnesium	5540		mg/kg							
DB09-03	07FW-DB09-03-080107	7439-95-4	Magnesium	5570		mg/kg							
			Magnesium				5470.00	147.99	2.71	2.92	1.73	5719.48	249.48
DB09-01	07FW-DB09-01-080107	7439-96-5	Manganese	338		mg/kg							
DB09-02	07FW-DB09-02-080107	7439-96-5	Manganese	317		mg/kg							
DB09-03	07FW-DB09-03-080107	7439-96-5	Manganese	315		mg/kg							
			Manganese				323.33	12.74	3.94	2.92	1.73	344.81	21.48
DB09-01	07FW-DB09-01-080107	7439-97-6	Mercury	0.038		mg/kg							
DB09-02	07FW-DB09-02-080107	7439-97-6	Mercury	0.036		mg/kg							
DB09-03	07FW-DB09-03-080107	7439-97-6	Mercury	0.032		mg/kg							
			Mercury				0.04	0.00	8.65	2.92	1.73	0.04	0.01
DB09-01	07FW-DB09-01-080107	7440-02-0	Nickel	20.1		mg/kg							
DB09-02	07FW-DB09-02-080107	7440-02-0	Nickel	19.2		mg/kg							
DB09-03	07FW-DB09-03-080107	7440-02-0	Nickel	17.9		mg/kg							
			Nickel				19.07	1.11	5.80	2.92	1.73	20.93	1.86
DB09-01	07FW-DB09-01-080107	11096-82-5	PCB-1260 (Aroclor 1260)	0.045		mg/kg							
DB09-02	07FW-DB09-02-080107	11096-82-5	PCB-1260 (Aroclor 1260)	0.042		mg/kg							
DB09-03	07FW-DB09-03-080107	11096-82-5	PCB-1260 (Aroclor 1260)	0.04		mg/kg							
			PCB-1260 (Aroclor 1260)				0.04	0.00	5.94	2.92	1.73	0.05	0.00
DB09-01	07FW-DB09-01-080107	7440-09-7	Potassium	883		mg/kg							
DB09-02	07FW-DB09-02-080107	7440-09-7	Potassium	999		mg/kg							
DB09-03	07FW-DB09-03-080107	7440-09-7	Potassium	951		mg/kg							
			Potassium				944.33	58.29	6.17	2.92	1.73	1042.60	98.26
DB09-01	07FW-DB09-01-080107	7782-49-2	Selenium	0.42		mg/kg							
DB09-02	07FW-DB09-02-080107	7782-49-2	Selenium	0.38		mg/kg							
DB09-03	07FW-DB09-03-080107	7782-49-2	Selenium	0.4		mg/kg							
			Selenium				0.40	0.02	5.00	2.92	1.73	0.43	0.03
DB09-01	07FW-DB09-01-080107	7440-22-4	Silver	0.088		mg/kg							
DB09-02	07FW-DB09-02-080107	7440-22-4	Silver	0.085		mg/kg							
DB09-03	07FW-DB09-03-080107	7440-22-4	Silver	0.1		mg/kg							
			Silver				0.09	0.01	8.72	2.92	1.73	0.10	0.01
DB09-01	07FW-DB09-01-080107	7440-23-5	Sodium	369		mg/kg							
DB09-02	07FW-DB09-02-080107	7440-23-5	Sodium	389		mg/kg							
DB09-03	07FW-DB09-03-080107	7440-23-5	Sodium	362		mg/kg							

TABLE 3-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in DB09 Triplicate Samples
Former Communications Site, Fort Wainwright, Alaska
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Location	Sample	CAS Number	Analyte	Result	Result Flag	Units	X	S	RSD	t	SQRT n	95UCL	Adj Factor
			Sodium				373.33	14.01	3.75	2.92	1.73	396.96	23.62
DB09-01	07FW-DB09-01-080107	7440-28-0	Thallium	0.049	J	mg/kg							
DB09-02	07FW-DB09-02-080107	7440-28-0	Thallium	0.046	J	mg/kg							
DB09-03	07FW-DB09-03-080107	7440-28-0	Thallium	0.056		mg/kg							
			Thallium				0.05	0.01	10.20	2.92	1.73	0.06	0.01
DB09-01	07FW-DB09-01-080107	108-88-3	Toluene	0.0097	J+	mg/kg							
DB09-02	07FW-DB09-02-080107	108-88-3	Toluene	0.0086	J+	mg/kg							
DB09-03	07FW-DB09-03-080107	108-88-3	Toluene	0.023		mg/kg							
			Toluene				0.01	0.01	58.22	2.92	1.73	0.03	0.01
DB09-01	07FW-DB09-01-080107	PHCD	TPH-Diesel (DRO)	7.7	J-	mg/kg							
DB09-02	07FW-DB09-02-080107	PHCD	TPH-Diesel (DRO)	8.6	J-	mg/kg							
DB09-03	07FW-DB09-03-080107	PHCD	TPH-Diesel (DRO)	6.5		mg/kg							
			TPH-Diesel (DRO)				7.60	1.05	13.86	2.92	1.73	9.38	1.78
DB09-01	07FW-DB09-01-080107	TPH-Oil	TPH-Motor Oil (RRO)	47	J-	mg/kg							
DB09-02	07FW-DB09-02-080107	TPH-Oil	TPH-Motor Oil (RRO)	47	J-	mg/kg							
DB09-03	07FW-DB09-03-080107	TPH-Oil	TPH-Motor Oil (RRO)	43		mg/kg							
			TPH-Motor Oil (RRO)				45.67	2.31	5.06	2.92	1.73	49.56	3.89
DB09-01	07FW-DB09-01-080107	7440-62-2	Vanadium	33.1		mg/kg							
DB09-02	07FW-DB09-02-080107	7440-62-2	Vanadium	31.7		mg/kg							
DB09-03	07FW-DB09-03-080107	7440-62-2	Vanadium	31.4		mg/kg							
			Vanadium				32.07	0.91	2.83	2.92	1.73	33.60	1.53
DB09-01	07FW-DB09-01-080107	7440-66-6	Zinc	42.1		mg/kg							
DB09-02	07FW-DB09-02-080107	7440-66-6	Zinc	41.9		mg/kg							
DB09-03	07FW-DB09-03-080107	7440-66-6	Zinc	43.3		mg/kg							
y			**Zinc**				42.43	0.76	1.78	2.92	1.73	43.71	1.28

X	Mean = sum of results divided by number of samples (MDL used for non-detects)
S	standard deviation
RSD	relative standard deviation (100 x standard deviation/mean)
n	number of samples
t	95% one-sided student t factor (for n = 3, t = 2.92)
SQRT	square-root
95UCL	95% upper confidence limit (replaces triplicate results with a single value)
	(mean + (95% one-sided t factor x standard deviation/ SQRT of n))
Adj Factor	adjustment factor (added to individual MI results for decision units associated with triplicate sample)
	(95% one-sided t factor x standard deviation/ SQRT of n

--	no result	NV	no value	VOC	volatile organic compound
EXP	explosives	PEST	pesticides	TPH	total petroleum hydrocarbon
HERB	herbicides	SL	screening Level	DRO	diesel range organics
MDL	method detection limit	SVOC	semi-volatile organic compound	RRO	residual range organics
mg/kg	milligrams per kilogram	TPH	total petroleum hydrocarbons		

TABLE 3-2
Summary Statistics for 95UCL-Adjusted Sound Berm MI Samples
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
VOC	1,1,1,2-Tetrachloroethane	mg/kg	--	9	0%	0.0031	0.0061	--	--	3	--	--
VOC	1,1,1-Trichloroethane	mg/kg	--	9	0%	0.0034	0.0067	--	--	1385	--	--
VOC	1,1,2,2-Tetrachloroethane	mg/kg	--	9	0%	0.0030	0.0059	--	--	0.38	--	--
VOC	1,1,2-Trichloroethane	mg/kg	--	9	0%	0.0029	0.0057	--	--	0.84	--	--
VOC	1,1-Dichloroethane	mg/kg	--	9	0%	0.0030	0.0058	--	--	85	--	--
VOC	1,1-Dichloroethene	mg/kg	--	9	0%	0.0045	0.0089	--	--	28	--	--
VOC	1,1-Dichloropropene	mg/kg	--	9	0%	0.0023	0.0044	--	--	--	--	--
VOC	1,2,3-Trichlorobenzene	mg/kg	--	9	0%	0.0033	0.0064	--	--	--	--	--
VOC	1,2,3-Trichloropropane	mg/kg	--	9	0%	0.026	0.052	--	--	0.32	--	--
VOC	1,2,4-Trichlorobenzene	mg/kg	--	9	0%	0.0038	0.030	--	--	14	--	--
VOC	1,2,4-Trimethylbenzene	mg/kg	--	9	0%	0.0018	0.0036	--	--	5.7	--	--
VOC	1,2-Dibromo-3-chloropropane	mg/kg	--	9	0%	0.026	0.052	--	--	0.0026	--	9
VOC	1,2-Dibromoethane	mg/kg	--	9	0%	0.0028	0.0056	--	--	0.028	--	--
VOC	1,2-Dichlorobenzene	mg/kg	--	9	0%	0.0021	0.047	--	--	28	--	--
VOC	1,2-Dichloroethane	mg/kg	--	9	0%	0.0025	0.0049	--	--	0.35	--	--
VOC	1,2-Dichloropropane	mg/kg	--	9	0%	0.0025	0.0049	--	--	0.35	--	--
VOC	1,3,5-Trimethylbenzene	mg/kg	--	9	0%	0.0018	0.0036	--	--	2.1	--	--
VOC	1,3-Dichlorobenzene	mg/kg	--	9	0%	0.0017	0.043	--	--	6.9	--	--
VOC	1,3-Dichloropropane	mg/kg	--	9	0%	0.0024	0.0046	--	--	11	--	--
VOC	1,4-Dichlorobenzene	mg/kg	--	9	0%	0.0019	0.049	--	--	3.2	--	--
VOC	2,2-Dichloropropane	mg/kg	--	9	0%	0.0023	0.0044	--	--	--	--	--
VOC	2-Butanone	mg/kg	1	9	11%	0.014	0.027	0.065	0.065	3209	--	--
VOC	2-Chlorotoluene	mg/kg	--	9	0%	0.0019	0.0037	--	--	16	--	--
VOC	2-Hexanone	mg/kg	--	9	0%	0.0036	0.0070	--	--	--	--	--
VOC	4-Chlorotoluene	mg/kg	--	9	0%	0.0015	0.0029	--	--	--	--	--
VOC	4-Isopropyltoluene	mg/kg	1	9	9%	0.0022	0.0043	0.13	0.13	--	--	--
VOC	4-Methyl-2-pentanone	mg/kg	--	9	0%	0.0065	0.013	--	--	580	--	--
VOC	Acetone	mg/kg	5	9	56%	0.054	0.10	0.22	0.28	1415	--	--
VOC	Benzene	mg/kg	4	9	44%	0.0020	0.0034	0.0039	0.0058	0.66	--	--
VOC	Bromobenzene	mg/kg	--	9	0%	0.0049	0.0096	--	--	7.3	--	--
VOC	Bromochloromethane	mg/kg	--	9	0%	0.0038	0.0075	--	--	--	--	--
VOC	Bromodichloromethane	mg/kg	--	9	0%	0.0026	0.0052	--	--	1	--	--
VOC	Bromoform	mg/kg	--	9	0%	0.0058	0.011	--	--	62	--	--
VOC	Bromomethane	mg/kg	--	9	0%	0.011	0.022	--	--	0.87	--	--
VOC	Carbon disulfide	mg/kg	--	9	0%	0.0058	0.011	--	--	721	--	--
VOC	Carbon tetrachloride	mg/kg	--	9	0%	0.0031	0.0061	--	--	0.24	--	--
VOC	Chlorobenzene	mg/kg	--	9	0%	0.0023	0.0045	--	--	27	--	--
VOC	Chloroethane	mg/kg	--	9	0%	0.0079	0.015	--	--	3	--	--
VOC	Chloroform	mg/kg	--	9	0%	0.0014	0.0027	--	--	0.25	--	--
VOC	Chloromethane	mg/kg	1	9	9%	0.0058	0.011	0.0076	0.0076	11	--	--
VOC	cis-1,2-Dichloroethene	mg/kg	--	9	0%	0.0043	0.0085	--	--	4.3	--	--
VOC	cis-1,3-Dichloropropene	mg/kg	--	9	0%	0.0022	0.0042	--	--	0.7	--	--

TABLE 3-2
Summary Statistics for 95UCL-Adjusted Sound Berm MI Samples
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
VOC	Dibromochloromethane	mg/kg	--	9	0%	0.0033	0.0065	--	--	1	--	--
VOC	Dibromomethane	mg/kg	--	9	0%	0.0034	0.0067	--	--	14	--	--
VOC	Dichlorodifluoromethane	mg/kg	--	9	0%	0.0050	0.0097	--	--	9.4	--	--
VOC	Ethylbenzene	mg/kg	1	9	11%	0.0035	0.0067	0.0068	0.0068	234	--	--
VOC	Hexachlorobutadiene	mg/kg	--	9	0%	0.0058	0.037	--	--	6.2	--	--
VOC	Isopropylbenzene	mg/kg	--	9	0%	9.00E-04	0.0018	--	--	37	--	--
VOC	m,p-Xylene	mg/kg	2	9	18%	0.0027	0.0052	0.0028	0.0063	214	--	--
VOC	Methylene chloride	mg/kg	--	9	0%	0.0028	0.0056	--	--	8.9	--	--
VOC	Methyl-tert-butyl ether (MTBE)	mg/kg	--	9	0%	0.0019	0.0037	--	--	32	--	--
VOC	n-Butylbenzene	mg/kg	--	9	0%	0.0026	0.0051	--	--	14	--	--
VOC	n-Propylbenzene	mg/kg	--	9	0%	0.0025	0.0049	--	--	14	--	--
VOC	o-Xylene	mg/kg	--	9	0%	0.0027	0.0054	--	--	282	--	--
VOC	sec-Butylbenzene	mg/kg	--	9	0%	0.0013	0.0025	--	--	11	--	--
VOC	Styrene	mg/kg	--	9	0%	0.0016	0.0032	--	--	1734	--	--
VOC	tert-Butylbenzene	mg/kg	--	9	0%	0.0022	0.0042	--	--	13	--	--
VOC	Tetrachloroethene (PCE)	mg/kg	--	9	0%	0.0022	0.0043	--	--	0.55	--	--
VOC	Toluene	mg/kg	5	9	56%	0.0024	0.0030	0.022	0.039	521	--	--
VOC	trans-1,2-Dichloroethene	mg/kg	--	9	0%	0.0033	0.0064	--	--	12	--	--
VOC	trans-1,3-Dichloropropene	mg/kg	--	9	0%	0.0024	0.0046	--	--	0.7	--	--
VOC	Trichloroethene (TCE)	mg/kg	--	9	0%	0.0029	0.0057	--	--	0.043	--	--
VOC	Trichlorofluoromethane	mg/kg	--	9	0%	0.0026	0.0051	--	--	39	--	--
VOC	Vinyl chloride	mg/kg	--	9	0%	0.0037	0.0073	--	--	0.043	--	--
TPH	TPH-Diesel (DRO)	mg/kg	9	9	100%	--	--	6.3	11	1025	--	--
TPH	TPH-Gasoline (GRO)	mg/kg	--	9	0%	1.3	1.9	--	--	140	--	--
TPH	TPH-Motor Oil (RRO)	mg/kg	9	9	100%	--	--	34	70	1000	--	--
SVOC	2,4,5-Trichlorophenol	mg/kg	--	9	0%	0.034	0.040	--	--	611	--	--
SVOC	2,4,6-Trichlorophenol	mg/kg	--	9	0%	0.050	0.059	--	--	44	--	--
SVOC	2,4-Dichlorophenol	mg/kg	--	9	0%	0.020	0.023	--	--	18	--	--
SVOC	2,4-Dimethylphenol	mg/kg	--	9	0%	0.16	0.19	--	--	122	--	--
SVOC	2,4-Dinitrophenol	mg/kg	--	9	0%	0.63	0.73	--	--	12	--	--
SVOC	2-Chloronaphthalene	mg/kg	--	9	0%	0.018	0.021	--	--	386	--	--
SVOC	2-Chlorophenol	mg/kg	--	9	0%	0.021	0.024	--	--	6.4	--	--
SVOC	2-Methyl-4,6-dinitrophenol	mg/kg	--	9	0%	0.63	0.73	--	--	--	--	--
SVOC	2-Methylphenol (o-Cresol)	mg/kg	--	9	0%	0.055	0.064	--	--	31	--	--
SVOC	2-Nitroaniline	mg/kg	--	9	0%	0.043	0.050	--	--	18	--	--
SVOC	2-Nitrophenol	mg/kg	--	9	0%	0.028	0.033	--	--	--	--	--
SVOC	3,3'-Dichlorobenzidine	mg/kg	--	9	0%	0.31	0.37	--	--	1.1	--	--
SVOC	3-Nitroaniline	mg/kg	--	9	0%	0.16	0.19	--	--	--	--	--
SVOC	4-Bromophenyl phenyl ether	mg/kg	--	9	0%	0.022	0.026	--	--	--	--	--
SVOC	4-Chloro-3-methylphenol	mg/kg	--	9	0%	0.013	0.016	--	--	--	--	--
SVOC	4-Chloroaniline	mg/kg	--	9	0%	0.055	0.064	--	--	24	--	--
SVOC	4-Chlorophenyl phenyl ether	mg/kg	--	9	0%	0.013	0.016	--	--	--	--	--

TABLE 3-2
Summary Statistics for 95UCL-Adjusted Sound Berm MI Samples
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
SVOC	4-Nitroaniline	mg/kg	--	9	0%	0.035	0.041	--	--	--	--	--
SVOC	4-Nitrophenol	mg/kg	--	9	0%	5.60E-04	0.0012	--	--	49	--	--
SVOC	Benzoic acid	mg/kg	--	9	0%	0.16	0.19	--	--	100000	--	--
SVOC	Benzyl alcohol	mg/kg	--	9	0%	0.16	0.19	--	--	1833	--	--
SVOC	Benzyl butyl phthalate	mg/kg	--	9	0%	0.018	0.021	--	--	240	--	--
SVOC	bis-(2-Chloroethoxy)methane	mg/kg	--	9	0%	0.021	0.024	--	--	--	--	--
SVOC	bis-(2-Chloroethyl)ether	mg/kg	--	9	0%	0.030	0.036	--	--	0.21	--	--
SVOC	bis(2-Chloroisopropyl)ether	mg/kg	--	9	0%	0.030	0.036	--	--	2.9	--	--
SVOC	bis-(2-Ethylhexyl)phthalate	mg/kg	2	9	22%	0.023	0.027	0.068	0.071	35	--	--
SVOC	Carbazole	mg/kg	--	9	0%	0.052	0.061	--	--	24	--	--
SVOC	Dibenzofuran	mg/kg	--	9	0%	0.017	0.020	--	--	15	--	--
SVOC	Diethyl phthalate	mg/kg	--	9	0%	0.019	0.022	--	--	4888	--	--
SVOC	Dimethyl phthalate	mg/kg	--	9	0%	0.022	0.026	--	--	100000	--	--
SVOC	Di-n-butyl phthalate	mg/kg	--	9	0%	0.025	0.029	--	--	611	--	--
SVOC	Di-n-octyl phthalate	mg/kg	--	9	0%	0.023	0.027	--	--	200	--	--
SVOC	Hexachlorobenzene	mg/kg	--	9	0%	0.016	0.019	--	--	0.3	--	--
SVOC	Hexachloroethane	mg/kg	--	9	0%	0.044	0.051	--	--	35	--	--
SVOC	Isophorone	mg/kg	--	9	0%	0.016	0.019	--	--	512	--	--
SVOC	m,p-Cresol	mg/kg	--	9	0%	0.31	0.37	--	--	--	--	--
SVOC	n-Nitrosodimethylamine	mg/kg	--	9	0%	0.036	0.042	--	--	0.0023	--	9
SVOC	n-Nitrosodi-n-propylamine	mg/kg	--	9	0%	0.017	0.020	--	--	0.069	--	--
SVOC	n-Nitrosodiphenylamine	mg/kg	--	9	0%	0.023	0.027	--	--	99	--	--
SVOC	Pentachlorophenol	mg/kg	--	9	0%	8.90E-04	0.0020	--	--	3	--	--
SVOC	Phenol	mg/kg	--	9	0%	0.018	0.021	--	--	1833	--	--
PEST	4,4'-DDD	mg/kg	9	9	100%	--	--	0.010	0.059	2.4	--	--
PEST	4,4'-DDE	mg/kg	9	9	100%	--	--	0.014	0.060	1.7	--	--
PEST	4,4'-DDT	mg/kg	9	9	100%	--	--	0.25	0.66	1.7	--	--
PEST	Aldrin	mg/kg	--	9	0%	1.90E-04	0.011	--	--	0.029	--	--
PEST	alpha-BHC	mg/kg	--	9	0%	2.00E-04	0.012	--	--	0.09	--	--
PEST	alpha-Chlordane	mg/kg	2	9	18%	1.80E-04	0.011	9.40E-04	0.0030	1.6	--	--
PEST	beta-BHC	mg/kg	--	9	0%	3.00E-04	0.018	--	--	0.32	--	--
PEST	delta-BHC	mg/kg	--	9	0%	1.40E-04	0.0085	--	--	--	--	--
PEST	Dieldrin	mg/kg	2	9	22%	2.90E-04	0.0034	0.0078	0.019	0.03	--	--
PEST	Endosulfan I	mg/kg	--	9	0%	1.30E-04	0.0074	--	--	37	--	--
PEST	Endosulfan II	mg/kg	--	9	0%	5.90E-04	0.035	--	--	37	--	--
PEST	Endosulfan sulfate	mg/kg	--	9	0%	2.00E-04	0.012	--	--	--	--	--
PEST	Endrin	mg/kg	--	9	0%	2.20E-04	0.013	--	--	1.8	--	--
PEST	Endrin aldehyde	mg/kg	--	9	0%	2.40E-04	0.014	--	--	--	--	--
PEST	Endrin ketone	mg/kg	--	9	0%	3.10E-04	0.018	--	--	--	--	--
PEST	gamma-BHC (Lindane)	mg/kg	--	9	0%	1.50E-04	0.0090	--	--	0.44	--	--
PEST	gamma-Chlordane	mg/kg	2	9	18%	3.00E-04	0.018	8.90E-04	0.0027	--	--	--
PEST	Heptachlor	mg/kg	--	9	0%	1.70E-04	0.010	--	--	0.11	--	--

TABLE 3-2
Summary Statistics for 95UCL-Adjusted Sound Berm MI Samples
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
PEST	Heptachlor epoxide	mg/kg	4	9	36%	1.10E-04	0.0064	3.60E-04	9.50E-04	0.053	--	--
PEST	Methoxychlor	mg/kg	--	9	0%	0.0012	0.069	--	--	31	--	--
PEST	Toxaphene	mg/kg	--	9	0%	0.020	1.1	--	--	0.44	--	1
PCB	PCB-1016 (Aroclor 1016)	mg/kg	--	9	0%	0.0080	0.0088	--	--	1	--	--
PCB	PCB-1221 (Aroclor 1221)	mg/kg	--	9	0%	0.010	0.011	--	--	1	--	--
PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	9	0%	0.0080	0.0088	--	--	1	--	--
PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	9	0%	0.0080	0.0088	--	--	1	--	--
PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	9	0%	0.0080	0.0088	--	--	1	--	--
PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	9	0%	0.0080	0.0088	--	--	1	--	--
PCB	PCB-1260 (Aroclor 1260)	mg/kg	6	9	67%	0.0082	0.0088	0.036	0.087	1	--	--
PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	9	0%	0.011	0.012	--	--	1	--	--
PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	9	0%	0.011	0.012	--	--	1	--	--
PAH	2-Methylnaphthalene	mg/kg	--	9	0%	0.051	0.060	--	--	203	--	--
PAH	Acenaphthene	mg/kg	--	9	0%	0.018	0.021	--	--	368	--	--
PAH	Acenaphthylene	mg/kg	--	9	0%	0.016	0.019	--	--	610	--	--
PAH	Anthracene	mg/kg	--	9	0%	0.026	0.030	--	--	2190	--	--
PAH	Benzo(a)anthracene	mg/kg	2	9	18%	0.016	0.019	0.020	0.025	0.15	--	--
PAH	Benzo(a)pyrene	mg/kg	2	9	18%	0.019	0.022	0.029	0.030	0.015	2	7
PAH	Benzo(b)fluoranthene	mg/kg	--	9	0%	0.024	0.028	--	--	0.15	--	--
PAH	Benzo(g,h,i)perylene	mg/kg	1	9	9%	0.021	0.023	0.10	0.10	300	--	--
PAH	Benzo(k)fluoranthene	mg/kg	2	9	18%	0.013	0.016	0.018	0.027	1.5	--	--
PAH	Chrysene	mg/kg	--	9	0%	0.080	0.093	--	--	15	--	--
PAH	Dibenzo(a,h)anthracene	mg/kg	--	9	0%	0.016	0.019	--	--	0.015	--	9
PAH	Fluoranthene	mg/kg	1	9	9%	0.028	0.033	0.035	0.035	229	--	--
PAH	Fluorene	mg/kg	--	9	0%	0.014	0.017	--	--	264	--	--
PAH	Indeno(1,2,3-cd)pyrene	mg/kg	--	9	0%	0.022	0.026	--	--	0.15	--	--
PAH	Naphthalene	mg/kg	1	9	8%	0.0025	0.032	0.0071	0.0071	12	--	--
PAH	Phenanthrene	mg/kg	2	9	18%	0.015	0.017	0.025	0.035	3000	--	--
PAH	Pyrene	mg/kg	2	9	18%	0.020	0.023	0.037	0.039	231	--	--
METAL	Aluminum	mg/kg	9	9	100%	--	--	8,892	9,799	7733	9	--
METAL	Antimony	mg/kg	9	9	100%	--	--	1.2	1.7	3.1	--	--
METAL	Arsenic	mg/kg	9	9	100%	--	--	7.6	8.5	8.46	1	--
METAL	Barium	mg/kg	9	9	100%	--	--	103	119	1564	--	--
METAL	Beryllium	mg/kg	9	9	100%	--	--	0.13	0.24	16	--	--
METAL	Boron	mg/kg	2	9	22%	0.66	0.78	0.95	1.2	1562	--	--
METAL	Cadmium	mg/kg	9	9	100%	--	--	0.15	0.21	3.9	--	--
METAL	Calcium	mg/kg	9	9	100%	--	--	6,161	6,731	--	--	--
METAL	Chromium	mg/kg	9	9	100%	--	--	18	21	211	--	--
METAL	Cobalt	mg/kg	9	9	100%	--	--	8.2	9.7	903	--	--
METAL	Copper	mg/kg	9	9	100%	--	--	22	26	291	--	--
METAL	Iron	mg/kg	9	9	100%	--	--	18,979	20,779	5475	9	--
METAL	Lead	mg/kg	9	9	100%	--	--	8.2	15	400	--	--

TABLE 3-2
Summary Statistics for 95UCL-Adjusted Sound Berm MI Samples
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
METAL	Magnesium	mg/kg	9	9	100%	--	--	5,319	5,939	--	--	--
METAL	Manganese	mg/kg	9	9	100%	--	--	314	345	347	--	--
METAL	Mercury	mg/kg	9	9	100%	--	--	0.033	0.068	--	--	--
METAL	Nickel	mg/kg	9	9	100%	--	--	19	23	156	--	--
METAL	Potassium	mg/kg	9	9	100%	--	--	941	1,043	--	--	--
METAL	Selenium	mg/kg	9	9	100%	--	--	0.39	0.44	39	--	--
METAL	Silver	mg/kg	9	9	100%	--	--	0.080	0.10	39	--	--
METAL	Sodium	mg/kg	9	9	100%	--	--	356	409	--	--	--
METAL	Thallium	mg/kg	9	9	100%	--	--	0.048	0.062	5.5	--	--
METAL	Vanadium	mg/kg	9	9	100%	--	--	33	40	39	1	--
METAL	Zinc	mg/kg	9	9	100%	--	--	33	44	2346	--	--
HERB	2,4,5-T	mg/kg	--	9	0%	2.70E-04	6.00E-04	--	--	61	--	--
HERB	2,4,5-TP (Silvex)	mg/kg	--	9	0%	0.0010	0.0022	--	--	49	--	--
HERB	2,4-D	mg/kg	--	9	0%	3.80E-04	8.40E-04	--	--	69	--	--
HERB	2,4-DB	mg/kg	--	9	0%	7.90E-04	0.0017	--	--	49	--	--
HERB	Dalapon	mg/kg	--	9	0%	0.0023	0.0050	--	--	183	--	--
HERB	Dicamba	mg/kg	--	9	0%	4.50E-04	9.90E-04	--	--	183	--	--
HERB	Dichlorprop	mg/kg	--	9	0%	7.10E-04	0.0016	--	--	--	--	--
HERB	Dinoseb	mg/kg	--	9	0%	0.0011	0.0025	--	--	6.1	--	--
HERB	MCPA (2-Methyl-4-chlorophenoxy acetic acid)	mg/kg	--	9	0%	4.20E-04	9.40E-04	--	--	3.1	--	--
HERB	MCPP (2-(2-methyl-4-chlorophenoxy) propanoic ac	mg/kg	--	9	0%	5.00E-04	0.0011	--	--	6.1	--	--
EXP	1,3,5-Trinitrobenzene	mg/kg	--	9	0%	0.0086	0.020	--	--	183	--	--
EXP	1,3-Dinitrobenzene	mg/kg	--	9	0%	0.022	0.050	--	--	0.61	--	--
EXP	2,4,6-Trinitrotoluene	mg/kg	--	9	0%	0.0086	0.020	--	--	16	--	--
EXP	2,4-Dinitrotoluene	mg/kg	--	9	0%	0.014	0.023	--	--	12	--	--
EXP	2,6-Dinitrotoluene	mg/kg	--	9	0%	0.022	0.033	--	--	6.1	--	--
EXP	2-Amino-4,6-dinitrotoluene	mg/kg	--	9	0%	0.043	0.099	--	--	--	--	--
EXP	2-Nitrotoluene	mg/kg	--	9	0%	0.034	0.079	--	--	2.8	--	--
EXP	3-Nitrotoluene	mg/kg	--	9	0%	0.030	0.069	--	--	156	--	--
EXP	4-Amino-2,6-dinitrotoluene	mg/kg	--	9	0%	0.0086	0.020	--	--	--	--	--
EXP	4-Nitrotoluene	mg/kg	--	9	0%	0.034	0.079	--	--	40	--	--
EXP	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	mg/kg	--	9	0%	0.017	0.040	--	--	4.4	--	--
EXP	Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	mg/kg	--	9	0%	0.022	0.050	--	--	24	--	--
EXP	Nitrobenzene	mg/kg	--	9	0%	0.036	0.084	--	--	2	--	--
EXP	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (H	mg/kg	--	9	0%	0.013	0.030	--	--	306	--	--

Italics indicate screening level based on background.

Highlighting indicates screening level exceedance.

--	no result	mg/kg	milligrams per kilogram	SL	screening Level
EXP	explosives	NV	no value	SVOC	semi-volatile organic compound
HERB	herbicides	PEST	pesticides	TPH	total petroleum hydrocarbons
MDL	method detection limit			VOC	volatile organic compound

TABLE 3-3
Summary Statistics for Confirmation Samples Collected at Building 49 Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
EXP	1,3,5-Trinitrobenzene	mg/kg	--	9	0%	0.0094	0.0094	--	--	183	--	--
EXP	1,3-Dinitrobenzene	mg/kg	--	9	0%	0.028	0.028	--	--	0.61	--	--
EXP	2,4,6-Trinitrotoluene	mg/kg	--	9	0%	0.013	0.013	--	--	16	--	--
EXP	2,4-Dinitrotoluene	mg/kg	--	18	0%	0.022	0.025	--	--	12	--	--
EXP	2,6-Dinitrotoluene	mg/kg	--	18	0%	0.016	0.036	--	--	6.1	--	--
EXP	2-Amino-4,6-dinitrotoluene	mg/kg	--	9	0%	0.027	0.027	--	--	--	--	--
EXP	2-Nitrotoluene	mg/kg	--	9	0%	0.029	0.029	--	--	2.8	--	--
EXP	3-Nitrotoluene	mg/kg	--	9	0%	0.0093	0.0093	--	--	156	--	--
EXP	4-Amino-2,6-dinitrotoluene	mg/kg	--	9	0%	0.016	0.016	--	--	--	--	--
EXP	4-Nitrotoluene	mg/kg	--	9	0%	0.017	0.017	--	--	40	--	--
EXP	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	mg/kg	--	9	0%	0.038	0.038	--	--	4.4	--	--
EXP	Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	mg/kg	--	9	0%	0.011	0.011	--	--	24	--	--
EXP	Nitrobenzene	mg/kg	--	18	0%	0.026	0.091	--	--	2	--	--
EXP	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	mg/kg	--	9	0%	0.029	0.029	--	--	306	--	--
HERB	2,4,5-T	mg/kg	--	9	0%	0.00058	0.00076	--	--	61	--	--
HERB	2,4,5-TP (Silvex)	mg/kg	--	9	0%	0.0021	0.0028	--	--	49	--	--
HERB	2,4-D	mg/kg	--	9	0%	0.00081	0.0011	--	--	69	--	--
HERB	2,4-DB	mg/kg	--	9	0%	0.0017	0.0022	--	--	49	--	--
HERB	Dalapon	mg/kg	--	9	0%	0.0048	0.0063	--	--	183	--	--
HERB	Dicamba	mg/kg	--	9	0%	0.00095	0.0012	--	--	183	--	--
HERB	Dichlorprop	mg/kg	--	9	0%	0.0015	0.002	--	--	--	--	--
HERB	Dinoseb	mg/kg	--	9	0%	0.0024	0.0031	--	--	6.1	--	--
HERB	MCPA (2-Methyl-4-chlorophenoxy acetic acid)	mg/kg	--	9	0%	0.0009	0.0012	--	--	3.1	--	--
HERB	MCPP (2-(2-methyl-4-chlorophenoxy) propanoic acid)	mg/kg	--	9	0%	0.001	0.0014	--	--	6.1	--	--
METAL	Aluminum	mg/kg	9	9	100%	--	--	6120	9650	7733	4	--
METAL	Antimony	mg/kg	3	9	33%	0.2	0.24	0.21	0.31	3.1	--	--
METAL	Arsenic	mg/kg	9	9	100%	--	--	4.3	8.9	*8.46*	1	--
METAL	Barium	mg/kg	9	9	100%	--	--	61.7	116	1564	--	--
METAL	Beryllium	mg/kg	9	9	100%	--	--	0.11	0.17	16	--	--
METAL	Boron	mg/kg	2	9	22%	1.3	1.7	1.3	1.5	1562	--	--
METAL	Cadmium	mg/kg	9	9	100%	--	--	0.089	0.36	3.9	--	--
METAL	Calcium	mg/kg	9	9	100%	--	--	3060	9320	--	--	--
METAL	Chromium	mg/kg	9	9	100%	--	--	12.7	20.6	211	--	--
METAL	Cobalt	mg/kg	9	9	100%	--	--	6.2	10.1	903	--	--
METAL	Copper	mg/kg	9	9	100%	--	--	14.7	30.1	291	--	--
METAL	Iron	mg/kg	9	9	100%	--	--	12400	20500	5475	9	--
METAL	Lead	mg/kg	9	9	100%	--	--	4.4	15.4	400	--	--
METAL	Magnesium	mg/kg	9	9	100%	--	--	4020	6400	--	--	--
METAL	Manganese	mg/kg	9	9	100%	--	--	168	406	347	1	--

TABLE 3-3
Summary Statistics for Confirmation Samples Collected at Building 49 Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
METAL	Mercury	mg/kg	9	9	100%	--	--	0.012	0.046	--	--	--
METAL	Nickel	mg/kg	9	9	100%	--	--	16.1	25.9	156	--	--
METAL	Potassium	mg/kg	9	9	100%	--	--	532	1020	--	--	--
METAL	Selenium	mg/kg	9	9	100%	--	--	0.24	0.59	39	--	--
METAL	Silver	mg/kg	9	9	100%	--	--	0.051	0.1	39	--	--
METAL	Sodium	mg/kg	9	9	100%	--	--	265	395	--	--	--
METAL	Thallium	mg/kg	7	9	78%	0.057	0.06	0.05	0.094	5.5	--	--
METAL	Vanadium	mg/kg	9	9	100%	--	--	25.7	43.9	39	1	--
METAL	Zinc	mg/kg	9	9	100%	--	--	28.4	63.1	2346	--	--
PAH	2-Methylnaphthalene	mg/kg	--	18	0%	0.014	0.16	--	--	203	--	--
PAH	Acenaphthene	mg/kg	--	18	0%	0.02	0.23	--	--	368	--	--
PAH	Acenaphthylene	mg/kg	--	18	0%	0.011	0.12	--	--	610	--	--
PAH	Anthracene	mg/kg	--	18	0%	0.013	0.15	--	--	2190	--	--
PAH	Benzo(a)anthracene	mg/kg	--	18	0%	0.014	0.16	--	--	0.15	--	1
PAH	Benzo(a)pyrene	mg/kg	--	18	0%	0.015	0.17	--	--	0.015	--	14
PAH	Benzo(b)fluoranthene	mg/kg	--	18	0%	0.026	0.45	--	--	0.15	--	1
PAH	Benzo(g,h,i)perylene	mg/kg	--	18	0%	0.013	0.15	--	--	300	--	--
PAH	Benzo(k)fluoranthene	mg/kg	--	18	0%	0.015	0.2	--	--	1.5	--	--
PAH	Chrysene	mg/kg	--	18	0%	0.019	0.22	--	--	15	--	--
PAH	Dibenzo(a,h)anthracene	mg/kg	--	18	0%	0.018	0.25	--	--	0.015	--	18
PAH	Fluoranthene	mg/kg	--	18	0%	0.0059	0.068	--	--	229	--	--
PAH	Fluorene	mg/kg	--	18	0%	0.014	0.16	--	--	264	--	--
PAH	Indeno(1,2,3-cd)pyrene	mg/kg	--	18	0%	0.019	0.22	--	--	0.15	--	1
PAH	Naphthalene	mg/kg	--	18	0%	0.00038	0.075	--	--	12	--	--
PAH	Phenanthrene	mg/kg	--	18	0%	0.014	0.17	--	--	3000	--	--
PAH	Pyrene	mg/kg	--	18	0%	0.0098	0.11	--	--	231	--	--
PCB	PCB-1016 (Aroclor 1016)	mg/kg	--	9	0%	0.0083	0.097	--	--	1	--	--
PCB	PCB-1221 (Aroclor 1221)	mg/kg	--	9	0%	0.011	0.12	--	--	1	--	--
PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	9	0%	0.0083	0.097	--	--	1	--	--
PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	9	0%	0.0083	0.097	--	--	1	--	--
PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	9	0%	0.0083	0.097	--	--	1	--	--
PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	9	0%	0.0083	0.097	--	--	1	--	--
PCB	PCB-1260 (Aroclor 1260)	mg/kg	--	9	0%	0.0083	0.097	--	--	1	--	--
PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	9	0%	0.011	0.13	--	--	1	--	--
PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	9	0%	0.011	0.13	--	--	1	--	--
PEST	4,4'-DDD	mg/kg	6	9	67%	0.00026	0.00034	0.0012	0.036	2.4	--	--
PEST	4,4'-DDE	mg/kg	6	9	67%	0.00022	0.00029	0.007	0.024	1.7	--	--
PEST	4,4'-DDT	mg/kg	7	9	78%	0.0004	0.0005	0.00068	0.37	1.7	--	--
PEST	Aldrin	mg/kg	--	9	0%	0.00021	0.0012	--	--	0.029	--	--

TABLE 3-3
Summary Statistics for Confirmation Samples Collected at Building 49 Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
PEST	alpha-BHC	mg/kg	--	9	0%	0.00022	0.0013	--	--	0.09	--	--
PEST	alpha-Chlordane	mg/kg	--	9	0%	0.0002	0.0012	--	--	1.6	--	--
PEST	beta-BHC	mg/kg	--	9	0%	0.00033	0.0019	--	--	0.32	--	--
PEST	delta-BHC	mg/kg	--	9	0%	0.00016	0.00093	--	--	--	--	--
PEST	Dieldrin	mg/kg	--	9	0%	0.00032	0.0019	--	--	0.03	--	--
PEST	Endosulfan I	mg/kg	--	9	0%	0.00014	0.00081	--	--	37	--	--
PEST	Endosulfan II	mg/kg	--	9	0%	0.00066	0.0038	--	--	37	--	--
PEST	Endosulfan sulfate	mg/kg	1	9	11%	0.00022	0.0013	0.00025	0.00025	--	--	--
PEST	Endrin	mg/kg	--	9	0%	0.00024	0.0014	--	--	1.8	--	--
PEST	Endrin aldehyde	mg/kg	--	9	0%	0.00027	0.0016	--	--	--	--	--
PEST	Endrin ketone	mg/kg	--	9	0%	0.00034	0.002	--	--	--	--	--
PEST	gamma-BHC (Lindane)	mg/kg	--	9	0%	0.00017	0.00099	--	--	0.44	--	--
PEST	gamma-Chlordane	mg/kg	--	9	0%	0.00033	0.0019	--	--	--	--	--
PEST	Heptachlor	mg/kg	--	9	0%	0.00019	0.0011	--	--	0.11	--	--
PEST	Heptachlor epoxide	mg/kg	--	9	0%	0.00012	0.0007	--	--	0.053	--	--
PEST	Methoxychlor	mg/kg	--	9	0%	0.0013	0.0076	--	--	31	--	--
PEST	Toxaphene	mg/kg	--	9	0%	0.02	0.12	--	--	0.44	--	--
SVOC	2,4,5-Trichlorophenol	mg/kg	--	9	0%	0.038	0.043	--	--	611	--	--
SVOC	2,4,6-Trichlorophenol	mg/kg	--	9	0%	0.056	0.063	--	--	44	--	--
SVOC	2,4-Dichlorophenol	mg/kg	--	9	0%	0.022	0.025	--	--	18	--	--
SVOC	2,4-Dimethylphenol	mg/kg	--	9	0%	0.18	0.2	--	--	122	--	--
SVOC	2,4-Dinitrophenol	mg/kg	--	9	0%	0.69	0.79	--	--	12	--	--
SVOC	2-Chloronaphthalene	mg/kg	--	9	0%	0.02	0.023	--	--	386	--	--
SVOC	2-Chlorophenol	mg/kg	--	9	0%	0.023	0.026	--	--	6.4	--	--
SVOC	2-Methyl-4,6-dinitrophenol	mg/kg	--	9	0%	0.69	0.79	--	--	--	--	--
SVOC	2-Methylphenol (o-Cresol)	mg/kg	--	9	0%	0.061	0.069	--	--	31	--	--
SVOC	2-Nitroaniline	mg/kg	--	9	0%	0.047	0.054	--	--	18	--	--
SVOC	2-Nitrophenol	mg/kg	--	9	0%	0.032	0.036	--	--	--	--	--
SVOC	3,3'-Dichlorobenzidine	mg/kg	--	9	0%	0.35	0.39	--	--	1.1	--	--
SVOC	3-Nitroaniline	mg/kg	--	9	0%	0.18	0.2	--	--	--	--	--
SVOC	4-Bromophenyl phenyl ether	mg/kg	--	9	0%	0.024	0.027	--	--	--	--	--
SVOC	4-Chloro-3-methylphenol	mg/kg	--	9	0%	0.015	0.017	--	--	--	--	--
SVOC	4-Chloroaniline	mg/kg	--	9	0%	0.061	0.069	--	--	24	--	--
SVOC	4-Chlorophenyl phenyl ether	mg/kg	--	9	0%	0.015	0.017	--	--	--	--	--
SVOC	4-Nitroaniline	mg/kg	--	9	0%	0.039	0.044	--	--	--	--	--
SVOC	4-Nitrophenol	mg/kg	--	18	0%	0.0012	0.79	--	--	49	--	--
SVOC	Benzoic acid	mg/kg	--	9	0%	0.18	0.2	--	--	100000	--	--
SVOC	Benzyl alcohol	mg/kg	--	9	0%	0.18	0.2	--	--	1833	--	--
SVOC	Benzyl butyl phthalate	mg/kg	--	9	0%	0.02	0.023	--	--	240	--	--

TABLE 3-3
Summary Statistics for Confirmation Samples Collected at Building 49 Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
SVOC	bis-(2-Chloroethoxy)methane	mg/kg	--	9	0%	0.023	0.026	--	--	--	--	--
SVOC	bis-(2-Chloroethyl)ether	mg/kg	--	9	0%	0.034	0.038	--	--	0.21	--	--
SVOC	bis(2-Chloroisopropyl)ether	mg/kg	--	9	0%	0.034	0.038	--	--	2.9	--	--
SVOC	bis-(2-Ethylhexyl)phthalate	mg/kg	--	9	0%	0.025	0.029	--	--	35	--	--
SVOC	Carbazole	mg/kg	--	9	0%	0.058	0.066	--	--	24	--	--
SVOC	Dibenzofuran	mg/kg	--	9	0%	0.019	0.021	--	--	15	--	--
SVOC	Diethyl phthalate	mg/kg	--	9	0%	0.021	0.024	--	--	4888	--	--
SVOC	Dimethyl phthalate	mg/kg	--	9	0%	0.024	0.027	--	--	100000	--	--
SVOC	Di-n-butyl phthalate	mg/kg	--	9	0%	0.027	0.031	--	--	611	--	--
SVOC	Di-n-octyl phthalate	mg/kg	--	9	0%	0.025	0.029	--	--	200	--	--
SVOC	Hexachlorobenzene	mg/kg	--	9	0%	0.018	0.02	--	--	0.3	--	--
SVOC	Hexachloroethane	mg/kg	--	9	0%	0.048	0.055	--	--	35	--	--
SVOC	Isophorone	mg/kg	--	9	0%	0.018	0.02	--	--	512	--	--
SVOC	m,p-Cresol	mg/kg	--	9	0%	0.35	0.39	--	--	--	--	--
SVOC	n-Nitrosodimethylamine	mg/kg	--	9	0%	0.04	0.045	--	--	0.0023	--	9
SVOC	n-Nitrosodi-n-propylamine	mg/kg	--	9	0%	0.019	0.021	--	--	0.069	--	--
SVOC	n-Nitrosodiphenylamine	mg/kg	--	9	0%	0.025	0.029	--	--	99	--	--
SVOC	Pentachlorophenol	mg/kg	1	18	6%	0.0019	0.79	0.09	0.09	3	--	--
SVOC	Phenol	mg/kg	--	9	0%	0.02	0.023	--	--	1833	--	--
TPH	C10-C12 Aliphatics	mg/kg	1	8	13%	0.101	0.137	0.474	0.474	--	--	--
TPH	C10-C12 Aromatics	mg/kg	7	7	100%	--	--	0.148	1.73	--	--	--
TPH	C12-C16 Aliphatics	mg/kg	--	9	0%	1.07	1.45	--	--	--	--	--
TPH	C12-C16 Aromatics	mg/kg	--	9	0%	1.07	1.45	--	--	--	--	--
TPH	C16-C21 Aliphatics	mg/kg	1	9	11%	1.07	1.45	19	19	--	--	--
TPH	C16-C21 Aromatics	mg/kg	1	9	11%	1.07	1.45	2.88	2.88	--	--	--
TPH	C21-C34 Aliphatics	mg/kg	2	9	22%	1.07	1.45	1.41	81.3	--	--	--
TPH	C21-C34 Aromatics	mg/kg	2	9	22%	1.07	1.36	4.13	21.4	--	--	--
TPH	C8-C10 Aliphatics	mg/kg	--	9	0%	0.0288	0.039	--	--	--	--	--
TPH	C8-C10 Aromatics	mg/kg	4	9	44%	1.07	1.36	4.42	21	--	--	--
TPH	DRO	mg/kg	9	9	100%	--	--	0.72	90	1025	--	--
TPH	Extractable Petroleum Hydrocarbons	mg/kg	1	9	11%	0.0288	0.039	130	130	--	--	--
TPH	GRO	mg/kg	--	9	0%	2.8	3.6	--	--	140	--	--
TPH	RRO	mg/kg	8	9	89%	1.6	1.6	2.1	270	1000	--	--
VOC	1,1,1,2-Tetrachloroethane	mg/kg	--	9	0%	0.0018	0.0043	--	--	3	--	--
VOC	1,1,1-Trichloroethane	mg/kg	--	9	0%	0.00048	0.0012	--	--	1385	--	--
VOC	1,1,2,2-Tetrachloroethane	mg/kg	--	9	0%	0.00041	0.00099	--	--	0.38	--	--
VOC	1,1,2-Trichloroethane	mg/kg	--	9	0%	0.0017	0.0042	--	--	0.84	--	--
VOC	1,1-Dichloroethane	mg/kg	--	9	0%	0.00045	0.0011	--	--	85	--	--
VOC	1,1-Dichloroethene	mg/kg	--	9	0%	0.00072	0.0017	--	--	28	--	--

TABLE 3-3
Summary Statistics for Confirmation Samples Collected at Building 49 Excavation
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										Comparison to Screening Level		
Chemical Group	**Analyte**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
VOC	1,1-Dichloropropene	mg/kg	--	9	0%	0.00051	0.0012	--	--	--	--	--
VOC	1,2,3-Trichlorobenzene	mg/kg	--	9	0%	0.007	0.009	--	--	--	--	--
VOC	1,2,3-Trichloropropane	mg/kg	--	9	0%	0.00045	0.0011	--	--	0.32	--	--
VOC	1,2,4-Trichlorobenzene	mg/kg	--	9	0%	0.00045	0.0011	--	--	14	--	--
VOC	1,2,4-Trimethylbenzene	mg/kg	--	9	0%	0.0003	0.00074	--	--	5.7	--	--
VOC	1,2-Dibromo-3-chloropropane	mg/kg	--	9	0%	0.0043	0.01	--	--	0.0026	--	9
VOC	1,2-Dibromoethane	mg/kg	--	9	0%	0.00047	0.0011	--	--	0.028	--	--
VOC	1,2-Dichlorobenzene	mg/kg	--	9	0%	0.00038	0.00093	--	--	28	--	--
VOC	1,2-Dichloroethane	mg/kg	--	9	0%	0.00044	0.0011	--	--	0.35	--	--
VOC	1,2-Dichloropropane	mg/kg	--	9	0%	0.00036	0.00087	--	--	0.35	--	--
VOC	1,3,5-Trimethylbenzene	mg/kg	--	9	0%	0.0014	0.0035	--	--	2.1	--	--
VOC	1,3-Dichlorobenzene	mg/kg	--	9	0%	0.00045	0.0011	--	--	6.9	--	--
VOC	1,3-Dichloropropane	mg/kg	--	9	0%	0.00034	0.00083	--	--	11	--	--
VOC	1,4-Dichlorobenzene	mg/kg	--	9	0%	0.00047	0.0011	--	--	3.2	--	--
VOC	2,2-Dichloropropane	mg/kg	--	9	0%	0.0048	0.0062	--	--	--	--	--
VOC	2-Butanone	mg/kg	2	9	22%	0.003	0.0072	0.0077	0.011	3209	--	--
VOC	2-Chlorotoluene	mg/kg	--	9	0%	0.00037	0.0009	--	--	16	--	--
VOC	2-Hexanone	mg/kg	--	9	0%	0.003	0.0072	--	--	--	--	--
VOC	4-Chlorotoluene	mg/kg	--	9	0%	0.00051	0.0012	--	--	--	--	--
VOC	4-Isopropyltoluene	mg/kg	--	9	0%	0.00038	0.00091	--	--	--	--	--
VOC	4-Methyl-2-pentanone	mg/kg	--	9	0%	0.003	0.0072	--	--	580	--	--
VOC	Acetone	mg/kg	5	9	56%	0.003	0.0071	0.082	0.15	1415	--	--
VOC	Benzene	mg/kg	4	9	44%	0.00044	0.001	0.0013	0.013	0.66	--	--
VOC	Bromobenzene	mg/kg	--	9	0%	0.00031	0.00075	--	--	7.3	--	--
VOC	Bromochloromethane	mg/kg	--	9	0%	0.00056	0.0014	--	--	--	--	--
VOC	Bromodichloromethane	mg/kg	--	9	0%	0.00032	0.00077	--	--	1	--	--
VOC	Bromoform	mg/kg	--	9	0%	0.0024	0.0059	--	--	62	--	--
VOC	Bromomethane	mg/kg	--	9	0%	0.00051	0.0012	--	--	0.87	--	--
VOC	Carbon disulfide	mg/kg	--	9	0%	0.003	0.0072	--	--	721	--	--
VOC	Carbon tetrachloride	mg/kg	--	9	0%	0.00032	0.00077	--	--	0.24	--	--
VOC	Chlorobenzene	mg/kg	--	9	0%	0.00047	0.0011	--	--	27	--	--
VOC	Chloroethane	mg/kg	--	9	0%	0.0016	0.0038	--	--	3	--	--
VOC	Chloroform	mg/kg	3	9	33%	0.00046	0.0011	0.0035	0.0047	0.25	--	--
VOC	Chloromethane	mg/kg	--	9	0%	0.00089	0.0022	--	--	11	--	--
VOC	cis-1,2-Dichloroethene	mg/kg	--	9	0%	0.00053	0.0013	--	--	4.3	--	--
VOC	cis-1,3-Dichloropropene	mg/kg	--	9	0%	0.00038	0.00093	--	--	0.7	--	--
VOC	Dibromochloromethane	mg/kg	--	9	0%	0.0016	0.0039	--	--	1	--	--
VOC	Dibromomethane	mg/kg	--	9	0%	0.00035	0.00084	--	--	14	--	--
VOC	Dichlorodifluoromethane	mg/kg	--	9	0%	0.00053	0.0013	--	--	9.4	--	--

TABLE 3-3
Summary Statistics for Confirmation Samples Collected at Building 49 Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
VOC	Ethylbenzene	mg/kg	--	9	0%	0.00051	0.0012	--	--	234	--	--
VOC	Hexachlorobutadiene	mg/kg	--	9	0%	0.012	0.016	--	--	6.2	--	--
VOC	Isopropylbenzene	mg/kg	--	9	0%	0.00031	0.00075	--	--	37	--	--
VOC	m,p-Xylene	mg/kg	3	9	33%	0.00048	0.0012	0.0061	0.0075	214	--	--
VOC	Methylene chloride	mg/kg	1	9	11%	0.00052	0.0012	0.01	0.01	8.9	--	--
VOC	Methyl-tert-butyl ether (MTBE)	mg/kg	--	9	0%	0.003	0.0072	--	--	32	--	--
VOC	n-Butylbenzene	mg/kg	--	9	0%	0.00039	0.00096	--	--	14	--	--
VOC	n-Propylbenzene	mg/kg	--	9	0%	0.00054	0.0013	--	--	14	--	--
VOC	o-Xylene	mg/kg	--	9	0%	0.0016	0.0039	--	--	282	--	--
VOC	sec-Butylbenzene	mg/kg	--	9	0%	0.00045	0.0011	--	--	11	--	--
VOC	Styrene	mg/kg	--	9	0%	0.00045	0.0011	--	--	1734	--	--
VOC	tert-Butylbenzene	mg/kg	--	9	0%	0.00032	0.00078	--	--	13	--	--
VOC	Tetrachloroethene (PCE)	mg/kg	--	9	0%	0.00036	0.00088	--	--	0.55	--	--
VOC	Toluene	mg/kg	9	9	100%	--	--	0.0092	0.015	521	--	--
VOC	trans-1,2-Dichloroethene	mg/kg	--	9	0%	0.00054	0.0013	--	--	12	--	--
VOC	trans-1,3-Dichloropropene	mg/kg	--	9	0%	0.00045	0.0011	--	--	0.7	--	--
VOC	Trichloroethene (TCE)	mg/kg	--	9	0%	0.00036	0.00087	--	--	0.043	--	--
VOC	Trichlorofluoromethane	mg/kg	--	9	0%	0.00048	0.0012	--	--	39	--	--
VOC	Vinyl chloride	mg/kg	--	9	0%	0.00095	0.0023	--	--	0.043	--	--

Italics indicate screening level based on background.
Highlight indicates analyte with one or more screening level exceedance.

