Revised Interim Draft

Remedial Investigation Work Plan

FWA 102 Former Communications Site
Fort Wainwright, Alaska

Prepared for

Department of the Army
U.S. Army Corps of Engineers,
Alaska District

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Abbreviations and Acronyms

°F	degrees Fahrenheit
AAC	*Alaska Administrative Code*
ADEC	Alaska Department of Environmental Conservation
ARAR	applicable or relevant and appropriate requirement
Army	U.S. Army Garrison, Alaska
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COPC	contaminant of potential concern
CRREL	Cold Regions Research and Engineering Laboratory
CSM	conceptual site model
DMM	discarded military munitions
DOD	U.S. Department of Defense
DPW	Directorate of Public Works
DQO	data quality objective
DRMO	Defense Reutilization Marketing Office
DRO	diesel-range organics
EOD	explosive ordnance device
ESQD	Explosive Safety Quantity Distance
EZ	Exclusion Zone
FCS	Former Communications Site
FFA	Federal Facilities Agreement
FS	Feasibility Study
GIS	geographic information system
GRO	gasoline range organics
GVEA	Golden Valley Electric Association
HE	high explosive

HTRW	hazardous, toxic, and radioactive waste
IDW	investigation-derived waste
LAAF	Ladd Army Airfield
LAFB	Ladd Air Force Base
MCL	maximum contaminant level
MD	munitions debris
MEC	munitions and explosives of concern
mg/kg	milligrams per kilogram
MGFD	Munitions with the Greatest Fragmentation Distance
MI	multi-increment
MRA	Munitions Response Area
MRS	Munitions Response Site
NOAA	National Oceanographic Atmospheric Administration
NWI	North Wind, Inc.
Oasis	Oasis Environmental, Inc.
OE	Ordnance and Explosives
PCB	polychlorinated biphenyl
PID	photoionization detector
POL	petroleum, oil, and lubricants
ppm	parts per million
PRGs	preliminary remediation goals
PSE	Preliminary Site Evaluation, Preliminary Source Evaluation
PX	Post Exchange
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
ROD	Record of Decision
RPM	Remedial Project Manager
RRO	residual-range organics
SAS	School Age Services

SVOC	semivolatile organic compound
PCE	tetrachloroethene
TCRA	Time Critical Removal Action
TPH	total petroleum hydrocarbon
U.S.	United States
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
UXO	unexploded ordnance
VOC	volatile organic compound

Executive Summary

This Work Plan has been prepared to guide the remedial investigation (RI) at the Former Communications Site (FCS), also known as Taku Gardens Family Housing development, on Fort Wainwright, Alaska. This Work Plan was prepared by CH2M HILL for the U.S. Army Corps of Engineers (USACE) under Task Order 0009 of Contract No. W911KB-05-D-0010. The USACE assigned this task order to CH2M HILL on April 5, 2007.

The FCS is the current site of the Taku Gardens Family Housing development, a subdivision constructed to house Fort Wainwright personnel. At this time, the development is unoccupied because of concerns about contamination encountered during construction. The contamination consists of polychlorinated biphenyl (PCB) and petroleum, oil, and lubricant-(POL) contaminated soils, as well as buried debris such as crushed drums, scrapped equipment, and ordnance used for troop training in the 1940s and 1950s. The housing units will not be released for occupancy until the ongoing site investigation is completed, any remedial activities have been completed, and the U.S. Army Garrison, Alaska (Army), Alaska Department of Environmental Conservation (ADEC), and the United States Environmental Protection Agency (USEPA) agree that residential occupation is safe.

Remedial Investigation Purpose

Soil, groundwater, and possibly other environmental media at the FCS have been contaminated as a result of historical uses and past disposal practices at the site. The purpose of the RI is to collect sufficient data of appropriate quality to accomplish the following:

- Assess the nature and extent of soil and groundwater contamination at the site
- Determine whether other environmental media have been impacted by contamination
- Conduct baseline risk assessments in order to quantify potential risks posed by exposure of expected site residents, current and future construction workers, and possible ecological receptors to contaminants at the site
- Support an informed risk management decision regarding which remedy or remedies may be most appropriate for the site

This Work Plan identifies the information that is needed to fulfill this purpose, including collecting additional data, and describes how results from the previous investigations and proposed sampling activities will be used to make decisions about the site.

Supporting Documents

The Work Plan is supported by a number of planning and procedural documents, which are necessary to complete the RI in accordance with Federal Facilities Agreement (FFA) requirements and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) guidance. These documents include the following:

- Field Sampling Plan
- Site Safety and Health Plan
- Quality Assurance Project Plan (QAPP)
- Community Involvement Plan
- Risk Assessment Work Plan
- Munitions and Explosives of Concern Support Work Plan
- Drum and Debris Investigation Plan
- Polychlorinated biphenyl (PCB) Investigation Plan
- Long-Term Soil Stockpile Plan
- Communications Plan
- Geophysical Investigation Work Plan

Background

The Taku Gardens Family Housing development includes 110 new duplexes (in 55 buildings). The buildings are intended to house Fort Wainwright personnel; however, they are currently unoccupied. An additional 10 unfinished buildings planned for the development would house another 20 dwellings. The Taku Gardens Family Housing development is located between Alder and Neely roads, east of White Street and west of the Fort Wainwright Power Plant. 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 was also completed during this time and indicated several large debris areas. In mid-2005, work began on foundations and underground utilities necessary for the construction of the 55 duplex buildings and two mechanical buildings.

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

For the purpose of the RI, the former FCS site has been divided into five subareas (Subareas A through E) based on historical usage and the types of contamination encountered during preliminary investigations, described below:

- **Subarea A** consists of the northeast quadrant of the Taku Gardens development, where buried debris containing ordnance and possible munitions and explosives of concern (MEC) has been identified.

- **Subarea B** is located along the northcentral boundary of the development, where company headquarters and barracks buildings were constructed, and POL contamination was identified during preliminary investigations.

- **Subarea C** is located along the northwest corner of the development, where company headquarters and barracks buildings were constructed over a 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, then was used for ammunition storage in the 1950s, and where the GVEA substation 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 then cleared and used for personal gardens through the late 1990s. Soil in the area was found to be contaminated with high concentrations of PCBs and other types of contaminants during initial construction activities.

Site History

The area now occupied by Taku Gardens has a history of mixed uses, including the following:

- Equipment salvage/reclamation
- Disposal of debris/salvage material in the Chena River oxbow that extends through the site, in trenches in the salvage yard area, and possibly in other local depressions
- Garden plots
- Possible firefighting training activities, as evidenced by what appear to be fire pits and a partially disassembled aircraft in historical aerial photographs
- Barracks and company headquarters extending into the northwest corner of the site
- Ammunition storage
- Communications and radar systems

Conceptual Site Models

Conceptual site models (CSMs) have been developed for environmental contaminants in each subarea and for MEC where applicable.

Conceptual Site Models for Environmental Contaminants

The CSMs for environmental contaminants in each subarea were developed by reviewing information about historical operations in the area and the types and distribution of chemicals that have been detected during previous investigations in each subarea.

The key differences between the subarea CSMs are the types of sources that may have been present in the past because the sources govern the target analyte lists for future investigations. This is especially the case in Subarea A where both transformers and discarded military munitions are identified as possible sources; therefore, PCBs and MEC are included in target analyte lists for RI sampling in Subarea A. Similarly, discarded transformers are identified as a source in Subarea E; therefore, PCBs are also part of the target analyte list for Subarea E.

Conceptual Site Model for MEC

Although listed as a source of environmental contamination in Subarea A, a separate CSM also has been prepared for MEC. This is because ordnance presents a hazard of direct physical injury resulting from the blast, heat, fragmentation, or acute chemical affects (for chemical warfare material) of munitions or munitions components. Subarea A is considered a Munitions Response Site (MRS) because military munitions and related items have previously been discovered.

The CSM for MEC was developed based on interaction between the potential receptors and source area (salvage and reclamation yard) and has two components: (1) the receptor must have access to the source and (2) the receptor must engage in some activity that results in contact with individual MEC items within the source area. In the MEC CSM, pathways are represented as complete, incomplete, and potential. Currently, the MEC CSM for the FCS only depicts potential pathways; no complete pathways have been identified.

Summary of Data Gaps and Proposed Actions

A number of data gaps were identified during review of existing data and preparation of the CSMs. The following actions are proposed to fill the data gaps and complete the RI for the FCS:

- **Air**. No data are available on the nature and extent of contaminants in indoor or outdoor air. Air sampling and modeling are proposed to characterize conditions and assess potential risk.
- **Surface Soil**. Limited data are available on the nature and extent of contaminants in surface soil. However, because construction activities have reworked the ground surface over the years, and because future landscaping activities are likely to change the surface even further, it was determined that additional surface soil sampling was only needed in areas that are unlikely to change (i.e., the sound berms around the FCS). The soil samples will be analyzed for the full list of potential contaminants that might be associated with sources in the subarea. The data will be used to determine whether soil in the sound berms may pose a potential risk to future residents in the area.
- **Subsurface Soil**. Limited subsurface soil data were collected during previous investigations. Subsurface soil samples will be collected in conjunction with debris investigations, PCB investigation activities, monitoring well installations, and other intrusive activities conducted during the RI. The subsurface soil samples will be analyzed for physical and geochemical properties and for the full list of potential contaminants that might be associated with sources in the subarea. The data will be used to identify source areas, define the extent of contamination, assess potential risks to receptors, and determine appropriate remedial actions, if unacceptable risks are identified.
- **Groundwater.** The existing groundwater dataset for most subareas is limited. Additional groundwater monitoring wells will be installed throughout the FCS during the RI. Groundwater samples collected from the wells will be used to better define the extent of the POL plume in Subareas C and B, identify other plumes (if present), and assess potential risks to human and ecological receptors. Aquifer characteristic including hydraulic conductivity, gradient, velocity, and flow direction will be determined using data obtained from the wells.
- **Buried Debris.** Geophysical surveys conducted across the FCS identified a number of geophysical anomalies that have not been investigated. These areas will be investigated using direct excavation and observation, with special attention paid to ordnance items

and/or visible evidence of chemical contaminants. Subsurface soil samples will also be collected to identify any associated chemical contamination.

- **Sediment.** Sampling will be performed in the drainage swales leading from the FCS toward the Chena River. The sample results will be used to characterize possible migration of contaminants offsite via overland flow and screen risks to possible ecological receptors.
- **Soil Piles.** A number of soil piles derived from construction activities remain at the FCS. These piles will be sampled and characterized for disposal purposes as part of the RI

Proposed Remedial Investigation Approach

The Army, USEPA, and ADEC have agreed to conduct the RI at the FCS by using the Triad approach. As part of the systematic project planning required in Triad, a group of RPMs represented by technical experts from the Army, USEPA, and ADEC will review and approve RI work tasks.

The following tasks have been or will be performed as part of the RI:

- **Project Planning.** Planning covers subtasks required to initiate project activities, including initial evaluation activities to define project scope and preparation of the planning documents that make up this RI Management Plan. The major components of the planning process included creation of a site database, development of a GIS to support spatial analysis and mapping of historical and RI data, analysis of pre-RI data, development of CSMs, identification of data gaps, and meetings with the FCS RPMs to review and agree upon the scopes and schedules for the RI activities.
- **Field Investigations.** The field investigation program for the FCS was designed to quickly generate data to fill the data gaps described above. Sampling approaches and data evaluation procedures have been developed for each of the following investigations:
    - Soil gas investigation
    - Sound berm (surface soil) investigation
    - Subsurface soil investigation
    - Groundwater investigation
    - Drainage swale investigation
    - Stock pile soil pile investigation
    - Geophysical surveys
- **Sample Analysis/Data Validation.** The samples collected during the field investigations will be analyzed using the methods described in QAPP prepared for this project. The analytical data also will be validated according to the procedures described in the QAPP.
- **Risk Assessments**. The analytical data from the RI and from previous investigations will be evaluated in accordance with the Risk Assessment Work Plan developed for the FCS.

- **Reporting**. Specific reporting deliverables associated with the RI include the following:
  - Interim Laboratory Report
  - PCB Investigation Technical Memorandum
  - Field Data Report
  - Baseline Risk Assessment Report
  - MEC Hazard Assessment Report
  - RI Report

SECTION 1

Introduction

This Work Plan has been prepared to guide the remedial investigation (RI) at the Former Communications Site (FCS), also known as Taku Gardens Family Housing development, on Fort Wainwright, Alaska. This plan was prepared by CH2M HILL for the U.S. Army Corps of Engineers (USACE) under Task Order 0009 of Contract No. W911KB-05-D-0010. The USACE assigned this task order to CH2M HILL on April 5, 2007.

Fort Wainwright is located within the Fairbanks North Star Borough 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, which is an installation-level command overseen by its higher headquarters U.S. Army Garrison, Alaska (Army).

The FCS is currently the site of the Taku Gardens Family Housing development, a subdivision that was constructed to house Fort Wainwright personnel, but that is presently unoccupied because of concerns about environmental contamination and munitions-related hazards encountered during its construction. The contamination consists of polychlorinated biphenyl (PCB) and petroleum, oil, and lubricants (POL) contaminated soils, as well as buried debris such as crushed drums, scrapped equipment, and munitions used for troop training in the 1940s and 1950s. The housing units will not be released for occupancy until the ongoing site investigation is completed, any remedial activities have been completed, and the Army, Alaska Department of Environmental Conservation (ADEC), and the United States Environmental Protection Agency (USEPA) agree that the site is appropriate for residential occupation.

1.1 Federal Facility Agreement

In August 1990, Fort Wainwright was placed on the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) National Priorities List. 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 USEPA, the Department of Defense (DOD), and the 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 (USTs) or surface spills of petroleum products.

The general purposes of the FFA, as defined in Section III of the agreement, are to ensure that the 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; establish a procedural framework and schedule for developing, implementing, and monitoring appropriate response actions a the Site in accordance with CERCLA, the National Contingency Plan, national Superfund guidance and policy, RCRA, national RCRA guidance and policy, and applicable state law; and facilitate cooperation, exchange of information, and participation of the Parties in such actions.

1.2 Background

The Taku Gardens Family Housing development includes 110 new duplexes (in 55 buildings). The buildings are intended to house Fort Wainwright personnel, but are presently 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 risk from the prior site uses to human health and the environment must be addressed first.

The Taku Gardens Family Housing 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 Taku Gardens 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 was also completed during this time and indicated several large debris areas. Work began on the Taku Gardens Family Housing development in mid-2005 on foundations and underground utilities necessary for the construction of the 55 duplex buildings and two 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 used for 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.

For the purpose of the RI, the former FCS site has been divided into five subareas (Subareas A through E) based on historical usage and the types of contamination encountered during preliminary investigations. The subareas are shown in Figure 1-2 and described below:

- **Subarea A** consists of the northeast quadrant of the Taku Gardens development, where buried debris containing ordnance and possible munitions and explosives of concern (MEC) has been identified.
- **Subarea B** is located along the northcentral boundary of the development, where company headquarters and barracks buildings were constructed, and POL contamination was identified during preliminary investigations.

- **Subarea C** is located along the northwest corner of the development, where company headquarters and barracks buildings were constructed over a 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, then was used for ammunition storage in the 1950s, and where the Golden Valley Electric Association (GVEA) 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 then cleared and used for personal gardens through the late 1990s. Soil in the area was found to be contaminated with high concentrations of PCBs and other types of contaminants during initial construction activities.

1.3 Remedial Investigation Purpose

Soil, groundwater, and possibly other environmental media at the Taku Gardens site have been contaminated as a result of historical uses and past disposal practices at the site. The purpose of the Taku Gardens RI is to collect sufficient data of appropriate quality to accomplish the following:

- Assess the nature and extent of soil and groundwater contamination at the site
- Determine whether other environmental media have been impacted by contamination
- Conduct baseline risk assessments in order to quantify potential risks posed by exposure of expected site residents, current and future construction workers, and possible ecological receptors to contaminants at the site
- Support an informed risk management decision regarding which remedy or remedies may be most appropriate for the site

This Work Plan identifies the information that is needed to fulfill this purpose, including collecting additional data, and describes how results from the previous investigations and proposed sampling activities will be used to make decisions about the site.

1.4 RI Approach and Work Plan Overview

The Army, USEPA, and ADEC have agreed to conduct the RI at Taku Gardens using the Triad approach. The RI Work Plan applies the Triad approach by using technically defensible methods necessary to complete site characterization activities. For this fast-paced project, changes in priorities, work plans, and actions are expected. The systematic project planning required for Triad is facilitated by remedial project managers (RPMs) representing the federal and state agencies and composed of technical experts that review and approve RI work tasks, planning documents, and specific investigation procedures. Dynamic work strategies are incorporated by the RPMs to ensure flexibility so needed changes can occur. As information is gathered, it is used to make decisions about what subsequent activities may best resolve outstanding data uncertainties. These work strategies are documented in this RI Work Plan as addenda.

The purpose of the RI Work Plan is to identify the objectives of the RI for FCS and to establish procedures to accomplish these objectives. In addition to this introductory section, the RI Work Plan consists of the following sections:

- **Section 2** provides the background and physical setting for the site.
- **Section 3** provides a review of previous investigations and presents the preliminary assessments of existing data for the site
- **Section 4** presents conceptual site models (CSMs) for each of the five investigation areas and MEC. The CSMs are presented as the basis for organizing and understanding available data pertaining to the known or suspected contaminant sources, suspected release and migration mechanisms, and potential or actual exposure mechanisms and receptors. Section 4 concludes with a description of the data gaps identified for the CSMs.
- **Section 5** presents the data quality objectives (DQOs) for the RI, includes a discussion of the possible applicable or relevant and appropriate requirements (ARARs) that may apply to the cleanup of the FCS, and also broadly describes some possible remedial responses that may be appropriate for various potentially contaminated site media.
- **Section 6** describes the general technical approach and major tasks to be performed during the RI, including project planning, field investigations, data evaluation, and reporting.

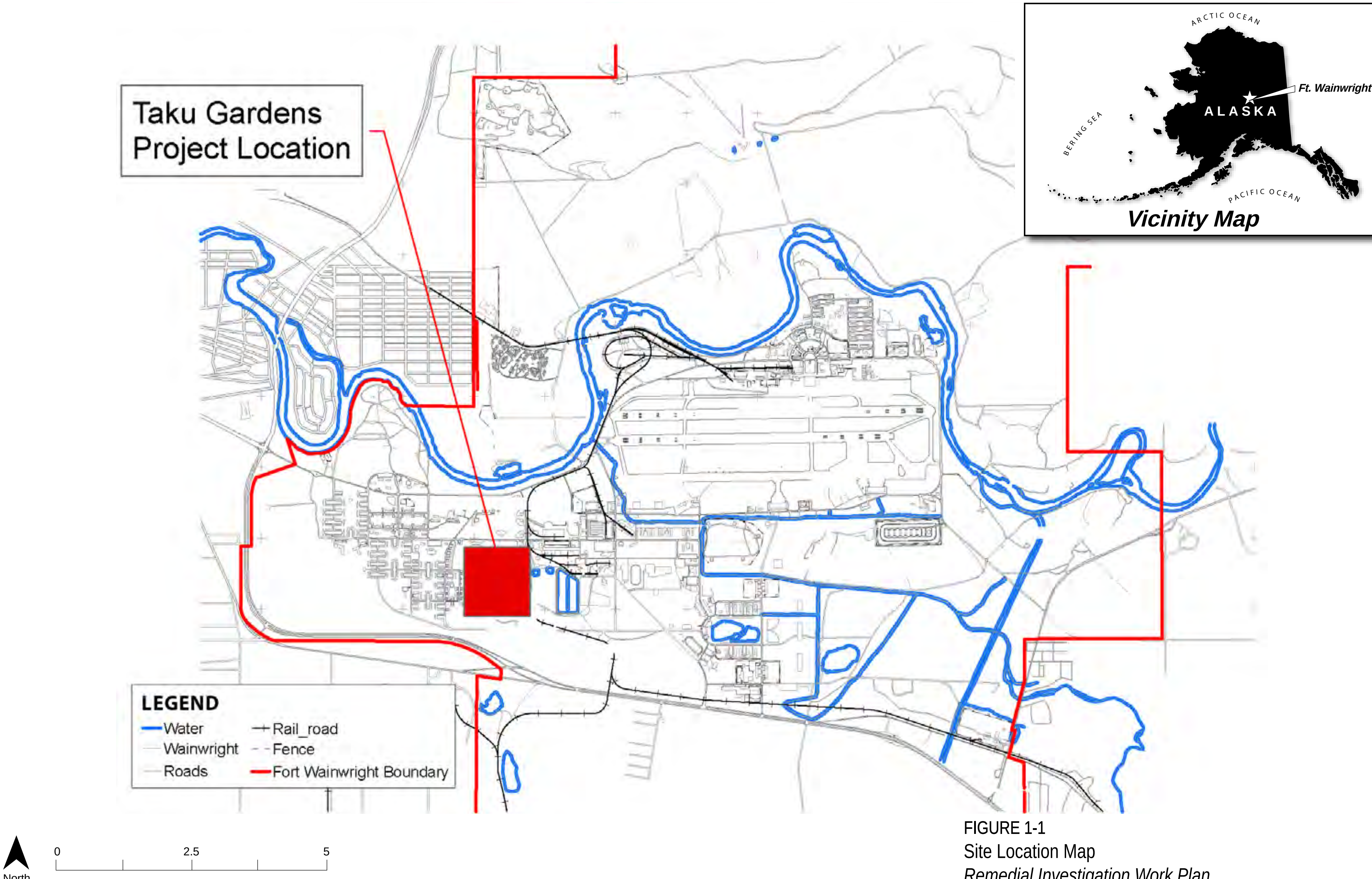
Tables and figures referenced in each section of the plan are provided at the end of the section.

The RI Work Plan is supported by a number of planning and procedural documents, which are necessary to complete the RI in accordance with FFA requirements and CERCLA guidance. These documents include:

- Field Sampling Plan
- Site Safety and Health Plan
- Quality Assurance Project Plan (QAPP)
- Community Involvement Plan
- Risk Assessment Work Plan
- Munitions and Explosives of Concern Support Work Plan
- Drum and Debris Investigation Plan
- PCB Investigation Plan
- Long-Term Soil Stockpile Plan
- Communications Plan
- Geophysical Investigation Work Plan

These supporting documents are provided as attachments to the RI Work Plan. Together, the RI Work Plan and the supporting documents form the comprehensive planning document that will guide the RI project to successful completion.

Some aspects of this project, such as the approach for collecting chemical data for human health risk assessment in areas of known buried metal debris and the approach for possible debris removal actions, have not been fully developed at this time. This additional site work will be defined later based on the results of ongoing geophysical and chemical investigations, and with appropriate consultation with the Triad RPMs. As these additional work tasks and approaches are defined and approved, they will be added to this work plan through addenda.



Source: North Wind, Inc., 2007.

FIGURE 1-1
Site Location Map
Remedial Investigation Work Plan
Former Communications Site, Fort Wainwright, Alaska

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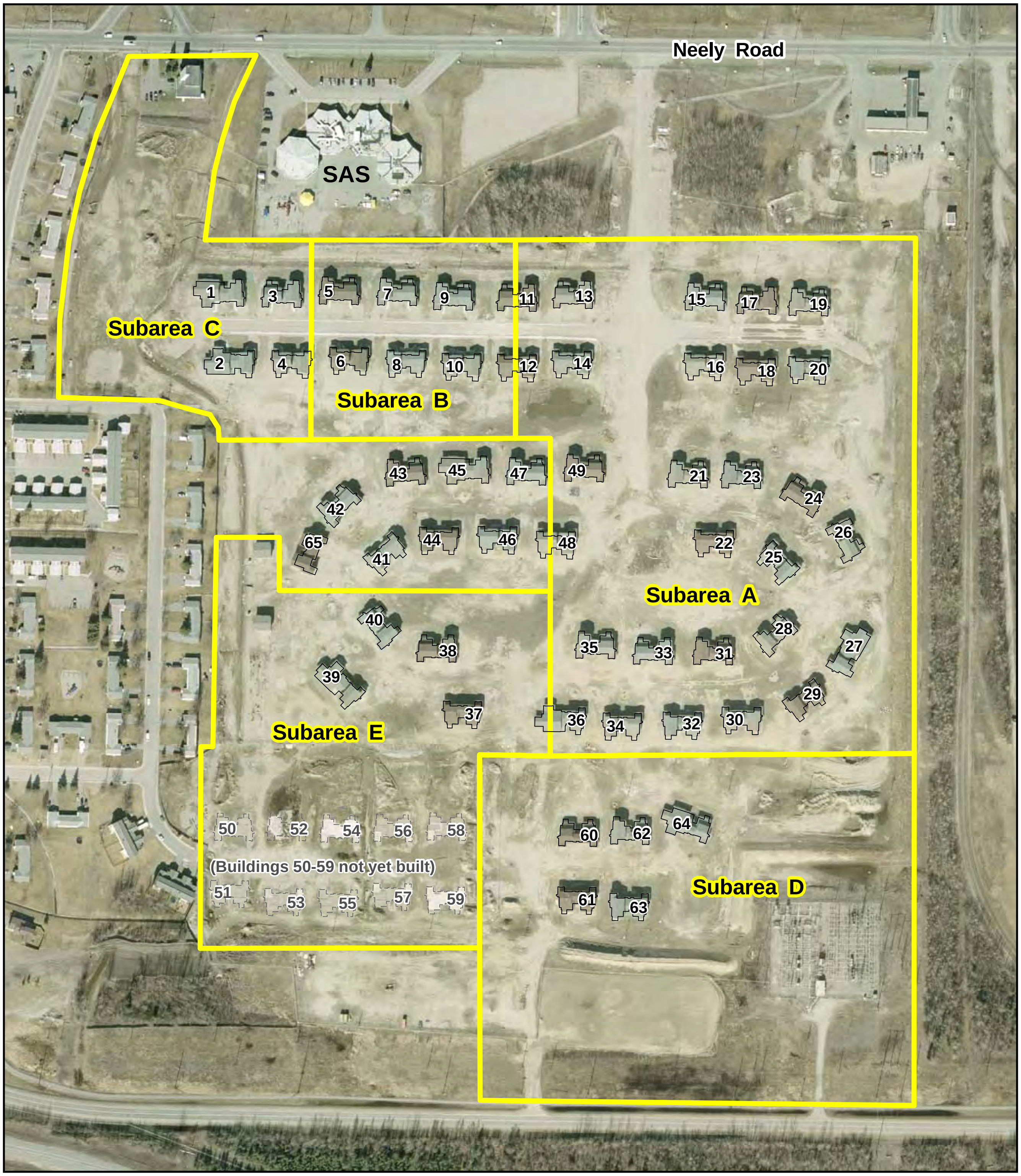

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FIGURE **1-2**
Location of FCS Subareas
Remedial Investigation Work Plan
Former Communications Site
Fort Wainwright, Alaska

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SECTION 2
Background and Physical Setting

This section provides background information for the site, including land use, historical operations, and information about its physical and geographical characteristics.

2.1 Current Land Use

Fort Wainwright is located within the Fairbanks North Star Borough in interior Alaska and occupies 918,000 acres on the east side of Fairbanks. Fort Wainwright consists of a main post area, which is 2 miles east of Fairbanks between the Chena and Tanana rivers and has a cantonment area, a small arms range complex, and a close-in range complex. The main post was originally established as a cold-weather testing station. The Tanana Flats Training Area is across Tanana River from the main post, and the Yukon Training Area is 16 miles east-southeast of Fairbanks, adjacent to Eielson Air Force Base. Figure 1-1 provides a map of Fort Wainwright and the surrounding area.

Fort Wainwright currently employs a large Department of the Army and DOD civilian work force and serves a daily population of more than 12,000 people, including soldiers, family members, civilian employees, contractors, and other tenants, such as the Cold Regions Test Center of the Army and the Alaska Fire Service of the Bureau of Land Management.

Primary missions at Fort Wainwright include training infantry soldiers in the arctic environment, testing equipment in arctic conditions, preparing troops for defense of the Pacific Rim, and rapid deployment of troops worldwide. Onsite industrial activities include operation, maintenance, and repair of fixed-wing aircraft, helicopters, tactical and nontactical vehicles. Onsite industrial activities include drinking water production, power generation, and steam heat production.

2.2 Historical Operations

2.2.1 Post History

Fort Wainwright has been used by the DOD for military operations continuously since 1938. Originally known as LADD Army Airfield (LAAF), the post was established for cold weather experimentation. During World War II, LAAF served as a transfer point in the lend-lease program. Between 1942 and 1945, almost 8,000 combat and transport aircraft were transferred to Soviet aircrews at LAAF. In 1947, the newly formed U.S. Air Force (USAF) assumed control of LAAF, which was redesignated as LADD Air Force Base (LAFB). LAFB served as a resupply and maintenance base for the Remote Distant Early Warning sites and experimental ice stations in the Arctic Ocean. During the Korean conflict, LAFB served as part of the defense network, and was the site of the first Nike Hercules Missile launch from a tactical missile site in December 1959.

On January 1, 1961, the Army resumed control over LAFB. The Army renamed the installation Fort Wainwright, after General Jonathan M. Wainwright, the commander of the forces defending the Bataan Peninsula in the Philippines at the beginning of World War II.

Fort Wainwright has been home to several units, including the 171st Infantry Brigade (Mechanized), a Nike-Hercules Battalion, the 172nd Infantry Brigade, and the 6th Infantry Division (Light). In July 2001, the Army announced its intent to make the 172nd Infantry Brigade, located at Forts Wainwright and Richardson, into one of the next four interim brigade combat teams as part of its transformation to a more strategic and responsive force.

The 172nd Stryker Brigade Combat Team is currently the major unit at Fort Wainwright. Subordinate commands include the 2nd Battalion, 1st Infantry Regiment; 1st Battalion, 17th Infantry Regiment; 4th Battalion, 11th Field Artillery and 123rd Aviation Regiment; 172nd Brigade Support Battalion; and 4th Squadron, 14th Cavalry Regiment. Fort Wainwright is also home to the Medical Activity-Alaska and Dental Activity-Alaska, and the Bassett Army Community Hospital. In the past decade, many new sets of family quarters have been built, as well as a Post Exchange (PX)/Commissary mall, physical fitness center, and maintenance facilities.

2.2.2 FCS History

A limited number of written records describing activities occurring at the FCS during the course of its use are available. Much of what is known about the FCS has been inferred from examining and comparing historical photographs (dating from 1947 to the present), the 1958 Fort Wainwright "Master Plans," past geographical surveys, and concurrent military operations with similar missions conducted at other locations. As summarized in Table 2-1, the area now occupied by Taku Gardens has a history of mixed uses, including the following:

- Equipment salvage/reclamation
- Disposal of debris/salvage material in the Chena River oxbow that extends through the site, in trenches in the salvage yard area, and possibly in other local depressions
- Garden plots
- Possible firefighting training activities, as evidenced by what appear to be fire pits and a partially disassembled aircraft in historical aerial photographs
- Barracks and company headquarters extending into the northwest corner of the site
- Ammunition storage
- Communications and radar systems

Changes in development over the history of the area are summarized in Figure 2-1, which shows the 1956 aerial photograph overlain with the current Taku Gardens housing development map.

2.3 Environmental Setting

This section describes the overall environmental setting of the Fort Wainwright area inclusive of the FCS.

2.3.1 Physiographic Setting

The Fairbanks area consists of two geographic regions, the Yukon-Tanana Upland and the Tanana-Kuskokwim Lowland. For Wainwright is near the north side of the Tanana River Valley, near the base of the hills that constitute part of the Yukon-Tanana Upland, a northwest trending highland between the Yukon and Tanana Rivers. The Upland is characterized by rolling hills with elevations typically between 500 and 3,000 feet above mean sea level. The Tanana-Kuskokwim Lowland is south of the Upland. The Lowland is a sediment filled trough between upland on the north and the Alaska Range on the south. Fort Wainwright is located within the Tanana-Kuskokwim Lowland. This region is characterized by flat lowlands and gently rolling hills with elevations ranging from 350 to 950 feet above mean sea level. Bottomland forests and wetlands are typical in this area (University of Alaska, 1976).

2.3.2 Ecology

Fort Wainwright lies within an upland spruce-hardwood forest ecosystem. Natural vegetation in the area is typical of low elevations in interior Alaska, consisting of a variety of trees and shrubs. Low-brush bog and muskeg communities occur where soil conditions are too wet for tree growth or where permafrost occurs near the ground surface (Ecology & Environment, 1993).

Nearly all of the natural vegetation and topsoil at Fort Wainwright was stripped before construction of post facilities. Gravel was used extensively as backfill for low-lying areas. Topsoil was replaced in many areas to create lawns, playfields, and landscaped areas. Natural plant succession in the area is mostly influenced by soil drainage and nutrient content, with common pioneering plant types consisting of grasses, low shrubs, willows and alders (Ecology & Environment, 1993).

Wildlife species found in areas surrounding Fairbanks are similar to those found elsewhere in interior Alaska. Fort Wainwright is documented as habitat for moose, red fox, muskrat, beaver, snowshoe hares, red squirrel, and marten. Raptors, migratory and nonmigratory birds, and waterfowl also may use the area. The Chena River is the primary aquatic ecosystem within Fort Wainwright and supports a diverse and abundant fish population (Ecology & Environment, 1993).

The FCS is currently almost completely devoid of vegetation because of clearing activities to support construction. The area is also surrounded by an 8-foot chain link fence topped with three-strand barbed wire. Because access to the area by larger terrestrial organisms is limited by the fence and very little vegetation exists on site to provide food or cover to birds or smaller terrestrial organisms, the area is considered inadequate habitat for local species.

2.3.3 Surface Water

The Chena River flows through the northern portion of the Fort Wainwright main cantonment area and joins the Tanana River approximately 8 miles west-southwest of Fort Wainwright.

The FCS consists of relatively flat terrain with no permanent surface water bodies. Man-made drainage swales have been installed south to north along the west side between the existing housing on White Street and the new Taku Gardens housing, and also east to west along the northwest section, as shown in Figure 2-2. The combined swale exits the site to the north, running west of the School Age Services (SAS). After meandering through the new hospital grounds and other properties, runoff from the FCS area may join overland flow that eventually empties to the Chena River. The FCS swales are expected to contain flowing water only for a short time each year during periods of heavy spring runoff and summer storms.

2.3.4 Climatology

Fort Wainwright is in the continental climate zone of interior Alaska. In general, this zone is characterized by extreme summer and winter temperatures and by light precipitation. Surface winds are generally light (University of Alaska, 1976).

Average temperatures range from 72.2 degrees Fahrenheit (°F) in July to -18.7 °F in January. Annual precipitation averages 10.5 inches, with the heaviest rainfall typically occurring in July (1.91 inches on average). The average annual snowfall is 66.4 inches, with the highest monthly snowfall usually occurring in November (13.0 inches) (WRCC, 2007).

2.3.5 Regional Geology

Fort Wainwright and the adjacent Fairbanks area are part of the Highlands Area of the Interior Alaska and Western Alaska Physiographic Province. This province is underlain by metamorphic rocks of the Yukon-Tanana Terrain. The metamorphic rocks west of Fort Wainwright are known as the Birch Hill Sequence and are located approximately 400 feet below the floodplain of the Tanana and Chena rivers.

Overlying the Birch Hill Sequence is as much as 400 feet of fluvial deposits, which embody the unconfined aquifer known as the Chena Formation. These alluvial sediments aggraded primarily from net deposition from the Tanana River (Pewe et al., 1976; Anderson, 1970; Nelson, 1978).

Fort Wainwright is underlain by soil and unconsolidated sediment that consists of silt, sand, and gravel, ranging in thickness from 10 feet to more than 400 feet above bedrock. A 5-foot-thick surficial soil layer of fine-grained soil overlies the deeper alluvial deposits. Alluvial floodplain deposits underlay the surface soils and consist of varying proportions of sand and gravel, which are commonly layered. Where present, permafrost forms discontinuous confining layers that influence groundwater movement and distribution. The depth to permafrost, when present, ranges from 2 to 40 feet below ground surface (bgs). The greater depths are found on cleared and developed land surfaces, where thermal degradation of underlying permafrost occurs. Regionally, the thickness of the permafrost intervals varies from about 5 to 275 feet. The seasonal frost layer (or active layer) varies between 2 and 12 feet thick (Ecology & Environment, Inc., 1993).

Soil borings drilled during the Preliminary Site Evaluation (PSE) II investigation (typically to depths of 15 feet) indicated that soil conditions at the FCS generally consist of sandy silt nearest the surface, changing to sand and sand with silt and gravel at around 8 to 10 feet.

2.3.6 Regional Hydrogeology and Groundwater Use

The Chena River flows through Fort Wainwright and the City of Fairbanks, and eventually into the Tanana River south of the post. The Tanana River borders the south portion of Fort Wainwright. The main aquifer in the Fort Wainwright area is the Tanana Basin alluvial aquifer, a buried river valley. This aquifer ranges from a few feet thick at the base of Birch Hill to at least 300 feet thick under the main cantonment area of the post. The aquifer may reach a thickness of 700 feet in the Tanana River valley.

Groundwater movement between the Tanana and Chena rivers generally follows a northwest regional direction, similar to flow direction of the rivers. Seasonal changes in groundwater flow directions of up to 180 degrees are not uncommon adjacent to the rivers because of the effects of changing river stages in the Tanana River and the Chena River. Groundwater levels near the Chena River fluctuate greatly because of river stage and interactions with the Tanana River. Typically, groundwater levels rise during spring breakup and late summer runoff and drop during fall and winter when rainfall decreases and precipitation becomes snow.