--	no result	MDL	method detection limit	SL	screening level
D/F	dioxins/furans	mg/kg	milligrams per kilogram	SVOC	semi-volatile organic compound
EXP	explosives	PEST	pesticides	TPH	total petroleum hydrocarbons
HERB	herbicides	PAH	polycyclic aromatic hydrocarbon	VOC	volatile organic compound

TABLE 3-4
Summary Statistics for Confirmation Samples Collected at Building 48 Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
EXP	1,3,5-Trinitrobenzene	mg/kg	--	51	0%	0.0094	0.0094	--	--	183	--	--
EXP	1,3-Dinitrobenzene	mg/kg	--	51	0%	0.028	0.028	--	--	0.61	--	--
EXP	2,4,6-Trinitrotoluene	mg/kg	--	51	0%	0.013	0.013	--	--	16	--	--
EXP	2,4-Dinitrotoluene	mg/kg	2	69	3%	0.022	0.3	0.049	0.1	12	--	--
EXP	2,6-Dinitrotoluene	mg/kg	2	69	3%	0.016	0.43	0.055	0.1	6.1	--	--
EXP	2-Amino-4,6-dinitrotoluene	mg/kg	--	51	0%	0.027	0.027	--	--	--	--	--
EXP	2-Nitrotoluene	mg/kg	--	51	0%	0.029	0.029	--	--	2.8	--	--
EXP	3-Nitrotoluene	mg/kg	--	51	0%	0.0093	0.0093	--	--	156	--	--
EXP	4-Amino-2,6-dinitrotoluene	mg/kg	--	51	0%	0.016	0.016	--	--	--	--	--
EXP	4-Nitrotoluene	mg/kg	--	51	0%	0.017	0.017	--	--	40	--	--
EXP	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	mg/kg	--	51	0%	0.038	0.038	--	--	4.4	--	--
EXP	Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	mg/kg	--	51	0%	0.011	0.011	--	--	24	--	--
EXP	Nitrobenzene	mg/kg	--	69	0%	0.026	1.1	--	--	2	--	--
EXP	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	mg/kg	--	51	0%	0.029	0.029	--	--	306	--	--
HERB	2,4,5-T	mg/kg	--	55	0%	0.00051	0.029	--	--	61	--	--
HERB	2,4,5-TP (Silvex)	mg/kg	--	55	0%	0.0019	0.11	--	--	49	--	--
HERB	2,4-D	mg/kg	--	55	0%	0.00071	0.041	--	--	69	--	--
HERB	2,4-DB	mg/kg	--	55	0%	0.0014	0.084	--	--	49	--	--
HERB	Dalapon	mg/kg	--	55	0%	0.0042	0.24	--	--	183	--	--
HERB	Dicamba	mg/kg	1	55	2%	0.00083	0.048	0.0086	0.0086	183	--	--
HERB	Dichlorprop	mg/kg	--	55	0%	0.0013	0.076	--	--	--	--	--
HERB	Dinoseb	mg/kg	--	55	0%	0.0021	0.12	--	--	6.1	--	--
HERB	MCPA (2-Methyl-4-chlorophenoxy acetic acid)	mg/kg	--	55	0%	0.00078	0.045	--	--	3.1	--	--
HERB	MCPP (2-(2-methyl-4-chlorophenoxy) propanoic acid)	mg/kg	--	55	0%	0.00092	0.053	--	--	6.1	--	--
METAL	Aluminum	mg/kg	51	51	100%	--	--	4650	12700	7733	35	--
METAL	Antimony	mg/kg	33	51	65%	0.2	0.27	0.21	1.1	3.1	--	--
METAL	Arsenic	mg/kg	51	51	100%	--	--	0.94	14.7	*8.46*	15	--
METAL	Barium	mg/kg	51	51	100%	--	--	11.4	146	1564	--	--
METAL	Beryllium	mg/kg	51	51	100%	--	--	0.027	0.22	16	--	--
METAL	Boron	mg/kg	8	51	16%	1.3	1.9	1.7	4.4	1562	--	--
METAL	Cadmium	mg/kg	48	51	94%	0.051	0.058	0.06	0.47	3.9	--	--
METAL	Calcium	mg/kg	51	51	100%	--	--	2360	9170	--	--	--
METAL	Chromium	mg/kg	51	51	100%	--	--	2.1	29.8	211	--	--
METAL	Cobalt	mg/kg	51	51	100%	--	--	0.97	13.9	903	--	--
METAL	Copper	mg/kg	51	51	100%	--	--	2.3	40.1	291	--	--
METAL	Iron	mg/kg	51	51	100%	--	--	9330	28700	5475	51	--
METAL	Lead	mg/kg	51	51	100%	--	--	0.75	27.8	400	--	--
METAL	Magnesium	mg/kg	51	51	100%	--	--	3240	8810	--	--	--
METAL	Manganese	mg/kg	51	51	100%	--	--	40	581	347	11	--

TABLE 3-4
Summary Statistics for Confirmation Samples Collected at Building 48 Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
METAL	Mercury	mg/kg	47	51	92%	0.0089	0.01	0.0093	0.11	--	--	--
METAL	Nickel	mg/kg	51	51	100%	--	--	2.5	35.8	156	--	--
METAL	Potassium	mg/kg	51	51	100%	--	--	421	1410	--	--	--
METAL	Selenium	mg/kg	50	51	98%	0.12	0.12	0.13	0.61	39	--	--
METAL	Silver	mg/kg	48	51	94%	0.03	0.031	0.04	0.95	39	--	--
METAL	Sodium	mg/kg	51	51	100%	--	--	137	433	--	--	--
METAL	Thallium	mg/kg	5	51	10%	0.051	0.068	0.054	0.09	5.5	--	--
METAL	Vanadium	mg/kg	51	51	100%	--	--	3.8	50.5	39	4	--
METAL	Zinc	mg/kg	51	51	100%	--	--	5	82.5	2346	--	--
PAH	2-Methylnaphthalene	mg/kg	37	68	54%	0.00028	0.78	0.0003	0.081	203	--	--
PAH	Acenaphthene	mg/kg	9	68	13%	0.00087	0.27	0.0013	0.089	368	--	--
PAH	Acenaphthylene	mg/kg	2	68	3%	0.00091	0.24	0.05	0.095	610	--	--
PAH	Anthracene	mg/kg	12	68	18%	0.00039	0.39	0.00057	0.11	2190	--	--
PAH	Benzo(a)anthracene	mg/kg	27	68	40%	0.0003	0.24	0.00037	0.11	0.15	--	1
PAH	Benzo(a)pyrene	mg/kg	27	68	40%	0.0004	0.29	0.00055	0.1	0.015	2	21
PAH	Benzo(b)fluoranthene	mg/kg	28	68	41%	0.0005	0.36	0.0006	0.1	0.15	--	1
PAH	Benzo(g,h,i)perylene	mg/kg	28	68	41%	0.00032	0.32	0.00037	0.061	300	--	--
PAH	Benzo(k)fluoranthene	mg/kg	28	68	41%	0.0003	0.2	0.00036	0.12	1.5	--	--
PAH	Chrysene	mg/kg	32	68	47%	0.00034	1.2	0.00046	0.11	15	--	--
PAH	Dibenzo(a,h)anthracene	mg/kg	14	68	21%	0.00018	0.24	0.00021	0.099	0.015	2	21
PAH	Fluoranthene	mg/kg	35	68	51%	0.00029	0.43	0.00033	0.11	229	--	--
PAH	Fluorene	mg/kg	6	68	9%	0.0011	0.22	0.0013	0.1	264	--	--
PAH	Indeno(1,2,3-cd)pyrene	mg/kg	24	68	35%	0.00048	0.33	0.00063	0.1	0.15	--	1
PAH	Naphthalene	mg/kg	40	68	59%	0.00025	0.0091	0.00035	0.071	12	--	--
PAH	Phenanthrene	mg/kg	41	68	60%	0.00035	0.23	0.00048	0.1	3000	--	--
PAH	Pyrene	mg/kg	30	68	44%	0.00035	0.3	0.00044	0.11	231	--	--
PCB	PCB-1016 (Aroclor 1016)	mg/kg	--	5	0%	0.0096	0.011	--	--	1	--	--
PCB	PCB-1221 (Aroclor 1221)	mg/kg	--	5	0%	0.012	0.014	--	--	1	--	--
PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	5	0%	0.0096	0.011	--	--	1	--	--
PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	5	0%	0.0096	0.011	--	--	1	--	--
PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	5	0%	0.0096	0.011	--	--	1	--	--
PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	5	0%	0.0096	0.011	--	--	1	--	--
PCB	PCB-1260 (Aroclor 1260)	mg/kg	--	5	0%	0.0096	0.011	--	--	1	--	--
PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	5	0%	0.013	0.015	--	--	1	--	--
PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	5	0%	0.013	0.015	--	--	1	--	--
PEST	4,4'-DDD	mg/kg	38	51	75%	0.00026	0.0015	0.0005	0.21	2.4	--	--
PEST	4,4'-DDE	mg/kg	43	51	84%	0.00022	0.0054	0.00038	0.18	1.7	--	--
PEST	4,4'-DDT	mg/kg	47	51	92%	0.0004	0.0098	0.00062	0.62	1.7	--	--
PEST	Aldrin	mg/kg	--	51	0%	0.00021	0.014	--	--	0.029	--	--

TABLE 3-4
Summary Statistics for Confirmation Samples Collected at Building 48 Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
PEST	alpha-BHC	mg/kg	--	51	0%	0.00022	0.014	--	--	0.09	--	--
PEST	alpha-Chlordane	mg/kg	--	51	0%	0.0002	0.013	--	--	1.6	--	--
PEST	beta-BHC	mg/kg	--	51	0%	0.00033	0.021	--	--	0.32	--	--
PEST	delta-BHC	mg/kg	--	51	0%	0.00016	0.01	--	--	--	--	--
PEST	Dieldrin	mg/kg	--	51	0%	0.00032	0.021	--	--	0.03	--	--
PEST	Endosulfan I	mg/kg	1	51	2%	0.00014	0.0091	0.00045	0.00045	37	--	--
PEST	Endosulfan II	mg/kg	--	51	0%	0.00066	0.043	--	--	37	--	--
PEST	Endosulfan sulfate	mg/kg	--	51	0%	0.00022	0.014	--	--	--	--	--
PEST	Endrin	mg/kg	--	51	0%	0.00024	0.016	--	--	1.8	--	--
PEST	Endrin aldehyde	mg/kg	--	51	0%	0.00027	0.018	--	--	--	--	--
PEST	Endrin ketone	mg/kg	--	51	0%	0.00034	0.022	--	--	--	--	--
PEST	gamma-BHC (Lindane)	mg/kg	2	51	4%	0.00017	0.011	0.00031	0.0024	0.44	--	--
PEST	gamma-Chlordane	mg/kg	--	51	0%	0.00033	0.021	--	--	--	--	--
PEST	Heptachlor	mg/kg	1	51	2%	0.00019	0.012	0.00044	0.00044	0.11	--	--
PEST	Heptachlor epoxide	mg/kg	--	51	0%	0.00012	0.0078	--	--	0.053	--	--
PEST	Methoxychlor	mg/kg	--	51	0%	0.0013	0.084	--	--	31	--	--
PEST	Toxaphene	mg/kg	--	51	0%	0.02	1.3	--	--	0.44	--	4
SVOC	2,4,5-Trichlorophenol	mg/kg	2	50	4%	0.037	0.52	0.056	0.11	611	--	--
SVOC	2,4,6-Trichlorophenol	mg/kg	1	50	2%	0.054	0.76	0.088	0.088	44	--	--
SVOC	2,4-Dichlorophenol	mg/kg	2	50	4%	0.021	0.3	0.054	0.088	18	--	--
SVOC	2,4-Dimethylphenol	mg/kg	--	50	0%	0.17	2.4	--	--	122	--	--
SVOC	2,4-Dinitrophenol	mg/kg	--	50	0%	0.67	9.5	--	--	12	--	--
SVOC	2-Chloronaphthalene	mg/kg	2	50	4%	0.019	0.27	0.043	0.08	386	--	--
SVOC	2-Chlorophenol	mg/kg	2	50	4%	0.022	0.32	0.045	0.073	6.4	--	--
SVOC	2-Methyl-4,6-dinitrophenol	mg/kg	--	50	0%	0.67	9.5	--	--	--	--	--
SVOC	2-Methylphenol (o-Cresol)	mg/kg	1	50	2%	0.059	0.83	0.073	0.073	31	--	--
SVOC	2-Nitroaniline	mg/kg	1	50	2%	0.046	0.65	0.086	0.086	18	--	--
SVOC	2-Nitrophenol	mg/kg	2	50	4%	0.031	0.43	0.045	0.072	--	--	--
SVOC	3,3'-Dichlorobenzidine	mg/kg	--	50	0%	0.34	4.7	--	--	1.1	--	1
SVOC	3-Nitroaniline	mg/kg	--	50	0%	0.17	2.4	--	--	--	--	--
SVOC	4-Bromophenyl phenyl ether	mg/kg	2	50	4%	0.024	0.33	0.062	0.11	--	--	--
SVOC	4-Chloro-3-methylphenol	mg/kg	2	50	4%	0.014	0.2	0.06	0.095	--	--	--
SVOC	4-Chloroaniline	mg/kg	1	50	2%	0.059	0.83	0.074	0.074	24	--	--
SVOC	4-Chlorophenyl phenyl ether	mg/kg	2	50	4%	0.014	0.2	0.057	0.11	--	--	--
SVOC	4-Nitroaniline	mg/kg	1	50	2%	0.038	0.53	0.11	0.11	--	--	--
SVOC	4-Nitrophenol	mg/kg	1	73	1%	0.0011	9.5	0.0084	0.0084	49	--	--
SVOC	Benzoic acid	mg/kg	--	50	0%	0.17	2.4	--	--	100000	--	--
SVOC	Benzyl alcohol	mg/kg	--	50	0%	0.17	2.4	--	--	1833	--	--
SVOC	Benzyl butyl phthalate	mg/kg	2	50	4%	0.019	0.27	0.064	0.1	240	--	--

TABLE 3-4
Summary Statistics for Confirmation Samples Collected at Building 48 Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
SVOC	bis-(2-Chloroethoxy)methane	mg/kg	2	50	4%	0.022	0.32	0.043	0.066	--	--	--
SVOC	bis-(2-Chloroethyl)ether	mg/kg	2	50	4%	0.033	0.46	0.046	0.054	0.21	--	1
SVOC	bis(2-Chloroisopropyl)ether	mg/kg	1	50	2%	0.033	0.46	0.053	0.053	2.9	--	--
SVOC	bis-(2-Ethylhexyl)phthalate	mg/kg	4	50	8%	0.025	0.34	0.031	0.11	35	--	--
SVOC	Carbazole	mg/kg	1	50	2%	0.056	0.79	0.11	0.11	24	--	--
SVOC	Dibenzofuran	mg/kg	2	50	4%	0.018	0.26	0.052	0.099	15	--	--
SVOC	Diethyl phthalate	mg/kg	2	50	4%	0.02	0.29	0.062	0.11	4888	--	--
SVOC	Dimethyl phthalate	mg/kg	2	50	4%	0.024	0.33	0.055	0.1	100000	--	--
SVOC	Di-n-butyl phthalate	mg/kg	4	50	8%	0.027	0.37	0.071	0.12	611	--	--
SVOC	Di-n-octyl phthalate	mg/kg	2	50	4%	0.025	0.34	0.063	0.11	200	--	--
SVOC	Hexachlorobenzene	mg/kg	2	50	4%	0.017	0.24	0.056	0.11	0.3	--	--
SVOC	Hexachloroethane	mg/kg	--	50	0%	0.047	0.66	--	--	35	--	--
SVOC	Isophorone	mg/kg	2	50	4%	0.017	0.24	0.041	0.065	512	--	--
SVOC	m,p-Cresol	mg/kg	--	50	0%	0.34	4.7	--	--	--	--	--
SVOC	n-Nitrosodimethylamine	mg/kg	1	50	2%	0.039	0.55	0.061	0.061	0.0023	1	49
SVOC	n-Nitrosodi-n-propylamine	mg/kg	2	50	4%	0.018	0.26	0.04	0.06	0.069	--	1
SVOC	n-Nitrosodiphenylamine	mg/kg	2	50	4%	0.025	0.34	0.056	0.1	99	--	--
SVOC	Pentachlorophenol	mg/kg	1	73	1%	0.0016	9.5	0.027	0.027	3	--	1
SVOC	Phenol	mg/kg	2	50	4%	0.019	0.27	0.047	0.071	1833	--	--
TPH	C10-C12 Aliphatics	mg/kg	--	5	0%	0.108	0.124	--	--	--	--	--
TPH	C10-C12 Aromatics	mg/kg	3	5	60%	0.0937	0.094	0.237	0.291	--	--	--
TPH	C12-C16 Aliphatics	mg/kg	--	5	0%	1.14	1.3	--	--	--	--	--
TPH	C12-C16 Aromatics	mg/kg	--	5	0%	1.14	1.3	--	--	--	--	--
TPH	C16-C21 Aliphatics	mg/kg	--	5	0%	1.14	1.3	--	--	--	--	--
TPH	C16-C21 Aromatics	mg/kg	--	5	0%	1.14	1.3	--	--	--	--	--
TPH	C21-C34 Aliphatics	mg/kg	--	5	0%	1.14	1.3	--	--	--	--	--
TPH	C21-C34 Aromatics	mg/kg	--	5	0%	1.14	1.3	--	--	--	--	--
TPH	C8-C10 Aliphatics	mg/kg	--	5	0%	0.0308	0.0352	--	--	--	--	--
TPH	C8-C10 Aromatics	mg/kg	4	5	80%	1.3	1.3	1.54	7.08	--	--	--
TPH	Extractable Petroleum Hydrocarbons	mg/kg	--	5	0%	0.0308	0.0352	--	--	--	--	--
TPH	DRO	mg/kg	51	51	100%	--	--	0.6	57	1025	--	--
TPH	GRO	mg/kg	11	51	22%	0.9	7.7	1.3	850	140	2	--
TPH	RRO	mg/kg	51	51	100%	--	--	3.2	660	1000	--	--
VOC	1,1,1,2-Tetrachloroethane	mg/kg	--	51	0%	0.000092	0.0098	--	--	3	--	--
VOC	1,1,1-Trichloroethane	mg/kg	--	51	0%	0.00041	0.011	--	--	1385	--	--
VOC	1,1,2,2-Tetrachloroethane	mg/kg	--	51	0%	0.000093	0.0095	--	--	0.38	--	--
VOC	1,1,2-Trichloroethane	mg/kg	--	51	0%	0.00011	0.0091	--	--	0.84	--	--
VOC	1,1-Dichloroethane	mg/kg	--	51	0%	0.00042	0.018	--	--	85	--	--
VOC	1,1-Dichloroethene	mg/kg	--	51	0%	0.00015	0.014	--	--	28	--	--

TABLE 3-4
Summary Statistics for Confirmation Samples Collected at Building 48 Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
VOC	1,1-Dichloropropene	mg/kg	--	51	0%	0.00041	0.0071	--	--	--	--	--
VOC	1,2,3-Trichlorobenzene	mg/kg	--	51	0%	0.00018	0.011	--	--	--	--	--
VOC	1,2,3-Trichloropropane	mg/kg	--	51	0%	0.00038	0.083	--	--	0.32	--	--
VOC	1,2,4-Trichlorobenzene	mg/kg	2	51	4%	0.00041	0.012	0.042	0.071	14	--	--
VOC	1,2,4-Trimethylbenzene	mg/kg	4	51	8%	0.00035	0.012	0.0045	0.022	5.7	--	--
VOC	1,2-Dibromo-3-chloropropane	mg/kg	--	51	0%	0.00019	0.99	--	--	0.0026	--	40
VOC	1,2-Dibromoethane	mg/kg	3	51	6%	0.00014	0.012	0.00039	0.022	0.028	--	--
VOC	1,2-Dichlorobenzene	mg/kg	1	51	2%	0.00037	0.0065	0.06	0.06	28	--	--
VOC	1,2-Dichloroethane	mg/kg	3	51	6%	0.00017	0.016	0.0091	0.046	0.35	--	--
VOC	1,2-Dichloropropane	mg/kg	--	51	0%	0.00018	0.0078	--	--	0.35	--	--
VOC	1,3,5-Trimethylbenzene	mg/kg	4	51	8%	0.00037	0.01	0.0062	0.02	2.1	--	--
VOC	1,3-Dichlorobenzene	mg/kg	1	51	2%	0.0004	0.0079	0.058	0.058	6.9	--	--
VOC	1,3-Dichloropropane	mg/kg	--	51	0%	0.00023	0.0081	--	--	11	--	--
VOC	1,4-Dichlorobenzene	mg/kg	1	51	2%	0.00042	0.006	0.057	0.057	3.2	--	--
VOC	2,2-Dichloropropane	mg/kg	--	51	0%	0.00041	0.0073	--	--	--	--	--
VOC	2-Butanone	mg/kg	26	51	51%	0.0022	0.085	0.0037	0.13	3209	--	--
VOC	2-Chlorotoluene	mg/kg	--	51	0%	0.00015	0.011	--	--	16	--	--
VOC	2-Hexanone	mg/kg	--	51	0%	0.002	0.017	--	--	--	--	--
VOC	4-Chlorotoluene	mg/kg	--	51	0%	0.00041	0.0067	--	--	--	--	--
VOC	4-Isopropyltoluene	mg/kg	5	51	10%	0.00033	0.007	0.0024	0.017	--	--	--
VOC	4-Methyl-2-pentanone	mg/kg	--	51	0%	0.00046	0.025	--	--	580	--	--
VOC	Acetone	mg/kg	13	51	25%	0.0014	0.045	0.038	0.54	1415	--	--
VOC	Benzene	mg/kg	33	51	65%	0.00011	0.0055	0.0014	0.4	0.66	--	--
VOC	Bromobenzene	mg/kg	--	51	0%	0.00017	0.015	--	--	7.3	--	--
VOC	Bromochloromethane	mg/kg	--	51	0%	0.00026	0.012	--	--	--	--	--
VOC	Bromodichloromethane	mg/kg	--	51	0%	0.000079	0.32	--	--	1	--	--
VOC	Bromoform	mg/kg	--	51	0%	0.000076	0.32	--	--	62	--	--
VOC	Bromomethane	mg/kg	--	51	0%	0.00041	0.064	--	--	0.87	--	--
VOC	Carbon disulfide	mg/kg	8	51	16%	0.00013	0.018	0.0012	0.0036	721	--	--
VOC	Carbon tetrachloride	mg/kg	--	51	0%	0.00039	0.0098	--	--	0.24	--	--
VOC	Chlorobenzene	mg/kg	1	51	2%	0.00019	0.023	0.03	0.03	27	--	--
VOC	Chloroethane	mg/kg	--	51	0%	0.00028	0.045	--	--	3	--	--
VOC	Chloroform	mg/kg	22	51	43%	0.00015	0.0059	0.0034	0.019	0.25	--	--
VOC	Chloromethane	mg/kg	1	51	2%	0.00019	0.018	0.012	0.012	11	--	--
VOC	cis-1,2-Dichloroethene	mg/kg	--	51	0%	0.00013	0.014	--	--	4.3	--	--
VOC	cis-1,3-Dichloropropene	mg/kg	--	51	0%	0.00012	0.32	--	--	0.7	--	--
VOC	Dibromochloromethane	mg/kg	--	51	0%	0.00015	0.28	--	--	1	--	--
VOC	Dibromomethane	mg/kg	--	51	0%	0.00011	0.014	--	--	14	--	--
VOC	Dichlorodifluoromethane	mg/kg	--	51	0%	0.0002	0.016	--	--	9.4	--	--

TABLE 3-4
Summary Statistics for Confirmation Samples Collected at Building 48 Excavation
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
VOC	Ethylbenzene	mg/kg	9	51	18%	0.00017	0.011	0.011	0.035	234	--	--
VOC	Hexachlorobutadiene	mg/kg	2	51	4%	0.00036	0.018	0.049	0.071	6.2	--	--
VOC	Isopropylbenzene	mg/kg	3	51	6%	0.00016	0.011	0.00024	0.013	37	--	--
VOC	m,p-Xylene	mg/kg	26	51	51%	0.0002	0.024	0.00018	2.8	214	--	--
VOC	Methylene chloride	mg/kg	3	51	6%	0.0002	0.011	0.0099	0.8	8.9	--	--
VOC	Methyl-tert-butyl ether (MTBE)	mg/kg	--	51	0%	0.00025	0.014	--	--	32	--	--
VOC	n-Butylbenzene	mg/kg	--	51	0%	0.00033	0.0081	--	--	14	--	--
VOC	n-Propylbenzene	mg/kg	1	51	2%	0.00015	0.013	0.011	0.011	14	--	--
VOC	o-Xylene	mg/kg	13	51	25%	0.000068	0.013	0.000076	0.14	282	--	--
VOC	sec-Butylbenzene	mg/kg	--	51	0%	0.00036	0.004	--	--	11	--	--
VOC	Styrene	mg/kg	1	51	2%	0.00033	0.0073	0.41	0.41	1734	--	--
VOC	tert-Butylbenzene	mg/kg	--	51	0%	0.00036	0.0068	--	--	13	--	--
VOC	Tetrachloroethene (PCE)	mg/kg	--	51	0%	0.00011	0.014	--	--	0.55	--	--
VOC	Toluene	mg/kg	51	51	100%	--	--	0.012	2.9	521	--	--
VOC	trans-1,2-Dichloroethene	mg/kg	--	51	0%	0.0003	0.48	--	--	12	--	--
VOC	trans-1,3-Dichloropropene	mg/kg	--	51	0%	0.00019	0.32	--	--	0.7	--	--
VOC	Trichloroethene (TCE)	mg/kg	--	51	0%	0.00019	0.0091	--	--	0.043	--	--
VOC	Trichlorofluoromethane	mg/kg	10	51	20%	0.00021	0.0081	0.0068	2.4	39	--	--
VOC	Vinyl chloride	mg/kg	--	51	0%	0.00016	0.012	--	--	0.043	--	--

Italics indicate screening level based on background.
Highlight indicates analyte with one or more screening level exceedance.

--	no result	MDL	method detection limit	SL	screening level
D/F	dioxins/furans	mg/kg	milligrams per kilogram	SVOC	semi-volatile organic compound
EXP	explosives	PEST	pesticides	TPH	total petroleum hydrocarbons
HERB	herbicides	PAH	polycyclic aromatic hydrocarbon	VOC	volatile organic compound

TABLE 3-5
Summary Statistics for Confirmation Samples Collected at Building 15 and 17 Excavations
Former Communications Site, Fort Wainwright, AlaSka
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
EXP	1,3,5-Trinitrobenzene	mg/kg	--	20	0%	0.0094	0.0094	--	--	183	--	--
EXP	1,3-Dinitrobenzene	mg/kg	--	20	0%	0.028	0.028	--	--	0.61	--	--
EXP	2,4,6-Trinitrotoluene	mg/kg	--	20	0%	0.013	0.013	--	--	16	--	--
EXP	2,4-Dinitrotoluene	mg/kg	--	20	0%	0.025	0.025	--	--	12	--	--
EXP	2,6-Dinitrotoluene	mg/kg	--	20	0%	0.016	0.016	--	--	6.1	--	--
EXP	2-Amino-4,6-dinitrotoluene	mg/kg	--	20	0%	0.027	0.027	--	--	--	--	--
EXP	2-Nitrotoluene	mg/kg	--	20	0%	0.029	0.029	--	--	2.8	--	--
EXP	3-Nitrotoluene	mg/kg	--	20	0%	0.0093	0.0093	--	--	156	--	--
EXP	4-Amino-2,6-dinitrotoluene	mg/kg	--	20	0%	0.016	0.016	--	--	--	--	--
EXP	4-Nitrotoluene	mg/kg	--	20	0%	0.017	0.017	--	--	40	--	--
EXP	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	mg/kg	--	20	0%	0.038	0.038	--	--	4.4	--	--
EXP	Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	mg/kg	--	20	0%	0.011	0.011	--	--	24	--	--
EXP	Nitrobenzene	mg/kg	--	20	0%	0.026	0.026	--	--	2	--	--
EXP	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	mg/kg	--	20	0%	0.029	0.029	--	--	306	--	--
HERB	2,4,5-T	mg/kg	--	20	0%	0.00055	0.00067	--	--	61	--	--
HERB	2,4,5-TP (Silvex)	mg/kg	--	20	0%	0.002	0.0024	--	--	49	--	--
HERB	2,4-D	mg/kg	--	20	0%	0.00076	0.00093	--	--	69	--	--
HERB	2,4-DB	mg/kg	--	20	0%	0.0016	0.0019	--	--	49	--	--
HERB	Dalapon	mg/kg	--	20	0%	0.0045	0.0055	--	--	183	--	--
HERB	Dicamba	mg/kg	--	20	0%	0.00089	0.0011	--	--	183	--	--
HERB	Dichlorprop	mg/kg	--	20	0%	0.0014	0.0017	--	--	--	--	--
HERB	Dinoseb	mg/kg	--	19	0%	0.0022	0.0027	--	--	6.1	--	--
HERB	MCPA (2-Methyl-4-chlorophenoxy acetic acid)	mg/kg	--	20	0%	0.00085	0.001	--	--	3.1	--	--
HERB	MCPP (2-(2-methyl-4-chlorophenoxy) propanoic acid)	mg/kg	--	20	0%	0.00099	0.0012	--	--	6.1	--	--
METAL	Aluminum	mg/kg	20	20	100%	--	--	4240	10400	7733	14	--
METAL	Antimony	mg/kg	10	20	50%	0.2	0.24	0.22	0.72	3.1	--	--
METAL	Arsenic	mg/kg	20	20	100%	--	--	2.1	9.6	*8.46*	1	--
METAL	Barium	mg/kg	20	20	100%	--	--	45.7	99.7	1564	--	--
METAL	Beryllium	mg/kg	20	20	100%	--	--	0.077	0.16	16	--	--
METAL	Boron	mg/kg	8	20	40%	1.3	1.6	1.5	2.2	1562	--	--
METAL	Cadmium	mg/kg	19	20	95%	0.051	0.051	0.051	0.64	3.9	--	--
METAL	Calcium	mg/kg	20	20	100%	--	--	1970	10300	--	--	--
METAL	Chromium	mg/kg	20	20	100%	--	--	8.4	19.9	211	--	--
METAL	Cobalt	mg/kg	20	20	100%	--	--	3.9	13.3	903	--	--
METAL	Copper	mg/kg	20	20	100%	--	--	6	119	291	--	--
METAL	Iron	mg/kg	20	20	100%	--	--	8520	22200	5475	20	--

TABLE 3-5
Summary Statistics for Confirmation Samples Collected at Building 15 and 17 Excavations
Former Communications Site, Fort Wainwright, AlaSka
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
METAL	Lead	mg/kg	20	20	100%	--	--	2.4	28.8	400	--	--
METAL	Magnesium	mg/kg	20	20	100%	--	--	2930	6990	--	--	--
METAL	Manganese	mg/kg	20	20	100%	--	--	141	620	347	3	--
METAL	Mercury	mg/kg	20	20	100%	--	--	0.017	0.063	--	--	--
METAL	Nickel	mg/kg	20	20	100%	--	--	10.3	22.1	156	--	--
METAL	Potassium	mg/kg	20	20	100%	--	--	440	1090	--	--	--
METAL	Selenium	mg/kg	20	20	100%	--	--	0.12	0.4	39	--	--
METAL	Silver	mg/kg	10	20	50%	0.031	0.035	0.031	0.19	39	--	--
METAL	Sodium	mg/kg	20	20	100%	--	--	130	389	--	--	--
METAL	Thallium	mg/kg	8	20	40%	0.051	0.063	0.052	0.073	5.5	--	--
METAL	Vanadium	mg/kg	20	20	100%	--	--	17.1	34.5	39	--	--
METAL	Zinc	mg/kg	20	20	100%	--	--	15.4	168	2346	--	--
PAH	2-Methylnaphthalene	mg/kg	19	20	95%	0.00028	0.00028	0.00032	0.0074	203	--	--
PAH	Acenaphthene	mg/kg	1	20	5%	0.00089	0.0011	0.0066	0.0066	368	--	--
PAH	Acenaphthylene	mg/kg	1	20	5%	0.00093	0.0012	0.002	0.002	610	--	--
PAH	Anthracene	mg/kg	4	20	20%	0.0004	0.00047	0.00058	0.013	2190	--	--
PAH	Benzo(a)anthracene	mg/kg	9	20	45%	0.00031	0.00036	0.00056	0.028	0.15	--	--
PAH	Benzo(a)pyrene	mg/kg	11	20	55%	0.00041	0.00047	0.00045	0.027	0.015	1	--
PAH	Benzo(b)fluoranthene	mg/kg	10	20	50%	0.00051	0.0006	0.00075	0.027	0.15	--	--
PAH	Benzo(g,h,i)perylene	mg/kg	11	20	55%	0.00033	0.00038	0.00048	0.016	300	--	--
PAH	Benzo(k)fluoranthene	mg/kg	10	20	50%	0.0003	0.00035	0.00058	0.022	1.5	--	--
PAH	Chrysene	mg/kg	10	20	50%	0.00035	0.00041	0.0006	0.032	15	--	--
PAH	Dibenzo(a,h)anthracene	mg/kg	9	20	45%	0.00019	0.00022	0.00024	0.0048	0.015	--	--
PAH	Fluoranthene	mg/kg	11	20	55%	0.0003	0.00035	0.00036	0.043	229	--	--
PAH	Fluorene	mg/kg	1	20	5%	0.0011	0.0014	0.0061	0.0061	264	--	--
PAH	Indeno(1,2,3-cd)pyrene	mg/kg	10	20	50%	0.00049	0.00057	0.00055	0.017	0.15	--	--
PAH	Naphthalene	mg/kg	13	40	33%	0.00031	0.0026	0.00039	0.012	12	--	--
PAH	Phenanthrene	mg/kg	12	20	60%	0.00036	0.0004	0.00044	0.067	3000	--	--
PAH	Pyrene	mg/kg	9	20	45%	0.00036	0.00041	0.00053	0.051	231	--	--
PEST	4,4'-DDD	mg/kg	15	20	75%	0.00026	0.0003	0.00045	0.1	2.4	--	--
PEST	4,4'-DDE	mg/kg	19	20	95%	0.00022	0.00022	0.00031	0.16	1.7	--	--
PEST	4,4'-DDT	mg/kg	20	20	100%	--	--	0.00065	1.8	1.7	1	--
PEST	Aldrin	mg/kg	--	20	0%	0.00021	0.023	--	--	0.029	--	--
PEST	alpha-BHC	mg/kg	--	20	0%	0.00022	0.024	--	--	0.09	--	--
PEST	alpha-Chlordane	mg/kg	--	20	0%	0.0002	0.022	--	--	1.6	--	--
PEST	beta-BHC	mg/kg	--	20	0%	0.00033	0.036	--	--	0.32	--	--

TABLE 3-5
Summary Statistics for Confirmation Samples Collected at Building 15 and 17 Excavations
Former Communications Site, Fort Wainwright, AlaSka
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
PEST	delta-BHC	mg/kg	--	20	0%	0.00016	0.018	--	--	--	--	--
PEST	Dieldrin	mg/kg	--	20	0%	0.00032	0.035	--	--	0.03	--	1
PEST	Endosulfan I	mg/kg	--	20	0%	0.00014	0.015	--	--	37	--	--
PEST	Endosulfan II	mg/kg	--	20	0%	0.00066	0.072	--	--	37	--	--
PEST	Endosulfan sulfate	mg/kg	--	20	0%	0.00022	0.024	--	--	--	--	--
PEST	Endrin	mg/kg	--	20	0%	0.00024	0.026	--	--	1.8	--	--
PEST	Endrin aldehyde	mg/kg	--	20	0%	0.00027	0.03	--	--	--	--	--
PEST	Endrin ketone	mg/kg	--	20	0%	0.00034	0.037	--	--	--	--	--
PEST	gamma-BHC (Lindane)	mg/kg	--	20	0%	0.00017	0.019	--	--	0.44	--	--
PEST	gamma-Chlordane	mg/kg	--	20	0%	0.00033	0.036	--	--	--	--	--
PEST	Heptachlor	mg/kg	--	20	0%	0.00019	0.021	--	--	0.11	--	--
PEST	Heptachlor epoxide	mg/kg	--	20	0%	0.00012	0.013	--	--	0.053	--	--
PEST	Methoxychlor	mg/kg	--	20	0%	0.0013	0.14	--	--	31	--	--
PEST	Toxaphene	mg/kg	--	20	0%	0.02	2.2	--	--	0.44	--	4
SVOC	2,4,5-Trichlorophenol	mg/kg	--	20	0%	0.036	0.046	--	--	611	--	--
SVOC	2,4,6-Trichlorophenol	mg/kg	--	20	0%	0.054	0.067	--	--	44	--	--
SVOC	2,4-Dichlorophenol	mg/kg	--	20	0%	0.021	0.027	--	--	18	--	--
SVOC	2,4-Dimethylphenol	mg/kg	--	20	0%	0.17	0.21	--	--	122	--	--
SVOC	2,4-Dinitrophenol	mg/kg	--	20	0%	0.67	0.83	--	--	12	--	--
SVOC	2-Chloronaphthalene	mg/kg	--	20	0%	0.019	0.024	--	--	386	--	--
SVOC	2-Chlorophenol	mg/kg	--	20	0%	0.022	0.028	--	--	6.4	--	--
SVOC	2-Methyl-4,6-dinitrophenol	mg/kg	--	20	0%	0.67	0.83	--	--	--	--	--
SVOC	2-Methylphenol (o-Cresol)	mg/kg	--	20	0%	0.059	0.073	--	--	31	--	--
SVOC	2-Nitroaniline	mg/kg	--	20	0%	0.046	0.057	--	--	18	--	--
SVOC	2-Nitrophenol	mg/kg	--	20	0%	0.03	0.038	--	--	--	--	--
SVOC	3,3'-Dichlorobenzidine	mg/kg	--	20	0%	0.34	0.42	--	--	1.1	--	--
SVOC	3-Nitroaniline	mg/kg	--	20	0%	0.17	0.21	--	--	--	--	--
SVOC	4-Bromophenyl phenyl ether	mg/kg	--	20	0%	0.023	0.029	--	--	--	--	--
SVOC	4-Chloro-3-methylphenol	mg/kg	--	20	0%	0.014	0.018	--	--	--	--	--
SVOC	4-Chloroaniline	mg/kg	--	20	0%	0.059	0.073	--	--	24	--	--
SVOC	4-Chlorophenyl phenyl ether	mg/kg	--	20	0%	0.014	0.018	--	--	--	--	--
SVOC	4-Nitroaniline	mg/kg	--	20	0%	0.038	0.047	--	--	--	--	--
SVOC	4-Nitrophenol	mg/kg	--	20	0%	0.0011	0.0014	--	--	49	--	--
SVOC	Benzoic acid	mg/kg	--	20	0%	0.17	0.21	--	--	100000	--	--
SVOC	Benzyl alcohol	mg/kg	--	20	0%	0.17	0.21	--	--	1833	--	--
SVOC	Benzyl butyl phthalate	mg/kg	--	20	0%	0.019	0.024	--	--	240	--	--

TABLE 3-5
Summary Statistics for Confirmation Samples Collected at Building 15 and 17 Excavations
Former Communications Site, Fort Wainwright, AlaSka
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
SVOC	bis-(2-Chloroethoxy)methane	mg/kg	--	20	0%	0.022	0.028	--	--	--	--	--
SVOC	bis-(2-Chloroethyl)ether	mg/kg	--	20	0%	0.032	0.04	--	--	0.21	--	--
SVOC	bis(2-Chloroisopropyl)ether	mg/kg	--	20	0%	0.032	0.04	--	--	2.9	--	--
SVOC	bis-(2-Ethylhexyl)phthalate	mg/kg	--	20	0%	0.024	0.03	--	--	35	--	--
SVOC	Carbazole	mg/kg	--	20	0%	0.056	0.07	--	--	24	--	--
SVOC	Dibenzofuran	mg/kg	--	20	0%	0.018	0.023	--	--	15	--	--
SVOC	Diethyl phthalate	mg/kg	--	20	0%	0.02	0.025	--	--	4888	--	--
SVOC	Dimethyl phthalate	mg/kg	--	20	0%	0.023	0.029	--	--	100000	--	--
SVOC	Di-n-butyl phthalate	mg/kg	--	20	0%	0.026	0.033	--	--	611	--	--
SVOC	Di-n-octyl phthalate	mg/kg	--	20	0%	0.024	0.03	--	--	200	--	--
SVOC	Hexachlorobenzene	mg/kg	--	20	0%	0.017	0.021	--	--	0.3	--	--
SVOC	Hexachloroethane	mg/kg	--	20	0%	0.047	0.058	--	--	35	--	--
SVOC	Isophorone	mg/kg	--	20	0%	0.017	0.021	--	--	512	--	--
SVOC	m,p-Cresol	mg/kg	--	20	0%	0.34	0.42	--	--	--	--	--
SVOC	n-Nitrosodimethylamine	mg/kg	--	20	0%	0.038	0.048	--	--	0.0023	--	20
SVOC	n-Nitrosodi-n-propylamine	mg/kg	--	20	0%	0.018	0.023	--	--	0.069	--	--
SVOC	n-Nitrosodiphenylamine	mg/kg	--	20	0%	0.024	0.03	--	--	99	--	--
SVOC	Pentachlorophenol	mg/kg	1	20	5%	0.0018	0.0022	0.012	0.012	3	--	--
SVOC	Phenol	mg/kg	--	20	0%	0.019	0.024	--	--	1833	--	--
TPH	DRO	mg/kg	20	20	100%	--	--	0.77	43	1025	--	--
TPH	GRO	mg/kg	1	20	5%	3.4	6.1	17	17	140	--	--
TPH	RRO	mg/kg	19	20	95%	1.6	1.6	1.7	170	1000	--	--
VOC	1,1,1,2-Tetrachloroethane	mg/kg	--	20	0%	0.0033	0.012	--	--	3	--	--
VOC	1,1,1-Trichloroethane	mg/kg	--	20	0%	0.00089	0.0033	--	--	1385	--	--
VOC	1,1,2,2-Tetrachloroethane	mg/kg	--	20	0%	0.00076	0.0028	--	--	0.38	--	--
VOC	1,1,2-Trichloroethane	mg/kg	--	20	0%	0.0032	0.012	--	--	0.84	--	--
VOC	1,1-Dichloroethane	mg/kg	--	20	0%	0.00085	0.0032	--	--	85	--	--
VOC	1,1-Dichloroethene	mg/kg	--	20	0%	0.0013	0.005	--	--	28	--	--
VOC	1,1-Dichloropropene	mg/kg	--	20	0%	0.00096	0.0036	--	--	--	--	--
VOC	1,2,3-Trichlorobenzene	mg/kg	--	20	0%	0.00084	0.0031	--	--	--	--	--
VOC	1,2,3-Trichloropropane	mg/kg	--	20	0%	0.00085	0.0032	--	--	0.32	--	--
VOC	1,2,4-Trichlorobenzene	mg/kg	--	40	0%	0.00084	0.034	--	--	14	--	--
VOC	1,2,4-Trimethylbenzene	mg/kg	2	20	10%	0.00057	0.0021	0.0015	0.0086	5.7	--	--
VOC	1,2-Dibromo-3-chloropropane	mg/kg	--	20	0%	0.0082	0.03	--	--	0.0026	--	20
VOC	1,2-Dibromoethane	mg/kg	--	20	0%	0.0009	0.0033	--	--	0.028	--	--
VOC	1,2-Dichlorobenzene	mg/kg	--	40	0%	0.00071	0.053	--	--	28	--	--

TABLE 3-5
Summary Statistics for Confirmation Samples Collected at Building 15 and 17 Excavations
Former Communications Site, Fort Wainwright, AlaSka
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
VOC	1,2-Dichloroethane	mg/kg	--	20	0%	0.00081	0.003	--	--	0.35	--	--
VOC	1,2-Dichloropropane	mg/kg	--	20	0%	0.00067	0.0025	--	--	0.35	--	--
VOC	1,3,5-Trimethylbenzene	mg/kg	--	20	0%	0.0027	0.01	--	--	2.1	--	--
VOC	1,3-Dichlorobenzene	mg/kg	--	40	0%	0.00084	0.049	--	--	6.9	--	--
VOC	1,3-Dichloropropane	mg/kg	--	20	0%	0.00064	0.0024	--	--	11	--	--
VOC	1,4-Dichlorobenzene	mg/kg	--	40	0%	0.00087	0.056	--	--	3.2	--	--
VOC	2,2-Dichloropropane	mg/kg	--	20	0%	0.0012	0.0046	--	--	--	--	--
VOC	2-Butanone	mg/kg	3	20	15%	0.035	0.064	0.0098	0.027	3209	--	--
VOC	2-Chlorotoluene	mg/kg	--	20	0%	0.00069	0.0026	--	--	16	--	--
VOC	2-Hexanone	mg/kg	--	20	0%	0.0057	0.021	--	--	--	--	--
VOC	4-Chlorotoluene	mg/kg	--	20	0%	0.00096	0.0036	--	--	--	--	--
VOC	4-Isopropyltoluene	mg/kg	--	20	0%	0.0007	0.0026	--	--	--	--	--
VOC	4-Methyl-2-pentanone	mg/kg	--	20	0%	0.0057	0.021	--	--	580	--	--
VOC	Acetone	mg/kg	4	20	20%	0.0056	0.021	0.14	0.37	1415	--	--
VOC	Benzene	mg/kg	5	20	25%	0.00089	0.003	0.0019	0.044	0.66	--	--
VOC	Bromobenzene	mg/kg	--	20	0%	0.00058	0.0022	--	--	7.3	--	--
VOC	Bromochloromethane	mg/kg	--	20	0%	0.001	0.0039	--	--	--	--	--
VOC	Bromodichloromethane	mg/kg	--	20	0%	0.00059	0.0022	--	--	1	--	--
VOC	Bromoform	mg/kg	--	20	0%	0.0046	0.017	--	--	62	--	--
VOC	Bromomethane	mg/kg	--	20	0%	0.00096	0.0036	--	--	0.87	--	--
VOC	Carbon disulfide	mg/kg	1	20	5%	0.0057	0.021	0.014	0.014	721	--	--
VOC	Carbon tetrachloride	mg/kg	--	20	0%	0.00059	0.0022	--	--	0.24	--	--
VOC	Chlorobenzene	mg/kg	--	20	0%	0.00088	0.0033	--	--	27	--	--
VOC	Chloroethane	mg/kg	--	20	0%	0.0029	0.011	--	--	3	--	--
VOC	Chloroform	mg/kg	14	20	70%	0.00084	0.0011	0.0057	0.68	0.25	1	--
VOC	Chloromethane	mg/kg	--	20	0%	0.0017	0.0062	--	--	11	--	--
VOC	cis-1,2-Dichloroethene	mg/kg	--	20	0%	0.00099	0.0037	--	--	4.3	--	--
VOC	cis-1,3-Dichloropropene	mg/kg	--	20	0%	0.00071	0.0027	--	--	0.7	--	--
VOC	Dibromochloromethane	mg/kg	--	20	0%	0.003	0.011	--	--	1	--	--
VOC	Dibromomethane	mg/kg	--	20	0%	0.00065	0.0024	--	--	14	--	--
VOC	Dichlorodifluoromethane	mg/kg	--	20	0%	0.00099	0.0037	--	--	9.4	--	--
VOC	Ethylbenzene	mg/kg	1	20	5%	0.00096	0.0036	0.021	0.021	234	--	--
VOC	Hexachlorobutadiene	mg/kg	--	40	0%	0.00099	0.042	--	--	6.2	--	--
VOC	Isopropylbenzene	mg/kg	--	20	0%	0.00058	0.0022	--	--	37	--	--
VOC	m,p-Xylene	mg/kg	4	20	20%	0.00098	0.0034	0.002	0.068	214	--	--
VOC	Methylene chloride	mg/kg	--	20	0%	0.00096	0.0035	--	--	8.9	--	--

TABLE 3-5
Summary Statistics for Confirmation Samples Collected at Building 15 and 17 Excavations
Former Communications Site, Fort Wainwright, AlaSka
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
VOC	Methyl-tert-butyl ether (MTBE)	mg/kg	--	20	0%	0.0057	0.021	--	--	32	--	--
VOC	n-Butylbenzene	mg/kg	--	20	0%	0.00074	0.0027	--	--	14	--	--
VOC	n-Propylbenzene	mg/kg	--	20	0%	0.001	0.0037	--	--	14	--	--
VOC	o-Xylene	mg/kg	1	20	5%	0.003	0.011	0.02	0.02	282	--	--
VOC	sec-Butylbenzene	mg/kg	--	20	0%	0.00084	0.0031	--	--	11	--	--
VOC	Styrene	mg/kg	--	20	0%	0.00085	0.0032	--	--	1734	--	--
VOC	tert-Butylbenzene	mg/kg	--	20	0%	0.0006	0.0022	--	--	13	--	--
VOC	Tetrachloroethene (PCE)	mg/kg	--	20	0%	0.00068	0.0025	--	--	0.55	--	--
VOC	Toluene	mg/kg	14	20	70%	0.00074	0.00093	0.041	0.33	521	--	--
VOC	trans-1,2-Dichloroethene	mg/kg	--	20	0%	0.001	0.0038	--	--	12	--	--
VOC	trans-1,3-Dichloropropene	mg/kg	--	20	0%	0.00084	0.0031	--	--	0.7	--	--
VOC	Trichloroethene (TCE)	mg/kg	--	20	0%	0.00067	0.0025	--	--	0.043	--	--
VOC	Trichlorofluoromethane	mg/kg	--	20	0%	0.00089	0.0033	--	--	39	--	--
VOC	Vinyl chloride	mg/kg	1	20	5%	0.0018	0.0066	0.02	0.02	0.043	--	--

Italics indicate screening level based on background.
Highlight indicates analyte with one or more screening level exceedance.

--	no result	MDL	method detection limit	SL	screening level
D/F	dioxins/furans	mg/kg	milligrams per kilogram	SVOC	semi-volatile organic compound
EXP	explosives	PEST	pesticides	TPH	total petroleum hydrocarbons
HERB	herbicides	PAH	polycyclic aromatic hydrocarbon	VOC	volatile organic compound

TABLE 3-6
Summary Statistics for Confirmation Samples Collected at PCB Excavations
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

											Comparison to Screening Level		
Excavation	**Chemical Group**	**Analyte Name**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
Bldg 52	PCB	PCB-1016 (Aroclor 1016)	mg/kg	--	90	0%	0.006	0.46	--	--	1	--	--
	PCB	PCB-1221 (Aroclor 1221)	mg/kg	--	90	0%	0.006	0.59	--	--	1	--	--
	PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	90	0%	0.006	0.46	--	--	1	--	--
	PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	90	0%	0.006	0.46	--	--	1	--	--
	PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	90	0%	0.006	0.46	--	--	1	--	--
	PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	90	0%	0.0015	0.46	--	--	1	--	--
	PCB	PCB-1260 (Aroclor 1260)	mg/kg	51	90	57%	0.0018	0.0327	0.0081	9.2	1	2	--
	PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	90	0%	0.0015	0.62	--	--	1	--	--
	PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	90	0%	0.0015	0.62	--	--	1	--	--
100	PCB	PCB-1016 (Aroclor 1016)	mg/kg	--	15	0%	0.0073	0.023	--	--	1	--	--
	PCB	PCB-1221 (Aroclor 1221)	mg/kg	--	15	0%	0.0073	0.029	--	--	1	--	--
	PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	15	0%	0.0073	0.023	--	--	1	--	--
	PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	15	0%	0.0073	0.023	--	--	1	--	--
	PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	15	0%	0.0073	0.023	--	--	1	--	--
	PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	15	0%	0.0019	0.023	--	--	1	--	--
	PCB	PCB-1260 (Aroclor 1260)	mg/kg	8	15	53%	0.0093	0.014	0.0036	0.33	1	--	--
	PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	15	0%	0.0019	0.03	--	--	1	--	--
	PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	15	0%	0.0019	0.03	--	--	1	--	--
200	PCB	PCB-1016 (Aroclor 1016)	mg/kg	--	15	0%	0.0089	0.0124	--	--	1	--	--
	PCB	PCB-1221 (Aroclor 1221)	mg/kg	--	15	0%	0.011	0.0143	--	--	1	--	--
	PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	15	0%	0.0089	0.0179	--	--	1	--	--
	PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	15	0%	0.0089	0.0175	--	--	1	--	--
	PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	15	0%	0.0089	0.0239	--	--	1	--	--
	PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	15	0%	0.0089	0.012	--	--	1	--	--
	PCB	PCB-1260 (Aroclor 1260)	mg/kg	8	15	59%	0.0089	0.026	0.012	0.074	1	--	--
	PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	15	0%	0.012	0.0614	--	--	1	--	--
	PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	15	0%	0.012	0.0729	--	--	1	--	--
300 [1]	PCB	PCB-1016 (Aroclor 1016)	mg/kg	--	52	0%	0.0061	1.8	--	--	1	--	1
	PCB	PCB-1221 (Aroclor 1221)	mg/kg	--	52	0%	0.0061	2.2	--	--	1	--	1
	PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	52	0%	0.0061	1.8	--	--	1	--	1
	PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	52	0%	0.0061	1.8	--	--	1	--	1
	PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	52	0%	0.0061	1.8	--	--	1	--	1
	PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	52	0%	0.0016	1.8	--	--	1	--	1
	PCB	PCB-1260 (Aroclor 1260)	mg/kg	20	52	38%	0.00552	0.0258	0.01	15	1	1	--
	PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	52	0%	0.0016	2.3	--	--	1	--	1
	PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	52	0%	0.0016	2.3	--	--	1	--	1

TABLE 3-6
Summary Statistics for Confirmation Samples Collected at PCB Excavations
Former Communications Site, Fort Wainwright, Alaska
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											Comparison to Screening Level		
Excavation	**Chemical Group**	**Analyte Name**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
400	PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	50	0%	0.0063	0.22	--	--	1	--	--
	PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	50	0%	0.0063	0.22	--	--	1	--	--
	PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	50	0%	0.0063	0.22	--	--	1	--	--
	PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	50	0%	0.0016	0.22	--	--	1	--	--
	PCB	PCB-1260 (Aroclor 1260)	mg/kg	24	50	50%	0.0018	0.0362	0.0034	0.6	1	--	--
	PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	50	0%	0.0016	0.29	--	--	1	--	--
	PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	50	0%	0.0016	0.29	--	--	1	--	--
500	PCB	PCB-1016 (Aroclor 1016)	mg/kg	--	5	0%	0.0098	0.0108	--	--	1	--	--
	PCB	PCB-1221 (Aroclor 1221)	mg/kg	--	5	0%	0.0119	0.0124	--	--	1	--	--
	PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	5	0%	0.0098	0.0155	--	--	1	--	--
	PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	5	0%	0.0098	0.0153	--	--	1	--	--
	PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	5	0%	0.0098	0.0208	--	--	1	--	--
	PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	5	0%	0.0098	0.0105	--	--	1	--	--
	PCB	PCB-1260 (Aroclor 1260)	mg/kg	4	5	80%	0.0225	0.0225	0.119	0.802	1	--	--
	PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	5	0%	0.013	0.0534	--	--	1	--	--
	PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	5	0%	0.013	0.0634	--	--	1	--	--
600	PCB	PCB-1016 (Aroclor 1016)	mg/kg	--	5	0%	0.0106	0.0114	--	--	1	--	--
	PCB	PCB-1221 (Aroclor 1221)	mg/kg	--	5	0%	0.0122	0.0131	--	--	1	--	--
	PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	5	0%	0.0152	0.0164	--	--	1	--	--
	PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	5	0%	0.0149	0.016	--	--	1	--	--
	PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	5	0%	0.0203	0.022	--	--	1	--	--
	PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	5	0%	0.0102	0.011	--	--	1	--	--
	PCB	PCB-1260 (Aroclor 1260)	mg/kg	--	5	0%	0.0222	0.024	--	--	1	--	--
	PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	5	0%	0.0523	0.0563	--	--	1	--	--
	PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	5	0%	0.0621	0.0668	--	--	1	--	--
700	PCB	PCB-1016 (Aroclor 1016)	mg/kg	--	3	0%	0.0093	0.0095	--	--	1	--	--
	PCB	PCB-1221 (Aroclor 1221)	mg/kg	--	3	0%	0.012	0.012	--	--	1	--	--
	PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	3	0%	0.0093	0.0095	--	--	1	--	--
	PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	3	0%	0.0093	0.0095	--	--	1	--	--
	PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	3	0%	0.0093	0.0095	--	--	1	--	--
	PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	3	0%	0.0093	0.0095	--	--	1	--	--
	PCB	PCB-1260 (Aroclor 1260)	mg/kg	1	3	33%	0.0093	0.0095	0.022	0.022	1	--	--
	PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	3	0%	0.012	0.013	--	--	1	--	--
	PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	3	0%	0.012	0.013	--	--	1	--	--

TABLE 3-6
Summary Statistics for Confirmation Samples Collected at PCB Excavations
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

											Comparison to Screening Level		
Excavation	**Chemical Group**	**Analyte Name**	**Units**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetects > SL**
800	PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	2	0%	0.0089	0.0093	--	--	1	--	--
	PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	2	0%	0.0089	0.0093	--	--	1	--	--
	PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	2	0%	0.0089	0.0093	--	--	1	--	--
	PCB	PCB-1260 (Aroclor 1260)	mg/kg	--	2	0%	0.0089	0.0093	--	--	1	--	--
	PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	2	0%	0.012	0.012	--	--	1	--	--
	PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	2	0%	0.012	0.012	--	--	1	--	--
900	PCB	PCB-1016 (Aroclor 1016)	mg/kg	--	1	0%	0.0091	0.0091	--	--	1	--	--
	PCB	PCB-1221 (Aroclor 1221)	mg/kg	--	1	0%	0.011	0.011	--	--	1	--	--
	PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	1	0%	0.0091	0.0091	--	--	1	--	--
	PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	1	0%	0.0091	0.0091	--	--	1	--	--
	PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	1	0%	0.0091	0.0091	--	--	1	--	--
	PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	1	0%	0.0091	0.0091	--	--	1	--	--
	PCB	PCB-1260 (Aroclor 1260)	mg/kg	1	1	100%	--	--	0.014	0.014	1	--	--
	PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	1	0%	0.012	0.012	--	--	1	--	--
	PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	1	0%	0.012	0.012	--	--	1	--	--
TSA	PCB	PCB-1016 (Aroclor 1016)	mg/kg	--	29	0%	0.0088	0.0099	--	--	1	--	--
	PCB	PCB-1221 (Aroclor 1221)	mg/kg	--	29	0%	0.011	0.013	--	--	1	--	--
	PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	29	0%	0.0088	0.0099	--	--	1	--	--
	PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	29	0%	0.0088	0.0099	--	--	1	--	--
	PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	29	0%	0.0088	0.0099	--	--	1	--	--
	PCB	PCB-1254 (Aroclor 1254)	mg/kg	--	29	0%	0.0088	0.0099	--	--	1	--	--
	PCB	PCB-1260 (Aroclor 1260)	mg/kg	8	29	28%	0.0088	0.0097	0.018	0.07	1	--	--
	PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	29	0%	0.012	0.013	--	--	1	--	--
	PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	29	0%	0.012	0.013	--	--	1	--	--

Highlight indicates analyte with one or more screening level exceedance.

[1] PCB results only (one sample was analyzed for the full analytical suite, no screening level exceedances were identified).