The Tanana Basin alluvial aquifer beneath Fort Wainwright consists of deposits of the Chena Formation that vary in texture from sandy silt to coarse sandy gravel. The Chena Formation has a relatively high horizontal hydraulic conductivity in this area, estimated to be as high as 600 feet per day; whereas the vertical hydraulic conductivity has been estimated to be approximately 30 feet per day (U.S. Geological Survey [USGS], 1996). The Chena Formation deposits are extensive and thus provide a large capacity for groundwater storage.

Groundwater in the Tanana-Chena floodplain generally is considered to be unconfined in permafrost-free areas. In wells drilled through the permafrost, however, the aquifer exhibits the characteristic of a confined aquifer. Here the groundwater rises to levels above the deepest extent of the permafrost, which acts as a confining layer. The fact that these levels are similar to those of wells completed in unfrozen alluvium supports the interpretation that the basin alluvium is a single unit aquifer (USACE, 1991). Rates of movement for water and contaminants in frozen, porous soils depends on the overall temperature of the system, the thermal gradient, the occurrence of interconnected films of unfrozen water, and the general continuity of the permafrost. Previous studies indicate that the permafrost containing large, interconnected films of unfrozen water is most likely to be composed of fine-grained materials (silt and clay sizes). When encountered, permafrost should not be regarded as an impermeable material, but rather as a material of very low hydraulic conductivity (Sloan and van Everdingen, 1988).

Groundwater is the only source of potable water used at Fort Wainwright and the Fairbanks area. Approximately 95 percent of the potable water on Fort Wainwright is supplied through a single distribution system fed by two large-capacity wells in Building 3559

(Figure 2-2). These wells are completed at a depth of approximately 80 feet bgs and provide between 1.5 million and 2.5 million gallons of water per day to the Post Water Treatment Plant for processing and distribution. In addition to the main drinking water supply wells, five emergency standby supply wells are located around the cantonment area. These wells are completed between 80 and 120 feet bgs and are capable of pumping approximately 250,000 gallons per day per well. Physical information about the supply wells and backup wells 101 and 3565 is summarized in Table 2-2.

Hoppe's Slough, a former meander channel/oxbow of the Chena River, curves through the middle of the FCS. As shown by the blue lines in Figure 2-2, the oxbow enters the north of the FCS and continues south, approximately 1,500 feet, where it curves around along the western edge of the FCS and exits the site at the north. The footprint of the slough and a second meander south of the slough were identified in 1948 photography and are partially visible in the late 1960s (Oasis Environmental Inc. [Oasis], 2007a). Historical photographs document the filling of the former meander channels as the area was developed. A geophysical survey performed in May 2004 indicated the material used to fill the slough included metallic objects (Oasis, 2007a). The influence on groundwater flow from the former slough channel is unknown and will be further evaluated as part of this RI.

TABLE 2-1
Site Development History by Investigation Subarea

Sub-Area	1940s	1950s	1960s	1970s – 1990s	2000s
A	Initial use as salvage yard and filling of oxbow begins	Continued use as salvage reclamation yard. Construction of shops, concrete plant, rail spur, and silo on portions of sub-area. Oxbow completely filled. 1958 Real Estate Master Plan indicates southwest portion of sub-area used for ammunition storage. 1959 aerial photograph shows possible fire-training pits.	Use as salvage yard discontinued before 1960. Used as fire training area, with two fire pits, drums, and airplane debris discontinued between 1960 and 1964. Buildings and shops in sub-area demolished and removed between 1960 and 1964. Sub-area appears re-graded and vegetated for remainder of 1960s.	Sub-area unused and vegetated	Portion of sub-area used to store snow in 2002. Sub-area cleared in anticipation of Taku Gardens Housing Development construction. Surface and subsurface debris found during geophysical surveys. Low-level PCB contamination found in soil samples.[a]
B	No development other than filling of oxbow	Continued filling of oxbow, followed by construction of Company headquarters and barracks buildings over oxbow. Buildings removed in late 1950s.	Sub-area graded and re-vegetated	Sub-area unused and vegetated	Sub-area cleared in anticipation of Taku Gardens Housing Development construction. Surface and subsurface debris found during geophysical surveys. POL contamination found in soil and groundwater samples.[a]
C	No development other than clearing and road building activities	Company headquarters and barracks buildings extend into sub-area. Buildings removed in late 1950s.	Sub-area graded and cleared.	Sub-area unused and vegetated	Sub-area cleared in anticipation of Taku Gardens Housing Development construction. Surface and subsurface debris found during geophysical surveys.
D	Salvage/storage activities extend from Sub-area A. Cleared area and long rectangular structures along northern boundary coincide with the location of "live ammo storage" indicated on a USACE Topographical Survey	Structures possibly associated with ammunition storage removed in early 1950s. Seven concrete structures constructed in area in 1954 - according to 1958 Master Plan, structures were used for ammunition storage. All seven structures removed in 1959.	Sub-area cleared and graded	GVEA station constructed in 1978. Remainder of sub-area unused and partially vegetated	Sub-area cleared in anticipation of Taku Gardens Housing Development construction. Surface and subsurface debris found during geophysical surveys.
E	No development other than clearing and road building activities. Some filling of oxbow.	Construction of multiple structures associated with communications operations. All structures removed by 1959.	Sub-area cleared and used for personal gardens.	Sub-area used for personal gardens	Portion of sub-area used to store snow in 2002. Sub-area cleared in anticipation of Taku Gardens Housing Development construction. Surface and subsurface debris found during geophysical surveys. High-level PCB and other types of contamination found in area.[a] Exclusion zone established

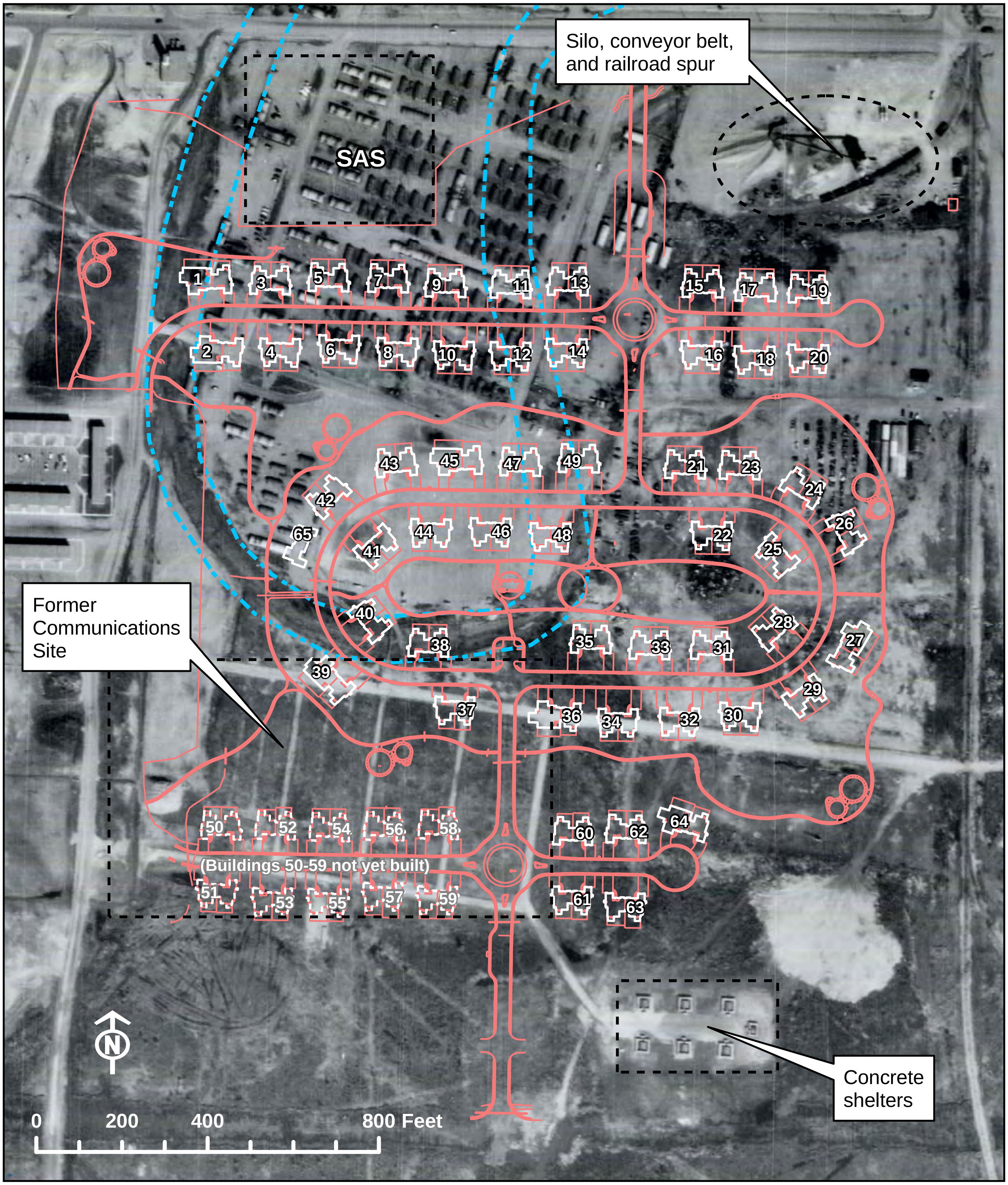
[a]More information about the distribution of contamination is provided in Section 3.

TABLE 2-2
Water Supply Wells near the FCS

Well Number	Location Relative to FCS Perimeter	Status and Period of Operation	Total Well Depth (feet)	Screen Interval (feet)	Slot Size (inches)	Pumping Rate (gpm)
3559A, B	100 feet northeast	Primary wells. Operated from 1988 to present.	100	60–80	0.110	1,040–1,740
101 (3563)	350 feet northeast	Backup well. Primary supply well from early 1950s until 1985.	109	96–109	0.125	1,200–1,400 before 1969; 750 after 1969
3565	300 feet east	Out of service. Primary supply well from 1969 to 1988. Backup well from 1988 to 1994.	208.6	180–200	0.100	1,000

FCS = Former Communications Site
gpm = gallons per minute

Source: CH2M HILL, 1996b.



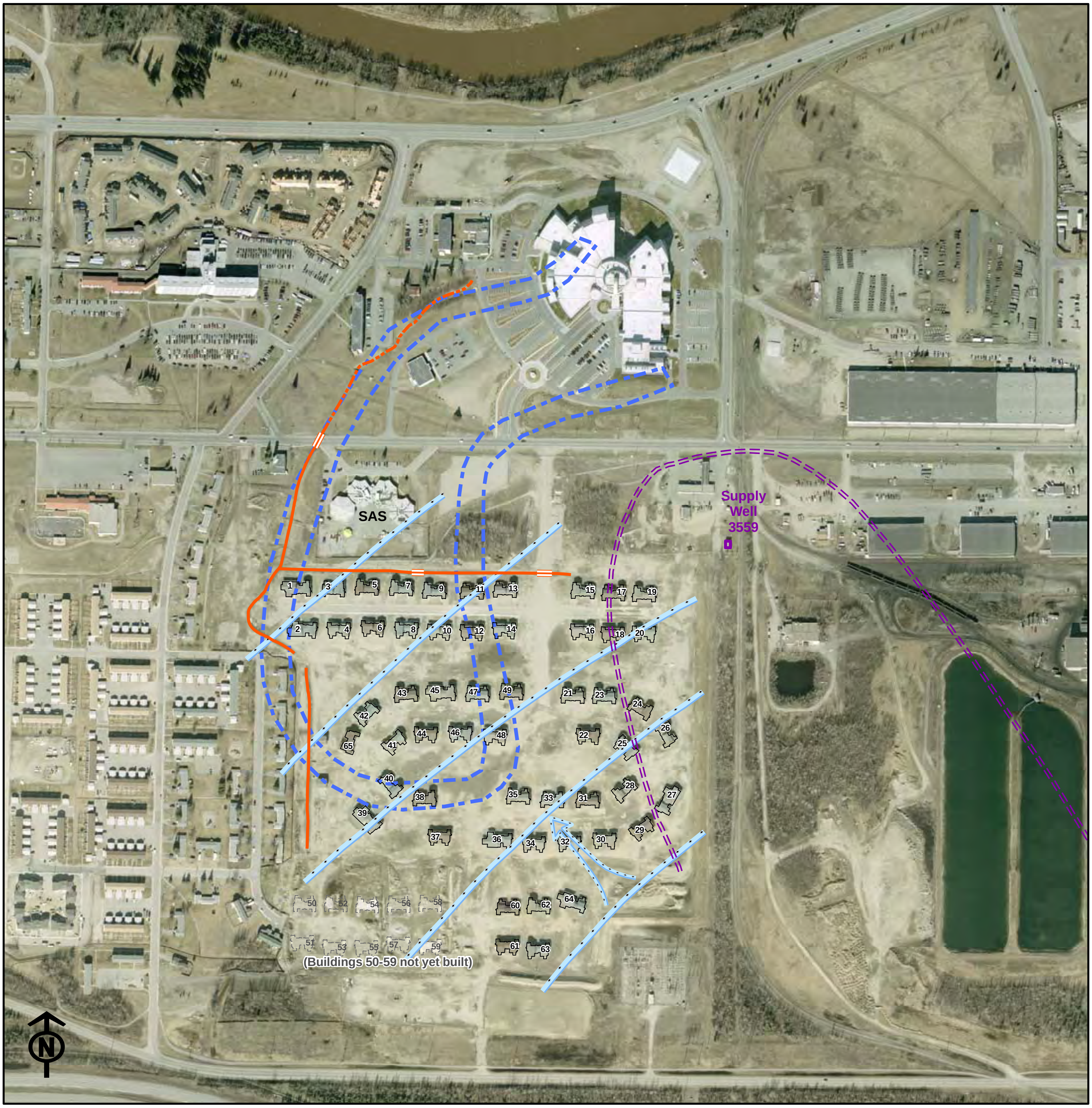
\\miner\proj\USACE\357465TakuGardens\GIS\MapFiles\Fig_2-4_Taku1956.mxd 10/18/2007 12:25:25PM

Legend

Infrastructure for Taku Gardens

Former slough channel

FIGURE 2-1
Photography from 1956
Remedial Investigation Work Plan
Former Communications Site
Fort Wainwright, Alaska



\\miner\proj\USACE\357465TakuGardens\GIS\MapFiles\Fig_2-2_Swales_Taku.mxd 10/18/2007 12:45:55PM

FIGURE 2-2
Swale Locations
Remedial Investigation Work Plan
Former Communications Site
Fort Wainwright, Alaska

Legend

- Former slough channel
- Capture Zone, Supply Well 3559
- Groundwater contour and flow direction
- Swale
- Swale, uncertain location
- Swale culvert

0 200 400 600 Feet

SECTION 3

Summary of Previous Investigations and Assessment of Pre-RI Results

This section presents a summary of previous investigations conducted at the FCS and provides the results of preliminary data evaluations that were conducted using this pre-RI data.

3.1 Summary of Previous Investigations

The FCS was selected for future military family housing in 2002-2003. Environmental investigations proceeded along the Taku Gardens construction timeline as described below:

- **October 2003**. Cold Regions Research and Engineering Laboratory (CRREL) and Shannon & Wilson conducted a limited geophysical investigation and soil boring/soil sample collection.
- **November 2003 -February 2004.** USACE conducted a geotechnical investigation including collection of geotechnical and chemical data from soil borings.
- **March – April 2004.** North Wind, Incorporated (NWI) collected subsurface soil samples in area where the CRREL study identified elevated PCB concentrations. Results did not confirm earlier detections.
- **2004.** Site clearing activities uncovered extensive amounts of buried items, scrap metal, drums and discarded military MEC in the northeastern section of the FCS (Subarea A). Military ordnance experts assisted in characterizing and disposing of the MEC items and prepared explosive ordnance device (EOD) reports.
- **May 2004.** R&M Consultants, Inc. (R&M) conducted a geophysical survey (R&M 2004) prior to housing construction because metal debris had been encountered during the earlier geotechnical and geophysical investigations. The survey identified a number of geophysical anomalies suggesting that metallic debris was buried at the site (Figure 3-1).
- **April 2005.** Construction of Taku Gardens housing units began. Soil and debris removed as part of foundation, utility trench, and roadway construction were stockpiled around the site.
- **June 2005.** Petroleum contamination was discovered in the northcentral area (Subarea B) of the FCS (in the area of Buildings 5 through 9) during housing construction. Soil boring and groundwater samples were collected and confirmed that only fuel contamination was present.
- **June 2005.** Solvent-like odor detected during construction in vicinity of Building 52 (Subarea E). PCBs and chlorinated solvents were detected in soil samples collected in the area.

- **June – October 2005.** NWI conducted an investigation focused on protection of construction workers and nearby residents, including collection of soil and groundwater samples for POL and PCB analysis in target areas and from soil stockpiles. Surface wipe sampling was conducted in nearby residences and on construction equipment to evaluate potential for PCB-contaminated dust. Findings of the investigation are documented in the *Field Data Report* (NWI, 2006a).
- **2005 and 2006.** Based on the findings of the previous investigations, the Army initiated a Preliminary Source Evaluation (PSE) in compliance with the Fort Wainwright FFA.
  - The first phase of the PSE (PSE 1), conducted by Oasis, integrated historical information with incidental findings of debris and contamination that had been reported since site clearing and construction of Taku Gardens commenced in 2003.
  - The second phase of the PSE (PSE II), conducted by NWI in 2006, involved excavation of test pits to characterize geophysical anomalies, supplemental geophysical surveys, screening of stockpiled debris and soils around the FCS, installation of monitoring wells, and collection of additional soil and groundwater samples to characterize conditions at the site.

3.2 Previous Investigation Results by Subarea

The following subsections describe the scopes of work and findings of the previous investigations conducted in the each FCS subarea.

3.2.1 Subarea A

Subarea A is the larges of the five subareas and occupies more than half of the eastern section of the site (Figure 1-2). This subsection includes constructed Buildings 11 through 36, 48, and 49.

Past Practices

Historical aerial photographs show activity began in Subarea A as early as 1947 and all activity at the FCS appears to begin in this subarea. In addition to the historical aerial photographs beginning in 1947, U.S. Air Force 1958 Master Plans and USACE topographical drawings provided details on projected plans for the site as well as physical details of activities over an extended period of time.

These historical records and aerial photographs show site clearing activities beginning prior to 1947 and indicate that most of Subarea A was used as a salvage yard and disposal area until the late 1950s. By 1959 most of the salvage material has been removed or buried and only the footprint of past activities to include surface stains and buildings remain. By 1959 the oxbow that parallels the subarea is no longer visible. The only activity in the subarea by 1960 is what remains of a fenced facility that is located in the northwest corner, near the current day location of Buildings 13 and 14. This section of the subarea included several large buildings and a few small structures that were surrounded by a fence. The activity in the fenced section appears to be connected to the railroad spur that extends into the northeast corner of the area during the same time period that a concrete batch plant appears onsite. The batch plant was onsite from about 1954 until 1957. The railroad spur is still active in 1957 but appears to be linked to the salvage operation and not to the activities performed in the fenced section. Additionally, the footprint of the fenced section is reduced to one-quarter its original size and the railroad spur is no longer evident by 1959. Only two of the large buildings in the fenced section are still intact by 1959, all barracks have been removed adjacent to the subarea, and activities appear to be focused to the south-central section where surface stains are obvious and drums and pieces of a USAF bomber are staged near the location of burn training areas.

Other uses include storage of unidentified rectangular objects in the southern section for a short period in the late 1940s, a snow stockpile south of the PX Service Station (early 2000 period), storage of drums and possibly transformers in the area of the sound berm near the railroad tracks, drums staged east of Subarea A on east side of railroad tracks, and other buildings associated with the salvage operation such as the Base Disposal Office, Building T3689. An interview conducted by the Army Directorate of Public Works (DPW) with Fire Captain Scott Hunt noted the locations of drums, metal debris and location where Overhead Electrical Shop changed the oil in transformers (Memorandum for the Record, Fire Captain, Scott Hunt Interview, IMPA-FWA-PWE. 31 March, 2006). This document can be found in Appendix E of the PSE 1 (OASIS 2007).

Pre-RI Investigations and Recent Construction-Related Activities

Pre-RI investigations of Subarea A, in preparation for the construction of the current buildings (starting in 2002), have included the removal of 12-inches of topsoil and vegetation and construction of a sound berm, geophysical and geotechnical surveys, soil borings associated with these surveys, site clearing and debris removal as well as excavation and removal of MEC as documented in various EOD reports. (These reports can be found in the PSE 1, Appendix G [OASIS 2007a]).

Activities conducted concurrently with construction included dewatering to lower the water table and excavation of soil below the depth of groundwater. This required installation of wells in the area of the site between Buildings 48 and 22, extensive buried metal debris and MEC removal, and transfer of large volumes of water through a trench leading offsite to the Chena River. Dewatering activities were monitored and permitted by the ADEC. Information and analytical data associated with this activity can be found in Appendix E of the PSE 1. The aerial photograph of the FCS taken in 2005 during the early stages of construction shows the location of the dewatering wells, associated piping and trench and flooded area west of the SAS (This aerial photograph is presented on Figures 12 and 13 in the PSE 1. [OASIS 2007a]).

Specific investigations and activities included the following:

- **October 2003 Geophysical Survey.** An EM61 geophysical survey was conducted in the location of a "Suspect Landfill" and observed both buried and surface metallic debris. Shannon and Wilson performed a limited site characterization concurrently with the geophysical survey and collected samples from soil borings placed during the investigation. The data from the geophysical survey and the site investigation are located in Appendix H of the PSE 1. The location of dense metal debris (large anomalies) from this survey were found along the sound berm east of Building 26 and north of the location identified by Scott Hunt as an area of potential PCB contamination. Additional metallic material was found in most areas of the survey limited to clear or hydroaxed locations. Results from drilling and sampling of four soil borings found low-level concentrations of lead and residual range organics (RRO). Volatile and semi-volatile compounds were not detected.

- **November 2003 through February 2004 Geotechnical Investigation.** The geotechnical investigation and chemical data surveys encountered metal debris during drilling and detected PCBs in one soil boring (AP-8960); however, a follow-up investigation by NWI in March-April 2005 involving direct-push drilling and step-out sampling at four locations did not confirm that PCBs were present.
- **March 2004 through April 2005 Site Preparation Excavations**. MEC and other metallic debris were encountered during two excavations located south of the PX Service Station on the northern perimeter of the FCS. Documentation of MEC encountered is provided in the explosive ordnance incident reports provided in Appendix G of the PSE I report (OASIS, 2007a).
- **May 2004 Geophysical Investigation.** An extensive **s**urvey conducted using a Geometrics G858G cesium magnetometer/gradiometer and a Geonics EM-31 terrain conductivity meter identified the location of several possible disposal areas and a wide area of scattered debris and metal anomalies in Subarea A (R&M Consultants, Inc., 2004). This survey correlates well with the locations of past activities (salvage, MEC excavation and the oxbow) and also shows the location of some metallic anomalies east of the sound barrier. Figure 14 in the PSE 1 report provides the results of the R&M survey and the full report is provided in Appendix E (OASIS 2007a).
- **Spring 2005 Commencement of Housing Construction**. Contaminated soil, MEC, and other metallic debris encountered during construction were removed from excavations, field screened with a photoionization detector (PID) to determine hydrocarbon levels, stockpiled onsite or disposed offsite depending on results of PID. The excavation and removal activities involving field screening of potential contamination were documented by Shannon & Wilson in field notes and photographic records. Excavated soil determined to be "clean" by field screening was used to backfill excavations. Native soils were mixed with fill material brought to the construction site as necessary.
- **Summer 2005 Emergency PCB Site Investigation**. The Fort Wainwright U.S. Army evacuated the construction contractor and NWI conducted an emergency PCB site investigation. The construction contractor was not allowed to remove vehicles or equipment from the site until after analytical results provided confirmation that there was no contamination present. Investigation of surface and subsurface soil, stockpiled soil, trenches, man holes, equipment and groundwater was conducted. The soil investigation initially was focused on the northern half of the FCS to allow the construction contractor to finish construction activities and winterization of the construction site. Once this part of the investigation was completed the remaining area was characterized. PCBs were not detected at concentrations exceeding 1 milligram per kilogram (mg/kg) in any of the samples collected during this investigation.
- **Summer 2006 PSE II**. This investigation was performed using test pits to visually inspect geophysical anomalies previously identified by the 2004 R&M survey. The R&M Geophysical survey could not be relied upon to identify all areas where metallic debris

was still present due to extensive modification to site conditions made by the construction contractor. NWI conducted a limited geophysical survey to determine where metallic anomalies were present. The investigation also involved screening stockpiled debris for MEC, coordination of disposal, and monitoring of all intrusive activities performed by ordnance experts. The ordnance experts identified MEC in both existing stockpiles and also in new excavations in Subarea A. Low-level PCBs were detected across the subarea but were only detected above 1 mg/kg in screening-level test kit samples at the Transformer Service Area east of the perimeter sound berm.

Collectively, the previous investigation activities have documented the existence of wide areas of a variety of metal debris (surface and buried), including building material, vehicle parts and drums. In addition to metal debris, excavations also uncovered discarded military munitions (DMM) material in Subarea A. Laboratory testing indicated the presence of low-level lead and PCB concentrations across Subarea A and a single RRO detection for a soil boring in the southeast corner of the subarea. The insecticides, beta-benzenehexachloride (beta-BHC) and dichlorodiphenyltrichloroethane (4,4′-DDT) were also detected from samples collected near Buildings 25 and 11, respectively (see Appendix B, Figure 3-14).

3.2.2 Subarea B

Subarea B, the smallest subarea, also referred to as the POL area, is located in the northern portion of the site and borders the SAS fence (Figure 1-2) and includes constructed Buildings 5 through 10.

Past Practices

Subarea B was occupied by company barracks and headquarters in the 1940s to 1960s (the same set of structures that extended into the west side of Subarea A). Large above ground fuel storage facilities have been identified; however, suspected underground pipes, storage tanks, and fuel usage in association with activities occurring in this subarea appear to be the main source of POL contamination in Subarea B. Salvage activities associated with activities in Subarea A appear to have extended into Subarea B. These salvage activities appear to conclude by 1960.

Previous Investigations and Recent Construction-Related Activities

Pre-RI investigations of Subarea B in preparation for the construction of the current buildings (starting in 2002) have included the following:

- **2004 Geophysical Survey.** The CRREL geophysical survey did not extend into this area; however, the 2004 R&M geophysical survey shows anomalies between Buildings 7, 8, and 9 as well as along the fence of the SAS. The anomalies along the fence may be unreliable due to interference from the metallic chain link fence.

- **Summer 2005 Excavations Associated with Building Construction.** Petroleum-affected soil was excavated from Subarea B during construction activities, field screened by Shannon & Wilson with a PID, and stockpiled at various locations onsite and behind the PX Service Station based on the results of the field screening. The excavated soil was used as backfill onsite, transported to long-term stockpiles at the Fort Wainwright Defense Reutilization Marketing Office (DRMO) yard, or transported off site for thermal treatment. NWI sampled the soil stockpiled behind the PX during the summer of 2005 prior to constructing long-term stockpiles at DRMO in October 2005. Stockpiled soils were sampled and tested for a variety of target analytes including diesel-range organics (DRO), PCBs, gasoline range organics (GRO), RRO, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs,), metals, pesticides, herbicides, and explosives. Sample results identified the presence of VOCs, DRO, pesticides, herbicides, and explosives (NWI, 2007).

- **July 2005 Soil Boring Investigation and Monitoring Well Installations.** NWI installed 18 soil borings and three monitoring wells to delineate petroleum-affected soil and groundwater. Only DRO exceeded ADEC cleanup criteria in both soil and groundwater (Oasis, 2007a).
- **Fall Construction 2005 Activities.** While excavating the drainage ditch located north of the subarea and parallel to the SAS fence, the construction contractor identified POL contamination north of Building 9. The results from soil samples confirmed that soil was contaminated with DRO. The soil was not excavated; however, the area with soil contamination was covered with plastic liner and soil to eliminate potential for water in the drainage ditch to transport contaminated soil offsite.
- **PSE II.** NWI excavated three test pits at points of interest identified by the 2004 geophysical survey. Excavated debris included piping, culvert material, and reinforced concrete rubble. A passive soil gas survey was also conducted for VOCs and found the highest total petroleum hydrocarbon (TPH) contamination present near Building 10. Detected VOCs were primarily diesel range, with no benzene, toluene, ethylbenzene, and xylenes (BTEX) detected.
- In summary, the primary contaminant for Subarea B is DRO, which was encountered at high levels during construction-related excavation.

3.2.3 Subarea C

Subarea C is located in the northwestern corner of the FCS, bordered by Subarea B and SAS on the east, Neely Road on the north, and existing housing areas to the west and south. Subarea C includes constructed Buildings 1 through 4.

Past Practices

The company headquarters and barracks that were located in Subareas A and B extended into Subarea C. Salvage operations also appear to have taken place in this subarea. The former meander channel (oxbow) extends through this subsection, under Neely Road and joins the Chena River at a location near the new hospital. This is also the location of pole mounted transformers that are identified in the 1958 Master Plans and visible in the 1954 aerial photograph.

Previous Investigations and Recent Construction-Related Activities

Pre-RI investigations of Subarea C have included the following:

- **2004 Geophysical Survey.** The CRREL geophysical survey did not extend into this area; however, the 2004 R&M geophysical survey shows anomalies between Buildings 1 and 3 and extending north to the corner of the SAS chain link fence, and through the footprint of Building 3.

- **Summer 2005 Excavations Associated with Building Construction.** Construction workers noted an odor while excavating around Building 3. Some metal debris was removed by construction activities that required the excavation of soils for building foundation development and for drainage and utility installations. This area was flooded during the FCS dewatering activities. The construction contractor placed bales of straw at two locations in this ditch to trap sediment before water left the site and entered the channel flowing into the Chena River. The surface water was monitored by the construction contractor per ADEC permitting for water quality parameters. The results of this monitoring are provided in the PSE 1 report (OASIS 2007a).
- **PSE II.** The PSE II included a passive soil gas survey and collection of soil samples from a number of borings advanced around the subarea. Results of soil gas sampling between Buildings 3 and 4 identified the presence of BTEX compounds and tetrachloroethene (PCE).

On the basis of information from these previous investigations and a review of pre-RI data from those investigations, the soil in Subarea C may contain BTEX and PCE.

3.2.4 Subarea D

Subarea D is located in the southeast corner of the site and includes constructed Buildings 60 through 64. A sound berm borders the east side of this subarea. The GVEA substation and Alder Road borders the south, and Subarea E borders the west.

Past Practices

Salvage activities in Subarea A extend into this subarea as early as 1947 and long rectangular objects are stored in this area for a short period of time. Information on activities associated with this area is similar to those found to support Subarea A. Figures A-1 through A-7 of the PSE 1 report (OASIS 2007a) present information from USACE topographical drawings overlaid on historical aerial photographs of the subarea. The location of three "Live Ammo Storage" areas is presented in the general location of the seven concrete shelters that are visible from 1954 until 1959. The footprint of the seven structures remains visible until late 1960s. Additionally, an area that appears to be denuded of vegetation (current location of the GVEA substation) is in this subarea with a road that connects it to the location of the seven shelters. The area remains devoid of vegetation until the GVEA substation is constructed in 1978. The seven concrete shelters appear to be connected to activity in the "Garden Plots" of Subarea E by a road.

Additionally, a large cache of drums is located east of this subarea and east of the railroad tracks. Surface scarring in aerial photographs indicate disturbance of surface soil potentially associated with a trench that parallels Neely Road or the construction of Neely Road. This trench is visible in a 1959 aerial photograph. No evidence of past activities is present by the late 1970s. The U.S. Air Force Master Plan shows a water line passing through this subsection to the Heating Plant east of the FCS.

Previous Investigations and Recent Construction-Related Activities

Pre-RI investigations of Subarea D have included the following:

- **2004 Geophysical Survey.** Past geophysical surveys did not provide conclusive information on this site due to interference from the GVEA Substation. Vegetation and soil removed from the FCS were used to construct the sound berm located to the south and east of the subarea.

- **Summer 2005 Excavations Associated with Building Construction.** At the time of the 2005 emergency PCB site investigation, no buildings were constructed in this subarea. However, the foundations were present at the time it was conducted. Soil excavated from the Exclusion Zone (EZ) in Subarea E, later determined to be PCB-contaminated, was stockpiled north of Building 60 and reportedly mixed with sand and gravel to backfill building foundation footprints. Fill material was collected from these foundations and PCBs were not detected. PCBs were detected in the stockpiled material but at levels below 1 mg/kg.
- **Summer 2005 Emergency Site Investigation.** A trench was excavated in the northwest corner of Subarea D and associated stockpiled soil was tested for PCBs; however, no PCBs were detected above 1 mg/kg. A green munitions shipping container was found in the stockpiled soil near a utility trench. Characterization samples were not collected beyond the fenced area with the exception of the road leading offsite. Surface soil samples were collected outside the gate and tested for PCBs. PCBs were not detected confirming that contamination was not tracked offsite on vehicles involved in construction and investigation activities.
- **PSE II.** Soil samples from the sound berms along the east and south perimeters of the subarea contained PCBs at concentrations greater than 1 mg/kg.

3.2.5 Subarea E

Subarea E is located in the southwest corner of the FCS and includes constructed Buildings 37 through 40, as well as partially developed foundations for unconstructed Buildings 50 through 59 in the PCB EZ. Only two of the buildings in the EZ had concrete foundations, Buildings 54 and 59, all others were constructed of gravel, rebar, and insulating blue board.

Past Practices

Clearing of the northwest section of this subarea begins in late 1940s and does not appear related to clearing for residential housing. By 1949 clearing extends south and covers 50 percent of the subarea. Roads separate the area known as the "Garden Plots" by 1954 giving the appearance of the four rectangular sections associated with the communications area. Two buildings are constructed north of each rectangular plot. A white circular structure, possibly radar-type, in the area of Building 56 and 57 appears in 1954 but is located outside the plots in 1956. The former Chena River oxbow extends through the area north of the "Garden Plots" and is visible until the late 1970s.

Records indicate that Subarea E was the location of communication and radar systems, starting in the late 1950s. Aerial photographs show several small structures and power poles that appear to match the 1958 Electrical Power and Lighting Facilities Master Plan. Garden plots and several small associated buildings were also present in the southwest portion of the subarea. A power pole on the master plan coincides with the location of the wooden pole and cables found in the foundation excavation of Building 52 in the EZ. By 1959 the area appears to have revegetated and a loading ramp is present south of the EZ. The area of rectangular plots is used for personal garden plots beginning in 1964. The "Garden Plot Area" is connected to the seven concrete shelters (live ammo storage) by a dirt road. The road is evident on aerial photographs until construction begins in 2005. It appears that the concrete shelters were located south of the open field that is currently beyond the sound berm and southwest of the GVEA substation.

According to an interview with Fire Captain Scott Hunt, he responded to a fire in the garden plot area in the 1970s and found two drums on fire. One drum was located inside the dumpster and one drum was on the ground. A transformer was found on the ground near the drum of motor oil and oil in transformer was boiling out due to heat from the fire. This interview is provided in Appendix E of the PSE 1 report (OASIS 2007a).

The area south of the EZ was used as a "Laydown Yard" by the construction contractor and was used to stockpile snow in the early 2000s.

Previous Investigations and Recent Construction-Related Activities

Pre-RI investigations of Subarea E have included the following:

- **Summer 2005 Sampling.** NWI conducted a number of sampling activities in support of construction activities, including:
  - **Soil Sampling**. Surface soil across the subarea was sampled for PCBs. Low level PCBs were detected across the subarea but only exceeded 1 mg/kg near Buildings 50, 51, and 52.
  - **Building 52 Soil Samples**. NWI collected soil samples from the excavation and stockpiled soil in the footprint of the original Building 52 location after a solvent-like odor was reported by a construction contractor equipment operator. Soil was characterized to evaluate disposal options. However, due to detection of trichlorophenols, additional investigation was required. Additional analyses determined high levels of PCBs (percent levels), dioxin/furans, and trichlorobenzenes were present in the stockpiled soil and in the excavation. Soil stockpiled north of Building 54 (characterized as containing low level PCBs) was used to backfill the excavation.
  - **Wipe Samples.** Surfaces in the EZ area including outdoor recreational equipment inside the FCS, as well as equipment located in the adjacent residential area and residences, were sampled by NWI. The surface wipe samples were tested for PCBs and with limited testing for dioxin/furans. PCBs and dioxin/furans were not detected in any of the samples collected outside the FCS. However, PCBs and dioxins/furans were detected at very low levels (near method detection limit) in wipe samples collected from equipment inside the FCS. The FCS recreation equipment was dismantled to discourage future use and removed from the site. Additional wipe samples were collected from the fabric lining the chain link fence and perimeter and personal air samples were collected and tested for PCBs to evaluate the potential transfer of PCBs offsite by dust dispersion. No PCBs were detected.
  - **Utility Trench Backfill Samples.** Soil used to backfill a utility excavation was tested and found to contain low level PCBs (less than 1 mg/kg). The soil was removed and returned to the EZ and excavation was filled with clean material.

  - **Well Installation**. Three permanent monitoring wells were installed and sampled in the subarea. No contaminants were detected above ADEC groundwater criteria and PCBs were not detected

- **PCB Exclusion Zone Established.** The PCB EZ was established and secured with chain-link fencing on August 31, 2005. Site access was restricted and monitored by NWI to protect site workers from exposure to PCBs in the EZ. NWI provided escort to construction personnel requiring access to the EZ.

- **2005 Time Critical Removal Action.** Two hundred thirty cubic yards of PCB-contaminated soil originating from the Building 52 location were transported off site for treatment and disposal on September 20, 2005. The removal and disposal of the PCB-contaminated soil was documented in a Time Critical Removal Action (TCRA) memorandum that was approved of as a FFA Agreement Deliverable Document by ADEC and the USEPA on November 19, 2007.