--	no result
mg/kg	milligrams per kilogram
MDL	method detection limit
SL	screening level

TABLE 3-7
Confirmation Samples with Exceedances of Screening Levels
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Excavation	Location Name	Sample Name	Sample Interval	Sample Date	Analyte	Result	Flag	Unit	Screening Level
Bldg 15	EXBld15-14	07FW-A-EXBld15-14	7 to 7.5 ft	10/24/2007	Chloroform	0.68	J-	mg/kg	0.25
	EXBld15-03	07FW-A-EXBld15-03	5 to 5.5 ft	10/24/2007	Benzo(a)pyrene	0.027		mg/kg	0.015
	EXBld15-03	07FW-A-EXBld15-03	5 to 5.5 ft	10/24/2007	4,4'-DDT	1.8	J-	mg/kg	1.7
Bldg 48	Bldg48-01	07FW-A-EXBld4801R1	4 to 5 ft	10/6/2007	Benzo(a)pyrene	0.059	J	mg/kg	0.015
	Bldg48-01	07FW-A-EXBld4801R1	4 to 5 ft	10/6/2007	Dibenzo(a,h)anthracene	0.061	J	mg/kg	0.015
	Bldg48-06	07FW-A-EXBld4806R1B	7 to 8 ft	10/6/2007	Benzo(a)pyrene	0.1	J	mg/kg	0.015
	Bldg48-06	07FW-A-EXBld4806R1B	7 to 8 ft	10/6/2007	Dibenzo(a,h)anthracene	0.099	J	mg/kg	0.015
	Bldg48-06	07FW-A-EXBld4806R1B	7 to 8 ft	10/6/2007	n-Nitrosodimethylamine	0.061	J	mg/kg	0.0023
	Bldg48-41	07FW-A-EXBld48-41	1.5 to 2 ft	10/10/2007	GRO	850	J+	mg/kg	140
	Bldg48-43	07FW-A-EXBLD48-43	2.5 to 3 ft	10/10/2007	GRO	630	J+	mg/kg	140
Bldg 52	EX52-F352A	07FW-E-EX52-F352A	12 to 12.5 ft	10/27/2007	PCB-1260 (Aroclor 1260)	15		mg/kg	1
	EX52-W403B	07FW-E-EX52-W403B	3 to 4 ft	10/23/2007	PCB-1260 (Aroclor 1260)	9.2		mg/kg	1
	EX52-W428A	07FW-E-EX52-W428A	2.5 to 3.5 ft	10/12/2007	PCB-1260 (Aroclor 1260)	1.4		mg/kg	1

Samples with exceedances of screening levels for metals are not listed (all exceedances less than 10 times the screening level and within range of background).

ft = feet
GRO = gasoline range organics
mg/kg = milligrams per kilogram
PCB = polychlorinated biphenyl

TABLE 3-8
Summary Statistics for In Situ Soil and Confirmation Soil Samples by COPC Evaluation Result
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
Soil COPCs (Detected Chemicals with Concentrations Greater Than Screening Levels and Background)												
VOC	Chloroform	mg/kg	144	393	37%	0.00012	2.8	0.00029	0.75	0.25	7	2
VOC	Trichloroethene (TCE)	mg/kg	8	393	2%	0.00015	5.9	0.0012	0.049	0.043	1	2
TPH	Diesel Range Organics (DRO)	mg/kg	293	344	85%	0.3	2.95	0.36	15000	1025	6	--
TPH	Gasoline Range Organics (GRO)	mg/kg	26	312	8%	0.164	11	0.37	850	140	3	--
SVOC	n-Nitrosodimethylamine	mg/kg	1	339	0%	0.013	8.4	0.061	0.061	0.0023	1	338
SVOC	n-Nitrosodi-n-propylamine	mg/kg	4	366	1%	0.002	4	0.04	0.28	0.069	2	20
PEST	4,4'-DDD	mg/kg	152	402	38%	0.000095	0.0095	0.00031	4.28	2.4	1	--
PEST	4,4'-DDE	mg/kg	182	395	46%	0.000042	0.0054	0.00029	2.07	1.7	1	--
PEST	4,4'-DDT	mg/kg	225	401	56%	0.000071	0.0098	0.00017	18.8	1.7	3	--
PCB	PCB-1260 (Aroclor 1260)	mg/kg	230	998	23%	0.00127	0.164	0.0034	15	1	5	--
PAH	Benzo(a)anthracene	mg/kg	61	403	15%	0.00029	3.8	0.00037	0.35	0.15	2	14
PAH	Benzo(a)pyrene	mg/kg	54	403	13%	0.00038	4.4	0.00045	0.33	0.015	6	206
PAH	Benzo(b)fluoranthene	mg/kg	56	403	14%	0.00049	5.5	0.0006	0.31	0.15	2	15
PAH	Dibenzo(a,h)anthracene	mg/kg	37	403	9%	0.00018	3.8	0.00021	0.099	0.015	4	227
PAH	Indeno(1,2,3-cd)pyrene	mg/kg	55	403	14%	0.00046	5.1	0.00055	0.25	0.15	1	15
METAL	Arsenic	mg/kg	436	437	100%	3	3	0.58	25.5	*8.46*	119	--
METAL	Cadmium	mg/kg	349	437	80%	0.05	0.068	0.049	10.2	3.9	4	--
METAL	Chromium	mg/kg	437	437	100%	--	--	2.1	1470	211	1	--
METAL	Lead	mg/kg	437	437	100%	--	--	0.75	206000	400	1	--
Possible Soil COPCs (Undetected Chemicals with More than 25% of MDLs Greater Than Screening Level)												
VOC	1,2-Dibromo-3-chloropropane	mg/kg	--	393	0%	0.00015	54	--	--	0.0026	--	369
Naturally Occurring Metals with Exceedances of Screening Levels, No Background Value												
METAL	Aluminum	mg/kg	378	378	100%	--	--	2510	664000	7733	167	--
METAL	Copper	mg/kg	378	378	100%	--	--	2.3	36300	291	5	--
METAL	Iron	mg/kg	378	378	100%	--	--	1550	40100	5475	376	--
METAL	Manganese	mg/kg	378	378	100%	--	--	40	4360	347	57	--
METAL	Nickel	mg/kg	378	378	100%	--	--	2.5	169	156	1	--
METAL	Vanadium	mg/kg	378	378	100%	--	--	3.8	50.5	39	21	--
METAL	Zinc	mg/kg	378	378	100%	--	--	5	34500	2346	1	--
Non-COPCs												
VOC	(trimethylsilyl)salicyclate	mg/kg	2	2	100%	--	--	0.48	0.77	--	--	--
VOC	1-(1,1-dimethylethyl)naphthalene	mg/kg	1	1	100%	--	--	0.34	0.34	--	--	--
VOC	1,1,1,2-Tetrachloroethane	mg/kg	--	394	0%	0.000092	6.4	--	--	3	--	1
VOC	1,1,1-Trichloroethane	mg/kg	--	393	0%	0.00032	7	--	--	1385	--	--
VOC	1,1,2,2-Tetrachloroethane	mg/kg	2	393	1%	0.000073	6.1	0.0086	0.01	0.38	--	2
VOC	1,1,2,2-tetrafluoropropane	mg/kg	2	2	100%	--	--	0.43	0.57	--	--	--
VOC	1,1,2-Trichloroethane	mg/kg	2	393	1%	0.000083	5.9	0.015	0.13	0.84	--	1
VOC	1,1-Dichloroethane	mg/kg	--	393	0%	0.00032	6	--	--	85	--	--

TABLE 3-8
Summary Statistics for In Situ Soil and Confirmation Soil Samples by COPC Evaluation Result
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
VOC	1,1-Dichloroethene	mg/kg	--	393	0%	0.00011	9.3	--	--	28	--	--
VOC	1,1-Dichloropropene	mg/kg	--	394	0%	0.00032	4.6	--	--	--	--	--
VOC	1,2,3,4-Tetrahydronaphthalene	mg/kg	1	1	100%	--	--	11	11	--	--	--
VOC	1,2,3-Trichlorobenzene	mg/kg	4	393	1%	0.00014	6.7	0.0019	0.034	--	--	--
VOC	1,2,4,5-Tetramethylbenzene	mg/kg	1	1	100%	--	--	8	8	--	--	--
VOC	1,2,3-Trichloropropane	mg/kg	--	393	0%	0.0003	54	--	--	0.32	--	2
VOC	1,2,4-Trichlorobenzene	mg/kg	8	437	2%	0.00032	6	0.001	6.2	14	--	--
VOC	1,2,4-Trimethylbenzene	mg/kg	13	393	3%	0.00027	3.8	0.0011	0.026	5.7	--	--
VOC	1,2-Dibromoethane	mg/kg	4	394	1%	0.00011	5.8	0.00013	0.022	0.028	--	2
VOC	1,2-Dichlorobenzene	mg/kg	3	436	1%	0.00029	9.3	0.00088	0.06	28	--	--
VOC	1,2-Dichloroethane	mg/kg	8	394	2%	0.00013	5.1	0.0012	0.046	0.35	--	2
VOC	1,2-Dichloropropane	mg/kg	11	393	3%	0.00014	5.1	0.0026	0.21	0.35	--	2
VOC	1,3,5-Trimethylbenzene	mg/kg	14	394	4%	0.00029	3.8	0.0062	0.82	2.1	--	1
VOC	1,3-Dichlorobenzene	mg/kg	1	437	0%	0.00031	8.6	0.058	0.058	6.9	--	1
VOC	1,3-Dichloropropane	mg/kg	--	394	0%	0.00018	4.9	--	--	11	--	--
VOC	1,4-Dichlorobenzene	mg/kg	1	437	0%	0.00033	9.7	0.057	0.057	3.2	--	1
VOC	1H-Indene, 2,3-dihydro-4,6-dimethyl-	mg/kg	2	2	100%	--	--	1.3	4.6	--	--	--
VOC	1H-Indene, 2,3-dihydro-4,7-dimethyl-	mg/kg	1	1	100%	--	--	15	15	--	--	--
VOC	2,2-Dichloropropane	mg/kg	--	394	0%	0.00032	4.6	--	--	--	--	--
VOC	2,3,5-trimethyldecane	mg/kg	1	1	100%	--	--	0.22	0.22	--	--	--
VOC	2,3,7-trimethyloctane	mg/kg	1	1	100%	--	--	0.89	0.89	--	--	--
VOC	2,3-dihydro-1,6-dimethyl-1H-indene	mg/kg	1	1	100%	--	--	7.8	7.8	--	--	--
VOC	2,6-Dimethylundecane	mg/kg	1	1	100%	--	--	0.41	0.41	--	--	--
VOC	2-Butanone	mg/kg	64	393	16%	0.0016	28	0.0023	1.7	3209	--	--
VOC	2-butyl-1,1,3-trimethylcyclohexane	mg/kg	1	1	100%	--	--	0.25	0.25	--	--	--
VOC	2-Chloroethyl vinyl ether	mg/kg	--	6	0%	0.0305	0.0849	--	--	--	--	--
VOC	2-Chlorotoluene	mg/kg	--	393	0%	0.00012	3.9	--	--	16	--	--
VOC	2-Hexanone	mg/kg	1	393	0%	0.0016	7.3	0.014	0.014	--	--	--
VOC	2-isopropyl-1,3-dimethycyclopentane	mg/kg	1	1	100%	--	--	0.78	0.78	--	--	--
VOC	2-methylpentane	mg/kg	1	1	100%	--	--	0.0047	0.0047	--	--	--
VOC	3-methylhexane	mg/kg	1	1	100%	--	--	0.0042	0.0042	--	--	--
VOC	4-Chlorotoluene	mg/kg	1	394	0%	0.00032	3	0.012	0.012	--	--	--
VOC	4-Ethyl-1,2-dimethylbenzene	mg/kg	1	1	100%	--	--	5.3	5.3	--	--	--
VOC	4-Isopropyltoluene	mg/kg	13	393	3%	0.00026	4.5	0.0024	0.86	--	--	--
VOC	4-Methyl-2-pentanone	mg/kg	2	394	1%	0.00035	13	0.016	0.016	580	--	--
VOC	5-methyl-2-(1-methyl)cyclohexanol	mg/kg	1	1	100%	--	--	0.23	0.23	--	--	--
VOC	6-Dodecene, (E)-	mg/kg	1	1	100%	--	--	0.87	0.87	--	--	--
VOC	7-methyltridecane	mg/kg	1	1	100%	--	--	0.66	0.66	--	--	--
VOC	Acetone	mg/kg	118	394	30%	0.001	110	0.011	2	1415	--	--

TABLE 3-8
Summary Statistics for In Situ Soil and Confirmation Soil Samples by COPC Evaluation Result
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
VOC	Benzene	mg/kg	118	445	27%	0.000065	3.6	0.00085	0.4	0.66	--	1
VOC	Bis(2-furfuryl)disulfide	mg/kg	1	1	100%	--	--	0.0059	0.0059	--	--	--
VOC	Bromobenzene	mg/kg	--	394	0%	0.00013	10	--	--	7.3	--	1
VOC	Bromochloromethane	mg/kg	--	393	0%	0.00021	7.9	--	--	--	--	--
VOC	Bromodichloromethane	mg/kg	1	393	0%	0.000061	5.4	0.0005	0.0005	1	--	1
VOC	Bromoform	mg/kg	--	393	0%	0.000076	12	--	--	62	--	--
VOC	Bromomethane	mg/kg	1	393	0%	0.00032	23	0.0075	0.0075	0.87	--	2
VOC	Carbon disulfide	mg/kg	13	381	3%	0.00012	12	0.00049	0.014	721	--	--
VOC	Carbon tetrachloride	mg/kg	--	394	0%	0.00028	6.4	--	--	0.24	--	2
VOC	Chlorobenzene	mg/kg	1	394	0%	0.00015	4.7	0.03	0.03	27	--	--
VOC	Chloroethane	mg/kg	--	393	0%	0.00028	16	--	--	3	--	1
VOC	Chloromethane	mg/kg	11	393	3%	0.00015	12	0.011	0.019	11	--	1
VOC	cis-1,2-Dichloroethene	mg/kg	--	394	0%	0.0001	8.8	--	--	4.3	--	1
VOC	cis-1,3-Dichloropropene	mg/kg	--	394	0%	0.000096	4.4	--	--	0.7	--	1
VOC	Cymene	mg/kg	2	2	100%	--	--	1.5	22	--	--	--
VOC	decahydro-2,6-dimethynaphthalene	mg/kg	1	1	100%	--	--	0.23	0.23	--	--	--
VOC	Dibromochloromethane	mg/kg	--	394	0%	0.00015	6.8	--	--	1	--	1
VOC	Dibromomethane	mg/kg	--	393	0%	0.000087	7	--	--	14	--	--
VOC	Dichlorodifluoromethane	mg/kg	--	393	0%	0.00016	10	--	--	9.4	--	1
VOC	Dodecane	mg/kg	1	1	100%	--	--	0.18	0.18	--	--	--
VOC	Ethylbenzene	mg/kg	40	446	9%	0.00012	7.1	0.00021	0.035	234	--	--
VOC	Hexachlorobutadiene	mg/kg	4	436	1%	0.00028	7.3	0.0015	0.071	6.2	--	1
VOC	hexamethyl-cyclotrisiloxane	mg/kg	--	2	0%	0.009	0.01	--	--	--	--	--
VOC	Hexanal	mg/kg	5	5	100%	--	--	0.013	0.066	--	--	--
VOC	Isopropylbenzene	mg/kg	7	393	2%	0.00012	1.8	0.00024	0.49	37	--	--
VOC	m,p-Xylene	mg/kg	70	396	18%	0.00013	5.4	0.00017	2.8	214	--	--
VOC	methyl(1-methylethyl)benzene	mg/kg	1	1	100%	--	--	0.39	0.39	--	--	--
VOC	Methyldecahydronaphthalene	mg/kg	2	2	100%	--	--	1	8.5	--	--	--
VOC	Methylene chloride	mg/kg	18	393	5%	0.00016	5.8	0.0076	1	8.9	--	--
VOC	Methyl-tert-butyl ether (MTBE)	mg/kg	--	363	0%	0.00025	0.0328	--	--	32	--	--
VOC	Naphthalene, decahydro-2,6-dimethyl-	mg/kg	1	1	100%	--	--	2.2	2.2	--	--	--
VOC	n-Butylbenzene	mg/kg	1	394	0%	0.00026	5.3	0.33	0.33	14	--	--
VOC	N-chloro-N,1,1-trifluoroethanamine	mg/kg	--	9	0%	0.42	0.63	--	--	--	--	--
VOC	n-Propylbenzene	mg/kg	2	394	1%	0.00012	5.1	0.011	0.031	14	--	--
VOC	n-Tetradecane□□□□n-Tetradecane	mg/kg	1	1	100%	--	--	0.63	0.63	--	--	--
VOC	octamethyl-cyclotetrasiloxane	mg/kg	--	2	0%	0.0075	0.013	--	--	--	--	--
VOC	o-Xylene	mg/kg	25	396	6%	0.000044	5.6	0.000067	0.14	282	--	--
VOC	p-Diethylbenzene	mg/kg	1	1	100%	--	--	8.1	8.1	--	--	--
VOC	Pentane	mg/kg	1	1	100%	--	--	0.0064	0.0064	--	--	--

TABLE 3-8
Summary Statistics for In Situ Soil and Confirmation Soil Samples by COPC Evaluation Result
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Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
VOC	sec-Butylbenzene	mg/kg	2	394	1%	0.00028	2.6	0.0027	0.016	11	--	--
VOC	Styrene	mg/kg	1	394	0%	0.00026	3.3	0.41	0.41	1734	--	--
VOC	tert-Butylbenzene	mg/kg	2	393	1%	0.00028	4.4	0.0053	0.007	13	--	--
VOC	Tetrachloroethene (PCE)	mg/kg	3	394	1%	0.000085	4.5	0.0086	0.011	0.55	--	1
VOC	Tetrahydrofuran	mg/kg	--	4	0%	0.011	0.019	--	--	--	--	--
VOC	Toluene	mg/kg	164	446	37%	0.00007	4.9	0.00084	2.9	521	--	--
VOC	trans,cis-1,8-Dimethylspiro[4.5]de	mg/kg	1	1	100%	--	--	0.24	0.24	--	--	--
VOC	trans-1,2-Dichloroethene	mg/kg	--	394	0%	0.00024	6.7	--	--	12	--	--
VOC	trans-1,3-Dichloropropene	mg/kg	--	394	0%	0.00015	4.9	--	--	0.7	--	1
VOC	trans-3a-Methylperhydroazulen-4(1H)-one	mg/kg	1	1	100%	--	--	1	1	--	--	--
VOC	Trichlorofluoromethane	mg/kg	13	393	3%	0.00016	5.3	0.0049	2.4	39	--	--
VOC	Trichlorotrifluoroethane (Freon 113)	mg/kg	--	4	0%	0.014	0.024	--	--	--	--	--
VOC	Vinyl acetate	mg/kg	--	27	0%	0.024	54	--	--	--	--	--
VOC	Vinyl chloride	mg/kg	1	393	0%	0.00012	7.7	0.02	0.02	0.043	--	2
VOC	Xylenes, Total	mg/kg	27	78	35%	0.0038	0.009	0.013	0.241	214	--	--
TPH	C10-C12 Aliphatics	mg/kg	13	44	30%	0.0428	0.158	0.0795	486	--	--	--
TPH	C10-C12 Aromatics	mg/kg	25	48	52%	0.0231	0.127	0.0444	495	--	--	--
TPH	C12-C13 Aromatics	mg/kg	7	36	19%	0.0132	0.036	0.492	2190	--	--	--
TPH	C12-C16 Aliphatics	mg/kg	5	36	14%	1	1.76	71.1	1590	--	--	--
TPH	C12-C16 Aromatics	mg/kg	5	36	14%	1	1.76	9.32	274	--	--	--
TPH	C16-C21 Aliphatics	mg/kg	6	36	17%	1	1.76	19	425	--	--	--
TPH	C16-C21 Aromatics	mg/kg	6	36	17%	1	1.76	2.88	174	--	--	--
TPH	C21-C34 Aliphatics	mg/kg	8	36	22%	1	10.5	1.25	81.3	--	--	--
TPH	C21-C34 Aromatics	mg/kg	3	36	8%	1	10.5	4.13	21.4	--	--	--
TPH	C5-C6 Aliphatics	mg/kg	4	36	11%	0.0341	0.83	0.301	1.44	--	--	--
TPH	C6-C8 Aliphatics	mg/kg	5	36	14%	0.0604	1.47	0.116	0.59	--	--	--
TPH	C8-C10 Aliphatics	mg/kg	2	50	4%	0.027	0.199	2.66	61.8	--	--	--
TPH	C8-C10 Aromatics	mg/kg	22	50	44%	0.0989	1.76	0.166	39.6	--	--	--
TPH	Extractable Petroleum Hydrocarbons (EPH)	mg/kg	7	36	19%	0.027	0.0448	32.5	2780	--	--	--
TPH	Total VPH (TVPH)	mg/kg	6	36	17%	38.4	105	3.717	3280	--	--	--
TPH	Residual Range Organics (RRO)	mg/kg	280	337	83%	1.6	170	1.7	990	1000	--	--
SVOC	2,4,5-Trichlorophenol	mg/kg	2	366	1%	0.00092	7.9	0.056	0.11	611	--	--
SVOC	2,4,6-Trichlorophenol	mg/kg	1	366	0%	0.0032	12	0.088	0.088	44	--	--
SVOC	2,4-Dichlorophenol	mg/kg	2	366	1%	0.002	4.6	0.054	0.088	18	--	--
SVOC	2,4-Dimethylphenol	mg/kg	--	366	0%	0.0016	37	--	--	122	--	--
SVOC	2,4-Dinitrophenol	mg/kg	--	366	0%	0.042	150	--	--	12	--	10
SVOC	2-Chloronaphthalene	mg/kg	2	366	1%	0.0016	4.2	0.043	0.08	386	--	--
SVOC	2-Chlorophenol	mg/kg	2	366	1%	0.0016	4.9	0.045	0.073	6.4	--	--
SVOC	2-Methyl-4,6-dinitrophenol	mg/kg	--	366	0%	0.028	150	--	--	--	--	--

TABLE 3-8
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Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
SVOC	2-Methylphenol (o-Cresol)	mg/kg	1	366	0%	0.0016	13	0.073	0.073	31	--	--
SVOC	2-Nitroaniline	mg/kg	1	366	0%	0.0031	9.9	0.086	0.086	18	--	--
SVOC	2-Nitrophenol	mg/kg	2	366	1%	0.0022	6.6	0.045	0.072	--	--	--
SVOC	3,3'-Dichlorobenzidine	mg/kg	--	366	0%	0.012	73	--	--	1.1	--	14
SVOC	3-Methylphenol & 4-Methylphenol	mg/kg	--	6	0%	0.0941	0.124	--	--	--	--	--
SVOC	3-Nitroaniline	mg/kg	--	366	0%	0.0083	37	--	--	--	--	--
SVOC	4-Bromophenyl phenyl ether	mg/kg	3	366	1%	0.0034	5.1	0.03	0.11	--	--	--
SVOC	4-Chloro-3-methylphenol	mg/kg	4	339	1%	0.00084	3.1	0.022	0.095	--	--	--
SVOC	4-Chloroaniline	mg/kg	1	366	0%	0.014	13	0.074	0.074	24	--	--
SVOC	4-Chlorophenyl phenyl ether	mg/kg	4	366	1%	0.0034	3.1	0.02	0.11	--	--	--
SVOC	4-Nitroaniline	mg/kg	1	366	0%	0.017	8.2	0.11	0.11	--	--	--
SVOC	4-Nitrophenol	mg/kg	1	410	0%	0.0011	150	0.0084	0.0084	49	--	1
SVOC	Aniline	mg/kg	--	6	0%	0.078	0.103	--	--	--	--	--
SVOC	Azobenzene	mg/kg	--	98	0%	0.0066	6	--	--	--	--	--
SVOC	Benzoic acid	mg/kg	1	339	0%	0.061	37	0.22	0.22	100000	--	--
SVOC	Benzyl alcohol	mg/kg	--	339	0%	0.0024	38	--	--	1833	--	--
SVOC	Benzyl butyl phthalate	mg/kg	7	366	2%	0.0081	4.2	0.04	0.1	240	--	--
SVOC	bis-(2-Chloroethoxy)methane	mg/kg	2	366	1%	0.0082	4.9	0.043	0.066	--	--	--
SVOC	bis-(2-Chloroethyl)ether	mg/kg	2	366	1%	0.01	7.1	0.046	0.054	0.21	--	12
SVOC	bis(2-Chloroisopropyl)ether	mg/kg	1	366	0%	0.01	7.1	0.053	0.053	2.9	--	2
SVOC	bis-(2-Ethylhexyl)phthalate	mg/kg	25	366	7%	0.015	5.3	0.031	2.8	35	--	--
SVOC	Carbazole	mg/kg	2	333	1%	0.0065	12	0.07	0.11	24	--	--
SVOC	Dibenzofuran	mg/kg	3	366	1%	0.0018	4	0.025	0.099	15	--	--
SVOC	Diethyl phthalate	mg/kg	4	366	1%	0.008	4.4	0.023	0.36	4888	--	--
SVOC	Dimethyl phthalate	mg/kg	2	366	1%	0.0041	5.1	0.055	0.1	100000	--	--
SVOC	Di-n-butyl phthalate	mg/kg	21	366	6%	0.015	5.7	0.018	0.38	611	--	--
SVOC	Di-n-octyl phthalate	mg/kg	3	366	1%	0.0028	5.3	0.063	0.11	200	--	--
SVOC	Hexachlorobenzene	mg/kg	2	366	1%	0.0023	3.8	0.056	0.11	0.3	--	10
SVOC	Hexachlorocyclopentadiene	mg/kg	--	33	0%	0.025	1.6	--	--	--	--	--
SVOC	Hexachloroethane	mg/kg	--	366	0%	0.0036	10	--	--	35	--	--
SVOC	Isophorone	mg/kg	2	366	1%	0.0012	3.8	0.041	0.065	512	--	--
SVOC	m,p-Cresol	mg/kg	--	360	0%	0.0033	73	--	--	--	--	--
SVOC	n-Nitrosodiphenylamine	mg/kg	2	366	1%	0.0013	5.3	0.056	0.1	99	--	--
SVOC	Pentachlorophenol	mg/kg	9	410	2%	0.0016	150	0.011	0.29	3	--	9
SVOC	Phenol	mg/kg	3	366	1%	0.0017	4.2	0.047	0.071	1833	--	--
PEST	Aldrin	mg/kg	--	379	0%	0.000031	0.024	--	--	0.029	--	--
PEST	alpha-BHC	mg/kg	7	386	2%	0.000053	0.025	0.00033	0.0014	0.09	--	--
PEST	alpha-Chlordane	mg/kg	2	402	0%	0.000046	0.023	0.00029	0.00039	1.6	--	--
PEST	beta-BHC	mg/kg	3	400	1%	0.000063	0.0439	0.00084	0.037	0.32	--	--

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Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
PEST	Chlordane	mg/kg	--	36	0%	0.00213	0.213	--	--	--	--	--
PEST	delta-BHC	mg/kg	5	396	1%	0.000058	0.018	0.00012	0.00057	--	--	--
PEST	Dieldrin	mg/kg	11	394	3%	0.000041	0.037	0.00042	0.018	0.03	--	2
PEST	Endosulfan I	mg/kg	2	385	1%	0.000044	0.016	0.00045	0.00061	37	--	--
PEST	Endosulfan II	mg/kg	2	407	0%	0.000048	0.076	0.00074	0.0024	37	--	--
PEST	Endosulfan sulfate	mg/kg	3	407	1%	0.000052	0.025	0.00025	0.013	--	--	--
PEST	Endrin	mg/kg	1	402	0%	0.000097	0.027	0.001	0.001	1.8	--	--
PEST	Endrin aldehyde	mg/kg	--	393	0%	0.00008	0.031	--	--	--	--	--
PEST	Endrin ketone	mg/kg	10	400	3%	0.000047	0.039	0.00038	0.0022	--	--	--
PEST	gamma-BHC (Lindane)	mg/kg	13	380	3%	0.000057	0.0355	0.00012	0.054	0.44	--	--
PEST	gamma-Chlordane	mg/kg	7	399	2%	0.000048	0.038	0.00019	0.003	--	--	--
PEST	Heptachlor	mg/kg	7	391	2%	0.000066	0.0286	0.0003	0.015	0.11	--	--
PEST	Heptachlor epoxide	mg/kg	11	406	3%	0.000056	0.014	0.00031	0.0018	0.053	--	--
PEST	Isodrin	mg/kg	--	28	0%	0.00037	0.0016	--	--	--	--	--
PEST	Methoxychlor	mg/kg	4	404	1%	0.000091	0.15	0.0028	0.013	31	--	--
PEST	Toxaphene	mg/kg	--	410	0%	0.0048	2.3	--	--	0.44	--	13
PCB	PCB-1016 (Aroclor 1016)	mg/kg	--	997	0%	0.00131	1.8	--	--	1	--	1
PCB	PCB-1221 (Aroclor 1221)	mg/kg	--	997	0%	0.0028	2.2	--	--	1	--	1
PCB	PCB-1232 (Aroclor 1232)	mg/kg	--	997	0%	0.0028	1.8	--	--	1	--	1
PCB	PCB-1242 (Aroclor 1242)	mg/kg	--	997	0%	0.000902	1.8	--	--	1	--	1
PCB	PCB-1248 (Aroclor 1248)	mg/kg	--	997	0%	0.00241	1.8	--	--	1	--	1
PCB	PCB-1254 (Aroclor 1254)	mg/kg	4	997	0%	0.000879	1.8	0.127	0.524	1	--	1
PCB	PCB-1262 (Aroclor 1262)	mg/kg	--	390	0%	0.0015	2.3	--	--	1	--	1
PCB	PCB-1268 (Aroclor 1268)	mg/kg	--	390	0%	0.00137	2.3	--	--	1	--	1
PAH	2-Methylnaphthalene	mg/kg	101	403	25%	0.00027	12	0.0003	0.21	203	--	--
PAH	Acenaphthene	mg/kg	18	403	4%	0.00084	4.2	0.0012	0.55	368	--	--
PAH	Acenaphthylene	mg/kg	8	403	2%	0.00088	3.8	0.0012	0.23	610	--	--
PAH	Anthracene	mg/kg	26	403	6%	0.00038	6	0.00046	0.11	2190	--	--
PAH	Benzo(g,h,i)perylene	mg/kg	61	403	15%	0.00031	4.9	0.00037	0.18	300	--	--
PAH	Benzo(k)fluoranthene	mg/kg	66	403	16%	0.00029	3.1	0.00036	0.35	1.5	--	2
PAH	Chrysene	mg/kg	70	403	17%	0.00033	19	0.00038	0.36	15	--	1
PAH	Fluoranthene	mg/kg	76	403	19%	0.00028	6.6	0.00033	0.5	229	--	--
PAH	Fluorene	mg/kg	22	403	5%	0.001	3.3	0.0013	0.58	264	--	--
PAH	Naphthalene	mg/kg	89	462	19%	0.0002	6.4	0.00033	0.54	12	--	--
PAH	Phenanthrene	mg/kg	105	403	26%	0.00034	3.5	0.00039	0.43	3000	--	--
PAH	Pyrene	mg/kg	68	403	17%	0.00034	4.6	0.00041	0.41	231	--	--
METAL	Antimony	mg/kg	164	378	43%	0.2	3.9	0.091	2.6	3.1	--	1
METAL	Barium	mg/kg	436	437	100%	2	2	11.4	393	1564	--	--
METAL	Beryllium	mg/kg	378	378	100%	--	--	0.027	8.6	16	--	--

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METAL	Bismuth	mg/kg	37	127	29%	0.0647	0.13	0.0813	213	--	--	--
METAL	Boron	mg/kg	86	372	23%	0.53	29.6	0.57	48.6	1562	--	--
METAL	Bromide	mg/kg	1	16	6%	0.25	0.32	2.7	2.7	--	--	--
METAL	Calcium	mg/kg	377	378	100%	296	296	1190	15700	--	--	--
METAL	Cobalt	mg/kg	377	378	100%	2	2	0.97	16.7	903	--	--
METAL	Magnesium	mg/kg	378	378	100%	--	--	1490	11200	--	--	--
METAL	Mercury	mg/kg	290	429	68%	0.0001	0.0128	0.008	1.01	--	--	--
METAL	Molybdenum	mg/kg	126	127	99%	2	2	0.12	5.6	--	--	--
METAL	Potassium	mg/kg	377	378	100%	78.9	78.9	270	1680	--	--	--
METAL	Selenium	mg/kg	393	436	90%	0.1	0.173	0.08	2.9	39	--	--
METAL	Silver	mg/kg	285	437	65%	0.01	0.147	0.028	1.9	39	--	--
METAL	Sodium	mg/kg	377	378	100%	493	493	83.7	548	--	--	--
METAL	Strontium	mg/kg	120	121	99%	3.9	3.9	7.1	85.3	--	--	--
METAL	Thallium	mg/kg	121	378	32%	0.037	0.99	0.0133	0.37	5.5	--	--
HERB	2,4,5-T	mg/kg	1	321	0%	0.00051	0.029	0.55	0.55	61	--	--
HERB	2,4,5-TP (Silvex)	mg/kg	--	321	0%	0.0019	0.11	--	--	49	--	--
HERB	2,4-D	mg/kg	--	321	0%	0.00071	0.041	--	--	69	--	--
HERB	2,4-DB	mg/kg	--	321	0%	0.0014	0.084	--	--	49	--	--
HERB	Dalapon	mg/kg	--	321	0%	0.0042	0.24	--	--	183	--	--
HERB	Dicamba	mg/kg	1	321	0%	0.00083	0.048	0.0086	0.0086	183	--	--
HERB	Dichlorprop	mg/kg	--	321	0%	0.0013	0.076	--	--	--	--	--
HERB	Dinoseb	mg/kg	--	320	0%	0.0021	0.12	--	--	6.1	--	--
HERB	MCPA (2-Methyl-4-chlorophenoxy acetic acid)	mg/kg	--	321	0%	0.00078	0.045	--	--	3.1	--	--
HERB	MCPP (2-(2-methyl-4-chlorophenoxy) propanoic acid)	mg/kg	--	321	0%	0.00092	0.053	--	--	6.1	--	--
EXP	1,3,5-Trinitrobenzene	mg/kg	17	311	5%	0.0094	0.022	0.021	0.065	183	--	--
EXP	1,3-Dinitrobenzene	mg/kg	--	311	0%	0.028	0.056	--	--	0.61	--	--
EXP	2,4,6-Trinitrotoluene	mg/kg	--	311	0%	0.013	0.022	--	--	16	--	--
EXP	2,4-Dinitrotoluene	mg/kg	2	413	0%	0.0035	4.6	0.049	0.1	12	--	--
EXP	2,6-Dinitrotoluene	mg/kg	2	413	0%	0.0037	6.6	0.055	0.1	6.1	--	1
EXP	2-Amino-4,6-dinitrotoluene	mg/kg	--	311	0%	0.027	0.11	--	--	--	--	--
EXP	2-Nitrotoluene	mg/kg	--	311	0%	0.029	0.09	--	--	2.8	--	--
EXP	3-Nitrotoluene	mg/kg	1	311	0%	0.0093	0.079	0.075	0.075	156	--	--
EXP	4-Amino-2,6-dinitrotoluene	mg/kg	--	311	0%	0.016	0.022	--	--	--	--	--
EXP	4-Nitrotoluene	mg/kg	--	311	0%	0.017	0.09	--	--	40	--	--
EXP	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	mg/kg	2	311	1%	0.038	0.045	0.041	0.058	4.4	--	--
EXP	Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	mg/kg	--	311	0%	0.011	0.056	--	--	24	--	--
EXP	Nitrobenzene	mg/kg	--	413	0%	0.0088	17	--	--	2	--	4
EXP	Nitroglycerin	mg/kg	--	90	0%	0.13	0.15	--	--	--	--	--
EXP	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	mg/kg	--	311	0%	0.029	0.034	--	--	306	--	--

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										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**Soil SL**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
EXP	Pentaerythritol tetranitrate	mg/kg	1	90	1%	0.16	0.18	0.35	0.35	--	--	--
D/F	1,2,3,4,6,7,8-Heptachlorodibenzofuran	PG/G	--	1	0%	2.6	2.6	--	--	--	--	--
D/F	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	PG/G	--	1	0%	2.6	2.6	--	--	--	--	--
D/F	1,2,3,4,7,8,9-Heptachlorodibenzofuran	PG/G	--	1	0%	2.6	2.6	--	--	--	--	--
D/F	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/G	--	1	0%	2.6	2.6	--	--	--	--	--
D/F	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	PG/G	--	1	0%	2.6	2.6	--	--	--	--	--
D/F	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/G	--	1	0%	2.6	2.6	--	--	--	--	--
D/F	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	PG/G	--	1	0%	2.6	2.6	--	--	--	--	--
D/F	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/G	--	1	0%	2.6	2.6	--	--	--	--	--
D/F	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	PG/G	--	1	0%	2.6	2.6	--	--	--	--	--
D/F	1,2,3,7,8-Pentachlorodibenzofuran	PG/G	--	1	0%	2.6	2.6	--	--	--	--	--
D/F	1,2,3,7,8-Pentachlorodibenzo-p-dioxin	PG/G	--	1	0%	2.6	2.6	--	--	--	--	--
D/F	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/G	--	1	0%	2.6	2.6	--	--	--	--	--
D/F	2,3,4,7,8-Pentachlorodibenzofuran	PG/G	--	1	0%	2.6	2.6	--	--	--	--	--
D/F	2,3,7,8-Tetrachlorodibenzofuran	PG/G	--	1	0%	0.52	0.52	--	--	--	--	--
D/F	2,3,7,8-Tetrachlorodibenzo-p-dioxin	PG/G	--	1	0%	0.52	0.52	--	--	--	--	--
D/F	Octachlorodibenzofuran	PG/G	--	1	0%	5.2	5.2	--	--	--	--	--
D/F	Octachlorodibenzo-p-dioxin	PG/G	--	1	0%	5.2	5.2	--	--	--	--	--
D/F	Total Heptachlorodibenzofurans (HpCDF)	PG/G	--	1	0%	0.33	0.33	--	--	--	--	--
D/F	Total Heptachlorodibenzo-p-dioxins (HpCDD)	PG/G	--	1	0%	0.45	0.45	--	--	--	--	--
D/F	Total Hexachlorodibenzofurans (HxCDF)	PG/G	--	1	0%	0.46	0.46	--	--	--	--	--
D/F	Total Hexachlorodibenzo-p-dioxins (HxCDD)	PG/G	--	1	0%	0.56	0.56	--	--	--	--	--
D/F	Total Pentachlorodibenzofurans (PeCDF)	PG/G	--	1	0%	0.26	0.26	--	--	--	--	--
D/F	Total Pentachlorodibenzo-p-dioxin (PeCDD)	PG/G	--	1	0%	0.61	0.61	--	--	--	--	--
D/F	Total Tetrachlorodibenzofurans (TCDF)	PG/G	--	1	0%	0.14	0.14	--	--	--	--	--
D/F	Total Tetrachlorodibenzo-p-dioxins (TCDD)	PG/G	--	1	0%	0.21	0.21	--	--	--	--	--

Italics indicate screening level based on background

--	no result	MDL	method detection limit	SL	screening level
COPC	chemical of potential concern	mg/kg	milligrams per kilogram	SVOC	semi-volatile organic compound
D/F	dioxins/furans	PEST	pesticides	TPH	total petroleum hydrocarbons
EXP	explosives	pg/g	picograms per gram	VOC	volatile organic compound
HERB	herbicides				

TABLE 3-9
Summary Statistics for Groundwater Samples by COPC Evaluation Results
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										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**GW SL**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
Groundwater COPCs (Detected Chemicals with Concentrations Greater Than Screening Levels and Background)												
EXP	1,3-Dinitrobenzene	ug/L	1	77	1%	0.018	0.5	10	10	0.37	1	2
EXP	Hexahydro-1,3,5-trinitro-1,3,5-triazi	ug/L	5	77	6%	0.021	0.36	0.12	21	0.61	4	--
EXP	Nitrobenzene	ug/L	6	108	6%	0.013	3.2	0.052	7.9	0.34	4	41
METAL	Arsenic	ug/L	90	108	83%	1	1	0.95	36.4	*36.24*	1	--
PAH	Benzo(a)pyrene	ug/L	1	108	1%	0.013	3.3	0.02	0.02	0.0029	1	107
PAH	Dibenzo(a,h)anthracene	ug/L	1	108	1%	0.014	3.2	0.028	0.028	0.0029	1	107
PAH	Naphthalene	ug/L	30	109	28%	0.0012	0.62	0.0013	6.3	0.62	3	--
PEST	Dieldrin	ug/L	1	108	1%	0.0048	1.1	0.0082	0.0082	0.0042	1	107
PEST	Heptachlor	ug/L	6	108	6%	0.003	0.7	0.0051	0.14	0.015	2	8
TPH	Diesel Range Organics (DRO)	ug/L	85	108	79%	16	60	17	28000	150	13	--
TPH	Gasoline Range Organics (GRO)	ug/L	14	109	13%	10	28	17	140	130	1	--
TPH	Residual Range Organics (RRO)	ug/L	38	108	35%	60	840	33	270	110	15	9
VOC	1,1,2,2-Tetrachloroethane	ug/L	3	109	3%	0.11	0.37	0.14	7.4	0.055	3	106
VOC	1,1,2-Trichloroethane	ug/L	2	109	2%	0.076	0.31	0.47	0.89	0.2	2	82
VOC	1,2,3-Trichloropropane	ug/L	2	109	2%	0.11	0.31	0.45	0.54	0.034	2	107
VOC	1,2-Dichloroethane	ug/L	1	109	1%	0.15	0.22	0.27	0.27	0.12	1	108
VOC	1,3,5-Trimethylbenzene	ug/L	5	109	5%	0.077	0.31	0.19	6.1	1.2	2	--
VOC	Tetrachloroethene (PCE)	ug/L	2	109	2%	0.088	0.38	0.13	0.16	0.1	2	83
VOC	Trichloroethene (TCE)	ug/L	8	109	7%	0.074	0.31	0.081	14	0.028	8	101
Possible GW COPCs (Undetected Chemicals with More than 25% of MDLs Greater Than Screening Level)												
PCB	PCB-1221 (Aroclor 1221)	ug/L	--	37	0%	0.0304	0.41	--	--	0.034	--	27
PCB	PCB-1232 (Aroclor 1232)	ug/L	--	37	0%	0.0304	0.15	--	--	0.034	--	27
PCB	PCB-1242 (Aroclor 1242)	ug/L	--	37	0%	0.0304	0.23	--	--	0.034	--	27
PCB	PCB-1248 (Aroclor 1248)	ug/L	--	37	0%	0.0304	0.13	--	--	0.034	--	27
PCB	PCB-1254 (Aroclor 1254)	ug/L	--	37	0%	0.0304	0.36	--	--	0.034	--	27
PCB	PCB-1260 (Aroclor 1260)	ug/L	--	37	0%	0.0304	0.28	--	--	0.034	--	27
PCB	PCB-1262 (Aroclor 1262)	ug/L	--	13	0%	0.23	0.27	--	--	0.034	--	13
PCB	PCB-1268 (Aroclor 1268)	ug/L	--	13	0%	0.23	0.27	--	--	0.034	--	13
PEST	alpha-BHC	ug/L	--	108	0%	0.0055	1.3	--	--	0.011	--	12
PEST	Toxaphene	ug/L	--	108	0%	0.31	110	--	--	0.061	--	108
SVOC	2,4-Dinitrophenol	ug/L	--	108	0%	19	22	--	--	7.3	--	108
SVOC	3,3'-Dichlorobenzidine	ug/L	--	108	0%	3.1	5.6	--	--	0.15	--	108
SVOC	bis-(2-Chloroethyl)ether	ug/L	--	108	0%	0.86	3.2	--	--	0.0098	--	108
SVOC	bis(2-Chloroisopropyl)ether	ug/L	--	108	0%	0.57	3.2	--	--	0.27	--	108
SVOC	Hexachlorobenzene	ug/L	--	108	0%	0.53	3.2	--	--	0.042	--	108

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Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**GW SL**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
SVOC	n-Nitrosodimethylamine	ug/L	--	108	0%	3.1	5.6	--	--	0.000422	--	108
SVOC	n-Nitrosodi-n-propylamine	ug/L	--	108	0%	0.7	3.2	--	--	0.0096	--	108
SVOC	Pentachlorophenol	ug/L	--	109	0%	0.018	22	--	--	0.56	--	30
VOC	1,2-Dibromo-3-chloropropane	ug/L	--	109	0%	0.43	0.95	--	--	0.000204	--	109
VOC	1,2-Dibromoethane	ug/L	--	109	0%	0.076	0.31	--	--	0.0056	--	109
VOC	Dibromochloromethane	ug/L	--	109	0%	0.11	0.4	--	--	0.13	--	83
VOC	Vinyl chloride	ug/L	--	109	0%	0.12	0.31	--	--	0.015	--	109
Non-COPCs												
EXP	1,3,5-Trinitrobenzene	ug/L	3	77	4%	0.017	0.3	0.094	10	110	--	--
EXP	2,4,6-Trinitrotoluene	ug/L	2	77	3%	0.011	0.5	0.052	0.063	2.2	--	--
EXP	2,4-Dinitrotoluene	ug/L	2	108	2%	0.02	3.2	0.65	1	7.3	--	--
EXP	2,6-Dinitrotoluene	ug/L	1	108	1%	0.015	3.2	3.1	3.1	3.7	--	--
EXP	2-Amino-4,6-dinitrotoluene	ug/L	2	77	3%	0.027	1	5.1	6.4	NV	--	--
EXP	2-Nitrotoluene	ug/L	1	77	1%	0.018	0.88	0.15	0.15	0.29	--	3
EXP	3-Nitrotoluene	ug/L	1	77	1%	0.024	0.57	1	1	12	--	--
EXP	4-Amino-2,6-dinitrotoluene	ug/L	1	77	1%	0.016	0.5	0.018	0.018	NV	--	--
EXP	4-Nitrotoluene	ug/L	2	77	3%	0.024	0.88	1.5	1.8	4.2	--	--
EXP	Nitroglycerin	ug/L	1	20	5%	0.32	3.3	11	11	NV	--	--
EXP	Octahydro-1,3,5,7-tetranitro-1,3,5,7	ug/L	4	77	5%	0.035	0.36	0.038	2.6	183	--	--
EXP	Pentaerythritol tetranitrate	ug/L	1	20	5%	0.29	3	3.4	3.4	NV	--	--
HERB	Dicamba	ug/L	1	85	1%	0.021	0.22	0.079	0.079	110	--	--
HERB	Dinoseb	ug/L	1	85	1%	0.053	0.56	0.26	0.26	3.7	--	--
METAL	Aluminum	ug/L	33	108	31%	25	100	30	6400	3650	1	--
METAL	Antimony	ug/L	6	108	6%	0.31	2	0.35	3.4	1.5	2	91
METAL	Barium	ug/L	108	108	100%	--	--	79.5	303	730	--	--
METAL	Boron	ug/L	61	102	60%	10	26	15	200	730	--	--
METAL	Cadmium	ug/L	2	108	2%	0.16	0.62	0.25	0.33	5.4	--	--
METAL	Calcium	ug/L	107	108	99%	1550	1550	52500	171000	NV	--	--
METAL	Chromium	ug/L	10	108	9%	0.55	1.5	1.1	18	53.01	--	--
METAL	Cobalt	ug/L	80	108	74%	1	1	0.364	15.3	73	--	--
METAL	Copper	ug/L	38	108	35%	0.55	1.8	0.64	38	136	--	--
METAL	Iron	ug/L	107	108	99%	16	16	17	28200	2555	86	--
METAL	Lead	ug/L	6	108	6%	0.22	0.6	0.47	18	34	--	--
METAL	Magnesium	ug/L	108	108	100%	--	--	12100	47800	NV	--	--
METAL	Manganese	ug/L	108	108	100%	--	--	55.3	3450	170	105	--
METAL	Mercury	ug/L	--	108	0%	0.055	0.11	--	--	0.063	--	92

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METAL	Molybdenum	ug/L	13	35	37%	1	1.5	1	4.85	NV	--	--
METAL	Nickel	ug/L	92	108	85%	1	1	1	43.6	73	--	--
METAL	Potassium	ug/L	108	108	100%	--	--	3590	9790	NV	--	--
METAL	Silver	ug/L	1	108	1%	0.08	0.62	0.088	0.088	18	--	--
METAL	Sodium	ug/L	108	108	100%	--	--	3420	22900	NV	--	--
METAL	Strontium	ug/L	29	29	100%	--	--	240	620	NV	--	--
METAL	Selenium	ug/L	20	108	19%	0.65	3.1	1.1	25.2	18	1	--
METAL	Thallium	ug/L	1	108	1%	0.31	0.5	0.6	0.6	0.26	1	107
METAL	Vanadium	ug/L	15	108	14%	3	6.2	0.64	23	18	1	--
METAL	Zinc	ug/L	47	108	44%	2.4	7.8	3.2	706	1095	--	--
PAH	2-Methylnaphthalene	ug/L	18	108	17%	0.0026	3.2	0.0031	12	78	--	--
PAH	Acenaphthene	ug/L	7	108	6%	0.003	3.2	0.0033	1.1	37	--	--
PAH	Acenaphthylene	ug/L	2	108	2%	0.0029	3.2	0.069	0.13	220	--	--
PAH	Anthracene	ug/L	8	108	7%	0.0042	3.2	0.0084	0.21	183	--	--
PAH	Benzo(a)anthracene	ug/L	1	108	1%	0.011	3.2	0.027	0.027	0.029	--	47
PAH	Benzo(b)fluoranthene	ug/L	1	108	1%	0.012	3.2	0.028	0.028	0.029	--	47
PAH	Benzo(g,h,i)perylene	ug/L	3	108	3%	0.015	3.2	0.027	1.2	110	--	--
PAH	Benzo(k)fluoranthene	ug/L	1	108	1%	0.019	3.2	0.03	0.03	0.3	--	44
PAH	Chrysene	ug/L	1	108	1%	0.014	3.2	0.029	0.029	3	--	6
PAH	Fluoranthene	ug/L	2	108	2%	0.011	3.2	0.021	0.027	146	--	--
PAH	Fluorene	ug/L	9	108	8%	0.0038	3.2	0.0042	1.5	24	--	--
PAH	Indeno(1,2,3-cd)pyrene	ug/L	1	108	1%	0.013	3.7	0.028	0.028	0.029	--	47
PAH	Phenanthrene	ug/L	6	108	6%	0.006	3.2	0.01	0.033	1100	--	--
PAH	Pyrene	ug/L	2	108	2%	0.012	3.2	0.018	0.027	18	--	--
PEST	4,4'-DDE	ug/L	1	108	1%	0.0057	1.3	0.01	0.01	0.2	--	2
PEST	4,4'-DDT	ug/L	18	108	17%	0.0048	1.1	0.0052	0.1	0.2	--	2
PEST	Aldrin	ug/L	1	108	1%	0.002	0.46	0.0025	0.0025	0.004	--	18
PEST	delta-BHC	ug/L	2	108	2%	0.0027	0.63	0.011	0.18	NV	--	--
PEST	Endosulfan II	ug/L	1	108	1%	0.0094	2.6	0.021	0.021	22	--	--
PEST	Endosulfan sulfate	ug/L	1	108	1%	0.0039	0.91	0.031	0.031	NV	--	--
PEST	Endrin	ug/L	1	108	1%	0.0051	1.2	0.0065	0.0065	1.1	--	1
PEST	Endrin aldehyde	ug/L	1	108	1%	0.0039	0.91	0.034	0.034	NV	--	--
PEST	Endrin ketone	ug/L	1	108	1%	0.015	4.3	0.03	0.03	NV	--	--
PEST	gamma-Chlordane	ug/L	1	108	1%	0.0026	0.61	0.01	0.01	NV	--	--
PEST	Heptachlor epoxide	ug/L	1	108	1%	0.002	0.46	0.0031	0.0031	0.0074	--	16
PEST	Methoxychlor	ug/L	1	108	1%	0.0094	5.9	0.086	0.086	18	--	--

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SVOC	4-Nitrophenol	ug/L	1	109	1%	0.023	22	0.057	0.057	29	--	--
SVOC	Diethyl phthalate	ug/L	1	108	1%	0.53	3.2	3.9	3.9	2920	--	--
SVOC	Di-n-butyl phthalate	ug/L	1	108	1%	0.62	3.2	0.67	0.67	365	--	--
TPH	C10-C12 Aliphatics	ug/L	3	5	60%	0.35	3.01	16.1	290	NV	--	--
TPH	C10-C12 Aromatics	ug/L	3	5	60%	0.24	3.98	23.4	653	NV	--	--
TPH	C12-C13 Aromatics	ug/L	3	5	60%	1.6	1.6	32.3	800	NV	--	--
TPH	C12-C16 Aliphatics	ug/L	3	5	60%	1.47	1.52	2.71	154	NV	--	--
TPH	C12-C16 Aromatics	ug/L	3	5	60%	5.53	5.76	18.6	1370	NV	--	--
TPH	C16-C21 Aliphatics	ug/L	4	5	80%	4.47	4.47	8.32	14	NV	--	--
TPH	C16-C21 Aromatics	ug/L	2	5	40%	6.8	7.07	482	780	NV	--	--
TPH	C6-C8 Aliphatics	ug/L	2	5	40%	0.32	0.32	12.1	16.9	NV	--	--
TPH	C8-C10 Aliphatics	ug/L	1	5	20%	0.6	1.96	39.7	39.7	NV	--	--
TPH	C8-C10 Aromatics	ug/L	3	5	60%	0.71	0.71	1.61	88	NV	--	--
TPH	Extractable Petroleum Hydrocarbon	ug/L	4	5	80%	1.47	1.47	54.4	3130	NV	--	--
TPH	Total VPH (TVPH)	ug/L	3	5	60%	3.9	3.9	84.6	1870	NV	--	--
VOC	(1,1-dimethyl-2-propenyl)benzene	ug/L	1	1	100%	--	--	7.9	7.9	NV	--	--
VOC	(1-Methylenebut-2-enyl)benzene	ug/L	1	1	100%	--	--	8.8	8.8	NV	--	--
VOC	1-(2-Isopropyl-5-methylcyclopentyl)	ug/L	1	1	100%	--	--	28	28	NV	--	--
VOC	1,1,1-Trifluoro-2,3-epoxypropane	ug/L	1	1	100%	--	--	68	68	NV	--	--
VOC	1,1,2,2,3-Pentafluoropropane	ug/L	1	1	100%	--	--	5.7	5.7	NV	--	--
VOC	1,1-dichloro-1-fluoroethane	ug/L	2	2	100%	--	--	20	21	NV	--	--
VOC	1,1-Dichloroethene	ug/L	5	109	5%	0.098	0.36	0.37	1.1	34	--	--
VOC	1,2,3,4-Tetramethylbenzene	ug/L	1	1	100%	--	--	13	13	NV	--	--
VOC	1,2,3,5-Tetramethylbenzene	ug/L	1	1	100%	--	--	16	16	NV	--	--
VOC	1,2,4-Trimethylbenzene	ug/L	2	109	2%	0.086	0.31	0.22	1.1	1.3	--	--
VOC	1,3-Dichlorobenzene	ug/L	1	109	1%	0.04	0.63	0.042	0.042	1.5	--	--
VOC	1-chloro-1,1-difluoroethane	ug/L	8	9	89%	30	30	6.7	36	NV	--	--
VOC	2,3-dihydro-1,6-dimethyl-1H-indene	ug/L	1	1	100%	--	--	6.9	6.9	NV	--	--
VOC	2,3-dihydro-1-methyl-1H-indene	ug/L	1	1	100%	--	--	15	15	NV	--	--
VOC	2,3-dihydro-4-methyl-1H-indene	ug/L	1	1	100%	--	--	17	17	NV	--	--
VOC	2-Butanone	ug/L	4	109	4%	1	3.1	1.2	2.5	706	--	--
VOC	2-Hexanone	ug/L	1	109	1%	0.33	3.1	1.1	1.1	NV	--	--
VOC	3,3,3-Trifluoro-1,2-epoxypropane	ug/L	1	1	100%	--	--	49	49	NV	--	--
VOC	4,7-dimethylindane	ug/L	1	1	100%	--	--	12	12	NV	--	--
VOC	4-Isopropyltoluene	ug/L	10	109	9%	0.077	0.31	0.18	4	NV	--	--
VOC	Acetone	ug/L	29	109	27%	1	3.1	1	4.4	548	--	--

TABLE 3-9
Summary Statistics for Groundwater Samples by COPC Evaluation Results
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										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**GW SL**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
VOC	Carbon dioxide	ug/L	13	13	100%	--	--	26	80	NV	--	--
VOC	Carbon disulfide	ug/L	1	109	1%	0.066	1	0.09	0.09	104	--	--
VOC	Chloroethane	ug/L	2	109	2%	0.19	0.34	0.53	1.2	3.9	--	--
VOC	Chloroform	ug/L	1	109	1%	0.067	0.3	0.16	0.16	0.17	--	6
VOC	Chloromethane	ug/L	8	109	7%	0.18	0.31	0.28	1.5	19	--	--
VOC	cis-1,2-Dichloroethene	ug/L	13	109	12%	0.079	0.31	0.097	2.6	6.1	--	--
VOC	Dichlorodifluoromethane	ug/L	13	109	12%	0.13	0.31	0.26	6.5	39	--	--
VOC	Difluoromethyl difluoromethanesulp	ug/L	1	1	100%	--	--	35	35	NV	--	--
VOC	Ethylbenzene	ug/L	1	109	1%	0.085	0.31	0.091	0.091	134	--	--
VOC	Isopropylbenzene	ug/L	4	109	4%	0.084	0.31	0.15	0.22	66	--	--
VOC	m,p-Xylene	ug/L	2	109	2%	0.17	0.62	0.18	0.58	21	--	--
VOC	n-Propylbenzene	ug/L	2	109	2%	0.069	0.31	0.095	0.18	6.1	--	--
VOC	o-Xylene	ug/L	1	109	1%	0.068	0.31	0.67	0.67	7300	--	--
VOC	sec-Butylbenzene	ug/L	7	109	6%	0.04	0.31	0.13	0.35	6.1	--	--
VOC	tert-Butylbenzene	ug/L	6	109	6%	0.048	0.31	0.15	0.63	6.1	--	--
VOC	trans-1,2-Dichloroethene	ug/L	7	109	6%	0.074	0.31	0.1	3.7	11	--	--
D/F	1,2,3,4,6,7,8-Heptachlorodibenzofu	PG/L	--	4	0%	25	25	--	--	NV	--	--
D/F	1,2,3,4,6,7,8-Heptachlorodibenzo-p	PG/L	--	4	0%	25	25	--	--	NV	--	--
D/F	1,2,3,4,7,8,9-Heptachlorodibenzofu	PG/L	--	4	0%	25	25	--	--	NV	--	--
D/F	1,2,3,4,7,8-Hexachlorodibenzofuran	PG/L	--	4	0%	25	25	--	--	NV	--	--
D/F	1,2,3,4,7,8-Hexachlorodibenzo-p-di	PG/L	--	4	0%	25	25	--	--	NV	--	--
D/F	1,2,3,6,7,8-Hexachlorodibenzofuran	PG/L	--	4	0%	25	25	--	--	NV	--	--
D/F	1,2,3,6,7,8-Hexachlorodibenzo-p-di	PG/L	--	4	0%	25	25	--	--	NV	--	--
D/F	1,2,3,7,8,9-Hexachlorodibenzofuran	PG/L	--	4	0%	25	25	--	--	NV	--	--
D/F	1,2,3,7,8,9-Hexachlorodibenzo-p-di	PG/L	--	4	0%	25	25	--	--	NV	--	--
D/F	1,2,3,7,8-Pentachlorodibenzofuran	PG/L	--	4	0%	25	25	--	--	NV	--	--
D/F	1,2,3,7,8-Pentachlorodibenzo-p-dio	PG/L	--	4	0%	25	25	--	--	NV	--	--
D/F	2,3,4,6,7,8-Hexachlorodibenzofuran	PG/L	--	4	0%	25	25	--	--	NV	--	--
D/F	2,3,4,7,8-Pentachlorodibenzofuran	PG/L	--	4	0%	25	25	--	--	NV	--	--
D/F	2,3,7,8-Tetrachlorodibenzofuran	PG/L	--	4	0%	5	5	--	--	NV	--	--
D/F	2,3,7,8-Tetrachlorodibenzo-p-dioxin	PG/L	--	4	0%	5	5	--	--	NV	--	--
D/F	Octachlorodibenzofuran	PG/L	--	4	0%	50	50	--	--	NV	--	--
D/F	Octachlorodibenzo-p-dioxin	PG/L	--	4	0%	50	50	--	--	NV	--	--
D/F	Total Heptachlorodibenzofurans (Hp	PG/L	--	4	0%	4.6	6.4	--	--	NV	--	--
D/F	Total Heptachlorodibenzo-p-dioxins	PG/L	--	4	0%	3.1	8.8	--	--	NV	--	--
D/F	Total Hexachlorodibenzofurans (Hx	PG/L	--	4	0%	8.3	12	--	--	NV	--	--

TABLE 3-9
Summary Statistics for Groundwater Samples by COPC Evaluation Results
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										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**GW SL**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
D/F	Total Hexachlorodibenzo-p-dioxins	PG/L	--	4	0%	7.7	9.2	--	--	NV	--	--
D/F	Total Pentachlorodibenzofurans (Pe	PG/L	--	4	0%	4.8	9.4	--	--	NV	--	--
D/F	Total Pentachlorodibenzo-p-dioxin (	PG/L	--	4	0%	5.9	7.9	--	--	NV	--	--
D/F	Total Tetrachlorodibenzofurans (TC	PG/L	--	4	0%	3.1	10	--	--	NV	--	--
D/F	Total Tetrachlorodibenzo-p-dioxins	PG/L	--	4	0%	4.1	8	--	--	NV	--	--
EXP	Methyl-2,4,6-trinitrophenylnitramine	ug/L	--	77	0%	0.019	0.5	--	--	15	--	--
HERB	2,4,5-T	ug/L	--	85	0%	0.014	0.15	--	--	37	--	--
HERB	2,4,5-TP (Silvex)	ug/L	--	85	0%	0.02	0.21	--	--	29	--	--
HERB	2,4-D	ug/L	--	85	0%	0.011	0.12	--	--	37	--	--
HERB	2,4-DB	ug/L	--	85	0%	0.02	0.21	--	--	29	--	--
HERB	Dalapon	ug/L	--	85	0%	0.041	0.43	--	--	110	--	--
HERB	Dichlorprop	ug/L	--	85	0%	0.022	0.23	--	--	NV	--	--
HERB	MCPA (2-Methyl-4-chlorophenoxy a	ug/L	--	85	0%	0.018	0.19	--	--	1.8	--	--
HERB	MCPP (2-(2-methyl-4-chlorophenox	ug/L	--	85	0%	0.013	0.14	--	--	3.7	--	--
METAL	Beryllium	ug/L	--	108	0%	0.1	0.8	--	--	7.3	--	--
METAL	Bismuth	ug/L	--	35	0%	0.62	1	--	--	NV	--	--
METAL	Bromide	ug/L	--	10	0%	100	100	--	--	NV	--	--
PCB	PCB-1016 (Aroclor 1016)	ug/L	--	37	0%	0.0304	0.31	--	--	0.96	--	--
PEST	4,4'-DDD	ug/L	--	108	0%	0.0038	0.87	--	--	0.28	--	1
PEST	alpha-Chlordane	ug/L	--	108	0%	0.0025	0.59	--	--	0.19	--	1
PEST	beta-BHC	ug/L	--	108	0%	0.0044	1	--	--	0.037	--	7
PEST	Endosulfan I	ug/L	--	108	0%	0.004	0.93	--	--	22	--	--
PEST	gamma-BHC (Lindane)	ug/L	--	108	0%	0.0047	1.1	--	--	0.052	--	7
SVOC	2,4,5-Trichlorophenol	ug/L	--	108	0%	1.9	3.2	--	--	365	--	--
SVOC	2,4,6-Trichlorophenol	ug/L	--	108	0%	1.9	3.2	--	--	6.1	--	--
SVOC	2,4-Dichlorophenol	ug/L	--	108	0%	2.5	3.2	--	--	11	--	--
SVOC	2,4-Dimethylphenol	ug/L	--	108	0%	2.1	3.2	--	--	73	--	--
SVOC	2-Chloronaphthalene	ug/L	--	108	0%	0.45	3.2	--	--	49	--	--
SVOC	2-Chlorophenol	ug/L	--	108	0%	0.42	3.2	--	--	3	--	6
SVOC	2-Methyl-4,6-dinitrophenol	ug/L	--	108	0%	15	22	--	--	NV	--	--
SVOC	2-Methylphenol (o-Cresol)	ug/L	--	108	0%	0.88	3.2	--	--	18	--	--
SVOC	2-Nitroaniline	ug/L	--	108	0%	1.9	3.2	--	--	11	--	--
SVOC	2-Nitrophenol	ug/L	--	108	0%	0.95	3.2	--	--	NV	--	--
SVOC	3-Methylphenol & 4-Methylphenol	ug/L	--	6	0%	6.2	6.4	--	--	NV	--	--
SVOC	3-Nitroaniline	ug/L	--	108	0%	3.1	5.6	--	--	NV	--	--
SVOC	4-Bromophenyl phenyl ether	ug/L	--	108	0%	0.49	3.2	--	--	NV	--	--

TABLE 3-9
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										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**GW SL**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
SVOC	4-Chloro-3-methylphenol	ug/L	--	108	0%	1.9	3.2	--	--	NV	--	--
SVOC	4-Chloroaniline	ug/L	--	88	0%	1.9	3.2	--	--	15	--	--
SVOC	4-Chlorophenyl phenyl ether	ug/L	--	108	0%	0.42	3.2	--	--	NV	--	--
SVOC	4-Nitroaniline	ug/L	--	108	0%	3.1	5.6	--	--	NV	--	--
SVOC	Aniline	ug/L	--	6	0%	3.1	3.2	--	--	NV	--	--
SVOC	Azobenzene	ug/L	--	35	0%	0.68	3.2	--	--	NV	--	--
SVOC	Benzoic acid	ug/L	--	103	0%	15	22	--	--	14600	--	--
SVOC	Benzyl alcohol	ug/L	--	108	0%	2.5	3.2	--	--	1095	--	--
SVOC	Benzyl butyl phthalate	ug/L	--	108	0%	0.8	3.2	--	--	730	--	--
SVOC	bis-(2-Chloroethoxy)methane	ug/L	--	108	0%	0.95	3.2	--	--	NV	--	--
SVOC	bis-(2-Ethylhexyl)phthalate	ug/L	--	108	0%	0.95	3.2	--	--	4.8	--	--
SVOC	Carbazole	ug/L	--	102	0%	1.1	1.3	--	--	3.4	--	--
SVOC	Dibenzofuran	ug/L	--	108	0%	0.38	3.2	--	--	1.2	--	6
SVOC	Dimethyl phthalate	ug/L	--	108	0%	0.45	3.2	--	--	36500	--	--
SVOC	Di-n-octyl phthalate	ug/L	--	108	0%	0.67	3.2	--	--	70	--	--
SVOC	Hexachlorocyclopentadiene	ug/L	--	6	0%	9.4	9.7	--	--	NV	--	--
SVOC	Hexachloroethane	ug/L	--	108	0%	0.58	3.2	--	--	4.8	--	--
SVOC	Isophorone	ug/L	--	108	0%	0.95	3.2	--	--	71	--	--
SVOC	m,p-Cresol	ug/L	--	102	0%	9.5	11	--	--	NV	--	--
SVOC	n-Nitrosodiphenylamine	ug/L	--	108	0%	0.51	3.2	--	--	14	--	--
SVOC	Phenol	ug/L	--	108	0%	0.46	3.2	--	--	1095	--	--
TPH	C21-C34 Aliphatics	ug/L	--	5	0%	10.7	11.1	--	--	NV	--	--
TPH	C21-C34 Aromatics	ug/L	--	5	0%	14.6	15.2	--	--	NV	--	--
TPH	C5-C6 Aliphatics	ug/L	--	5	0%	0.69	0.69	--	--	NV	--	--
VOC	1,1,1,2-Tetrachloroethane	ug/L	--	109	0%	0.073	0.15	--	--	0.43	--	--
VOC	1,1,1-Trichloroethane	ug/L	--	109	0%	0.11	0.41	--	--	7300	--	--
VOC	1,1-Dichloroethane	ug/L	--	109	0%	0.1	0.31	--	--	122	--	--
VOC	1,1-Dichloropropene	ug/L	--	109	0%	0.08	0.31	--	--	NV	--	--
VOC	1,2,3-Trichlorobenzene	ug/L	--	109	0%	0.089	0.31	--	--	NV	--	--
VOC	1,2,4-Trichlorobenzene	ug/L	--	109	0%	0.046	0.49	--	--	0.82	--	--
VOC	1,2-Dichlorobenzene	ug/L	--	109	0%	0.07	0.63	--	--	4.9	--	--
VOC	1,2-Dichloropropane	ug/L	--	109	0%	0.092	0.31	--	--	0.16	--	6
VOC	1,3-Dichloropropane	ug/L	--	109	0%	0.1	0.2	--	--	12	--	--
VOC	1,4-Dichlorobenzene	ug/L	--	109	0%	0.052	0.52	--	--	0.47	--	1
VOC	2,2-Dichloropropane	ug/L	--	109	0%	0.13	0.31	--	--	NV	--	--
VOC	2-Chloroethyl vinyl ether	ug/L	--	6	0%	3.1	3.1	--	--	NV	--	--

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										Comparison to Screening Level		
Chemical Group	**Analyte**	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum MDL**	**Maximum MDL**	**Minimum Detected Value**	**Maximum Detected Value**	**GW SL**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
VOC	2-Chlorotoluene	ug/L	--	109	0%	0.06	0.31	--	--	12	--	--
VOC	4-Chlorotoluene	ug/L	--	109	0%	0.098	0.31	--	--	NV	--	--
VOC	4-Methyl-2-pentanone	ug/L	--	109	0%	0.43	3.1	--	--	199	--	--
VOC	Benzene	ug/L	--	109	0%	0.1	0.13	--	--	0.35	--	--
VOC	Bromobenzene	ug/L	--	109	0%	0.079	0.31	--	--	2.3	--	--
VOC	Bromochloromethane	ug/L	--	109	0%	0.14	0.31	--	--	NV	--	--
VOC	Bromodichloromethane	ug/L	--	109	0%	0.076	0.15	--	--	0.18	--	--
VOC	Bromoform	ug/L	--	109	0%	0.076	0.31	--	--	8.5	--	--
VOC	Bromomethane	ug/L	--	109	0%	0.08	0.94	--	--	0.87	--	6
VOC	Carbon tetrachloride	ug/L	--	109	0%	0.07	0.31	--	--	0.17	--	6
VOC	Chlorobenzene	ug/L	--	109	0%	0.063	0.15	--	--	9.1	--	--
VOC	cis-1,3-Dichloropropene	ug/L	--	109	0%	0.064	0.22	--	--	0.4	--	--
VOC	Dibromomethane	ug/L	--	109	0%	0.13	0.31	--	--	6.1	--	--
VOC	Hexachlorobutadiene	ug/L	--	109	0%	0.14	0.54	--	--	0.86	--	--
VOC	Methylene chloride	ug/L	--	109	0%	0.09	1	--	--	4.3	--	--
VOC	Methyl-tert-butyl ether (MTBE)	ug/L	--	109	0%	0.14	1.5	--	--	11	--	--
VOC	n-Butylbenzene	ug/L	--	109	0%	0.098	0.31	--	--	6.1	--	--
VOC	Styrene	ug/L	--	109	0%	0.061	0.31	--	--	164	--	--
VOC	Toluene	ug/L	--	109	0%	0.066	0.31	--	--	228	--	--
VOC	trans-1,3-Dichloropropene	ug/L	--	109	0%	0.082	0.31	--	--	0.4	--	--
VOC	Trichlorofluoromethane	ug/L	--	109	0%	0.088	0.31	--	--	129	--	--

Italics indicate screening level based on background.

--	no result	GW	groundwater	SL	screening level
ug/L	micrograms per liter	HERB	herbicides	SVOC	semi-volatile organic compound
COPC	chemical of potential concern	NV	no value	TPH	total petroleum hydrocarbons
D/F	dioxins/furans	PEST	pesticides	VOC	volatile organic compound
EXP	explosives	pg/L	picograms per liter		

TABLE 3-10
In-Situ Soil Samples with Exceedances of Screening Levels
Former Communications Site, Fort Wainwright, Alaska
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Location Name	Sample Name	Sample Interval	Sample Date	Analyte	Units	Result	Flag	Screening Level
06SI06	06SI06S01	4 to 4 ft	8/24/2006	Benzo(a)anthracene	MG/KG	0.35	J	0.15
06SI06	06SI06S01	4 to 4 ft	8/24/2006	Benzo(a)pyrene	MG/KG	0.33	J	0.015
06SI06	06SI06S01	4 to 4 ft	8/24/2006	Benzo(b)fluoranthene	MG/KG	0.31	J	0.15
06SI06	06SI06S01	4 to 4 ft	8/24/2006	Dibenzo(a,h)anthracene	MG/KG	0.091	J	0.015
06SI06	06SI06S01	4 to 4 ft	8/24/2006	Indeno(1,2,3-cd)pyrene	MG/KG	0.25	J	0.15
06SI28	06SI28S02	16 to 16 ft	9/6/2006	n-Nitrosodi-n-propylamine	MG/KG	0.26	J	0.069
06SI29	06SI29S01	14 to 14 ft	9/6/2006	TPH-Diesel	MG/KG	4700		1025
06SI31	06SI31S01	12 to 12 ft	9/8/2006	TPH-Diesel	MG/KG	13000		1025
06SI33	06SI33S01	12 to 12 ft	9/8/2006	n-Nitrosodi-n-propylamine	MG/KG	0.28	J	0.069
06SI34	06SI34S01	16 to 16 ft	9/11/2006	TPH-Diesel	MG/KG	15000		1025
A7NSwale-1	05FTW-A7NSwale-1-SO	0 to 1 ft	10/13/2005	TPH-Diesel	MG/KG	2250		1025
BHA11N2	05FTW-BHA11N2-0-24-SO	0 to 2 ft	9/7/2005	4,4'-DDD	MG/KG	4.28		2.4
BHA11N2	05FTW-BHA11N2-0-24-SO	0 to 2 ft	9/7/2005	4,4'-DDE	MG/KG	2.07		1.7
BHA11N2	05FTW-BHA11N2-0-24-SO	0 to 2 ft	9/7/2005	4,4'-DDT	MG/KG	18.8		1.7
BHA3W2	05FTW-BHA3W2-0-24-SO	0 to 2 ft	9/7/2005	4,4'-DDT	MG/KG	6.89		1.7
SB14	07FWDMW14-3.1	3.1 to 4.1 ft	9/27/2007	Benzo(a)pyrene	MG/KG	0.031	J	0.015
SB20	07FWEMW20-8.4	8.4 to 9.4 ft	9/25/2007	Chloroform	MG/KG	0.28		0.25
SB26	07FWBMW26-8.5	8.5 to 9.5 ft	9/19/2007	Chloroform	MG/KG	0.44		0.25
SB27	07FWBMW27-2.5FD	2.5 to 4.5 ft	9/21/2007	Chloroform	MG/KG	0.6	J	0.25
SB29	07FWBMW29-12.5	12.5 to 13 ft	9/18/2007	Trichloroethene (TCE)	MG/KG	0.049	J	0.043
SB33	07FWBMW33-12.5	12.5 to 14.5 ft	9/15/2007	TPH-Diesel	MG/KG	2400		1025
SB35	07FWBMW35-8.2	8.2 to 9.2 ft	9/22/2007	Chloroform	MG/KG	0.29		0.25
SB37	07FWBMW37-3.0	3 to 4 ft	9/24/2007	Chloroform	MG/KG	0.67		0.25
SB41	07FWAMW41-10.8	10.8 to 11.8 ft	10/1/2007	Chloroform	MG/KG	0.75		0.25
SB62	07FWAMW62-3.0	0 to 3 ft	10/11/2007	Benzo(a)anthracene	MG/KG	0.19		0.15
SB62	07FWAMW62-3.0	0 to 3 ft	10/11/2007	Benzo(a)pyrene	MG/KG	0.17		0.015
SB62	07FWAMW62-3.0	0 to 3 ft	10/11/2007	Benzo(b)fluoranthene	MG/KG	0.18		0.15
SB62	07FWAMW62-3.0	0 to 3 ft	10/11/2007	Dibenzo(a,h)anthracene	MG/KG	0.044		0.015
SB65	07FWBMW65-11.0	11 to 12 ft	10/10/2007	TPH-Gasoline	MG/KG	250		140
SB65	07FWBMW65-11.0	11 to 12 ft	10/10/2007	TPH-Diesel	MG/KG	2700	J-	1025
PLG-SE1	05FTW-PLG-SE1-SO	PLG-SE1 to 05FTW-PLG-SE1-SO ft	8/29/2005	PCB-1260 (Aroclor 1260)	MG/KG	2.42		1
PLG-SE2	05FTW-PLG-SE2-SO	PLG-SE2 to 05FTW-PLG-SE2-SO ft	8/29/2005	PCB-1260 (Aroclor 1260)	MG/KG	1.44		1

ft = feet
mg/kg = milligrams per kilogram

TABLE 3-11
Groundwater Samples with Exceedances of Screening Levels
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Location Name	Sample Name	Sample Interval	Sample Date	Analyte	Result	Flag	Unit	Screening Level
MW03	06MW03S01	NA	7/12/06	Dieldrin	0.0082	J	ug/L	0.0042
MW05	07MW05S01	NA	5/14/07	RRO	150	J	ug/L	110
MW06A	06MW06AS01	NA	9/25/06	DRO	6100	J	ug/L	150
MW06A	07MW06AS01	NA	5/17/07	DRO	5800		ug/L	150
MW06A	07MW06AS01	NA	5/17/07	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	3.2	J	ug/L	0.61
MW06A	07MW06AS01	NA	5/17/07	Nitrobenzene	7.9		ug/L	3.4
MW06A	07FWBMW06A-GW	NA	10/17/07	DRO	8200		ug/L	150
MW06B	06MW06BS01	NA	9/13/06	DRO	3000	J	ug/L	150
MW06B	07MW06BS01	NA	5/17/07	DRO	4000		ug/L	150
MW06B	07MW06BS01	NA	5/17/07	Heptachlor	0.13	J	ug/L	0.015
MW06B	07MW06BS01	NA	5/17/07	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	0.71		ug/L	0.61
MW06B	07MW06BS01	NA	5/17/07	Nitrobenzene	6.1		ug/L	3.4
MW08	06MW08S01	NA	9/21/06	DRO	190	J	ug/L	150
MW08	06MW08S01	NA	9/21/06	RRO	120	J	ug/L	110
MW08	06MW08S01	NA	9/21/06	1,2,3-Trichloropropane	0.45	J	ug/L	0.034
MW12	07MW12S01	NA	5/17/07	DRO	5900		ug/L	150
MW12	07MW12S01	NA	5/17/07	Heptachlor	0.14	J	ug/L	0.015
MW12	07MW12S01	NA	5/17/07	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	1		ug/L	0.61
MW12	07MW12S01	NA	5/17/07	Nitrobenzene	5.1		ug/L	3.4
MW14	07FWDMW14-GW	NA	10/9/07	RRO	130	J-	ug/L	110
MW15	07FWEMW15-GWB	NA	10/20/07	RRO	130	J	ug/L	110
MW24	07FWBMW24-GW	NA	10/12/07	RRO	160	J	ug/L	110
MW33	07FWBMW33-GW	NA	10/12/07	GRO	140		ug/L	130
MW33	07FWBMW33-GW	NA	10/12/07	DRO	28000		ug/L	150
MW33	07FWBMW33-GW	NA	10/12/07	1,1,2-Trichloroethane	0.89	J	ug/L	0.2
MW37	07FWBMW37-GW	NA	10/13/07	RRO	120	J	ug/L	110
MW38	07FWBMW38-GW	NA	10/13/07	RRO	120	J-	ug/L	110
MW39	07FWAMW39-GW	NA	10/15/07	RRO	170	J	ug/L	110
MW40	07FWAMW40-GW	NA	10/15/07	RRO	270	J	ug/L	110
MW41	07FWAMW41-GW	NA	10/14/07	RRO	130	J-	ug/L	110
MW43	07FWAMW43-GW	NA	10/19/07	Trichloroethene (TCE)	1.3	J-	ug/L	0.028
MW44	07FWAMW44-GW	NA	10/17/07	Trichloroethene (TCE)	0.37	J	ug/L	0.028

TABLE 3-11
Groundwater Samples with Exceedances of Screening Levels
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Location Name	Sample Name	Sample Interval	Sample Date	Analyte	Result	Flag	Unit	Screening Level
MW47	07FWAMW47-GW	NA	10/17/07	1,2,3-Trichloropropane	0.54	J-	ug/L	0.034
MW48	07FWAMW48-GW	NA	10/10/07	RRO	150	J	ug/L	110
MW53	07FWAMW53-GW	NA	10/17/07	Trichloroethene (TCE)	0.081	J-	ug/L	0.028
MW56	07FWAMW56-GW	NA	10/16/07	Tetrachloroethene (PCE)	0.13	J	ug/L	0.1
MW56	07FWAMW56-GW	NA	10/16/07	Trichloroethene (TCE)	1.5	J+	ug/L	0.028
MW56	07FWAMW56-GW	NA	10/16/07	1,1,2,2-Tetrachloroethane	0.14	J	ug/L	0.055
MW58	07FWBMW58-GW	NA	10/13/07	DRO	3200	J+	ug/L	150
MW58	07FWBMW58-GW	NA	10/13/07	RRO	200	J+	ug/L	110
MW61	07FWAMW61-GW	NA	10/21/07	RRO	120	J	ug/L	110
MW61	07FWAMW61-GW	NA	10/21/07	Tetrachloroethene (PCE)	0.16	J	ug/L	0.1
MW61	07FWAMW61-GW	NA	10/21/07	1,1,2-Trichloroethane	0.47	J	ug/L	0.2
MW61	07FWAMW61-GW	NA	10/21/07	Trichloroethene (TCE)	14		ug/L	0.028
MW61	07FWAMW61-GW	NA	10/21/07	1,1,2,2-Tetrachloroethane	7.4		ug/L	0.055
MW62	07FWAMW62-GW	NA	10/22/07	Trichloroethene (TCE)	1.4		ug/L	0.028
MW63	07FWBMW63-GW	NA	10/22/07	DRO	410	J	ug/L	150
MW63	07FWBMW63-GW	NA	10/22/07	Trichloroethene (TCE)	0.087	J	ug/L	0.028
MW64	07FWBMW64-GW	NA	10/17/07	RRO	120	J	ug/L	110
MW64	07FWBMW64-GW	NA	10/17/07	Trichloroethene (TCE)	1.2		ug/L	0.028
MW65	07FWBMW65-GW	NA	10/19/07	DRO	8700		ug/L	150
MW65	07FWBMW65-GW	NA	10/19/07	Naphthalene	6.3		ug/L	6.2
MW67	07FWBMW67-GW	NA	10/19/07	DRO	760		ug/L	150
MW67	07FWBMW67-GW	NA	10/19/07	RRO	140	J	ug/L	110
MW69	07FWAMW69-GWB	NA	10/21/07	Benzo(a)pyrene	0.02	J	ug/L	0.0029
MW69	07FWAMW69-GWB	NA	10/21/07	Dibenzo(a,h)anthracene	0.028	J	ug/L	0.0029
MW70	07FWAMW70-GW	NA	10/19/07	1,2-Dichloroethane	0.27	J-	ug/L	0.12

Table 3-12
Summary Statistics for Soil Gas Samples - By COPC Evaluation Result
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level			
Analyte	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum Nondetect**	**Maximum Nondetect**	**Alt Max Nondetect [1]**	**Minimum Detect**	**Maximum Detect**	**SG Screening Level (PRG x 10)**	**Factor of Exceedance [2]**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
Soil Gas COPCs (Detected Chemicals with Concentrations Greater Than Screening Levels)													
1,2,4-Trimethylbenzene	µg/m^3	8	159	5%	6.4	2400	110	22	75	63	***1.19***	1	8
Benzene	µg/m^3	11	159	7%	4.8	1800	82	6.3	160	2.5	***64.00***	11	148
Chloroform	µg/m^3	18	159	11%	4.9	1800	84	4.9	170	0.84	***202.38***	18	141
Tetrachloroethene	µg/m^3	4	159	3%	6.8	2500	120	16	300	3.3	***90.91***	4	155
Trichloroethene	µg/m^3	1	159	1%	5.4	2000	92	61	61	0.17	***358.82***	1	158
Xylenes (total)	µg/m^3	26	159	16%	4.3	1600	74	11	1200	1000	***1.20***	1	1
Possible Soil Gas COPCs (Undetected Chemicals with MDLs Greater Than Screening Level)													
1,1,1,2-Tetrachloroethane	µg/m^3	0	159	0%	3.4	1300	58	-	-	2.6	***22.31***	-	159
1,1,2,2-Tetrachloroethane	µg/m^3	0	159	0%	6.8	2500	120	-	-	0.33	***363.64***	-	159
1,1,2-Trichloroethane	µg/m^3	0	159	0%	5.4	2000	92	-	-	1.2	***76.67***	-	159
1,2,3-Trichloropropane	µg/m^3	0	159	0%	6	2200	100	-	-	0.0096	***10416.67***	-	159
1,2,4-Trichlorobenzene	µg/m^3	0	159	0%	18	6700	310	-	-	42	***7.38***	-	39
1,2-Dibromo-3-chloropropane	µg/m^3	0	159	0%	48	18000	820	-	-	0.001	***820000.00***	-	159
1,2-Dibromoethane (EDB)	µg/m^3	0	159	0%	7.7	2900	130	-	-	0.034	***3823.53***	-	159
1,2-Dichlorobenzene	µg/m^3	0	159	0%	5.4	2000	92	-	-	2.5	***36.80***	-	159
1,2-Dichloroethane	µg/m^3	0	159	0%	4	1500	68	-	-	0.74	***91.89***	-	159
1,2-Dichloropropane	µg/m^3	0	159	0%	6.9	2600	120	-	-	0.99	***121.21***	-	159
1,4-Dichlorobenzene	µg/m^3	0	159	0%	18	6700	310	-	-	2.8	***110.71***	-	159
Bromobenzene	µg/m^3	0	159	0%	19	7100	330	-	-	120	***2.75***	-	28
Bromodichloromethane	µg/m^3	0	159	0%	6.7	2500	110	-	-	1.1	***100.00***	-	159
Bromoform	µg/m^3	0	159	0%	5.2	1900	89	-	-	17	***5.24***	-	38
Carbon tetrachloride	µg/m^3	0	159	0%	6.3	2300	110	-	-	1.3	***84.62***	-	159
Chloromethane	µg/m^3	0	159	0%	2.1	780	36	-	-	11	***3.27***	-	30
Dibromochloromethane	µg/m^3	0	159	0%	8.5	3200	150	-	-	0.8	***187.50***	-	159
Hexachlorobutadiene	µg/m^3	0	159	0%	14	5200	240	-	-	0.87	***275.86***	-	159
Naphthalene	µg/m^3	0	159	0%	16	6000	270	-	-	31	***8.71***	-	60
Vinyl chloride	µg/m^3	0	159	0%	3.8	1400	65	-	-	1.6	***40.63***	-	159
Not COPCs													
1,1,1-Trichloroethane	µg/m^3	0	159	0%	5.4	2000	92	-	-	23000	0.00	--	--
1,1-Dichloroethane	µg/m^3	0	159	0%	4	1500	68	-	-	7300	0.01	--	--
1,1-Dichloroethene	µg/m^3	18	159	11%	4	1500	68	4.1	200	2100	0.10	--	--
1,1-Dichloropropene	µg/m^3	0	159	0%	4.5	1700	77	-	-	-	--	--	--
1,2,3-Trichlorobenzene	µg/m^3	0	159	0%	22	8200	380	-	-	-	--	--	--
1,3,5-Trimethylbenzene	µg/m^3	10	159	6%	5.4	2000	92	9.2	28	62	0.45	--	--
1,3-Dichlorobenzene	µg/m^3	0	159	0%	4.8	1800	82	-	-	83	0.99	--	--
1,3-Dichloropropane	µg/m^3	0	159	0%	4.6	1700	79	-	-	-	--	--	--
2,2-Dichloropropane	µg/m^3	0	159	0%	4.6	1700	79	-	-	-	--	--	--
2-Butanone (MEK)	µg/m^3	5	159	3%	5.9	2200	100	6	30	52000	0.00	--	--

Table 3-12
Summary Statistics for Soil Gas Samples - By COPC Evaluation Result
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

										Comparison to Screening Level			
Analyte	**Unit**	**Number of Detects**	**Number of Samples**	**Frequency of Detection**	**Minimum Nondetect**	**Maximum Nondetect**	**Alt Max Nondetect [1]**	**Minimum Detect**	**Maximum Detect**	**SG Screening Level (PRG x 10)**	**Factor of Exceedance [2]**	**Number of Detects > SL**	**Number of Nondetect MDL > SL**
2-Chlorotoluene	µg/m^3	0	159	0%	5.2	1900	89	-	-	730	0.12	--	--
2-Hexanone	µg/m^3	0	159	0%	8.2	3000	140	-	-	-	--	--	--
4-Isopropyltoluene (p-Cymene)	µg/m^3	1	159	1%	2.7	1000	46	31	31	-	--	--	--
4-Methyl-2-pentanone (MIBK)	µg/m^3	0	159	0%	8.2	3000	140	-	-	31000	0.00	--	--
Acetone	µg/m^3	30	159	19%	5.9	2200	100	6.1	64	33000	0.00	--	--
Bromomethane	µg/m^3	7	159	4%	7.8	2900	130	13	34	52	0.65	--	--
Carbon disulfide	µg/m^3	7	159	4%	6.2	2300	110	13	120	7300	0.02	--	--
Chlorobenzene	µg/m^3	0	159	0%	4.6	1700	79	-	-	520	0.15	--	--
Chloroethane	µg/m^3	0	159	0%	4	1500	68	-	-	-	--	--	--
cis-1,2-Dichloroethene	µg/m^3	0	159	0%	3.2	1200	55	-	-	370	0.15	--	--
cis-1,3-Dichloropropene	µg/m^3	0	159	0%	6.8	2500	120	-	-	-	--	--	--
Dibromomethane	µg/m^3	0	159	0%	11	4100	190	-	-	-	--	--	--
Dichlorodifluoromethane	µg/m^3	3	159	2%	4.9	1800	84	5.1	14	2100	0.01	--	--
Ethylbenzene	µg/m^3	22	159	14%	4.3	1600	74	5.5	260	11000	0.02	--	--
Isopropylbenzene	µg/m^3	7	159	4%	4.9	1800	84	5.9	19	4000	0.00	--	--
Methyl tert-butyl ether (MTBE)	µg/m^3	0	159	0%	3.6	1300	62	-	-	74	0.84	--	--
Methylene chloride	µg/m^3	42	159	26%	2.8	1000	48	2.8	40	41	0.98	--	--
m-Xylene & p-Xylene	µg/m^3	26	159	16%	8.7	3200	150	11	860	1000	0.86	--	--
n-Butylbenzene	µg/m^3	0	159	0%	3.3	1200	56	-	-	370	0.15	--	--
n-Propylbenzene	µg/m^3	7	159	4%	4.9	1800	84	11	33	370	0.09	--	--
o-Xylene	µg/m^3	21	159	13%	4.3	1600	74	7.35	300	7300	0.04	--	--
sec-Butylbenzene	µg/m^3	0	159	0%	5.5	2000	94	-	-	370	0.25	--	--
Styrene	µg/m^3	0	159	0%	4.2	1600	72	-	-	11000	0.01	--	--
tert-Butylbenzene	µg/m^3	0	159	0%	5.5	2000	94	-	-	370	0.25	--	--
Toluene	µg/m^3	74	159	47%	3.8	1400	65	3.9	1500	52000	0.03	--	--
trans-1,2-Dichloroethene	µg/m^3	0	159	0%	4	1500	68	-	-	630	0.11	--	--
trans-1,3-Dichloropropene	µg/m^3	0	159	0%	4.5	1700	77	-	-	-	--	--	--
Trichlorofluoromethane	µg/m^3	14	159	9%	5.6	2100	96	7.6	78	7300	0.01	--	--

[1] High RL/MDL was reported for location SG023-L. "Alt Max Nondetect" column provides maximum nondetect values for detected constituents with sample location SG023-L removed.
[2] Calculated Using Max Detect (if detected) or Alt Max Nondetect (if not detected)

µg/m3 = micrograms per cubic liter
COPC = chemical of potential concern
MDL = method detection limit
PRG = preliminary risk goal
SL = screening level

SECTION 4

Conceptual Site Model Update

The draft RI work plan presented preliminary conceptual site models (CSMs) for environmental contaminants in each subarea and for MEC where applicable. Each CSM graphically described the subarea and its environs, and presented hypotheses about sources of contamination, contaminant release mechanisms, nature and extent of contamination present, contaminant routes of migration, and potential impacts of contaminants on sensitive receptors. The conceptual model hypotheses are tested, refined, and modified throughout the RI. Accordingly, this section of the PRSE report reviews the preliminary CSMs and identifies changes and refinements to the CSMs. These changes have been made on the basis of the information presented in Section 3, Risk Screening Evaluation.

4.1 Preliminary Conceptual Site Models for Subareas

The RIWP presented preliminary CSMs for each subarea, based on a review of historical information and the types and distribution of chemicals that had been detected during previous investigations. The CSMs for each of the five subareas were depicted in Figures 4-1(A) through 4-1(E) of the RIWP and comprised the following elements:

- **Sources.** Information about historical site activities was determined from historical aerial photographs, records, and interviews. These sources are somewhat specific to each subarea and include chemicals spilled during fire training activities, leaks from heating fuel tanks or pipelines used at headquarters and barracks, disposal of scrap metal and MEC at the former salvage yard in Subarea A, burial of drums of waste oil and chemicals, and discharge of transformer oil in Subarea E and portions of Subarea A.
- **Release and Transport Mechanisms.** The following release and transport mechanisms were identified in the CSMs:
  - Surface runoff and overland flow (from spring thawing or flooding)
  - Physical soil movement (excavation and accidental and deliberate movement)
  - Fugitive dust emission
  - Volatilization
  - Leaching to groundwater
  - Construction dewatering activities
  - Breakdown resulting from biodegradation and mixture with other chemicals
- **Transport/Exposure Media.** Surface soil, subsurface soil, and groundwater were identified as possible transport and exposure media.
- **Exposure Routes and Potential Receptors.** Potential exposure routes for human receptors include vapor intrusion to indoor air, migration to (and inhalation of) outdoor air, and inhalation/ingestion/dermal contact with contaminated soil and groundwater. Potential exposure routes for ecological receptors include exposure to sediment and

surface water in the Chena River that have been impacts associated with by surface runoff and groundwater flow from the FCS.

4.2 Conceptual Site Models for Specific Areas of Interest

For the most part, the preliminary CSMs provided in the RIWP reflect overall conditions and anticipated exposure media and pathways at the FCS. However, the COPC distribution evaluations presented in Section 3 of this PRSE report resulted in the identification of two areas of interest for which specific CSMs have been developed. The locations of the areas of interest are shown in Figure 4-1.

4.2.1 POL Source Area and Plume

The presence of a POL plume in Subarea B was suspected during pre-RI sampling at MW06A, MW06B, and MW12. Soil and groundwater data collected from wells installed in Subarea B during the 2007 field investigation confirmed the presence of a POL source area (an area where residual liquid phase petroleum may be present in subsurface soil) as well as a dissolved POL plume. The CSM for the POL source area and plume is summarized below:

- **Source.** The source of the POL plume appears to have been one or more releases of diesel and possible gasoline in Subarea B near the locations of MW06A/B, MW12, and MW33. From available site history or the analytical data, it is currently not possible to discern a specific release location or timeframe for the release.
- **Release and Transport Mechanisms.** The primary release and transport mechanisms for the POL plume appear to have been downward transport of the released fuel and accumulation of an light nonaqueous-phase liquid (LNAPL) layer at the top of the water table, followed by downgradient transport of the LNAPL layer, leaching of soluble petroleum compounds to the underlying groundwater, transport of the dissolved plume with groundwater, and degradation of petroleum hydrocarbons in soil and groundwater.
- **Nature and Extent of Affected Media.** Affected media in the POL source area include subsurface soil in the interval just above the water table (the smear zone) and the groundwater beneath it; surface soil and vadose zone soil are not affected. Groundwater is the only affected medium in the POL plume area. Diesel fuel contains relatively few volatile compounds, so there is little correlation between detections of volatile petroleum compounds such as benzene in soil gas and the location of the POL source area or plume. The extents of the POL source area and plume appear to be delineated, as shown in Figure 4-1.
- **Future Fate and Transport of COPCs.** Given the apparent age of the release and the distribution of different petroleum fractions in the POL plume downgradient of the POL source area (Table 4-1), it appears that the POL source has been depleted of its more mobile and soluble components and the dissolved plume is unlikely to expand.
- **Exposure Routes and Potential Receptors.** Actual pathways for human and ecological exposure to affected media in the POL plume appear to be limited: the affected soil is 10 to 12 feet below grade, and the plume is not located within the capture zone for the

water supply well and does not extend to the Chena River. However, since the current evaluation is not a risk assessment, the CSM for the POL source area and plume continues to include human exposure to contaminants by vapor intrusion to indoor air, migration to (and inhalation of) outdoor air, and inhalation/ingestion/dermal contact with contaminated soil and groundwater.

4.2.2 Dissolved TCE/PCE Plume

A previously undetected TCE/PCE plume was identified in groundwater beneath the western portion of Subarea A. Analysis of concentration gradients suggests that the plume appears to originate in the vicinity of MW61 and follows the general trend of the former slough channel. The CSM for the TCE/PCE plume is summarized below:

- **Source.** The source of the TCE/PCE plume is unknown. A number of potential sources of solvents—including metals salvage operations—took place in the area historically. In addition, various materials were buried and used as fill in the area. The relatively low concentrations of TCE/PCE in the plume's monitoring wells are not suggestive of an extensive release; however, given the higher density of TCE and PCE relative to water, results for shallow wells may not accurately reflect aquifer conditions at depth.

- **Release and Transport Mechanisms.** The primary release and transport mechanisms for the TCE/PCE plume are unknown. The plume may have originated as a surface release or from buried containers or other materials. If the solvents were released in significant enough volumes to overcome hydraulic pressures in the aquifer, the solvent may have traveled downward through the aquifer and accumulated as a separate dense nonaqueous-phase liquid (DNAPL) layer on top of low-permeability strata. The DNAPL could serve as a long-term secondary source for TCE/PCE and associated daughter products to dissolve in and migrate with groundwater. If small volumes of solvents were released, accumulation of a DNAPL layer and development of a long-term secondary source is unlikely.

- **Nature and Extent of Affected Media.** Groundwater appears to be the only affected medium in the TCE/PCE plume area. The location of the plume does not correlate well with the elevated concentration of TCE in soil at SB29 to the west, or with elevated concentrations of TCE in 2007 soil gas samples. However, passive soil gas sampling conducted in 2006 detected TCE/PCE south of Building 14. The up- and cross-gradient extents of the TCE/PCE plume appear to be delineated, as shown in Figure 4-1. However, these determinations were based on a single round of sampling, with elevated detection limits for some wells. The plume appears to be relatively narrow and tends to follow the alignment of the former slough channel. There is no monitoring well in the former slough channel downgradient of the plume. In addition, the vertical distribution of TCE/PCE in the aquifer has not been evaluated. Additional wells and sampling rounds are needed to determine the lateral and vertical extent of the plume.

- **Future Fate and Transport of COPCs.** TCE, PCE, and associated daughter products are volatile. Although soil gas sampling conducted to date has not detected these compounds at concentrations above indoor-air based screening levels in the vicinity of the plume, this circumstance may be a function of elevated detection limits for these chemicals during previous sampling events. In addition, some of the daughter products

of TCE/PCE degradation are more mobile and toxic than their parents (for example, vinyl chloride). The possible presence and distribution of such compounds will need to be addressed in future sampling activities to support the RI and baseline risk assessment.

- **Exposure Routes and Potential Receptors.** Potential pathways for human and ecological exposure to affected media in the TCE/PCE plume have not been evaluated because the nature and extent of affected media have not been fully characterized. The CSM for the TCE/PCE plume includes human exposure to contaminants by vapor intrusion to indoor air, migration to (and inhalation of) outdoor air, and inhalation/ingestion/ dermal contact with contaminated soil and groundwater.

4.3 Other Areas of Interest

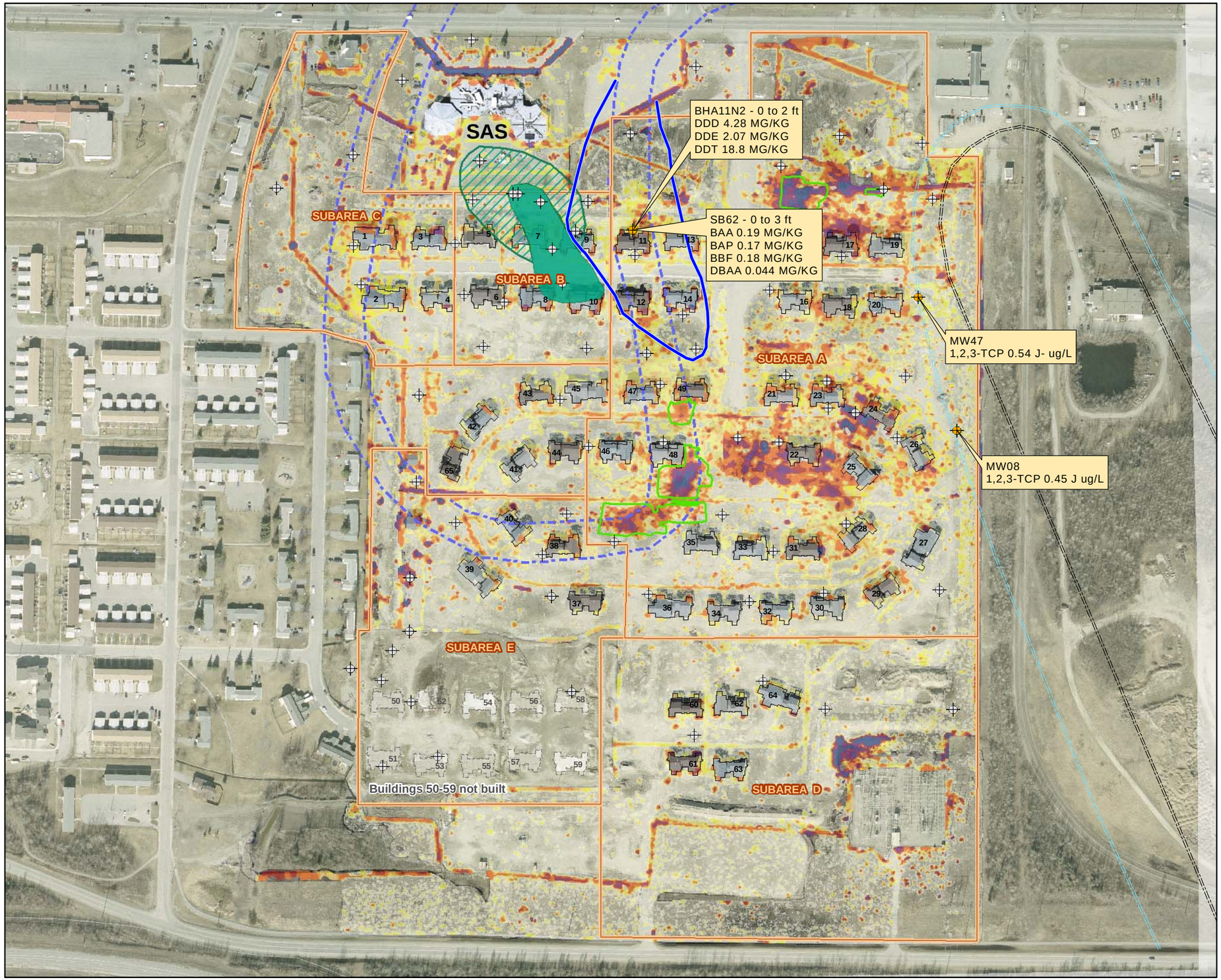
Figure 4-1 includes several other areas of interest for the RI. Specific CSMs have not been developed for these areas because the current Subarea CSMs are adequate or because the available information for the areas is insufficient for developing a specific CSM.

4.3.1 1,2,3-Trichloroprane Near Capture Zone

Two monitoring wells located along the margins of the 1,000-gpm capture zone for the base water supply well contain elevated concentrations of a compound reported as 1,2,3-trichloroprane. While the results are somewhat suspect (a C3-substituted benzene can be misidentified as 1,2,3-trichloropropane), the possible presence of this compound at concentrations greater than 10 times the screening in groundwater within the capture zone should be further evaluated. Therefore, the groundwater in this area has been identified as an area of interest, but there is insufficient information to develop a specific CSM. Additional information will be gathered in 2008 to determine whether the compound is present and whether it requires further investigation.

4.3.3 Pesticide and PAH Contamination – Building 11

Pre-2007 RI surface soil samples collected on the north side of Building 11 contained DDT and benzo(a)pyrene at concentrations greater than 10 times their screening levels. A surface soil sample collected from nearby SB62 in 2007 did not detect DDT above the screening level, but benzo(a)pyrene was detected at greater than 10 times it screening level. Soil in this area will be sampled during the 2008 field season to confirm presence or absence of DDT and benzo(a)pyrene at levels above the screening level.



LEGEND

- 1,700 gpm Pumping Rate Water Supply Capture Zone
- 1,000 gpm Pumping Rate Water Supply Capture Zone
- TCE/PCE Plume
- POL Plume
- POL Source Area
- 2007 Drum and Debris Excavation Area
- Former Hoppe's Slough
- Existing Well Location

Groundwater Sample Result Magnitude of Exceedance

- Concentrations >10 and <= to 100X the screening level

March 2007 Magnetic Data
EM61 Results (mV)

- -1500
- -20
- 20
- 30
- 50
- 75
- 100
- 200
- 300
- 500
- 1000
- 2000

0 275
Feet

N

FIGURE 4-1
Areas of Interest
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

CH2MHILL

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TABLE 4-1

Hydrocarbon Fractionation Results for Soil and Groundwater Samples Collected in POL Source Area and Plume

Former Communications Site, Fort Wainwright, Alaska

Preliminary Risk Screening Evaluation Report

Soil Results							
			POL Source	**POL Source**	**POL Source**	**POL Source**	**POL Source**
		Location>>	SB33	SB33	SB65	SB65	SB33
		Sample ID>>	07FWBMW33-3_5	07FWBMW33-8_5	07FWBMW65-7_5	07FWBMW65-11_0	07FWBMW33-12_5
		Sample Depth (ft)>>	3.5 - 4.5	8.5 - 9.5	7.5 - 9	11 - 12	12.5 - 14.5
		Sample Date>>	9/15/2007	9/15/2007	10/10/2007	10/10/2007	9/15/2007
Fraction	**Analyte**	**Unit**					
Lighter Fraction (VPH)	C5-C6 Aliphatics	mg/kg	< 10.4	< 128	**1.44 J**	**1.09 J**	< 134
	C6-C8 Aliphatics	mg/kg	< 10.4	< 128	< 13.7	**0.59 J**	< 134
	C8-C10 Aliphatics	mg/kg	< 5.13	< 5.44	**2.66 J**	< 12.6	**61.8 J**
	C8-C10 Aromatics	mg/kg	**8.52**	**8.23**	**1.23 J**	< 12.6	**39.6 J**
Shared Fraction	C10-C12 Aliphatics	mg/kg	< 10.4	**101 J**	**30.2**	**341**	**486 J**
	C10-C12 Aromatics	mg/kg	< 10.4	**102 J**	**23**	**37.2 J**	**495 J**
	C12-C13 Aromatics	mg/kg	< 10.4	**589 J**	**93.1**	**6.73 J**	**2190 J**
Heavier Fraction (EPH)	C12-C16 Aliphatics	mg/kg	< 5.13	**548**	**71.1**	**1590**	**1360**
	C12-C16 Aromatics	mg/kg	< 5.13	**23**	**9.32**	**274**	**69.4**
	C16-C21 Aliphatics	mg/kg	< 5.13	**206**	**38.3**	**364 J+**	**425**
	C16-C21 Aromatics	mg/kg	< 5.13	**58.1**	**13.2**	**174**	**126**
	C21-C34 Aliphatics	mg/kg	< 5.13	**10**	**1.25 J**	< 52.5	**16.4**
	C21-C34 Aromatics	mg/kg	< 5.13	< 5.44	< 5.09	< 52.5	< 6.21
	Total EPH	mg/kg	< 11.9	**859**	**136**	**2780**	**2030**
	Total VPH	mg/kg	< 73.1	**813 J**	**152**	**13.4 J**	**3280 J**
	DRO	mg/kg	**21**	**880**	**74 J-**	**2700 J-**	**2400**
	GRO	mg/kg	< 5	**88**	**3.4 J**	**250**	**24**
	RRO	mg/kg	**43**	**16**	**4.2 J**	**30 J**	**28**

TABLE 4-1

Hydrocarbon Fractionation Results for Soil and Groundwater Samples Collected in POL Source Area and Plume

Former Communications Site, Fort Wainwright, Alaska

Groundwater Results							
			POL Source	**POL Source**	**POL Plume**	**POL Plume**	**POL Plume**
		Location>>	MW33	MW65	MW63	MW64	MW58
		Sample ID>>	07FWBMW33-GW	07FWBMW65R1-GW	07FWBMW63-GWB	07FWBMW64R1-GW	07FWBMW58R1-GW
		Sample Date>>	10/12/2007	10/24/2007	10/22/2007	10/24/2007	10/27/2007
Fraction	**Analyte**	**Unit**					
Lighter Fraction (VPH)	C5-C6 Aliphatics	ug/l	< 50	< 50	--	< 50	< 50
	C6-C8 Aliphatics	ug/l	**12.1 J**	**16.9 J**	--	< 50	< 50
	C8-C10 Aliphatics	ug/l	< 48.5	**39.7 J**	< 48.5	< 50	< 49
	C8-C10 Aromatics	ug/l	**36 J**	**88 J-**	--	< 50	**1.61 J-**
Shared Fraction	C10-C12 Aliphatics	ug/l	**137**	**290**	< 48.5	< 50	**16.1 J-**
	C10-C12 Aromatics	ug/l	**270**	**653**	< 48.5	< 50	**23.4 J-**
	C12-C13 Aromatics	ug/l	**398**	**800**	--	< 50	**32.3 J-**
Heavier Fraction (EPH)	C12-C16 Aliphatics	ug/l	**3.64 J**	**154**	**2.71 J**	< 50.5	< 49
	C12-C16 Aromatics	ug/l	**720**	**1370**	< 48.5	< 50.5	**18.6 J-**
	C16-C21 Aliphatics	ug/l	< 48.5	**9.27 J+**	**14 J**	**9.45 J+**	**8.32 J+**
	C16-C21 Aromatics	ug/l	**482**	**780**	< 48.5	< 50.5	< 49
	C21-C34 Aliphatics	ug/l	< 48.5	< 50.5	< 48.5	< 50.5	< 49
	C21-C34 Aromatics	ug/l	< 48.5	< 50.5	< 48.5	< 50.5	< 49
	Total EPH	ug/l	**1570**	**3130**	**60.1**	**54.4**	< 89.1
	Total VPH	ug/l	**879**	**1870**	--	< 350	**84.6 J-**
	DRO	ug/l	**28000**	**8700**	**410 J**	**100**	**3200 J+**
	GRO	ug/l	**140**	**120**	**29 J**	< 50	< 50
	RRO	ug/l	< 3000	< 3000	**33 J**	**120 J**	**200 J+**

DRO - diesel range organics
EPH - extractable petroleum hydrocarbons
GRO - gasoline range organics
POL = petroluem, oil, and lubricants
RRO - residual range organics
VPH - volatile petroleum hydrocarbons

SECTION 5

Data Needs and Proposed 2008 Field Investigation

This section identifies the additional data required to complete the RI and presents the proposed sample designs and target analytes for the 2008 RI field effort.

5.1 Data Needs

The following data gaps need to be filled to support completion of the RI and baseline risk assessments.

- **Soil.** For the most part, the existing data set for soil appears adequate to complete the RI and conduct the baseline risk assessment. Data gaps that were identified indicate that the following additional activities and samples will be needed:
  - Confirmation screening for POL at SP06-05 to determine portion of the soil pile to be disposed of by DRMO
  - Discrete soil samples at sound berm decision units DB04 and DB06 to obtain non-MI results for benzo(a)pyrene for use in the baseline risk assessment
  - Removal of PCB-contaminated soil adjacent to the glycol line, steam vault, and excavation floor at Building 52 (locations EX52-403B and 428A), followed by confirmation sampling
  - Removal of PCB-contaminated soil at the playground (locations PLG-SE1 and SE-2), followed by confirmation sampling
  - Resampling, delineation, and possible removal of DDT and benzo(a)pyrene-contaminated surface soil north of Building 11 (Subarea A)
  - Additional surface soil sampling (zero to 2 feet bgs), as deemed necessary to obtain adequate coverage to complete the baseline risk assessment (sampling to be conducted only after soil removal and debris/drum investigations are complete at the site)
- **Groundwater.** Data gaps were identified for groundwater include well coverage and detection limits. The following additional activities will be needed:
  - **Well Coverage.** The existing monitoring well network appears to provide adequate coverage to assess groundwater conditions at the FCS, with the following exceptions:
    - The extents of the TCE/PCE plume along the former slough channel and at depth in the aquifer have not been established. Additional wells are needed to complete the characterization of the plume.

    - If the detections of 1,2,3-trichloropropane are confirmed in groundwater adjacent to the capture zone for the water supply well, the downgradient and vertical extents of the plume will need to be established by use of additional wells.

  - **Detection Limits.** The MDLs reported for many non-detect results in the existing data set are above the screening levels, making determinations about plume extent and absence of other COPCs uncertain. Future groundwater sampling events may need to employ selective ion monitoring (SIM) or similar low-level analytical methods to achieve detection limits consistent with screening levels for certain key analytes (for example, PCE, TCE, and vinyl chloride).

- **Soil Gas.** Data gaps for soil gas include assessment of potential temporal variability and additional characterization of soil gas for compounds with elevated MDLs during previous soil gas sampling events.

5.2 Proposed 2008 Field Investigation to Address Data Gaps

The proposed 2008 field investigation will consist of soil sampling, installation and sampling of additional monitoring wells, an additional round of sampling at selected existing monitoring wells, and an additional round of subslab soil gas sampling at selected locations around the FCS. This section provides an overview of each sampling effort; a separate amendment to the draft RI work plan will provide the details for the field investigations.

5.2.1 Soil Sampling

The 2008 soil sampling program will consist of confirmation sampling following removal activities in the Building 52 excavation and playground area, confirmation screening at SP06-05, delineation of the benzo(a)pyrene and DDT-affected surface soils in the vicinity of Building 11, and collection of discrete samples at the sound berms.

The target analytes for the soil samples will be limited to the COPC exceedances identified for each area of interest (PCBs in the PCB excavations, benzo(a)pyrene and DDT at Building 11, and benzo(a)pyrene at the sound berms). Proposed soil sample locations are shown in Figure 5-1.

5.2.2 Monitoring Well Installation

Five additional monitoring wells are currently proposed for the FCS. Two of the wells will be installed to characterize the TCE plume: a shallow well to delineate the northern extent of the plume in the former slough channel, and a deep well adjacent to MW61 to asses conditions at depth in the aquifer. Proposed well locations are shown in Figure 5-2.

The other three wells will be installed to characterize the 1,2,3-trichloropropane plume on the eastern side of Subarea A if the presence of the chemical in site groundwater is confirmed. The wells will include a shallow and deep well pair between MW47 and the water supply well and a shallow well east of MW08. Proposed well locations are shown in Figure 5-2.

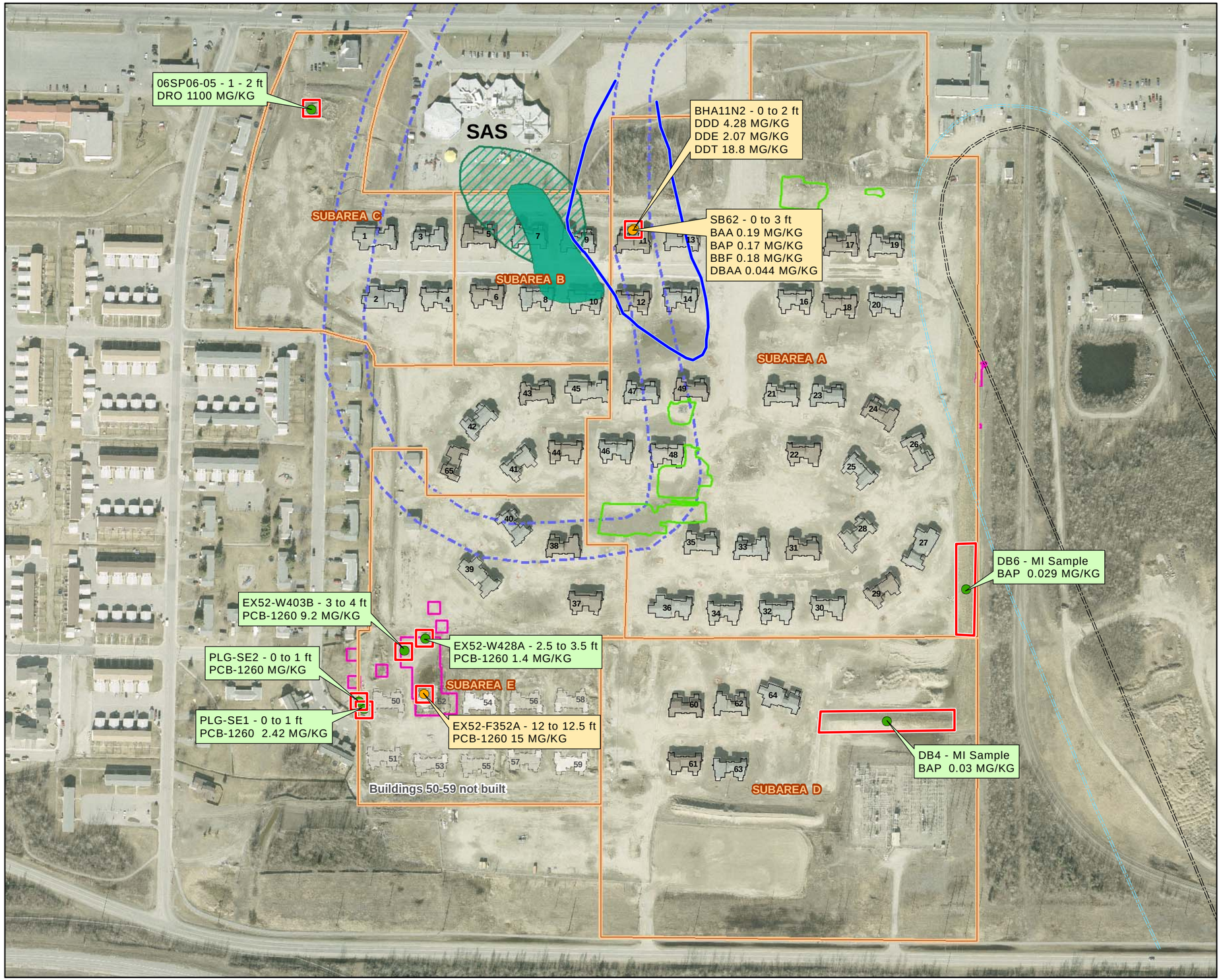
5.2.3 Groundwater Sampling

The additional monitoring wells, as well as selected existing monitoring wells, will be sampled for the full list of target analytes during the 2008 field event. The wells to be included in this round of groundwater sampling are identified in Figure 5-2. The rationale for resampling at each of the wells is listed in Table 5-1.

The groundwater samples will be analyzed for the full list of target analytes and may include use of low-level detection methods for certain analytes.

5.2.4 Soil Gas Sampling

Some additional assessment of soil gas is recommended. The locations for and timing of additional investigation have not been established. It is recommended that the target analyte lists for any additional investigation be limited to identified soil gas COPCs, and additional compounds that may require further evaluation because of high detection limits during the previous sampling events.