- **Spring 2006**. NWI constructed a temporary settling pond southwest of the EZ in April prior to spring breakup to collect water and sediment runoff samples. These samples were tested to determine if contamination was migrating offsite with snow melt that historically floods the area southwest of the EZ and behind the adjacent residential area.

In summary, PCBs, dioxins/furans, and other organic chemicals are present in soil in the subarea. CB EZ was established and secured with chain-link fencing on August 31.

3.3 Preliminary Assessment of Pre-RI Data

As described above, a relatively large set of chemical data are available to characterize conditions in the FCS. The existing soil and groundwater laboratory test data and sample location coordinates have been compiled into a project database that is linked to a geographic information system (GIS). The database contains information on more than 1,200 separate soil and groundwater samples, and each sample has been tested in a laboratory to quantify the concentrations of up to 160 analytes.

As part of planning for the RI, the results for each sample were compared to preliminary screening levels in order to select target analytes, characterize possible source areas, and identify additional data needs for different portions of the FCS. The screening levels are listed by analytical method in Tables 3-1 (soil) and 3-2 (groundwater). Because some analytes are detected by more than one test method, analytes may appear more than once on the table. The screening levels are based on published risk-based values, as follows:

- The screening levels for all potential soil contaminants, except arsenic, are based on ADEC soil ingestion, migration to outdoor air (inhalation), and migration to groundwater cleanup levels [1], and the USEPA Region 6 residential preliminary remediation goals (PRGs). The screening level for arsenic is based on background levels in the area determined by the Army (USACE, 1994).

[1] Title 18, Chapter 75, of the *Alaska Administrative Code* (18 AAC 75), Tables B1 and B2, Technical Memorandum 01-007 (Additional Cleanup Levels Values, 2003), and Technical Memorandum 06-003 (Trichloroethylene Toxicity Values, 2006).

- The screening levels for groundwater are based on the lower of one-tenth of the ADEC Table C groundwater cleanup level or the USEPA Region 6 tap water PRG for each analyte. Table 3-2 also lists maximum contaminant levels (MCLs) and Federal Drinking Water Equivalent values.

As described above, these screening levels are in concept related to human health risk. The risk levels for most analytes are a carcinogenic risk of 10^{-6} and a hazard index of 0.1. It should be clear, however, that the screening levels presented here are not true risk-based values because of assumptions about phase partitioning, dilution and attenuation, site specific soil conditions, and exposure parameters. However, the screening levels are interpreted to be adequate to screen the existing data to help identify data gaps that need further investigation. Different screening levels may be developed in the future to identify contaminants of potential concern (COPCs) for the risk assessment and to define possible contaminant source areas.

A color coding system was used to assist in evaluating the existing analytical data relative to the screening levels. The color coding system has five colors or levels: blue, green, yellow, orange, and red. These colors related to the screening levels as follows:

- Blue indicates concentrations less than or equal to the screening level.
- Green indicates concentrations greater than the screening level and less than or equal to 10 times the screening level.
- Yellow indicates concentrations greater than 10 times the screening level and less than or equal to 100 times the screening level.
- Orange indicates concentrations greater than 100 times the screening level and less than or equal to 1,000 times the screening level.
- Red indicates concentrations greater than 1,000 times the screening level.

Given that the screening levels are in concept related to carcinogenic risk levels of 10^{-6} or a hazard index quotient of 0.1, the yellow, orange, and red color codes may exceed the Alaska default carcinogenic risk level of 10^{-5}, a hazard quotient of 1.0, or both. Many of the results in the database indicate that the analyte was not detected. When an analyte was not detected, a value of half the detection limit was used to statistically characterize the result, and this value was assigned the appropriate color code. The color coding system is used in a statistical summary of the existing data and to map the chemical data.

3.3.1 Summarized Comparisons of Pre-RI Data to Screening Levels

The chemical data in the database are from samples that represent the following groups:

- Soils that remains on site (in situ soil)
- Soils that were excavated and stockpiled or disposed of off site (ex situ soil)
- Groundwater at the site

The in situ soil and groundwater results are data that would likely be used in future site characterization and risk assessment work, and the ex situ soils data may be used to characterize excavated soil stockpiles for disposal and as an indicator of chemicals historically used or disposed of at the site. The ex situ soils data would not be used in a characterization of current site conditions or risk.

3.3.1.1 In Situ Soil

A statistical summary for detected analytes in the in situ soil group is provided as Table 3-3. Review of Table 3-3 shows the following:

- Most organic analytes in the database were not detected at the site (80 out of 150 organic compounds were not detected at the site).
- Most organic analytes that were detected were detected in only a small fraction of the analyses (only 13 out of 150 organic analytes were detected in more than 10 percent of the analyses).
- The most commonly detected analyte was TPH motor oil (RRO in Alaska) and the third most commonly detected analyte was TPH diesel (DRO in Alaska). Note that the low-level detection of these analytes probably represents detection of naturally occurring organic carbon and not fuel hydrocarbons, and the high concentrations of these analytes likely do indicate the presence of fuel hydrocarbons. (The AK102 and AK103 test methods do not differentiate between carbon in fuel hydrocarbons and carbon in naturally occurring organics.)
- Acetone and methylene chloride were detected relatively commonly, but these compounds are usually laboratory contaminants and likely do not represent true detections in in situ soil.
- 4,4-DDT; 4,4-DDE; and 4,4-DDD were commonly detected, but these compounds were only detected in one sample at concentrations exceeding a risk-based screening level. The frequency of detection may be related to the normal use of these chemicals and not to bulk spills, leaks, or disposal of the chemicals.

3.3.1.2 Groundwater

Table 3-4 shows the frequency of pre-RI detections of analytes in groundwater. Review of Table 3-4 shows the following:

- Most organic analytes in the database were not detected at the site (about 115 out of 150 organic compounds were not detected at the site).
- The most commonly detected organic analyte was TPH diesel (DRO in Alaska), and 15 percent of the detections exceeded ADEC criteria. The low level detection of DRO may represent detection of naturally occurring organic carbon and not fuel hydrocarbons, and the higher concentrations of DRO likely do indicate the presence of fuel hydrocarbons. (The AK102 and AK103 test methods do not differentiate between carbon in fuel hydrocarbons and carbon in naturally occurring organics.)
- Analytes on the explosives list were detected relatively commonly but they were below risk levels in most wells.

3.3.1.3 Pre-RI Results with Detection Limits Exceeding Screening Levels

Tables 3-5 and 3-6 list non-detect pre-RI results for soil and groundwater, respectively, with detection limits that exceeded the screening levels.

3.3.1.4 Supplemental Summary of Pre-RI Data

Table 3-7 summarizes the distribution of the pre-RI data in several categories, as follows:

- Columns 1 and 2 list all analytes in the database (and their CAS numbers) in alphabetical order.
- Column 3 indicates whether the result represents soil or groundwater.
- Column 4 indicates whether the results represents in situ or ex situ soil conditions. (All groundwater results represent in situ conditions.)
- Column 5 indicates whether the analyte was detected or not detected in the analysis.
- Column 6 lists the analyte screening levels.
- Columns 7 through 12 list the number of laboratory test results in the color categories given the media—in situ versus ex situ and detect versus non-detect—conditions represented by the row.
- Column 13 lists the total number of analyte results for in situ soil, ex situ soil, and groundwater.
- Column 14 shows the percentage of the in situ soil, ex situ soil, and groundwater results that detected or did not detect an analyte.
- Columns 15 through 19 show the percentage of the results relative to the screening level using the color categories.

Each analyte in Table 3-7 is listed in six rows. The information in the rows should be viewed in pairs—in situ soil detect + in situ soil non-detect; ex situ soil detect + ex situ soil non-detect; groundwater detect + groundwater non-detect. The sum of the "in situ soil detects" and "in situ soil non-detects" equals the total number of in situ soil analyses, and the sum of the in situ soil percentages equals 100 percent.

Consider the first compound listed in Table 3-7, 1,1,1,2-tetrachloroethane, as an example of data presented for the analyte. The table shows the following:

- There are 197 analytical results for this compound in in situ soil (column 13, rows 1 and 2).
- The compound was not detected in any of these analyses (column 12, row 1).
- The total number of non-detect results was 197 (column 12, row 2).
- In 196 of the analyses that did not detect the compound, the color is coded as "blue," indicating that half the detection limit was less than the screening level.

Review of Table 3-7 shows that several analytes routinely had detection limits more than 10 times greater than the screening levels (1,2-dibromoethane; 1,2-dibromo-3-chloropropane;

1,2,3-trichloropropane; bis-(2-chloroethyl)ether; 3,3'-dichlorobenzidine; 2,4-dinitrophenol; n-nitrosodimethylamine; n-nitrosodi-n-propylamine; pentachlorophenol; 2,4-dinitrotoluene; 2,6-dinitrotoluene). Of these compounds only n-nitrosodi-n-propylamine and pentachlorophenol were detected at the FCS. These compounds were excluded from the mapping and will likely be addressed qualitatively in the risk assessment. In addition, acetone and methylene chloride were excluded from the mapping because these compounds are common laboratory contaminants.

3.3.2 Spatial Distribution of Selected Analytes in Soil and Groundwater

Three series of maps have been prepared to display the spatial distribution of selected analytes in in situ soil and groundwater in the FCS. Ex situ soils data (soil excavated and stockpiled or removed from the site) are not mapped. The three series of maps show the following single analytes or groups of analytes:

- DRO
- Total PCBs
- VOCs
- SVOCs
- Pesticides
- Chlorinated herbicides
- Explosives
- Metals

The compounds included in the groups of analytes correspond to the analytes in standard test methods. The locations of the in situ samples are shown on the maps using symbols, with the color of the symbol indicating the concentration relative to the screening level, and the shape of the symbol representing the depth of the sample. The maps use the blue, green, yellow, orange and red color coding system. As described above, the color codes indicate the analyte concentrations relative to screening levels. On the maps representing a group of analytes, the color assigned to a location is the hottest (or worst case) result of all the analytes in the group.

Three symbol shapes are used to indicate the sample depth:

- Surficial samples with sample ending depths less than 2 feet are represented by small, solid dot.
- Samples collected between 2 and 10 feet are represented by open, medium-sized hexagons.
- Samples with ending depths greater than 10 feet are represented by open, large rings.

At most locations within the study area the small, solid dots and open, medium-sized hexagons are vadose zone samples, and the open, large rings are from the zone of seasonal water table fluctuation or the saturated zone. These symbol shapes allow the display of results from multiple depths within the same boring.

There are two series of soils maps. The first series of soils maps shows the union of detected compounds of all “colors” and non-detect results with blue and green colors. The locations that have detections at the yellow, orange, and red levels have text boxes that list the analytes, concentrations, and depths of the yellow, orange and red detections. The blue and green detect and non-detect results are not labeled. These maps are intended to indicate areas where contaminants are identified at levels that suggest the need for additional investigation (the yellow, orange, and red detections, which may indicate exceedances of risk criteria) and areas where existing data suggest a lesser degree of risk (the blue and green locations, whether they represent a detection or non-detect result).

The second series of soils maps shows locations where the laboratory did not detect an analyte, but the detection limit exceeded the screening level by a factor of 10 or more. (The analyte was not detected, but its color was yellow, orange, or red.) Table 3-5 was prepared to identify all non-detect yellow, orange, and red coded analytes; their depths; and detection limits. At most, the locations with non-detect yellow, orange, and red results, the detection limit was elevated because of the presence of other contaminants, such as fuel hydrocarbons, which caused interference in resolving separate analyte peaks, dilution of the sample, or both. The presence of other contaminants increased detection limits. Note that sample locations may appear in both the first and second map series if they have yellow, orange, or red detections and yellow, orange, or red non-detect results (otherwise each sample location should only appear on one map). In concept, these locations may require additional investigation, a qualitative evaluation in the risk assessment, or both. (The data to document that risks are within acceptable limits does not exist.)

The third series of maps show groundwater data. The groundwater data uses the same blue, green, yellow, orange, and red color-coding system as used for the soils data. However, because all existing groundwater samples were collected from the shallow saturated zone (about 10 to 20 feet below grade), the groundwater symbol shape is the same for all sample locations. The groundwater maps in general show that the groundwater data density is much lower than the soils data density. The groundwater data also shows that some monitoring well locations did not detect analytes, but the detection limits were above the groundwater criteria. Table 3-6 lists these yellow, orange, and red colored non-detect data.

The following paragraphs described the distribution of the selected analytes in FCS soil and groundwater:

3.3.2.1 DRO

The pre-RI DRO soils data (Figure 3-2) clearly show a contiguous DRO source area in the vicinity of Buildings 7, 8, 9 and 10. (Figures 3-2 through 3-25 are provided in Appendix B, Chemical Data Mapping.) The orange symbol color indicates the concentration of the DRO detections are between 2,500 and 25,000 mg/kg (100x to 1,000x the 25-mg/kg screening level). The open hexagon and open ring symbol shapes indicate that the DRO is both in the vadose zone between 2 and 10 feet deep (the hexagons), and in the zone of seasonal water table fluctuation or saturated zone greater than 10 feet deep (the open rings).

The eastern, southern, and western extent of the source area appears to be relatively well defined, but the northern boundary of the DRO-contaminated soil is not well delineated. To further delineate the northern extent of the DRO source area, borings and monitoring wells are recommended to the north of Buildings 7 and 9. The map also shows a single, vadose zone, yellow DRO detection south of Building 49. The Building 49 location is to be excavated during the 2007 field season, and confirmation sampling will be conducted;

therefore, additional soil borings are not recommended specifically for this location, although a downgradient boring and well will be placed near the northwest corner of Building 49. The second DRO soils map (Figure 3-3) shows that there were no locations with yellow, orange, or red non-detect DRO results.

The groundwater DRO map (Figure 3-4) shows that ADEC Table C criteria are exceeded at the MW06 and MW12 locations (which are associated with the DRO source area shown on the soils map). In addition, DRO groundwater criteria are exceeded at the MW02 location.

3.3.2.2 PCBs

The pre-RI PCBs data (Figure 3-5) shows a relatively high data density across the FCS and that the existing yellow, orange and red PCB detections are limited to the southwest corner of the site near Building 52 and west of Building 50. The yellow, orange, and red symbols indicate that concentrations ranging from 1 to greater than 1,000 mg/kg (10x to 10,000x the 0.1-mg/kg screening level) have been measured, and the symbol shape shows that the detections are in surface soils and vadose zone soils less than 10 feet below grade. The absence of open rings at the detection locations indicate that samples from the zone of seasonal water table fluctuation, saturated zone, or both have not been analyzed. The PCB source area near Building 52 will be excavated in 2007, and confirmation sampling will be conducted across the floor of the excavation. In addition, soil borings and monitoring wells will be installed downgradient of the excavations. The second PCBs soils map (Figure 3-6) shows that there were no locations with yellow, orange, or red non-detect PCB results.

The groundwater PCB map (Figure 3-7) shows that groundwater criteria have not been exceeded at any existing well location. However, wells have not been installed at or immediately downgradient of the PCB source area. Monitoring wells will be installed in 2007 downgradient of the PCB excavation area.

3.3.2.3 VOCs

The pre-RI VOCs soils data (Figure 3-8) show yellow, orange, and red VOC detections: in the vicinity of Building 52 (at the same location as high PCB detections), north of Building 48, and north of Building 23. The detections at the Building 52 location are for 1,2-dichlorobenzene, 1, 2, 4-trichlorobenzene, toluene, and ethylbenzene. As shown in the text box, 1, 2, 4-trichlorobenzene concentrations up to 6,480 mg/kg were detected near Building 52 in surface soils samples. At the Building 48 location, the text box shows that 1,1,2-trichloroethane was detected at the 8-foot depth at a concentration of 0.13 mg/kg. At the Building 23 location, the text box shows that benzene was detected at the 4-foot depth at a concentration of 0.34 mg/kg. The orange symbol color at the Building 23 location indicates this benzene concentration is between 100 and 1,000 times the screening level, which in concept is 10 to 100 times the generic risk-based level. The open hexagons symbol shape at the Building 48 and 23 locations indicates that the VOC detections are in the vadose zone between 2 and 10 feet deep. The text box provides the exact sampling ending depth.

During the 2007 investigation, soil borings and monitoring wells will be placed at or immediately downgradient of the yellow, orange, and red VOC detections. The second VOCs soils map (Figure 3-9) shows that there were several locations with yellow, orange, or red non-detect VOC results. Most of these results are associated with the known contaminants at the Building 52 location or the DRO source area near Buildings 7, 8, 9, and

10. A location identifier is shown on the map for locations with a yellow, orange, or red non-detect result and the specific compounds with detection limits exceeding criteria are listed in Table 3-7.

The groundwater VOC map (Figure 3-10) shows that groundwater concentration criteria are exceeded at the MW02 location. Non-detect results with elevated detection limits (yellow, orange, and red colors) are listed in Table 3-6.

3.3.2.4 SVOCs

The pre-RI SVOCs soils data (Figure 3-11) shows yellow, orange, or red SVOC detections in the vicinity of Building 52 (at the same location as high PCB detections) and north of Building 1. The detections at the Building 52 location are for 1,2-dichlorobenzene and 1,2,4-trichlorobenzene. These compounds are also detected by the VOC test method and are displayed on the VOC map (Figure 3-8). As shown in the text box, 1,2,4-trichlorobenzene concentrations up to 6,480 mg/kg were detected near Building 52 in surface soils samples. At the Building 1 location, the text box shows that benzo(a)pyrene was detected at the 4-foot depth at a concentration of 0.33 mg/kg. The yellow symbol color at the Building 1 location indicates this benzene concentration is between 10 and 100 times the screening level, which in concept is 1 to 10 times the generic risk-based level. The open hexagons symbol shape at the Building 1 location indicates that the SVOC detection is in the vadose zone between 2 and 10 feet deep. The second SVOCs soils map (Figure 3-12) shows that there were several locations with yellow, orange, or red non-detect SVOC results. All of these results are associated with the known contaminants at the Building 52 location or the DRO source area near Buildings 7, 8, 9, and 10. A location identifier is shown on the map for locations with a yellow, orange, or red non-detect result, and the specific compounds with detection limits exceeding criteria are listed in Table 3-7.

The groundwater SVOC map (Figure 3-13) shows that criteria are not exceeded at the FCS. Non-detect results with elevated detection limits (yellow, orange, and red colors) are listed in Table 3-6.

3.3.2.5 Pesticides.

The pre-RI pesticides soils data (Figure 3-14) shows yellow, orange, or red pesticides detections south of Building 51, north of Building 25, and north of Building 11. The text boxes show the following:

- The detection at the Building 51 location is for dieldrin, for which the sample ending depth was 4 feet and the measured concentration was 0.018 mg/kg.
- The detection at the Building 25 location is for beta-BHC, for which the sample ending depth was 4 feet and the measured concentration was 0.037 mg/kg.
- The detection at the Building 11 location is for 4, 4-DDT, for which the sample ending depth was 2 feet and the measured concentration was 18.8 mg/kg.

During the 2007 investigation, soil borings and monitoring wells will be placed at or immediately downgradient of the yellow, orange, and red pesticide detections. The second pesticides soils map (Figure 3-15) shows that there were two locations with yellow non-detect pesticides results. The yellow non-detect pesticides results are near Buildings 49 (associated with the known DRO contamination at the Building 49 location) and Building 22. A location identifier is shown on the map for locations with a yellow non-detect result, and the specific compounds with detection limits exceeding criteria are listed in Table 3-7.

The groundwater pesticides map (Figure 3-16) shows that criteria are not exceeded at the FCS.

3.3.2.6 Chlorinated Herbicides

The pre-RI soils data for chlorinated herbicides (Figure 3-17) shows that chlorinated herbicides have not been detected at yellow, orange, or red concentrations at the FCS. The second chlorinated herbicides soils map (Figure 3-18) shows that there were no locations with yellow, orange, or red non-detect results for chlorinated herbicides.

The groundwater chlorinated herbicides map (Figure 3-19) indicates that groundwater criteria are not exceeded at the FCS.

3.3.2.7 Explosives

The pre-RI explosives soils data (Figure 3-20) shows that explosives have not been detected at yellow, orange, or red levels at the FCS. The second explosives soils map (Figure 3-21) shows that there were several locations with yellow, orange, and red non-detect explosives results. All of these results are associated with the known contaminants at the Building 52 location or the DRO source area near Buildings 7, 8, 9, and 10. A location identifier is shown on the map for locations with a yellow, orange, or red non-detect result, and the specific compounds with detection limits exceeding criteria are listed in Table 3-7.

The groundwater explosives map (Figure 3-22) shows that the only analyte that exceeded groundwater criteria was RDX, which was detected at the MW02 location. However, several analytes that were not detected had detection limits above groundwater criteria (as shown in Table 3-6).

3.3.2.8 Metals

The pre-RI metals soils data (Figure 3-23) shows yellow, orange, or red metals detections east of Building 26 and east of Building 19. The text boxes show the following:

- The detection at the Building 26 location is for lead, for which the sample ending depth was 2 feet and the measured concentration was 206,000 mg/kg. (This lead detection is likely from the analysis of metal debris and not soil.)
- The detection east of the Building 19 location is for cadmium, for which the sample ending depth was 11 feet and the measured concentration was 5.2 mg/kg.

The second metals soils map (Figure 3-24) shows that there were no locations with yellow, orange, or red non-detect metals results.

The groundwater metals map (Figure 3-25) indicates that groundwater criteria are not exceeded at the FCS.

3.3.3 Soil Gas Investigation Results

Pre-RI passive soil gas (Gore Sorber™) samples were collected in the northern area of the FCS where there were indications of potential VOC contamination. Sample locations were determined by using a large grid, with one to two samples collected at each building in Subarea B, the western portion of Subarea A, and the two eastern-most buildings in Subarea C (see Work Plan Addendum 2 for passive soil gas sampling locations). Samples were analyzed by using gas chromatography. Passive soil gas samples are intended for use in identifying "hot spots" by comparing relative concentrations between sampling locations. They cannot be used for determining actual analyte concentrations in any one location.

Results of the passive soil gas analysis indicated the presence of petroleum-related constituents, chlorinated solvents, and chlorofluorocarbons. Detections of petroleum-related compounds were widespread, with the strongest detection at a sample located between Buildings 9 and 10. Results also indicated possible hot spots for petroleum constituents between Buildings 3 and 4 and south of Building 8. Two chlorinated solvents, trichloroethene and PCE, were detected at a total of five locations, with the strongest detections located between Buildings 3 and 4 and south of Building 14. Chlorofluorocarbons were tentatively identified at 33 of the 35 locations throughout the area and are believed to be the derived from foam used to insulate underground utilities for the new subdivision site-wide.

3.3.4 Distribution of Ordnance and MEC

During the 2006 field season, test pits were excavated to determine whether physical or chemical hazards associated with buried debris may be present. Initial test pits did not encounter much debris. Therefore, a high-resolution geophysical investigation was conducted to better identify sites containing debris for test pit locations. The test pits were all located within Subarea A. In addition, many stockpiles from the installation of subgrade infrastructure and general site grading were located around the perimeter of the construction site. Five stockpiles contained debris with very little soil; these were referred to as "debris piles." The stockpiles were located in the southern portion of Subarea E. In total, 30 test pits and 22 stockpiles were investigated during the 2006 field season; containing an estimated 3,600 cubic yards of material. The 2006 investigation represents sampling associated with previous construction activities over the entire site footprint as well as from test pits whose locations were biased to buried debris.

Eight ordnance items related to DMM were uncovered, including six items from the test pits and two from the debris piles. Table 3-8 identifies the items and includes a description, the location found (when available), evaluation of the item, disposition, and the associated hazard. The initial risk was determined by using the Army's field manual for risk management (Headquarters Department of the Army, 1998), and the specifics of the items were determined from explosive ordnance records. Additional items found, but not included in the table because they are related to munitions debris (MD), were 105-millimeter artillery round shipping tubes, an M10 chemical smoke tank, and rifle casings.

Additional items were located at the Fort Wainwright Gas Station, which lies just outside of the northeast corner of the FCS. Information on these items is presented in Table 3-9. The specific locations and depth of the items located were not detailed in the reports (U.S. Army Alaska, 2007a; Oasis, 2007a).

Explosives-related compounds were detected in 24 soil samples collected at the FCS from debris and soil piles (generated from the installation of site infrastructure) as well as from test pits installed to further characterize the site. The test pits were in the two primary metal debris burial locations as determined by the geophysical survey. All results are very low (less than 0.5 mg/kg) and flagged with a "J," meaning that the reported concentrations are estimated and below the method reporting limit. The reported concentrations are not sufficiently high to suggest a large source of explosives or degradation products in the area.

Explosives-related compounds were detected in groundwater samples collected at five monitoring wells. The highest concentrations of explosives-related compounds were reported in samples from MW06A, MW06B, and MW12 (in Subarea B immediately west of the eastern leg of the former river channel) where petroleum hydrocarbon concentrations were also elevated. Only trace levels of a single compound (nitrobenzene) were reported in samples from MW05 (western boundary of the FCS) and MW11 (center of the FCS), which did not contain petroleum hydrocarbons. The method used to analyze the groundwater samples for explosive-related compounds (Method SW8330) is known to experience interferences from petroleum hydrocarbons (that is, petroleum compounds may be mistaken for explosives-related compounds). In addition, most of the results are J-flagged. Given the possibility of interferences and the J flags, the actual presence of explosives-related compounds and degradation products in the groundwater at the site is uncertain. The reported concentrations, even if correct, are not sufficiently high to suggest a large source of explosives in the area.

TABLE 3-8
Ordnance Items Located at Subarea A

Item	Description	Location Found, Date Found	Evaluation and Method of Destruction	Risk
1	AN MIAI, 20-pounds – for fragmentation	Debris Pile 2 North of Bldg 11 06/11/06	With high explosive filler and no fuze Detonation	Non-Intrusive the Risk from HE is Critical in Severity with a Seldom Encounter with overall II-D, Moderate Risk Direct Excavation without Construction Support (per USACE 75-1-2) equals II-C, High Risk Intrusive Activities without Construction Support (per USACE 75-1-2) equals II-D Moderate Risk.
2	M47 series Crushed empty, with burster tube	Debris Pile 4 North of Bldg 13 06/25/06	Shipping plug in nose, with a burster tube running full length. No HE Detonation	***No risk***
3	T-85 3.5-inch rocket	Test Pit 25 SE Unit 23, 3 to 4 inches bgs 07/21/06	Potential for mechanical detonation when subject to heat, shock, friction. Contained HE Detonation	Marginal severity and occasional encounter ***III-C = moderate risk***
4	M47 series Crushed empty with burster tube	Test Pit 27 NW Bldg 25, 3 feet bgs 07/26/06	No fuse, no filler, had HE burster charge Detonation	Same as for Item 1
5	M 106 8-inch projectile Inert filler	Test Pit 28 SW Bldg, 1 - 1.5 feet bgs 07/28/06	Ballistic training, no HE filler, inert Detonation	***No risk***
6	M 106 8-inch projectile Inert filler	Test Pit 29 SW Bldg 22, 3 to 3.5 feet bgs 07/29/06	Un-fuzed, no HE filler, inert Detonation	***No risk***
7	M47 series[a] Water filled	Test Pit 31 SW Bldg 22, 3 - 4 feet bgs 07/31/06	Determined to be water filled[a]	***No risk***
8	M47 series[a] Crushed, empty	Test Pit 31 SW Bldg 22, 3 to 4 feet bgs 07/31/06	Reported inert filler[a]	***No risk***

Notes:
[a]Explosive Ordnance Incident Report not available for review. Source: U.S. Army Alaska, 2007a. Oasis (2007a) indicated that Item 7 was destroyed by "conventional means," which may be assumed to mean detonation.

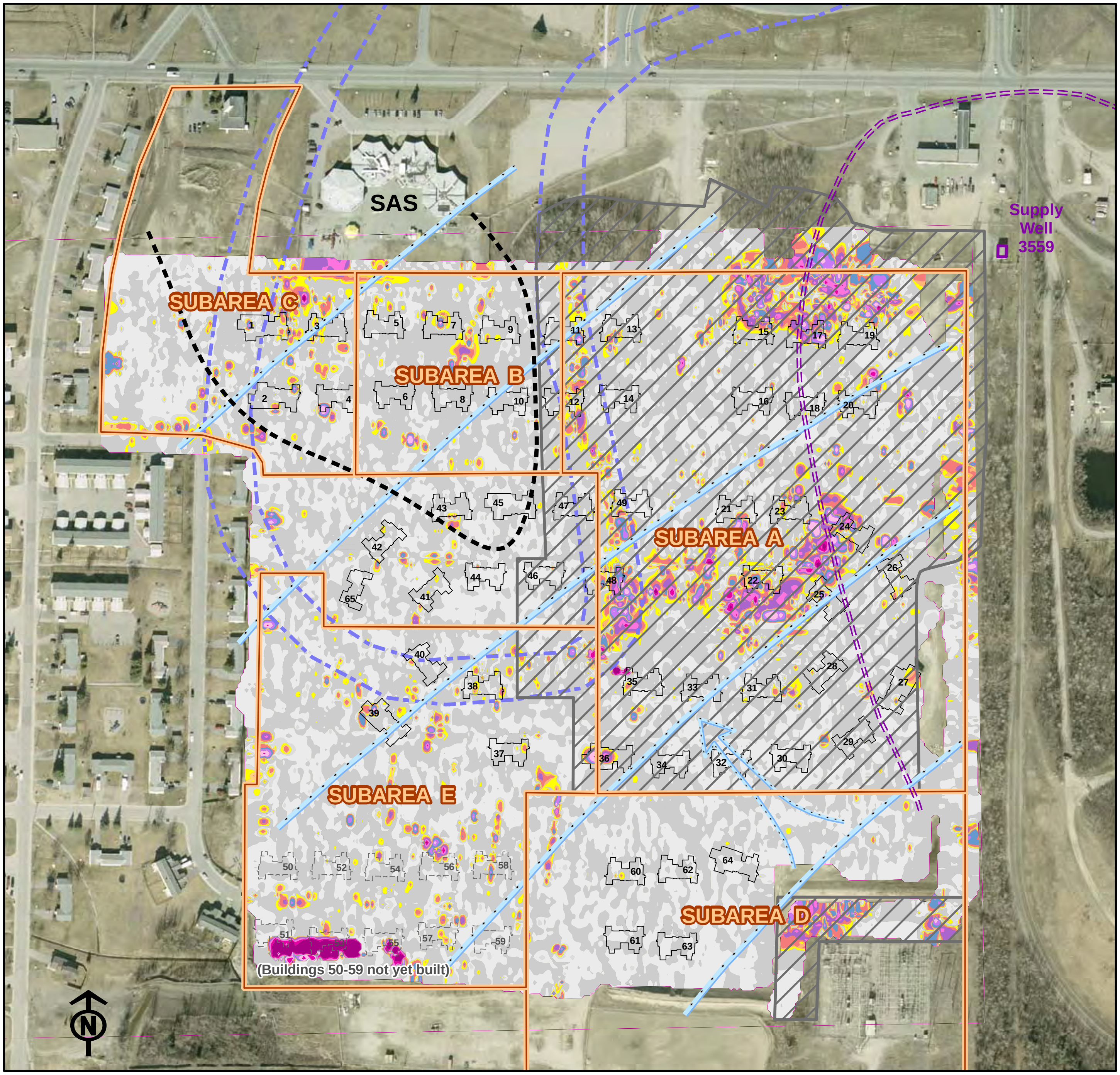
HE = high explosive

TABLE 3-9
Items Located at the Fort Wainwright Gas Station Adjacent to FCS

Item	Description	Date Found and Disposition	Evaluation	Risk
1	8-inch projectile Unarmed	04/12/04 Detonated	No HE and unarmed	***No risk***
2	8-inch projectile Unarmed	04/12/04 Detonated	No HE and unarmed	***No risk***
3	8-inch projectile Inert filler	04/08/04 Detonated	No HE and unarmed	***No risk***
4	75 mm recoilless rifle Expended/unarmed	04/08/04 Detonated	No HE and expended/unarmed	***No risk***
5	8-inch projectile Inert filler	04/09/04 Detonated	No HE	***No risk***
6	Old style bomb box	03/24/04 Scrap	No HE	***No risk***
7	37-mm recoilless projectile casing (2 items)	03/24/04 Scrap	No HE and inert	***No risk***
8	3.5-inch rocket training warhead	03/24/04 Scrap	No HE and unarmed	***No risk***
9	3.5-inch rocket	03/24/04 Scrap	No HE and expended	***No risk***
10	8-inch artillery round Unarmed	03/24/04 Detonated	Detonated	***Insufficient information for a determination***
11	8-inch artillery round Unarmed	04/20/04 Scrap	No HE	***No risk***

HE = high explosive
mm = millimeter

FIGURE **3-1**
Geophysical Anomalies
Remedial Investigation Work Plan
Former Communications Site
Fort Wainwright, Alaska



Legend

- Moderate to High probability MEC area
- Former slough channel
- Area within elevated VOC/POL concetration
- Capture Zone, Supply Well 3559
- Groundwater contour and flow direction

2004 Magnetic Data Vertical Gradient

-4000
-1000
-500
-200
-100
-75
-50
-20
0
40
75
100
200
500
1000
2000
4000

0 100 200 300 Feet

\\miner\proj\USACE\357465TakuGardens\GIS\MapFiles\Fig_2-8_GeophysAnom.mxd 10/19/2007 15:05:40PM

SECTION 4

Preliminary Conceptual Site Models

CSMs have been developed for environmental contaminants in each sub-area and for MEC where applicable. Each CSM graphically describes the subarea and its environs, and presents hypotheses regarding 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. A CSM assists in the identification of data gaps and creation of DQOs to fill those data gaps, and assists in remedial alternative and general management decisions.

4.1 Conceptual Site Models for Environmental Contaminants

The CSM for each subarea was developed by reviewing information about historical operations in the area and the types and distribution of chemicals that have been detected during previous investigation in the subarea. The CSMs for each of the five subareas are depicted in Figures 4-1(A) through 4-1(E) and are comprised of the following elements:

- **Sources.** Information about historical site activities has been determined from historical aerial photographs, records, and interviews as documented in Section 3. Potential sources of contamination at the FCS come from various spills and historical waste disposal practices as illustrated on Figure 4-2. These sources are specific to each subarea and may 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, burial of drums of waste oil and chemicals, and discharge of transformer oil. The specific sources associated with each subarea are listed on each subarea’s CSM (Figures 4-1(A) through 4-1(E)).

  The key differences between the subarea CSMs are the types of sources that may have been present in the past because the sources govern the target analyte lists for future investigations. This is especially the case in Subarea A where both transformers and discarded military munitions are identified as possible sources; therefore, PCBs and MEC are included in target analyte lists for RI sampling in Subarea A. Similarly, discarded transformers are identified as a source in Subarea E; therefore, PCBs are also part of the target analyte list for Subarea E.

- **Release and Transport Mechanisms.** Contaminants have been released to soil by spills, leaks, and percolation/infiltration. Contaminants in soil may have been transported to other areas and additional media by the following actions:

  - Physical soil movement (excavation and accidental and deliberate movement)
  - Construction dewatering activities
  - Breakdown resulting from biodegradation and mixture with other chemicals
  - Fugitive dust emission
  - Volatilization

- Surface runoff and overland flow (from spring thawing or flooding)
- Leaching to groundwater

The same release and transport mechanisms are active in each subarea.

- **Transport/Exposure Media.** Impacts to surface and subsurface soil have been confirmed at multiple areas. Some contaminants, such as POL at Subarea B, are also known to have affected groundwater. However, since the nature and extent of contamination has not been fully assessed at any subarea, the same transport and exposure media are depicted in each subarea CSM.
- **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 are depicted on Figure 4-3. Potential exposure routes for ecological receptors are via exposure to sediment and surface water in the Chena River that have been impacted by surface runoff and groundwater flow from the FCS. The same exposure routes and potential receptors are depicted for each subarea CSM.

4.2 Conceptual Site Model for MEC

Although listed as a source of environmental contaminants in Subarea A, a separate CSM has also been prepared for MEC. This is because ordnance presents a hazard of direct physical injury resulting from the blast, heat, fragmentation, or acute chemical affects (for chemical warfare material) of munitions or munitions components. Because the FCS is a defense site known or suspected to contain ordnance, it falls under the definition of a Munitions Response Area (MRA). Subarea A, a former salvage yard, is located on the east side of the FCS and likely received DMM that was improperly disposed of while in operation as a salvage yard. Subarea A is considered a Munitions Response Site (MRS) because military munitions and related items have previously been discovered. The CSM for MEC is shown in Figure 4-4.

The development of the MEC CSM generally follows *Engineering Design – Conceptual Site Models for Ordnance and Explosives (OE) and Hazardous, Toxic, and Radioactive Waste (HTRW) Projects*, Engineering Manual (EM) 1110-1-1200 (Department of the Army, 2003). This component of the RI is intended to identify munitions response sources, evaluate the history of the FCS, and identify MEC found to date for use in developing the CSM for MEC and an initial risk evaluation.

Historical records and aerial photograph review revealed no evidence that unexploded ordnance (UXO) were stored or disposed of on site. To date, UXO has not been discovered in Subarea A. UXO is not expected to be discovered because it represents items that have been prepared for action and fired, dropped, launched, or projected in a manner that represents a hazard and are typically located on a range.