LEGEND

- 1,700 gpm Pumping Rate Water Supply Capture Zone
- 1,000 gpm Pumping Rate Water Supply Capture Zone
- TCE/PCE Plume
- POL Plume
- POL Source Area
- 2007 PCB Investigation Area
- 2007 Drum and Debris Excavation Area
- Former Hoppe's Slough

Magnitude of Exceedance

- Concentrations >10 and <= to 100X the screening level
- Concentrations >1 and <= 10X the screening level
- Proposed Soil Sample

0 275
Feet

FIGURE 5-1
Proposed Soil Sample Locations
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

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LEGEND

- 1,000 gpm Pumping Rate Water Supply Capture Zone
- 1,700 gpm Pumping Rate Water Supply Capture Zone
- TCE/PCE Plume
- 2007 Drum and Debris Excavation Area
- 2007 PCB Investigation Area
- POL Plume
- POL Source Area
- Former Hoppe's Slough

Monitoring Well

- Proposed new shallow well
- Proposed new deep well
- Shallow existing well recommended for additional well sampling
- Deep existing well recommended for additional sampling
- Shallow existing well not recommended for additional sampling

March 2007 Magnetic Data
EM61 Results (mV)

- -1500
- -20
- 20
- 30
- 50
- 75
- 100
- 200
- 300
- 500
- 1000
- 2000

0 275
Feet

N

FIGURE 5-2
Proposed Additional Monitoring Wells and Spring 2008 Groundwater Sample Location
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

TABLE 5-1
Existing Monitoring Wells to Be Sampled During 2008 Groundwater Monitoring Event
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Well	Rationale for Sampling	Subarea
MW08	Capture zone, 1,2,3-TCP exceedance	A
MW39	Capture zone deep	A
MW45	East of TCE plume	A
MW47	Capture zone, 1,2,3-TCP exceedance	A
MW48	Capture zone	A
MW53	TCE exceedance	A
MW56	TCE & PCE exceedances	A
MW57	Site coverage, southeastern site boundary	A
MW61	TCE & PCE exceedances (max detects)	A
MW62	TCE exceedance in GW and shallow PAHs/pesticides in soil	A
MW69	BAP and DBA exceedances	A
MW70	1,2 DCA exceedance	A
MW06A	Explosives exceedances	B
MW12	Explosives exceedances	B
MW32	POL plume boundary	B
MW33	POL Source Area (max detects)	B
MW64	TCE exceedance, POL plume	B
MW13	Downgradient of anomaly and near soil gas exceedances	D
MW03	Dieldrin exceedance	E
MW76	Perimeter of exclusion zone	E
MW26	Site coverage, western site boundary	Undefined
MW36	Perimeter nearest surface water	Undefined
MW37	POL & TCE plume downgradient	Undefined
MW38	TCE plume downgradient boundary	Undefined
MW40	Capture zone deep	Undefined
MW43	TCE Plume slough channel	Undefined
MW58	POL plume (SAS)	Undefined
MW35	POL plume downgradient	Undefined

1, 2, DCA = 1,2-dichloroethane
1,2,3 TCP = 1,2,3-trichloropropane
BAP = benzo(a)pyrene
DBA = dibenzo(a,h)anthracene
PCE = tetrachloroethene
POL = petroleum, oils, lubricants
SAS = School Age Services
TCE = trichloroethene

SECTION 6

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Appendix A
Vapor Intrusion Evaluation

APPENDIX A

Vapor Intrusion Evaluation

Introduction

This appendix to the draft preliminary risk screening evaluation (PRSE) report for the Former Communications Site (FCS), Fort Wainwright, Alaska, describes procedures and assumptions CH2M HILL used to evaluate results of soil gas sampling conducted during 2007 for the Remedial Investigation (RI). The overall purpose of the soil gas evaluation was to determine whether data gaps exist that indicate further investigation is needed for this environmental medium.

Data Used

Section 2, Table 2-10, of the PRSE report lists samples used in this assessment. The samples are listed by location, sample ID, depth, and sample date. The sample locations are shown in Section 2, Figure 2-10. These samples were obtained during two rounds of soil gas sampling conducted in August, September, and October 2007. More information about the 2007 soil gas sampling effort is provided in the *2007 Field Data Report* (CH2M HILL, 2008). A total of 159 locations were sampled for 64 target constituents. Two subslab sampling points were installed in each building under the existing garage floor at a depth of 0.5 foot. During the first round of sub slab sampling one sample was collected predominantly from the garage on the left side of the building and during the second round of sampling one sample was collected from the garage on the opposite side of the building. In addition to sub slab samples, 49 soil gas samples were collected from areas between buildings at a depth of 6.0 feet.

The process for evaluation of soil gas was conducted in the following steps:

1. Maximum detected concentrations were compared with conservative screening levels to identify chemicals of potential concern (COPC).
2. At all locations where there was a detect of any of the COPCs identified during Step 1, the potential for indoor air migration was further evaluated, using site-specific assumptions.

Step 1: Screening

In Step 1, maximum values for constituents detected at least once in soil gas samples were screened against a screening level equal to 10 times the U.S. Environmental Protection Agency (EPA) Region 6 Ambient Air Screening Level. The factor of 10 was applied as a worst-case soil gas to indoor air attenuation factor. Table A-1 provides summary statistics for all detected and non-detected target analytes, and the results of the screening evaluation.

Of the 64 target analytes, 22 were detected (Table A-1). Of these 22, only 6 were found at maximum levels exceeding the screening level. These included 1,2,4-trimethylbenzene, benzene, chloroform, tetrachloroethene (PCE), trichloroethene (TCE), and total xylenes. These constituents were further evaluated for vapor intrusion during Step 2.

Step 2: Vapor Intrusion Evaluation

For 45 of 159 locations, each had at least one detect of one of the COPCs that had been identified during Step 1. Soil gas from these locations was evaluated to address the potential for migration of volatile contaminants into indoor air at each residential housing unit and at some locations between housing units. The advanced *Johnson and Ettinger (1991) Model for Subsurface Vapor Intrusion into Buildings, Updated 2003* (SG-ADV Version 3.1; 02/04) (U.S. EPA, 2003a) was used to estimate exposure from vapor intrusion.

Model Assumptions

Building dimensions, foundation thickness, sample depth, and other model parameters used in the vapor intrusion model were identified based on review of the as-built architectural drawings for residential housing at the FCS and field sampling records. Many exposure and modeling assumptions were defaults specified in the guidance, including residential scenario-specific assumptions for cancer and noncancer averaging times and for exposure frequency and duration. However, additional site-specific factors were adjusted from the default values to provide site-specific estimates of exposure to vapors at the FCS, including sampling depth; soil type; soil temperature; and length, height, and width of the enclosed floor space. Table A-2 lists all sample locations (with associated housing unit numbers) and input parameters from the Johnson and Ettinger model that were used in this evaluation.

Interior dimensions for input into the Johnson and Ettinger model were obtained from the detailed mechanical drawings for the six residential models (A-F). Exposure areas were limited to first-floor living spaces. Garage spaces, exterior-access utility rooms, and exterior patios were excluded.

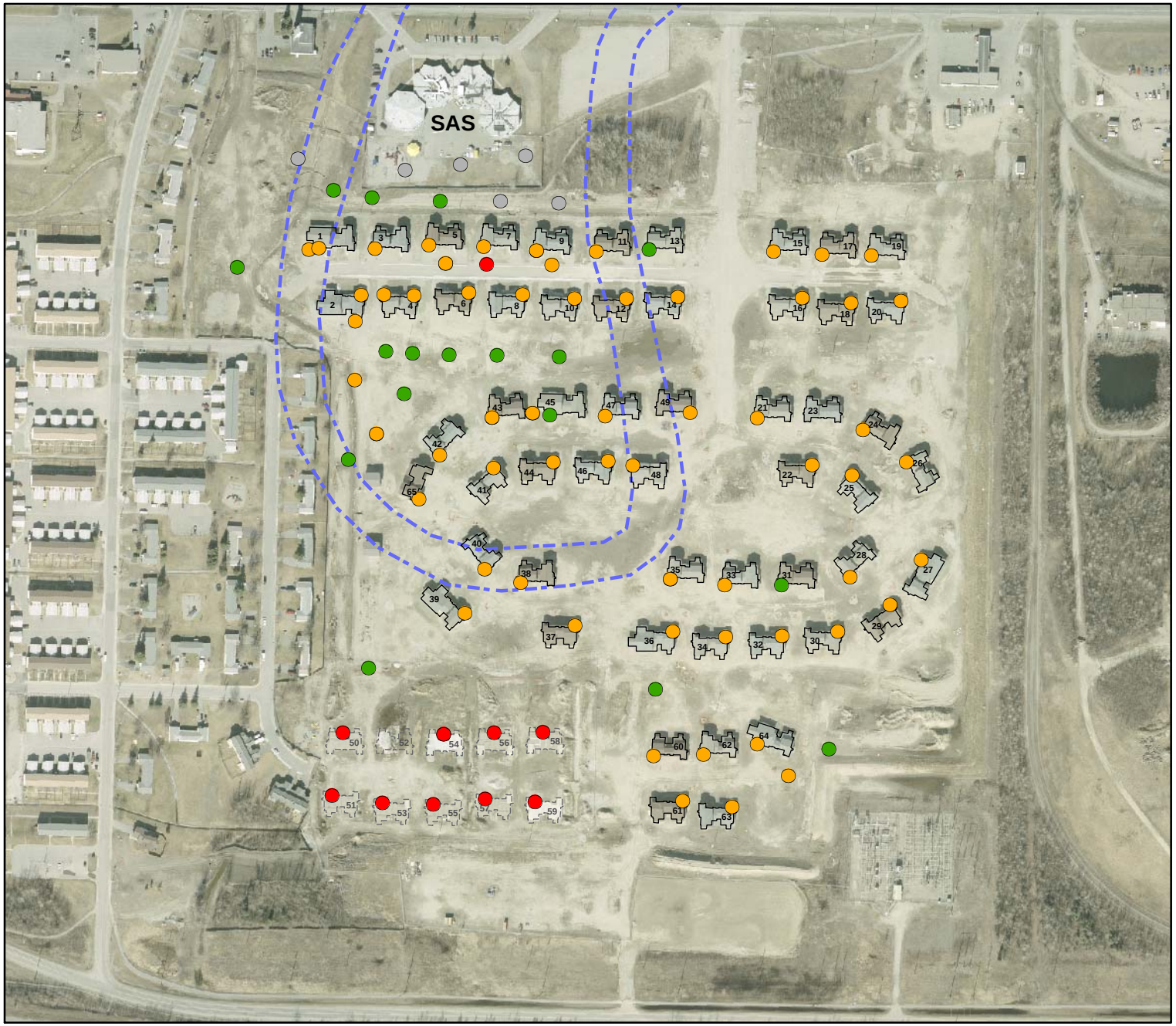
Soil types for future housing unit sample locations were obtained from soil boring logs taken during monitoring well installations. For all existing housing unit sample locations, the default soil type of sand was used, as directed by guidance for slab building construction.

Modeling Results

The Johnson and Ettinger model estimates indoor air concentrations and the associated cancer and noncancer risks. Results calculated for each of the 45 locations where COPCs were detected are shown in Table A-3. For these 45 locations, the excess lifetime risk (ELCR) estimates ranged from non-detect to $8x10^{-6}$ (at location SG042-L). None of the locations where COPCs were detected had ELCR estimates exceeding $1x10^{-5}$ or noncancer hazard index estimates exceeding 1.0. Although these results are favorable, there is some uncertainty associated with the levels of detection and interferences encountered during the soil gas investigation, as discussed in the following section.

Data Gaps

The results of this preliminary screening of soil gas indicated that six constituents were detected at levels exceeding screening levels. However, as indicated in Table A-1, there were a number of target analytes with minimum detection limits (MDLs) that also exceeded screening levels. In part, these inadequate MDLs resulted from potential analytical interference from co-occurring, non-target fluorocarbons in soil gas. Figure A-1 shows the distribution and magnitudes of concentration of the non-target fluorocarbons (Freons) that were reported as tentatively identified compounds (TICs) during soil gas analysis. Additional evaluation of soil gas is needed to determine the significance of the target analytes that have inadequate MDLs. In addition, an evaluation of temporal variability would provide a more reliable estimate of the potential for indoor exposure, prorated on an annual basis.



LEGEND

Former Hoppe's Slough

Freon Concetration - Soil Gas (ug/m^3)

- 92.000000 - 1000.000000
- 1300.000000 - 10000.000000
- 12000.000000 - 100000.000000
- 110000.000000 - 500000.000000

0 375
Feet

N

FIGURE A-1
Soil Gas Sample Locations with Freon
Former Communications Site
Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

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TABLE A-1
Summary Statistics and Ambient Air Screening for Constituents Analyzed for in Soil Gas (8/22/07 - 10/26/07)
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

	Units	Number of Detects	Number of Samples	Frequency of Detection	Minimum Nondetect	Maximum Nondetect	Alt Max Nondetect [1]	Minimum Detect	Maximum Detect	EPA Region 6 Ambient Air Screening Level	Screening Level x 10	Factor of Exceedance [2]	Number of Detects that Exceed	Number of Nondetects that Exceed	Number of Nondetects that Exceed Screening Level x 100	Number of Nondetects that Exceed Screening Level x 200
Detected Constituents																
1,1-Dichloroethene	µg/m^3	18	159	11%	4	1500	68	4.1	200	210	2100	0.10				
1,2,4-Trimethylbenzene	µg/m^3	8	159	5%	6.4	2400	110	22	***75***	6.3	63	***1.2***	1	8	1	1
1,3,5-Trimethylbenzene	µg/m^3	10	159	6%	5.4	2000	92	9.2	28	6.2	62	0.45				
2-Butanone (MEK)	µg/m^3	5	159	3%	5.9	2200	100	6	30	5200	52000	0.00				
4-Isopropyltoluene (p-Cymene)	µg/m^3	1	159	1%	2.7	1000	46	31	31	-	-					
Acetone	µg/m^3	30	159	19%	5.9	2200	100	6.1	64	3300	33000	0.00				
Benzene	µg/m^3	11	159	7%	4.8	1800	82	6.3	***160***	0.25	2.5	***64***	11	148	33	8
Bromomethane	µg/m^3	7	159	4%	7.8	2900	130	13	34	5.2	52	0.65				
Carbon disulfide	µg/m^3	7	159	4%	6.2	2300	110	13	120	730	7300	0.02				
Chloroform	µg/m^3	18	159	11%	4.9	1800	84	4.9	***170***	0.084	0.84	***202***	18	141	81	38
Dichlorodifluoromethane	µg/m^3	3	159	2%	4.9	1800	84	5.1	14	210	2100	0.01				
Ethylbenzene	µg/m^3	22	159	14%	4.3	1600	74	5.5	260	1100	11000	0.02				
Isopropylbenzene	µg/m^3	7	159	4%	4.9	1800	84	5.9	19	400	4000	0.00				
Methylene chloride	µg/m^3	42	159	26%	2.8	1000	48	2.8	40	4.1	41	0.98				
m-Xylene & p-Xylene	µg/m^3	26	159	16%	8.7	3200	150	11	860	100	1000	0.86				
n-Propylbenzene	µg/m^3	7	159	4%	4.9	1800	84	11	33	37	370	0.09				
o-Xylene	µg/m^3	21	159	13%	4.3	1600	74	7.35	300	730	7300	0.04				
Tetrachloroethene	µg/m^3	4	159	3%	6.8	2500	120	16	***300***	0.33	3.3	***91***	4	155	32	8
Toluene	µg/m^3	74	159	47%	3.8	1400	65	3.9	1500	5200	52000	0.03				
Trichloroethene	µg/m^3	1	159	1%	5.4	2000	92	61	***61***	0.017	0.17	***359***	1	158	158	158
Trichlorofluoromethane	µg/m^3	14	159	9%	5.6	2100	96	7.6	78	730	7300	0.01				
Xylenes (total)	µg/m^3	26	159	16%	4.3	1600	74	11	***1200***	100	1000	***1.2***	1	1	0	0
Nondetects																
1,1,1,2-Tetrachloroethane	µg/m^3	0	159	0%	3.4	1300	58	-	-	0.26	2.6	***22***		159	23	3
1,1,1-Trichloroethane	µg/m^3	0	159	0%	5.4	2000	92	-	-	2300	23000	0.00				
1,1,2,2-Tetrachloroethane	µg/m^3	0	159	0%	6.8	2500	120	-	-	0.033	0.33	***364***		159	159	159
1,1,2-Trichloroethane	µg/m^3	0	159	0%	5.4	2000	92	-	-	0.12	1.2	***77***		159	39	32
1,1-Dichloroethane	µg/m^3	0	159	0%	4	1500	68	-	-	730	7300	0.01				
1,1-Dichloropropene	µg/m^3	0	159	0%	4.5	1700	77	-	-	-	-					
1,2,3-Trichlorobenzene	µg/m^3	0	159	0%	22	8200	380	-	-	-	-					
1,2,3-Trichloropropane	µg/m^3	0	159	0%	6	2200	100	-	-	0.00096	0.0096	***10417***		159	159	159
1,2,4-Trichlorobenzene	µg/m^3	0	159	0%	18	6700	310	-	-	4.2	42	***7.4***		39	1	1
1,2-Dibromo-3-chloropropane	µg/m^3	0	159	0%	48	18000	820	-	-	0.0001	0.001	***820000***		159	159	159
1,2-Dibromoethane (EDB)	µg/m^3	0	159	0%	7.7	2900	130	-	-	0.0034	0.034	***3824***		159	159	159
1,2-Dichlorobenzene	µg/m^3	0	159	0%	5.4	2000	92	-	-	0.25	2.5	***36.8***		159	32	10
1,2-Dichloroethane	µg/m^3	0	159	0%	4	1500	68	-	-	0.074	0.74	***91.9***		159	66	37
1,2-Dichloropropane	µg/m^3	0	159	0%	6.9	2600	120	-	-	0.099	0.99	***121***		159	76	38
1,3-Dichlorobenzene	µg/m^3	0	159	0%	4.8	1800	82	-	-	8.3	83	0.99				
1,3-Dichloropropane	µg/m^3	0	159	0%	4.6	1700	79	-	-	-	-					
1,4-Dichlorobenzene	µg/m^3	0	159	0%	18	6700	310	-	-	0.28	2.8	***111***		159	76	38
2,2-Dichloropropane	µg/m^3	0	159	0%	4.6	1700	79	-	-	-	-					
2-Chlorotoluene	µg/m^3	0	159	0%	5.2	1900	89	-	-	73	730	0.12				
2-Hexanone	µg/m^3	0	159	0%	8.2	3000	140	-	-	-	-					
4-Methyl-2-pentanone (MIBK)	µg/m^3	0	159	0%	8.2	3000	140	-	-	3100	31000	0.00				
Bromobenzene	µg/m^3	0	159	0%	19	7100	330	-	-	12	120	***2.8***		28	1	1
Bromodichloromethane	µg/m^3	0	159	0%	6.7	2500	110	-	-	0.11	1.1	***100***		159	70	38
Bromoform	µg/m^3	0	159	0%	5.2	1900	89	-	-	1.7	17	***5.2***		38	1	1
Carbon tetrachloride	µg/m^3	0	159	0%	6.3	2300	110	-	-	0.13	1.3	***84.6***		159	43	33

TABLE A-1
Summary Statistics and Ambient Air Screening for Constituents Analyzed for in Soil Gas (8/22/07 - 10/26/07)
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

	Units	Number of Detects	Number of Samples	Frequency of Detection	Minimum Nondetect	Maximum Nondetect	Alt Max Nondetect [1]	Minimum Detect	Maximum Detect	EPA Region 6 Ambient Air Screening Level	Screening Level x 10	Factor of Exceedance [2]	Number of Detects that Exceed	Number of Nondetects that Exceed	Number of Nondetects that Exceed Screening Level x 100	Number of Nondetects that Exceed Screening Level x 200
Chlorobenzene	µg/m^3	0	159	0%	4.6	1700	79	-	-	52	520	0.15				
Chloroethane	µg/m^3	0	159	0%	4	1500	68	-	-	-	-					
Chloromethane	µg/m^3	0	159	0%	2.1	780	36	-	-	1.1	11	***3.3***		30	1	1
cis-1,2-Dichloroethene	µg/m^3	0	159	0%	3.2	1200	55	-	-	37	370	0.15				
cis-1,3-Dichloropropene	µg/m^3	0	159	0%	6.8	2500	120	-	-	-	-					
Dibromochloromethane	µg/m^3	0	159	0%	8.5	3200	150	-	-	0.08	0.8	***188***		159	159	62
Dibromomethane	µg/m^3	0	159	0%	11	4100	190	-	-	-	-					
Hexachlorobutadiene	µg/m^3	0	159	0%	14	5200	240	-	-	0.087	0.87	***276***		159	159	76
Methyl tert-butyl ether (MTBE)	µg/m^3	0	159	0%	3.6	1300	62	-	-	7.4	74	0.84				
Naphthalene	µg/m^3	0	159	0%	16	6000	270	-	-	3.1	31	***8.7***		60	1	1
n-Butylbenzene	µg/m^3	0	159	0%	3.3	1200	56	-	-	37	370	0.15				
sec-Butylbenzene	µg/m^3	0	159	0%	5.5	2000	94	-	-	37	370	0.25				
Styrene	µg/m^3	0	159	0%	4.2	1600	72	-	-	1100	11000	0.01				
tert-Butylbenzene	µg/m^3	0	159	0%	5.5	2000	94	-	-	37	370	0.25				
trans-1,2-Dichloroethene	µg/m^3	0	159	0%	4	1500	68	-	-	63	630	0.11				
trans-1,3-Dichloropropene	µg/m^3	0	159	0%	4.5	1700	77	-	-	-	-					
Vinyl chloride	µg/m^3	0	159	0%	3.8	1400	65	-	-	0.16	1.6	***40.6***		159	33	17

[1] High RL/MDL was reported for location SG023-L. "Alt Max Nondetect" column provides maximum nondetect values for detected constituents with sample location SG023-L removed.
[2] Screening is against Max Detect or Alt Max Nondetect
= Exceeded screening criteria

TABLE A-2
Johnson-Ettinger Parameter Values Used for Taku Gardens
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Location	Duplex Model #	Model Letter	Square Footage	Depth Below Grade to Bottom of Enclosed Space Floor L_F (cm)	Soil Gas Sampling Depth Below Grade L_s (cm)	Average Soil Temp T_S (°C)	Soil Stratum A SCS Soil Type (Used to Est Soil Vapor Permeability)	Code A	Stratum B	Code B	Stratum C	Code C	Enclosed Space Floor Thickness L_{crack} (cm)	Soil Building Pressure Differetial ΔP (g/cm-s^2)	Enclosed Space Floor Length L_B (cm)	Assumed Lb ft	Enclosed Space Floor Width W_B (cm)	Assumed Wb ft	Enclosed Space Height H_B (cm)	Assumed Hb ft	Floor-Wall Seam Crack Width (w) (cm)	Exposure Frequency (EF) (days/yr)
SG001-R	(1)4	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG002-R	(2)4M	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG003-R	(3)5	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG004-R	(4)5M	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG005-R	(5)6	E	1352	15.24	15.24	10	S (sand)		-		-		10	40	1188.72	39	1066.8	35	243.84	8	0.1	350
SG007-R	(7)6	E	1352	15.24	15.24	10	S (sand)		-		-		10	40	1188.72	39	1066.8	35	243.84	8	0.1	350
SG011-R	(11)5	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG012-R	(12)5M	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG018-R	(18)5M	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG019-R	(19)6	E	1352	15.24	15.24	10	S (sand)		-		-		10	40	1188.72	39	1066.8	35	243.84	8	0.1	350
SG021-R	(21)6	E	1352	15.24	15.24	10	S (sand)		-		-		10	40	1188.72	39	1066.8	35	243.84	8	0.1	350
SG022-R	(22)5M	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG023-R	(23)6	E	1352	15.24	15.24	10	S (sand)		-		-		10	40	1188.72	39	1066.8	35	243.84	8	0.1	350
SG024-R	(24)5	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG025-L	(25)5M	E	1352	15.24	15.24	10	S (sand)		-		-		10	40	1188.72	39	1066.8	35	243.84	8	0.1	350
SG026-R	(26)6	E	1352	15.24	15.24	10	S (sand)		-		-		10	40	1188.72	39	1066.8	35	243.84	8	0.1	350
SG027-L	(27)4	D	2534	15.24	15.24	10	S (sand)		-		-		10	40	2026.92	66.5	1173.48	38.5	243.84	8	0.1	350
SG028-L	(28)6	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG030-R	(30)5M	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG031-R	(31)6	E	1352	15.24	15.24	10	S (sand)		-		-		10	40	1188.72	39	1066.8	35	243.84	8	0.1	350
SG032-L	(32)6M	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG034-R	(34)3M	A	1269	15.24	15.24	10	S (sand)		-		-		10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG035-L	(35)6	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG036-L	(36)2M	B	2338	15.24	15.24	10	S (sand)		-		-		10	40	1981.20	65	1097.28	36	243.84	8	0.1	350
SG039-R	(39)4M	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG042-L	(42)6	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG045-R	(45)4	C	1346	15.24	15.24	10	S (sand)		-		-		10	40	1127.76	37	1127.76	37	243.84	8	0.1	350
SG062-R	(62)3	A	1269	15.24	15.24	10	S (sand)		-		-		10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG063-L	(63)7M	F	1310	15.24	15.24	10	S (sand)		-		-		10	40	1280.16	42	960.12	31.5	243.84	8	0.1	350
SG063-R	(63)7M	A	1269	15.24	15.24	10	S (sand)		-		-		10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG064-L	(64)2	B	2338	15.24	15.24	10	S (sand)		-		-		10	40	1981.20	65	1097.28	36	243.84	8	0.1	350
SG066	-	Use A (smallest)	-	182.88	182.88	10	fine sand	S	fine sand w silt	S	sandy silt	SI	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG070	-	Use A (smallest)	-	182.88	182.88	10	sandy silt 0-3	SI	silt 3-6	SI	sandy silt 5-7	SI	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG071	-	Use A (smallest)	-	182.88	182.88	10	sandy silt 0-2	SI	silty/fine sand 2-6	S	fine sand 5-7	S	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG072	-	Use A (smallest)	-	182.88	182.88	10	sandy silt 0-3	SI	sandy silt 3-5	SI	silt 5-7	SI	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG073	-	Use A (smallest)	-	182.88	182.88	10	sandy silt 0-3	SI	sandy silt 3-6	SI	silt 5-7.5	SI	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG082	-	Use A (smallest)	-	182.88	182.88	10	sandy silt 0-2	SI	clayey sand 2.5-4.5	S	sand 5-7	S	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG084	-	Use A (smallest)	-	182.88	182.88	10	silty sand 0-2	S	silty sand 2.5-4.5	SI	sand 5-7	S	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG086	-	Use A (smallest)	-	182.88	182.88	10	silty sand 0-2	S	sand 2-4	S	sand 5-7	S	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG093	-	Use A (smallest)	-	182.88	182.88	10	silt w gravel 0-2	SI	silt 2.5-4.5	SI	silt 5-7	SI	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG094	-	Use A (smallest)	-	182.88	182.88	10	sand w silt 0-2	S	sandy silt 2.5-4.5	SI	sand w silt 5-7	S	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG095	-	Use A (smallest)	-	182.88	182.88	10	sand w silt 0-2	S	sandy silt 2.5-4.5	SI	sand w silt 5-7	S	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG096	-	Use A (smallest)	-	182.88	182.88	10	sand w silt 0-2	S	sandy silt 2.5-4.5	SI	sand w silt 5-7	S	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG100	-	Use A (smallest)	-	182.88	182.88	10	sandy silt 0-2	SI	silty sand 2.5-4.5	S	silt 5-7	SI	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350
SG105	-	Use A (smallest)	-	182.88	182.88	10	silt 0-2	SI	silt 2.5-4.5	SI	silt 5-7	SI	10	40	1097.28	36	1082.04	35.5	243.84	8	0.1	350

Model Letter = from Structural drawings
Square footage = estimate from structural drawings
Ceiling Height = 8' default (checked against architectural drawings
Depth Below Grade = not applicable (slab construction)
Soil Gas Sampling Depth = from analytical
Average Soil Temp =
Soil Stratum A = assume sand per guidance for new construction
Enclosed Space Floor Thickness = default of 10 cm (4" on structural drawings)
Soil Building Pressure Differetial = 40 (g/cm-s^2) default
Enclosed Space Floor Length = estimate from Structural drawings
Enclosed Space Floor Width = estimate from Structural drawings
Enclosed Space Height = estimate from Structural drawings
Floor-Wall Seam Crack Width = default 0.1 cm□w (cm)
Averaging Time - Carcinogens = default 70 yrs□ATC (yrs)
Averaging Time - Noncarcinogens = default 30 yrs
Exposure Duration = default 30 years□ED (yrs)
Exposure Frequency = default 350 days

TABLE A-3
Risk Summary for Soil Gas Vapor Intrusion (J&E Output)
(J&E Results for all 45 locations with at least one detect of the 6 COPCs, as determined by detects that exceeded screening criteria)
Former Communications Site, Fort Wainwright, Alaska
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	1,2,4-Trimethylbenzene		Benzene		Chloroform		Tetrachloroethene		Trichloroethene		Xylenes (total)				
Locations	**ELCR**	**HQ**	**ELCR**	**HQ**	**ELCR**	**HQ**	**ELCR**	**HQ**	**ELCR**	**HQ**	**ELCR**	**HQ**	**Total ELCR**	**HI**	**ELCR Risk Driver**
Sub Slab Soil Gas															
SG001-R	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	0.002	0.0E+00	0.00	
SG002-R	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	0.002	0.0E+00	0.00	
SG003-R	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	0.003	0.0E+00	0.00	
SG004-R	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	0.001	0.0E+00	0.00	
SG005-R	ND	ND	1.3E-07	0.00	ND	ND	ND	ND	ND	ND	-	0.005	1.3E-07	0.01	
SG007-R	ND	ND	2.1E-07	0.00	ND	ND	ND	ND	ND	ND	-	0.005	2.1E-07	0.01	
SG011-R	ND	ND	3.3E-07	0.00	ND	ND	ND	ND	ND	ND	-	0.005	3.3E-07	0.01	
SG012-R	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	0.003	0.0E+00	0.00	
SG018-R	ND	ND	ND	ND	2.5E-07	-	ND	ND	ND	ND	-	0.001	2.5E-07	0.00	
SG019-R	ND	ND	ND	ND	2.598E-07	-	ND	ND	ND	ND	-	0.001	2.6E-07	0.00	
SG021-R	-	0.02	3.5E-07	0.00	ND	ND	ND	ND	ND	ND	-	0.026	3.5E-07	0.05	
SG022-R	-	0.02	1.3E-06	0.01	ND	ND	ND	ND	ND	ND	-	0.048	1.3E-06	0.08	Benzene
SG023-R	-	0.06	2.7E-07	0.00	ND	ND	ND	ND	ND	ND	-	0.034	2.7E-07	0.10	
SG024-R	-	0.05	1.4E-07	0.00	ND	ND	ND	ND	ND	ND	-	0.021	1.4E-07	0.07	
SG025-L	-	0.02	2.7E-06	0.03	ND	ND	ND	ND	ND	ND	-	0.060	2.7E-06	0.11	Benzene
SG026-R	-	0.04	ND	ND	ND	ND	ND	ND	ND	ND	-	0.013	0.0E+00	0.05	
SG027-L	ND	ND	1.8E-07	0.00	ND	ND	ND	ND	ND	ND	ND	ND	1.8E-07	0.00	
SG028-L	ND	ND	ND	ND	ND	ND	9.8E-07	0.00	ND	ND	-	0.006	9.8E-07	0.01	
SG030-R	ND	ND	1.0E-07	0.00	ND	ND	ND	ND	ND	ND	ND	ND	1.0E-07	0.00	
SG031-R	ND	ND	ND	ND	2.5E-07	-	ND	ND	ND	ND	-	0.001	2.5E-07	0.00	
SG032-L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	0.001	0.0E+00	0.00	
SG034-R	ND	ND	ND	ND	ND	ND	3.9E-06	0.00	ND	ND	-	0.001	3.9E-06	0.00	PCE
SG035-L	ND	ND	ND	ND	ND	ND	2.0E-07	0.00	ND	ND	-	0.002	2.0E-07	0.00	
SG036-L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	0.001	0.0E+00	0.00	
SG039-R	-	0.02	ND	ND	4.2E-07	-	ND	ND	ND	ND	-	0.008	4.2E-07	0.03	
SG042-L	ND	ND	ND	ND	8.3E-06	-	ND	ND	ND	ND	-	0.002	8.3E-06	0.00	Chloroform
SG045-R	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	0.001	0.0E+00	0.00	
SG062-R	-	0.02	ND	ND	ND	ND	ND	ND	ND	ND	-	0.005	0.0E+00	0.03	
SG063-L	ND	ND	5.8E-07	0.01	ND	ND	ND	ND	ND	ND	-	0.019	5.8E-07	0.02	
SG063-R	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	0.002	0.0E+00	0.00	
SG064-L	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	0.001	0.0E+00	0.00	
Vadose Zone Soil Gas															
SG066	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	0.000	0.0E+00	0.00	
SG070	ND	ND	ND	ND	2.3E-08	-	ND	ND	ND	ND	-	0.000	2.3E-08	0.00	
SG071	ND	ND	ND	ND	1.7E-08	-	ND	ND	ND	ND	-	0.001	1.7E-08	0.00	
SG072	ND	ND	ND	ND	2.3E-08	-	ND	ND	ND	ND	ND	ND	2.3E-08	0.00	
SG073	ND	ND	ND	ND	6.9E-08	-	ND	ND	ND	ND	-	0.000	6.9E-08	0.00	
SG082	ND	ND	ND	ND	2.3E-08	-	ND	ND	ND	ND	ND	ND	2.3E-08	0.00	
SG084	ND	ND	ND	ND	4.4E-07	-	ND	ND	ND	ND	-	0.000	4.4E-07	0.00	
SG086	ND	ND	ND	ND	4.4E-07	-	ND	ND	ND	ND	ND	ND	4.4E-07	0.00	
SG093	ND	ND	ND	ND	2.1E-07	-	ND	ND	ND	ND	-	0.000	2.1E-07	0.00	
SG094	ND	ND	ND	ND	4.4E-07	-	ND	ND	ND	ND	-	0.000	4.4E-07	0.00	
SG095	ND	ND	ND	ND	1.5E-07	-	ND	ND	ND	ND	-	0.000	1.5E-07	0.00	
SG096	ND	ND	ND	ND	1.2E-07	-	ND	ND	ND	ND	ND	ND	1.2E-07	0.00	
SG100	ND	ND	ND	ND	1.4E-07	-	ND	ND	ND	ND	-	0.000	1.4E-07	0.00	
SG105	ND	ND	ND	ND	4.9E-08	-	3.5E-08	0.00	1.2E-08	0.00	ND	ND	9.6E-08	0.00	

ND = non-detect
COPC = chemical of potential concern
HI = hazard index
ELCR = excess lifetime cancer risk
HQ = hazard quotient

Appendix B
Screening-Level Ecological Screening Assessment

APPENDIX B

Screening-Level Ecological Risk Assessment

1.0 Introduction

This appendix provides a screening-level ecological evaluation (SLERA) for the Former Communications Site (FCS) at Fort Wainwright in Fairbanks, Alaska. This SLERA addresses potential ecological exposure pathways associated with (1) soil/sediment in the drainage swales and (2) shallow groundwater in downgradient monitoring wells nearest to the Chena River. The primary purpose of this SLERA is to evaluate existing data for these media to identify any data gaps that may exist related to assessing the potential for ecological risk at the site.

Because of the very conservative assumptions inherent in the screening methodology, this evaluation should not be construed as a risk evaluation. Once a complete data set is available after the Remedial Investigation (RI) is completed, a final ecological risk evaluation will be included as a component of the baseline risk assessment for the site.

1.1 Organization of the Ecological Assessment

In addition to the introduction, this SLERA includes the following components:

- **Section 2.0, Selection of Chemicals of Potential Ecological Concern (COPECs),** identifies the constituents considered most important to the ecological evaluation process.
- **Section 3.0, Simplified Conceptual Exposure Model,** identifies the potentially complete pathways by which ecological exposures to chemicals in sediment could occur.
- **Section 4.0, Screening Ecological Evaluation,** provides the results of the ecological screening.
- **Section 5.0, Uncertainties and Assumptions,** identifies uncertainties and assumptions from the ecological screening.
- **Section 6.0, Conclusions and Recommendations,** provides a summary of the screening findings and the recommended path forward
- **Section 7.0, References,** lists the references used in writing this SLERA.

2.0 Selection of Chemicals of Potential Ecological Concern

COPECs are those chemicals that should be carried through the ecological evaluation process. This section summarizes those chemicals detected during 2007 sitework and identifies the COPECs for environmental media that are accessible through ecological exposure routes.

2.1.1 Data Used for This Ecological Evaluation

CH2M HILL obtained the data used for this SLERA in September and October 2007, as part of the RI at the FCS. Analytical data considered in this SLERA are presented in tables B-1 and B-2. The data set includes drainage swale surface soil and sediment (zero to 2 feet below ground surface [bgs]) and shallow groundwater collected for the purpose of site characterization. All chemicals detected (including estimated values) in at least one sample were used in the SLERA. A summary of the analytical data used for each of these data groups is provided in subsections 2.1.2 and 2.1.3.

2.1.2 Drainage Swale Samples

Analytical data (Table B-1) from 3 surface soil/sediment samples (and 1 duplicate sample) collected in the drainage swale on the northeast portion of the site were used for this SLERA. A total of 41 constituents, including metals, polynuclear aromatic hydrocarbons (PAHs), pesticides, volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and POL, were detected in the drainage swale.

2.1.3 Groundwater Samples

Analytical data (Table B-2) from 7 shallow groundwater samples (and 2 duplicate samples) collected in the downgradient monitoring wells (MW35, MW36, MW37, MW38, MW40, MW41, and MW43) nearest the Chena River were used for the SLERA. These 7 monitoring wells are located along the northern edge of the site. A total of 25 constituents, including metals, PAHs, pesticides, VOCs, SVOCs, and POL, were detected in the groundwater.

2.2 Selection of COPECs

Consistent with ADEC guidance (ADEC, 2008), detected constituents are considered COPECs requiring further evaluation if they meet one of the following criteria:

- Maximum detected constituent concentrations exceed ecological risk-based screening concentrations (ERBSCs) provided in *Ecoscoping Guidance – Appendix D* (ADEC, 2008)
- Constituent is identified as potentially bioaccumulative as per *Ecoscoping Guidance – Appendix C* (ADEC, 2008)

On the basis of these selection criteria, COPECs were identified: 30 for drainage swale soil/sediment and 8 for groundwater (tables B-1 and B-2). As noted by ADEC (2008), the screening criteria used for COPEC selection are the most conservative of a number of benchmarks. Constituent concentrations exceeding those benchmarks were identified as COPECs requiring a more in-depth look that employs other applicable benchmarks. This evaluation was done through additional screening, as described in Section 4.0, Screening Methodology and Results.

3.0 Preliminary Conceptual Exposure Model

The conceptual exposure model (CEM) identifies the means by which ecological receptors on or near the FCS may contact chemicals in environmental media. The CEM addresses exposures that may result under current site conditions and from reasonably anticipated potential conditions at the site and surrounding areas in the future. For the purpose of this SLERA—to identify potential data gaps—conservative assumptions were applied. For example, soil and shallow groundwater concentrations were compared directly to screening levels that would apply directly to a surface water body, with no consideration of the degree of attenuation associated with migration to the Chena River.

In consideration of the ecological setting, land use, and chemical release mechanisms known in the vicinity of the FCS (see *Draft – Human Health and Ecological Risk Assessment Work Plan*; CH2M HILL, 2007), and based on the ecoscoping forms for the FCS presented in Appendix F of the *Preliminary Source Evaluation 1 Narrative Report* (OASIS Environmental, Inc., 2007), it was determined that the most plausible ecological exposure routes are the following:

- Direct uptake of site-related constituents from surface water, sediment, and groundwater (assuming that migration to the river occurs) in the Chena River by aquatic organisms
- Direct contact with surface sediment (zero to 2 feet bgs) in offsite areas that contain suitable habitat for mammals and birds (assuming that migration by the drainage swale to the river occurs)
- Potential ingestion of site-related bioaccumulative chemicals through the food chain by piscivorous mammals and birds foraging along the Chena River

4.0 Screening Methodology and Results

This SLERA uses ADEC and EPA methodology, but should not be considered a complete ecological risk assessment (ERA) for the FCS. This SLERA provides a screening consistent with the approaches recommended in ADEC Phase II – Screening (ADEC, 2005) and in Step 2 of the EPA eight-step ERA process (EPA, 1997). Subsections 4.1.1 and 4.1.2 describe the screening methodology and results.

4.1.1 Screening Methodology

As recommended in ADEC guidance (ADEC 2004, 2005), drainage swale soil/sediment and groundwater concentrations were compared directly with levels believed to be protective. For this SLERA, the following screening benchmarks were used to determine the potential for effects to ecological receptors:

- For the evaluation of potential for effects to benthic and aquatic resources at the Chena River, results from individual groundwater samples were compared directly with EPA chronic and acute ambient water quality criteria (WQC) (EPA, 2005). Drainage swale samples were compared with threshold effects concentrations (TECs) and probable effects concentrations (PECs) (McDonald et al., 2000), and with threshold effects

levels (TELs) and probable effects levels (PELs) (NOAA Screening Quick Reference Tables, 2006).

- For the evaluation of potential for effects to riparian and aquatic birds and mammals through the food chain, individual drainage swale samples were compared directly with EPA ecological soil screening levels (EcoSSLs) protective of birds and mammals (EPA, 2005-2007).

In addition to the benchmark screening, naturally occurring levels of metals are considered in this SLERA. Metals with site concentrations within the reported range of natural conditions would not require additional evaluation.

4.1.2 Summary of Screening Results

The section provides results for the ecological screening at the FCS.

Aquatic and Benthic Resources

Table B-1 compares maximum detected concentrations from drainage swale soil/sediment samples with sediment benchmarks, and Table B-2 compares maximum detected concentrations from groundwater with WQC. The screening levels used are considered protective of aquatic and benthic resources. The results by medium are provided here.

Drainage Swale Surface Soil/Sediment

Of the 41 constituents detected in drainage swale soil/sediment, 30 were selected as COPECs. Of these 30, only arsenic and nickel were detected at maximum concentrations exceeding the corresponding PEL:

- Arsenic maximum concentration exceeds the PEL by a factor of 1.5.
- Nickel maximum concentration exceeds the PEL by a factor of 1.1.
- However, none of the COPECs (including nickel and arsenic) exceeds its respective PEC. The PEC is considered a more reliable benchmark than the PEL because it represents a consensus-based sediment quality guideline (McDonald et al., 2001) that includes consideration of multiple reported guidelines, including PELs. Given that none of the COPECs exceeds its PEC, the exceedances of PELs are low, and there was no consideration of the degree of attenuation associated with migration to the Chena River, the risk posed by drainage swale samples to aquatic/benthic organisms is considered low. Therefore, no data gaps were identified that would require additional sampling from the drainage swale for addressing ecological risk.

Shallow Groundwater

Of the 25 constituents detected in shallow groundwater along the northern perimeter of the site, 8 were selected as COPECs. Of these 8, none were detected at maximum concentrations exceeding acute WQC; and only aluminum, iron, selenium, and DDT concentrations exceeded chronic WQC:

- Aluminum and iron concentrations were detected below background levels (selenium background was unavailable).

- Selenium exceeds the chronic WQC by a maximum factor of only 1.6, with detected levels exceeding in only one well (MW36).
- DDT exceeds the chronic WQC by a maximum factor of 13, with detected levels exceeding in two wells (MW38 and MW43).
- Boron and cobalt were identified as COPECs because they exceed ADEC ERBSC aquatic screening levels. However, WQC and background levels were not available for use in evaluating these metals.
- Because of the distance between the perimeter monitoring wells and the Chena River, the most applicable screening level for groundwater is considered the acute WQC. Considerable attenuation is expected before groundwater reaches potential receptors in the Chena River. Because no COPEC concentrations exceed acute WQC, the risk posed to aquatic/benthic organisms through groundwater migration to the Chena River is considered low. Therefore, no data gaps were identified that would require additional sampling from these wells for addressing ecological risk.

Birds and Mammals

Table B-1 provides the results of comparing drainage swale samples with soil screening benchmarks considered protective of terrestrial birds and mammals. Of the 41 constituents detected in drainage swale soil/sediment, 30 were selected as COPECs. Ten of the 30 COPECs—antimony, cadmium, chromium, copper, lead, selenium, vanadium, zinc, DDE, and DDT—exceeded either bird or mammal EcoSSLs. For several COPECs identified as potentially bioaccumulative through application of ADEC criteria (BCF >1,000 or log Kow >3.5), there are no EcoSSLs available for use in evaluating risk.

For COPECs exceeding EcoSSLs for either birds or mammals, exceedances by the maximum detected concentrations are relatively low; that is, all factors of exceedances are 10 or less:

- Antimony maximum concentration exceeds the EcoSSL by a factor of 6.7.
- Cadmium maximum concentration exceeds the EcoSSL by a factor of 1.9.
- Chromium maximum concentration exceeds the EcoSSL by a factor of 1.3.
- Copper maximum concentration exceeds the EcoSSL by a factor of 2.0.
- Lead maximum concentration exceeds the EcoSSL by a factor of 5.5.
- Selenium maximum concentration exceeds the EcoSSL by a factor of 1.5.
- Vanadium maximum concentration exceeds the EcoSSL by a factor of 6.3.
- Zinc maximum concentration exceeds the EcoSSL by a factor of 5.5.
- DDE maximum concentration exceeds the EcoSSL by a factor of 1.7
- DDT maximum concentration exceeds the EcoSSL by a factor of 7.6.

- Since the EcoSSLs used for this assessment conservatively assume that all wildlife exposure is limited to the small location where samples were collected, exceedance of some of the screening levels is not surprising. During the baseline risk assessment, site-specific exposure factors will be considered to provide more realistic risk estimates for terrestrial birds and mammals. The baseline risk assessment will include consideration of the species' home range and foraging areas. Given the low factors of exceedance listed above, it is not anticipated that the levels found in 2007 would pose meaningful risk of

ecological importance. Therefore, no data gaps were identified that would require additional sampling from the drainage swale for addressing ecological risk.

Uncertainties and Assumptions

Uncertainties in screening evaluation methods may result in either understating or overstating the ecological risks. The latter is likely because screening level risk assessments are intended to be highly conservative. In general, risk estimates are subject to uncertainty from a variety of sources, including the following:

- Sampling, analysis, and data evaluation
- Fate and transport estimation
- Exposure estimation
- Toxicological data

5.1.1 Sampling, Analysis, and Data Evaluation

Uncertainty associated with sampling and analysis includes the variability (standard error) inherent in the analysis, the representativeness of the samples, sampling errors, and the heterogeneity of the sample matrix. The degree to which sample collection and analyses reflect real exposure point concentrations in part determines the reliability of the risk estimates. Only sample detections were included in the SLERA. This preliminary screening used the maximum detected concentrations rather than calculation of 95 percent upper confidence limits. Therefore, the actual risk to potential ecological receptors is likely overstated in this assessment. Additionally, because ecological exposures are not likely to be limited solely to these potentially higher concentration areas, risk estimates are likely to be biased toward values higher than those that actually occur.

5.1.2 Fate and Transport

This SLERA makes simplifying assumptions about environmental fate and transport of COPECs: for example, that no chemical loss or transformation has occurred since the samples were collected. Additionally, the attenuation of COPEC concentrations in drainage swale soil/sediment and groundwater during hypothetical migration to the Chena River was not considered. Therefore, the COPEC concentrations used for screening are likely to be higher than those to which wildlife is exposed.

5.1.3 Exposure

The estimation of exposure requires many assumptions. There are uncertainties regarding likelihood of exposure, concentrations of contaminants at exposure points, and periods of exposure. Exposure parameters selected for screening are intended to be conservative. For example, for this SLERA, the potential for harm to birds and mammals was assessed by comparison with soil benchmarks that assume terrestrial species reside and forage exclusively at the area evaluated.

5.1.4 Toxicological Data

Uncertainties in toxicological data can influence the reliability of site management decisions. For many contaminants, data for toxicity to species common to the Chena River are limited. The screening values used for this SLERA are intended to be conservative; however, they have varying levels of confidence that affect the usefulness of the ecological screening results.

6.0 Conclusions and Recommendations

This SLERA was conducted in accordance with ADEC guidance, focusing on COPECs, receptors, and areas where the greatest potential for ecological exposure might be expected. The resulting characterization is expected to provide enough information for informed decisions about potential gaps in data for use in the RI. Because of the conservative assumptions inherent in the screening methodology, this evaluation should not be construed as a risk evaluation. Once a complete data set is available after the RI is completed, a final ecological risk evaluation will be included as a component of the baseline risk assessment for the site.

- The risk to terrestrial wildlife and offsite aquatic resources potentially exposed to the COPECs occurring in the drainage swale and groundwater is believed to be low. This conclusion was drawn in consideration of the relatively low magnitudes by which COPEC concentrations exceed relevant screening levels—indicating that unacceptable risk to ecological populations is unlikely. Given these findings, no data gaps were identified that would require additional sampling from the drainage swale or perimeter well points in order to address ecological risk.

7.0 References

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TABLE B-1
Preliminary Drainage Swale Sample Screening Ecological Receptors
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

	Alaska DEC Scoping			NOAA Sediment Quality Guidelines		Consensus Freshwater Benchmarks		Screening Level (EcoSSL)					Drainage Swale Samples (mg/kg)							
	Listed as Potentially Bioaccumulative	Soil ERBSC (mg/kg)	Identified as COPEC	Theshold Effects Level (mg/kg)	Effects Level (mg/kg)	Effects Concentration (mg/kg)	Effects Concentration (mg/kg)	Birds (mg/kg)	Mammals (mg/kg)	Detected Concentration (mg/kg)	Background Concentration (mg/kg)	Requires Baseline ERA	DSS01-01 9/21/2007		DSS01-02 9/21/2007		DSS01-03 9/21/2007		DSS01-03 (FD) 9/21/2007	
METALS																				
Aluminum	--	5.0	√	--	--	--	--	--	--	**13900**	--	√	12300		10400				13900	
Antimony	--	0.27	√	--	--	--	--	--	0.27	***1.8***	--	√	1.8	J-	0.72		0.83			
Arsenic	√	0.25	√	5.9	17	9.8	33	43	46	**25.5**	8.5	--	25.5	J-	8.2	J			19.7	J
Barium	--	5.0	√	--	--	--	--	--	2000	**304**	85	--	260		202				304	
Beryllium	--	2.42	--	--	--	--	--	--	21	0.34	--	--	0.33		0.22				0.34	
Boron	--	0.5	√	--	--	--	--	--	--	**3**	--	--	2.8	J	2.9	J	3	J		
Cadmium	√	0.2	√	0.596	3.53	0.99	4.98	0.77	0.36	***0.67***	0.6	√	0.6		0.67		0.54			
Chromium	--	64	--	37.3	90	43.4	111	26	34	*33.9*	14.6	√	32.7		25.2				33.9	
Cobalt	--	13	√	--	--	--	--	120	230	**16.7**	--	--	16.3		9.3				16.7	
Copper	--	1.0	√	35.7	197	31.6	149	28	49	***55.1***	--	√	55.1		31.8		46.4			
Iron	--	--	--		--	--	--	--	--	39100	--	--	39100		21400				36900	
Lead	√	9.36	√	35	91.3	35.8	128	11	56	***60***	11.4	√	32.8	J-	60		31.5			
Manganese	--	100	√	--	--	--	--	4300	4000	**787**	--	--	787		377				712	
Mercury	√	0.3	√	0.174	0.486	0.18	1.06	--	--	0.1	--	--	0.1		0.05	J	0.068	J		
Nickel	√	25	√	18	35.9	22.7	49	210	130	**39.3**	--	--	38.2		23.7				39.3	
Selenium	√	0.02	√	--	--	--	--	1.20	0.63	***0.93***	--	√	0.93		0.47		0.69			
Silver	√	2.0	√	--	--	--	--	4.2	14	0.2	--	--	0.2	J-	0.15	J-			0.2	J-
Thallium	--	0.01	√	--	--	--	--	--	--	**0.2**	--	√	0.2		0.11	J			0.2	
Vanadium	--	2.0	√	--	--	--	--	7.8	280	***49.5***	--	√	49.5		30.5				47.1	
Zinc	√	0.9	√	123.1	315	121	459	46	79	***252***	--	√	149	J-	252	J-	197	J-		
PAH																				
Fluoranthene	√	260	√	0.111	2.355	0.423	2.23	--	1.0	0.064	--	--	2.3	U	1.5	U			0.064	J-
Phenanthrene	√	0.1	√	0.042	0.515	0.204	1.17	--	1.0	0.035	--	--	2.3	U	1.5	U			0.035	J-
Pyrene	√	0.1	√	0.053	0.875	0.195	1.52	--	1.0	0.059	--	--	2.3	U	1.5	U			0.059	J-
PESTICIDES																				
4,4'-DDD	√	34	√	0.004	0.009	0.0049	0.0280	0.093	0.021	0.0069	--	--	0.005	J+	0.0048	J+			0.0069	J+
4,4'-DDE	√	1.3	√	0.001	0.007	0.0032	0.0313	0.093	0.021	*0.036*	--	√	0.036	J+	0.0035	J+			0.01	J+
4,4'-DDT	√	0.7	√	--	--	0.0042	0.0629	0.093	0.021	*0.16*	--	√	0.16	J+	0.008	J+			0.023	J
alpha-BHC	√	17	√	--	--	--	--	--	--	0.0014	--	√	0.0037	U	0.001	J			0.0014	J
beta-BHC	√	7.3	√	--	--	--	--	--	--	0.00084	--	√	0.0037	U	0.0025	U			0.00084	J
Dieldrin	√	0.01	√	0.0029	0.0067	0.0019	0.0618	0.0220	0.0049	0.003	--	--	0.003	J	0.0011	J			0.0017	J
gamma-BHC (Lindane)	√	1.2	√	0.0009	0.0014	0.0024	0.0050	--	--	0.00077	--	--	0.00077	J	0.0025	U			0.0033	U
Heptachlor epoxide	√	4.0	√	0.0006	0.0027	0.0025	0.0160	--	--	0.0011	--	--	0.0011	J	0.0005	J			0.00031	J
SVOC																				
Benzyl butyl phthalate	√	48	√	--	--	--	--	--	--	0.055	--	--	0.7	UJ	0.055	J-			0.048	J-
bis-(2-Ethylhexyl)phthalate	√	0.9	√	--	--	--	--	--	--	0.52	--	--	0.17	J-	0.41	J-			0.52	J-
TPH																				
TPH-Diesel	--	--	--	--	--	--	--	--	--	62	--	--	44		62		60	J		
TPH-Gasoline	--	--	--	--	--	--	--	--	--	11	--	--	11	U	8	U			10	U
TPH-Motor Oil	--	--	--	--	--	--	--	--	--	490	--	--	400		490		490	J		
VOC																				
2-Butanone	--	--	--	--	--	--	--	--	--	0.1	--	--	0.078	J	0.063	J	0.1	J		
4-Isopropyltoluene	--	--	--	--	--	--	--	--	--	0.041	--	--	0.01	U	0.0062	U	0.041	J		
Acetone	--	--	--	--	--	--	--	--	--	0.51	--	--	0.51		0.11	U	0.44	J		
Chloroform	--	150	--	--	--	--	--	--	--	0.12	--	--	0.017	J	0.12		0.023	J		
Trichlorofluoromethane	--	--	--	--	--	--	--	--	--	0.26	--	--	0.26		0.0062	U	0.0087	U		

Bold indicates maximum detected concentration exceeds the soil benchmark from DEC Scoping Guidance

Highlight indicates maximum detected concentration exceeds the sediment PEL.

Italics indicates maximum detected concentration exceeds either the bird or mammal EcoSSL.

None of the maximum detected concentrations exceed the sediment PEC.

EcoSSL = ecological soil screening levels
ERA = screening-level ecological evaluation
ERBSC = ecological risk-based screening concentration
mg/kg = milligrams per kilogram
NOAA = National Oceanic and Atmospheric Administration
PAH = polynuclear aromatic hydrocarbon
PCB = polychlorinated biphenyl
SVOC = semivolatile organic compound
TPH = total petroleum hydrocarbon
VOC = volatile organic compound

TABLE B-2

Preliminary Groundwater Screening for Ecological Receptors

Former Communications Site, Fort Wainwright, Alaska

Preliminary Risk Screening Evaluation Report

	DEC Alaska Freshwater ERBSC	Alaska DEC Scoping	Freshwater Acute AWQC	Freshwater Chronic AWQC	Maximum Detected Concentration	Background Concentration	Potentially Requires Baseline ERA	Groundwater Samples (ug/L)								
		Identified as						MW35	MW36	MW36 (FD)	MW37	MW38	MW40	MW41	MW43	MW43 (FD)
	(ug/L)	COPEC	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Baseline ERA	10/16/2007	10/15/2007	10/15/2007	10/13/2007	10/13/2007	10/15/2007	10/14/2007	10/19/2007	10/19/2007
METALS																
Aluminum	75	√	750	87	98.8	7538	--	200 U	36.8 J		98.8 J	200 U	200 U	41.3 J	500 U	
Antimony	30	--	--	--	3.4	--	--	6 U	3.4 J		6 U	6 U	6 U	6 U	2 U	
Arsenic	55	--	340	150	10.4	36.24	--	3 U		1.2 J	3 U	3.4	3.6	10.4		9
Barium	3.9	√	--	--	239	551.22	--	130		79.5	108	153	239	167		200
Boron	1.6	√	--	--	200	--	√	200 U	200 J		31.8 J	32.8 J	200 U	47.9 J	500 U	
Cobalt	3.0	--	--	--	8.1	--	√	1.5 J	8.1		3 U	2.9 J	3 U	2 J		0.86 J
Copper	0.205	--	13	9.0	4.5	75	--	2.5 J	4.5		2.6 J	3 U	3 U	3 U	0.93 J	
Iron	16	√	--	1000	6720	16938	--	45.2 J	100 J		209	1880	6720	1480	6300	
Manganese	80	√	--	--	1020	3875	--	177		55.3	121	1020	610	505		810 J
Nickel	5.0	√	470	52	43.6	31	--	8.1	43.6		3.3	2.9 J	3 U	1.7 J		2.4
Selenium	1.0	√	12.8	5.0	8.2	--	√	4.9	8.2		2.5 J	3 U	3 U	1.8 J		4
Thallium	0.8	--	--	--	0.6	--	--	1.5 U	0.6 J		1.5 U	1.5 U	1.5 U	1.5 U	2 U	
Vanadium	19	--	--	--	4.8	24	--	12 U	4.8 J		12 U	12 U	12 U	12 U		0.89 J
Zinc	21	--	120	120	9	63	--	12 U	12 U		12 U	12 U	12 U	12 U		9
PAH																
2-Methylnaphthalene	--	--	--	--	0.0049	--	--	0.05 UJ	0.0049 J		0.052 U	0.055 UJ	0.05 U	0.051 UJ	0.056 UJ	
Naphthalene	1.1	--	--	--	0.052	--	--	0.05 U	0.052 J		0.0014 J	0.0014 J-	0.0015 J	0.051 UJ	0.056 UJ	
PESTICIDES																
4,4'-DDT	0.000011	√	1.1	0.001	0.013	--	√	0.098 UJ	0.098 U		0.1 U	0.013 J	0.099 U	0.1 UJ	0.007 J-	
TPH																
TPH-Diesel	--	--	--	--	130	--	--	62 J+	50 J		130	99 J-	60	51 J-	31 J-	
TPH-Gasoline	--	--	--	--	32	--	--	50 UJ	50 U		50 U	50 UJ	50 U	50 UJ		32 J-
TPH-Motor Oil	--	--	--	--	270	--	--	110 J+	95 J		120 J	120 J-	270 J	130 J-	85 J	
VOC																
Acetone	1500	--	--	--	1.2	--	--	5 U	10 U		10 U	10 U	1.2 J	1 J-	5 UJ	
Carbon dioxide	--	--	--	--	57	--	--	57 J-								
cis-1,2-Dichloroethene	590	--	--	--	0.46	--	--	1 UJ	1 U		1 U	1 U	1 U	1 UJ	0.46 J-	
trans-1,2-Dichloroethene	590	--	--	--	0.21	--	--	1 UJ	1 U		1 U	1 UJ	1 U	1 UJ		0.21 J-
Trichloroethene (TCE)	47	--	--	--	1.3	--	--	1 UJ	1 U		1 U	1 UJ	1 U	1 UJ	1.3 J-	

Bold indicates maximum detected concentration exceeds the freshwater benchmark from aDEC Scoping Guidance.

Yellow highlight indicates maximum detected concentration exceeds EPA chronic Water Quality Criteria.

None of the maximum detected concentrations exceedS the acute AWQC.

Appendix C
95UCL-adjusted Results for Soil Pile Samples

TABLE C-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in Soil Pile Triplcate Samples
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor
SP06-01	SP06-01	07FW-T-SP06-01-01	SW8260B	67-64-1	Acetone	0.1	UJ	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW8260B	67-64-1	Acetone	0.1	UJ	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW8260B	67-64-1	Acetone	0.16	J	mg/kg							
					Acetone				0.12	0.03	28.87	2.92	1.73	0.18	0.06
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6010B	7429-90-5	Aluminum	9550		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6010B	7429-90-5	Aluminum	8780		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6010B	7429-90-5	Aluminum	8760		mg/kg							
					Aluminum				9030.00	450.44	4.99	2.92	1.73	9789.39	759.39
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7440-36-0	Antimony	0.23	J-	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7440-36-0	Antimony	0.23	J	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7440-36-0	Antimony	0.21	J	mg/kg							
					Antimony				0.22	0.01	5.17	2.92	1.73	0.24	0.02
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7440-38-2	Arsenic	6.6	J-	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7440-38-2	Arsenic	6.6		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7440-38-2	Arsenic	5.9		mg/kg							
					Arsenic				6.37	0.40	6.35	2.92	1.73	7.05	0.68
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7440-39-3	Barium	79.2		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7440-39-3	Barium	77.5		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7440-39-3	Barium	66.9		mg/kg							
					Barium				74.53	6.67	8.94	2.92	1.73	85.77	11.24
SP06-01	SP06-01	07FW-T-SP06-01-01	SW8260B	71-43-2	Benzene	0.0034	U	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW8260B	71-43-2	Benzene	0.0034	U	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW8260B	71-43-2	Benzene	0.0033	J+	mg/kg							
					Benzene				0.003	0.0001	1.71	2.92	1.73	0.003	0.0001
SP06-01	SP06-01	07FW-T-SP06-01-01	SW8270C	191-24-2	Benzo(g,h,i)perylene	0.095	J	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW8270C	191-24-2	Benzo(g,h,i)perylene	0.087	J	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW8270C	191-24-2	Benzo(g,h,i)perylene	0.023	U	mg/kg							
					Benzo(g,h,i)perylene				0.068	0.04	57.75	2.92	1.73	0.13	0.07
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7440-41-7	Beryllium	0.15		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7440-41-7	Beryllium	0.14		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7440-41-7	Beryllium	0.12		mg/kg							
					Beryllium				0.137	0.02	11.18	2.92	1.73	0.16	0.03
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7440-43-9	Cadmium	0.17		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7440-43-9	Cadmium	0.13		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7440-43-9	Cadmium	0.12		mg/kg							
					Cadmium				0.140	0.03	18.90	2.92	1.73	0.18	0.04
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6010B	7440-70-2	Calcium	4870		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6010B	7440-70-2	Calcium	5050		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6010B	7440-70-2	Calcium	5160		mg/kg							
					Calcium				5026.667	146.40	2.91	2.92	1.73	5273.48	246.81
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7440-47-3	Chromium	15.1		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7440-47-3	Chromium	14.8		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7440-47-3	Chromium	13.1		mg/kg							

TABLE C-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in Soil Pile Triplcate Samples
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor
					Chromium				14.333	1.08	7.52	2.92	1.73	16.15	1.82
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7440-48-4	Cobalt	7.2	J-	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7440-48-4	Cobalt	7.1		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7440-48-4	Cobalt	6.3		mg/kg							
					Cobalt				6.867	0.49	7.18	2.92	1.73	7.70	0.83
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7440-50-8	Copper	20.3	J-	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7440-50-8	Copper	19		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7440-50-8	Copper	17		mg/kg							
					Copper				18.767	1.66	8.86	2.92	1.73	21.57	2.80
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6010B	7439-89-6	Iron	19200		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6010B	7439-89-6	Iron	18400		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6010B	7439-89-6	Iron	18300		mg/kg							
					Iron				18633.333	493.29	2.65	2.92	1.73	19464.95	831.62
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7439-92-1	Lead	6.7		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7439-92-1	Lead	7.1		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7439-92-1	Lead	6.4		mg/kg							
					Lead				6.733	0.35	5.22	2.92	1.73	7.33	0.59
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6010B	7439-95-4	Magnesium	5420		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6010B	7439-95-4	Magnesium	5290		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6010B	7439-95-4	Magnesium	5260		mg/kg							
					Magnesium				5323.333	85.05	1.60	2.92	1.73	5466.71	143.38
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7439-96-5	Manganese	288		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7439-96-5	Manganese	290		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7439-96-5	Manganese	254		mg/kg							
					Manganese				277.333	20.23	7.30	2.92	1.73	311.44	34.11
SP06-01	SP06-01	07FW-T-SP06-01-01	SW7471A	7439-97-6	Mercury	0.022	J	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW7471A	7439-97-6	Mercury	0.019	J	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW7471A	7439-97-6	Mercury	0.02	J	mg/kg							
					Mercury				0.020	0.002	7.51	2.92	1.73	0.02	0.003
SP06-01	SP06-01	07FW-T-SP06-01-01	SW8260B	75-09-2	Methylene chloride	0.0068	J+	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW8260B	75-09-2	Methylene chloride	0.0055	U	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW8260B	75-09-2	Methylene chloride	0.0055	U	mg/kg							
					Methylene chloride				0.006	0.001	12.65	2.92	1.73	0.01	0.001
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7440-02-0	Nickel	19.4	J-	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7440-02-0	Nickel	18.5		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7440-02-0	Nickel	16.4		mg/kg							
					Nickel				18.100	1.54	8.51	2.92	1.73	20.70	2.60
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6010B	7440-09-7	Potassium	894		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6010B	7440-09-7	Potassium	838		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6010B	7440-09-7	Potassium	834		mg/kg							
					Potassium				855.333	33.55	3.92	2.92	1.73	911.89	56.55
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7782-49-2	Selenium	0.32	J-	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7782-49-2	Selenium	0.31		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7782-49-2	Selenium	0.29		mg/kg							

TABLE C-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in Soil Pile Triplcate Samples
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor
					Selenium				0.307	0.02	4.98	2.92	1.73	0.33	0.03
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7440-22-4	Silver	0.063		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7440-22-4	Silver	0.06		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7440-22-4	Silver	0.052		mg/kg							
					Silver				0.058	0.01	9.75	2.92	1.73	0.07	0.01
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6010B	7440-23-5	Sodium	358		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6010B	7440-23-5	Sodium	329		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6010B	7440-23-5	Sodium	328		mg/kg							
					Sodium				338.333	17.04	5.04	2.92	1.73	367.06	28.73
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7440-28-0	Thallium	0.047	J	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7440-28-0	Thallium	0.043	J	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7440-28-0	Thallium	0.035	J	mg/kg							
					Thallium				0.042	0.01	14.66	2.92	1.73	0.05	0.01
SP06-01	SP06-01	07FW-T-SP06-01-01	SW8260B	108-88-3	Toluene	0.0083	J+	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW8260B	108-88-3	Toluene	0.0097	J+	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW8260B	108-88-3	Toluene	0.0094	J+	mg/kg							
					Toluene				0.009	0.001	8.07	2.92	1.73	0.01	0.001
SP06-01	SP06-01	07FW-T-SP06-01-01	AK102/103	PHCD	TPH-Diesel	15	J-	mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	AK102/103	PHCD	TPH-Diesel	22		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	AK102/103	PHCD	TPH-Diesel	17		mg/kg							
					TPH-Diesel				18.000	3.61	20.03	2.92	1.73	24.08	6.08
SP06-01	SP06-01	07FW-T-SP06-01-01	AK102/103	TPH-Oil	TPH-Motor Oil	20		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	AK102/103	TPH-Oil	TPH-Motor Oil	24		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	AK102/103	TPH-Oil	TPH-Motor Oil	18		mg/kg							
					TPH-Motor Oil				20.667	3.06	14.78	2.92	1.73	25.82	5.15
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7440-62-2	Vanadium	28.2		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7440-62-2	Vanadium	27.7		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7440-62-2	Vanadium	24.6		mg/kg							
					Vanadium				26.833	1.95	7.27	2.92	1.73	30.12	3.29
SP06-01	SP06-01	07FW-T-SP06-01-01	SW6020	7440-66-6	Zinc	35.2		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-02	SW6020	7440-66-6	Zinc	35.3		mg/kg							
SP06-01	SP06-01	07FW-T-SP06-01-03	SW6020	7440-66-6	Zinc	32		mg/kg							
					Zinc				34.167	1.88	5.49	2.92	1.73	37.33	3.16
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	120-82-1	1,2,4-Trichlorobenzene	0.037	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	120-82-1	1,2,4-Trichlorobenzene	0.028	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	120-82-1	1,2,4-Trichlorobenzene	0.027	U	mg/kg							
					1,2,4-Trichlorobenzene				0.031	0.01	17.96	2.92	1.73	0.04	0.01
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	95-95-4	2,4,5-Trichlorophenol	0.04	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	95-95-4	2,4,5-Trichlorophenol	0.037	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	95-95-4	2,4,5-Trichlorophenol	0.036	U	mg/kg							
					2,4,5-Trichlorophenol				0.038	0.002	5.53	2.92	1.73	0.04	0.004
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	120-83-2	2,4-Dichlorophenol	0.037	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	120-83-2	2,4-Dichlorophenol	0.021	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	120-83-2	2,4-Dichlorophenol	0.021	U	mg/kg							

TABLE C-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in Soil Pile Triplcate Samples
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Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor
					2,4-Dichlorophenol				0.026	0.01	35.08	2.92	1.73	0.04	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	121-14-2	2,4-Dinitrotoluene	0.04	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	121-14-2	2,4-Dinitrotoluene	0.021	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	121-14-2	2,4-Dinitrotoluene	0.021	U	mg/kg							
					2,4-Dinitrotoluene				0.027	0.01	40.13	2.92	1.73	0.05	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	606-20-2	2,6-Dinitrotoluene	0.051	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	606-20-2	2,6-Dinitrotoluene	0.031	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	606-20-2	2,6-Dinitrotoluene	0.03	U	mg/kg							
					2,6-Dinitrotoluene				0.037	0.01	31.73	2.92	1.73	0.06	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	91-58-7	2-Chloronaphthalene	0.042	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	91-58-7	2-Chloronaphthalene	0.019	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	91-58-7	2-Chloronaphthalene	0.019	U	mg/kg							
					2-Chloronaphthalene				0.027	0.01	49.80	2.92	1.73	0.05	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	95-57-8	2-Chlorophenol	0.038	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	95-57-8	2-Chlorophenol	0.022	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	95-57-8	2-Chlorophenol	0.022	U	mg/kg							
					2-Chlorophenol				0.027	0.01	33.80	2.92	1.73	0.04	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	88-74-4	2-Nitroaniline	0.057	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	88-74-4	2-Nitroaniline	0.046	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	88-74-4	2-Nitroaniline	0.045	U	mg/kg							
					2-Nitroaniline				0.049	0.01	13.50	2.92	1.73	0.06	0.01
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	88-75-5	2-Nitrophenol	0.042	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	88-75-5	2-Nitrophenol	0.031	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	88-75-5	2-Nitrophenol	0.03	U	mg/kg							
					2-Nitrophenol				0.034	0.01	19.39	2.92	1.73	0.05	0.01
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	101-55-3	4-Bromophenyl phenyl ether	0.052	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	101-55-3	4-Bromophenyl phenyl ether	0.023	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	101-55-3	4-Bromophenyl phenyl ether	0.023	U	mg/kg							
					4-Bromophenyl phenyl ether				0.033	0.02	51.25	2.92	1.73	0.06	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	59-50-7	4-Chloro-3-methylphenol	0.048	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	59-50-7	4-Chloro-3-methylphenol	0.014	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	59-50-7	4-Chloro-3-methylphenol	0.014	U	mg/kg							
					4-Chloro-3-methylphenol				0.025	0.02	77.49	2.92	1.73	0.06	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	7005-72-3	4-Chlorophenyl phenyl ether	0.048	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	7005-72-3	4-Chlorophenyl phenyl ether	0.014	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	7005-72-3	4-Chlorophenyl phenyl ether	0.014	U	mg/kg							
					4-Chlorophenyl phenyl ether				0.025	0.02	77.49	2.92	1.73	0.06	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	100-01-6	4-Nitroaniline	0.053	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	100-01-6	4-Nitroaniline	0.038	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	100-01-6	4-Nitroaniline	0.037	U	mg/kg							
					4-Nitroaniline				0.043	0.01	21.01	2.92	1.73	0.06	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	83-32-9	Acenaphthene	0.046	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	83-32-9	Acenaphthene	0.019	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	83-32-9	Acenaphthene	0.019	U	mg/kg							

TABLE C-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in Soil Pile Triplcate Samples
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Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor
					Acenaphthene				0.028	0.02	55.67	2.92	1.73	0.05	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	208-96-8	Acenaphthylene	0.042	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	208-96-8	Acenaphthylene	0.017	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	208-96-8	Acenaphthylene	0.017	U	mg/kg							
					Acenaphthylene				0.025	0.01	56.98	2.92	1.73	0.05	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6010B	7429-90-5	Aluminum	8690		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6010B	7429-90-5	Aluminum	8890		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6010B	7429-90-5	Aluminum	9100		mg/kg							
					Aluminum				8893.333	205.02	2.31	2.92	1.73	9238.97	345.64
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	120-12-7	Anthracene	0.05	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	120-12-7	Anthracene	0.028	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	120-12-7	Anthracene	0.027	U	mg/kg							
					Anthracene				0.035	0.01	37.14	2.92	1.73	0.06	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7440-36-0	Antimony	0.25	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7440-36-0	Antimony	0.37		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7440-36-0	Antimony	0.24	J	mg/kg							
					Antimony				0.287	0.07	25.24	2.92	1.73	0.41	0.12
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7440-38-2	Arsenic	7.9		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7440-38-2	Arsenic	8.4		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7440-38-2	Arsenic	8.3		mg/kg							
					Arsenic				8.200	0.26	3.23	2.92	1.73	8.65	0.45
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7440-39-3	Barium	91.2		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7440-39-3	Barium	97.2		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7440-39-3	Barium	98.9		mg/kg							
					Barium				95.767	4.05	4.22	2.92	1.73	102.59	6.82
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	56-55-3	Benzo(a)anthracene	0.054	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	56-55-3	Benzo(a)anthracene	0.017	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	56-55-3	Benzo(a)anthracene	0.017	U	mg/kg							
					Benzo(a)anthracene				0.029	0.02	72.82	2.92	1.73	0.07	0.04
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	50-32-8	Benzo(a)pyrene	0.049	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	50-32-8	Benzo(a)pyrene	0.02	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	50-32-8	Benzo(a)pyrene	0.02	U	mg/kg							
					Benzo(a)pyrene				0.030	0.02	56.44	2.92	1.73	0.06	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	205-99-2	Benzo(b)fluoranthene	0.045	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	205-99-2	Benzo(b)fluoranthene	0.025	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	205-99-2	Benzo(b)fluoranthene	0.025	U	mg/kg							
					Benzo(b)fluoranthene				0.032	0.01	36.46	2.92	1.73	0.05	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	191-24-2	Benzo(g,h,i)perylene	0.063	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	191-24-2	Benzo(g,h,i)perylene	0.022	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	191-24-2	Benzo(g,h,i)perylene	0.022	U	mg/kg							
					Benzo(g,h,i)perylene				0.036	0.02	66.37	2.92	1.73	0.08	0.04
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	207-08-9	Benzo(k)fluoranthene	0.055	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	207-08-9	Benzo(k)fluoranthene	0.014	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	207-08-9	Benzo(k)fluoranthene	0.014	U	mg/kg							

TABLE C-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in Soil Pile Triplcate Samples
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Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor
					Benzo(k)fluoranthene				0.028	0.02	85.56	2.92	1.73	0.07	0.04
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	85-68-7	Benzyl butyl phthalate	0.061	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	85-68-7	Benzyl butyl phthalate	0.019	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	85-68-7	Benzyl butyl phthalate	0.019	U	mg/kg							
					Benzyl butyl phthalate				0.033	0.02	73.48	2.92	1.73	0.07	0.04
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7440-41-7	Beryllium	0.17		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7440-41-7	Beryllium	0.18		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7440-41-7	Beryllium	0.17		mg/kg							
					Beryllium				0.173	0.01	3.33	2.92	1.73	0.18	0.01
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	111-91-1	bis-(2-Chloroethoxy)methane	0.037	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	111-91-1	bis-(2-Chloroethoxy)methane	0.022	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	111-91-1	bis-(2-Chloroethoxy)methane	0.022	U	mg/kg							
					bis-(2-Chloroethoxy)methane				0.027	0.01	32.08	2.92	1.73	0.04	0.01
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	111-44-4	bis-(2-Chloroethyl)ether	0.033	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	111-44-4	bis-(2-Chloroethyl)ether	0.033	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	111-44-4	bis-(2-Chloroethyl)ether	0.032	U	mg/kg							
					bis-(2-Chloroethyl)ether				0.033	0.001	1.77	2.92	1.73	0.03	0.001
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	117-81-7	bis-(2-Ethylhexyl)phthalate	0.074	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	117-81-7	bis-(2-Ethylhexyl)phthalate	0.024	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	117-81-7	bis-(2-Ethylhexyl)phthalate	0.033	J	mg/kg							
					bis-(2-Ethylhexyl)phthalate				0.044	0.03	61.04	2.92	1.73	0.09	0.04
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7440-43-9	Cadmium	0.28	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7440-43-9	Cadmium	0.17	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7440-43-9	Cadmium	0.16	J	mg/kg							
					Cadmium				0.203	0.07	32.75	2.92	1.73	0.32	0.11
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6010B	7440-70-2	Calcium	5960		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6010B	7440-70-2	Calcium	6160		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6010B	7440-70-2	Calcium	5940		mg/kg							
					Calcium				6020.000	121.66	2.02	2.92	1.73	6225.09	205.09
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7440-47-3	Chromium	16.6		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7440-47-3	Chromium	17.2		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7440-47-3	Chromium	17		mg/kg							
					Chromium				16.933	0.31	1.80	2.92	1.73	17.45	0.52
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7440-48-4	Cobalt	7.9		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7440-48-4	Cobalt	8.4		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7440-48-4	Cobalt	8.4		mg/kg							
					Cobalt				8.233	0.29	3.51	2.92	1.73	8.72	0.49
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7440-50-8	Copper	23.1		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7440-50-8	Copper	23.1		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7440-50-8	Copper	23		mg/kg							
					Copper				23.067	0.06	0.25	2.92	1.73	23.16	0.10
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	0.055	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	53-70-3	Dibenzo(a,h)anthracene	0.017	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	53-70-3	Dibenzo(a,h)anthracene	0.017	U	mg/kg							

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Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor
					Dibenzo(a,h)anthracene				0.030	0.02	73.95	2.92	1.73	0.07	0.04
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	132-64-9	Dibenzofuran	0.047	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	132-64-9	Dibenzofuran	0.018	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	132-64-9	Dibenzofuran	0.018	U	mg/kg							
					Dibenzofuran				0.028	0.02	60.52	2.92	1.73	0.06	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	84-66-2	Diethyl phthalate	0.053	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	84-66-2	Diethyl phthalate	0.02	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	84-66-2	Diethyl phthalate	0.02	U	mg/kg							
					Diethyl phthalate				0.031	0.02	61.46	2.92	1.73	0.06	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	131-11-3	Dimethyl phthalate	0.049	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	131-11-3	Dimethyl phthalate	0.023	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	131-11-3	Dimethyl phthalate	0.023	U	mg/kg							
					Dimethyl phthalate				0.032	0.02	47.40	2.92	1.73	0.06	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	84-74-2	Di-n-butyl phthalate	0.054	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	84-74-2	Di-n-butyl phthalate	0.026	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	84-74-2	Di-n-butyl phthalate	0.026	U	mg/kg							
					Di-n-butyl phthalate				0.035	0.02	45.75	2.92	1.73	0.06	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	117-84-0	Di-n-octyl phthalate	0.055	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	117-84-0	Di-n-octyl phthalate	0.024	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	117-84-0	Di-n-octyl phthalate	0.024	U	mg/kg							
					Di-n-octyl phthalate				0.034	0.02	52.13	2.92	1.73	0.06	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	206-44-0	Fluoranthene	0.053	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	206-44-0	Fluoranthene	0.031	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	206-44-0	Fluoranthene	0.03	U	mg/kg							
					Fluoranthene				0.038	0.01	34.21	2.92	1.73	0.06	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	86-73-7	Fluorene	0.046	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	86-73-7	Fluorene	0.015	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	86-73-7	Fluorene	0.015	U	mg/kg							
					Fluorene				0.025	0.02	70.65	2.92	1.73	0.06	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	118-74-1	Hexachlorobenzene	0.045	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	118-74-1	Hexachlorobenzene	0.017	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	118-74-1	Hexachlorobenzene	0.017	U	mg/kg							
					Hexachlorobenzene				0.026	0.02	61.39	2.92	1.73	0.05	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	87-68-3	Hexachlorobutadiene	0.037	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	87-68-3	Hexachlorobutadiene	0.034	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	87-68-3	Hexachlorobutadiene	0.033	U	mg/kg							
					Hexachlorobutadiene				0.035	0.002	6.00	2.92	1.73	0.04	0.004
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	0.048	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	0.023	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	0.023	U	mg/kg							
					Indeno(1,2,3-cd)pyrene				0.031	0.01	46.07	2.92	1.73	0.06	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6010B	7439-89-6	Iron	16500		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6010B	7439-89-6	Iron	16200		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6010B	7439-89-6	Iron	16300		mg/kg							

TABLE C-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in Soil Pile Triplcate Samples
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Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor
					Iron				16333.333	152.75	0.94	2.92	1.73	16590.85	257.52
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	78-59-1	Isophorone	0.043	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	78-59-1	Isophorone	0.017	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	78-59-1	Isophorone	0.017	U	mg/kg							
					Isophorone				0.026	0.02	58.48	2.92	1.73	0.05	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7439-92-1	Lead	8.4		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7439-92-1	Lead	8.7		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7439-92-1	Lead	8.3		mg/kg							
					Lead				8.467	0.21	2.46	2.92	1.73	8.82	0.35
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6010B	7439-95-4	Magnesium	5170		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6010B	7439-95-4	Magnesium	5320		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6010B	7439-95-4	Magnesium	5240		mg/kg							
					Magnesium				5243.333	75.06	1.43	2.92	1.73	5369.87	126.53
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7439-96-5	Manganese	304		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7439-96-5	Manganese	316		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7439-96-5	Manganese	315		mg/kg							
					Manganese				311.667	6.66	2.14	2.92	1.73	322.89	11.23
SP13-05	SP13-05	07FW-D-SP13-05-01	SW7471A	7439-97-6	Mercury	0.026	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW7471A	7439-97-6	Mercury	0.026	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW7471A	7439-97-6	Mercury	0.026	J	mg/kg							
					Mercury				0.026	0.00	0.00	2.92	1.73	0.03	0.00
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	91-20-3	Naphthalene	0.036	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	91-20-3	Naphthalene	0.03	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	91-20-3	Naphthalene	0.029	U	mg/kg							
					Naphthalene				0.032	0.004	11.96	2.92	1.73	0.04	0.01
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7440-02-0	Nickel	20.2		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7440-02-0	Nickel	21.4		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7440-02-0	Nickel	21		mg/kg							
					Nickel				20.867	0.61	2.93	2.92	1.73	21.90	1.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	621-64-7	n-Nitrosodi-n-propylamine	0.041	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	621-64-7	n-Nitrosodi-n-propylamine	0.018	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	621-64-7	n-Nitrosodi-n-propylamine	0.018	U	mg/kg							
					n-Nitrosodi-n-propylamine				0.026	0.01	51.74	2.92	1.73	0.05	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	86-30-6	n-Nitrosodiphenylamine	0.049	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	86-30-6	n-Nitrosodiphenylamine	0.024	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	86-30-6	n-Nitrosodiphenylamine	0.024	U	mg/kg							
					n-Nitrosodiphenylamine				0.032	0.01	44.64	2.92	1.73	0.06	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	85-01-8	Phenanthrene	0.051	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	85-01-8	Phenanthrene	0.016	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	85-01-8	Phenanthrene	0.016	U	mg/kg							
					Phenanthrene				0.028	0.02	73.04	2.92	1.73	0.06	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	108-95-2	Phenol	0.043	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	108-95-2	Phenol	0.019	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	108-95-2	Phenol	0.019	U	mg/kg							

TABLE C-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in Soil Pile Triplcate Samples
Former Communications Site, Fort Wainwright, Alaska
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Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor
					Phenol				0.027	0.01	51.32	2.92	1.73	0.05	0.02
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6010B	7440-09-7	Potassium	791		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6010B	7440-09-7	Potassium	812		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6010B	7440-09-7	Potassium	827		mg/kg							
					Potassium				810.000	18.08	2.23	2.92	1.73	840.49	30.49
SP13-05	SP13-05	07FW-D-SP13-05-01	SW8270C	129-00-0	Pyrene	0.049	J	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW8270C	129-00-0	Pyrene	0.021	UJ	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW8270C	129-00-0	Pyrene	0.021	U	mg/kg							
					Pyrene				0.030	0.02	53.29	2.92	1.73	0.06	0.03
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7782-49-2	Selenium	0.4		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7782-49-2	Selenium	0.41		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7782-49-2	Selenium	0.4		mg/kg							
					Selenium				0.403	0.01	1.43	2.92	1.73	0.41	0.01
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7440-22-4	Silver	0.07		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7440-22-4	Silver	0.083		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7440-22-4	Silver	0.076		mg/kg							
					Silver				0.076	0.01	8.52	2.92	1.73	0.09	0.01
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6010B	7440-23-5	Sodium	309		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6010B	7440-23-5	Sodium	313		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6010B	7440-23-5	Sodium	323		mg/kg							
					Sodium				315.000	7.21	2.29	2.92	1.73	327.16	12.16
SP13-05	SP13-05	07FW-D-SP13-05-01	AK102/103	PHCD	TPH-Diesel	10		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	AK102/103	PHCD	TPH-Diesel	10		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	AK102/103	PHCD	TPH-Diesel	8.9		mg/kg							
					TPH-Diesel				9.633	0.64	6.59	2.92	1.73	10.70	1.07
SP13-05	SP13-05	07FW-D-SP13-05-01	AK102/103	TPH-Oil	TPH-Motor Oil	22	J-	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	AK102/103	TPH-Oil	TPH-Motor Oil	21	J-	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	AK102/103	TPH-Oil	TPH-Motor Oil	22	J-	mg/kg							
					TPH-Motor Oil				21.667	0.58	2.66	2.92	1.73	22.64	0.97
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7440-62-2	Vanadium	29.6		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7440-62-2	Vanadium	30.7		mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7440-62-2	Vanadium	30.2		mg/kg							
					Vanadium				30.167	0.55	1.83	2.92	1.73	31.10	0.93
SP13-05	SP13-05	07FW-D-SP13-05-01	SW6020	7440-66-6	Zinc	39.8	J-	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-02	SW6020	7440-66-6	Zinc	45.4	J-	mg/kg							
SP13-05	SP13-05	07FW-D-SP13-05-03	SW6020	7440-66-6	Zinc	42.3	J-	mg/kg							
					Zinc				42.500	2.81	6.60	2.92	1.73	47.23	4.73
SP27	SP27	07FW-E-SP27-01	SW8082	11096-82-5	PCB-1260 (Aroclor 1260)	0.032	J	mg/kg							
SP27	SP27	07FW-E-SP27-02	SW8082	11096-82-5	PCB-1260 (Aroclor 1260)	0.027	J	mg/kg							
SP27	SP27	07FW-E-SP27-03	SW8082	11096-82-5	PCB-1260 (Aroclor 1260)	0.021	J	mg/kg							
					PCB-1260 (Aroclor 1260)				0.027	0.01	20.65	2.92	1.73	0.04	0.01
SPA	SPA	07FW-T-SPA01	SW8270C	83-32-9	Acenaphthene	0.02	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	83-32-9	Acenaphthene	0.054	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	83-32-9	Acenaphthene	0.018	UJ	mg/kg							

TABLE C-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in Soil Pile Triplcate Samples
Former Communications Site, Fort Wainwright, Alaska
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Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor
					Acenaphthene				0.031	0.02	65.97	2.92	1.73	0.06	0.03
SPA	SPA	07FW-T-SPA01	SW6010B	7429-90-5	Aluminum	8120		mg/kg							
SPA	SPA	07FW-T-SPA02	SW6010B	7429-90-5	Aluminum	8150		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6010B	7429-90-5	Aluminum	7920		mg/kg							
					Aluminum				8063.333	125.03	1.55	2.92	1.73	8274.12	210.79
SPA	SPA	07FW-T-SPA01	SW8270C	120-12-7	Anthracene	0.028	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	120-12-7	Anthracene	0.038	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	120-12-7	Anthracene	0.026	UJ	mg/kg							
					Anthracene				0.031	0.01	20.96	2.92	1.73	0.04	0.01
SPA	SPA	07FW-T-SPA01	SW6020	7440-36-0	Antimony	0.34	J-	mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7440-36-0	Antimony	0.38		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7440-36-0	Antimony	0.31		mg/kg							
					Antimony				0.343	0.04	10.23	2.92	1.73	0.40	0.06
SPA	SPA	07FW-T-SPA01	SW6020	7440-38-2	Arsenic	6.7	J-	mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7440-38-2	Arsenic	7.2		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7440-38-2	Arsenic	6.6		mg/kg							
					Arsenic				6.833	0.32	4.70	2.92	1.73	7.38	0.54
SPA	SPA	07FW-T-SPA01	SW6020	7440-39-3	Barium	93.5		mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7440-39-3	Barium	96.6		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7440-39-3	Barium	90.5		mg/kg							
					Barium				93.533	3.05	3.26	2.92	1.73	98.68	5.14
SPA	SPA	07FW-T-SPA01	SW8270C	56-55-3	Benzo(a)anthracene	0.019	J-	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	56-55-3	Benzo(a)anthracene	0.036	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	56-55-3	Benzo(a)anthracene	0.016	UJ	mg/kg							
					Benzo(a)anthracene				0.024	0.01	45.57	2.92	1.73	0.04	0.02
SPA	SPA	07FW-T-SPA01	SW8270C	50-32-8	Benzo(a)pyrene	0.021	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	50-32-8	Benzo(a)pyrene	0.032	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	50-32-8	Benzo(a)pyrene	0.019	UJ	mg/kg							
					Benzo(a)pyrene				0.024	0.01	29.17	2.92	1.73	0.04	0.01
SPA	SPA	07FW-T-SPA01	SW8270C	205-99-2	Benzo(b)fluoranthene	0.026	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	205-99-2	Benzo(b)fluoranthene	0.032	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	205-99-2	Benzo(b)fluoranthene	0.024	UJ	mg/kg							
					Benzo(b)fluoranthene				0.027	0.004	15.23	2.92	1.73	0.03	0.01
SPA	SPA	07FW-T-SPA01	SW8270C	191-24-2	Benzo(g,h,i)perylene	0.023	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	191-24-2	Benzo(g,h,i)perylene	0.035	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	191-24-2	Benzo(g,h,i)perylene	0.021	UJ	mg/kg							
					Benzo(g,h,i)perylene				0.026	0.01	28.75	2.92	1.73	0.04	0.01
SPA	SPA	07FW-T-SPA01	SW8270C	207-08-9	Benzo(k)fluoranthene	0.019	J-	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	207-08-9	Benzo(k)fluoranthene	0.036	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	207-08-9	Benzo(k)fluoranthene	0.013	UJ	mg/kg							
					Benzo(k)fluoranthene				0.023	0.01	52.63	2.92	1.73	0.04	0.02
SPA	SPA	07FW-T-SPA01	SW8270C	85-68-7	Benzyl butyl phthalate	0.02	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	85-68-7	Benzyl butyl phthalate	0.039	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	85-68-7	Benzyl butyl phthalate	0.018	UJ	mg/kg							

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95UCLs and Adjustment Factor Calculations for Chemicals Detected in Soil Pile Triplcate Samples
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Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor
					Benzyl butyl phthalate				0.026	0.01	45.16	2.92	1.73	0.05	0.02
SPA	SPA	07FW-T-SPA01	SW6020	7440-41-7	Beryllium	0.15	J-	mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7440-41-7	Beryllium	0.16		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7440-41-7	Beryllium	0.16		mg/kg							
					Beryllium				0.157	0.01	3.69	2.92	1.73	0.17	0.01
SPA	SPA	07FW-T-SPA01	SW8270C	117-81-7	bis-(2-Ethylhexyl)phthalate	0.29	J-	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	117-81-7	bis-(2-Ethylhexyl)phthalate	0.31	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	117-81-7	bis-(2-Ethylhexyl)phthalate	0.21	J-	mg/kg							
					bis-(2-Ethylhexyl)phthalate				0.270	0.05	19.60	2.92	1.73	0.36	0.09
SPA	SPA	07FW-T-SPA01	SW6020	7440-43-9	Cadmium	0.16		mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7440-43-9	Cadmium	0.24		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7440-43-9	Cadmium	0.18		mg/kg							
					Cadmium				0.193	0.04	21.53	2.92	1.73	0.26	0.07
SPA	SPA	07FW-T-SPA01	SW6010B	7440-70-2	Calcium	5630		mg/kg							
SPA	SPA	07FW-T-SPA02	SW6010B	7440-70-2	Calcium	6740		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6010B	7440-70-2	Calcium	5720		mg/kg							
					Calcium				6030.000	616.52	10.22	2.92	1.73	7069.37	1039.37
SPA	SPA	07FW-T-SPA01	SW6020	7440-47-3	Chromium	16.1		mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7440-47-3	Chromium	17.1		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7440-47-3	Chromium	16.6		mg/kg							
					Chromium				16.600	0.50	3.01	2.92	1.73	17.44	0.84
SPA	SPA	07FW-T-SPA01	SW6020	7440-48-4	Cobalt	7.2		mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7440-48-4	Cobalt	7.5		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7440-48-4	Cobalt	7		mg/kg							
					Cobalt				7.233	0.25	3.48	2.92	1.73	7.66	0.42
SPA	SPA	07FW-T-SPA01	SW6020	7440-50-8	Copper	18.6		mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7440-50-8	Copper	20.4		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7440-50-8	Copper	19.3		mg/kg							
					Copper				19.433	0.91	4.67	2.92	1.73	20.96	1.53
SPA	SPA	07FW-T-SPA01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	0.017	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	53-70-3	Dibenzo(a,h)anthracene	0.033	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	53-70-3	Dibenzo(a,h)anthracene	0.016	UJ	mg/kg							
					Dibenzo(a,h)anthracene				0.022	0.01	43.36	2.92	1.73	0.04	0.02
SPA	SPA	07FW-T-SPA01	SW8270C	84-66-2	Diethyl phthalate	0.021	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	84-66-2	Diethyl phthalate	0.044	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	84-66-2	Diethyl phthalate	0.019	UJ	mg/kg							
					Diethyl phthalate				0.028	0.01	49.62	2.92	1.73	0.05	0.02
SPA	SPA	07FW-T-SPA01	SW8270C	84-74-2	Di-n-butyl phthalate	0.027	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	84-74-2	Di-n-butyl phthalate	0.046	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	84-74-2	Di-n-butyl phthalate	0.025	UJ	mg/kg							
					Di-n-butyl phthalate				0.033	0.01	35.48	2.92	1.73	0.05	0.02
SPA	SPA	07FW-T-SPA01	SW8270C	117-84-0	Di-n-octyl phthalate	0.025	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	117-84-0	Di-n-octyl phthalate	0.047	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	117-84-0	Di-n-octyl phthalate	0.023	UJ	mg/kg							

TABLE C-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in Soil Pile Triplcate Samples
Former Communications Site, Fort Wainwright, Alaska
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Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor
					Di-n-octyl phthalate				0.032	0.01	42.05	2.92	1.73	0.05	0.02
SPA	SPA	07FW-T-SPA01	SW8270C	206-44-0	Fluoranthene	0.031	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	206-44-0	Fluoranthene	0.033	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	206-44-0	Fluoranthene	0.028	UJ	mg/kg							
					Fluoranthene				0.031	0.003	8.21	2.92	1.73	0.03	0.004
SPA	SPA	07FW-T-SPA01	SW8270C	86-73-7	Fluorene	0.015	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	86-73-7	Fluorene	0.047	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	86-73-7	Fluorene	0.014	UJ	mg/kg							
					Fluorene				0.025	0.02	74.09	2.92	1.73	0.06	0.03
SPA	SPA	07FW-T-SPA01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	0.024	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	0.035	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	0.022	UJ	mg/kg							
					Indeno(1,2,3-cd)pyrene				0.027	0.01	25.93	2.92	1.73	0.04	0.01
SPA	SPA	07FW-T-SPA01	SW6010B	7439-89-6	Iron	16000		mg/kg							
SPA	SPA	07FW-T-SPA02	SW6010B	7439-89-6	Iron	16200		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6010B	7439-89-6	Iron	15400		mg/kg							
					Iron				15866.667	416.33	2.62	2.92	1.73	16568.55	701.88
SPA	SPA	07FW-T-SPA01	SW6020	7439-92-1	Lead	9.4	J	mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7439-92-1	Lead	21.4	J	mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7439-92-1	Lead	10.5	J	mg/kg							
					Lead				13.767	6.63	48.19	2.92	1.73	24.95	11.18
SPA	SPA	07FW-T-SPA01	SW6010B	7439-95-4	Magnesium	4880		mg/kg							
SPA	SPA	07FW-T-SPA02	SW6010B	7439-95-4	Magnesium	4970		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6010B	7439-95-4	Magnesium	4940		mg/kg							
					Magnesium				4930.000	45.83	0.93	2.92	1.73	5007.26	77.26
SPA	SPA	07FW-T-SPA01	SW6020	7439-96-5	Manganese	279		mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7439-96-5	Manganese	298		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7439-96-5	Manganese	283		mg/kg							
					Manganese				286.667	10.02	3.49	2.92	1.73	303.55	16.89
SPA	SPA	07FW-T-SPA01	SW7471A	7439-97-6	Mercury	0.018	J	mg/kg							
SPA	SPA	07FW-T-SPA02	SW7471A	7439-97-6	Mercury	0.019	J	mg/kg							
SPA	SPA	07FW-T-SPA03	SW7471A	7439-97-6	Mercury	0.02	J	mg/kg							
					Mercury				0.019	0.001	5.26	2.92	1.73	0.02	0.002
SPA	SPA	07FW-T-SPA01	SW6020	7440-02-0	Nickel	18.2		mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7440-02-0	Nickel	19.1		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7440-02-0	Nickel	17.8		mg/kg							
					Nickel				18.367	0.67	3.63	2.92	1.73	19.49	1.12
SPA	SPA	07FW-T-SPA01	SW8270C	85-01-8	Phenanthrene	0.019	J-	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	85-01-8	Phenanthrene	0.042	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	85-01-8	Phenanthrene	0.015	UJ	mg/kg							
					Phenanthrene				0.025	0.01	57.52	2.92	1.73	0.05	0.02
SPA	SPA	07FW-T-SPA01	SW6010B	7440-09-7	Potassium	738		mg/kg							
SPA	SPA	07FW-T-SPA02	SW6010B	7440-09-7	Potassium	736		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6010B	7440-09-7	Potassium	705		mg/kg							

TABLE C-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in Soil Pile Triplcate Samples
Former Communications Site, Fort Wainwright, Alaska
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Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor
					Potassium				726.333	18.50	2.55	2.92	1.73	757.53	31.19
SPA	SPA	07FW-T-SPA01	SW8270C	129-00-0	Pyrene	0.022	UJ	mg/kg							
SPA	SPA	07FW-T-SPA02	SW8270C	129-00-0	Pyrene	0.034	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW8270C	129-00-0	Pyrene	0.02	UJ	mg/kg							
					Pyrene				0.025	0.01	29.89	2.92	1.73	0.04	0.01
SPA	SPA	07FW-T-SPA01	SW6020	7782-49-2	Selenium	0.36	J-	mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7782-49-2	Selenium	0.34		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7782-49-2	Selenium	0.32		mg/kg							
					Selenium				0.340	0.02	5.88	2.92	1.73	0.37	0.03
SPA	SPA	07FW-T-SPA01	SW6020	7440-22-4	Silver	0.073	J-	mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7440-22-4	Silver	0.088	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7440-22-4	Silver	0.084	J-	mg/kg							
					Silver				0.082	0.01	9.51	2.92	1.73	0.09	0.01
SPA	SPA	07FW-T-SPA01	SW6010B	7440-23-5	Sodium	309		mg/kg							
SPA	SPA	07FW-T-SPA02	SW6010B	7440-23-5	Sodium	306		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6010B	7440-23-5	Sodium	301		mg/kg							
					Sodium				305.333	4.04	1.32	2.92	1.73	312.15	6.81
SPA	SPA	07FW-T-SPA01	SW6020	7440-28-0	Thallium	0.057	J	mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7440-28-0	Thallium	0.051	J	mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7440-28-0	Thallium	0.045	J	mg/kg							
					Thallium				0.051	0.01	11.76	2.92	1.73	0.06	0.01
SPA	SPA	07FW-T-SPA01	AK102/103	PHCD	TPH-Diesel	190	J-	mg/kg							
SPA	SPA	07FW-T-SPA02	AK102/103	PHCD	TPH-Diesel	130	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	AK102/103	PHCD	TPH-Diesel	130	J-	mg/kg							
					TPH-Diesel				150.000	34.64	23.09	2.92	1.73	208.40	58.40
SPA	SPA	07FW-T-SPA01	AK102/103	TPH-Oil	TPH-Motor Oil	40	J-	mg/kg							
SPA	SPA	07FW-T-SPA02	AK102/103	TPH-Oil	TPH-Motor Oil	38	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	AK102/103	TPH-Oil	TPH-Motor Oil	30	J-	mg/kg							
					TPH-Motor Oil				36.000	5.29	14.70	2.92	1.73	44.92	8.92
SPA	SPA	07FW-T-SPA01	SW6020	7440-62-2	Vanadium	30.4	J+	mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7440-62-2	Vanadium	32.2		mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7440-62-2	Vanadium	30		mg/kg							
					Vanadium				30.867	1.17	3.80	2.92	1.73	32.84	1.98
SPA	SPA	07FW-T-SPA01	SW6020	7440-66-6	Zinc	32	J-	mg/kg							
SPA	SPA	07FW-T-SPA02	SW6020	7440-66-6	Zinc	34.9	J-	mg/kg							
SPA	SPA	07FW-T-SPA03	SW6020	7440-66-6	Zinc	32.1	J-	mg/kg							
					Zinc				33.000	1.65	4.99	2.92	1.73	35.78	2.78

TABLE C-1
95UCLs and Adjustment Factor Calculations for Chemicals Detected in Soil Pile Triplcate Samples
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Triplicate	Location Name	Sample Name	Analytical Method	CAS Number	Analyte Name	Result	Result Flag	Result Unit	X	S	RSD	t	SQRT n	95UCL	Adj Factor

X	Mean = sum of results divided by number of samples (MDL used for non-detects)
S	standard deviation
RSD	relative standard deviation (100 x standard deviation/mean)
n	number of samples
t	95% one-sided student t factor (for n = 3, t = 2.92)
SQRT	square root
95UCL	95% upper confidence limit (replaces triplicate results with a single value) (mean + (95% one-sided t factor x standard deviation/ SQRT of n)
Adj Factor	adjustment factor (added to individual MI results for decision units associated with triplicate sample) (95% one-sided t factor x standard deviation/ SQRT of n)

CAS = Chemical Abstracts Service
mg/kg = milligrams per kilogram
TPH = total petroleum hydrocarbon
UCL = upper confidence limit

Table C-2

95UCL-Adjusted Sample Results for Soil Pile Samples Compared to Landfill Criteria

** Note this table is fit to 3 pages wide by 3 pages tall for ease of reading. Sample names are the same for pages 1 through 3, 3 through 6, and 6 through 9.*

Former Communications Site, Fort Wainwright, Alaska

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Triplicate Group					**SPA**		**SPA**		**SP06-01**		**SP06-01**		**SP06-01**		**SP06-01**		**SP06-01**		**SP06-01**		**SP13-05**		**SP13-05**		**SP13-05**		**SP13-05**		**SP13-05**	
Location					SPA		SPGroup1		SPGroup2		SP06-01		SP06-02		SP06-03		SPGroup3		SP06-04		SP13-01		SP13-02		SP13-03		SP13-4		SP13-07	
Sample Name					07FW-T-SPA_95UCL		07FW-T-SPG01_Adj		07FW-C-SPG02_Adj		07FW-T-SP06-01_UCL		07FW-T-SP06-02_Adj		07FW-T-SP06-03_Adj		07FW-C-SPG03_Adj		07FW-T-SP06-04_Adj		07FW-D-SP13-01_Adj		07FW-D-SP13-02_Adj		07FW-D-SP13-03_Adj		07FW-D-SP13-04_Adj		07FW-D-SP13-07_Adj	
Sample Date					9/5/2007		9/11/2007		8/7/2007		8/8/2007		8/9/2007		8/10/2007		8/11/2007		8/11/2007		8/16/2007		8/16/2007		8/17/2007		8/18/2007		8/18/2007	
Chemical Group	**Chemical Method**	**Analyte**	**Unit**	**Landfill CV**																										
EXPLOSIVE	SW8270C	2,4-Dinitrotoluene	mg/kg	0.005	0.02	UJ	0.1	U	0.02	U	0.022	U	0.022	U	0.022	U	0.021	U	0.021	U	0.021	U	0.019	U	0.02	U	0.021	U	0.021	U
EXPLOSIVE	SW8270C	2,6-Dinitrotoluene	mg/kg	0.0044	0.028	UJ	0.15	U	0.029	U	0.031	U	0.031	U	0.031	U	0.03	U	0.03	U	0.03	U	0.028	U	0.028	U	0.03	U	0.03	U
EXPLOSIVE	SW8270C	Nitrobenzene	mg/kg	0.06	0.072	UJ	0.37	U	0.073	U	0.079	U	0.079	U	0.08	U	0.077	U	0.075	U	0.075	U	0.07	U	0.071	U	0.077	U	0.075	U
METALS	SW6010B	Aluminum	mg/kg	--	8270		8080		10100		9790		10100		9330		11300		9650		9770		9170		8580		6570		8910	
METALS	SW6020	Antimony	mg/kg	3.6	0.403		0.709		0.369		0.243		0.239	J-	0.219	J	0.279	J	0.209	J	0.482		0.452		0.512		0.342	J-	0.352	J
METALS	SW6020	Arsenic	mg/kg	8.46	7.38		7.54		**8.48**		7.05		7.58	J-	6.58		**8.58**		6.58		7.75		7.65		**12.6**		6.25	J-	7.75	
METALS	SW6020	Barium	mg/kg	1100	98.7		108		102		85.8		96.7		88.6		105		94.1		90		91.3		98.2		90.2		112	
METALS	SW6020	Beryllium	mg/kg	42	0.166		0.14		0.166		0.162		0.186	J-	0.166		0.186		0.166		0.14		0.14		0.13		0.12	J-	0.15	
METALS	SW6010B	Boron	mg/kg	--	0.65	U	0.66	U	0.66	U	0.66	U	0.67	UJ	0.67	U	0.69	J	0.66	U	0.66	U	0.68	J	7.1	J	1.3	U	1.3	U
METALS	SW6020	Cadmium	mg/kg	5	0.264		0.4		0.215		0.185		0.185		0.175		0.205		0.175		0.282		0.282		0.332		0.242		0.252	
METALS	SW6010B	Calcium	mg/kg	--	7070		6140		6030		5270		5060		4160		6490		4160		7010		6590		6170		4910		6230	
METALS	SW6020	Chromium	mg/kg	26	17.4		17.7		17.9		16.2		18.4		17.2		19.7		17		16		15.6		13.9		13.1		16.8	
METALS	SW6020	Cobalt	mg/kg	--	7.66		7.52		8.33		7.7		8.43		7.53		9.03		7.83		7.49		7.59		6.69		6.19		7.89	
METALS	SW6020	Copper	mg/kg	7000	21		24.6		23.7		21.6		23	J	20.9	J	25.9	J	20.9	J	20.9		21.4		19		15.3	J-	20.8	
METALS	SW6010B	Iron	mg/kg	--	16600		16400		20300		19500		18600		16700		20200		16600		17400		16800		15600		12200		16600	
METALS	SW6020	Lead	mg/kg	--	24.9		71.7		12.7		7.33		8.49		10.3		10.5		11.3		13.8		12.1		12.5		6.65		7.35	
METALS	SW6010B	Magnesium	mg/kg	--	5010		4820		5580		5470		5510		4840		6050		4900		5490		5270		5330		3810		5200	
METALS	SW6020	Manganese	mg/kg	--	304		299		334		311		336		308		358		337		284		289		265		242		318	
METALS	SW7471A	Mercury	mg/kg	1.4	0.0207		0.0357	J	0.0266	J	0.0229		0.0226	J	0.0216	J	0.0296		0.0216	J	0.03		0.033		0.031	J	0.027	J	0.022	J
METALS	SW6020	Nickel	mg/kg	87	19.5		19.5		21.9		20.7		21.7		19.6		23.1		19.8		19.3		19.3		16.4		15.4	J-	18.9	
METALS	SW6010B	Potassium	mg/kg	--	758		778		1090		912		863		753		945		747		847		814		1150		598		765	
METALS	SW6020	Selenium	mg/kg	3.5	0.374		0.354		0.376		0.332		0.366	J-	0.346		0.456		0.346		0.36		0.38		0.31		0.26	J-	0.37	
METALS	SW6020	Silver	mg/kg	21	0.0948		0.0971	J-	0.0786		0.0679		0.0756		0.0666		0.0896		0.0676		0.087		0.084		0.08		0.07		0.09	
METALS	SW6010B	Sodium	mg/kg	--	312		288		372		367		331		299		379		306		341		324		769		258	J	362	J
METALS	SW6020	Thallium	mg/kg	--	0.0611		0.0921		0.0623	J	0.052		0.0633	J	0.0563	J	0.0673	J	0.0563	J	0.041	J	0.04	J	0.042	J	0.041	J	0.05	J
METALS	SW6020	Vanadium	mg/kg	3400	32.8		33.1		32.5		30.1		34.4		30.3		36		32.1		27.4		27.8		26.2		25.2	J+	32.5	
METALS	SW6020	Zinc	mg/kg	9100	35.8		49.7	J-	45.4		37.3		41.3	J	38.2	J	44.7	J	37.8	J	41.1		41.5		48.8	J-	29.5	J-	33.9	J-
PAH	SW8270C	2-Methylnaphthalene	mg/kg	60.9	0.051	UJ	0.27	U	0.052	U	0.056	U	0.056	U	0.057	U	0.055	U	0.054	U	0.054	U	0.05	U	0.05	U	0.055	U	0.053	U
PAH	SW8270C	Acenaphthene	mg/kg	210	0.0648		0.094	U	0.018	U	0.02	U	0.02	U	0.02	U	0.019	U	0.019	U	0.019	U	0.017	U	0.018	U	0.019	U	0.019	U
PAH	SW8270C	Acenaphthylene	mg/kg	210	0.016	UJ	0.084	U	0.016	U	0.018	U	0.018	U	0.018	U	0.017	U	0.017	U	0.017	U	0.016	U	0.016	U	0.017	U	0.017	U
PAH	SW8270C	Anthracene	mg/kg	4300	0.0415		0.13	U	0.026	U	0.028	U	0.028	U	0.028	U	0.027	U	0.027	UJ	0.027	U	0.025	U	0.025	U	0.027	U	0.027	U
PAH	SW8270C	Benzo(a)anthracene	mg/kg	6	0.0419		0.084	U	0.016	U	0.018	U	0.018	U	0.018	U	0.017	U	0.017	U	0.017	U	0.016	U	0.016	U	0.017	U	0.017	U
PAH	SW8270C	Benzo(a)pyrene	mg/kg	3	0.0358		0.098	U	0.019	U	0.021	U	0.021	U	0.021	U	0.02	U	0.02	U	0.02	U	0.018	U	0.019	U	0.02	U	0.02	U
PAH	SW8270C	Benzo(b)fluoranthene	mg/kg	20	0.0344		0.12	U	0.024	U	0.026	U	0.026	U	0.026	U	0.025	U	0.025	U	0.025	U	0.023	U	0.023	U	0.025	U	0.025	U
PAH	SW8270C	Benzo(g,h,i)perylene	mg/kg	1500	0.0391		0.11	U	0.156	J	0.135		0.165	J	0.023	U	0.167	J	0.155	J	0.022	U	0.02	U	0.02	U	0.022	U	0.022	U
PAH	SW8270C	Benzo(k)fluoranthene	mg/kg	200	0.0428		0.069	U	0.013	U	0.015	U	0.015	U	0.015	U	0.014	U	0.014	U	0.014	U	0.013	U	0.013	U	0.014	U	0.014	U
PAH	SW8270C	Chrysene	mg/kg	620	0.08	UJ	0.41	U	0.081	U	0.088	U	0.088	U	0.088	U	0.085	U	0.083	U	0.083	U	0.077	U	0.078	U	0.085	U	0.083	U
PAH	SW8270C	Dibenzo(a,h)anthracene	mg/kg	6	0.0381		0.084	U	0.016	U	0.018	U	0.018	U	0.018	U	0.017	U	0.017	U	0.017	U	0.016	U	0.016	U	0.017	U	0.017	U
PAH	SW8270C	Fluoranthene	mg/kg	2100	0.0349		0.15	U	0.029	U	0.031	U	0.031	U	0.031	U	0.03	U	0.03	UJ	0.03	U	0.028	U	0.028	U	0.03	U	0.03	U
PAH	SW8270C	Fluorene	mg/kg	270	0.057		0.074	U	0.014	U	0.016	U	0.016	U	0.016	U	0.015	U	0.015	U	0.015	U	0.014	U	0.014	U	0.015	U	0.015	U
PAH	SW8270C	Indeno(1,2,3-cd)pyrene	mg/kg	54	0.0388		0.11	U	0.022	U	0.024	U	0.024	U	0.024	U	0.023	U	0.023	U	0.023	U	0.021	U	0.021	U	0.023	U	0.023	U
PAH	SW8260B	Naphthalene	mg/kg	21	--		--		0.0048	U	0.0048	U	0.0026	U	0.0025	U	0.0027	U	0.0025	U	--		--		--		--		--	
PAH	SW8270C	Naphthalene	mg/kg	21	0.027	UJ	0.14	U	--		--		--		--		--		--		0.029	U	0.027	U	0.027	U	0.029	U	0.029	U
PAH	SW8270C	Phenanthrene	mg/kg	4300	0.0499		0.079	U	0.015	U	0.017	U	0.017	U	0.017	U	0.016	U	0.016	UJ	0.016	U	0.015	U	0.0511	J	0.016	U	0.0511	J
PAH	SW8270C	Pyrene	mg/kg	1500	0.0381		0.1	U	0.02	U	0.022	U	0.022	U	0.022	U	0.021	U	0.021	U	0.021	U	0.019	U	0.02	U	0.021	U	0.021	U
PCBs	SW8082	PCB-1016 (Aroclor 1016)	mg/kg	10	--		--		--		--		--		--		--		--		--		--		--		--		--	
PCBs	SW8082	PCB-1221 (Aroclor 1221)	mg/kg	10	--		--		--		--		--		--		--		--		--		--		--		--		--	
PCBs	SW8082	PCB-1232 (Aroclor 1232)	mg/kg	10	--		--		--		--		--		--		--		--		--		--		--		--		--	
PCBs	SW8082	PCB-1242 (Aroclor 1242)	mg/kg	10	--		--		--		--		--		--		--		--		--		--		--		--		--	
PCBs	SW8082	PCB-1248 (Aroclor 1248)	mg/kg	10	--		--		--		--		--		--		--		--		--		--		--		--		--	
PCBs	SW8082	PCB-1254 (Aroclor 1254)	mg/kg	10	--		--		--		--		--		--		--		--		--		--		--		--		--	
PCBs	SW8082	PCB-1260 (Aroclor 1260)	mg/kg	10	--		--		--		--		--		--		--		--		--		--		--		--		--	
PCBs	SW8082	PCB-1262 (Aroclor 1262)	mg/kg	10	--		--		--		--		--		--		--		--		--		--		--		--		--	
PCBs	SW8082	PCB-1268 (Aroclor 1268)	mg/kg	10	--		--		--		--		--		--		--		--		--		--		--		--		--	
SVOC	SW8270C	2,4,5-Trichlorophenol	mg/kg	90	0.034	UJ	0.18	U	0.035	U	0.038	U	0.038	U	0.038	U	0.036	U	0.036	U	0.036	U	0.033	U	0.033	U	0.036	U	0.035	U
SVOC	SW8270C	2,4,6-Trichlorophenol	mg/kg	0.6	0.05	UJ	0.26	U	0.051	U	0.055	U	0.055	U	0.055	U	0.054	U	0.053	U	0.053	U	0.049	U	0.049	U	0.054	U	0.052	U
SVOC	SW8270C	2,4-Dichlorophenol	mg/kg	0.45	0.02	UJ	0.1	U	0.02	U	0.022	U	0.022	U	0.022	U	0.021	U	0.021	U	0.021	U	0.019	U	0.02	U	0.021	U	0.021	U
SVOC	SW8270C	2,4-Dimethylphenol	mg/kg	4	0.16	UJ	0.82	U	0.16	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.15	U	0.16	U	0.17	U	0.16	U
SVOC	SW8270C	2,4-Dinitrophenol	mg/kg	0.2	0.63	UJ	3.2	U	0.63	U	0.69	U	0.69	U	0.69	U	0.67	U	0.65	U	0.66	U	0.61	U	0.61	U	0.67	U	0.65	U
SVOC	SW8270C	2-Chloronaphthalene	mg/kg	70	0.018	UJ	0.094	U	0.018	U	0.02	U	0.02	U	0.02	U	0.019	U	0.019	U	0.019	U	0.017	U	0.018	U	0.019	U	0.019	U
SVOC	SW8270C	2-Chlorophenol	mg/kg	1.4	0.021	UJ	0.11	U	0.021	U	0.023	U	0.023	U	0.023	U	0.022	U	0.022	U	0.022	U	0.02	U	0.02	U	0.022	U	0.022	U

Table C-2

95UCL-Adjusted Sample Results for Soil Pile Samples Compared to Landfill Criteria

** Note this table is fit to 3 pages wide by 3 pages tall for ease of reading. Sample names are the same for pages 1 through 3, 3 through 6, and 6 through 9.*