The majority of the DMM items discovered to date have been inert, unarmed, or empty; typical of training rounds. The historical records, however, indicate that Area A has conclusive evidence that the subsurface contains items filled with high explosives (HEs) and a propellant. Additional items may remain. Therefore, Subarea A is determined to be "moderate to low risk" for non-intrusive actions, or actions that apply avoidance techniques (according to USACE Pamphlet EP 75-1-2 [2004c]). For intrusive actions that do not apply avoidance techniques, such as mechanical excavation, the risk is "high" as a result of impact. Consequently, MEC support is required during HTRW investigations, and construction activities by UXO-qualified persons are required during intrusive activities. For planned intrusive actions, an Explosive Safety Quantity Distance (ESQD), based on the Munitions with the Greatest Fragmentation Distance (MGFD), is required to protect non-essential personnel. To date, MEC and MD have not been discovered outside Subarea A, except for the gas station immediately northeast of the FCS.

The CSM illustrated in Figure 4-4 was developed based on the pathway analysis provided in Table 4-1. Interaction between the potential receptors and source area (salvage and reclamation yard) has two components: (1) the receptor must have access to the source and (2) the receptor must engage in some activity that results in contact with individual MEC items within the source area. For example, MEC in subsurface, including perimeter soil berms, would likely not present a hazard if left. The release of chemical constituents (including filler, HE, and degradation products) is possible and is considered in the environmental contaminants CSM. In the MEC CSM, pathways are represented as complete, incomplete, and potential.

The CSM is dynamic in nature and will be updated as additional investigations and literature research is completed.

4.3 Summary of Data Gaps and Proposed Actions

The CSMs for all subareas are incomplete, in that only a limited amount of data are available to characterize conditions in environmental media and assess risk at the site. The following data gaps need to be filled in order to complete the CSMs:

- **Air**. No data are available on the nature and extent of contaminants in indoor or outdoor air. Air sampling and modeling are proposed to characterize conditions and assess potential risk.
- **Surface Soil**. Limited data are available on the nature and extent of contaminants in surface soil. However, because construction activities have reworked the ground surface over the years, and because future landscaping activities are likely to change the surface even further, it was determined that additional surface soil sampling was only needed in areas that are unlikely to change (i.e., the sound berms around the FCS). The soil samples will be analyzed for the full list of potential contaminants that might be associated with sources in the subarea. The data will be used to determine whether soil in the sound berms may pose a potential risk to future residents in the area.
- **Subsurface Soil**. Limited subsurface soil data were collected during previous investigations. Subsurface soil samples will be collected in conjunction with debris investigations, and PCB investigation activities, monitoring well installations, and other intrusive activities conducted during the RI. The subsurface soil samples will be analyzed for physical and geochemical properties and for the full list of potential contaminants that might be associated with sources in the subarea. The data will be used to identify source areas, define the extent of contamination, assess potential risks to

receptors, and determine appropriate remedial actions, if unacceptable risks are identified.

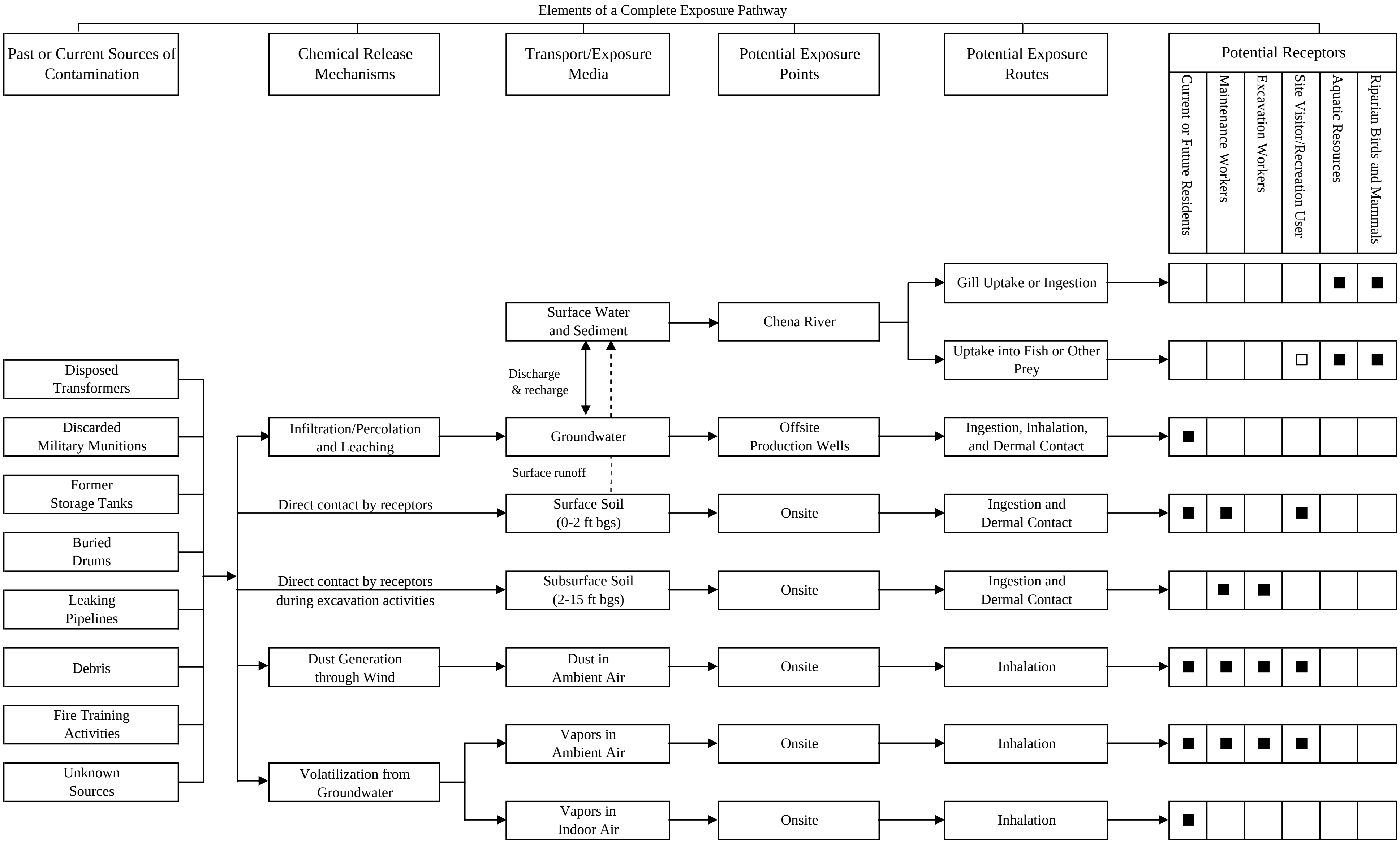
- **Groundwater.** The existing groundwater dataset for most subareas is limited. Additional groundwater monitoring wells will be installed throughout the FCS during the RI. Groundwater samples collected from the wells will be used to better define the extent of the POL plume in Subareas C and B, identify other plumes (if present), and assess potential risks to human and ecological receptors. Aquifer characteristic including hydraulic conductivity, gradient, velocity, and flow direction will be determined using data obtained from the wells.
- **Buried Debris.** Geophysical surveys conducted across the FCS have identified a number of geophysical anomalies that have not been investigated. These areas will be investigated using direct excavation and observation, with special attention paid to ordnance items and/or visible evidence of chemical contaminants. Subsurface soil samples will also be collected to identify any associated chemical contamination.
- **Sediment.** Sampling will be performed in the drainage swales leading from the FCS toward the Chena River. The sample results will be used to characterize possible migration of contaminants offsite via overland flow and screen risks to possible ecological receptors.
- **Soil Piles.** A number of soil piles derived from construction activities remain at the FCS. These piles will be sampled and characterized for disposal purposes as part of the RI.

TABLE 4-1
MEC Profile Information Summary for Subarea A

Profile	Description
Facility profile	Former salvage and reclamation yard. Operated from approximately 1947 through 1956, a 10- to 11-year period. Material salvaged for reuse and debris buried onsite in pits, in single events, as evidenced by historic photographs. Area has extensive buried debris piles. Area had a former river channel that meandered west of Subarea A, which was filled as the site was developed. Debris was buried in pits at the site, as evidenced by the geophysical survey. Surrounding areas used for military staging and mobilization. Groundwater is at 13 to 15 feet below ground surface flowing to the west-northwest. Site has discontinuous permafrost that can affect groundwater flow and infiltration. Historically the 4th Infantry Area was to the west, a concrete batch plant to the north, and garden plots to the southwest. The duplex housing units are constructed. Utilities generally follow the roads, except in a few cases.
Physical profile	The area is a relatively flat site cleared of vegetation with duplex housing units for living quarters. The units are currently not occupied. The area was extensively disturbed in support of site grading and the installation of surface and subsurface infrastructure. Access to potential MEC is limited to intrusive activities and frost heave. MEC discovered to date has been at or less than 4 feet below ground surface. The aerial extent of potential MEC is in areas of heavy metal debris concentration as determined by geophysical investigation. One uninvestigated anomaly located in Subarea D may or may not include MEC. Detection of potential MEC items is difficult because of the large amount of subsurface metal debris. Recovery of potential MEC items is complicated by the housing units and infrastructure.
Release profile	The source of MEC is likely DMM that were improperly disposed of at the salvage yard, either incidentally with the material to be salvaged (for example, contained in a piece of equipment) or otherwise brought to the salvage yard. Potential MEC may be present in the subsurface debris below the housing units. The location is fences and the housing units are currently unoccupied. Potential release mechanisms include intrusive site activities, upward movement from frost heaves, and items that may remain on the surface.
Land use and exposure profile	The planned use for the site is military housing. The construction is complete on the duplex housing units, but the units have not been released for occupancy. Roads and other infrastructure have been installed. Exposure to DMM would be through intrusive site activities or the presence of DMM on the surface.
Ecological profile	The site has been extensively disturbed by past salvage and reclamation activities as well as subgrade and surface activities associated with the installation of site utilities and the construction of foundations for the housing units.

DMM = Discarded military munitions
MEC = Munitions and explosives of concern

Subarea A

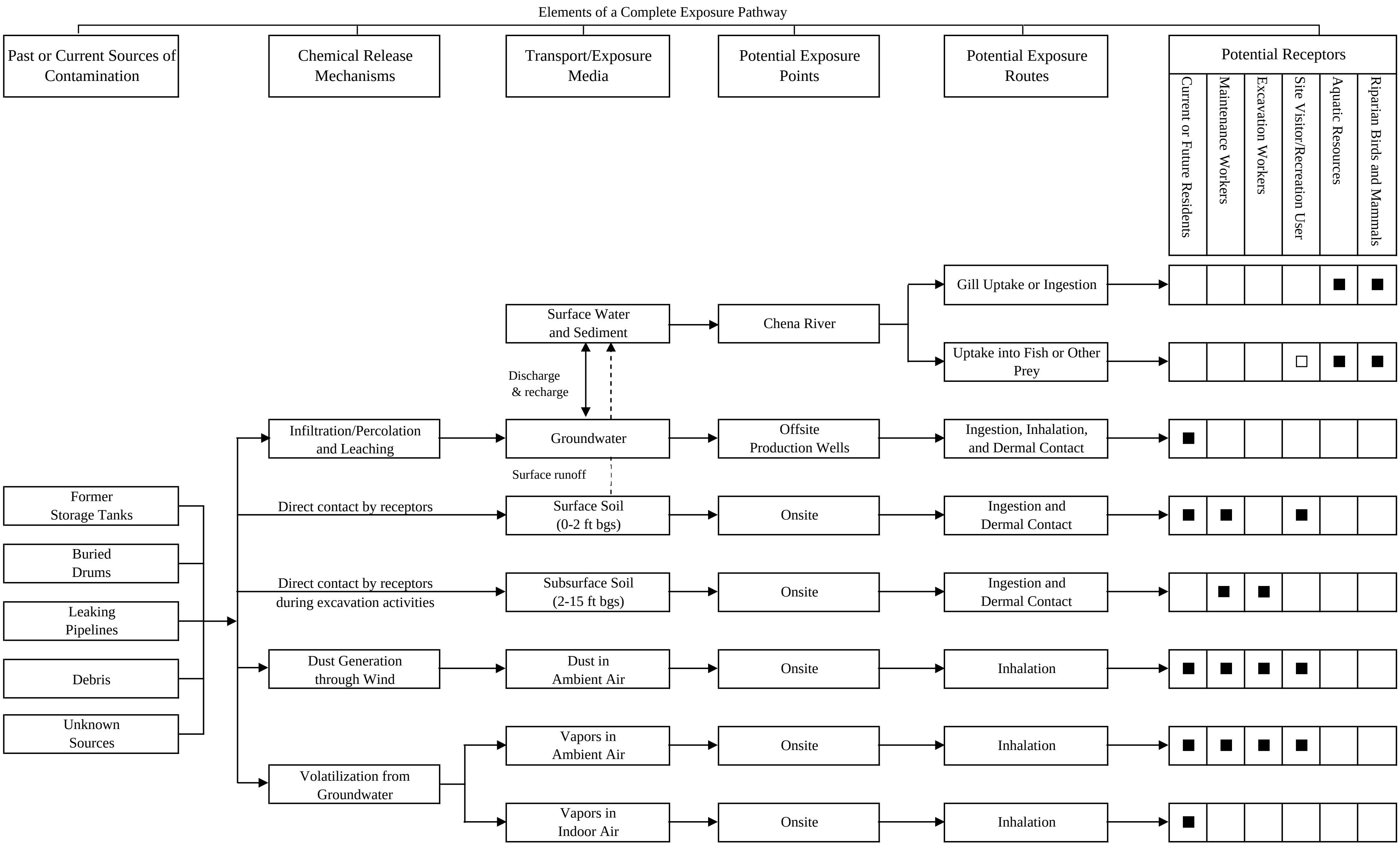


■ = Potentially complete pathway (to be addressed quantitatively)
□ = Pathway considered minor (to be addressed qualitatively)

Blank = Incomplete pathway

FIGURE 4-1(A)
Conceptual Site Model for Potential Human and Ecological Exposures, Subarea A

Subarea B

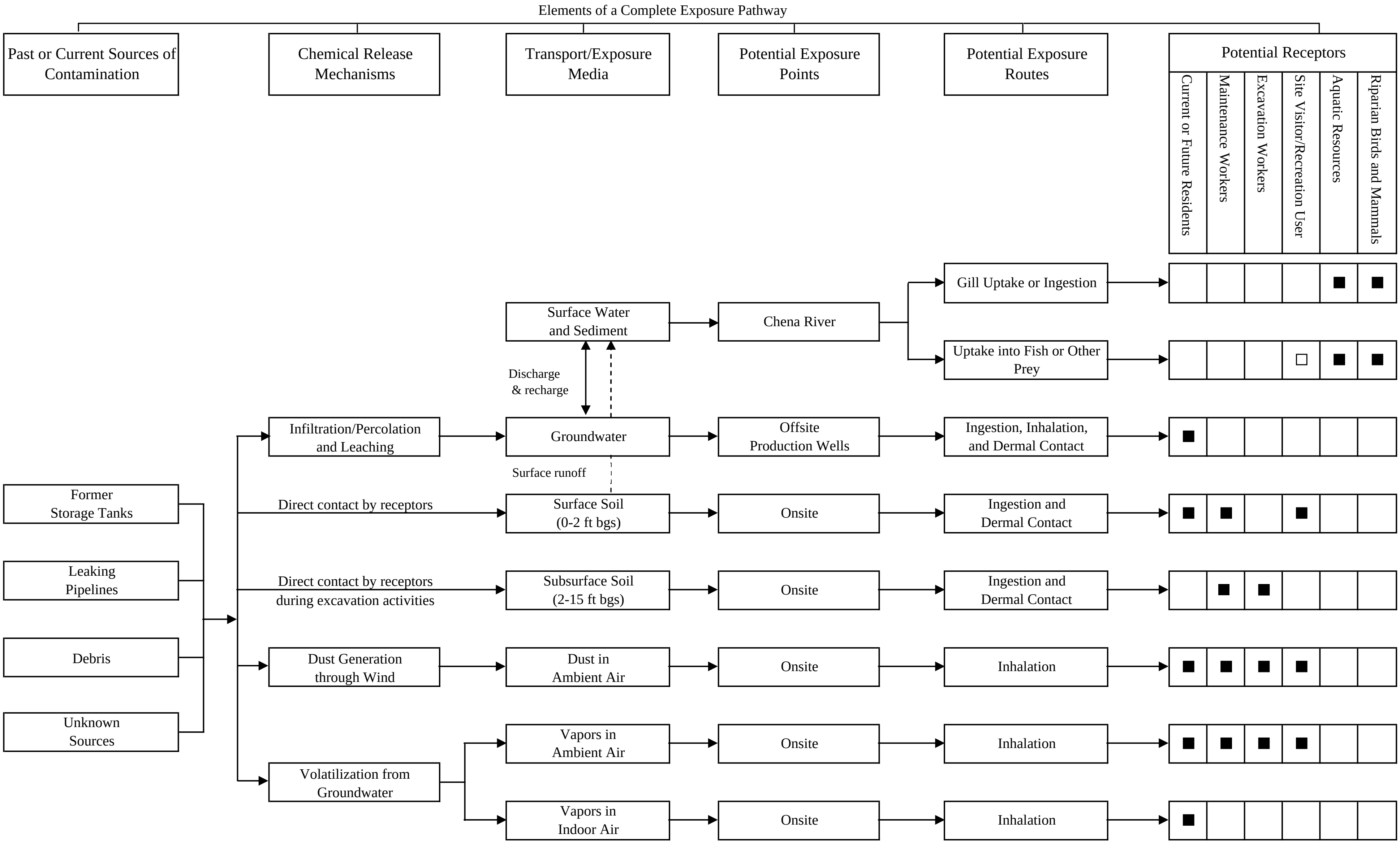


■ = Potentially complete pathway (to be addressed quantitatively)
□ = Pathway considered minor (to be addressed qualitatively)

Blank = Incomplete pathway

FIGURE 4-1(B)
Conceptual Site Model for Potential Human and Ecological Exposures, Subarea B

Subarea C

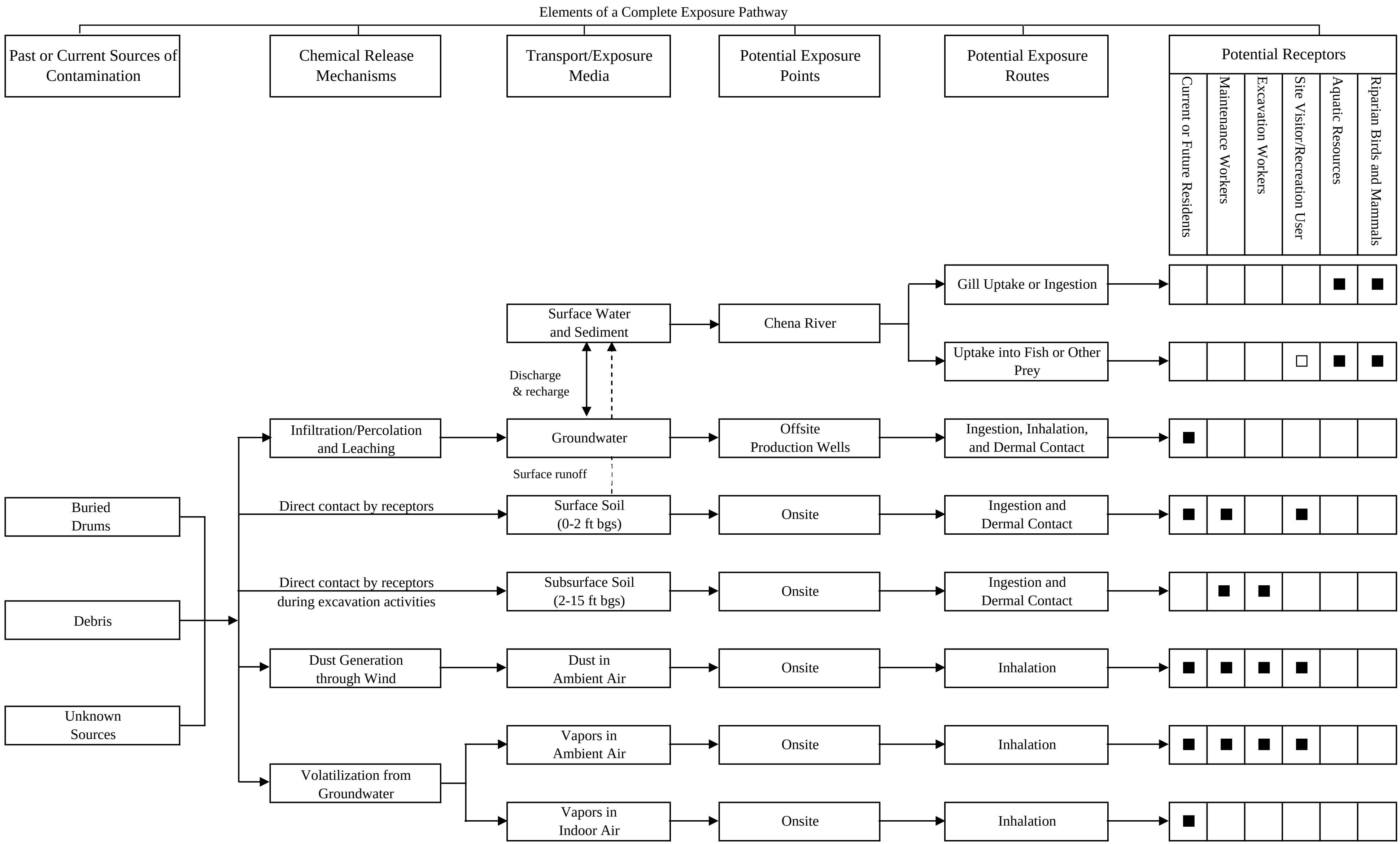


■ = Potentially complete pathway (to be addressed quantitatively)
□ = Pathway considered minor (to be addressed qualitatively)

Blank = Incomplete pathway

FIGURE 4-1(C)
Conceptual Site Model for Potential Human and Ecological Exposures, Subarea C

Subarea D

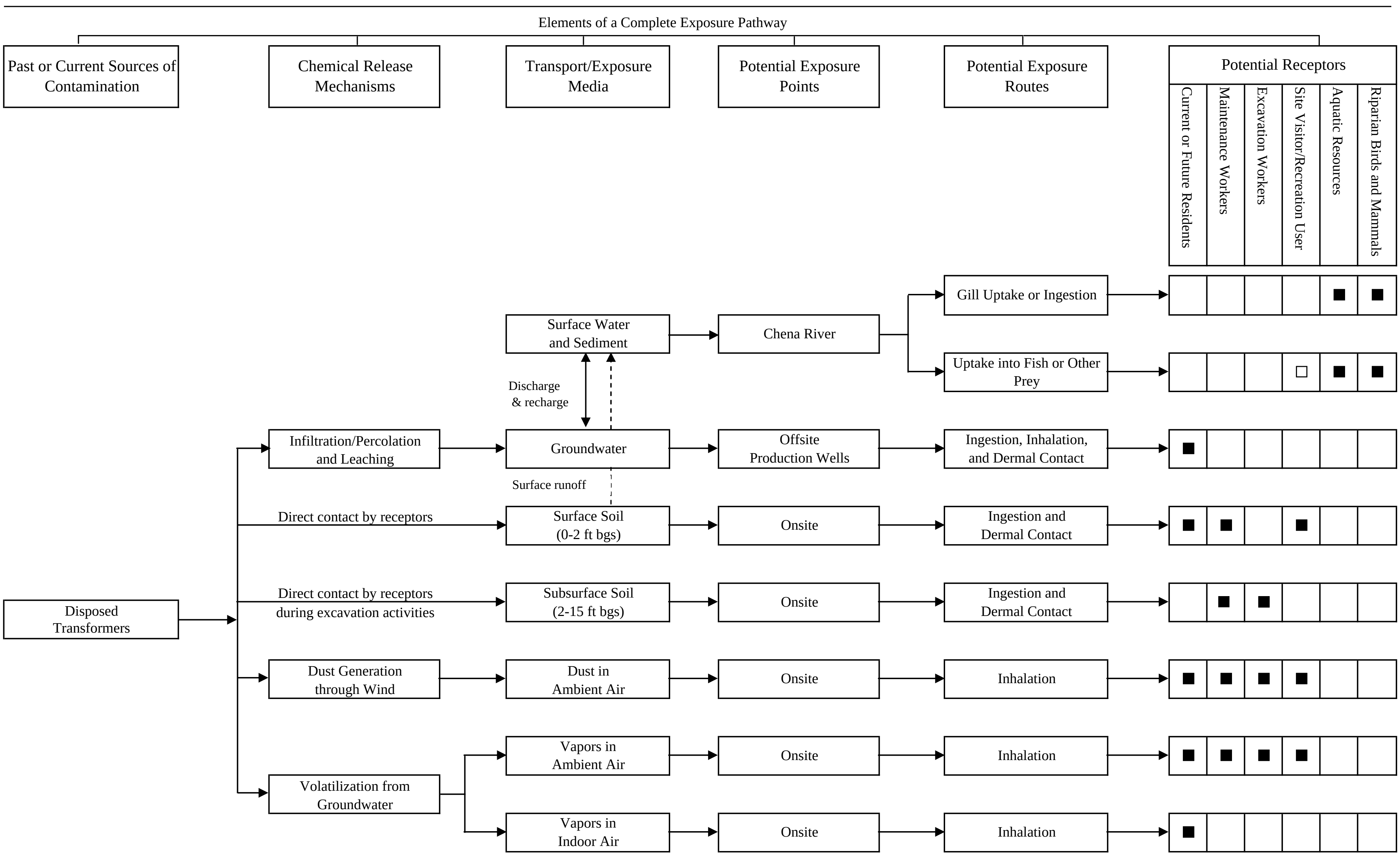


■ = Potentially complete pathway (to be addressed quantitatively)
□ = Pathway considered minor (to be addressed qualitatively)
Blank = Incomplete pathway

FIGURE 4-1(D)
Conceptual Site Model for Potential Human and Ecological Exposures, Subarea D

CH2MHILL

Subarea E

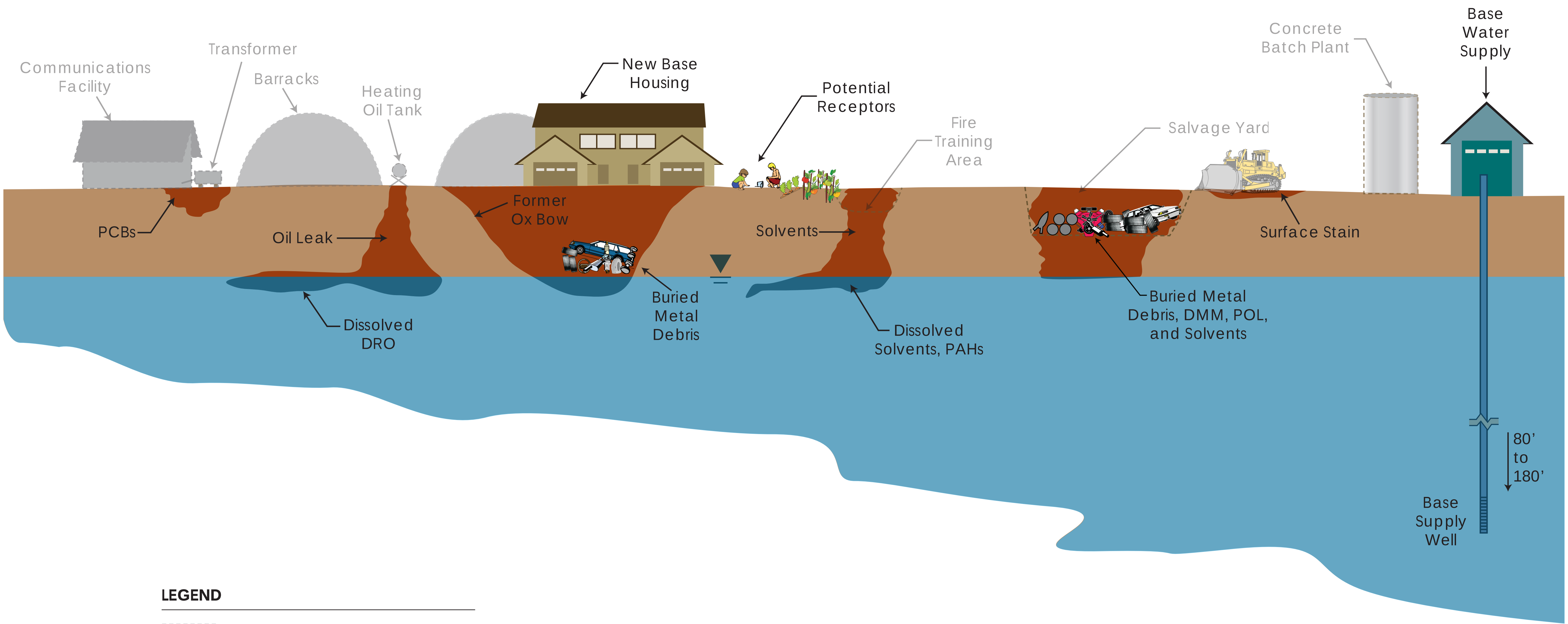


■ = Potentially complete pathway (to be addressed quantitatively)
□ = Pathway considered minor (to be addressed qualitatively)

Blank = Incomplete pathway

FIGURE 4-1(E)
Conceptual Site Model for Potential Human and Ecological Exposures, Subarea E

CH2MHILL



LEGEND

Historic Activity (grayed out)

Existing Activity (color)

Not to scale

FIGURE 4-2
Conceptual Site Model Illustration for the FCS
Remedial Investigation Work Plan
Former Communications Site, Fort Wainwright, Alaska

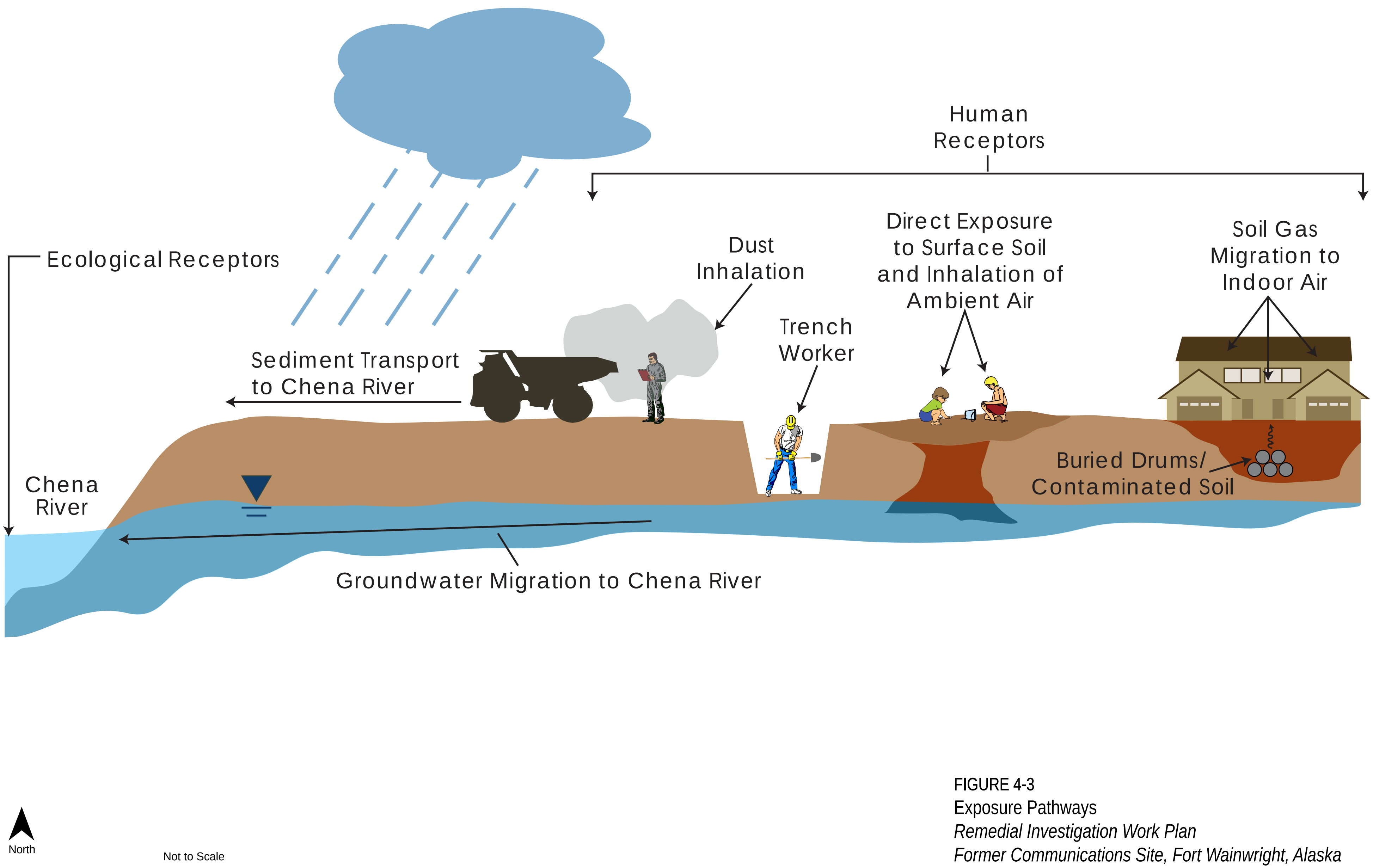


FIGURE 4-3
Exposure Pathways
Remedial Investigation Work Plan
Former Communications Site, Fort Wainwright, Alaska

CH2MHILL

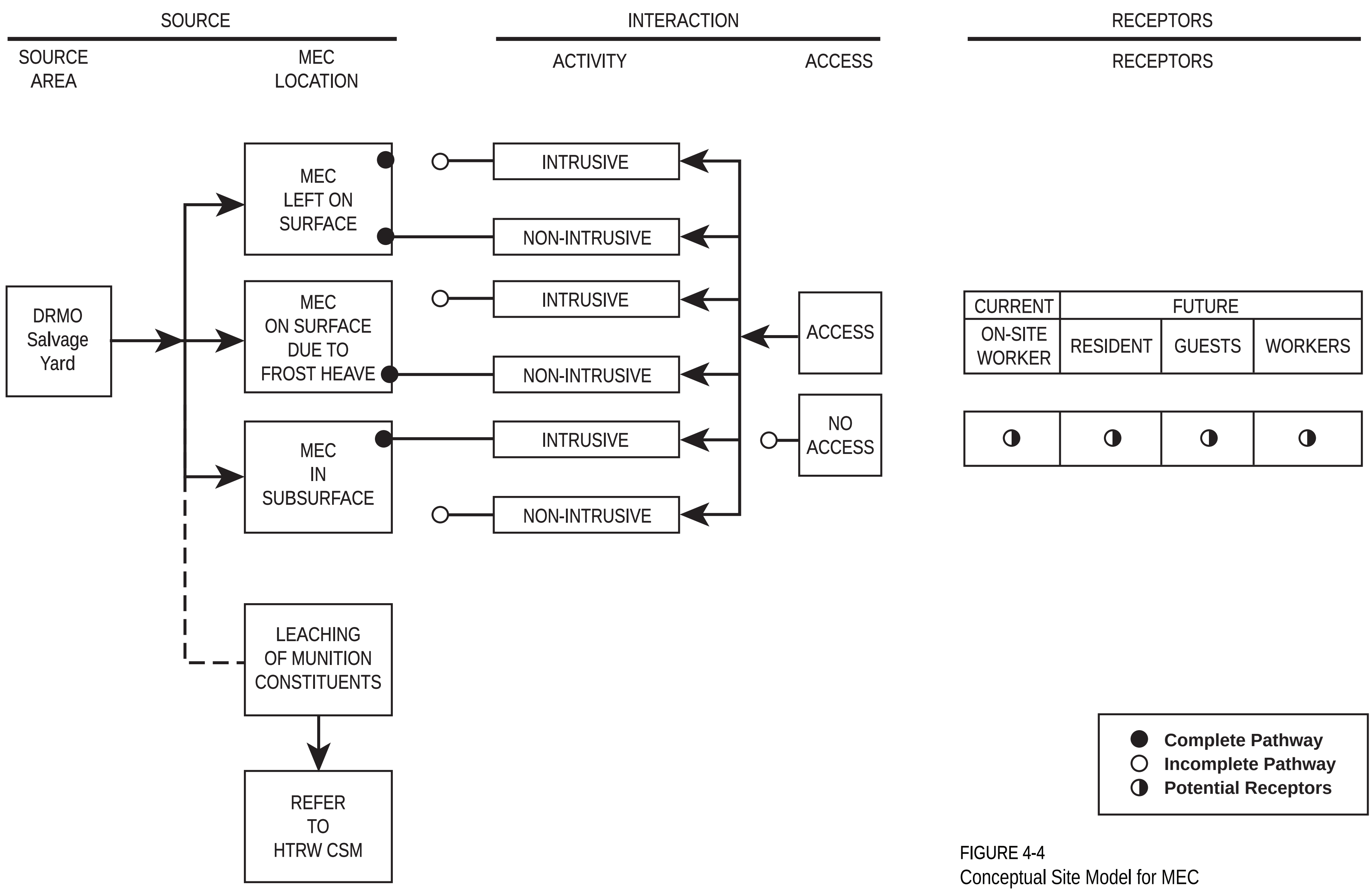


FIGURE 4-4
Conceptual Site Model for MEC
Former Communications Site, Fort Wainwright, Alaska

SECTION 5

Remedial Investigation Objective and Approach

According to USEPA RI/feasibility study (FS) guidance, "The objective of the RI/FS process is not to achieve the unobtainable goal of removing all uncertainty, but rather to gather sufficient information to support an informed risk management decision regarding which remedy appears to be most appropriate for a given site. This approach should be flexible to meet site-specific circumstances" (USEPA, 1988). The RI/FS process typically involves a phased approach to allow for collecting additional, more-focused data to further develop CSMs.