Former Communications Site, Fort Wainwright, Alaska

Preliminary Risk Screening Evaluation Report

				Triplicate Group	**SPA**	**SPA**	**SP06-01**	**SP06-01**	**SP06-01**	**SP06-01**	**SP06-01**	**SP06-01**	**SP13-05**	**SP13-05**	**SP13-05**	**SP13-05**	**SP13-05**
				Location	SPA	SPGroup1	SPGroup2	SP06-01	SP06-02	SP06-03	SPGroup3	SP06-04	SP13-01	SP13-02	SP13-03	SP13-4	SP13-07
				Sample Name	07FW-T-SPA_95UCL	07FW-T-SPG01_Adj	07FW-C-SPG02_Adj	07FW-T-SP06-01_UCL	07FW-T-SP06-02_Adj	07FW-T-SP06-03_Adj	07FW-C-SPG03_Adj	07FW-T-SP06-04_Adj	07FW-D-SP13-01_Adj	07FW-D-SP13-02_Adj	07FW-D-SP13-03_Adj	07FW-D-SP13-04_Adj	07FW-D-SP13-07_Adj
				Sample Date	9/5/2007	9/11/2007	8/7/2007	8/8/2007	8/9/2007	8/10/2007	8/11/2007	8/11/2007	8/16/2007	8/16/2007	8/17/2007	8/18/2007	8/18/2007
Chemical Group	**Chemical Method**	**Analyte**	**Unit**	**Landfill CV**													
SVOC	SW8270C	2-Methyl-4,6-dinitrophenol	mg/kg	--	0.63 UJ	3.2 U	0.63 U	0.69 U	0.69 U	0.69 U	0.67 U	0.65 UJ	0.66 U	0.61 U	0.61 U	0.67 U	0.65 U
SVOC	SW8270C	2-Methylphenol (o-Cresol)	mg/kg	--	0.055 UJ	0.29 U	0.056 U	0.061 U	0.061 U	0.061 U	0.059 U	0.057 U	0.058 U	0.053 U	0.054 U	0.059 U	0.057 U
SVOC	SW8270C	2-Nitroaniline	mg/kg	--	0.043 UJ	0.22 U	0.043 U	0.047 U	0.047 U	0.047 U	0.046 U	0.045 U	0.045 U	0.041 U	0.042 U	0.045 U	0.044 U
SVOC	SW8270C	2-Nitrophenol	mg/kg	--	0.028 UJ	0.15 U	0.029 U	0.031 U	0.031 U	0.031 U	0.03 U	0.03 U	0.03 U	0.028 U	0.028 U	0.03 U	0.03 U
SVOC	SW8270C	3,3'-Dichlorobenzidine	mg/kg	0.02	0.31 UJ	1.6 U	0.32 U	0.34 U	0.34 U	0.35 U	0.33 U	0.33 U	0.33 U	0.3 U	0.31 U	0.33 U	0.32 U
SVOC	SW8270C	3-Nitroaniline	mg/kg	--	0.16 UJ	0.82 U	0.16 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.15 U	0.16 U	0.17 U	0.16 U
SVOC	SW8270C	4-Bromophenyl phenyl ether	mg/kg	--	0.022 UJ	0.11 U	0.022 U	0.024 U	0.024 U	0.024 U	0.023 U	0.023 UJ	0.023 U	0.021 U	0.021 U	0.023 U	0.023 U
SVOC	SW8270C	4-Chloro-3-methylphenol	mg/kg	--	0.013 UJ	0.069 U	0.013 U	0.015 U	0.015 U	0.015 U	0.014 U	0.014 U	0.014 U	0.013 U	0.013 U	0.014 U	0.014 U
SVOC	SW8270C	4-Chloroaniline	mg/kg	0.5	0.055 UJ	0.29 U	0.056 U	0.061 U	0.061 U	0.061 U	0.059 U	0.057 U	0.058 U	0.053 U	0.054 U	0.059 U	0.057 U
SVOC	SW8270C	4-Chlorophenyl phenyl ether	mg/kg	--	0.013 UJ	0.069 U	0.013 U	0.015 U	0.015 U	0.015 U	0.014 U	0.014 U	0.014 U	0.013 U	0.013 U	0.014 U	0.014 U
SVOC	SW8270C	4-Nitroaniline	mg/kg	--	0.035 UJ	0.18 U	0.036 U	0.039 U	0.039 U	0.039 U	0.037 U	0.037 U	0.037 U	0.034 U	0.034 U	0.037 U	0.036 U
SVOC	SW8270C	4-Nitrophenol	mg/kg	--	0.63 UJ	3.2 U	0.63 U	0.69 U	0.69 U	0.69 U	0.67 U	0.65 U	0.66 U	0.61 U	0.61 U	0.67 U	0.65 U
SVOC	SW8270C	Benzoic acid	mg/kg	390	0.16 UJ	0.83 U	0.16 U	0.18 U	0.18 U	0.18 U	0.17 U	0.17 U	0.17 U	0.15 U	0.16 U	0.17 U	0.17 U
SVOC	SW8270C	Benzyl alcohol	mg/kg	--	0.16 UJ	0.84 U	0.16 U	0.18 U	0.18 U	0.18 U	0.17 U	0.17 U	0.17 U	0.16 U	0.16 U	0.17 U	0.17 U
SVOC	SW8270C	Benzyl butyl phthalate	mg/kg	5600	0.0452	0.094 U	0.018 U	0.02 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.017 U	0.018 U	0.019 U	0.019 U
SVOC	SW8270C	bis-(2-Chloroethoxy)methane	mg/kg	--	0.021 UJ	0.11 U	0.021 U	0.023 U	0.023 U	0.023 U	0.022 U	0.022 U	0.0317 U	0.0297 U	0.0297 U	0.0317 U	0.022 U
SVOC	SW8270C	bis-(2-Chloroethyl)ether	mg/kg	0.002	0.03 UJ	0.16 U	0.031 U	0.033 U	0.033 U	0.034 U	0.032 U	0.032 U	0.032 U	0.029 U	0.03 U	0.032 U	0.031 U
SVOC	SW8270C	bis(2-Chloroisopropyl)ether	mg/kg	--	0.03 UJ	0.16 U	0.031 U	0.033 U	0.033 U	0.034 U	0.032 U	0.032 U	0.032 U	0.029 U	0.03 U	0.032 U	0.031 U
SVOC	SW8270C	bis-(2-Ethylhexyl)phthalate	mg/kg	1200	0.359	0.599	0.029 J	0.025 U	0.025 U	0.025 U	0.024 U	0.024 U	0.024 U	0.022 U	0.022 U	0.024 U	0.024 U
SVOC	SW8270C	Carbazole	mg/kg	2	0.052 UJ	0.27 U	0.053 U	0.057 U	0.057 U	0.058 U	0.056 U	0.055 U	0.055 U	0.051 U	0.051 U	0.056 U	0.054 U
SVOC	SW8270C	Dibenzofuran	mg/kg	7.78	0.017 UJ	0.089 U	0.017 U	0.019 U	0.019 U	0.019 U	0.018 U	0.018 U	0.018 U	0.017 U	0.017 U	0.018 U	0.018 U
SVOC	SW8270C	Diethyl phthalate	mg/kg	190	0.0514	0.098 U	0.019 U	0.021 U	0.021 U	0.021 U	0.02 U	0.02 U	0.02 U	0.018 U	0.019 U	0.02 U	0.02 U
SVOC	SW8270C	Dimethyl phthalate	mg/kg	1400	0.022 UJ	0.11 U	0.022 U	0.024 U	0.024 U	0.024 U	0.023 U	0.023 U	0.023 U	0.021 U	0.021 U	0.023 U	0.023 U
SVOC	SW8270C	Di-n-butyl phthalate	mg/kg	1700	0.0522	0.13 U	0.025 U	0.027 U	0.027 U	0.027 U	0.026 U	0.026 UJ	0.026 U	0.024 U	0.024 U	0.026 U	0.026 U
SVOC	SW8270C	Di-n-octyl phthalate	mg/kg	810000	0.0541	0.12 U	0.023 U	0.025 U	0.025 U	0.025 U	0.024 U	0.024 U	0.024 U	0.022 U	0.022 U	0.024 U	0.024 U
SVOC	SW8270C	Hexachlorobenzene	mg/kg	0.73	0.016 UJ	0.084 U	0.016 U	0.018 U	0.018 U	0.018 U	0.017 U	0.017 UJ	0.017 U	0.016 U	0.016 U	0.017 U	0.017 U
SVOC	SW8270C	Hexachloroethane	mg/kg	1.6	0.044 UJ	0.23 U	0.044 U	0.048 U	0.048 U	0.048 U	0.047 U	0.046 U	0.046 U	0.042 U	0.043 U	0.046 U	0.045 U
SVOC	SW8270C	Isophorone	mg/kg	3	0.016 UJ	0.084 U	0.016 U	0.018 U	0.018 U	0.018 U	0.017 U	0.017 U	0.017 U	0.016 U	0.016 U	0.017 U	0.017 U
SVOC	SW8270C	m,p-Cresol	mg/kg	--	0.31 UJ	1.6 U	0.34 U	0.34 U	0.34 U	0.35 U	0.33 U	0.33 U	0.33 U	0.3 U	0.33 U	0.33 U	0.33 U
SVOC	SW8270C	n-Nitrosodimethylamine	mg/kg	3.4	0.036 UJ	0.19 U	0.036 U	0.04 U	0.04 U	0.04 U	0.038 U	0.038 U	0.038 U	0.035 U	0.035 U	0.038 U	0.037 U
SVOC	SW8270C	n-Nitrosodi-n-propylamine	mg/kg	0.00036	0.017 UJ	0.089 U	0.017 U	0.019 U	0.019 U	0.019 U	0.018 U	0.018 U	0.018 U	0.017 U	0.017 U	0.018 U	0.018 U
SVOC	SW8270C	n-Nitrosodiphenylamine	mg/kg	3.4	0.023 UJ	0.12 U	0.023 U	0.025 U	0.025 U	0.025 U	0.024 U	0.024 UJ	0.024 U	0.022 U	0.022 U	0.024 U	0.024 U
SVOC	SW8270C	Pentachlorophenol	mg/kg	0.01	0.63 UJ	3.2 U	0.63 U	0.69 U	0.69 U	0.69 U	0.67 U	0.65 UJ	0.66 U	0.61 U	0.61 U	0.67 U	0.65 U
SVOC	SW8270C	Phenol	mg/kg	67	0.018 UJ	0.094 U	0.018 U	0.02 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.017 U	0.018 U	0.019 U	0.019 U
TPH	AK102/103	DRO	mg/kg	250	208	71.4 J+	15.3	24.1	9.78	14.7	11	9.68	6.37	9.57	15.1 J+	26.1	5.27
TPH	AK102/103	RRO	mg/kg	--	44.9	149 J+	64.2	25.8	38.2	53.2	41.2	33.2	35	36	47 J+	26 J+	25 J+
VOC	SW8260B	1,1,1,2-Tetrachloroethane	mg/kg	--	--	--	0.006 U	0.006 U	0.0033 U	0.0031 U	0.0034 U	0.0032 U	--	--	--	--	--
VOC	SW8260B	1,1,1-Trichloroethane	mg/kg	1	--	--	0.0066 U	0.0066 U	0.0037 U	0.0035 U	0.0037 U	0.0035 U	--	--	--	--	--
VOC	SW8260B	1,1,2,2-Tetrachloroethane	mg/kg	0.017	--	--	0.0058 U	0.0058 U	0.0032 U	0.003 U	0.0033 U	0.0031 U	--	--	--	--	--
VOC	SW8260B	1,1,2-Trichloroethane	mg/kg	0.017	--	--	0.0056 U	0.0056 U	0.0031 U	0.0029 U	0.0032 U	0.0029 U	--	--	--	--	--
VOC	SW8260B	1,1-Dichloroethane	mg/kg	12	--	--	0.0057 U	0.0057 U	0.0032 U	0.003 U	0.0032 U	0.003 U	--	--	--	--	--
VOC	SW8260B	1,1-Dichloroethene	mg/kg	0.03	--	--	0.0088 U	0.0087 U	0.0048 U	0.0046 U	0.0049 U	0.0046 U	--	--	--	--	--
VOC	SW8260B	1,1-Dichloropropene	mg/kg	--	--	--	0.0044 U	0.0044 U	0.0024 U	0.0023 U	0.0025 U	0.0023 U	--	--	--	--	--
VOC	SW8260B	1,2,3-Trichlorobenzene	mg/kg	--	--	--	0.0063 U	0.0063 U	0.0035 U	0.0033 U	0.0036 U	0.0033 U	--	--	--	--	--
VOC	SW8260B	1,2,3-Trichloropropane	mg/kg	--	--	--	0.051 U	0.051 U	0.028 U	0.027 U	0.029 U	0.027 U	--	--	--	--	--
VOC	SW8260B	1,2,4-Trichlorobenzene	mg/kg	2	--	--	0.0074 U	0.0073 U	0.0041 U	0.0038 U	0.0041 U	0.0039 U	--	--	--	--	--
VOC	SW8270C	1,2,4-Trichlorobenzene	mg/kg	2	0.026 UJ	0.13 U	--	--	--	--	--	--	0.027 U	0.025 U	0.025 U	0.027 U	0.027 U
VOC	SW8260B	1,2,4-Trimethylbenzene	mg/kg	--	--	--	0.0036 U	0.0035 U	0.002 U	0.0019 U	0.002 U	0.0019 U	--	--	--	--	--
VOC	SW8260B	1,2-Dibromo-3-chloropropane	mg/kg	--	--	--	0.051 U	0.051 U	0.028 U	0.027 U	0.029 U	0.027 U	--	--	--	--	--
VOC	SW8260B	1,2-Dibromoethane	mg/kg	0.0000306	--	--	0.0055 U	0.0055 U	0.003 U	0.0029 U	0.0031 U	0.0029 U	--	--	--	--	--
VOC	SW8260B	1,2-Dichlorobenzene	mg/kg	7	--	--	0.004 U	0.004 U	0.0022 U	0.0021 U	0.0022 U	0.0021 U	--	--	--	--	--
VOC	SW8270C	1,2-Dichlorobenzene	mg/kg	7	0.04 UJ	0.21 U	--	--	--	--	--	--	0.042 U	0.039 U	0.039 U	0.042 U	0.041 U
VOC	SW8260B	1,2-Dichloroethane	mg/kg	0.015	--	--	0.0048 U	0.0048 U	0.0026 U	0.0025 U	0.0027 U	0.0025 U	--	--	--	--	--
VOC	SW8260B	1,2-Dichloropropane	mg/kg	0.017	--	--	0.0048 U	0.0048 U	0.0026 U	0.0025 U	0.0027 U	0.0025 U	--	--	--	--	--
VOC	SW8260B	1,3,5-Trimethylbenzene	mg/kg	--	--	--	0.0036 U	0.0035 U	0.002 U	0.0019 U	0.002 U	0.0019 U	--	--	--	--	--
VOC	SW8260B	1,3-Dichlorobenzene	mg/kg	12.1	--	--	0.0034 U	0.0033 U	0.0019 U	0.0018 U	0.0019 U	0.0018 U	--	--	--	--	--
VOC	SW8270C	1,3-Dichlorobenzene	mg/kg	12.1	0.037 UJ	0.19 U	--	--	--	--	--	--	0.039 U	0.036 U	0.036 U	0.039 U	0.038 U
VOC	SW8260B	1,3-Dichloropropane	mg/kg	--	--	--	0.0046 U	0.0046 U	0.0025 U	0.0024 U	0.0026 U	0.0024 U	--	--	--	--	--
VOC	SW8260B	1,4-Dichlorobenzene	mg/kg	0.8	--	--	0.0037 U	0.0037 U	0.002 U	0.0019 U	0.0021 U	0.0019 U	--	--	--	--	--
VOC	SW8270C	1,4-Dichlorobenzene	mg/kg	0.8	0.042 UJ	0.22 U	--	--	--	--	--	--	0.044 U	0.04 U	0.041 U	0.044 U	0.043 U
VOC	SW8260B	2,2-Dichloropropane	mg/kg	--	--	--	0.0044 U	0.0044 U	0.0024 U	0.0023 U	0.0025 U	0.0023 U	--	--	--	--	--

Table C-2

95UCL-Adjusted Sample Results for Soil Pile Samples Compared to Landfill Criteria

** Note this table is fit to 3 pages wide by 3 pages tall for ease of reading. Sample names are the same for pages 1 through 3, 3 through 6, and 6 through 9.*

Former Communications Site, Fort Wainwright, Alaska

Preliminary Risk Screening Evaluation Report

Triplicate Group					**SPA**		**SPA**		**SP06-01**		**SP06-01**		**SP06-01**		**SP06-01**		**SP06-01**		**SP13-05**		**SP13-05**		**SP13-05**		**SP13-05**		**SP13-05**	
Location					SPA		SPGroup1		SPGroup2		SP06-01		SP06-02		SP06-03		SPGroup3		SP06-04		SP13-01		SP13-02		SP13-03		SP13-4		SP13-07	
Sample Name					07FW-T-SPA_95UCL		07FW-T-SPG01_Adj		07FW-C-SPG02_Adj		07FW-T-SP06-01_UCL		07FW-T-SP06-02_Adj		07FW-T-SP06-03_Adj		07FW-C-SPG03_Adj		07FW-T-SP06-04_Adj		07FW-D-SP13-01_Adj		07FW-D-SP13-02_Adj		07FW-D-SP13-03_Adj		07FW-D-SP13-04_Adj		07FW-D-SP13-07_Adj	
Sample Date					9/5/2007		9/11/2007		8/7/2007		8/8/2007		8/9/2007		8/10/2007		8/11/2007		8/11/2007		8/16/2007		8/16/2007		8/17/2007		8/18/2007		8/18/2007	
Chemical Group	**Chemical Method**	**Analyte**	**Unit**	**Landfill CV**																										
VOC	SW8260B	2-Butanone	mg/kg	60	--		--		0.027	U	0.026	U	0.015	U	0.014	U	0.015	U	0.014	U	--		--		--		--		--	
VOC	SW8260B	2-Chlorotoluene	mg/kg	--	--		--		0.0037	U	0.0037	U	0.002	U	0.0019	U	0.0021	U	0.0019	U	--		--		--		--		--	
VOC	SW8260B	2-Hexanone	mg/kg	--	--		--		0.0069	U	0.0069	U	0.0038	U	0.0036	U	0.0039	U	0.0036	U	--		--		--		--		--	
VOC	SW8260B	4-Chlorotoluene	mg/kg	--	--		--		0.0029	U	0.0028	U	0.0016	U	0.0015	U	0.0016	U	0.0015	U	--		--		--		--		--	
VOC	SW8260B	4-Isopropyltoluene	mg/kg	--	--		--		0.0043	U	0.0043	U	0.0024	U	0.0022	U	0.0024	U	0.0023	U	--		--		--		--		--	
VOC	SW8260B	4-Methyl-2-pentanone	mg/kg	--	--		--		0.013	U	0.012	U	0.0069	U	0.0066	U	0.0071	U	0.0066	U	--		--		--		--		--	
VOC	SW8260B	Acetone	mg/kg	10	--		--		0.1	U	0.178		0.056	U	0.053	U	0.057	U	0.054	U	--		--		--		--		--	
VOC	SW8260B	Benzene	mg/kg	0.02	--		--		0.0034	U	0.00346		0.0019	U	0.0018	U	0.0019	U	0.0018	U	--		--		--		--		--	
VOC	SW8260B	Bromobenzene	mg/kg	--	--		--		0.0095	U	0.0094	U	0.0052	U	0.005	U	0.0053	U	0.005	U	--		--		--		--		--	
VOC	SW8260B	Bromochloromethane	mg/kg	--	--		--		0.0075	U	0.0074	U	0.0041	U	0.0039	U	0.0042	U	0.0039	U	--		--		--		--		--	
VOC	SW8260B	Bromodichloromethane	mg/kg	--	--		--		0.0051	U	0.0051	U	0.0028	U	0.0027	U	0.0029	U	0.0027	U	--		--		--		--		--	
VOC	SW8260B	Bromoform	mg/kg	0.38	--		--		0.011	U	0.011	U	0.0062	U	0.0059	U	0.0063	U	0.0059	U	--		--		--		--		--	
VOC	SW8260B	Bromomethane	mg/kg	--	--		--		0.021	U	0.021	U	0.012	U	0.011	U	0.012	U	0.011	U	--		--		--		--		--	
VOC	SW8260B	Carbon disulfide	mg/kg	17	--		--		0.011	U	0.011	U	0.0062	U	0.0059	U	0.0063	U	0.0059	U	--		--		--		--		--	
VOC	SW8260B	Carbon tetrachloride	mg/kg	0.03	--		--		0.006	U	0.006	U	0.0033	U	0.0031	U	0.0034	U	0.0032	U	--		--		--		--		--	
VOC	SW8260B	Chlorobenzene	mg/kg	0.6	--		--		0.0045	U	0.0045	U	0.0025	U	0.0023	U	0.0025	U	0.0024	U	--		--		--		--		--	
VOC	SW8260B	Chloroethane	mg/kg	--	--		--		0.015	U	0.015	U	0.0084	U	0.008	U	0.0086	U	0.008	U	--		--		--		--		--	
VOC	SW8260B	Chloroform	mg/kg	0.34	--		--		0.0027	U	0.0026	U	0.0015	U	0.0014	U	0.0015	U	0.0014	U	--		--		--		--		--	
VOC	SW8260B	Chloromethane	mg/kg	--	--		--		0.011	U	0.011	U	0.0062	U	0.0059	U	0.0063	U	0.0059	U	--		--		--		--		--	
VOC	SW8260B	cis-1,2-Dichloroethene	mg/kg	0.2	--		--		0.0084	U	0.0083	U	0.0046	U	0.0044	U	0.0047	U	0.0044	U	--		--		--		--		--	
VOC	SW8260B	cis-1,3-Dichloropropene	mg/kg	0.02	--		--		0.0042	U	0.0042	U	0.0023	U	0.0022	U	0.0024	U	0.0022	U	--		--		--		--		--	
VOC	SW8260B	Dibromochloromethane	mg/kg	--	--		--		0.0064	U	0.0064	U	0.0035	U	0.0034	U	0.0036	U	0.0034	U	--		--		--		--		--	
VOC	SW8260B	Dibromomethane	mg/kg	--	--		--		0.0066	U	0.0066	U	0.0037	U	0.0035	U	0.0037	U	0.0035	U	--		--		--		--		--	
VOC	SW8260B	Dichlorodifluoromethane	mg/kg	60	--		--		0.0096	U	0.0095	U	0.0053	U	0.005	U	0.0054	U	0.005	U	--		--		--		--		--	
VOC	SW8260B	Ethylbenzene	mg/kg	5.5	--		--		0.0067	U	0.0067	U	0.0037	U	0.0035	U	0.0038	U	0.0035	U	--		--		--		--		--	
VOC	SW8260B	Hexachlorobutadiene	mg/kg	8	--		--		0.011	U	0.011	U	0.0062	U	0.0059	U	0.0063	U	0.0059	U	--		--		--		--		--	
VOC	SW8270C	Hexachlorobutadiene	mg/kg	8	0.031	UJ	0.16	U	--		--		--		--		--		--		0.033	U	0.03	U	0.031	U	0.033	U	0.032	U
VOC	SW8260B	Isopropylbenzene	mg/kg	227	--		--		0.0017	U	0.0017	U	0.00096	U	0.00091	U	0.00098	U	0.00091	U	--		--		--		--		--	
VOC	SW8260B	m,p-Xylene	mg/kg	78	--		--		0.0051	U	0.0051	U	0.0028	U	0.0027	U	0.0029	U	0.0027	U	--		--		--		--		--	
VOC	SW8260B	Methylene chloride	mg/kg	0.015	--		--		0.0055	U	0.0072		0.003	U	0.0029	U	0.0031	U	0.0029	U	--		--		--		--		--	
VOC	SW8260B	Methyl-tert-butyl ether (MTBE)	mg/kg	--	--		--		0.0037	U	0.0037	U	0.002	U	0.0019	U	0.0021	U	0.0019	U	--		--		--		--		--	
VOC	SW8260B	n-Butylbenzene	mg/kg	--	--		--		0.005	U	0.005	U	0.0028	U	0.0026	U	0.0028	U	0.0026	U	--		--		--		--		--	
VOC	SW8260B	n-Propylbenzene	mg/kg	--	--		--		0.0048	U	0.0048	U	0.0026	U	0.0025	U	0.0027	U	0.0025	U	--		--		--		--		--	
VOC	SW8260B	o-Xylene	mg/kg	78	--		--		0.0053	U	0.0053	U	0.0029	U	0.0028	U	0.003	U	0.0028	U	--		--		--		--		--	
VOC	SW8260B	sec-Butylbenzene	mg/kg	--	--		--		0.0025	U	0.0024	U	0.0014	U	0.0013	U	0.0014	U	0.0013	U	--		--		--		--		--	
VOC	SW8260B	Styrene	mg/kg	1.3	--		--		0.0032	U	0.0031	U	0.0017	U	0.0017	U	0.0018	U	0.0017	U	--		--		--		--		--	
VOC	SW8260B	tert-Butylbenzene	mg/kg	--	--		--		0.0042	U	0.0042	U	0.0023	U	0.0022	U	0.0024	U	0.0022	U	--		--		--		--		--	
VOC	SW8260B	Tetrachloroethene (PCE)	mg/kg	0.03	--		--		0.0043	U	0.0043	U	0.0024	U	0.0022	U	0.0024	U	0.0023	U	--		--		--		--		--	
VOC	SW8260B	Toluene	mg/kg	5.4	--		--		0.0109	J+	0.0104		0.0025	U	0.00534	J+	0.00504	J	0.00594	J+	--		--		--		--		--	
VOC	SW8260B	trans-1,2-Dichloroethene	mg/kg	0.4	--		--		0.0063	U	0.0063	U	0.0035	U	0.0033	U	0.0036	U	0.0033	U	--		--		--		--		--	
VOC	SW8260B	trans-1,3-Dichloropropene	mg/kg	0.02	--		--		0.0046	U	0.0046	U	0.0025	U	0.0024	U	0.0026	U	0.0024	U	--		--		--		--		--	
VOC	SW8260B	Trichloroethene (TCE)	mg/kg	0.027	--		--		0.0056	U	0.0056	U	0.0031	U	0.0029	U	0.0032	U	0.0029	U	--		--		--		--		--	
VOC	SW8260B	Trichlorofluoromethane	mg/kg	--	--		--		0.005	U	0.005	U	0.0028	U	0.0026	U	0.0028	U	0.0026	U	--		--		--		--		--	
VOC	SW8260B	Vinyl chloride	mg/kg	0.009	--		--		0.0073	U	0.0072	U	0.004	U	0.0038	U	0.0041	U	0.0038	U	--		--		--		--		--	

Bold and shaded results exceed the screening level.

Bold and underlined results exceed the background level for arsenic but are within the reasonable range of background for Fort Wainwright soils.

Bold and italicized result indicate that 95UCL value for triplicate exceeds screening level, but compound was only detected in one of three triplicate samples, 95UCL is artifically elevated by MDLs for non-detects.

EXP	explosives	PEST	pesticides	TPH	total petroleum hydrocarbons
HERB	herbicides	SL	screening level	VOC	volatile organic compound
mg/kg	milligrams per kilogram	SVOC	semi-volatile organic compound		

Table C-2

95UCL-Adjusted Sample Results for Soil Pile Samples Compared to Landfill Criteria

** Note this table is fit to 3 pages wide by 3 pages tall for ease of reading. Sample nam*

Former Communications Site, Fort Wainwright, Alaska

Preliminary Risk Screening Evaluation Report

Chemical Group	Chemical Method	Analyte	Unit	Landfill CV													
Triplicate Group					**SP13-05**	**SP13-05**	**SP13-05**	**SP13-05**	**SP13-05**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**
Location					SP13-08	SP13-05	SP13-06	SP13-09	SP13-10	SPGroup4	SPG06	SP29		SPGroup11	SPGroup8-01	SPGroup8-02	SPGroup10-01
Sample Name					07FW-D-SP13-08_Adj	07FW-D-SP13-05_UCL	07FW-D-SP13-06_Adj	07FW-D-SP13-09_Adj	07FW-D-SP13-10_Adj	07FW-A-SPG04_Adj	07FW-E-SPG06_Adj	07FW-E-SP29_Adj	07FW-E-SPG09_Adj	07FW-E-SPG11_Adj	07FW-E-SPG08-01_Adj	07FW-E-SPG08-02_Adj	07FW-E-SPG10-01_Adj
Sample Date					8/18/2007	8/30/2007	8/31/2007	9/20/2007	9/21/2007	8/13/2007	8/13/2007	8/14/2007	8/14/2007	8/14/2007	8/15/2007	8/15/2007	8/15/2007
EXPLOSIVE	SW8270C	2,4-Dinitrotoluene	mg/kg	0.005	0.021 U	***0.0458***	0.021 UJ	0.022 UJ	0.02 U	0.022 U	0.02 U	--	--	--	--	--	--
EXPLOSIVE	SW8270C	2,6-Dinitrotoluene	mg/kg	0.0044	0.03 U	***0.0573***	0.03 UJ	0.031 UJ	0.029 U	0.032 U	0.029 U	--	--	--	--	--	--
EXPLOSIVE	SW8270C	Nitrobenzene	mg/kg	0.06	0.075 U	0.075 U	0.076 UJ	0.079 UJ	0.073 U	0.08 U	0.073 U	--	--	--	--	--	--
METALS	SW6010B	Aluminum	mg/kg	--	8950	9240	9990	7800	9340	8310	10800	--	--	--	--	--	--
METALS	SW6020	Antimony	mg/kg	3.6	0.392 J	0.24	0.502	0.432 J-	0.332 J-	0.68	0.29 J	--	--	--	--	--	--
METALS	SW6020	Arsenic	mg/kg	8.46	**8.65**	**8.65**	**9.45**	7.55 J-	7.55 J-	6.9	**9.1**	--	--	--	--	--	--
METALS	SW6020	Barium	mg/kg	1100	120	103	123	108	89.5	86	91.2	--	--	--	--	--	--
METALS	SW6020	Beryllium	mg/kg	42	0.17	0.183	0.17	0.16 J-	0.13 J-	0.13	0.16	--	--	--	--	--	--
METALS	SW6010B	Boron	mg/kg	--	1.3 UJ	0.66 U	0.66 U	0.66 U	1.3 UJ	1.2 J	0.66 U	--	--	--	--	--	--
METALS	SW6020	Cadmium	mg/kg	5	0.282	0.316	0.272	0.262	0.272 J-	0.52	0.16	--	--	--	--	--	--
METALS	SW6010B	Calcium	mg/kg	--	5750	6230	7160	5260	6110	5780	7860	--	--	--	--	--	--
METALS	SW6020	Chromium	mg/kg	26	17.9	17.4	20.3	17	14.9	14.4	16.9	--	--	--	--	--	--
METALS	SW6020	Cobalt	mg/kg	--	8.19	8.72	9.29	7.39	7.19 J-	6.7	8.5	--	--	--	--	--	--
METALS	SW6020	Copper	mg/kg	7000	22.3	23.2	24.9	19 J-	19 J-	21.5	24.1	--	--	--	--	--	--
METALS	SW6010B	Iron	mg/kg	--	17000	16600	19600	15500	17000	15900	20800	--	--	--	--	--	--
METALS	SW6020	Lead	mg/kg	--	13.1	8.82	11.6	23.4 J-	16.4 J	13.4	8.5	--	--	--	--	--	--
METALS	SW6010B	Magnesium	mg/kg	--	5100	5370	5990	4700 J-	5250	5030	6150	--	--	--	--	--	--
METALS	SW6020	Manganese	mg/kg	--	330	323	361	301	259	277	339	--	--	--	--	--	--
METALS	SW7471A	Mercury	mg/kg	1.4	0.025 J	0.026	0.034 J	0.02 J	0.028 J	0.019 J	0.026	--	--	--	--	--	--
METALS	SW6020	Nickel	mg/kg	87	19.6	21.9	22.5	18.1 J-	18	17.7	21	--	--	--	--	--	--
METALS	SW6010B	Potassium	mg/kg	--	788 J-	840	825	729 J-	787 J-	737	907	--	--	--	--	--	--
METALS	SW6020	Selenium	mg/kg	3.5	0.4	0.413	0.44	0.36 J-	0.33 J-	0.33	0.42	--	--	--	--	--	--
METALS	SW6020	Silver	mg/kg	21	0.101	0.0873	0.101 J-	0.101 J-	0.015 U	0.17	0.08	--	--	--	--	--	--
METALS	SW6010B	Sodium	mg/kg	--	345 J	327	378	291 J-	366 J	312	352	--	--	--	--	--	--
METALS	SW6020	Thallium	mg/kg	--	0.059 J	0.025 U	0.099	0.059 J	0.073 J	0.041 J	0.055 J	--	--	--	--	--	--
METALS	SW6020	Vanadium	mg/kg	3400	32.9	31.1	40	29.9 J+	27 J+	26.3	30.7	--	--	--	--	--	--
METALS	SW6020	Zinc	mg/kg	9100	34.9 J-	47.2	40.7 J-	36 J-	32.9 J-	42.7	39.6	--	--	--	--	--	--
PAH	SW8270C	2-Methylnaphthalene	mg/kg	60.9	0.053 U	0.054 U	0.054 UJ	0.056 UJ	0.052 U	0.057 U	0.052 U	--	--	--	--	--	--
PAH	SW8270C	Acenaphthene	mg/kg	210	0.019 U	0.0543	0.019 UJ	0.02 UJ	0.018 U	0.02 U	0.018 U	--	--	--	--	--	--
PAH	SW8270C	Acenaphthylene	mg/kg	210	0.017 U	0.0497	0.017 UJ	0.018 UJ	0.016 U	0.018 U	0.016 U	--	--	--	--	--	--
PAH	SW8270C	Anthracene	mg/kg	4300	0.027 U	0.0569	0.027 UJ	0.028 UJ	0.026 U	0.028 U	0.026 U	--	--	--	--	--	--
PAH	SW8270C	Benzo(a)anthracene	mg/kg	6	0.017 U	0.0653	0.017 UJ	0.018 UJ	0.016 U	0.018 U	0.016 U	--	--	--	--	--	--
PAH	SW8270C	Benzo(a)pyrene	mg/kg	3	0.02 U	0.0579	0.02 UJ	0.021 UJ	0.019 U	0.021 U	0.019 U	--	--	--	--	--	--
PAH	SW8270C	Benzo(b)fluoranthene	mg/kg	20	0.025 U	0.0511	0.025 UJ	0.026 UJ	0.024 U	0.026 U	0.024 U	--	--	--	--	--	--
PAH	SW8270C	Benzo(g,h,i)perylene	mg/kg	1500	0.022 U	0.0756	0.022 UJ	0.023 UJ	0.021 U	0.096 J+	0.021 U	--	--	--	--	--	--
PAH	SW8270C	Benzo(k)fluoranthene	mg/kg	200	0.014 U	0.0676	0.014 UJ	0.015 UJ	0.013 U	0.015 U	0.013 U	--	--	--	--	--	--
PAH	SW8270C	Chrysene	mg/kg	620	0.083 U	0.083 U	0.085 UJ	0.088 UJ	0.081 U	0.089 U	0.081 U	--	--	--	--	--	--
PAH	SW8270C	Dibenzo(a,h)anthracene	mg/kg	6	0.017 U	0.0667	0.017 UJ	0.018 UJ	0.016 U	0.018 U	0.016 U	--	--	--	--	--	--
PAH	SW8270C	Fluoranthene	mg/kg	2100	0.03 U	0.0599	0.03 UJ	0.031 UJ	0.029 U	0.032 U	0.029 U	--	--	--	--	--	--
PAH	SW8270C	Fluorene	mg/kg	270	0.015 U	0.0555	0.015 UJ	0.016 UJ	0.014 U	0.016 U	0.014 U	--	--	--	--	--	--
PAH	SW8270C	Indeno(1,2,3-cd)pyrene	mg/kg	54	0.023 U	0.0557	0.023 UJ	0.024 UJ	0.022 U	0.024 U	0.022 U	--	--	--	--	--	--
PAH	SW8260B	Naphthalene	mg/kg	21	--	--	--	--	--	--	--	--	--	--	--	--	--
PAH	SW8270C	Naphthalene	mg/kg	21	0.029 U	0.038	0.029 UJ	0.03 UJ	0.028 U	0.031 U	0.028 U	--	--	--	--	--	--
PAH	SW8270C	Phenanthrene	mg/kg	4300	0.016 U	0.0617	0.016 UJ	0.017 UJ	0.015 U	0.017 U	0.015 U	--	--	--	--	--	--
PAH	SW8270C	Pyrene	mg/kg	1500	0.021 U	0.0576	0.021 UJ	0.022 UJ	0.02 U	0.022 U	0.02 U	--	--	--	--	--	--
PCBs	SW8082	PCB-1016 (Aroclor 1016)	mg/kg	10	--	--	--	--	--	--	--	0.0085 U	0.0082 U	0.0082 U	0.0086 U	0.04 U	0.0086 U
PCBs	SW8082	PCB-1221 (Aroclor 1221)	mg/kg	10	--	--	--	--	--	--	--	0.011 U	0.01 U	0.01 U	0.011 U	0.051 U	0.011 U
PCBs	SW8082	PCB-1232 (Aroclor 1232)	mg/kg	10	--	--	--	--	--	--	--	0.0085 U	0.0082 U	0.0082 U	0.0086 U	0.04 U	0.0086 U
PCBs	SW8082	PCB-1242 (Aroclor 1242)	mg/kg	10	--	--	--	--	--	--	--	0.0085 U	0.0082 U	0.0082 U	0.0086 U	0.04 U	0.0086 U
PCBs	SW8082	PCB-1248 (Aroclor 1248)	mg/kg	10	--	--	--	--	--	--	--	0.0085 U	0.0082 U	0.0082 U	0.0086 U	0.04 U	0.0086 U
PCBs	SW8082	PCB-1254 (Aroclor 1254)	mg/kg	10	--	--	--	--	--	--	--	0.0085 U	0.0082 U	0.0082 U	0.0086 U	0.04 U	0.0086 U
PCBs	SW8082	PCB-1260 (Aroclor 1260)	mg/kg	10	--	--	--	--	--	--	--	0.0563	0.0263 J	0.0082 U	0.0086 U	0.529	0.0086 U
PCBs	SW8082	PCB-1262 (Aroclor 1262)	mg/kg	10	--	--	--	--	--	--	--	0.011 U	0.011 U	0.011 U	0.011 U	0.053 U	0.011 U
PCBs	SW8082	PCB-1268 (Aroclor 1268)	mg/kg	10	--	--	--	--	--	--	--	0.011 U	0.011 U	0.011 U	0.011 U	0.053 U	0.011 U
SVOC	SW8270C	2,4,5-Trichlorophenol	mg/kg	90	0.035 U	0.0412	0.036 UJ	0.038 UJ	0.035 U	0.038 U	0.035 U	--	--	--	--	--	--
SVOC	SW8270C	2,4,6-Trichlorophenol	mg/kg	0.6	0.052 U	0.053 U	0.053 UJ	0.055 UJ	0.051 U	0.056 U	0.051 U	--	--	--	--	--	--
SVOC	SW8270C	2,4-Dichlorophenol	mg/kg	0.45	0.021 U	0.0419	0.021 UJ	0.022 UJ	0.02 U	0.022 U	0.02 U	--	--	--	--	--	--
SVOC	SW8270C	2,4-Dimethylphenol	mg/kg	4	0.16 U	0.17 U	0.17 UJ	0.17 UJ	0.16 U	0.18 U	0.16 U	--	--	--	--	--	--
SVOC	SW8270C	2,4-Dinitrophenol	mg/kg	0.2	0.65 U	0.65 U	0.66 UJ	0.69 UJ	0.63 U	0.7 U	0.64 U	--	--	--	--	--	--
SVOC	SW8270C	2-Chloronaphthalene	mg/kg	70	0.019 U	0.0491	0.019 UJ	0.02 UJ	0.018 U	0.02 U	0.018 U	--	--	--	--	--	--
SVOC	SW8270C	2-Chlorophenol	mg/kg	1.4	0.022 U	0.0429	0.022 UJ	0.023 UJ	0.021 U	0.023 U	0.021 U	--	--	--	--	--	--

Table C-2

95UCL-Adjusted Sample Results for Soil Pile Samples Compared to Landfill Criteria

** Note this table is fit to 3 pages wide by 3 pages tall for ease of reading. Sample nam*

Former Communications Site, Fort Wainwright, Alaska

Preliminary Risk Screening Evaluation Report

Triplicate Group					SP13-05	SP13-05	SP13-05	SP13-05	SP13-05	SP27	SP27	SP27	SP27	SP27	SP27	SP27	SP27
Location					SP13-08	SP13-05	SP13-06	SP13-09	SP13-10	SPGroup4	SPG06	SP29		SPGroup11	SPGroup8-01	SPGroup8-02	SPGroup10-01
Sample Name					07FW-D-SP13-08_Adj	07FW-D-SP13-05_UCL	07FW-D-SP13-06_Adj	07FW-D-SP13-09_Adj	07FW-D-SP13-10_Adj	07FW-A-SPG04_Adj	07FW-E-SPG06_Adj	07FW-E-SP29_Adj	07FW-E-SPG09_Adj	07FW-E-SPG11_Adj	07FW-E-SPG08-01_Adj	07FW-E-SPG08-02_Adj	07FW-E-SPG10-01_Adj
Sample Date					8/18/2007	8/30/2007	8/31/2007	9/20/2007	9/21/2007	8/13/2007	8/13/2007	8/14/2007	8/14/2007	8/14/2007	8/15/2007	8/15/2007	8/15/2007
Chemical Group	**Chemical Method**	**Analyte**	**Unit**	**Landfill CV**													
SVOC	SW8270C	2-Methyl-4,6-dinitrophenol	mg/kg	--	0.65 U	0.65 U	0.66 UJ	0.69 UJ	0.63 U	0.7 U	0.64 U	--	--	--	--	--	--
SVOC	SW8270C	2-Methylphenol (o-Cresol)	mg/kg	--	0.057 U	0.057 U	0.058 UJ	0.061 UJ	0.056 U	0.061 U	0.056 U	--	--	--	--	--	--
SVOC	SW8270C	2-Nitroaniline	mg/kg	--	0.044 U	0.0606	0.045 UJ	0.047 UJ	0.043 U	0.047 U	0.043 U	--	--	--	--	--	--
SVOC	SW8270C	2-Nitrophenol	mg/kg	--	0.03 U	0.0456	0.03 UJ	0.031 UJ	0.029 U	0.032 U	0.029 U	--	--	--	--	--	--
SVOC	SW8270C	3,3'-Dichlorobenzidine	mg/kg	0.02	0.33 U	0.33 U	0.33 UJ	0.34 UJ	0.32 U	0.35 U	0.32 U	--	--	--	--	--	--
SVOC	SW8270C	3-Nitroaniline	mg/kg	--	0.16 U	0.17 U	0.17 UJ	0.17 UJ	0.16 U	0.18 U	0.16 U	--	--	--	--	--	--
SVOC	SW8270C	4-Bromophenyl phenyl ether	mg/kg	--	0.023 U	0.0609	0.023 UJ	0.024 UJ	0.022 U	0.024 U	0.022 U	--	--	--	--	--	--
SVOC	SW8270C	4-Chloro-3-methylphenol	mg/kg	--	0.014 U	0.0584	0.014 UJ	0.015 UJ	0.013 U	0.015 U	0.013 U	--	--	--	--	--	--
SVOC	SW8270C	4-Chloroaniline	mg/kg	0.5	0.057 U	0.057 U	0.058 UJ	0.061 UJ	0.056 U	0.061 U	0.056 U	--	--	--	--	--	--
SVOC	SW8270C	4-Chlorophenyl phenyl ether	mg/kg	--	0.014 U	0.0584	0.014 UJ	0.015 UJ	0.013 U	0.015 U	0.013 U	--	--	--	--	--	--
SVOC	SW8270C	4-Nitroaniline	mg/kg	--	0.036 U	0.0578	0.037 UJ	0.039 UJ	0.036 U	0.039 U	0.036 U	--	--	--	--	--	--
SVOC	SW8270C	4-Nitrophenol	mg/kg	--	0.65 U	0.65 U	0.66 UJ	0.69 UJ	0.63 U	0.7 U	0.64 U	--	--	--	--	--	--
SVOC	SW8270C	Benzoic acid	mg/kg	390	0.17 U	0.17 U	0.17 UJ	0.18 UJ	0.16 U	0.18 U	0.16 U	--	--	--	--	--	--
SVOC	SW8270C	Benzyl alcohol	mg/kg	--	0.17 U	0.17 U	0.17 UJ	0.18 UJ	0.16 U	0.18 U	0.16 U	--	--	--	--	--	--
SVOC	SW8270C	Benzyl butyl phthalate	mg/kg	5600	0.019 U	0.0739	0.019 UJ	0.02 UJ	0.018 U	0.02 U	0.018 U	--	--	--	--	--	--
SVOC	SW8270C	bis-(2-Chloroethoxy)methane	mg/kg	--	0.022 U	0.0416	0.022 UJ	0.023 UJ	0.021 U	0.023 U	0.021 U	--	--	--	--	--	--
SVOC	SW8270C	bis-(2-Chloroethyl)ether	mg/kg	0.002	0.032 U	**0.0336**	0.032 UJ	0.033 UJ	0.031 U	0.034 U	0.031 U	--	--	--	--	--	--
SVOC	SW8270C	bis(2-Chloroisopropyl)ether	mg/kg	--	0.032 U	0.032 U	0.032 UJ	0.033 UJ	0.031 U	0.034 U	0.031 U	--	--	--	--	--	--
SVOC	SW8270C	bis-(2-Ethylhexyl)phthalate	mg/kg	1200	0.024 U	0.0886	0.104 J-	0.025 UJ	0.023 U	0.025 U	0.023 U	--	--	--	--	--	--
SVOC	SW8270C	Carbazole	mg/kg	2	0.054 U	0.055 U	0.055 UJ	0.057 UJ	0.053 U	0.058 U	0.053 U	--	--	--	--	--	--
SVOC	SW8270C	Dibenzofuran	mg/kg	7.78	0.018 U	0.0559	0.018 UJ	0.019 UJ	0.017 U	0.019 U	0.017 U	--	--	--	--	--	--
SVOC	SW8270C	Diethyl phthalate	mg/kg	190	0.02 U	0.0631	0.02 UJ	0.021 UJ	0.019 U	0.021 U	0.019 U	--	--	--	--	--	--
SVOC	SW8270C	Dimethyl phthalate	mg/kg	1400	0.023 U	0.057	0.023 UJ	0.024 UJ	0.022 U	0.024 U	0.022 U	--	--	--	--	--	--
SVOC	SW8270C	Di-n-butyl phthalate	mg/kg	1700	0.026 U	0.0626	0.026 UJ	0.027 UJ	0.025 U	0.027 U	0.025 U	--	--	--	--	--	--
SVOC	SW8270C	Di-n-octyl phthalate	mg/kg	810000	0.024 U	0.0645	0.024 UJ	0.025 UJ	0.023 U	0.025 U	0.023 U	--	--	--	--	--	--
SVOC	SW8270C	Hexachlorobenzene	mg/kg	0.73	0.017 U	0.0536	0.017 UJ	0.018 UJ	0.016 U	0.018 U	0.016 U	--	--	--	--	--	--
SVOC	SW8270C	Hexachloroethane	mg/kg	1.6	0.045 U	0.046 U	0.046 UJ	0.048 UJ	0.044 U	0.049 U	0.044 U	--	--	--	--	--	--
SVOC	SW8270C	Isophorone	mg/kg	3	0.017 U	0.051	0.017 UJ	0.018 UJ	0.016 U	0.018 U	0.016 U	--	--	--	--	--	--
SVOC	SW8270C	m,p-Cresol	mg/kg	--	0.34 U	0.33 U	0.33 UJ	0.34 UJ	0.32 U	0.35 U	0.32 U	--	--	--	--	--	--
SVOC	SW8270C	n-Nitrosodimethylamine	mg/kg	3.4	0.037 U	0.038 U	0.038 UJ	0.04 UJ	0.037 U	0.04 U	0.037 U	--	--	--	--	--	--
SVOC	SW8270C	n-Nitrosodi-n-propylamine	mg/kg	0.00036	0.018 U	**0.0481**	0.018 UJ	0.019 UJ	0.017 U	0.019 U	0.017 U	--	--	--	--	--	--
SVOC	SW8270C	n-Nitrosodiphenylamine	mg/kg	3.4	0.024 U	0.0567	0.024 UJ	0.025 UJ	0.023 U	0.025 U	0.023 U	--	--	--	--	--	--
SVOC	SW8270C	Pentachlorophenol	mg/kg	0.01	0.65 U	0.65 U	0.66 UJ	0.69 UJ	0.63 U	0.7 U	0.64 U	--	--	--	--	--	--
SVOC	SW8270C	Phenol	mg/kg	67	0.019 U	0.0504	0.019 UJ	0.02 UJ	0.018 U	0.02 U	0.018 U	--	--	--	--	--	--
TPH	AK102/103	DRO	mg/kg	250	5.27	10.7	3.27 J-	8.87 J-	6.27	6.7	2.1	--	--	--	--	--	--
TPH	AK102/103	RRO	mg/kg	--	30 J+	22.6	26 J-	30 J-	42	24	19	--	--	--	--	--	--
VOC	SW8260B	1,1,1,2-Tetrachloroethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,1,1-Trichloroethane	mg/kg	1	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,1,2,2-Tetrachloroethane	mg/kg	0.017	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,1,2-Trichloroethane	mg/kg	0.017	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,1-Dichloroethane	mg/kg	12	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,1-Dichloroethene	mg/kg	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,1-Dichloropropene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2,3-Trichlorobenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2,3-Trichloropropane	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2,4-Trichlorobenzene	mg/kg	2	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8270C	1,2,4-Trichlorobenzene	mg/kg	2	0.027 U	0.04	0.027 UJ	0.028 UJ	0.026 U	0.028 U	0.026 U	--	--	--	--	--	--
VOC	SW8260B	1,2,4-Trimethylbenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2-Dibromo-3-chloropropane	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2-Dibromoethane	mg/kg	0.0000306	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2-Dichlorobenzene	mg/kg	7	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8270C	1,2-Dichlorobenzene	mg/kg	7	0.041 U	0.042 U	0.042 UJ	0.044 UJ	0.04 U	0.044 U	0.04 U	--	--	--	--	--	--
VOC	SW8260B	1,2-Dichloroethane	mg/kg	0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2-Dichloropropane	mg/kg	0.017	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,3,5-Trimethylbenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,3-Dichlorobenzene	mg/kg	12.1	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8270C	1,3-Dichlorobenzene	mg/kg	12.1	0.038 U	0.039 U	0.039 UJ	0.041 UJ	0.037 U	0.041 U	0.038 U	--	--	--	--	--	--
VOC	SW8260B	1,3-Dichloropropane	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,4-Dichlorobenzene	mg/kg	0.8	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8270C	1,4-Dichlorobenzene	mg/kg	0.8	0.043 U	0.044 U	0.044 UJ	0.046 UJ	0.042 U	0.046 U	0.042 U	--	--	--	--	--	--
VOC	SW8260B	2,2-Dichloropropane	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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Former Communications Site, Fort Wainwright, Alaska

Preliminary Risk Screening Evaluation Report

Triplicate Group					**SP13-05**	**SP13-05**	**SP13-05**	**SP13-05**	**SP13-05**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**
Location					SP13-08	SP13-05	SP13-06	SP13-09	SP13-10	SPGroup4	SPG06	SP29		SPGroup11	SPGroup8-01	SPGroup8-02	SPGroup10-01
Sample Name					07FW-D-SP13-08_Adj	07FW-D-SP13-05_UCL	07FW-D-SP13-06_Adj	07FW-D-SP13-09_Adj	07FW-D-SP13-10_Adj	07FW-A-SPG04_Adj	07FW-E-SPG06_Adj	07FW-E-SP29_Adj	07FW-E-SPG09_Adj	07FW-E-SPG11_Adj	07FW-E-SPG08-01_Adj	07FW-E-SPG08-02_Adj	07FW-E-SPG10-01_Adj
Sample Date					8/18/2007	8/30/2007	8/31/2007	9/20/2007	9/21/2007	8/13/2007	8/13/2007	8/14/2007	8/14/2007	8/14/2007	8/15/2007	8/15/2007	8/15/2007
Chemical Group	**Chemical Method**	**Analyte**	**Unit**	**Landfill CV**													
VOC	SW8260B	2-Butanone	mg/kg	60	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	2-Chlorotoluene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	2-Hexanone	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	4-Chlorotoluene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	4-Isopropyltoluene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	4-Methyl-2-pentanone	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Acetone	mg/kg	10	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Benzene	mg/kg	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Bromobenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Bromochloromethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Bromodichloromethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Bromoform	mg/kg	0.38	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Bromomethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Carbon disulfide	mg/kg	17	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Carbon tetrachloride	mg/kg	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Chlorobenzene	mg/kg	0.6	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Chloroethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Chloroform	mg/kg	0.34	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Chloromethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	cis-1,2-Dichloroethene	mg/kg	0.2	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	cis-1,3-Dichloropropene	mg/kg	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Dibromochloromethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Dibromomethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Dichlorodifluoromethane	mg/kg	60	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Ethylbenzene	mg/kg	5.5	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Hexachlorobutadiene	mg/kg	8	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8270C	Hexachlorobutadiene	mg/kg	8	0.033 U	0.0382	0.033 UJ	0.034 UJ	0.032 U	0.035 U	0.032 U	--	--	--	--	--	--
VOC	SW8260B	Isopropylbenzene	mg/kg	227	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	m,p-Xylene	mg/kg	78	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Methylene chloride	mg/kg	0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Methyl-tert-butyl ether (MTBE)	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	n-Butylbenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	n-Propylbenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	o-Xylene	mg/kg	78	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	sec-Butylbenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Styrene	mg/kg	1.3	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	tert-Butylbenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Tetrachloroethene (PCE)	mg/kg	0.03	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Toluene	mg/kg	5.4	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	trans-1,2-Dichloroethene	mg/kg	0.4	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	trans-1,3-Dichloropropene	mg/kg	0.02	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Trichloroethene (TCE)	mg/kg	0.027	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Trichlorofluoromethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Vinyl chloride	mg/kg	0.009	--	--	--	--	--	--	--	--	--	--	--	--	--

Bold and shaded results exceed the screening level.

Bold and underlined results exceed the background level for arsenic but are within the

Bold and italicized result indicate that 95UCL value for triplicate exceeds screening lev

EXP explosives

HERB herbicides

mg/kg milligrams per kilogram

Table C-2

95UCL-Adjusted Sample Results for Soil Pile Samples Compared to Landfill Criteria

** Note this table is fit to 3 pages wide by 3 pages tall for ease of reading. Sample nam*

Former Communications Site, Fort Wainwright, Alaska

Preliminary Risk Screening Evaluation Report

Triplicate Group					**SP27**		**SP27**		**SP27**		**SP27**		**SP27**		**SP27**		**SP27**		**SP27**		**SP27**		**SP27**	
Location					SPGroup10-02		SP27		SP38		SPGroup13		SPGroup20		SPGroup14		SPGroup7		SPGroup12		SP18		SP17	
Sample Name					07FW-E-SPG10-02_Adj		07FW-E-SP27_UCL		07FW-E-SP38_Adj		07FW-E-SPG13_Adj		07FW-E-SP20_Adj		07FW-E-SPG14_Adj		07FW-E-SPG07_Adj		07FW-E-SPG12_Adj		07FW-E-SP18_Adj		07FW-E-SP17_Adj	
Sample Date					8/15/2007		8/25/2007		8/27/2007		8/27/2007		8/28/2007		8/28/2007		8/29/2007		8/29/2007		9/12/2007		9/13/2007	
Chemical Group	**Chemical Method**	**Analyte**	**Unit**	**Landfill CV**																				
EXPLOSIVE	SW8270C	2,4-Dinitrotoluene	mg/kg	0.005	--		--		--		--		--		--		--		--		0.021	U	0.021	U
EXPLOSIVE	SW8270C	2,6-Dinitrotoluene	mg/kg	0.0044	--		--		--		--		--		--		--		--		0.03	U	0.029	U
EXPLOSIVE	SW8270C	Nitrobenzene	mg/kg	0.06	--		--		--		--		--		--		--		--		0.076	U	0.074	U
METALS	SW6010B	Aluminum	mg/kg	--	--		--		--		--		--		--		--		--		--		12100	
METALS	SW6020	Antimony	mg/kg	3.6	--		--		--		--		--		--		--		--		--		0.48	
METALS	SW6020	Arsenic	mg/kg	8.46	--		--		--		--		--		--		--		--		--		**10.8**	
METALS	SW6020	Barium	mg/kg	1100	--		--		--		--		--		--		--		--		--		129	
METALS	SW6020	Beryllium	mg/kg	42	--		--		--		--		--		--		--		--		--		0.22	
METALS	SW6010B	Boron	mg/kg	--	--		--		--		--		--		--		--		--		--		0.67	U
METALS	SW6020	Cadmium	mg/kg	5	--		--		--		--		--		--		--		--		--		0.19	
METALS	SW6010B	Calcium	mg/kg	--	--		--		--		--		--		--		--		--		--		6770	
METALS	SW6020	Chromium	mg/kg	26	--		--		--		--		--		--		--		--		--		23.6	
METALS	SW6020	Cobalt	mg/kg	--	--		--		--		--		--		--		--		--		--		10	
METALS	SW6020	Copper	mg/kg	7000	--		--		--		--		--		--		--		--		--		29.7	
METALS	SW6010B	Iron	mg/kg	--	--		--		--		--		--		--		--		--		--		22200	
METALS	SW6020	Lead	mg/kg	--	--		--		--		--		--		--		--		--		--		13.4	
METALS	SW6010B	Magnesium	mg/kg	--	--		--		--		--		--		--		--		--		--		6690	
METALS	SW6020	Manganese	mg/kg	--	--		--		--		--		--		--		--		--		--		329	
METALS	SW7471A	Mercury	mg/kg	1.4	--		--		--		--		--		--		--		--		--		0.036	
METALS	SW6020	Nickel	mg/kg	87	--		--		--		--		--		--		--		--		--		24.3	
METALS	SW6010B	Potassium	mg/kg	--	--		--		--		--		--		--		--		--		--		996	
METALS	SW6020	Selenium	mg/kg	3.5	--		--		--		--		--		--		--		--		--		0.52	
METALS	SW6020	Silver	mg/kg	21	--		--		--		--		--		--		--		--		--		0.11	J-
METALS	SW6010B	Sodium	mg/kg	--	--		--		--		--		--		--		--		--		--		402	
METALS	SW6020	Thallium	mg/kg	--	--		--		--		--		--		--		--		--		--		0.085	
METALS	SW6020	Vanadium	mg/kg	3400	--		--		--		--		--		--		--		--		--		42.6	
METALS	SW6020	Zinc	mg/kg	9100	--		--		--		--		--		--		--		--		--		43.4	J-
PAH	SW8270C	2-Methylnaphthalene	mg/kg	60.9	--		--		--		--		--		--		--		--		0.054	U	0.053	U
PAH	SW8270C	Acenaphthene	mg/kg	210	--		--		--		--		--		--		--		--		0.019	U	0.019	U
PAH	SW8270C	Acenaphthylene	mg/kg	210	--		--		--		--		--		--		--		--		0.017	U	0.017	U
PAH	SW8270C	Anthracene	mg/kg	4300	--		--		--		--		--		--		--		--		0.027	U	0.026	U
PAH	SW8270C	Benzo(a)anthracene	mg/kg	6	--		--		--		--		--		--		--		--		0.017	U	0.017	U
PAH	SW8270C	Benzo(a)pyrene	mg/kg	3	--		--		--		--		--		--		--		--		0.02	U	0.02	U
PAH	SW8270C	Benzo(b)fluoranthene	mg/kg	20	--		--		--		--		--		--		--		--		0.025	U	0.024	U
PAH	SW8270C	Benzo(g,h,i)perylene	mg/kg	1500	--		--		--		--		--		--		--		--		0.022	U	0.022	U
PAH	SW8270C	Benzo(k)fluoranthene	mg/kg	200	--		--		--		--		--		--		--		--		0.014	U	0.014	U
PAH	SW8270C	Chrysene	mg/kg	620	--		--		--		--		--		--		--		--		0.084	U	0.082	U
PAH	SW8270C	Dibenzo(a,h)anthracene	mg/kg	6	--		--		--		--		--		--		--		--		0.017	U	0.017	U
PAH	SW8270C	Fluoranthene	mg/kg	2100	--		--		--		--		--		--		--		--		0.03	U	0.029	U
PAH	SW8270C	Fluorene	mg/kg	270	--		--		--		--		--		--		--		--		0.015	U	0.015	U
PAH	SW8270C	Indeno(1,2,3-cd)pyrene	mg/kg	54	--		--		--		--		--		--		--		--		0.023	U	0.022	U
PAH	SW8260B	Naphthalene	mg/kg	21	--		--		--		--		--		--		--		--		--		--	
PAH	SW8270C	Naphthalene	mg/kg	21	--		--		--		--		--		--		--		--		0.029	U	0.028	U
PAH	SW8270C	Phenanthrene	mg/kg	4300	--		--		--		--		--		--		--		--		0.016	U	0.016	U
PAH	SW8270C	Pyrene	mg/kg	1500	--		--		--		--		--		--		--		--		0.021	U	0.021	U
PCBs	SW8082	PCB-1016 (Aroclor 1016)	mg/kg	10	0.0086	U	0.0079	U	0.0084	U	0.0081	U	0.044	U	0.017	U	0.0082	U	0.0081	U	0.0086	U	0.0085	U
PCBs	SW8082	PCB-1221 (Aroclor 1221)	mg/kg	10	0.011	U	0.01	U	0.011	U	0.01	U	0.055	U	0.021	U	0.01	U	0.01	U	0.011	U	0.011	U
PCBs	SW8082	PCB-1232 (Aroclor 1232)	mg/kg	10	0.0086	U	0.0079	U	0.0084	U	0.0081	U	0.044	U	0.017	U	0.0082	U	0.0081	U	0.0086	U	0.0085	U
PCBs	SW8082	PCB-1242 (Aroclor 1242)	mg/kg	10	0.0086	U	0.0079	U	0.0084	U	0.0081	U	0.044	U	0.017	U	0.0082	U	0.0081	U	0.0086	U	0.0085	U
PCBs	SW8082	PCB-1248 (Aroclor 1248)	mg/kg	10	0.0086	U	0.0079	U	0.0084	U	0.0081	U	0.044	U	0.017	U	0.0082	U	0.0081	U	0.0086	U	0.0085	U
PCBs	SW8082	PCB-1254 (Aroclor 1254)	mg/kg	10	0.0086	U	0.0079	U	0.0084	U	0.0081	U	0.044	U	0.017	U	0.0082	U	0.0081	U	0.0086	U	0.0085	U
PCBs	SW8082	PCB-1260 (Aroclor 1260)	mg/kg	10	0.0086	U	0.036		0.0203	J-	0.0081	U	0.269		0.209		0.0203	J	0.0081	U	0.0086	U	0.0653	
PCBs	SW8082	PCB-1262 (Aroclor 1262)	mg/kg	10	0.011	U	0.01	U	0.011	U	0.011	U	0.058	U	0.022	U	0.011	U	0.011	U	0.011	U	0.011	U
PCBs	SW8082	PCB-1268 (Aroclor 1268)	mg/kg	10	0.011	U	0.01	U	0.011	U	0.011	U	0.058	U	0.022	U	0.011	U	0.011	U	0.011	U	0.011	U
SVOC	SW8270C	2,4,5-Trichlorophenol	mg/kg	90	--		--		--		--		--		--		--		--		0.036	U	0.035	U
SVOC	SW8270C	2,4,6-Trichlorophenol	mg/kg	0.6	--		--		--		--		--		--		--		--		0.053	U	0.052	U
SVOC	SW8270C	2,4-Dichlorophenol	mg/kg	0.45	--		--		--		--		--		--		--		--		0.021	U	0.021	U
SVOC	SW8270C	2,4-Dimethylphenol	mg/kg	4	--		--		--		--		--		--		--		--		0.17	U	0.16	U
SVOC	SW8270C	2,4-Dinitrophenol	mg/kg	0.2	--		--		--		--		--		--		--		--		0.66	U	0.65	U
SVOC	SW8270C	2-Chloronaphthalene	mg/kg	70	--		--		--		--		--		--		--		--		0.019	U	0.019	U
SVOC	SW8270C	2-Chlorophenol	mg/kg	1.4	--		--		--		--		--		--		--		--		0.022	U	0.022	U

Table C-2

95UCL-Adjusted Sample Results for Soil Pile Samples Compared to Landfill Criteria

** Note this table is fit to 3 pages wide by 3 pages tall for ease of reading. Sample nam*

Former Communications Site, Fort Wainwright, Alaska

Preliminary Risk Screening Evaluation Report

Triplicate Group					**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**
Location					SPGroup10-02	SP27	SP38	SPGroup13	SPGroup20	SPGroup14	SPGroup7	SPGroup12	SP18	SP17
Sample Name					07FW-E-SPG10-02_Adj	07FW-E-SP27_UCL	07FW-E-SP38_Adj	07FW-E-SPG13_Adj	07FW-E-SP20_Adj	07FW-E-SPG14_Adj	07FW-E-SPG07_Adj	07FW-E-SPG12_Adj	07FW-E-SP18_Adj	07FW-E-SP17_Adj
Sample Date					8/15/2007	8/25/2007	8/27/2007	8/27/2007	8/28/2007	8/28/2007	8/29/2007	8/29/2007	9/12/2007	9/13/2007
Chemical Group	**Chemical Method**	**Analyte**	**Unit**	**Landfill CV**										
SVOC	SW8270C	2-Methyl-4,6-dinitrophenol	mg/kg	--	--	--	--	--	--	--	--	--	0.66 U	0.65 U
SVOC	SW8270C	2-Methylphenol (o-Cresol)	mg/kg	--	--	--	--	--	--	--	--	--	0.058 U	0.057 U
SVOC	SW8270C	2-Nitroaniline	mg/kg	--	--	--	--	--	--	--	--	--	0.045 U	0.044 U
SVOC	SW8270C	2-Nitrophenol	mg/kg	--	--	--	--	--	--	--	--	--	0.03 U	0.029 U
SVOC	SW8270C	3,3'-Dichlorobenzidine	mg/kg	0.02	--	--	--	--	--	--	--	--	0.33 U	0.32 U
SVOC	SW8270C	3-Nitroaniline	mg/kg	--	--	--	--	--	--	--	--	--	0.17 U	0.16 U
SVOC	SW8270C	4-Bromophenyl phenyl ether	mg/kg	--	--	--	--	--	--	--	--	--	0.023 U	0.022 U
SVOC	SW8270C	4-Chloro-3-methylphenol	mg/kg	--	--	--	--	--	--	--	--	--	0.014 U	0.014 U
SVOC	SW8270C	4-Chloroaniline	mg/kg	0.5	--	--	--	--	--	--	--	--	0.058 U	0.057 U
SVOC	SW8270C	4-Chlorophenyl phenyl ether	mg/kg	--	--	--	--	--	--	--	--	--	0.014 U	0.014 U
SVOC	SW8270C	4-Nitroaniline	mg/kg	--	--	--	--	--	--	--	--	--	0.037 U	0.036 U
SVOC	SW8270C	4-Nitrophenol	mg/kg	--	--	--	--	--	--	--	--	--	0.66 U	0.65 U
SVOC	SW8270C	Benzoic acid	mg/kg	390	--	--	--	--	--	--	--	--	0.17 U	0.16 U
SVOC	SW8270C	Benzyl alcohol	mg/kg	--	--	--	--	--	--	--	--	--	0.17 U	0.17 U
SVOC	SW8270C	Benzyl butyl phthalate	mg/kg	5600	--	--	--	--	--	--	--	--	0.019 U	0.019 U
SVOC	SW8270C	bis-(2-Chloroethoxy)methane	mg/kg	--	--	--	--	--	--	--	--	--	0.022 U	0.022 U
SVOC	SW8270C	bis-(2-Chloroethyl)ether	mg/kg	0.002	--	--	--	--	--	--	--	--	0.032 U	0.031 U
SVOC	SW8270C	bis(2-Chloroisopropyl)ether	mg/kg	--	--	--	--	--	--	--	--	--	0.032 U	0.031 U
SVOC	SW8270C	bis-(2-Ethylhexyl)phthalate	mg/kg	1200	--	--	--	--	--	--	--	--	0.024 U	0.023 U
SVOC	SW8270C	Carbazole	mg/kg	2	--	--	--	--	--	--	--	--	0.055 U	0.054 U
SVOC	SW8270C	Dibenzofuran	mg/kg	7.78	--	--	--	--	--	--	--	--	0.018 U	0.018 U
SVOC	SW8270C	Diethyl phthalate	mg/kg	190	--	--	--	--	--	--	--	--	0.02 U	0.02 U
SVOC	SW8270C	Dimethyl phthalate	mg/kg	1400	--	--	--	--	--	--	--	--	0.023 U	0.022 U
SVOC	SW8270C	Di-n-butyl phthalate	mg/kg	1700	--	--	--	--	--	--	--	--	0.026 U	0.025 U
SVOC	SW8270C	Di-n-octyl phthalate	mg/kg	810000	--	--	--	--	--	--	--	--	0.024 U	0.023 U
SVOC	SW8270C	Hexachlorobenzene	mg/kg	0.73	--	--	--	--	--	--	--	--	0.017 U	0.091 J
SVOC	SW8270C	Hexachloroethane	mg/kg	1.6	--	--	--	--	--	--	--	--	0.046 U	0.045 U
SVOC	SW8270C	Isophorone	mg/kg	3	--	--	--	--	--	--	--	--	0.017 U	0.017 U
SVOC	SW8270C	m,p-Cresol	mg/kg	--	--	--	--	--	--	--	--	--	0.33 U	0.32 U
SVOC	SW8270C	n-Nitrosodimethylamine	mg/kg	3.4	--	--	--	--	--	--	--	--	0.038 U	0.037 U
SVOC	SW8270C	n-Nitrosodi-n-propylamine	mg/kg	0.00036	--	--	--	--	--	--	--	--	0.018 U	0.018 U
SVOC	SW8270C	n-Nitrosodiphenylamine	mg/kg	3.4	--	--	--	--	--	--	--	--	0.024 U	0.023 U
SVOC	SW8270C	Pentachlorophenol	mg/kg	0.01	--	--	--	--	--	--	--	--	0.66 U	0.65 U
SVOC	SW8270C	Phenol	mg/kg	67	--	--	--	--	--	--	--	--	0.019 U	0.019 U
TPH	AK102/103	DRO	mg/kg	250	--	--	--	--	--	--	--	--	--	6.6
TPH	AK102/103	RRO	mg/kg	--	--	--	--	--	--	--	--	--	--	48
VOC	SW8260B	1,1,1,2-Tetrachloroethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,1,1-Trichloroethane	mg/kg	1	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,1,2,2-Tetrachloroethane	mg/kg	0.017	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,1,2-Trichloroethane	mg/kg	0.017	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,1-Dichloroethane	mg/kg	12	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,1-Dichloroethene	mg/kg	0.03	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,1-Dichloropropene	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2,3-Trichlorobenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2,3-Trichloropropane	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2,4-Trichlorobenzene	mg/kg	2	--	--	--	--	--	--	--	--	--	--
VOC	SW8270C	1,2,4-Trichlorobenzene	mg/kg	2	--	--	--	--	--	--	--	--	0.027 U	0.026 U
VOC	SW8260B	1,2,4-Trimethylbenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2-Dibromo-3-chloropropane	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2-Dibromoethane	mg/kg	0.0000306	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2-Dichlorobenzene	mg/kg	7	--	--	--	--	--	--	--	--	--	--
VOC	SW8270C	1,2-Dichlorobenzene	mg/kg	7	--	--	--	--	--	--	--	--	0.042 U	0.041 U
VOC	SW8260B	1,2-Dichloroethane	mg/kg	0.015	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,2-Dichloropropane	mg/kg	0.017	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,3,5-Trimethylbenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,3-Dichlorobenzene	mg/kg	12.1	--	--	--	--	--	--	--	--	--	--
VOC	SW8270C	1,3-Dichlorobenzene	mg/kg	12.1	--	--	--	--	--	--	--	--	0.039 U	0.038 U
VOC	SW8260B	1,3-Dichloropropane	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	1,4-Dichlorobenzene	mg/kg	0.8	--	--	--	--	--	--	--	--	--	--
VOC	SW8270C	1,4-Dichlorobenzene	mg/kg	0.8	--	--	--	--	--	--	--	--	0.044 U	0.043 U
VOC	SW8260B	2,2-Dichloropropane	mg/kg	--	--	--	--	--	--	--	--	--	--	--

Table C-2

95UCL-Adjusted Sample Results for Soil Pile Samples Compared to Landfill Criteria

** Note this table is fit to 3 pages wide by 3 pages tall for ease of reading. Sample nam*

Former Communications Site, Fort Wainwright, Alaska

Preliminary Risk Screening Evaluation Report

				Triplicate Group	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**	**SP27**
				Location	SPGroup10-02	SP27	SP38	SPGroup13	SPGroup20	SPGroup14	SPGroup7	SPGroup12	SP18	SP17
				Sample Name	07FW-E-SPG10-02_Adj	07FW-E-SP27_UCL	07FW-E-SP38_Adj	07FW-E-SPG13_Adj	07FW-E-SP20_Adj	07FW-E-SPG14_Adj	07FW-E-SPG07_Adj	07FW-E-SPG12_Adj	07FW-E-SP18_Adj	07FW-E-SP17_Adj
				Sample Date	8/15/2007	8/25/2007	8/27/2007	8/27/2007	8/28/2007	8/28/2007	8/29/2007	8/29/2007	9/12/2007	9/13/2007
Chemical Group	**Chemical Method**	**Analyte**	**Unit**	**Landfill CV**										
VOC	SW8260B	2-Butanone	mg/kg	60	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	2-Chlorotoluene	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	2-Hexanone	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	4-Chlorotoluene	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	4-Isopropyltoluene	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	4-Methyl-2-pentanone	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Acetone	mg/kg	10	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Benzene	mg/kg	0.02	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Bromobenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Bromochloromethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Bromodichloromethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Bromoform	mg/kg	0.38	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Bromomethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Carbon disulfide	mg/kg	17	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Carbon tetrachloride	mg/kg	0.03	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Chlorobenzene	mg/kg	0.6	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Chloroethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Chloroform	mg/kg	0.34	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Chloromethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	cis-1,2-Dichloroethene	mg/kg	0.2	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	cis-1,3-Dichloropropene	mg/kg	0.02	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Dibromochloromethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Dibromomethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Dichlorodifluoromethane	mg/kg	60	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Ethylbenzene	mg/kg	5.5	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Hexachlorobutadiene	mg/kg	8	--	--	--	--	--	--	--	--	--	--
VOC	SW8270C	Hexachlorobutadiene	mg/kg	8	--	--	--	--	--	--	--	--	0.033 U	0.032 U
VOC	SW8260B	Isopropylbenzene	mg/kg	227	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	m,p-Xylene	mg/kg	78	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Methylene chloride	mg/kg	0.015	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Methyl-tert-butyl ether (MTBE)	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	n-Butylbenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	n-Propylbenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	o-Xylene	mg/kg	78	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	sec-Butylbenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Styrene	mg/kg	1.3	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	tert-Butylbenzene	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Tetrachloroethene (PCE)	mg/kg	0.03	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Toluene	mg/kg	5.4	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	trans-1,2-Dichloroethene	mg/kg	0.4	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	trans-1,3-Dichloropropene	mg/kg	0.02	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Trichloroethene (TCE)	mg/kg	0.027	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Trichlorofluoromethane	mg/kg	--	--	--	--	--	--	--	--	--	--	--
VOC	SW8260B	Vinyl chloride	mg/kg	0.009	--	--	--	--	--	--	--	--	--	--

Bold and shaded results exceed the screening level.

Bold and underlined results exceed the background level for arsenic but are within the

Bold and italicized result indicate that 95UCL value for triplicate exceeds screening lev

EXP	explosives
HERB	herbicides
mg/kg	milligrams per kilogram

Appendix D
95UCL-adjusted Results for Sound Berm Samples

TABLE D-1
95UCL-Adjusted Sample Results for Sound Berm Samples Compared to Screening Levels
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Sample Name Location ID Sample Date				**07FW-DB01-Adj** DB01 7/30/2007		**07FW-DB02-Adj** DB02 7/30/2007		**07FW-DB03-Adj** DB03 8/3/2007		**07FW-DB04-Adj** DB04 8/3/2007		**07FW-DB05-Adj** DB05 7/30/2007		**07FW-DB06-Adj** DB06 7/31/2007		**07FW-DB07-Adj** DB07 7/31/2007		**07FW-DB08-Adj** DB08 8/2/2007		**07FW-DB09-95UCL** DB09 8/1/2007	
Chemical Group	**Analyte**	**Units**	**Soil SL**																		
VOC	1,1,1,2-Tetrachloroethane	mg/kg	3	0.0034	U	0.0037	UJ	0.0060	U	0.0060	U	0.0040	UJ	0.0031	U	0.0032	U	0.0060	U	0.0060	U
VOC	1,1,1-Trichloroethane	mg/kg	1385	0.0037	U	0.0040	UJ	0.0066	U	0.0066	U	0.0044	UJ	0.0034	U	0.0035	U	0.0066	U	0.0066	U
VOC	1,1,2,2-Tetrachloroethane	mg/kg	0.38	0.0032	U	0.0035	UJ	0.0058	U	0.0058	U	0.0038	UJ	0.0030	U	0.0031	U	0.0058	U	0.0058	U
VOC	1,1,2-Trichloroethane	mg/kg	0.84	0.0031	U	0.0034	UJ	0.0056	U	0.0056	U	0.0037	UJ	0.0029	U	0.0030	U	0.0056	U	0.0056	U
VOC	1,1-Dichloroethane	mg/kg	85	0.0032	U	0.0035	UJ	0.0057	U	0.0057	U	0.0038	UJ	0.0030	U	0.0030	U	0.0057	U	0.0057	U
VOC	1,1-Dichloroethene	mg/kg	28	0.0049	U	0.0053	UJ	0.0087	U	0.0087	U	0.0058	UJ	0.0045	U	0.0046	U	0.0088	U	0.0088	U
VOC	1,1-Dichloropropene	mg/kg	--	0.0025	U	0.0027	UJ	0.0044	U	0.0044	U	0.0029	UJ	0.0023	U	0.0023	U	0.0044	U	0.0044	U
VOC	1,2,3-Trichlorobenzene	mg/kg	--	0.0035	U	0.0038	UJ	0.0063	U	0.0063	U	0.0042	UJ	0.0033	U	0.0033	U	0.0063	U	0.0063	U
VOC	1,2,3-Trichloropropane	mg/kg	0.32	0.028	U	0.031	UJ	0.051	U	0.051	U	0.034	UJ	0.026	U	0.027	U	0.051	U	0.051	U
VOC	1,2,4-Trichlorobenzene	mg/kg	14	0.0041	U	0.0045	UJ	0.0073	U	0.0073	U	0.026	U	0.0038	U	0.0039	U	0.0073	U	0.0073	U
VOC	1,2,4-Trimethylbenzene	mg/kg	5.7	0.0020	U	0.0022	UJ	0.0036	U	0.0036	U	0.0024	UJ	0.0018	U	0.0019	U	0.0036	U	0.0036	U
VOC	1,2-Dibromo-3-chloropropane	mg/kg	0.0026	0.028	U	0.031	UJ	0.051	U	0.051	U	0.034	UJ	0.026	U	0.027	U	0.051	U	0.051	U
VOC	1,2-Dibromoethane	mg/kg	0.028	0.0031	U	0.0033	UJ	0.0055	U	0.0055	U	0.0036	UJ	0.0028	U	0.0029	U	0.0055	U	0.0055	U
VOC	1,2-Dichlorobenzene	mg/kg	28	0.0022	U	0.0024	UJ	0.0040	U	0.0040	U	0.040	U	0.0021	U	0.0021	U	0.0040	U	0.0040	U
VOC	1,2-Dichloroethane	mg/kg	0.35	0.0027	U	0.0029	UJ	0.0048	U	0.0048	U	0.0032	UJ	0.0025	U	0.0025	U	0.0048	U	0.0048	U
VOC	1,2-Dichloropropane	mg/kg	0.35	0.0027	U	0.0029	UJ	0.0048	U	0.0048	U	0.0032	UJ	0.0025	U	0.0025	U	0.0048	U	0.0048	U
VOC	1,3,5-Trimethylbenzene	mg/kg	2.1	0.0020	U	0.0022	UJ	0.0036	U	0.0036	U	0.0024	UJ	0.0018	U	0.0019	U	0.0036	U	0.0036	U
VOC	1,3-Dichlorobenzene	mg/kg	6.9	0.0019	U	0.0020	UJ	0.0034	U	0.0034	U	0.037	U	0.0017	U	0.0018	U	0.0034	U	0.0034	U
VOC	1,3-Dichloropropane	mg/kg	11	0.0026	U	0.0028	UJ	0.0046	U	0.0046	U	0.0030	UJ	0.0024	U	0.0024	U	0.0046	U	0.0046	U
VOC	1,4-Dichlorobenzene	mg/kg	3.2	0.0021	U	0.0022	UJ	0.0037	U	0.0037	U	0.042	U	0.0019	U	0.0019	U	0.0037	U	0.0037	U
VOC	2,2-Dichloropropane	mg/kg	--	0.0025	U	0.0027	UJ	0.0044	U	0.0044	U	0.0029	UJ	0.0023	U	0.0023	U	0.0044	U	0.0044	U
VOC	2-Butanone	mg/kg	3209	0.015	U	0.016	UJ	0.026	U	0.026	U	0.018	UJ	0.014	U	0.014	U	0.027	U	0.065	
VOC	2-Chlorotoluene	mg/kg	16	0.0021	U	0.0022	UJ	0.0037	U	0.0037	U	0.0024	UJ	0.0019	U	0.0019	U	0.0037	U	0.0037	U
VOC	2-Hexanone	mg/kg	--	0.0039	U	0.0042	U	0.0069	U	0.0069	U	0.0046	U	0.0036	U	0.0037	U	0.0069	U	0.0069	U
VOC	4-Chlorotoluene	mg/kg	--	0.0016	U	0.0017	UJ	0.0028	U	0.0028	U	0.0019	UJ	0.0015	U	0.0015	U	0.0029	U	0.0029	U
VOC	4-Isopropyltoluene	mg/kg	--	0.0024	U	0.13	J-	0.0043	U	0.0043	U	0.0028	UJ	0.0022	U	0.0023	U	0.0043	U	0.0043	U
VOC	4-Methyl-2-pentanone	mg/kg	580	0.0070	U	0.0076	UJ	0.013	U	0.013	U	0.0083	UJ	0.0065	U	0.0066	U	0.013	U	0.013	U
VOC	Acetone	mg/kg	1415	0.23	J+	0.28	J+	0.10	U	0.23	J+	0.067	UJ	0.22	J+	0.054	U	0.10	U	0.24	
VOC	Benzene	mg/kg	0.66	0.0039	J	0.0020	UJ	0.0034	U	0.0034	U	0.0022	UJ	0.0045	J+	0.0051	J	0.0034	U	0.0058	
VOC	Bromobenzene	mg/kg	7.3	0.0053	U	0.0058	UJ	0.0095	U	0.0095	U	0.0063	UJ	0.0049	U	0.0050	U	0.0095	U	0.0095	U
VOC	Bromochloromethane	mg/kg	--	0.0042	U	0.0045	UJ	0.0074	U	0.0074	U	0.0049	UJ	0.0038	U	0.0039	U	0.0074	U	0.0074	U
VOC	Bromodichloromethane	mg/kg	1	0.0028	U	0.0031	UJ	0.0051	U	0.0051	U	0.0034	UJ	0.0026	U	0.0027	U	0.0051	U	0.0051	U
VOC	Bromoform	mg/kg	62	0.0063	U	0.0068	UJ	0.011	U	0.011	U	0.0074	UJ	0.0058	U	0.0059	U	0.011	U	0.011	U
VOC	Bromomethane	mg/kg	0.87	0.012	U	0.013	UJ	0.021	U	0.021	U	0.014	UJ	0.011	U	0.011	U	0.021	U	0.021	U
VOC	Carbon disulfide	mg/kg	721	0.0063	U	0.0068	U	0.011	U	0.011	U	0.0074	U	0.0058	U	0.0059	U	0.011	U	0.011	U
VOC	Carbon tetrachloride	mg/kg	0.24	0.0034	U	0.0037	UJ	0.0060	U	0.0060	U	0.0040	UJ	0.0031	U	0.0032	U	0.0060	U	0.0060	U
VOC	Chlorobenzene	mg/kg	27	0.0025	U	0.0027	UJ	0.0045	U	0.0045	U	0.0030	UJ	0.0023	U	0.0024	U	0.0045	U	0.0045	U
VOC	Chloroethane	mg/kg	3	0.0086	UJ	0.0093	UJ	0.015	U	0.015	U	0.010	UJ	0.0079	UJ	0.0081	UJ	0.015	U	0.015	U
VOC	Chloroform	mg/kg	0.25	0.0015	U	0.0016	UJ	0.0026	U	0.0026	U	0.0018	UJ	0.0014	U	0.0014	U	0.0027	U	0.0027	U
VOC	Chloromethane	mg/kg	11	0.0063	U	0.0068	UJ	0.011	U	0.011	U	0.0076	J+	0.0058	U	0.0059	U	0.011	U	0.011	U
VOC	cis-1,2-Dichloroethene	mg/kg	4.3	0.0047	U	0.0051	UJ	0.0083	U	0.0083	U	0.0055	UJ	0.0043	U	0.0044	U	0.0084	U	0.0084	U
VOC	cis-1,3-Dichloropropene	mg/kg	0.7	0.0023	U	0.0025	UJ	0.0042	U	0.0042	U	0.0028	UJ	0.0022	U	0.0022	U	0.0042	U	0.0042	U
VOC	Dibromochloromethane	mg/kg	1	0.0036	U	0.0039	UJ	0.0064	U	0.0064	U	0.0042	UJ	0.0033	U	0.0034	U	0.0064	U	0.0064	U
VOC	Dibromomethane	mg/kg	14	0.0037	U	0.0040	UJ	0.0066	U	0.0066	U	0.0044	UJ	0.0034	U	0.0035	U	0.0066	U	0.0066	U
VOC	Dichlorodifluoromethane	mg/kg	9.4	0.0054	U	0.0058	UJ	0.0096	U	0.0096	U	0.0063	UJ	0.0050	U	0.0051	U	0.0096	U	0.0096	U
VOC	Ethylbenzene	mg/kg	234	0.0038	U	0.0041	UJ	0.0067	U	0.0067	U	0.0044	UJ	0.0035	U	0.0036	U	0.0067	U	0.0068	
VOC	Hexachlorobutadiene	mg/kg	6.2	0.0063	U	0.0068	UJ	0.011	U	0.011	U	0.031	U	0.0058	U	0.0059	U	0.011	U	0.011	U
VOC	Isopropylbenzene	mg/kg	37	9.70E-04	U	0.0011	UJ	0.0017	U	0.0017	U	0.0011	UJ	9.00E-04	U	9.20E-04	U	0.0017	U	0.0017	U
VOC	m,p-Xylene	mg/kg	214	0.0028	U	0.0031	UJ	0.0051	U	0.0051	U	0.0034	UJ	0.0028	J+	0.0027	U	0.0063	J+	0.0051	U
VOC	Methylene chloride	mg/kg	8.9	0.0031	U	0.0033	UJ	0.0055	U	0.0055	U	0.0036	UJ	0.0028	U	0.0029	U	0.0055	U	0.0055	U
VOC	Methyl-tert-butyl ether (MTBE)	mg/kg	32	0.0021	U	0.0022	UJ	0.0037	U	0.0037	U	0.0024	UJ	0.0019	U	0.0019	U	0.0037	U	0.0037	U
VOC	n-Butylbenzene	mg/kg	14	0.0028	U	0.0030	UJ	0.0050	U	0.0050	U	0.0033	UJ	0.0026	U	0.0026	U	0.0050	U	0.0050	U
VOC	n-Propylbenzene	mg/kg	14	0.0027	U	0.0029	UJ	0.0048	U	0.0048	U	0.0032	UJ	0.0025	U	0.0025	U	0.0048	U	0.0048	U
VOC	o-Xylene	mg/kg	282	0.0030	U	0.0032	UJ	0.0053	U	0.0053	U	0.0035	UJ	0.0027	U	0.0028	U	0.0053	U	0.0053	U

TABLE D-1
95UCL-Adjusted Sample Results for Sound Berm Samples Compared to Screening Levels
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Sample Name				**07FW-DB01-Adj**		**07FW-DB02-Adj**		**07FW-DB03-Adj**		**07FW-DB04-Adj**		**07FW-DB05-Adj**		**07FW-DB06-Adj**		**07FW-DB07-Adj**		**07FW-DB08-Adj**		**07FW-DB09-95UCL**	
Location ID				DB01		DB02		DB03		DB04		DB05		DB06		DB07		DB08		DB09	
Sample Date				7/30/2007		7/30/2007		8/3/2007		8/3/2007		7/30/2007		7/31/2007		7/31/2007		8/2/2007		8/1/2007	
Chemical Group	**Analyte**	**Units**	**Soil SL**																		
VOC	sec-Butylbenzene	mg/kg	11	0.0014	U	0.0015	UJ	0.0024	U	0.0024	U	0.0016	UJ	0.0013	U	0.0013	U	0.0024	U	0.0024	U
VOC	Styrene	mg/kg	1734	0.0018	U	0.0019	UJ	0.0032	U	0.0032	U	0.0021	UJ	0.0016	U	0.0017	U	0.0032	U	0.0032	U
VOC	tert-Butylbenzene	mg/kg	13	0.0023	U	0.0025	UJ	0.0042	U	0.0042	U	0.0028	UJ	0.0022	U	0.0022	U	0.0042	U	0.0042	U
VOC	Tetrachloroethene (PCE)	mg/kg	0.55	0.0024	U	0.0026	UJ	0.0043	U	0.0043	U	0.0028	UJ	0.0022	U	0.0023	U	0.0043	U	0.0043	U
VOC	Toluene	mg/kg	521	0.0026	U	0.039	J-	0.022	J+	0.023	J+	0.0030	UJ	0.0024	U	0.0024	U	0.028	J+	0.027	
VOC	trans-1,2-Dichloroethene	mg/kg	12	0.0035	U	0.0038	UJ	0.0063	U	0.0063	U	0.0042	UJ	0.0033	U	0.0033	U	0.0063	U	0.0063	U
VOC	trans-1,3-Dichloropropene	mg/kg	0.7	0.0026	U	0.0028	UJ	0.0046	U	0.0046	U	0.0030	UJ	0.0024	U	0.0024	U	0.0046	U	0.0046	U
VOC	Trichloroethene (TCE)	mg/kg	0.043	0.0031	U	0.0034	UJ	0.0056	U	0.0056	U	0.0037	UJ	0.0029	U	0.0030	U	0.0056	U	0.0056	U
VOC	Trichlorofluoromethane	mg/kg	39	0.0028	U	0.0030	UJ	0.0050	U	0.0050	U	0.0033	UJ	0.0026	U	0.0026	U	0.0050	U	0.0050	U
VOC	Vinyl chloride	mg/kg	0.043	0.0040	U	0.0044	UJ	0.0072	U	0.0072	U	0.0048	UJ	0.0037	U	0.0038	U	0.0072	U	0.0072	U
TPH	TPH-Diesel (DRO)	mg/kg	1025	6.9		8.5		6.3	J-	7.3	J-	7.8		8.3		11		10	J-	9.4	
TPH	TPH-Gasoline (GRO)	mg/kg	140	1.4	U	1.6	U	1.7	U	1.4	U	1.7	U	1.3	U	1.3	U	1.9	U	1.6	U
TPH	TPH-Motor Oil (RRO)	mg/kg	1000	42	J-	52	J-	34	J-	40	J-	70	J-	58	J-	59	J-	51	J-	50	
SVOC	2,4,5-Trichlorophenol	mg/kg	611	0.040	U	0.035	U	0.036	U	0.037	U	0.034	U	0.037	U	0.036	U	0.036	U	0.037	UJ
SVOC	2,4,6-Trichlorophenol	mg/kg	44	0.059	U	0.051	U	0.053	U	0.055	U	0.050	U	0.055	U	0.053	U	0.054	U	0.055	UJ
SVOC	2,4-Dichlorophenol	mg/kg	18	0.023	U	0.020	U	0.021	U	0.022	U	0.020	U	0.022	U	0.021	U	0.021	U	0.022	U
SVOC	2,4-Dimethylphenol	mg/kg	122	0.19	U	0.16	U	0.17	U	0.17	U	0.16	U	0.17	U	0.17	U	0.17	U	0.17	U
SVOC	2,4-Dinitrophenol	mg/kg	12	0.73	U	0.63	U	0.66	U	0.68	U	0.63	U	0.68	U	0.66	U	0.67	U	--	
SVOC	2-Chloronaphthalene	mg/kg	386	0.021	U	0.018	U	0.019	U	0.020	U	0.018	U	0.020	U	0.019	U	0.019	U	0.020	UJ
SVOC	2-Chlorophenol	mg/kg	6.4	0.024	U	0.021	U	0.022	U	0.023	U	0.021	U	0.023	U	0.022	U	0.022	U	0.023	U
SVOC	2-Methyl-4,6-dinitrophenol	mg/kg	--	0.73	U	0.63	U	0.66	U	0.68	U	0.63	U	0.68	U	0.66	U	0.67	U	--	
SVOC	2-Methylphenol (o-Cresol)	mg/kg	31	0.064	U	0.056	U	0.058	U	0.060	U	0.055	U	0.060	U	0.058	U	0.059	U	0.060	U
SVOC	2-Nitroaniline	mg/kg	18	0.050	U	0.043	U	0.045	U	0.047	U	0.043	U	0.046	U	0.045	U	0.045	U	0.046	UJ
SVOC	2-Nitrophenol	mg/kg	--	0.033	U	0.029	U	0.030	U	0.031	U	0.028	U	0.031	U	0.030	U	0.030	U	0.031	U
SVOC	3,3'-Dichlorobenzidine	mg/kg	1.1	0.37	U	0.32	U	0.33	U	0.34	U	0.31	U	0.34	U	0.33	U	0.33	U	0.34	UJ
SVOC	3-Nitroaniline	mg/kg	--	0.19	U	0.16	U	0.17	U	0.17	U	0.16	U	0.17	U	0.17	U	0.17	U	0.17	UJ
SVOC	4-Bromophenyl phenyl ether	mg/kg	--	0.026	U	0.022	U	0.023	U	0.024	U	0.022	U	0.024	U	0.023	U	0.023	U	0.024	UJ
SVOC	4-Chloro-3-methylphenol	mg/kg	--	0.016	U	0.013	U	0.014	U	0.015	U	0.013	U	0.014	U	0.014	U	0.014	U	0.014	U
SVOC	4-Chloroaniline	mg/kg	24	0.064	U	0.056	U	0.058	U	0.060	U	0.055	U	0.060	U	0.058	U	0.059	U	0.060	U
SVOC	4-Chlorophenyl phenyl ether	mg/kg	--	0.016	U	0.013	U	0.014	U	0.015	U	0.013	U	0.014	U	0.014	U	0.014	U	0.014	UJ
SVOC	4-Nitroaniline	mg/kg	--	0.041	U	0.036	U	0.037	U	0.038	U	0.035	U	0.038	U	0.037	U	0.037	U	0.038	UJ
SVOC	4-Nitrophenol	mg/kg	49	0.0012	U	0.0012	U	5.90E-04	U	5.60E-04	U	5.60E-04	U	6.00E-04	U	5.70E-04	U	6.00E-04	U	5.60E-04	U
SVOC	Benzoic acid	mg/kg	100000	0.19	U	0.16	U	0.17	U	0.17	U	0.16	U	0.17	U	0.17	U	0.17	U	0.17	U
SVOC	Benzyl alcohol	mg/kg	1833	0.19	UJ	0.16	UJ	0.17	U	0.18	U	0.16	U	0.18	U	0.17	U	0.17	U	0.18	U
SVOC	Benzyl butyl phthalate	mg/kg	240	0.021	U	0.018	U	0.019	U	0.020	U	0.018	U	0.020	U	0.019	U	0.019	U	0.020	UJ
SVOC	bis-(2-Chloroethoxy)methane	mg/kg	--	0.024	U	0.021	U	0.022	U	0.023	U	0.021	U	0.023	U	0.022	U	0.022	U	0.023	U
SVOC	bis-(2-Chloroethyl)ether	mg/kg	0.21	0.036	U	0.031	U	0.032	U	0.033	U	0.030	U	0.033	U	0.032	U	0.032	U	0.033	U
SVOC	bis(2-Chloroisopropyl)ether	mg/kg	2.9	0.036	U	0.031	U	0.032	U	0.033	U	0.030	U	0.033	U	0.032	U	0.032	U	0.033	UJ
SVOC	bis-(2-Ethylhexyl)phthalate	mg/kg	35	0.027	U	0.023	U	0.024	U	0.071	J	0.023	U	0.025	U	0.024	U	0.024	U	0.068	
SVOC	Carbazole	mg/kg	24	0.061	U	0.053	U	0.055	U	0.057	U	0.052	U	0.057	U	0.055	U	0.056	U	0.057	UJ
SVOC	Dibenzofuran	mg/kg	15	0.020	U	0.017	U	0.018	U	0.019	U	0.017	U	0.019	U	0.018	U	0.018	U	0.019	UJ
SVOC	Diethyl phthalate	mg/kg	4888	0.022	U	0.019	U	0.020	U	0.021	U	0.019	U	0.021	U	0.020	U	0.020	U	0.021	UJ
SVOC	Dimethyl phthalate	mg/kg	100000	0.026	U	0.022	U	0.023	U	0.024	U	0.022	U	0.024	U	0.023	U	0.023	U	0.024	UJ
SVOC	Di-n-butyl phthalate	mg/kg	611	0.029	U	0.025	U	0.026	U	0.027	U	0.025	U	0.027	U	0.026	U	0.026	U	0.027	UJ
SVOC	Di-n-octyl phthalate	mg/kg	200	0.027	U	0.023	U	0.024	U	0.025	U	0.023	U	0.025	U	0.024	U	0.024	U	0.025	UJ
SVOC	Hexachlorobenzene	mg/kg	0.3	0.019	U	0.016	U	0.017	U	0.018	U	0.016	U	0.018	U	0.017	U	0.017	U	0.018	UJ
SVOC	Hexachloroethane	mg/kg	35	0.051	U	0.044	U	0.046	U	0.048	U	0.044	U	0.048	U	0.046	U	0.046	U	0.047	U
SVOC	Isophorone	mg/kg	512	0.019	U	0.016	U	0.017	U	0.018	U	0.016	U	0.018	U	0.017	U	0.017	U	0.018	U
SVOC	m,p-Cresol	mg/kg	--	0.37	U	0.32	U	0.33	U	0.34	U	0.31	U	0.34	U	0.33	U	0.33	U	0.34	U
SVOC	n-Nitrosodimethylamine	mg/kg	0.0023	0.042	U	0.037	U	0.038	U	0.039	U	0.036	U	0.039	U	0.038	U	0.038	U	0.039	U
SVOC	n-Nitrosodi-n-propylamine	mg/kg	0.069	0.020	U	0.017	U	0.018	U	0.019	U	0.017	U	0.019	U	0.018	U	0.018	U	0.019	U
SVOC	n-Nitrosodiphenylamine	mg/kg	99	0.027	U	0.023	U	0.024	U	0.025	U	0.023	U	0.025	U	0.024	U	0.024	U	0.025	UJ
SVOC	Pentachlorophenol	mg/kg	3	0.0019	U	0.0020	U	9.30E-04	U	8.90E-04	U	8.90E-04	U	9.40E-04	U	9.00E-04	U	9.50E-04	U	9.00E-04	U
SVOC	Phenol	mg/kg	1833	0.021	U	0.018	U	0.019	U	0.020	U	0.018	U	0.020	U	0.019	U	0.019	U	0.020	U

TABLE D-1
95UCL-Adjusted Sample Results for Sound Berm Samples Compared to Screening Levels
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Sample Name				**07FW-DB01-Adj**		**07FW-DB02-Adj**		**07FW-DB03-Adj**		**07FW-DB04-Adj**		**07FW-DB05-Adj**		**07FW-DB06-Adj**		**07FW-DB07-Adj**		**07FW-DB08-Adj**		**07FW-DB09-95UCL**	
Location ID				DB01		DB02		DB03		DB04		DB05		DB06		DB07		DB08		DB09	
Sample Date				7/30/2007		7/30/2007		8/3/2007		8/3/2007		7/30/2007		7/31/2007		7/31/2007		8/2/2007		8/1/2007	
Chemical Group	**Analyte**	**Units**	**Soil SL**																		
PEST	4,4'-DDD	mg/kg	2.4	0.013		0.011	J	0.010	J	0.016		0.013		0.011	J	0.012		0.032	J	0.059	
PEST	4,4'-DDE	mg/kg	1.7	0.016		0.014		0.014		0.024		0.038		0.023		0.024		0.039	J	0.060	
PEST	4,4'-DDT	mg/kg	1.7	0.26		0.25		0.26	J-	0.27	J-	0.33		0.28		0.28		0.45		0.66	
PEST	Aldrin	mg/kg	0.029	2.30E-04	U	1.90E-04	U	2.10E-04	U	2.10E-04	U	2.10E-04	U	2.10E-04	U	2.10E-04	U	0.0022	U	0.0043	U
PEST	alpha-BHC	mg/kg	0.09	2.40E-04	U	2.00E-04	U	2.20E-04	U	2.20E-04	U	2.20E-04	U	2.20E-04	U	2.10E-04	U	0.0023	U	0.0045	U
PEST	alpha-Chlordane	mg/kg	1.6	2.20E-04	U	1.80E-04	U	2.00E-04	U	0.0030		2.00E-04	U	9.40E-04	J	2.00E-04	U	0.0021	U	0.0041	U
PEST	beta-BHC	mg/kg	0.32	3.50E-04	U	3.00E-04	U	3.40E-04	U	3.40E-04	U	3.40E-04	U	3.30E-04	U	3.20E-04	U	0.0035	U	0.0067	U
PEST	delta-BHC	mg/kg	--	1.70E-04	U	1.40E-04	U	1.60E-04	U	1.60E-04	U	1.60E-04	U	1.60E-04	U	1.60E-04	U	0.0017	U	0.0033	U
PEST	Dieldrin	mg/kg	0.03	3.40E-04	U	2.90E-04	U	3.30E-04	U	0.0078	J	3.30E-04	U	3.20E-04	U	3.10E-04	U	0.0034	U	0.019	
PEST	Endosulfan I	mg/kg	37	1.50E-04	U	1.30E-04	U	1.40E-04	U	1.40E-04	U	1.40E-04	U	1.40E-04	U	1.40E-04	U	0.0015	U	0.0029	U
PEST	Endosulfan II	mg/kg	37	7.10E-04	U	5.90E-04	U	6.70E-04	U	6.70E-04	U	6.70E-04	U	6.50E-04	U	6.40E-04	U	0.0070	U	0.013	U
PEST	Endosulfan sulfate	mg/kg	--	2.40E-04	U	2.00E-04	U	2.20E-04	U	2.20E-04	U	2.20E-04	U	2.20E-04	U	2.10E-04	U	0.0023	U	0.0045	U
PEST	Endrin	mg/kg	1.8	2.60E-04	U	2.20E-04	U	2.40E-04	U	2.40E-04	U	2.40E-04	U	2.40E-04	U	2.30E-04	U	0.0025	U	0.0049	U
PEST	Endrin aldehyde	mg/kg	--	2.90E-04	U	2.40E-04	U	2.70E-04	U	2.70E-04	U	2.80E-04	U	2.70E-04	U	2.60E-04	U	0.0028	U	0.0055	U
PEST	Endrin ketone	mg/kg	--	3.70E-04	U	3.10E-04	U	3.50E-04	U	3.50E-04	U	3.50E-04	U	3.40E-04	U	3.30E-04	U	0.0036	U	0.0069	U
PEST	gamma-BHC (Lindane)	mg/kg	0.44	1.80E-04	U	1.50E-04	U	1.70E-04	U	1.70E-04	U	1.70E-04	U	1.70E-04	U	1.70E-04	U	0.0018	U	0.0035	U
PEST	gamma-Chlordane	mg/kg	--	3.50E-04	U	3.00E-04	U	3.40E-04	U	0.0027		3.40E-04	U	8.90E-04	J	3.20E-04	U	0.0035	U	0.0067	U
PEST	Heptachlor	mg/kg	0.11	2.00E-04	U	1.70E-04	U	1.90E-04	U	1.90E-04	U	1.90E-04	U	1.90E-04	U	1.90E-04	U	0.0020	U	0.0039	U
PEST	Heptachlor epoxide	mg/kg	0.053	1.30E-04	U	1.10E-04	U	1.20E-04	U	8.60E-04	J	9.50E-04	J	3.90E-04	J	3.60E-04	J	0.0013	U	0.0024	U
PEST	Methoxychlor	mg/kg	31	0.0014	U	0.0012	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.014	U	0.027	U
PEST	Toxaphene	mg/kg	0.44	0.023	U	0.024	U	0.020	U	0.020	U	0.020	UJ	0.021	UJ	0.020	UJ	0.21	U	0.41	U
PCB	PCB-1016 (Aroclor 1016)	mg/kg	1	0.0088	UJ	0.0082	UJ	0.0084	U	0.0084	U	0.0081	U	0.0083	U	0.0080	U	0.0087	U	0.0088	U
PCB	PCB-1221 (Aroclor 1221)	mg/kg	1	0.011	UJ	0.010	UJ	0.011	U	0.011	U	0.010	U	0.011	U	0.010	U	0.011	U	0.011	U
PCB	PCB-1232 (Aroclor 1232)	mg/kg	1	0.0088	UJ	0.0082	UJ	0.0084	U	0.0084	U	0.0081	U	0.0083	U	0.0080	U	0.0087	U	0.0088	U
PCB	PCB-1242 (Aroclor 1242)	mg/kg	1	0.0088	UJ	0.0082	UJ	0.0084	U	0.0084	U	0.0081	U	0.0083	U	0.0080	U	0.0087	U	0.0088	U
PCB	PCB-1248 (Aroclor 1248)	mg/kg	1	0.0088	UJ	0.0082	UJ	0.0084	U	0.0084	U	0.0081	U	0.0083	U	0.0080	U	0.0087	U	0.0088	U
PCB	PCB-1254 (Aroclor 1254)	mg/kg	1	0.0088	UJ	0.0082	UJ	0.0084	U	0.0084	U	0.0081	U	0.0083	U	0.0080	U	0.0087	U	0.0088	U
PCB	PCB-1260 (Aroclor 1260)	mg/kg	1	0.0088	UJ	0.0082	UJ	0.0084	U	0.040		0.087		0.057		0.036	J	0.042		0.047	
PCB	PCB-1262 (Aroclor 1262)	mg/kg	1	0.012	UJ	0.011	UJ	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.012	U	0.012	U
PCB	PCB-1268 (Aroclor 1268)	mg/kg	1	0.012	UJ	0.011	UJ	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.012	U	0.012	U
PAH	2-Methylnaphthalene	mg/kg	203	0.060	U	0.052	U	0.054	U	0.056	U	0.051	U	0.056	U	0.054	U	0.055	U	0.056	U
PAH	Acenaphthene	mg/kg	368	0.021	U	0.018	U	0.019	U	0.020	U	0.018	U	0.020	U	0.019	U	0.019	U	0.020	UJ
PAH	Acenaphthylene	mg/kg	610	0.019	U	0.016	U	0.017	U	0.018	U	0.016	U	0.018	U	0.017	U	0.017	U	0.018	UJ
PAH	Anthracene	mg/kg	2190	0.030	U	0.026	U	0.027	U	0.028	U	0.026	U	0.028	U	0.027	U	0.027	U	0.028	UJ
PAH	Benzo(a)anthracene	mg/kg	0.15	0.019	U	0.016	U	0.017	U	0.025	J	0.016	U	0.020	J	0.017	U	0.017	U	0.018	UJ
PAH	Benzo(a)pyrene	mg/kg	0.015	0.022	UJ	0.019	U	0.020	U	**0.030**	**J**	0.019	U	**0.029**	**J**	0.020	U	0.020	U	0.021	UJ
PAH	Benzo(b)fluoranthene	mg/kg	0.15	0.028	UJ	0.024	U	0.025	U	0.026	U	0.024	U	0.026	U	0.025	U	0.025	U	0.026	UJ
PAH	Benzo(g,h,i)perylene	mg/kg	300	0.10	J+	0.021	U	0.022	U	0.023	U	0.021	U	0.023	U	0.022	U	0.022	U	0.023	U
PAH	Benzo(k)fluoranthene	mg/kg	1.5	0.016	UJ	0.013	U	0.014	U	0.027	J	0.013	U	0.018	J	0.014	U	0.014	U	0.014	UJ
PAH	Chrysene	mg/kg	15	0.093	U	0.081	U	0.084	U	0.087	U	0.080	U	0.087	U	0.085	U	0.085	U	0.087	UJ
PAH	Dibenzo(a,h)anthracene	mg/kg	0.015	0.019	UJ	0.016	U	0.017	U	0.018	U	0.016	U	0.018	U	0.017	U	0.017	U	0.018	UJ
PAH	Fluoranthene	mg/kg	229	0.033	U	0.029	U	0.030	U	0.035	J	0.028	U	0.031	U	0.030	U	0.030	U	0.031	UJ
PAH	Fluorene	mg/kg	264	0.017	U	0.014	U	0.015	U	0.016	U	0.014	U	0.015	U	0.015	U	0.015	U	0.015	UJ
PAH	Indeno(1,2,3-cd)pyrene	mg/kg	0.15	0.026	UJ	0.022	U	0.023	U	0.024	U	0.022	U	0.024	U	0.023	U	0.023	U	0.024	UJ
PAH	Naphthalene	mg/kg	12	0.0071	J	0.0029	UJ	0.0048	U	0.0048	U	0.028	U	0.0025	U	0.0025	U	0.0048	U	0.0048	U
PAH	Phenanthrene	mg/kg	3000	0.025	J	0.015	U	0.016	U	0.035	J	0.015	U	0.017	U	0.016	U	0.016	U	0.016	UJ
PAH	Pyrene	mg/kg	231	0.023	U	0.020	U	0.021	U	0.037	J	0.020	U	0.039	J	0.021	U	0.021	U	0.022	UJ
METALS	Aluminum	mg/kg	7733	**9,072**		**9,792**		**9,002**		**8,892**		**9,162**		**9,232**		**9,132**		**9,042**		**9,799**	
METALS	Antimony	mg/kg	3.1	1.2		1.2		1.3		1.2		1.3		1.5		1.4		1.3		1.7	
METALS	Arsenic	mg/kg	8.46	7.6		8.3		7.9		8.0		8.5		8.3		8.3		7.9		**8.5**	
METALS	Barium	mg/kg	1564	103		114		114		113		116		108		109		107		119	
METALS	Beryllium	mg/kg	16	0.13	J	0.14	J	0.14	J	0.14	J	0.14	J	0.14	J	0.14	J	0.24		0.17	
METALS	Boron	mg/kg	1562	0.75	U	0.78	U	0.66	U	0.66	U	0.66	U	0.67	U	0.66	U	1.2	J	0.95	
METALS	Cadmium	mg/kg	3.9	0.15		0.16		0.16		0.16		0.17		0.17		0.19		0.21		0.21	

TABLE D-1
95UCL-Adjusted Sample Results for Sound Berm Samples Compared to Screening Levels
Former Communications Site, Fort Wainwright, Alaska
Preliminary Risk Screening Evaluation Report

Sample Name Location ID Sample Date				**07FW-DB01-Adj** DB01 7/30/2007		**07FW-DB02-Adj** DB02 7/30/2007		**07FW-DB03-Adj** DB03 8/3/2007		**07FW-DB04-Adj** DB04 8/3/2007		**07FW-DB05-Adj** DB05 7/30/2007		**07FW-DB06-Adj** DB06 7/31/2007		**07FW-DB07-Adj** DB07 7/31/2007		**07FW-DB08-Adj** DB08 8/2/2007		**07FW-DB09-95UCL** DB09 8/1/2007	
Chemical Group	**Analyte**	**Units**	**Soil SL**																		
METALS	Calcium	mg/kg	--	6,451		6,721		6,261		6,171		6,291		6,311		6,381		6,161		6,731	
METALS	Chromium	mg/kg	211	18		21		19		19		19		19		19		18		19	
METALS	Cobalt	mg/kg	903	8.7		9.7		9.3		9.3		9.5		9.3		9.2		8.2		9.0	
METALS	Copper	mg/kg	291	23		26		23		22		23		23		23		22		25	
METALS	Iron	mg/kg	5475	**19,879**		**20,779**		**19,179**		**19,179**		**19,579**		**19,979**		**19,279**		**18,979**		**20,212**	
METALS	Lead	mg/kg	400	8.4		9.4		8.2		8.6		11		14		15		11		15	
METALS	Magnesium	mg/kg	--	5,539		5,939		5,409		5,319		5,419		5,529		5,509		5,349		5,719	
METALS	Manganese	mg/kg	347	314		345		331		328		335		331		337		323		345	
METALS	Mercury	mg/kg	--	0.033	J-	0.068	J-	0.046		0.034		0.042		0.035		0.037		0.035		0.040	
METALS	Nickel	mg/kg	156	21		23		21		21		22		21		21		19		21	
METALS	Potassium	mg/kg	--	950		1,014		946		945		977		982		985		941		1,043	
METALS	Selenium	mg/kg	39	0.39		0.44		0.41		0.41		0.42		0.40		0.40		0.43		0.43	
METALS	Silver	mg/kg	39	0.080		0.090		0.094		0.087		0.087		0.091		0.10		0.082		0.10	
METALS	Sodium	mg/kg	--	383		409		382		375		380		382		374		356		397	
METALS	Thallium	mg/kg	5.5	0.048	J	0.062	J	0.054	J	0.054	J	0.061	J	0.056	J	0.057	J	0.061	J	0.059	
METALS	Vanadium	mg/kg	39	35		**40**		34		35		35		34		35		33		34	
METALS	Zinc	mg/kg	2346	33		36		34		35		36		35		35		40		44	
HERB	2,4,5-T	mg/kg	61	5.90E-04	U	6.00E-04	U	2.90E-04	U	2.70E-04	U	2.70E-04	U	2.90E-04	U	2.80E-04	U	2.90E-04	U	2.80E-04	U
HERB	2,4,5-TP (Silvex)	mg/kg	49	0.0022	U	0.0022	U	0.0011	U	0.0010	U	0.0010	U	0.0011	U	0.0010	U	0.0011	U	0.0010	U
HERB	2,4-D	mg/kg	69	8.30E-04	U	8.40E-04	U	4.00E-04	U	3.80E-04	U	3.80E-04	U	4.10E-04	U	3.90E-04	U	4.10E-04	U	3.90E-04	U
HERB	2,4-DB	mg/kg	49	0.0017	U	0.0017	U	8.20E-04	U	7.90E-04	U	7.90E-04	U	8.30E-04	U	8.00E-04	U	8.40E-04	U	7.90E-04	U
HERB	Dalapon	mg/kg	183	0.0049	UJ	0.0050	UJ	0.0024	U	0.0023	U	0.0023	UJ	0.0024	UJ	0.0023	UJ	0.0024	U	0.0023	UJ
HERB	Dicamba	mg/kg	183	9.70E-04	U	9.90E-04	U	4.70E-04	U	4.50E-04	U	4.50E-04	U	4.80E-04	U	4.60E-04	U	4.80E-04	U	4.50E-04	U
HERB	Dichlorprop	mg/kg	--	0.0015	U	0.0016	U	7.50E-04	U	7.10E-04	U	7.10E-04	UJ	7.60E-04	UJ	7.20E-04	UJ	7.60E-04	U	7.20E-04	U
HERB	Dinoseb	mg/kg	6.1	0.0024	U	0.0025	U	0.0012	U	0.0011	U	0.0011	U	0.0012	U	0.0011	U	0.0012	U	0.0011	U
HERB	MCPA (2-Methyl-4-chlorophenoxy acetic acid)	mg/kg	3.1	9.20E-04	U	9.40E-04	U	4.40E-04	U	4.30E-04	U	4.20E-04	U	4.50E-04	U	4.30E-04	U	4.50E-04	U	4.30E-04	U
HERB	MCPP (2-(2-methyl-4-chlorophenoxy) propanoic acid)	mg/kg	6.1	0.0011	U	0.0011	U	5.20E-04	U	5.00E-04	U	5.00E-04	U	5.30E-04	U	5.00E-04	U	5.30E-04	U	5.00E-04	U
EXP	1,3,5-Trinitrobenzene	mg/kg	183	0.0086	UJ	0.019	UJ	0.019	U	0.016	U	0.019	U	0.014	U	0.019	U	0.016	U	0.015	U
EXP	1,3-Dinitrobenzene	mg/kg	0.61	0.022	UJ	0.046	UJ	0.048	U	0.040	U	0.047	U	0.036	U	0.047	U	0.040	U	0.038	U
EXP	2,4,6-Trinitrotoluene	mg/kg	16	0.0086	UJ	0.019	UJ	0.019	U	0.016	U	0.019	U	0.014	U	0.019	U	0.016	U	0.015	U
EXP	2,4-Dinitrotoluene	mg/kg	12	0.023	U	0.020	U	0.019	U	0.016	U	0.019	U	0.014	U	0.019	U	0.016	U	0.015	U
EXP	2,6-Dinitrotoluene	mg/kg	6.1	0.033	U	0.029	U	0.029	U	0.024	U	0.028	U	0.022	U	0.028	U	0.024	U	0.023	U
EXP	2-Amino-4,6-dinitrotoluene	mg/kg	--	0.043	UJ	0.093	UJ	0.097	U	0.081	U	0.094	U	0.072	U	0.094	U	0.080	U	0.076	U
EXP	2-Nitrotoluene	mg/kg	2.8	0.034	UJ	0.074	UJ	0.078	U	0.065	U	0.075	U	0.058	U	0.075	U	0.064	U	0.061	U
EXP	3-Nitrotoluene	mg/kg	156	0.030	UJ	0.065	UJ	0.068	U	0.057	U	0.066	U	0.050	U	0.066	U	0.056	U	0.053	U
EXP	4-Amino-2,6-dinitrotoluene	mg/kg	--	0.0086	UJ	0.019	UJ	0.019	U	0.016	U	0.019	U	0.014	U	0.019	U	0.016	U	0.015	U
EXP	4-Nitrotoluene	mg/kg	40	0.034	UJ	0.074	UJ	0.078	U	0.065	U	0.075	U	0.058	U	0.075	U	0.064	U	0.061	U
EXP	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	mg/kg	4.4	0.017	UJ	0.037	UJ	0.039	U	0.032	U	0.038	U	0.029	U	0.038	U	0.032	U	0.030	U
EXP	Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	mg/kg	24	0.022	UJ	0.046	UJ	0.048	U	0.040	U	0.047	U	0.036	U	0.047	U	0.040	U	0.038	U
EXP	Nitrobenzene	mg/kg	2	0.084	U	0.073	U	0.048	U	0.040	U	0.047	U	0.036	U	0.047	U	0.040	U	0.038	U
EXP	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	mg/kg	306	0.013	UJ	0.028	UJ	0.029	U	0.024	U	0.028	U	0.022	U	0.028	U	0.024	U	0.023	U

Bold and shaded results exceed the screening level

EXP explosives
HERB herbicides
mg/kg milligrams per kilogram
PEST pesticides

SL screening level
SVO semi-volatile organic compound
TPH total petroleum hydrocarbons
VOC volatile organic compound