As indicated in Section 4, the current CSMs for the FCS are incomplete because of a variety of data gaps. This section provides the DQOs for data to be collected and evaluated during the RI, discusses the possible ARARs that may apply to the cleanup of the FCS, and presents some possible remedial responses that may be appropriate for various potentially-contaminated site media.

5.1 RI Objectives

The data gaps identified in Section 4.3 and project goals defined during FCS RPM planning meetings were used to develop the following detailed objectives of the FCS RI:

- Characterize soil gas and evaluate the potential for contaminants to impact indoor and outdoor air.
- Evaluate surface soil conditions in the sound berms.
- Characterize the nature and extent of subsurface soil contamination, identify source areas, and evaluate the potential for migration.
- Assess the nature and extent of buried debris and munitions and associated contamination.
- Characterize the nature and extent of groundwater contamination and evaluate its potential to migrate to drinking water sources and/or to the Chena River.
- Assess sediment conditions in drainage swales and evaluate the potential for contaminants to move offsite.
- Characterize soil piles for disposal purposes.
- Examine potential transport mechanisms and migration pathways for potential risks to human health and the environment.

Accordingly, DQOs have been developed for each element of the investigation. The DQOs are listed in Tables 5-1 through 5-8.

5.1.1 Target Analytes

Because of the variety of operations and disposal activities conducted in the FCS, the target analyte list for the RI samples is quite extensive, including DRO, RRO, GRO and individual analytes that comprise the VOC, SVOC, metals, pesticides, and herbicides lists. In addition, samples from subareas where PCBs and/or MEC have been observed or suspected will also be analyzed for PCBs and chemicals associated with explosives.

5.1.2 Preliminary Identification of Contaminant Risk Screening Levels

Identification of risk screening levels is important to (1) help establish laboratory reporting and detection limit goals so that the laboratory data may be used to assess risk and (2) screen laboratory results to identify COPCs that are carried forward into the risk assessment.

Detection Limits

One-tenth of the ADEC Method 2 cleanup levels will be used as detection limits for GRO, DRO, and RRO soil and groundwater samples. The USEPA Region 6 PRGs will be used as detection limits for all other soil and groundwater sample analytes. Detection limits consistent with ten times the USEPA Region 6 ambient air screening level will be used for soil gas.

Screening for Further Assessment and Risk

Sample results will be compared to appropriate screening levels in order to make decisions about the need for further sampling, remedial action, and/or risk assessment (see Section 6). One-tenth of the ADEC Method 2 cleanup levels will be used as screening levels for GRO, DRO, and RRO in soil and groundwater. The USEPA Region 6 PRGs will be used as screening levels for all other soil and groundwater sample analytes. Screening levels consistent with ten times the USEPA Region 6 ambient air screening levels will be used for soil gas.

5.2 Preliminary ARARs Evaluation

This section provides a preliminary summary of the possible ARARs that may apply to the cleanup of the FCS. Section 121(d) of CERCLA requires that remedial actions implemented at CERCLA sites be carried out in compliance with federal or more stringent promulgated state environmental standards, laws, criteria, or limitations that are determined to be ARARs.

ARARs are identified and considered at several steps in the remedial process, including the RI, development of remedial alternatives, detailed analysis of the remedial alternatives, and remedy selection. ARARs identified during the RI are preliminary. The final determination of ARARs is not made until the remedy is selected and documented in the Record of Decision (ROD).

A preliminary survey of possible ARARs for the FCS was developed to support site characterization information and consider plausible remedial technologies that may be needed and appropriate for site conditions. This preliminary list of ARARs will be updated when the components of the FS are developed and will be finalized when the ROD is prepared. Tables 5-9 to 5-11 present the preliminary ARARs for the FCS and include chemical-, location-, and action-specific ARARs.

5.3 Preliminary Identification of Remedial Technologies

The baseline human health and ecological risk assessments will be used to determine whether any areas of the FCS will require remedial activities to reduce risk to acceptable levels. Remedial actions, if required, will be evaluated in the FS. The following subsections describe remedial alternatives that may be appropriate for various potentially contaminated media at the FCS.

5.3.1 Contaminated Surface Soil

The human health risk assessment may indicate that direct contact with contaminated surface soil in certain portions of the FCS poses an unacceptable risk. The primary remedial alternative for surface soil in these areas would be excavation, removal, and disposal of the contaminated soil. Alternatively, contaminated areas could be capped and maintained through use of institutional controls.

5.3.2 Munitions or Explosives of Concern or Buried Drums

MEC or buried drums may be located during investigation activities. Engineered and institutional controls may be necessary for areas where MEC are encountered. Identification of certain types of MEC deemed dangerous to the safety of residents or site workers may require complete excavation, removal, and clearance of associated buried debris areas. Intact buried drums containing fluids that could pose a future risk to human health (such as through migration to indoor air) and the environment (such as through migration to groundwater and then to surface water) may require excavation, removal, and disposal.

5.3.3 Contaminated Subsurface Soil

The human health risk assessment may indicate that direct contact with contaminated subsurface soil in certain portions of the FCS may pose unacceptable risks to trench workers. In addition, soil gas sample results may indicate that contaminated subsurface soil poses an unacceptable risk through migration to indoor air. Remedial alternatives for contaminated subsurface soil may include excavation, removal and disposal, as well as institutional controls (such as dig restrictions).

5.3.4 Contaminated Groundwater

Groundwater sample results may indicate that migration of contaminated groundwater to offsite production wells poses an unacceptable risk for future residents or that migration of contaminated groundwater to surface water poses an unacceptable risk to ecological receptors. Remedial alternatives for contaminated groundwater include removal of contaminated sources, groundwater treatment, and natural attenuation.

TABLE 5-1
Summary of Data Quality Objectives for Soil Gas Sampling

Objective	Sample Type and Data To Be Collected	Analytes of Concern	Data Evaluation	Other Considerations
Determine whether soil gas poses potential risk to residents and for source delineation	Sub-slab soil gas samples. Samples will be collected at a depth of 3 inches below the slab in accordance with USEPA guidance.	Volatile organic compounds	Input soil gas concentrations into Johnson/Ettinger Model Run model and make decisions about potential risk (see Risk Assessment Work Plan)	Detection limits consistent with 10X the USEPA Region 6 Ambient Air Screening Level will be used (multiplier accounts for soil gas to indoor air attenuation).
Better define the location of potential contaminant source areas	Soil gas samples from borings in open areas. Soil gas probes will be installed to a depth of approximately 6 feet bgs by using a direct-push drill rig.	Volatile organic compounds	Map soil gas and sub-slab concentrations to help identify potential source areas and extent of petroleum, oil, and lubricants (POL) plume	Sample locations will be selected to avoid geophysical anomalies and utilities. Potential exposure to and risk from ambient air will be addressed as part of the Baseline Risk Assessment for surface and subsurface soil.

USEPA = U.S. Environmental Protection Agency

TABLE 5-2
Summary of Data Quality Objectives for Sound Berm Sampling

Objective	Sample Type and Data To Be Collected	Analytes of Concern	Data Evaluation	Other Considerations
Determine whether soil in sound berm decision unit contains elevated concentrations of target analytes and requires further sampling and analysis	Multi-increment soil sample composed of 30 subsamples from multiple locations in decision unit 9 multi-increment decision units; each 200 to 400 feet long Samples to come from surficial 2 feet of soil, surface assumed to be representative of all materials in berm Triplicates will be collected at one decision unit. Results for triplicates will be used to adjust results for other decision units.	VOCs SVOCS PCBs Metals DRO/RRO GRO Pesticides Herbicides Explosives	Compare adjusted decision unit results to screening level (1/10th Method 2 cleanup level for GRO, DRO, RRO; Region 6 preliminary remediation goal for all other analytes). If the results do not exceed screening levels, no further investigation or remedial action is required for the decision unit. Otherwise, evaluate the need to collect discrete samples from decision unit and if necessary collect the discrete samples and evaluate to determine whether elevated concentrations pose potential risk (see next row).	If the RSD results for a triplicate sample do not meet an ADEC criterion, the usefulness of the results will be evaluated. Agency approval should be obtained before discrete samples are collected, if needed.
Determine whether elevated concentrations in decision unit poses potential risk	Discrete soil samples from decision unit.	Constituents that exceed screening level in decision unit	Assess excess risk posed by constituents in soil. If acceptable risk, no further investigation or remedial action is required for the decision unit. Otherwise determine source of excess risk and assess options to address risk	Multiple sampling events may be required to obtain sufficient data for risk assessment, delineate source of high concentrations, or obtain approval for removal and/or treatment.

DRO = diesel-range organics
EPH = extractable petroleum hydrocarbon
GRO = gasoline-range organics
MI = multi-incremental
PCB = polychlorinated biphenyls
RRO = residual-range organics
SVOC = semivolatile organic compound
VOC = volatile organic compound

TABLE 5-3
Summary of Data Quality Objectives for Subsurface Soil Sampling

Objective	Sample Type and Data To Be Collected	Analytes of Concern	Data Evaluation	Other Considerations
Determine whether contaminants in subsurface soil pose potential worker and residential risk	Borings to be advanced in VOC plume area, former slough channel, northern boundary of the FCS, and additional locations to provide site-wide coverage (approximately one every 0.75 acre) At a minimum, three soil samples will be collected in each boring at the following depths: near the ground surface (approximately 2 to 3 feet below existing grade); in middle of the vadose zone at a location likely to contain contamination; and in the zone of seasonal water table fluctuation at depth of approximately 11 to 13 feet	VOCs and TICs SVOCS Metals DRO/RRO GRO Pesticides Herbicides Explosives EPH VPH	Use data in risk assessment (see Risk Assessment Work Plan) and for nature and extent evaluation. Residential risk will be considered in the upper 2 feet of soil. Excavation worker risk will be considered in soil from 0 to 15 ft bgs.	Additional soil samples may be collected at the field geologist's discretion.
Characterize subsurface conditions and potential soil impacts to groundwater	Same as above	Same as above	Map contaminant concentrations by depth and evaluate distribution to help identify potential source areas Compare results for deepest sample in boring to groundwater protection screening levels. If elevated concentrations extend to capillary fringe, characterize groundwater conditions in vicinity of boring	Detection limits consistent with 1/10th Method 2 groundwater protection levels will be used.

DRO = diesel-range organics
EPH = extractable petroleum hydrocarbon
GRO = gasoline-range organics
RRO = residual-range organics
SVOC = semivolatile organic compound
TIC = = tentatively identified compound
VOC = volatile organic compound
VPH = = volatile petroleum hydrocarbon

TABLE 5-4
Summary of Data Quality Objectives for Groundwater

Objective	Sample Type and Data To Be Collected	Analytes of Concern	Data Evaluation	Other Considerations
Hydrogeologic characterization	Install wells in VOC plume area, former slough channel, northern boundary of the FCS, and additional locations to provide site-wide coverage) Well location and elevation data, water level data	Not applicable	Calculate groundwater elevations Prepare contour map Use map and water supply well capture zone information to assign each well to location-specific evaluation (see rows below)	Additional wells may be installed to complete delineation of contaminant plumes or provide additional data for modeling. Most wells will be screened in the upper 5 to 10 feet of the aquifer, but at least two wells in the vicinity of the water supply well will have longer screens matching the screened interval for the water supply well.
Assess potential risk posed to Groundwater	Groundwater samples collected from wells in water supply well capture zone	GRO DRO/RRO Metals Pesticides PCBs Herbicides VOCs SVOCS Transitional explosives Explosives VPH EPH	Compare results for samples to risk-based screening levels. If results from all wells are below criteria, no further investigation will be required. Otherwise, use results in Baseline Risk Assessment and model future concentrations in groundwater. If model predicts potential exposure via water supply well, a feasibility study for remedial actions to address risk will be required.	Detection limits consistent with 1/10th of the ADEC risk-based screening levels will be used.
Assess potential risk posed to surface water	Groundwater samples collected from wells along northern boundary (outside of water supply well capture zone)	GRO DRO/RRO Metals Pesticides PCBs Herbicides VOCs SVOCS Transitional explosives Explosives VPH EPH	Compare results for samples to surface water criteria and applicability to aquatic ecological criteria. If results from all wells are below criteria, no further investigation will be required. Otherwise, use results in Baseline Risk Assessment and model future concentrations in surface water. If model predicts potential exposure to ecological receptors in surface water, a feasibility study for remedial actions to address risk will be required.	Detection limits consistent with 1/10th of the surface water criteria will be used. Samples analyzed for metals may be filtered

TABLE 5-4
Summary of Data Quality Objectives for Groundwater

Objective	Sample Type and Data To Be Collected	Analytes of Concern	Data Evaluation	Other Considerations
Characterize contaminant levels in groundwater and delineate plumes	Groundwater samples collected from wells	GRO DRO/RRO Metals Pesticides PCBs Herbicides VOCs SVOCS Transitional explosives Explosives VPH EPH	Map distribution of detected analytes Compare results to ADEC drinking water and surface water criteria and to 18 AAC 75, Table C, groundwater cleanup levels. If results exceed criteria and extent is not determined, install additional wells to define extent. Otherwise, establish land use controls and incorporate selected wells into long-term monitoring program.	

DRO = diesel-range organics
EPH = extractable petroleum hydrocarbon
GRO = gasoline-range organics
PCB = polychlorinated biphenyls
RRO = residual-range organics
SVOC = semivolatile organic compound
VOC = volatile organic compound
VPH = = volatile petroleum hydrocarbon

TABLE 5-5
Purpose of/Justification for RI Monitoring Wells

Well ID	Depth	Purpose/Justification
MW13	Shallow	Characterize potential contamination associated with sub station anomaly.
MW14	Shallow	Establish groundwater gradient, characterize potential sources in the area
MW15	Shallow	Establish groundwater gradient, characterize potential sources in the area
MW16	Shallow	Establish groundwater gradient, characterize potential sources in the area
MW17	Shallow	Characterize potential contamination associated with Bldg 52 PCB hotspot
MW18	Shallow	Characterize potential contamination associated with sub station anomaly.
MW19	Shallow	Evaluate extent of contamination in former river channel.
MW20	Shallow	Evaluate extent of contamination in former river channel.
MW21	Shallow	Evaluate extent of contamination in former river channel.
MW22	Shallow	Establish groundwater gradient, characterize potential sources in the area
MW23	Shallow	Characterize potential contamination associated with Bldg 48 anomaly.
MW24	Shallow	Delineate POL plume
MW25	Shallow	Delineate POL plume
MW26	Shallow	Delineate POL plume
MW27	Shallow	Delineate POL plume
MW28	Shallow	Delineate POL plume
MW29	Shallow	Delineate POL plume
MW30	Shallow	Delineate POL plume. Evaluate extent of contamination in former river channel.
MW31	Shallow	Delineate POL plume. Evaluate extent of contamination in former river channel.
MW32	Shallow	Delineate POL plume
MW33	Shallow	Delineate POL plume
MW34	Shallow	Delineate POL plume, dissolved phase. Evaluate extent of contamination in former river channel.
MW35	Shallow	Delineate POL plume, dissolved phase. Evaluate extent of contamination in former river channel.
MW36	Shallow	Delineate POL plume, dissolved phase
MW37	Shallow	Delineate POL plume, dissolved phase
MW38	Shallow	Evaluate extent of contamination in former river channel.
MW39	Deep	Evaluate contaminant concentrations at depth close to drinking water supply wells
MW40	Deep	Evaluate contaminant concentrations at depth close to drinking water supply wells
MW41	Shallow	Characterize potential contamination associated with Bldg 15 anomaly.
MW42	Shallow	Characterize potential contamination associated with Bldg 15 anomaly.
MW43	Shallow	Evaluate extent of contamination in former river channel.

TABLE 5-5
Purpose of/Justification for RI Monitoring Wells

Well ID	Depth	Purpose/Justification
MW44	Shallow	Evaluate extent of contamination in former river channel. Characterize potential contamination associated with Bldg 11 anomaly.
MW45	Shallow	Characterize potential contamination associated with Bldg 24 anomaly.
MW46	Shallow	Establish groundwater gradient, characterize potential sources in the area
MW47	Shallow	Establish groundwater gradient, characterize potential sources in the area
MW48	Shallow	Establish groundwater gradient, characterize potential sources in the area
MW49	Shallow	Establish groundwater gradient, characterize potential sources in the area
MW50	Shallow	Characterize potential contamination associated with Bldg 24 anomaly.
MW51	Shallow	Characterize potential contamination associated with Bldg 22 anomaly.
MW52	Shallow	Characterize potential contamination associated with Bldg 48 anomaly.
MW53	Shallow	Establish groundwater gradient, characterize potential sources in the area
MW54	Shallow	Evaluate extent of contamination in former river channel. Establish groundwater gradient, characterize potential sources in the area.
MW55	Shallow	Characterize potential contamination associated with Bldg 36 anomaly.
MW56	Shallow	Characterize potential contamination associated with Bldg 22/24 anomaly.
MW57	Shallow	Establish groundwater gradient, characterize potential sources in the area
MW58	Shallow	Delineate POL plume, dissolved phase
MW59	Shallow	Characterize potential contamination associated with Bldg 22 anomaly.
MW60	Shallow	Characterize potential contamination associated with Bldg 49 anomaly.
MW61	Shallow	Characterize potential contamination associated with PSE II soil gas (TCE/PCE) anomaly.
MW62	Shallow	Delineate POL plume LNAPL
MW63	Shallow	Delineate POL plume LNAPL
MW64	Shallow	Delineate POL plume LNAPL
MW65	Shallow	Delineate POL plume LNAPL
MW66	Boring only	Delineate POL plume LNAPL
MW67	Shallow	Delineate POL plume LNAPL
MW68	Shallow	Characterize potential contamination associated with historic VOC (benzene) detect
MW69	Shallow	Characterize potential contamination associated with historic pesticide detection above screening level
MW70	Shallow	Characterize potential contamination associated with former location of drums, PID hits, and chemical odors reported in PSE 1 report near Building 28 (PSE I report)
MW71	Shallow	Characterize potential contamination associated with former locations of drums of white powder and leaking oil near Bldg 31 (PSE I report)

TABLE 5-5
Purpose of/Justification for RI Monitoring Wells

Well ID	Depth	Purpose/Justification
MW72	Shallow	Characterize potential contamination associated with former location of drums and PID hit near Building 30 (PSE 1 report)
MW73	Shallow	Characterize potential contamination associated with PID hits indicating volatile contamination near Building 32 (PSE 1 report)
MW74	Shallow	Characterize potential contamination associated with Bldg 52 PCB/VOC hotspot
MW75	Shallow	Characterize potential contamination associated with Bldg 52 PCB/VOC hotspot

Bldg = Building
PCB= Polychlorinated biphenyl
PCE = Tetrachloroethene
PID = Photoionization detector
POL = Petroleum, oil, and lubricant
PSE = Preliminary Site Evaluation
TCE = Trichloroethene
VOC = volatile organic compound

TABLE 5-6
Summary of Data Quality Objectives for Drainage Swale Sediment

Objective	Sample Type and Data To Be Collected	Analytes of Concern	Data Evaluation	Other Considerations
Determine whether sediment in drainage swales contains elevated concentrations of analytes	Sediment samples	VOCs SVOCS Metals DRO/RRO GRO Pesticides Herbicides Explosives EPH VPH PCBs	Compare analytical results for each sample to ecological screening benchmarks for aquatic and terrestrial wildlife If results are less than criteria, no further investigation is required. Otherwise, review appropriateness of screening criteria for the site, and as necessary, gather additional samples, and conduct ecological risk assessment (see Risk Assessment Work Plan)	None

DRO = diesel-range organics
EPH = extractable petroleum hydrocarbon
GRO = gasoline-range organics
PCB = polychlorinated biphenyls
RRO = residual-range organics
SVOC = semivolatile organic compound
VOC = volatile organic compound
VPH = = volatile petroleum hydrocarbon

TABLE 5-7
Summary of Data Quality Objectives for Soil Piles

Objective	Sample Type and Data To Be Collected	Analytes of Concern	Data Evaluation	Other Considerations
Determine whether soil piles can be disposed of in the Fort Wainwright landfill; if not, apply disposal and/or treatment as needed through DRMO based on the waste's designation.	Multi-incremental soil sample composed of 30 subsamples from multiple locations and depths in the pile Small soil piles adjacent to each other may be combined into a single decision unit. Large soil piles may be divided into multiple decision units. Triplicates will be collected at 10% of decision units.	Soil piles in PCB exclusion zone– PCBs[a] Soil piles outside PCB exclusion zone– DRO RRO Metals SVOCs VOCs in northwest corner soil piles [b]	Compare analytical results for decision unit to Fort Wainwright landfill acceptance criteria If results are less than criteria, dispose of soil pile at landfill; otherwise evaluate disposal and/or treatment options, including disposal of soil through DRMO	Existing information and analytical results for soil pile may be used to select target analyte list for soil pile.

[a]Soil pile 18 also will be sampled for SVOC by Method SW8270 to confirm the detection of 2,6-dinitrotoluene.
[b]Soil piles 4 though 9 in the northwest corner of the site also will be sampled for VOCs.

ADEC = Alaska Department of Environmental Conservation
DRMO = Defense Reutilization Marketing Office
DRO = diesel-range organics
PCB = polychlorinated biphenyls
RRO = residual-range organics
RSD = relative standard deviation
SVOC = semivolatile organic compound
VOC = volatile organic compound

TABLE 5-8
Data Quality Objectives for the MEC CSM

Identify Decision	Inputs to Decision	Study Boundaries	Optimized Design
Can housing be occupied? How to make site safe for occupancy? Define non-MEC site areas Determine extent of removals, if any	Geophysical data pre-housing surveys boundary definition Infrastructure photos and notes Literature search Chemical data Aerial photographs and historical records Test pit observations As-builts Frost depth Practices at similar sites	Use the area to define boundaries Ensure lateral boundary using all the data	Revise reports to incorporate inputs and new data MEC hazard assessment guidance Results: how many how deep how dangerous

CSM= Conceptual site model
MEC = Munitions and explosives of concern

TABLE 5-9
Chemical-Specific ARARs

Media	ARAR	Prerequisites	Comments Considerations	ARAR Assessment
Surface water	Clean Water Act § 304(a)	Health-based criteria evaluated in conjunction with designated use of surface water to establish National Recommended Water Quality Criteria (WQC).	WQC can be found at: http://epa.gov/waterscience/criteria/ wqcriteria.html (accessed May 2, 2007)	Relevant and appropriate, if site groundwater discharges to surface water
Surface water and groundwater	Alaska Water Quality Standards (18 AAC 70) (AS 46.03)	Alaska Water Quality Standards (18 AAC 70) apply to surface water and groundwater and establish criteria for protected classes of water use.	Alaska Water Quality Standards can be found at: http://www.dec.state.ak.us/water/ wqsar/wqs/pdfs/70wqsmanual.pdf and http://www.dec.state.ak.us/water/ wqsar/wqs/pdfs/18%20AAC_70%20 _Amended_December_28_2006.pdf (accessed May 2, 2007)	Relevant and appropriate, if site groundwater discharges to surface water
Soil and groundwater	USEPA Region 6 Screening Values	Conservative, numeric, risk-based screening levels. USEPA Region 10 has stated that the USEPA Region 6 screening values can be used at CERCLA sites.	Screening values can be found at http://www.epa.gov/earth1r6/6pd/ rcra_c/pd-n/screen.htm, (accessed May 2, 2007)	TBC
Soil, groundwater, and surface water	ADEC soil and groundwater cleanup levels 18 AAC 75.340 -.345	Promulgated numerical standards for soil and groundwater cleanup; discharges of groundwater to surface water cannot exceed state Water Quality Standards under 18 AAC 70	The ADEC Methods 1 and 2 cleanup levels for soil and groundwater can be used as screening levels until site-specific risk-based levels are developed under Methods 3 and 4 if risk-based cleanup levels are developed. The cleanup levels can be found at: http://www.dec.state.ak.us/spar/ statutes_regs.htm#article03 (accessed May 4, 2007)	Applicable
Soil	PCB Spill Cleanup Policy 40 CFR 761 Subpart G	Contamination caused by spills of greater than 50 mg/kg PCBs that occurred after May 1987.	Describes requirements for self-implementing onsite cleanup of PCB contamination	Relevant and appropriate, if a spill is identified TBC if no spill is identified

TABLE 5-9
Chemical-Specific ARARs

Media	ARAR	Prerequisites	Comments Considerations	ARAR Assessment
Drinking water	40 CFR 141, as adopted by 18 AAC 80	Establishes primary maximum contaminant levels (MCLs) and non-zero maximum contaminant level goals (MCLGs) that are health-based standards for public water systems	MCLs and MCLGs can be found at: http://www.epa.gov/safewater/ contaminants/index.html#mcls (accessed May 7, 2007)	Relevant and appropriate, if groundwater is a potential drinking water source
Identification and listing of hazardous waste	40 CFR 261	Generation of wastes during remediation. Wastes must be characterized to determine if they are hazardous.	Waste characterization may involve chemical analyses and comparing the results to criteria. If the analytical results are above the criteria, the waste is a hazardous waste.	Applicable to all wastes generated during investigation and remediation

AAC = Alaska Administrative Code
ADEC = Alaska Department of Conservation
ARAR = applicable or relevant and appropriate requirement
AS = Alaska Statute
AWQC = ambient water quality criterion
CERCLA = Comprehensive, Environmental Response, Compensation, and Liability Act
CFR = Code of Federal Regulations
MCL = maximum contaminant level
MCLG = maximum contaminant level goal
mg/kg = milligrams per kilogram
PCB = polychlorinated biphenyls
TBC = to be considered
USC = United States Code
USEPA = U.S. Environmental Protection Agency
WQC = Water Quality Criteria

TABLE 5-10
Location-Specific ARARs

Location	ARAR	Prerequisite for Applicability	Comments and Considerations	ARAR Assessment
Archeological resources	43 CFR 7.4 AS 41.35; 11 AAC 16	Actions that may excavate, remove, damage or otherwise alter or deface an archeological resource are not allowed unless by permit or exception.	On non-CERCLA sites, a state permit ifs required before excavating, or altering a historical or archeological resource	Applicable, if archeological resources are present
Historic places	National Historic Preservation Act, 16 USC § 470 et seq. 36 CFR Part 800 AS 41.35 11 AAC 16	Requires federal agencies conducting or authorizing activities where significant historic or archeological data may be threatened to preserve such data before the project commences		Applicable, if historic properties are present
Presence of human remains, funerary objects, sacred objects, or objects of cultural patrimony for Native Alaskans	43 CFR 10.4(c) and (d)	Actions that disturb human remains or any of the other objects.		Applicable to intrusive activities.
Areas where migrating birds may be present	16 USC 703-712 50 CFR 10.13	If migratory birds are present, provides protection of almost all species of native birds in the U.S. from unregulated activities. Unregulated activities can include poisoning at hazardous waste sites.		Applicable, if migratory birds are present
Endangered Species habitat	16 USC 1531-1544 et seq. 16 USC 1361-1407 16 USC 4201-4245 50 CFR 17, 200, 222, 227, and 402 AS 16 5 AAC 95	Provides for protection and conservation of various species of fish, wildlife, and plants.		Applicable, if endangered or threatened species or habitat is present

AAC = Alaska Administrative Code
ARAR = applicable or relevant and appropriate requirement
AS = Alaska Statute
CERCLA = Comprehensive, Environmental Response, Compensation, and Liability Act
CFR = Code of Federal Regulations
USC = United States Code

TABLE 5-11
Action-Specific ARARs

Activity	ARAR	Prerequisite for Applicability	Considerations	ARAR Assessment
Cleanup of releases to the environment	Oil and Other Hazardous Substances Pollution Control 18 ACC 75 Article 3 (18 AAC 75.300 through .396)	The site cleanup rules establish administrative processes and standards to determine the necessity for and degree of cleanup required to protect human health, safety, and welfare and the environment at a site where a hazardous substance is located.	Alaska Contaminated Sites Program addresses releases (past and present) of oil and hazardous substances.	Applicable
Discharges to state waters	40 CFR 131 Water Quality Standards for surface waters and 18 AAC 70	Any substance discharged into state waters from a point source must meet these standards. The regulations specify that turbidity standards not exceed 25 NTU above natural conditions. TDS may not exceed 1,500 mg/L, including natural conditions; increase in TDS may not exceed one-third of the concentration of the natural condition of the water body. A SWPPP will be required for the site if it is larger than 1 acre.	Current plan includes dewatering.	Applicable, if water is discharged to surface water
Point source discharges of water	National Pollutant Discharge Elimination System (NPDES) 40 CFR 122, 125, 136, and 403 AS 46.03 18 AAC 72	Discharge of pollutants from any point source into waters of the U.S. or into a sewer system that discharges to a POTW Stormwater management and an SWPPP or similar documentation will be needed if the site is larger than 1 acre	Standards for discharges from treatment plants to groundwater and surface water. Pretreatment standards for discharges to POTWs. Current plans include dewatering. Currently, USEPA has primacy for NPDES permitting in Alaska. However, Alaska has applied for primacy, and is expected to become the implementing authority for these regulations for military bases in March 2009.	Applicable, if dewatering water or surface water is discharged through a point source. Applicable, if treated water is discharged to a POTW or FOTW.

TABLE 5-11
Action-Specific ARARs

Activity	ARAR	Prerequisite for Applicability	Considerations	ARAR Assessment
Discharges to air	Clean Air Act, 42 USC §7401 et seq. 40 CFR 50, National Primary and Secondary Ambient Air Quality Standards (NAAQS) 18 AAC 50	Includes air pollution caused by visible emissions, fugitive dust, incineration, industrial processes, fuel combustion, storage of VOC, VOC water separation, and waste gas disposal.	NAAQS are the primary standards applicable to any remedial alternative that would emit regulated air pollutants	Applicable
Remediation of contaminated media	Site Remediation MACT 40 CFR 63 Subpart G	Establishes national emission standards for hazardous air pollutants from site remediation activities. The rule covers remediation of contaminated environmental media, such as soils, groundwater, or surface water. The affected sources subject to control are process vents, remediation material management units, and equipment leaks.	Projects conducted under CERCLA are exempted.	Relevant and appropriate
Underground storage tank (UST) release response	Underground storage tank regulations 18 AAC 78	Presence of USTs or contamination from USTs Corrective action requirements for petroleum releases from leaking USTs and for removal of USTs	Presence of USTs or contamination from oils	Applicable if USTs are discovered during remediation (e.g., old heating oil tanks) Relevant and appropriate, if petroleum contamination is found that is not due to USTs
Underground storage tank release response	Underground Storage Tank Procedures Manual (ADEC, November 2002)	Presence of USTs that have leaked.	Provides information on sampling procedures, analytical methods, remedial technologies, etc. The guide can be found at http://www.dec.state.ak.us/spar/guidance.htm#ust (accessed May 4, 2007)	TBC
Managing contaminated soil	Solid waste management regulations 18 AAC 60.025	Disposal of polluted soil	Polluted soil may be disposed of only in a Class 1 municipal solid waste landfill.	Applicable, if soils are disposed of offsite.

TABLE 5-11
Action-Specific ARARs

Activity	ARAR	Prerequisite for Applicability	Considerations	ARAR Assessment
Groundwater monitoring	Solid Waste Management Regulations 18 AAC 60 Article 7	Monitoring and Corrective action requirements for solid waste landfills		Relevant and appropriate if waste is left in place.
Managing wastes	Identification and listing of hazardous waste 40 CFR 261	Wastes must be characterized to determine if they are hazardous.	Applicable to any wastes (including soils) generated and sent off-site	Applicable to all wastes generated during investigation and remediation
Disposal of contaminated waste off-site	Land Disposal Restrictions Program 40 CFR 268	Hazardous wastes must be generated and managed,	Sets treatment standards for hazardous wastes based on the levels achievable by current technology; sets 2-year national variances from the statutory effective dates due to insufficient treatment capacity.	Applicable if hazardous wastes are sent off-site.
Generation of a waste stream	RCRA Hazardous Waste Determination 40 CFR 261.21-24 and Subtitle D	Activities that cause a waste to be generated	A waste is considered a RCRA hazardous waste if it exhibits any of the characteristics of ignitability, corrosivity, reactivity, or toxicity, or if it is listed as a hazardous waste. Most waste determinations will focus on whether the generated waste (e.g., treatment residuals) could be classified as toxicity characteristic waste as defined by the contaminant concentrations (e.g., a D-code hazardous waste). The toxicity characteristic is determined by running a TCLP on the waste.	Applicable
Transportation of hazardous materials	Hazardous Materials Transportation Act 49 CFR 171-177	Established standards for packaging, labeling and transportation of hazardous materials	Could apply if hazardous materials are encountered and transported offsite.	Applicable since recovered oil is transported off-base for recycling.
Used oil handling	18 AAC 75	Management, transportation, and disposal of used oil.	Standards for used oil management would apply to recovered petroleum product.	Applicable to handling of recovered petroleum.

TABLE 5-11
Action-Specific ARARs

Activity	ARAR	Prerequisite for Applicability	Considerations	ARAR Assessment
Unexploded explosive ordnance (UXO) and discarded military munitions (DMM)	DOD Ammunition and Explosives Safety Standards, DOD Directive 6055.9-STD MIL-STD 6055.9	Establishes uniform safety standards applicable to ammunition and explosives, to associated personnel and property, and to unrelated personnel and property exposed to the potential damaging effects of an accident involving ammunition and explosives during handling, transportation, storage, and disposal.		TBC
UXO and DMM management	RCRA Military Munitions Rule 40 CFR 260-265, 40 CFR 270, and 40 CFR 266 Subpart M	Presence of military munitions or contamination from military munitions	MEC has been found at the site	Applicable
UXO or DMM management	Munitions and Explosives of Concern Hazard Assessment Guidance	Presence of munitions and explosives of concern on a CERCLA site	Allows a project team to evaluate the potential explosive hazard associated with a site, given current site conditions and under various cleanup, land use activities, and land use control alternatives. The document can be found at: http://www.epa.gov/fedfac/documents/ hazard_assess_wrkgrp.htm	TBC
UXO or DMM management	Handbook on the Management of Munitions Response Actions	Potential presence of munitions and explosives of concern on a CERCLA site	Presents USEPA guidance on munitions response actions. The document can be found at: http://www.epa.gov/fedfac/pdf/ mra_hbook_5_05.pdf	TBC
Underground Injections Control Program (UIC): Criteria and Standards	40 CFR 146 AS 31.05 20 AAC 25	Underground injection of water or wastes.	USEPA enforces federal UIC requirements in Alaska. Provides for protection of underground sources of drinking water and the UIC programs.	Applicable if waters or wastes are injected into the ground
Occupational safety and health standards	AS 18.60 8 AAC 61	Work conducted in Alaska	Alaska has a delegated OSH program. This program sets standards for safety in the work environment.	Applicable

TABLE 5-11
Action-Specific ARARs

Activity	ARAR	Prerequisite for Applicability	Considerations	ARAR Assessment

AAC = Alaska Administrative Code
ADEC = Alaska Department of Environmental Conservation
ARAR = applicable or relevant and appropriate requirement
AS = Alaska Statute
CERCLA = Comprehensive, Environmental Response, Compensation, and Liability Act
CFR = Code of Federal Regulations
DOD = Department of Defense
DMM = discarded military munitions
FOTW = federally-owned treatment works
MACT = maximum achievable control technology
mg/L = milligrams per liter
NAAQS = National Primary and Secondary Ambient Air Quality Standards
NPDES = National Pollutant Discharge Elimination System
NTU = nephelometric turbidity unit
OSH = Occupational safety and health
POTW = publicly owned treatment works
RCRA = Resource Conservation and Recovery Act
SWPPP = Stormwater pollution prevention plan
TBC = to be considered
TCLP = toxicity characteristic leaching procedure
TDS = total dissolved solids
UIC = underground injection control
USEPA = U.S. Environmental Protection Agency
UST = underground storage tank
UXO = unexploded ordnance
VOC = volatile organic compound

SECTION 6

Remedial Investigation Tasks

This section describes the general technical approach and major tasks to be performed during the RI, including project planning, field investigations, sample analyses/data validation, data evaluation, and reporting.

The following RI tasks will be performed:

- Project planning
- Field investigations
- Sample analysis/data validation
- Risk assessments
- Reporting

This section provides summaries of the project planning, field investigation, and reporting tasks. Detailed information concerning sample analysis and data validation are provided in the QAPP. The risk assessment approach and data evaluation methodology is presented in the Risk Assessment Work Plan.

6.1 Project Planning

The major components of the planning process included the following:

- Creation of a site database that included available data from previous investigations
- Development of a GIS to support spatial analysis and mapping of historical and RI data.
- Analysis of pre-RI data, development of CSMs, and identification of data gaps, as documented in Sections 3 and 4 of this Plan.
- Meetings with the FCS RPMs on April 17, June 6, and June 7, 2007, to review and agree upon the scopes and schedules for the RI activities.

6.2 Field Investigations

The Army, USEPA, and ADEC have agreed to conduct the RI at the FCS by using the Triad approach. The work tasks described in this section apply the Triad approach by using technically defensible methods necessary to complete site RI characterization activities.

During an RI Work Plan review meeting convened on June 6 and 7, 2007, the RPMs recommended changes to portions of the Draft RI Work Plan. These modifications were developed and summarized in four addenda that are appended to this RI Work Plan. (See the tab labeled "Work Plan Addenda.") These addenda provide more detailed information about specific tasks that will ensure the data quality is consistent with data gathering and processing needed to obtain accurate site characterization. Additional addenda may be added to this RI Work Plan during the course of the RI at the FCS. This approach has been determined by the RPMs to be the most effective, efficient, and appropriate method for investigating this site.

The field investigation program for the FCS has been designed to generate maximum data quickly. The program includes the following:

- Soil gas investigation
- Sound berm (surface soil) investigation
- Subsurface soil investigation
- Groundwater investigation
- Drainage swale investigation
- Soil pile investigation
- Geophysical surveys

6.2.1 Soil Gas Investigation

The objective of the soil gas investigation is to determine the risk to human health posed by potential vapor intrusion from buildings and selected areas at Taku Gardens. Soil gas sample results will also be used to identify contaminant source areas and to provide information for the baseline risk assessment. Figure 6-1 presents the approach and decision tree for this investigation.

Note that Addendum 3 addressing the characterization of soil gas on the FCS was prepared to provide more detailed information about this investigation. This addendum covers collection procedures of sub-slab soil gas samples at all buildings and subsurface soil gas samples in open areas within the low-probability MEC area only. Other than the sub-slab samples, no other subsurface soil gas samples will be collected in the moderate-to-high-probability MEC area. Because of MEC concerns in the moderate-to-high-probability MEC area, each intrusive sampling location must be excavated and cleared. The excavations will be replaced with clean backfill, and sampling soil gas in clean backfill does not yield meaningful data. It was agreed by the RPMs that the sub-slab soil gas results, together with groundwater and soil sampling results will be sufficient to satisfy data objectives.

6.2.2 Sound Berm Investigation

Surface soil sampling during the RI will be limited to sampling along the sound berms that are located around the FCS. This is because the surface of the FCS has been and will be highly reworked as a result of construction and landscaping activities. The objective of the sound berm sampling program is to determine whether surface soil along these features poses a direct contact risk for future residents and site workers. Figure 6-2 presents the approach and decision tree for this investigation.

The RPMs elected to use a multi-increment (MI) sampling approach for the initial sampling and risk screening effort at the sound berms. The sampling approach consists of dividing the sound berm into nine decision units, then 30 randomly distributed locations within the decision unit will be sampled and combined into a single MI sample. Samples will be collected on the top and on each side of the berm. No samples will be collected from the interior of the berm because there is no reason to believe that the composition of subsurface samples would be different from that of surface samples. If concentrations of any target analytes in a MI sample for a decision unit exceed the screening levels identified in Section

5.1.1 (Region 6 residential PRGs), then a follow-up sampling program consisting of discrete surface soil samples will be conducted in order to obtain appropriate data for use in risk assessment. Otherwise, the soil in the decision unit will be considered clean and no further sampling or assessment of risk will be conducted.

More information about the sound berm sampling program is presented in Addendum 1.

6.2.3 Subsurface Soil Investigation

The objectives for the subsurface soil investigation at the FCS are to characterize the nature and extent of subsurface soil contamination, identify source areas, evaluate the potential for contaminants to migrate to groundwater, and assess risk posed by the contamination to future residents and site workers. Subsurface soil samples will be collected in conjunction with monitoring well installation, debris investigations, and PCB removal activities, as described in the following subsections. Figure 6-3 presents the approaches and corresponding decisions for the subsurface soil investigation.

6.2.3.1 Monitoring Well Installation Soil Sampling

Subsurface soil samples will be collected at each monitoring well boring. As agreed by the RPMs, a minimum of three samples will be collected at each well boring location: one in the near surface (0 to 2 feet bgs), one in the vadose zone (2 to 10 feet bgs), and one in the smear zone (10 to 14 feet bgs). The rig geologist has the authority to collect an additional soil sample at each well boring location if unusual geology or signs of contamination are encountered during drilling. Subsurface soil cores will be collected during monitoring well installation for lithologic description and will be sampled for target analytes, then analyzed by a laboratory.

Soil samples will also be collected from test pits use to clear monitoring well locations in the moderate-to-high-probability MEC area. Two samples will be collected in each test pit and these samples will take the place of the near surface and vadose zone soil samples, which would typically be collected during installation of the monitoring well boring.

Addendum 4 provides more information about the subsurface soil sampling program during monitoring well installation.

6.2.3.2 Confirmation Sampling at Debris Investigations

Subsurface confirmation samples will be collected following excavation of debris and contaminated soil in excavations at Building 49, Building 48, and any other area where debris is investigated. In addition to providing confirmation that the debris investigation is complete, the confirmation sample results will be integrated into the subsurface soil datasets used to assess potential risk to residents and site workers.

As agreed by the RPMs, the approach for confirmation sampling consists of collecting samples will be collected on a 50-foot grid in areas that have no signs of contamination. Where potential sources of contamination have been excavated, a finer sampling grid will be used, with size and spacing of the grid determined using best professional judgment (for example, 10 by 10 feet or 20 by 20 feet, depending on the distribution of the source).

6.2.3.3 Confirmation Sampling During PCB Removal Actions

The Army DPW contracted with Jacobs Engineering Group, Inc., to investigate and remove PCB-contaminated soil. The plan for the PCB investigation is documented in the PCB Investigation Work Plan (Jacobs, 2007). CH2M HILL will support this investigation by taking confirmation samples.

The objective of the sampling is to provide confirmation that all PCB-contaminated soil identified as being above regulatory levels during the Jacob investigations has been delineated. As with the debris investigation, the confirmation sample results will also be integrated into the subsurface soil datasets used to assess potential risk to residents and site workers.

Several areas have been proposed for investigation near the former Building 52 location where prior sampling has indicated high levels of PCBs. Confirmation soil sampling will be conducted in the excavations after the investigations/removals have been completed. Test kit samples will be used to guide the excavation, and laboratory confirmation samples will be used to confirm the test kit results. At least four confirmation samples will be taken from the excavation walls, and at least two confirmation samples will be taken from the floor of each excavation. Excavations will remain open until laboratory analysis either confirms the full extent of the PCB contamination has been delineated and the hole can be backfilled with clean soil, or indicates that further investigation is needed.

6.2.4 Groundwater Investigation

The objective of the groundwater investigation is to characterize the hydrogeology of the FCS, locate and better define the extent of contaminant plumes, and assess potential risks to human and ecological receptors.

As many as 70 two-inch diameter, shallow (less than 20 feet bgs) monitoring wells will be installed as part of the groundwater investigation. Figure 6-4 presents the location of the existing and proposed monitoring wells for this investigation; monitoring well locations were selected to account for the following:

- Provide coverage for locating sources
- Characterize groundwater quality downgradient of geophysical anomalies
- Better define the POL plume
- Evaluate possible preferential pathways along the now filled river channels
- Assess conditions at locations where previous sampling results exceeded screening levels

The purpose of and/or justification for each well shown in Figure 6-4 is provided in Table 5-5.

Monitoring well locations will be cleared for MEC as outlined in the MEC Support Work Plan. In the moderate-to-high-probability MEC area, the subsurface will physically be cleared through excavation. Excavations will be backfilled, then monitoring wells will be installed.

Approximately 20 permanent monitoring wells will be installed based on the results of initial groundwater samples collected at the proposed and existing wells. At least one permanent well will be installed to monitor the POL plume. Two additional permanent wells will be installed near the main post supply well: one to a depth of 30 feet bgs, and the other to a depth of 50 feet bgs.

Figure 6-5 presents the approaches and corresponding decisions for the groundwater investigation.

6.2.4.1 POL Plume Investigation Details

The objective of the groundwater investigation for the POL plume is to determine the nature and extent of the plume. Some data will be obtained from the groundwater samples collected at Buildings 1 through 14. These data will be used to augment existing soil gas and groundwater data to characterize the source of the POL plume. Using the known groundwater gradient to predict movement of the POL plume, the first soil boring will be installed west of the SAS building, approximately 250 feet from MW-06A. This location is proposed because it is in line with the known POL plume and is outside of the SAS playground.

Field screening of subsurface soil near the groundwater table will be used as a real-time indicator of dissolved contamination in groundwater. Field screening will be conducted with a PID on head space samples using procedures outlined in the Field Sampling Plan. If PID readings greater than 10 parts per million (ppm) are detected, the location will be considered to be within the POL plume. Intermediate borings within the POL plume will then be abandoned following approved ADEC procedures. Additional borings will be installed downgradient, if needed, until no PID readings are detected. From the results of natural attenuation studies of fuels at Fort Wainwright, it is anticipated that the proposed well located approximately 250 feet from MW-06A and west of the SAS building will be clean. At the location where no PID readings are detected, a permanent monitoring well will be installed to confirm the extent of the POL plume and provide a permanent monitoring point.

6.2.4.2 Former River Channels Investigation Details

Historical aerial photos indicate the former river channels in the FCS were used for disposal and because these areas could potentially have a different geological composition than surrounding soils (possibly more transmissive for groundwater), additional temporary wells will be installed in the former channels to assess potential contamination. Locations will be chosen to avoid existing structures, utilities, and geophysical anomalies. If geophysical anomalies cannot be avoided, monitoring wells may be installed within test pits that have been cleared of debris.

6.2.4.3 Aquifer Characterization

Limited data currently exist for the hydraulic conductivity of the alluvial aquifer in the site area. Classic aquifer testing has not been conducted because of high well yields and associated water disposal issues with potentially contaminated groundwater. However, valuable information can be obtained by utilizing the stresses imposed on the aquifer system because of groundwater production from the nearby base water supply wells. These data will provide the necessary information required to develop site-specific, quantitative information on aquifer permeability.

The objective of this hydrogeologic testing task is to collect hydrogeologic data that can be used to estimate site-specific aquifer permeability. The improved data set of both aquifer properties and contaminant nature and extent will be used to assess the potential for contaminant mobility and associated affects to the base water supply.

The data collection and analysis program that will be conducted at the site will require that the pumping rate of each water supply well be consistent and known. The Army will furnish estimates of base water supply production rates. The water supply wells will then be instrumented with time-of-use meters attached to the outside of the discharge pipe that will record the timing of when the wells turn on and off. Four pressure transducers will also be positioned in monitoring wells located nearest to the production wells. These transducers will provide continuous measurements of groundwater levels in each instrumented monitoring well.

These groundwater elevation data will be collected from the monitoring wells and will record the response in the groundwater levels in the monitoring wells from the cycling of the pumps within the base supply wells. The response to a single event pump test will also be monitored. This pump test will be conducted by turning on the second of the two base supply wells in Building 3559, and allowing this pump to operate at maximum flow rate until the water supply clear well is filled to capacity.

Once the production rate from the base supply wells is known, the timing of the well operation has been recorded, and the water levels in nearby monitoring wells has been obtained, the existing regional numerical groundwater flow model previously developed for the Fort Wainwright area will be used to replicate the pumping stresses imposed by the production wells. The assumed aquifer properties in the flow model in the vicinity of the site will then be adjusted to achieve a reasonable match between the simulated and observed timing and magnitude of the water level response to base supply pumping. This additional degree of calibration will result in a more accurate and defensible tool with which to evaluate whether any groundwater contamination found at the FCS poses a threat to base water supply currently or in the future.

To implement this groundwater analysis program, the following activities will be performed in 2007:

- Obtain the production rates for the base water supply wells
- Install dataloggers and pressure transducers in four monitoring wells at the FCS located nearest the base supply wells
- Periodically download the data from the dataloggers and time-of-use meters to obtain the necessary information to perform the groundwater modeling analysis

Once these data are available, the existing groundwater flow model will be calibrated as described above.

6.2.5 Drainage Swale Sediment Investigation

The objective of sampling the drainage swale sediment is to determine whether runoff exiting the FCS might present an ecological risk to surface water receptors in the Chena

River. Figure 6-6 presents the approach and corresponding decision tree for this investigation.

Drainage for the Taku Gardens Family Housing development is channeled into two main swales located along the north and west perimeters of the subdivision. The swales converge north-northwest of Building 1, and the combined swale runs in a north-northeast direction past the SAS building. This drainage swale is the primary carrier for site runoff from heavy storm events and snowmelt. To evaluate concentrations of contaminants leaving the site through sediment, three sediment samples will be taken from the swale. The first sample will be collected at a point where sediment has collected at a barrier of hay bales near the point where the swale runs under the FCS boundary fence (Figure 6-7). The second sample will be collected just upgradient of the culvert under Neely Road. The third sample will be collected between the first two. If target analytes are detected at this third sample location, additional downgradient samples will be taken. These locations would be defined in a future work plan addendum.

6.2.6 Stock Pile Investigation

There are 47 soil stock piles at the FCS. The soil piles are generally located around the perimeter of the construction area. Approximately 5 acres of this area were fenced off and designated as the PCB EZ. Twenty four of the piles are located in the PCB EZ. The size of the soil piles range from approximately 10 to several hundred cubic yards.

The objective of the soil pile investigation to characterize the soil for possible disposal in the Fort Wainwright Class I landfill. Stock pile soils with concentrations below the ADEC Table B1 or Table B2 soil cleanup levels provided in Title 18 Chapter 75 of the *Alaska Administrative Code* (AAC) can be disposed of in the landfill. If stockpile soils exceed these concentrations, they will be processed and disposed of by the Fort Wainwright DRMO. If PCBs are detected in the stockpiles above the Fort Wainwright landfill acceptance criterion of 10 mg/kg, they will be disposed of as part of a separate PCB removal project. Figure 6-8 presents the approach and corresponding decisions for the stock pile investigation.

An MI sampling approach was selected to characterize the soil stockpiles. This approach was determined by the RPMs to be the most effective, efficient, and appropriate method for investigating this area. Addendum 2 details how the soil piles will be grouped and/or divided into decision units for MI sampling.

6.2.7 Geophysical Investigation

Geophysical surveys were conducted in 2003 and 2004 before site construction and in 2006 after construction. Additional geophysical surveys will be conducted in 2007 to confirm previous results and to survey portions of the site not fully characterized in previous surveys. The objective of the geophysical surveys is to determine locations and depths of buried debris at the FCS. Priority areas were identified by the RPMs for rapid investigation. Specific data needs for the priority areas are identified in the Geophysical Survey Work Plan included in Volume 2 of this RI Work Plan.

Electromagnetic techniques will be used to detect buried metallic debris, and ground penetrating radar will be used to provide information on depth and extent of buried debris.

Specific equipment, methods, and quality control are addressed in the Geophysical Survey Work Plan included in Volume 2 of this RI Work Plan.

6.3 Data Evaluation

The sampling approaches and associated decision trees described above provide a framework for guiding evaluations and decisions through the initial RI process. Most of the decision trees conclude with a decision about the need for risk assessment. A separate Risk Assessment Work Plan has been developed to describe how the human health and ecological risk assessments will be conducted.

6.4 Reporting

Specific reporting deliverables associated with the RI include the following:

- Interim Laboratory Report
- PCB Investigation Technical Memorandum
- Field Data Report
- Baseline Risk Assessment Report
- MEC Hazard Assessment Report
- RI Report

The proposed schedule for delivery of these reporting elements is provided in the RI Schedule (Figure 6-9 [previously 1-3]). The following sections briefly describe the objectives and planned approaches for development of each document associated with the initial RI effort.

6.4.1 Interim Laboratory Report

This report will include the following components:

- Raw laboratory data reports, including laboratory cooler receipt forms and chain-of-custody forms
- ADEC laboratory checklists
- Data quality evaluation reports
- Validated data summary tables
- Electronic data deliverable with validated data

6.4.2 PCB Investigation Technical Memorandum

This technical memorandum will be developed as draft and final documents, and will provide locations of PCB investigations at the FCS during the RI. Analytical results and sample locations will be provided for both characterization of investigation-derived waste (IDW) and delineation of confirmation samples. A summary of quantity and disposition of IDW will be provided.

6.4.3 Field Data Report

The Field Data Report will briefly describe the activities conducted and will include figures illustrating sample locations, monitoring well locations, site topography and groundwater contours, and validated analytical data. The field data report will also include field notes, field screening data, and site photographs.

6.4.4 Baseline Risk Assessment Report

The Baseline Risk Assessment Report will be submitted as draft and final iterations and will document the nature, magnitude, and probability of actual or potential harm to public health, safety, or welfare by the threatened or actual release of hazardous chemical substances. The report will identify and characterize the toxicity of contaminants, the potential exposure pathways, the potential human and ecological receptors, and the likelihood and extent of impact or threat under current and reasonably anticipated future land and water use conditions. The detailed approach to perform this risk assessment is outlined in the Risk Assessment Work Plan included in Volume 2 of this RI Work Plan.

6.4.5 MEC Hazard Assessment Report

The MEC Hazard Assessment Report will document the site history, focusing on uses and storage of munitions, munitions found before and during the 2007 RI, and potential hazards of the MEC. The degree of disturbance of the site by construction and investigations will also be qualitatively evaluated to help establish expectations for frequency of future occurrences. Also, the remaining site work (such as sidewalks and utilities) will be evaluated for likelihood to create future disturbance. A hazard assessment will be conducted for the moderate- to high-probability MEC area (currently defined as Subarea A), and a separate hazard assessment will be prepared for the low-probability MEC areas of the FCS. These hazard assessments will be based on the following factors: ordnance characteristics, ordnance accessibility, and public exposure. The status of and plans for ordnance search and removal will also be evaluated.

6.4.6 RI Report

Following completion of the baseline risk assessments, a draft RI report will be developed for review by the supporting agencies and will serve as documentation of data collection and analysis in support of any subsequent feasibility studies.

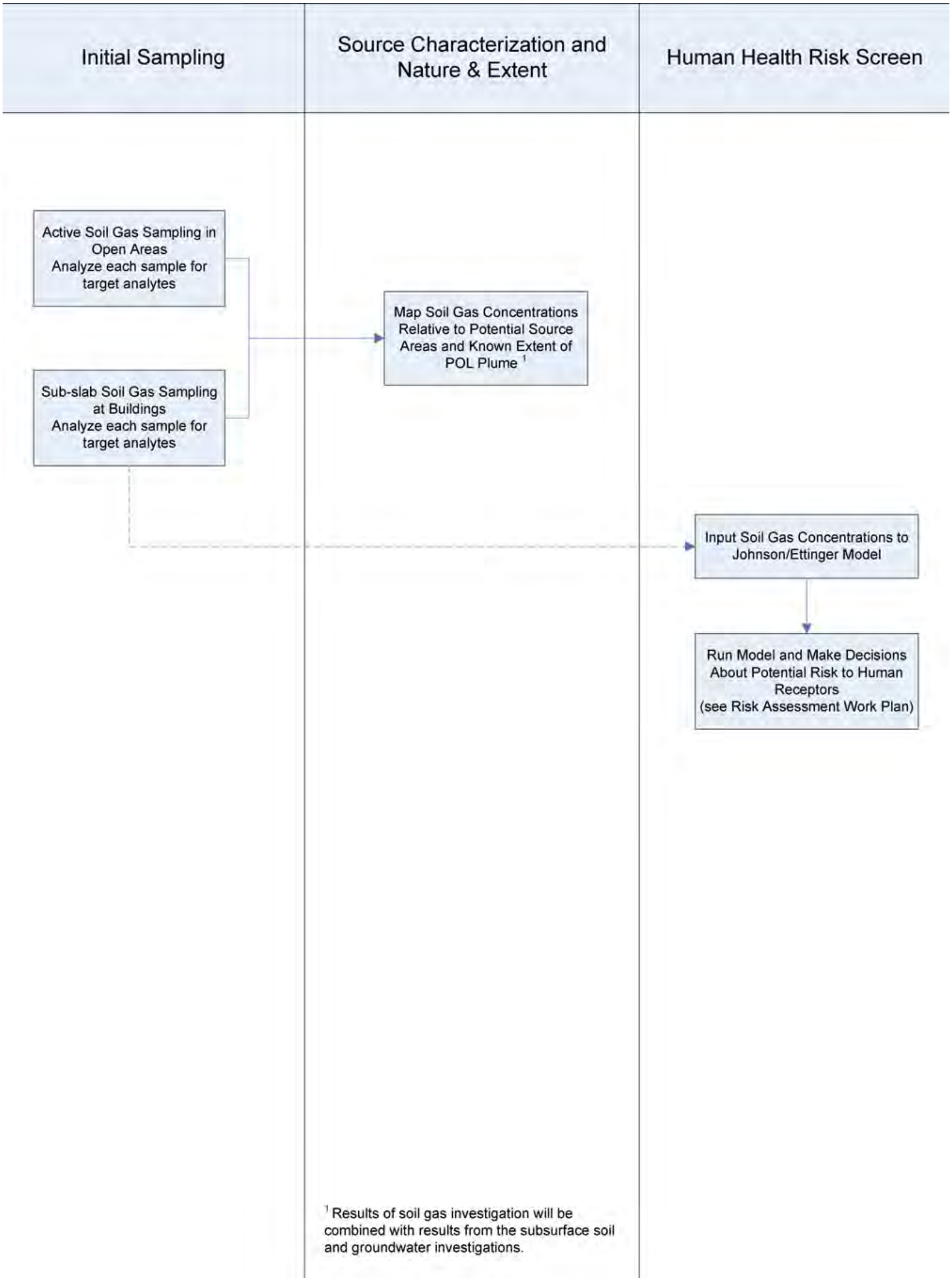


FIGURE 6-1
Sampling and Data Evaluation Process for Soil Gas
Former Communications Site, Fort Wainwright, Alaska

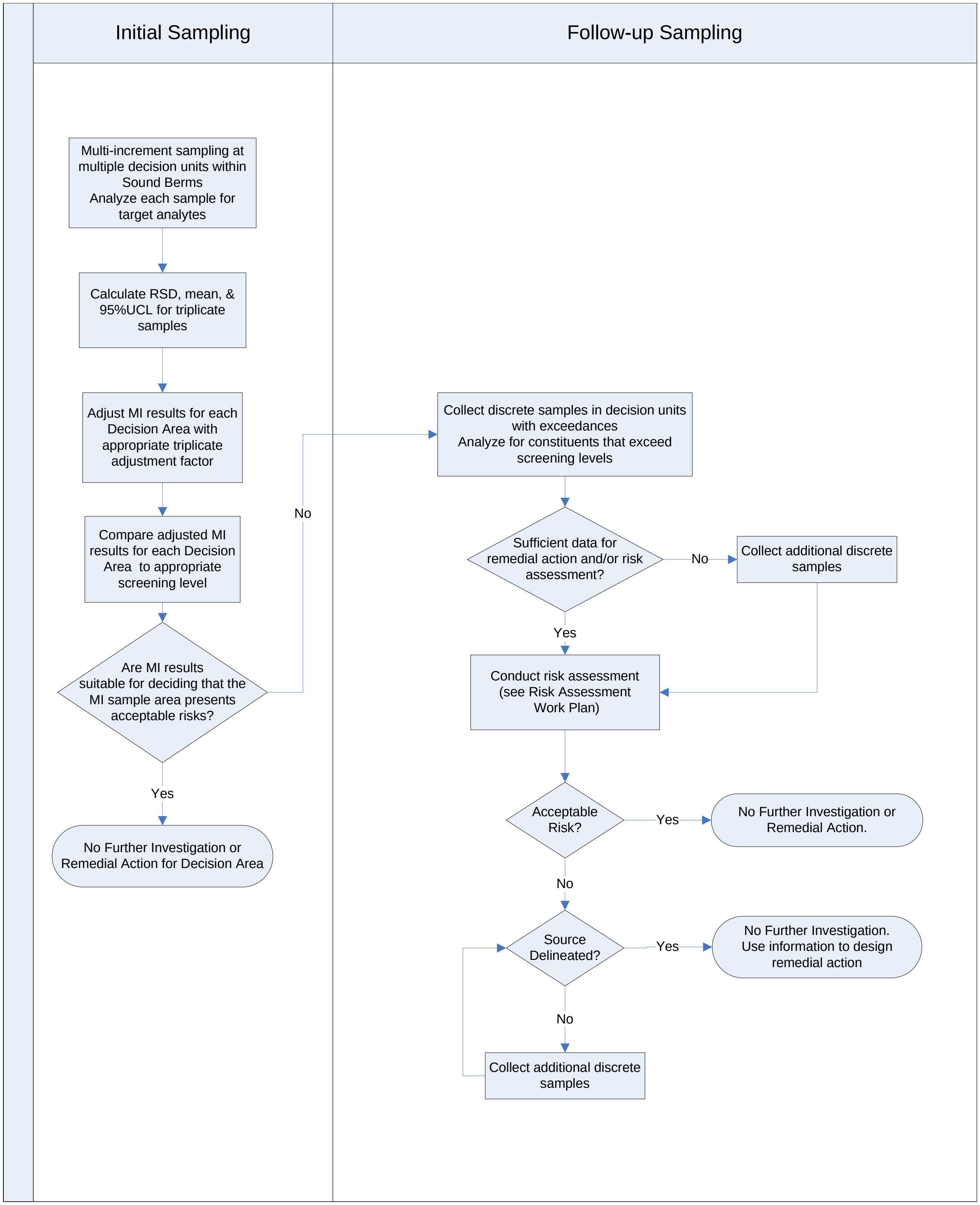


FIGURE 6-2
Soil Sampling and Data Evaluation Process for Soil in Sound Berms
Former Communications Site, Fort Wainwright, Alaska

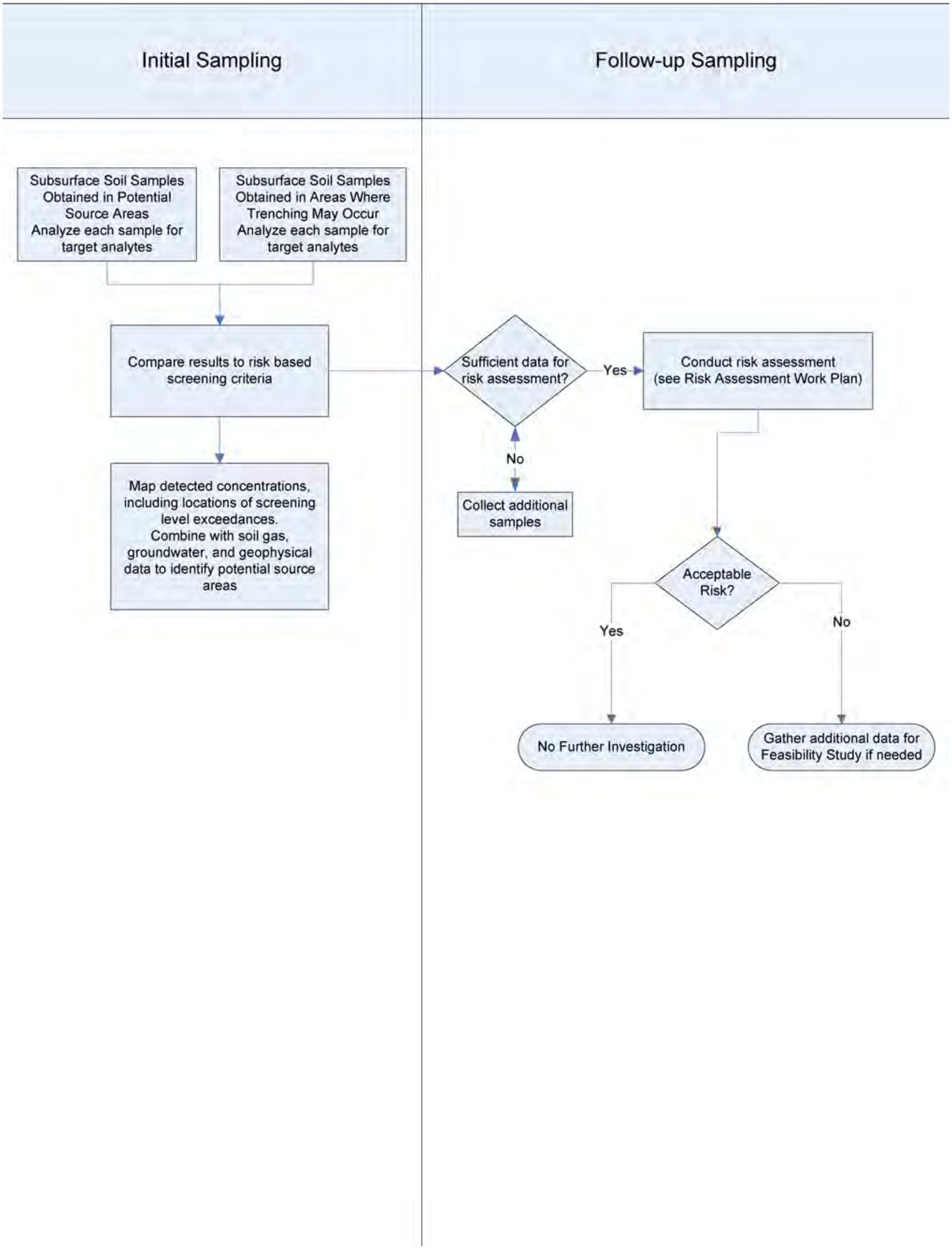
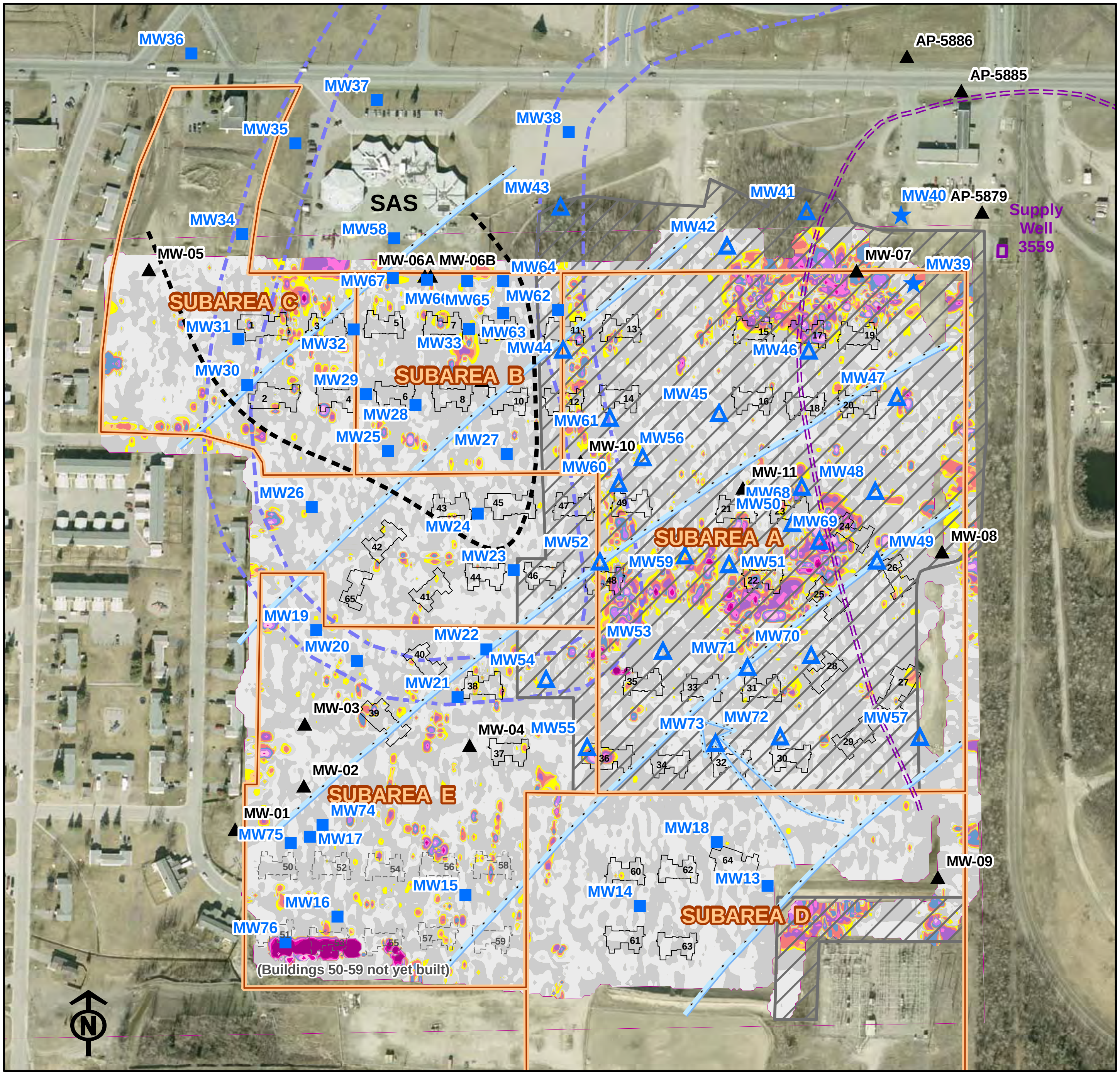


FIGURE 6-3
Sampling and Data Evaluation Process for Subsurface Soil
Former Communications Site, Fort Wainwright, Alaska

FIGURE **6**-4
Final Proposed Monitoring Well Locations
Remedial Investigation Work Plan
Former Communications Site
Fort Wainwright, Alaska



Legend

- Moderate to High probability MEC area
- Former slough channel
- Area within elevated VOC/POL concetration
- Capture Zone, Supply Well 3559
- Groundwater contour and flow direction
- Existing monitoring well locations
- Proposed monitoring well locations
- Proposed well locations in Moderate to High Probability MEC Area
- Proposed deep monitoring locations

2004 Magnetic Data Vertical Gradient

-4000
-1000
-500
-200
-100
-75
-50
-20
0
40
75
100
200
500
1000
2000
4000

0 100 200 300 Feet

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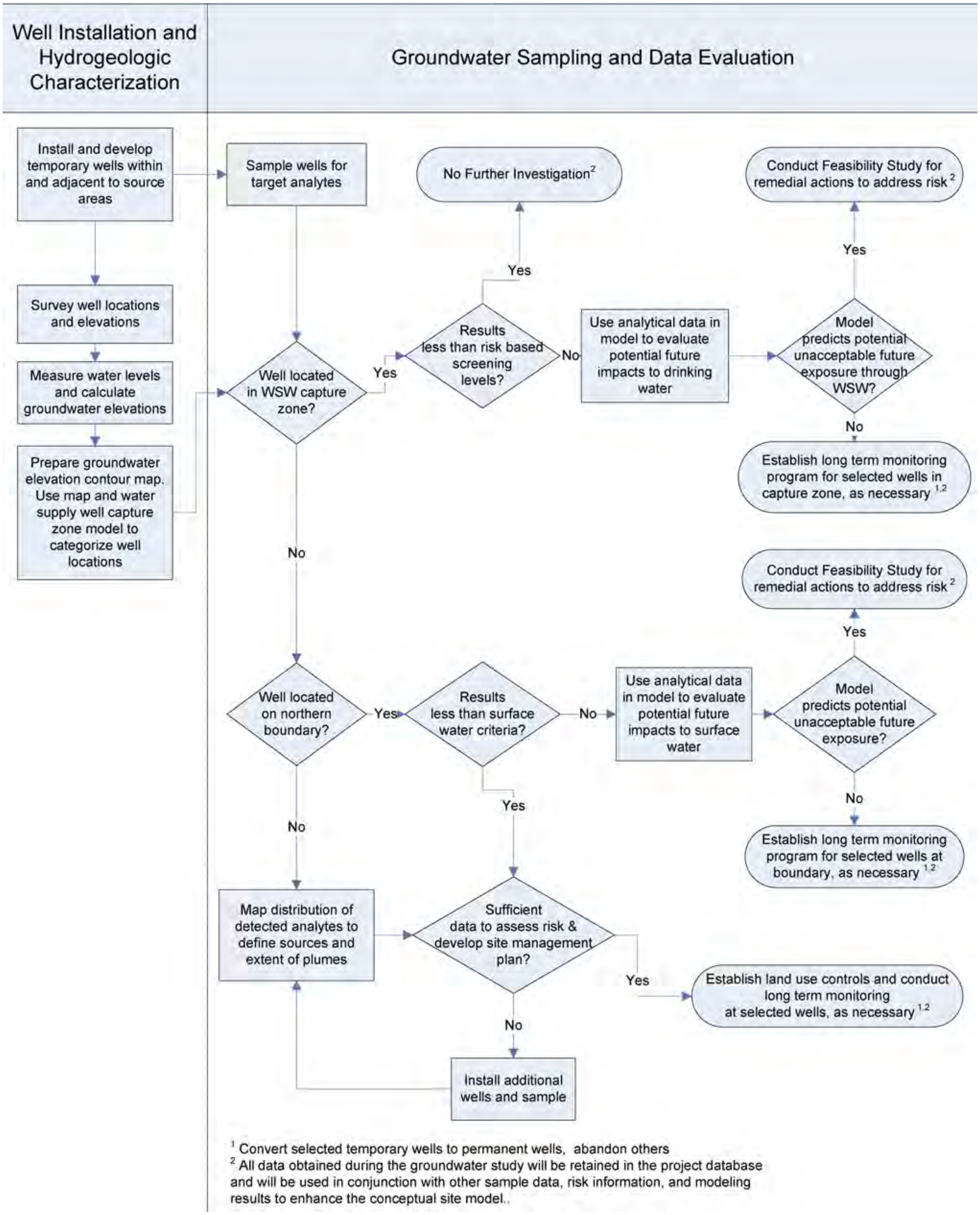
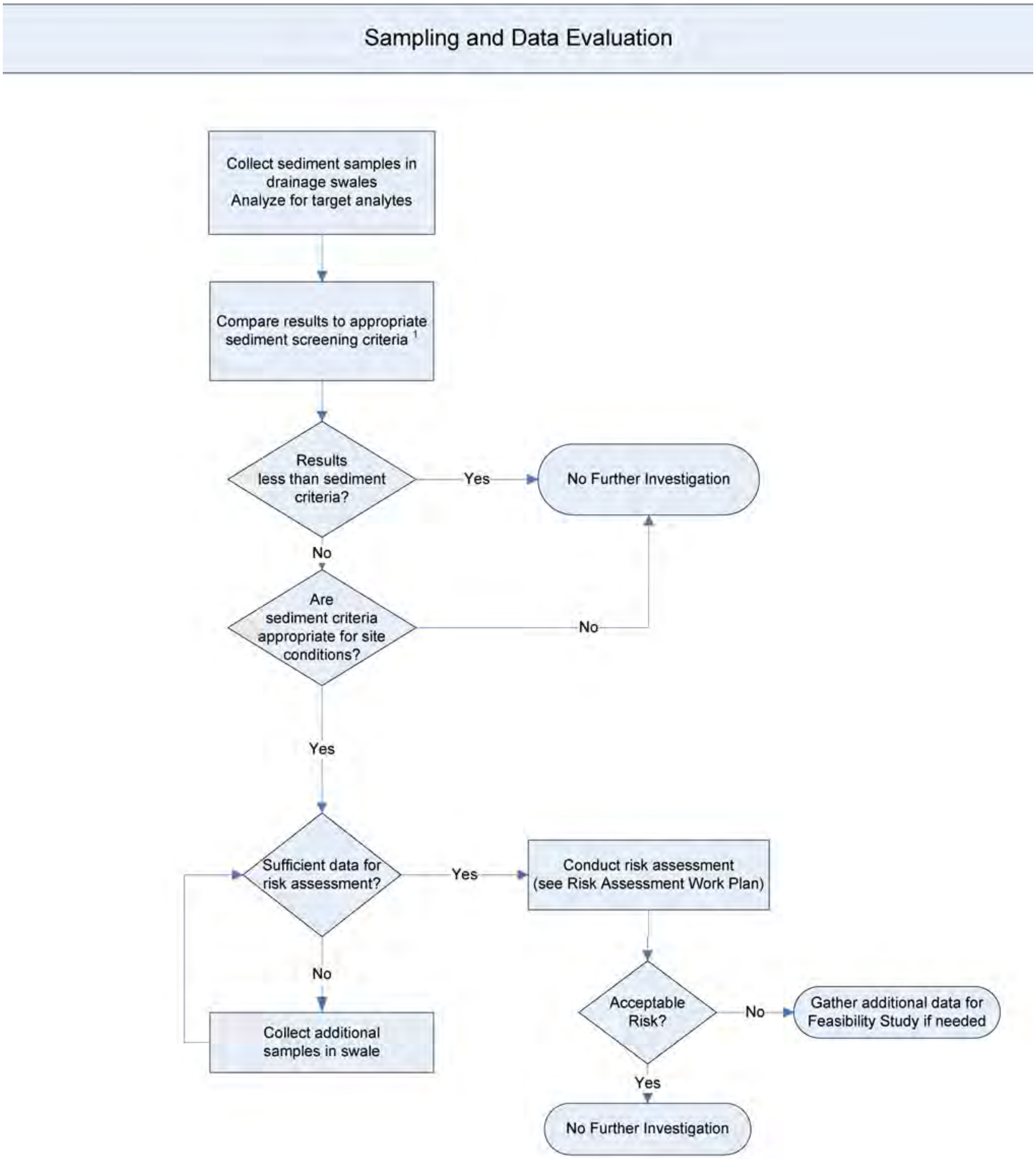


FIGURE 6-5
Sampling and Data Evaluation Process for Groundwater
Former Communications Site, Fort Wainwright, Alaska



[1] Ecological screening benchmarks for aquatic (freshwater) and terrestrial wildlife

FIGURE 6-6
Soil Sampling and Data Evaluation Process
for Sediment in Drainage Swales
Former Communications Site, Fort Wainwright, Alaska

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0 200 400 Feet

FIGURE **6**-7
Sediment Sampling Locations
Remedial Investigation Work Plan
Former Communications Site
Fort Wainwright, Alaska

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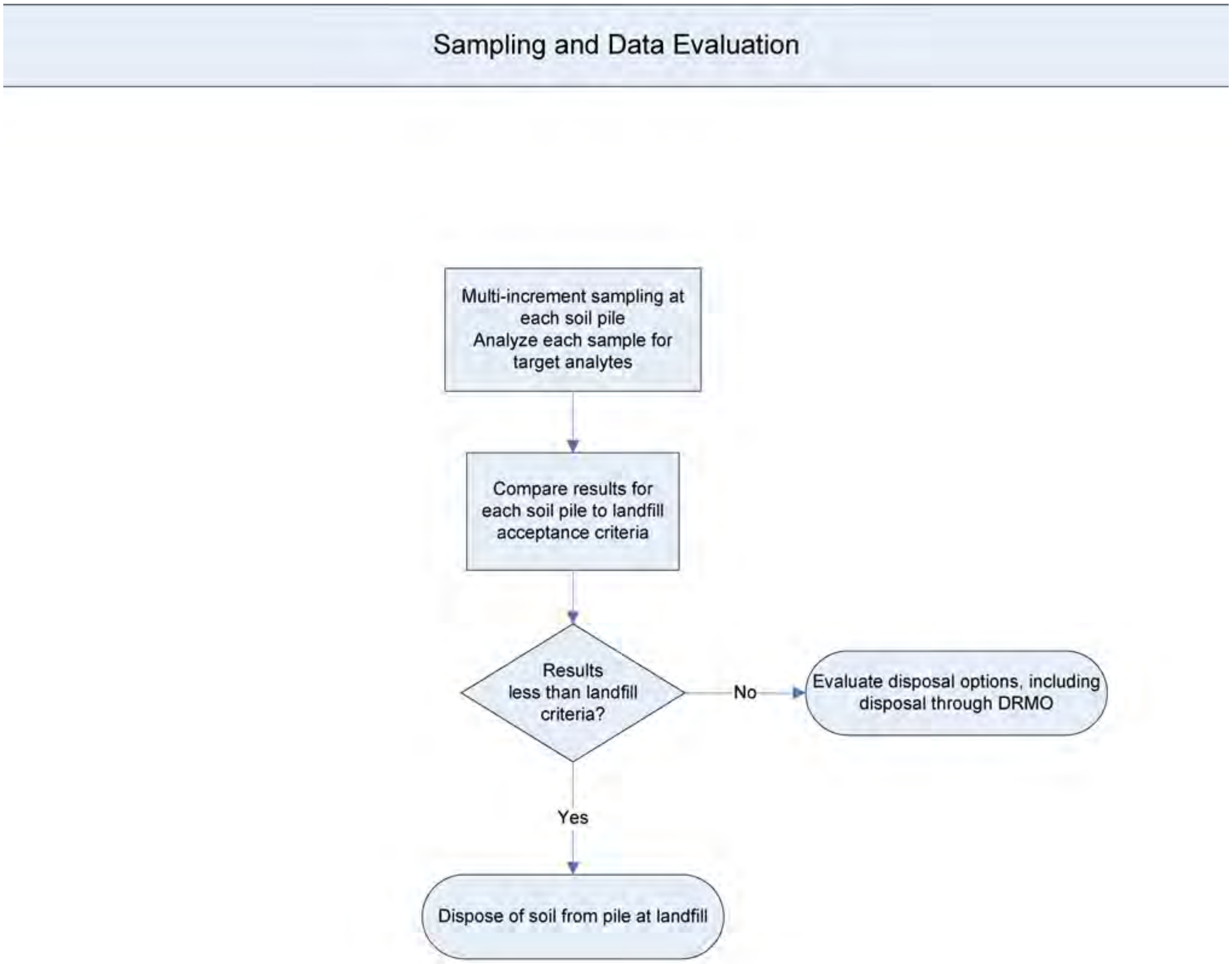
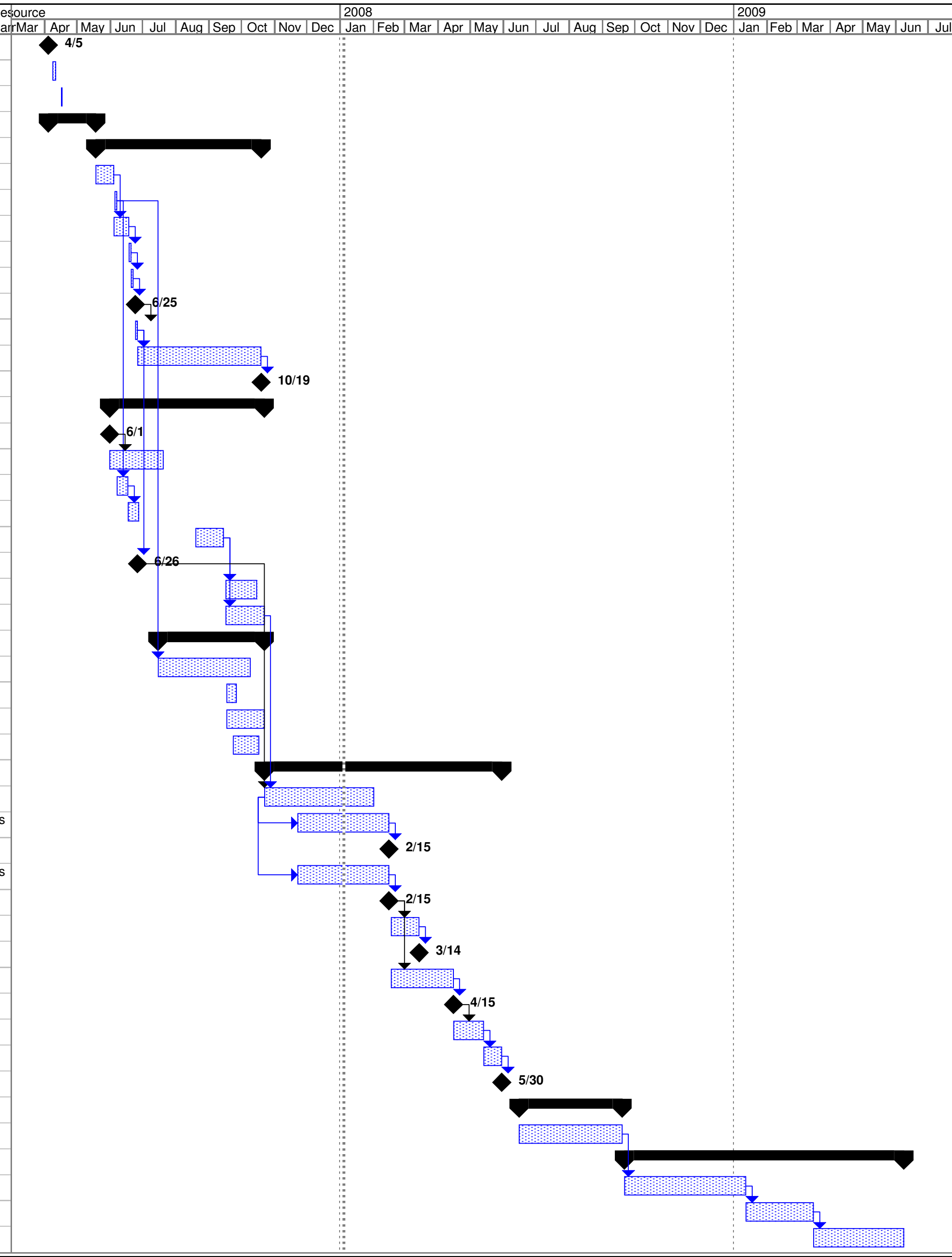


FIGURE 6-8
Soil Sampling and Data Evaluation Process for Soil Piles
Former Communications Site, Fort Wainwright, Alaska

Revision 3, 01/04/08

Figure 6-9. Remedial Investigation Schedule, FWA 102 Former Communication Site

ID	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1	Award	0 days	Thu 4/5/07	Thu 4/5/07		
2	CSM and DQO meetings	3 days	Mon 4/9/07	Wed 4/11/07		
3	RPM Scoping Meeting	1 day	Tue 4/17/07	Tue 4/17/07		
4	**Draft RI Management Plan**	**44 days**	**Thu 4/5/07**	**Fri 5/18/07**		
14	**Final RI Management Plan**	**123 days**	**Sat 5/19/07**	**Fri 10/19/07**	**13**	
15	USACE and agency review of draft plan	17 days	Sat 5/19/07	Mon 6/4/07	13	
16	RI Mgmt Plan review conference	2 days	Wed 6/6/07	Thu 6/7/07		
17	Prepare revised draft redline	14 days	Tue 6/5/07	Mon 6/18/07	15	
18	Review and editing for revised draft	2 days	Tue 6/19/07	Wed 6/20/07	17	
19	Reproduction of revised draft	2 days	Thu 6/21/07	Fri 6/22/07	18	
20	Deliver revised (redline) draft	0 days	Mon 6/25/07	Mon 6/25/07	19	
21	Additional USACE and agency review	2 days	Mon 6/25/07	Tue 6/26/07	20	
22	Prepare final RI Mgmt Plan	84 days	Wed 6/27/07	Fri 10/19/07	21	
23	Deliver final RI Mgmt Plan	0 days	Fri 10/19/07	Fri 10/19/07	22	
24	**RI Field Work 2007**	**111 days**	**Fri 6/1/07**	**Mon 10/22/07**		
25	Award RI	0 days	Fri 6/1/07	Fri 6/1/07		
26	Evaluation of pre-RI data	45 days	Fri 6/1/07	Fri 7/20/07	25	
27	Prepare specific work plan addenda	10 days	Fri 6/8/07	Sun 6/17/07	16	
28	Mobilization	10 days	Mon 6/18/07	Wed 6/27/07	27	
29	Soil gas sampling	20 days	Mon 8/20/07	Fri 9/14/07		
30	Surface soil sampling	0 days	Tue 6/26/07	Tue 6/26/07	21	
31	Install borings and monitoring wells	21 days	Mon 9/17/07	Mon 10/15/07	29	
32	Develop and sample monitoring wells	26 days	Mon 9/17/07	Mon 10/22/07	29	
33	**Removal Actions (Jacobs Engineering)**	**71 days**	**Mon 7/16/07**	**Mon 10/22/07**		
34	Work plans	62 days	Mon 7/16/07	Tue 10/9/07	16FS+5 days	
35	Drum removal	7 days	Tue 9/18/07	Wed 9/26/07		
36	Debris removal (scope TBD)	25 days	Tue 9/18/07	Mon 10/22/07		
37	PCB soil removal	18 days	Mon 9/24/07	Wed 10/17/07		
38	**Interim RI Report**	**159 days**	**Tue 10/23/07**	**Fri 5/30/08**		
39	Laboratory analysis	74 days	Tue 10/23/07	Fri 2/1/08	30,32	
40	Data review and validation	61 days	Fri 11/23/07	Fri 2/15/08	39SS+20 days	
41	Submit validated data to ADEC	0 days	Fri 2/15/08	Fri 2/15/08	40	
42	Prepare field data report	61 days	Fri 11/23/07	Fri 2/15/08	39SS+20 days	
43	Submit field data report	0 days	Fri 2/15/08	Fri 2/15/08	42	
44	Prepare nature and extent tech memo	20 days	Mon 2/18/08	Fri 3/14/08	43	
45	Submit nature and extent memo	0 days	Fri 3/14/08	Fri 3/14/08	44	
46	Draft baseline risk assessment/MEC hazard report	42 days	Mon 2/18/08	Tue 4/15/08	43	
47	Submit draft risk/MEC hazard reports	0 days	Tue 4/15/08	Tue 4/15/08	46	
48	RPM review of draft risk/MEC hazard reports	20 days	Wed 4/16/08	Tue 5/13/08	47	
49	Prepare final risk/MEC hazard reports	13 days	Wed 5/14/08	Fri 5/30/08	48	
50	Submit final risk/MEC hazard reports	0 days	Fri 5/30/08	Fri 5/30/08	49	
51	**RI Field Work 2008**	**70 days**	**Mon 6/16/08**	**Fri 9/19/08**		
52	Investigation activities TBD	70 days	Mon 6/16/08	Fri 9/19/08		
53	**RI Report**	**186 days**	**Mon 9/22/08**	**Mon 6/8/09**		
54	Draft RI Report	81 days	Mon 9/22/08	Mon 1/12/09	52	
55	Draft Final RI Report	45 days	Tue 1/13/09	Mon 3/16/09	54	
56	Final RI Report	60 days	Tue 3/17/09	Mon 6/8/09	55	



Project: RI Schedule 082207
Date: Fri 1/4/08

Task	Progress	Summary	External Tasks	Deadline
Split	Milestone	Project Summary	External Milestone	

SECTION 7

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Appendix A
Screening Levels and Statistical Summary of Analytical Data

TABLE 3-1
ADEC and USEPA Soil Screening Levels

CAS No.	Analyte	ADEC "Under 40-inch Zone" Table B1 & B2 Levels			USEPA Region 6 Residential Soil PRG (mg/kg)	Lowest ADEC Table B1 & B2 Value (mg/kg)	1/10 Lowest ADEC Table B1 & B2 Value (mg/kg)	Screening Level (mg/kg)	Source of Screening Level (NA= no screening level)
		Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)					
Volatile Organic Compounds									
71556	1,1,1-Trichloroethane	NA	460	1.0	1,400	1.0000	0.1000	1.00E-01	ADEC
630206	1,1,1,2-Tetrachloroethane	NA	NA	NA	3.0	0.0000	0.0000	3.00E+00	USEPA
79345	1,1,2,2-Tetrachloroethane	42	5.4	0.017	0.38	0.0170	0.0017	1.70E-03	ADEC
7311	1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	0.0000	0.0000	NA	NA
79005	1,1,2-Trichloroethane	150	10	0.017	0.84	0.0170	0.0017	1.70E-03	ADEC
75354	1,1,-Dichloroethene	14	0.90	0.030	280	0.0300	0.0030	3.00E-03	ADEC
75343	1,1-Dichloroethane	10,000	890	12	850	12.0000	1.2000	1.20E+00	ADEC
78999	1,1-Dichloropropane	NA	NA	NA	NA	0.0000	0.0000	NA	NA
563586	1,1-Dichloropropene	NA	NA	NA	NA	0.0000	0.0000	NA	NA
120821	1,2,4-Trichlorobenzene	1,000	570	2.0	140	2.0000	0.2000	2.00E-01	ADEC
95636	1,2,4-Trimethylbenzene	5070	92.2	95.2	52	92.2000	9.2200	9.22E+00	ADEC
108678	1,3,5-Trimethylbenzene	5070	38.3	25	21	25.0000	2.5000	2.50E+00	ADEC
87616	1,2,3-Trichlorobenzene	NA	NA	NA	NA	0.0000	0.0000	NA	NA
96184	1,2,3-Trichloropropane	4.15	10.4	0.002	0.0014	0.0020	0.0002	2.00E-04	ADEC
96128	1,2-Dibromo-3-chloropropane*	NA	NA	NA	0.0026	0.0000	0.0000	2.60E-03	USEPA
106934	1,2-Dibromoethane	0.10	1.2	3.06E-05	0.028	0.0000	0.0000	3.06E-06	ADEC
95501	1,2-Dichlorobenzene	9,100	110	7.0	280	7.0000	0.7000	7.00E-01	ADEC
107062	1,2-Dichloroethane	91	5.0	0.015	0.35	0.0150	0.0015	1.50E-03	ADEC
78875	1,2-Dichloropropane	120	17	0.017	0.35	0.0170	0.0017	1.70E-03	ADEC
541731	1,3-Dichlorobenzene	3,040	NA	12	69	12.1000	1.2100	1.21E+00	ADEC
142289	1,3-Dichloropropane	NA	NA	NA	NA	0.0000	0.0000	NA	NA
106467	1,4-Dichlorobenzene	350	8,000	0.80	3.2	0.8000	0.0800	8.00E-02	ADEC

TABLE 3-1
ADEC and USEPA Soil Screening Levels

CAS No.	Analyte	ADEC "Under 40-inch Zone" Table B1 & B2 Levels Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)	USEPA Region 6 Residential Soil PRG (mg/kg)	Lowest ADEC Table B1 & B2 Value (mg/kg)	1/10 Lowest ADEC Table B1 & B2 Value (mg/kg)	Screening Level (mg/kg)	Source of Screening Level (NA= no screening level)
78933	2-Butanone (MEK)	60,800	28,100	60	32,000	60.0000	6.0000	6.00E+00	ADEC
591786	2-Hexanone	NA	NA	NA	NA	0.0000	0.0000	NA	NA
594207	2,2-Dichloropropane	NA	NA	NA	NA	0.0000	0.0000	NA	NA
108101	4-Methyl-2-pentanone (MIBK)	NA	NA	NA	NA	0.0000	0.0000	NA	NA
67641	Acetone	10,000	NA	10	14,000	10.0000	1.0000	1.00E+00	ADEC
71432	Benzene	150	9.0	0.020	0.66	0.0200	0.0020	2.00E-03	ADEC
108861	Bromobenzene	NA	NA	NA	73	0.0000	0.0000	7.30E+01	USEPA
74975	Bromochloromethane	NA	NA	NA	NA	0.0000	0.0000	NA	NA
75274	Bromodichloromethane	NA	NA	NA	1.0	0.0000	0.0000	1.00E+00	USEPA
75252	Bromoform	1,050	500	0.38	62	0.3800	0.0380	3.80E-02	ADEC
74839	Bromomethane (Methyl bromide)	NA	NA	NA	3.9	0.0000	0.0000	3.90E+00	USEPA
75150	Carbon Disulfide	10,000	453	17	720	17.0000	1.7000	1.70E+00	ADEC
56235	Carbon Tetrachloride	64	3.4	0.030	0.24	0.0300	0.0030	3.00E-03	ADEC
108907	Chlorobenzene	2,000	110	0.60	270	0.6000	0.0600	6.00E-02	ADEC
75003	Chloroethane	NA	NA	NA	NA	0.0000	0.0000	NA	NA
67663	Chloroform	1,000	3.4	0.34	0.25	0.3400	0.0340	3.40E-02	ADEC
74873	Chloromethane	NA	NA	NA	1.3	0.0000	0.0000	1.30E+00	USEPA
156592	cis-1,2-Dichloroethene	1,000	NA	0.20	43	0.2000	0.0200	2.00E-02	ADEC
542-75-6	1,3-Dichloropropene	83	14	0.020	0.70	0.0200	0.0020	2.00E-03	ADEC
10061015	cis-1,3-Dichloropropene	NA	NA	NA	NA	NA	NA	NA	NA
10061015	cis-1,3-Dichloropropene*	83	14	0.020	0.70	0.0200	0.0020	2.00E-03	ADEC
110827	Cyclohexane	NA	NA	NA	NA	0.0000	0.0000	NA	NA
124481	Dibromochloromethane	NA	NA	NA	NA	0.0000	0.0000	NA	NA

TABLE 3-1
ADEC and USEPA Soil Screening Levels

CAS No.	Analyte	ADEC "Under 40-inch Zone" Table B1 & B2 Levels			USEPA Region 6 Residential Soil PRG (mg/kg)	Lowest ADEC Table B1 & B2 Value (mg/kg)	1/10 Lowest ADEC Table B1 & B2 Value (mg/kg)	Screening Level (mg/kg)	Source of Screening Level (NA= no screening level)
		Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)					
74953	Dibromomethane	NA	NA	NA	NA	0.0000	0.0000	NA	NA
75718	Dichlorodifluoromethane	20,300	260	60	94	60.0000	6.0000	6.00E+00	ADEC
100414	Ethylbenzene	10,000	89	5.5	230	5.5000	0.5500	5.50E-01	ADEC
98828	Isopropylbenzene	10,100	585	227	370	227.0000	22.7000	2.27E+01	ADEC
79209	Methyl Acetate	NA	NA	NA	NA	0.0000	0.0000	NA	NA
1634044	Methyl tert-Butyl Ether	NA	NA	NA	32	0.0000	0.0000	3.20E+01	USEPA
108872	Methylcyclohexane	NA	NA	NA	NA	0.0000	0.0000	NA	NA
75092	Methylene Chloride	1,100	180	0.015	8.9	0.0150	0.0015	1.50E-03	ADEC
63072446	Methyl pentanone	NA	NA	NA	NA	0.0000	0.0000	NA	NA
100425	Styrene	20,300	280	1.3	1,700	1.3000	0.1300	1.30E-01	ADEC
127184	Tetrachloroethene	160	80	0.030	0.55	0.0300	0.0030	3.00E-03	ADEC
108883	Toluene	20,300	180	5.4	520	5.4000	0.5400	5.40E-01	ADEC
156605	trans-1,2-Dichloroethene	2,000	NA	0.40	120	0.4000	0.0400	4.00E-02	ADEC
10061026	trans-1,3-Dichloropropene*	83	14	0.020	0.70	0.0200	0.0020	2.00E-03	ADEC
79016	Trichloroethene	21	0.570	0.020	0.043	0.0200	0.0020	2.00E-03	ADEC
75694	Trichlorofluoromethane	NA	NA	NA	390	0.0000	0.0000	3.90E+02	USEPA
76-13-1	1,1,2-Trichloro-1,2,2-triflouroethane	NA	NA	NA	5600	NA	NA	5.60E+03	USEPA
26523-64-8	Trichlorotriflouroethane (Freon 113)	1000000	4660	31800	NA	4660.0000	466.0000	4.66E+02	ADEC
75014	Vinyl Chloride	6.0	4.0	0.0090	0.043	0.0090	0.0009	9.00E-04	ADEC
1330207	Xylene (total)	203,000	81	78	280	78.0000	7.8000	7.80E+00	ADEC
136777612	m&p-Xylene	NA	NA	NA	210	0.0000	0.0000	2.10E+02	USEPA
95476	o-Xylene	NA	NA	NA	280	0.0000	0.0000	2.80E+02	USEPA

TABLE 3-1
ADEC and USEPA Soil Screening Levels

CAS No.	Analyte	ADEC "Under 40-inch Zone" Table B1 & B2 Levels Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)	USEPA Region 6 Residential Soil PRG (mg/kg)	Lowest ADEC Table B1 & B2 Value (mg/kg)	1/10 Lowest ADEC Table B1 & B2 Value (mg/kg)	Screening Level (mg/kg)	Source of Screening Level (NA= no screening level)
Semivolatile Organic Compounds									
92524	1,1'-Biphenyl	NA	NA	NA	NA	0.0000	0.0000	NA	NA
103651	n-Propylbenzene	NA	NA	NA	NA	0.0000	0.0000	NA	NA
108601	2,2'-oxybis(1-Chloropropane)	NA	NA	NA	NA	0.0000	0.0000	NA	NA
95954	2,4,5-Trichlorophenol	10,000	NA	90	6,100	90.0000	9.0000	9.00E+00	ADEC
88062	2,4,6-Trichlorophenol	750	1,500	0.60	44	0.6000	0.0600	6.00E-02	ADEC
94757	2,4-D	NA	NA	NA	NA	0.0000	0.0000	NA	NA
120832	2,4-Dichlorophenol	300	NA	0.45	180	0.4500	0.0450	4.50E-02	ADEC
105679	2,4-Dimethylphenol	2,000	NA	4.0	1,200	4.0000	0.4000	4.00E-01	ADEC
51285	2,4-Dinitrophenol	200	NA	0.20	120	0.2000	0.0200	2.00E-02	ADEC
121142	2,4-Dinitrotoluene	12	NA	0.0050	120	0.0050	0.0005	5.00E-04	ADEC
606202	2,6-Dinitrotoluene	12	NA	0.0044	61	0.0044	0.0004	4.40E-04	ADEC
110758	2-Chloroethylvinyl ether	NA	NA	NA	NA	0.0000	0.0000	NA	NA
91587	2-Chloronaphthalene	8,110	NA	70	3,900	70.0000	7.0000	7.00E+00	ADEC
95578	2-Chlorophenol	510	NA	1.4	64	1.4000	0.1400	1.40E-01	ADEC
95498	2-Chlorotoluene	NA	NA	NA	160	0.0000	0.0000	1.60E+02	USEPA
90120	1-Methylnaphthalene	4,100	NA	43	NA	43.0000	4.3000	4.30E+00	ADEC
110496	2-Methoxyethyl acetate	NA	NA	NA	NA	0.0000	0.0000	NA	NA
91576	2-Methylnaphthalene	2,030	NA	61	NA	60.9000	6.0900	6.09E+00	ADEC
95487	2-Methylphenol	5,100	NA	7.0	3,100	7.0000	0.7000	7.00E-01	ADEC
88744	2-Nitroaniline	NA	NA	NA	180	0.0000	0.0000	1.80E+02	USEPA
88755	2-Nitrophenol	NA	NA	NA	NA	0.0000	0.0000	NA	NA
91941	3,3'-Dichlorobenzidine	18	NA	0.020	1.1	0.0200	0.0020	2.00E-03	ADEC
34MP	3,4-Methylphenol*	NA	NA	NA	NA	0.0000	0.0000	NA	NA

TABLE 3-1
ADEC and USEPA Soil Screening Levels

CAS No.	Analyte	ADEC "Under 40-inch Zone" Table B1 & B2 Levels			USEPA Region 6 Residential Soil PRG (mg/kg)	Lowest ADEC Table B1 & B2 Value (mg/kg)	1/10 Lowest ADEC Table B1 & B2 Value (mg/kg)	Screening Level (mg/kg)	Source of Screening Level (NA= no screening level)
		Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)					
108394	3-Methylphenol	NA	NA	NA	NA	0.0000	0.0000	NA	NA
99092	3-Nitroaniline	NA	NA	NA	NA	0.0000	0.0000	NA	NA
534521	4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	0.0000	0.0000	NA	NA
101553	4-Bromophenyl-phenylether	NA	NA	NA	NA	0.0000	0.0000	NA	NA
59507	4-Chloro-3-methylphenol	NA	NA	NA	310	0.0000	0.0000	3.10E+02	USEPA
106478	4-Chloroaniline	410	NA	0.50	240	0.5000	0.0500	5.00E-02	ADEC
7005723	4-Chlorophenyl-phenylether	NA	NA	NA	NA	0.0000	0.0000	NA	NA
106434	4-Chlorotoluene	NA	NA	NA	NA	0.0000	0.0000	NA	NA
99876	4-Isopropyltoluene	NA	NA	NA	NA	0.0000	0.0000	NA	NA
106445	4-Methylphenol	NA	NA	NA	NA	0.0000	0.0000	NA	NA
100016	4-Nitroaniline	NA	NA	NA	NA	0.0000	0.0000	NA	NA
100027	4-Nitrophenol	NA	NA	NA	490	0.0000	0.0000	4.90E+02	USEPA
83329	Acenaphthene	6,100	NA	210	3,700	210.0000	21.0000	2.10E+01	ADEC
208968	Acenaphthylene	6,100	NA	210	NA	210.0000	21.0000	2.10E+01	ADEC
98862	Acetophenone	NA	NA	NA	NA	0.0000	0.0000	NA	NA
62533	Aniline	NA	NA	NA	NA	0.0000	0.0000	NA	NA
120127	Anthracene	30,000	NA	4,300	22,000	4300.0000	430.0000	4.30E+02	ADEC
1912249	Atrazine	NA	NA	NA	NA	0.0000	0.0000	NA	NA
100527	Benzaldehyde	NA	NA	NA	NA	0.0000	0.0000	NA	NA
56553	Benzo (a) anthracene	11	NA	6.0	0.15	6.0000	0.6000	1.50E-01	USEPA
50328	Benzo (a) pyrene	1.0	NA	3.0	0.015	1.0000	0.1000	1.50E-02	USEPA
205992	Benzo (b) fluoranthene	11	NA	20	0.15	11.0000	1.1000	1.50E-01	USEPA
191242	Benzo (g,h,i) perylene	3,000	NA	1,500	1.5	1500.0000	150.0000	1.50E+00	USEPA
207089	Benzo (k) fluoranthene	110	NA	200	NA	110.0000	11.0000	1.10E+01	ADEC

TABLE 3-1
ADEC and USEPA Soil Screening Levels

CAS No.	Analyte	ADEC "Under 40-inch Zone" Table B1 & B2 Levels Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)	USEPA Region 6 Residential Soil PRG (mg/kg)	Lowest ADEC Table B1 & B2 Value (mg/kg)	1/10 Lowest ADEC Table B1 & B2 Value (mg/kg)	Screening Level (mg/kg)	Source of Screening Level (NA= no screening level)
65850	Benzoic Acid	410,000	NA	390	100,000	390.0000	39.0000	3.90E+01	ADEC
100516	Benzyl alcohol	NA	NA	NA	18,000	0.0000	0.0000	1.80E+04	USEPA
117817	bis (2-Ethylhexyl) phthalate	590	NA	1,200	35	590.0000	59.0000	3.50E+01	USEPA
111911	bis(2-Chloroethoxy)methane	NA	NA	NA	NA	0.0000	0.0000	NA	NA
111444	bis(2-Chloroethyl)ether	8.0	3.0	0.0020	0.21	0.0020	0.0002	2.00E-04	ADEC
39638329	bis(2-Chloroisopropyl)ether	NA	NA	NA	2.9	0.0000	0.0000	2.90E+00	USEPA
85687	Butylbenzylphthalate	20,000	NA	5,600	240	5600.0000	560.0000	2.40E+02	USEPA
105602	Caprolactam	NA	NA	NA	NA	0.0000	0.0000	NA	NA
86748	Carbazole	420	NA	2.0	24	2.0000	0.2000	2.00E-01	ADEC
218019	Chrysene	1,100	NA	620	15	620.0000	62.0000	1.50E+01	USEPA
53703	Dibenzo (a,h) anthracene	1.0	NA	6.0	0.015	1.0000	0.1000	1.50E-02	USEPA
84662	Diethylphthalate	81,000	NA	190	49,000	190.0000	19.0000	1.90E+01	ADEC
131113	Dimethylphthalate	1.00E+06	NA	1,400	100,000	1400.0000	140.0000	1.40E+02	ADEC
84742	Di-n-butylphthalate	10,000	NA	1,700	NA	1700.0000	170.0000	1.70E+02	ADEC
117840	Di-n-octylphthalate	2,000	NA	810,000	NA	2000.0000	200.0000	2.00E+02	ADEC
206440	Fluoranthene	4,100	NA	2,100	2,300	2100.0000	210.0000	2.10E+02	ADEC
86737	Fluorene	4,100	NA	270	2,600	270.0000	27.0000	2.70E+01	ADEC
118741	Hexachlorobenzene	5.0	7.0	0.73	0.30	0.7300	0.0730	7.30E-02	ADEC
87683	Hexachlorobutadiene	20	55	8.0	6.2	8.0000	0.8000	8.00E-01	ADEC
77474	Hexachlorocyclopentadiene	710	7.0	130	NA	7.0000	0.7000	7.00E-01	ADEC
67721	Hexachloroethane	101	390	1.6	35	1.6000	0.1600	1.60E-01	ADEC
193395	Indeno (1,2,3-cd) pyrene	11	NA	54	0.15	11.0000	1.1000	1.50E-01	USEPA
78591	Isophorone	8,700	NA	3.0	510	3.0000	0.3000	3.00E-01	ADEC
104518	n-Butylbenzene	NA	NA	NA	61	0.0000	0.0000	6.10E+01	USEPA

TABLE 3-1
ADEC and USEPA Soil Screening Levels

CAS No.	Analyte	ADEC "Under 40-inch Zone" Table B1 & B2 Levels: Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)	USEPA Region 6 Residential Soil PRG (mg/kg)	Lowest ADEC Table B1 & B2 Value (mg/kg)	1/10 Lowest ADEC Table B1 & B2 Value (mg/kg)	Screening Level (mg/kg)	Source of Screening Level (NA= no screening level)
91203	Naphthalene	2,000	120	21	120	21.0000	2.1000	2.10E+00	ADEC
98953	Nitrobenzene	51	90	0.060	20	0.0600	0.0060	6.00E-03	ADEC
62759	N-Nitrosodimethylamine	1,700	NA	3.4	0.0023	3.4000	0.3400	2.30E-03	USEPA
621647	N-Nitroso-di-n-propylamine	1.2	NA	3.60E-04	0.069	0.0004	0.0000	3.60E-05	ADEC
86306	N-Nitrosodiphenylamine	1,700	NA	3.4	99	3.4000	0.3400	3.40E-01	ADEC
87865	Pentachlorophenol	35	NA	0.010	3.0	0.0100	0.0010	1.00E-03	ADEC
85018	Phenanthrene	30,000	NA	4,300	NA	4300.0000	430.0000	4.30E+02	ADEC
108952	Phenol	60,800	NA	67	18,000	67.0000	6.7000	6.70E+00	ADEC
129000	Pyrene	3,000	NA	1,500	2,300	1500.0000	150.0000	1.50E+02	ADEC
483658	Retene	NA	NA	NA	NA	0.0000	0.0000	NA	NA
135988	sec-Butylbenzene	NA	NA	NA	61	0.0000	0.0000	6.10E+01	USEPA
98066	tert-Butylbenzene	NA	NA	NA	130	0.0000	0.0000	1.30E+02	USEPA
Petroleum Hydrocarbons									
GRO	Gasoline Range Organics (GRO)	1,400	1,400	300	NA	300.0000	30.0000	3.00E+01	ADEC
DRO	Diesel Range Organics (DRO)	10,250	12,500	250	NA	250.0000	25.0000	2.50E+01	ADEC
RRO	Residual Range Organics (RRO)	10,000	22,000	11,000	NA	10000.0000	1000.0000	1.00E+03	ADEC
VPH									
	C6-C8 Aromatics	1000	1000	150	NA	150.0000	15.0000	1.50E+01	ADEC
	C8-C10 Aromatics	1000	1000	150	NA	150.0000	15.0000	1.50E+01	ADEC
	C10-C12 Aromatics	4100	5000	100	NA	100.0000	10.0000	1.00E+01	ADEC
	C5-C6 Aliphatics	1000	1000	270	NA	270.0000	27.0000	2.70E+01	ADEC
	C6-C8 Aliphatics	1000	1000	270	NA	270.0000	27.0000	2.70E+01	ADEC

TABLE 3-1
ADEC and USEPA Soil Screening Levels

CAS No.	Analyte	ADEC "Under 40-inch Zone" Table B1 & B2 Levels Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)	USEPA Region 6 Residential Soil PRG (mg/kg)	Lowest ADEC Table B1 & B2 Value (mg/kg)	1/10 Lowest ADEC Table B1 & B2 Value (mg/kg)	Screening Level (mg/kg)	Source of Screening Level (NA= no screening level)
	C8-C10 Aliphatics	1000	1000	270	NA	270.0000	27.0000	2.70E+01	ADEC
	C10-C12 Aliphatics	10000	10000	7200	NA	7200.0000	720.0000	7.20E+02	ADEC
EPH									
	C10-C12 Aromatics	4100	5000	100	NA	100.0000	10.0000	1.00E+01	ADEC
	C12-C16 Aromatics	4100	5000	100	NA	100.0000	10.0000	1.00E+01	ADEC
	C16-C21 Aromatics	4100	5000	100	NA	100.0000	10.0000	1.00E+01	ADEC
	C21-C34 Aromatics	3000	10000	3300	NA	3000.0000	300.0000	3.00E+02	ADEC
	C10-C12 Aliphatics	10000	10000	7200	NA	7200.0000	720.0000	7.20E+02	ADEC
	C12-C16 Aliphatics	10000	10000	7200	NA	7200.0000	720.0000	7.20E+02	ADEC
	C16-C21 Aliphatics	10000	10000	7200	NA	7200.0000	720.0000	7.20E+02	ADEC
	C21-C34 Aliphatics	20000	20000	20000	NA	20000.0000	2000.0000	2.00E+03	ADEC
Pestcides									
309002	Aldrin	0.50	24	1.6	0.029	0.5000	0.0500	2.90E-02	USEPA
319846	alpha-BHC	1.3	5.5	0.0026	0.090	0.0026	0.0003	2.60E-04	ADEC
5103719	alpha-Chlordane	NA	NA	NA	NA	0.0000	0.0000	NA	NA
319857	beta-BHC	4.6	43	0.0090	0.32	0.0090	0.0009	9.00E-04	ADEC
12789036	Chlordane	24	510	3.0	NA	3.0000	0.3000	3.00E-01	ADEC
72548	4,4'-DDD	35	NA	47	2.4	35.0000	3.5000	2.40E+00	USEPA
72559	4,4'-DDE	24	NA	150	1.7	24.0000	2.4000	1.70E+00	USEPA
50293	4,4'-DDT	24	5,300	88	1.7	24.0000	2.4000	1.70E+00	USEPA
319868	delta-BHC	NA	NA	NA	NA	0.0000	0.0000	NA	NA
Dichloprop	Dichloropropanol	NA	NA	NA	NA	0.0000	0.0000	NA	NA
60571	Dieldrin	0.50	8.0	0.015	0.030	0.0150	0.0015	1.50E-03	ADEC
959988	Endosulfan I*	610	NA	7.0	370	7.0000	0.7000	7.00E-01	ADEC

TABLE 3-1
ADEC and USEPA Soil Screening Levels

CAS No.	Analyte	ADEC "Under 40-inch Zone" Table B1 & B2 Levels Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)	USEPA Region 6 Residential Soil PRG (mg/kg)	Lowest ADEC Table B1 & B2 Value (mg/kg)	1/10 Lowest ADEC Table B1 & B2 Value (mg/kg)	Screening Level (mg/kg)	Source of Screening Level (NA= no screening level)
33213659	Endosulfan II*	610	NA	7.0	NA	7.0000	0.7000	7.00E-01	ADEC
1031078	Endosulfan Sulfate	NA	NA	NA	NA	0.0000	0.0000	NA	NA
72208	Endrin	30	NA	0.30	18	0.3000	0.0300	3.00E-02	ADEC
7421934	Endrin aldehyde	NA	NA	NA	NA	0.0000	0.0000	NA	NA
53494705	Endrin ketone	NA	NA	NA	NA	0.0000	0.0000	NA	NA
57749	gamma Chlordane	NA	NA	NA	NA	0.0000	0.0000	NA	NA
58899	gamma-BHC (Lindane)	6.4	NA	0.0030	0.44	0.0030	0.0003	3.00E-04	ADEC
76448	Heptachlor	2.0	0.80	8.0	0.11	0.8000	0.0800	8.00E-02	ADEC
1024573	Heptachlor epoxide	0.90	33	0.20	0.053	0.2000	0.0200	2.00E-02	ADEC
72435	Methoxychlor	510	NA	52	310	52.0000	5.2000	5.20E+00	ADEC
8001352	Toxaphene	8.0	620	10	NA	8.0000	0.8000	8.00E-01	ADEC
Metals & Other Inorganics									
7429905	Aluminum	NA	NA	NA	NA	0.0000	0.0000	NA	NA
7664417	Ammonia (as N)	NA	NA	NA	NA	0.0000	0.0000	NA	NA
7440360	Antimony	41	NA	3.6	31	3.6000	0.3600	3.60E-01	ADEC
7440382	Arsenic	5.5	NA	2	0.39	2.0000	0.2000	1.66E+01	Site-Specific
7440393	Barium	7100	NA	1100	16000	1100.0000	110.0000	1.10E+02	ADEC
7440417	Beryllium	200	NA	42	NA	42.0000	4.2000	4.20E+00	ADEC
7440439	Cadmium	100	NA	5	NA	5.0000	0.5000	5.00E-01	ADEC
7440702	Calcium	NA	NA	NA	NA	0.0000	0.0000	NA	NA
7440473	Chromium total	300	NA	26	210	300.0000	30.0000	3.00E+01	ADEC
16065-83-1	Chromium +3	150000	NA	>1,000,000	100000	150000	15000	1.50E+04	ADEC
18540-29-9	Chromium +6	300	NA	26	30	300.0000	30.0000	3.00E+01	ADEC
7440484	Cobalt	NA	NA	NA	90	0.0000	0.0000	9.00E+01	USEPA

TABLE 3-1
ADEC and USEPA Soil Screening Levels

CAS No.	Analyte	ADEC "Under 40-inch Zone" Table B1 & B2 Levels Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)	USEPA Region 6 Residential Soil PRG (mg/kg)	Lowest ADEC Table B1 & B2 Value (mg/kg)	1/10 Lowest ADEC Table B1 & B2 Value (mg/kg)	Screening Level (mg/kg)	Source of Screening Level (NA= no screening level)
7440508	Copper	4060	NA	7000	2900	4060.0000	406.0000	4.06E+02	ADEC
7439896	Iron	NA	NA	NA	NA	0.0000	0.0000	NA	NA
7439921	Lead	400	400	NA	NA	400.0000	40.0000	4.00E+01	ADEC
7439954	Magnesium	NA	NA	NA	NA	0.0000	0.0000	NA	NA
7439965	Manganese	NA	NA	NA	NA	0.0000	0.0000	NA	NA
7439976	Mercury	NA	18	1.4	23	1.4000	0.1400	1.40E-01	ADEC
7440020	Nickel	2000	NA	87	NA	87.0000	8.7000	8.70E+00	ADEC
NO3/NO2	Nitrate/Nitrite	NA	NA	NA	NA	0.0000	0.0000	NA	NA
7440097	Potassium	NA	NA	NA	NA	0.0000	0.0000	NA	NA
7782492	Selenium	510	NA	3.5	39	3.5000	0.3500	3.50E-01	ADEC
7440224	Silver	510	NA	21	NA	21.0000	2.1000	2.10E+00	ADEC
7440235	Sodium	NA	NA	NA	NA	0.0000	0.0000	NA	NA
14808798	Sulfate	NA	NA	NA	NA	0.0000	0.0000	NA	NA
7440280	Thallium	NA	NA	NA	6	0.0000	0.0000	5.50E+00	USEPA
7440622	Vanadium	710	NA	3400	NA	710.0000	71.0000	7.10E+01	ADEC
7440666	Zinc	30000	NA	9100	NA	9100.0000	910.0000	9.10E+02	ADEC
PCBs									
12674112	Aroclor 1016*	1.0	1.0	NA	3.9	1.0000	0.1000	1.00E-01	ADEC
11104282	Aroclor 1221*	1.0	1.0	NA	0.22	1.0000	0.1000	1.00E-01	ADEC
11141165	Aroclor 1232*	1.0	1.0	NA	0.22	1.0000	0.1000	1.00E-01	ADEC
53469219	Aroclor 1242*	1.0	1.0	NA	0.22	1.0000	0.1000	1.00E-01	ADEC
12672296	Aroclor 1248*	1.0	1.0	NA	0.22	1.0000	0.1000	1.00E-01	ADEC
11097691	Aroclor 1254*	1.0	1.0	NA	0.22	1.0000	0.1000	1.00E-01	ADEC

TABLE 3-1
ADEC and USEPA Soil Screening Levels

CAS No.	Analyte	ADEC "Under 40-inch Zone" Table B1 & B2 Levels Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)	USEPA Region 6 Residential Soil PRG (mg/kg)	Lowest ADEC Table B1 & B2 Value (mg/kg)	1/10 Lowest ADEC Table B1 & B2 Value (mg/kg)	Screening Level (mg/kg)	Source of Screening Level (NA= no screening level)
11096825	Aroclor 1260*	1.0	1.0	NA	0.22	1.0000	0.1000	1.00E-01	ADEC
1336363	PCBs, total	1.0	1.0	NA	NA	1.0000	0.1000	1.00E-01	ADEC
Herbicides									
94-75-7	2,4-D	NA	NA	NA	690	0.0000	0.0000	6.90E+02	USEPA
94-82-6	2,4-DB	NA	NA	NA	490	0.0000	0.0000	4.90E+02	USEPA
	2,4,5-T	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	2,4,5-TP (Silvex)	NA	NA	NA	NA	0.0000	0.0000	NA	NA
75-99-0	Dalapon	NA	NA	NA	1800	0.0000	0.0000	1.80E+03	USEPA
1918-00-9	Dicamba	NA	NA	NA	1800	0.0000	0.0000	1.80E+03	USEPA
	Dichlorprop	NA	NA	NA	NA	0.0000	0.0000	NA	NA
88-85-7	Dinoseb	NA	NA	NA	61	0.0000	0.0000	6.10E+01	USEPA
16484-77-8	MCPA	NA	NA	NA	61	0.0000	0.0000	6.10E+01	USEPA
Dioxins									
	2,3,7,8-TCDD	NA	NA	NA	0.0000039	0.0000	0.0000	3.90E-06	USEPA
	1,2,3,7,8-PeCDD	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	1,2,3,4,7,8-HxCDD	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	1,2,3,6,7,8-HxCDD	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	1,2,3,7,8,9-HxCDD	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	1,2,3,4,6,7,8-HpCDD	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	OCDD	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	2,3,7,8-TCDF	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	1,2,3,7,8-PeCDF	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	2,3,4,7,8-PeCDF	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	1,2,3,4,7,8-HxCDF	NA	NA	NA	NA	0.0000	0.0000	NA	NA

TABLE 3-1
ADEC and USEPA Soil Screening Levels

CAS No.	Analyte	ADEC "Under 40-inch Zone" Table B1 & B2 Levels: Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)	USEPA Region 6 Residential Soil PRG (mg/kg)	Lowest ADEC Table B1 & B2 Value (mg/kg)	1/10 Lowest ADEC Table B1 & B2 Value (mg/kg)	Screening Level (mg/kg)	Source of Screening Level (NA= no screening level)
	1,2,3,6,7,8-HxCDF	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	2,3,4,6,7,8-HxCDF	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	1,2,3,7,8,9-HxCDF	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	1,2,3,4,6,7,8-HpCDF	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	1,2,3,4,7,8,9-HpCDF	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	OCDF	NA	NA	NA	NA	0.0000	0.0000	NA	NA
Explosives									
99-35-4	1,3,5-Trinitrobenzene	NA	NA	NA	1800	0.0000	0.0000	1.80E+03	USEPA
99-65-0	1,3-Dinitrobenzene	NA	NA	NA	6.1	0.0000	0.0000	6.10E+00	USEPA
121142	2,4-Dinitrotoluene	NA	NA	NA	120	0.0000	0.0000	1.20E+02	USEPA
606202	2,6-Dinitrotoluene	NA	NA	NA	61	0.0000	0.0000	6.10E+01	USEPA
118-96-7	2,4,6-Trinitrotoluene (TNT)	NA	NA	NA	16	0.0000	0.0000	1.60E+01	USEPA
	2-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	2-Nitrotoluene	NA	NA	NA	2.8	0.0000	0.0000	2.80E+00	USEPA
	3-Nitrotoluene	NA	NA	NA	1600	0.0000	0.0000	1.60E+03	USEPA
	4-Amino-4,6-dinitrotoluene	NA	NA	NA	NA	0.0000	0.0000	NA	NA
	4-Nitrotoluene	NA	NA	NA	38	0.0000	0.0000	3.80E+01	USEPA
121-82-4	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	NA	NA	NA	4.4	0.0000	0.0000	4.40E+00	USEPA
	Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	NA	NA	NA	NA	0.0000	0.0000	NA	NA

TABLE 3-1
ADEC and USEPA Soil Screening Levels

CAS No.	Analyte	ADEC "Under 40-inch Zone" Table B1 & B2 Levels			USEPA Region 6 Residential Soil PRG (mg/kg)	Lowest ADEC Table B1 & B2 Value (mg/kg)	1/10 Lowest ADEC Table B1 & B2 Value (mg/kg)	Screening Level (mg/kg)	Source of Screening Level (NA= no screening level)
		Ingestion (mg/kg)	Inhalation (mg/kg)	Migration to Groundwater (mg/kg)					
98953	Nitrobenzene	NA	NA	NA	20	0.0000	0.0000	2.00E+01	USEPA
2691-41-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	NA	NA	NA	3100	0.0000	0.0000	3.10E+03	USEPA

Notes:
NA = not available
ADEC = Alaska Department of Environmental Conservation
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
NA = not available
USEPA = United States Environmental Protection Agency
PRG = preliminary remediation goal
* Surrogate compound was used.

References:
ADEC, 2003. 18 AAC 75 Oil and Other Hazardous Substances Pollution Control. State of Alaska Department of Environmental Conservation. Table B1 in 18 AAC 75.345(b) Method 2 Soil Cleanup Levels
USEPA, 2002. Region IX Preliminary Remediation Goals (PRGs). Available at USEPA Region IX website: www.epa.gov/region 09/waste/sfund/prg/intro.htm October, 2002.
http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm

TABLE 3-2
ADEC and USEPA Groundwater Screening Levels

CAS No.	Analyte	Maximum Contaminant Level[a] (µg/L)	Federal Drinking Water Equivalent[a] (µg/L)	ADEC Table C Values[b] (µg/L)	USEPA Region 9 Tap Water PRG[c] (µg/L)	USEPA Region 6 Tapwater Screening Level[d] (µg/L)	Taku Groundwater Screening Level (ug/L) Lower of 1/10th ADEC Level or USEPA Region 6 Level	Source of Screening Level (NA= no screening level)
		Human Health Screening Levels for Groundwater						
Volatile Organic Compounds								
71556	1,1,1-Trichloroethane	2.00E+02	1.00E+03	2.00E+02	3.17E+03	8.40E+02	2.00E+01	ADEC
630206	1,1,1,2-Tetrachloroethane		1	NA	4.30E-01	4.30E-01	4.30E-01	USEPA
79345	1,1,2,2-Tetrachloroethane	NA	2.00E+00	4.00E+00	5.53E-02	5.50E-02	5.50E-02	USEPA
7311	1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	NA	NA	NA	NA	NA
79005	1,1,2-Trichloroethane	5.00E+00	1.00E+02	5.00E+00	2.00E-01	2.00E-01	2.00E-01	USEPA
75354	1,1,-Dichloroethene	7.00E+00	3.00E+02	7.00E+00	3.39E+02	3.40E+02	7.00E-01	ADEC
75343	1,1-Dichloroethane	NA	NA	3.65E+03	8.11E+02	1.20E+03	3.65E+02	ADEC
78999	1,1-Dichloropropane	NA	NA	NA	NA	NA	NA	NA
563586	1,1-Dichloropropene	NA	NA	NA	NA	NA	NA	NA
120821	1,2,4-Trichlorobenzene	7.00E+01	4.00E+02	7.00E+01	1.94E+02	8.20E+00	7.00E+00	ADEC
95636	1,2,4-Trimethylbenzene	NA	NA	NA	1.20E+01	1.20E+01	1.20E+01	USEPA
108678	1,3,5-Trimethylbenzene	NA	NA	NA	1.20E+01	1.20E+01	1.20E+01	USEPA
87616	1,2,3-Trichlorobenzene	NA	NA	NA	NA	NA	NA	NA
96184	1,2,3-Trichloropropane	NA	0.2	NA	5.60E-03	1.60E-03	1.60E-03	USEPA
96128	1,2-Dibromo-3-chloropropane*	2.00E-01	NA	NA	4.76E-02	2.00E-04	2.00E-04	USEPA
106934	1,2-Dibromoethane	5.00E-02	NA	5.00E-02	7.57E-04	5.60E-03	5.00E-03	ADEC
95501	1,2-Dichlorobenzene	NA	3.00E+03	6.00E+02	3.70E+02	4.90E+01	4.90E+01	USEPA
107062	1,2-Dichloroethane	5.00E+00	NA	5.00E+00	1.23E-01	1.20E-01	1.20E-01	USEPA
78875	1,2-Dichloropropane	5.00E+00	NA	5.00E+00	1.65E-01	1.60E-01	1.60E-01	USEPA
541731	1,3-Dichlorobenzene	NA	3.00E+03	1.10E+03	5.48E+00	1.40E+01	1.40E+01	USEPA
142289	1,3-Dichloropropane	NA	NA	NA	NA	NA	NA	NA
106467	1,4-Dichlorobenzene	NA	NA	7.50E+01	5.00E-01	4.70E-01	4.70E-01	USEPA
78933	2-Butanone (MEK)	NA	2.00E+04	2.20E+04	1.90E+03	7.10E+03	2.20E+03	ADEC
591786	2-Hexanone	NA	NA	NA	NA	NA	NA	NA

TABLE 3-2
ADEC and USEPA Groundwater Screening Levels

CAS No.	Analyte	Human Health Screening Levels for Groundwater					Taku Groundwater Screening Level (ug/L) Lower of 1/10th ADEC Level or USEPA Region 6 Level	Source of Screening Level (NA= no screening level)
		Maximum Contaminant Level[a] (µg/L)	Federal Drinking Water Equivalent[a] (µg/L)	ADEC Table C Values[b] (µg/L)	USEPA Region 9 Tap Water PRG[c] (µg/L)	USEPA Region 6 Tapwater Screening Level[d] (µg/L)		
594207	2,2-Dichloropropane	NA	1	NA	NA	NA	NA	NA
108101	4-Methyl-2-pentanone (MIBK)	NA	NA	NA	1.58E+02	NA	NA	NA
67641	Acetone	NA	NA	3.65E+03	6.08E+02	5.50E+03	3.65E+02	ADEC
71432	Benzene	5.00E+00	NA	5.00E+00	3.36E-01	3.50E-01	3.50E-01	USEPA
108861	Bromobenzene	NA	NA	NA	2.00E+01	2.30E+01	2.30E+01	USEPA
74975	Bromochloromethane	NA	0.5	NA	NA	NA	NA	NA
75274	Bromodichloromethane	8.00E+01	7.00E+02	1.00E+02	1.81E-01	1.80E-01	1.80E-01	USEPA
75252	Bromoform	8.00E+01	7.00E+02	1.00E+02	8.51E+00	8.50E+00	8.50E+00	USEPA
74839	Bromomethane (Methyl bromide)	NA	5.00E+01	NA	8.66E+00	8.70E+00	8.70E+00	USEPA
75150	Carbon Disulfide	NA	NA	3.65E+03	1.04E+03	1.00E+03	3.65E+02	ADEC
56235	Carbon Tetrachloride	5.00E+00	3.00E+01	5.00E+00	1.71E-01	1.70E-01	1.70E-01	USEPA
108907	Chlorobenzene	1.00E+02	NA	1.00E+02	1.06E+02	9.10E+01	1.00E+01	ADEC
75003	Chloroethane	NA	NA	NA	4.64E+00	NA	NA	NA
67663	Chloroform	8.00E+01	4.00E+02	1.00E+02	6.17E+00	1.70E-01	1.70E-01	USEPA
74873	Chloromethane	NA	1.00E+02	NA	1.51E+00	2.10E+00	2.10E+00	USEPA
156592	cis-1,2-Dichloroethene	7.00E+01	4.00E+02	7.00E+01	6.08E+01	6.10E+01	7.00E+00	ADEC
542-75-6	1,3-Dichloropropene	NA		9.00E+00	4.00E+01	4.00E+01	9.00E-01	ADEC
10061015	cis-1,3-Dichloropropene*	NA	NA	NA	NA	NA	NA	
110827	Cyclohexane	NA	NA	NA	3.50E+04	NA	NA	NA
124481	Dibromochloromethane	8.00E+01	7.00E+02	NA	1.33E-01	NA	NA	NA
74953	Dibromomethane	NA	NA	NA	NA	NA	NA	NA
75718	Dichlorodifluoromethane	NA	5.00E+03	7.30E+03	3.95E+02	3.90E+02	3.90E+02	USEPA
100414	Ethylbenzene	7.00E+02	3.00E+03	7.00E+02	2.91E+00	1.30E+03	7.00E+01	ADEC
98828	Isopropylbenzene	NA	4.00E+03	3.65E+03	6.58E+02	6.60E+02	3.65E+02	ADEC
79209	Methyl Acetate	NA	NA	NA	6.08E+03	NA	NA	NA

TABLE 3-2
ADEC and USEPA Groundwater Screening Levels

CAS No.	Analyte	Human Health Screening Levels for Groundwater: Maximum Contaminant Level[a] (µg/L)	Federal Drinking Water Equivalent[a] (µg/L)	ADEC Table C Values[b] (µg/L)	USEPA Region 9 Tap Water PRG[c] (µg/L)	USEPA Region 6 Tapwater Screening Level[d] (µg/L)	Taku Groundwater Screening Level (ug/L) Lower of 1/10th ADEC Level or USEPA Region 6 Level	Source of Screening Level (NA= no screening level)
1634044	Methyl tert-Butyl Ether	2.00E+01	NA	NA	1.33E+01	1.10E+01	1.10E+01	USEPA
108872	Methylcyclohexane	NA	NA	NA	5.22E+03	NA	NA	NA
75092	Methylene Chloride	5.00E+00	2.00E+03	5.00E+00	4.28E+00	4.30E+00	5.00E-01	ADEC
63072446	Methyl pentanone	NA	NA	NA	NA	NA	NA	NA
100425	Styrene	1.00E+02	7.00E+03	1.00E+02	1.64E+03	1.60E+03	1.00E+01	ADEC
127184	Tetrachloroethene	5.00E+00	5.00E+02	5.00E+00	6.59E-01	1.00E-01	1.00E-01	USEPA
108883	Toluene	1.00E+03	7.00E+03	1.00E+03	7.23E+02	2.30E+03	1.00E+02	ADEC
156605	trans-1,2-Dichloroethene	1.00E+02	7.00E+02	1.00E+02	1.20E+02	1.10E+02	1.00E+01	ADEC
10061026	trans-1,3-Dichloropropene*	NA	1.00E+03	9.00E+00	4.00E-01	4.00E-01	4.00E-01	USEPA
79016	Trichloroethene	5.00E+00	2.00E+02	5.00E+00	2.80E-02	2.80E-02	2.80E-02	USEPA
75694	Trichlorofluoromethane	NA	1.00E+04	NA	1.29E+03	1.30E+03	1.30E+03	USEPA
76-13-1	1,1,2-Trichloro-1,2,2-triflouroethane	NA		NA	NA	3.10E+04	3.10E+04	USEPA
26523-64-8	Trichlorotriflouroethane (Freon 113)	NA		1.10E+06	NA	NA	1.10E+05	ADEC
75014	Vinyl Chloride	2.00E+00	1.00E+02	2.00E+00	1.98E-02	1.50E-02	1.50E-02	USEPA
1330207	Xylene (total)	1.00E+04	7.00E+04	1.00E+04	2.10E+02	1.40E+03	1.00E+03	ADEC
136777612	m&p-Xylene	1.00E+04	NA	NA	NA	2.10E+02	2.10E+02	USEPA
95476	o-Xylene	1.00E+04	7.00E+01	NA	NA	1.40E+03	1.40E+03	USEPA
Semivolatile Organic Compounds								
92524	1,1'-Biphenyl	NA	NA	NA	3.04E+02	NA	NA	NA
103651	n-Propylbenzene	NA	NA	NA	2.40E+02	NA	NA	NA
108601	2,2'-oxybis(1-Chloropropane)	NA	1.00E+03	NA	2.74E-01	NA	NA	NA
95954	2,4,5-Trichlorophenol	NA	NA	3.65E+03	3.65E+03	3.65E+03	3.65E+02	ADEC
88062	2,4,6-Trichlorophenol	NA	1.00E+01	7.70E+01	3.65E+00	6.10E+00	6.10E+00	USEPA
94757	2,4-D	NA	NA	NA	3.60E+02	NA	NA	NA
120832	2,4-Dichlorophenol	NA	1.00E+02	1.00E+02	1.09E+02	1.10E+02	1.00E+01	ADEC

TABLE 3-2
ADEC and USEPA Groundwater Screening Levels

CAS No.	Analyte	Human Health Screening Levels for Groundwater: Maximum Contaminant Level[a] (µg/L)	Federal Drinking Water Equivalent[a] (µg/L)	ADEC Table C Values[b] (µg/L)	USEPA Region 9 Tap Water PRG[c] (µg/L)	USEPA Region 6 Tapwater Screening Level[d] (µg/L)	Taku Groundwater Screening Level (ug/L) Lower of 1/10th ADEC Level or USEPA Region 6 Level	Source of Screening Level (NA= no screening level)
105679	2,4-Dimethylphenol	NA	NA	7.00E+02	7.30E+02	7.30E+02	7.00E+01	ADEC
51285	2,4-Dinitrophenol	NA	NA	7.00E+01	7.30E+01	7.30E+01	7.00E+00	ADEC
121142	2,4-Dinitrotoluene	NA	1.00E+02	1.25E+00	7.30E+01	7.30E+01	1.25E-01	ADEC
606202	2,6-Dinitrotoluene	NA	4.00E+01	1.25E+00	3.65E+01	3.70E+01	1.25E-01	ADEC
110758	2-Chloroethylvinyl ether	NA	NA	NA	NA	NA	NA	NA
91587	2-Chloronaphthalene	NA	NA	2.90E+03	4.87E+02	4.90E+02	2.90E+02	ADEC
95578	2-Chlorophenol	NA	2.00E+02	2.00E+02	3.04E+01	3.00E+01	2.00E+01	ADEC
95498	2-Chlorotoluene	NA	NA	NA	1.20E+02	1.20E+02	1.20E+02	USEPA
90120	1-Methylnaphthalene	NA	NA	NA	NA	NA	NA	NA
110496	2-Methoxyethyl acetate	NA	NA	NA	7.30E+01	NA	NA	NA
91576	2-Methylnaphthalene	NA	NA	7.80E+02	NA	NA	7.80E+01	ADEC
95487	2-Methylphenol	NA	NA	1.80E+03	1.82E+03	1.80E+03	1.80E+02	ADEC
88744	2-Nitroaniline	NA	NA	NA	1.04E+00	1.10E+02	1.10E+02	USEPA
88755	2-Nitrophenol	NA	3.00E+02	NA	NA	NA	NA	NA
91941	3,3'-Dichlorobenzidine	NA	NA	2.00E+00	1.49E-01	1.50E-01	1.50E-01	USEPA
34MP	3,4-Methylphenol*	NA	NA	NA	NA	NA	NA	NA
108394	3-Methylphenol	NA	NA	NA	1.80E+03	NA	NA	NA
99092	3-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
534521	4,6-Dinitro-2-methylphenol	NA	NA	NA	NA	NA	NA	NA
101553	4-Bromophenyl-phenylether	NA	NA	NA	NA	NA	NA	NA
59507	4-Chloro-3-methylphenol	NA	NA	NA	NA	1.80E+02	1.80E+02	USEPA
106478	4-Chloroaniline	NA	NA	1.50E+02	1.46E+02	1.50E+02	1.50E+01	ADEC
7005723	4-Chlorophenyl-phenylether	NA	NA	NA	NA	NA	NA	NA
106434	4-Chlorotoluene	NA	NA	NA	NA	NA	NA	NA
99876	4-Isopropyltoluene	NA	NA	NA	NA	NA	NA	NA

TABLE 3-2
ADEC and USEPA Groundwater Screening Levels

CAS No.	Analyte	Human Health Screening Levels for Groundwater: Maximum Contaminant Level[a] (µg/L)	Federal Drinking Water Equivalent[a] (µg/L)	ADEC Table C Values[b] (µg/L)	USEPA Region 9 Tap Water PRG[c] (µg/L)	USEPA Region 6 Tapwater Screening Level[d] (µg/L)	Taku Groundwater Screening Level (ug/L) Lower of 1/10th ADEC Level or USEPA Region 6 Level	Source of Screening Level (NA= no screening level)
106445	4-Methylphenol	NA	NA	NA	1.82E+02	NA	NA	NA
100016	4-Nitroaniline	NA	NA	NA	NA	NA	NA	NA
100027	4-Nitrophenol	NA	3.00E+02	NA	NA	2.90E+02	2.90E+02	USEPA
83329	Acenaphthene	NA	2.00E+03	2.20E+03	3.65E+02	3.65E+02	2.20E+02	ADEC
208968	Acenaphthylene	NA	2.00E+03	2.20E+03	NA	NA	2.20E+02	ADEC
98862	Acetophenone	NA	NA	NA	NA	NA	NA	NA
62533	Aniline	NA	NA	NA	1.20E+01	NA	NA	NA
120127	Anthracene	NA	1.00E+04	1.10E+04	1.83E+03	1.83E+03	1.10E+03	ADEC
1912249	Atrazine	3.00E+00	1.00E+03	NA	3.03E-01	NA	NA	NA
100527	Benzaldehyde	NA	NA	NA	3.65E+03	NA	NA	NA
56553	Benzo (a) anthracene	NA	NA	1.00E+00	9.21E-02	3.00E-02	3.00E-02	USEPA
50328	Benzo (a) pyrene	2.00E-01	NA	2.00E-01	9.21E-03	3.00E-03	3.00E-03	USEPA
205992	Benzo (b) fluoranthene	NA	NA	1.00E+00	9.21E-02	3.00E-02	3.00E-02	USEPA
191242	Benzo (g,h,i) perylene	NA	NA	1.10E+03	NA	3.00E-01	3.00E-01	USEPA
207089	Benzo (k) fluoranthene	NA	NA	1.00E+01	9.21E-01	NA	1.00E+00	ADEC
65850	Benzoic Acid	NA	NA	1.46E+05	1.50E+05	1.50E+05	1.46E+04	ADEC
100516	Benzyl alcohol	NA	NA	NA	1.10E+04	1.10E+04	1.10E+04	USEPA
117817	bis (2-Ethylhexyl) phthalate	NA	NA	6.00E+00	4.80E+00	4.80E+00	6.00E-01	ADEC
111911	bis(2-Chloroethoxy)methane	NA	NA	NA	NA	NA	NA	NA
111444	bis(2-Chloroethyl)ether	NA	NA	7.70E-01	9.78E-03	9.80E-03	9.80E-03	USEPA
39638329	bis(2-Chloroisopropyl)ether	NA	NA	NA	2.70E-01	2.70E-01	2.70E-01	USEPA
85687	Butylbenzylphthalate	NA	7.00E+03	7.30E+03	7.30E+03	7.30E+03	7.30E+02	ADEC
105602	Caprolactam	NA	NA	NA	1.82E+04	NA	NA	NA
86748	Carbazole	NA	NA	4.00E+01	3.36E+00	3.40E+00	3.40E+00	USEPA
218019	Chrysene	NA	NA	1.00E+02	9.21E+00	2.90E+00	2.90E+00	USEPA

TABLE 3-2
ADEC and USEPA Groundwater Screening Levels

CAS No.	Analyte	Human Health Screening Levels for Groundwater: Maximum Contaminant Level[a] (µg/L)	Federal Drinking Water Equivalent[a] (µg/L)	ADEC Table C Values[b] (µg/L)	USEPA Region 9 Tap Water PRG[c] (µg/L)	USEPA Region 6 Tapwater Screening Level[d] (µg/L)	Taku Groundwater Screening Level (ug/L) Lower of 1/10th ADEC Level or USEPA Region 6 Level	Source of Screening Level (NA= no screening level)
53703	Dibenzo (a,h) anthracene	NA	NA	1.00E-01	9.21E-03	3.00E-03	3.00E-03	USEPA
84662	Diethylphthalate	NA	3.00E+04	2.90E+04	2.92E+04	2.90E+04	2.90E+03	ADEC
131113	Dimethylphthalate	NA	NA	NA	3.65E+05	3.70E+05	3.70E+05	USEPA
84742	Di-n-butylphthalate	NA	4.00E+03	3.65E+03	3.65E+03	NA	3.65E+02	ADEC
117840	Di-n-octylphthalate	NA	NA	7.00E+02	1.46E+03	NA	7.00E+01	ADEC
206440	Fluoranthene	NA	NA	1.46E+03	1.46E+03	1.46E+03	1.46E+02	ADEC
86737	Fluorene	NA	1.00E+03	1.46E+03	2.43E+02	2.40E+02	1.46E+02	ADEC
118741	Hexachlorobenzene	1.00E+00	3.00E+01	1.00E+00	4.20E-02	4.20E-02	4.20E-02	USEPA
87683	Hexachlorobutadiene	NA	7.00E+00	1.00E+01	8.62E-01	8.60E-01	8.60E-01	USEPA
77474	Hexachlorocyclopentadiene	5.00E+01	2.00E+02	5.00E+01	2.19E+02	NA	5.00E+00	ADEC
67721	Hexachloroethane	NA	4.00E+01	6.00E+01	4.80E+00	4.80E+00	4.80E+00	USEPA
193395	Indeno (1,2,3-cd) pyrene	NA	NA	1.00E+00	9.21E-02	3.00E-02	3.00E-02	USEPA
78591	Isophorone	NA	7.00E+03	9.00E+02	7.08E+01	7.10E+01	7.10E+01	USEPA
104518	n-Butylbenzene	NA	NA	NA	2.40E+02	1.40E+02	1.40E+02	USEPA
91203	Naphthalene	NA	7.00E+02	7.00E+02	6.20E+00	6.20E+00	6.20E+00	USEPA
98953	Nitrobenzene	NA	NA	1.80E+01	3.40E+00	3.40E+00	1.80E+00	ADEC
62759	N-Nitrosodimethylamine	NA	NA	NA	1.40E+01	4.20E-04	4.20E-04	USEPA
621647	N-Nitroso-di-n-propylamine	NA	NA	1.00E-01	9.60E-03	9.60E-03	9.60E-03	USEPA
86306	N-Nitrosodiphenylamine	NA	NA	1.70E+02	1.37E+01	1.40E+01	1.40E+01	USEPA
87865	Pentachlorophenol	1.00E+00	1.00E+03	1.00E+00	5.60E-01	5.60E-01	1.00E-01	ADEC
85018	Phenanthrene	NA	NA	1.10E+04	NA	NA	1.10E+03	ADEC
108952	Phenol	NA	2.00E+04	2.20E+04	2.19E+04	1.10E+04	2.20E+03	ADEC
129000	Pyrene	NA	NA	1.10E+03	1.83E+02	1.80E+02	1.10E+02	ADEC
483658	Retene	NA	NA	NA	NA	NA	NA	NA
135988	sec-Butylbenzene	NA	NA	NA	2.40E+02	1.10E+02	1.10E+02	USEPA

TABLE 3-2
ADEC and USEPA Groundwater Screening Levels

CAS No.	Analyte	Human Health Screening Levels for Groundwater: Maximum Contaminant Level[a] (µg/L)	Federal Drinking Water Equivalent[a] (µg/L)	ADEC Table C Values[b] (µg/L)	USEPA Region 9 Tap Water PRG[c] (µg/L)	USEPA Region 6 Tapwater Screening Level[d] (µg/L)	Taku Groundwater Screening Level (ug/L) Lower of 1/10th ADEC Level or USEPA Region 6 Level	Source of Screening Level (NA= no screening level)
98066	tert-Butylbenzene	NA	NA	NA	2.40E+02	6.10E+01	6.10E+01	USEPA
Petroleum Hydrocarbons								
GRO	Gasoline Range Organics (GRO)	NA	NA	1.30E+03	1.82E+03	NA	1.30E+02	ADEC
DRO	Diesel Range Organics (DRO)	NA	NA	1.50E+03	1.82E+03	NA	1.50E+02	ADEC
RRO	Residual Range Organics (RRO)	NA	NA	1.10E+03	1.82E+03	NA	1.10E+02	ADEC
Pestcides								
309002	Aldrin	NA	NA	5.00E-02	4.30E-03	4.30E-03	4.30E-03	USEPA
319846	alpha-BHC	NA	NA	1.00E-01	1.10E-02	1.10E-02	1.00E-02	ADEC
5103719	alpha-Chlordane	NA	NA	NA	NA	NA	NA	NA
319857	beta-BHC	NA	NA	4.70E-01	3.70E-02	3.70E-02	3.70E-02	USEPA
12789036	Chlordane	NA	NA	2.00E+00	NA	NA	2.00E-01	ADEC
72548	4,4'-DDD	NA	NA	3.60E+00	NA	2.80E-01	2.80E-01	USEPA
72559	4,4'-DDE	NA	NA	2.50E+00	NA	2.00E-01	2.00E-01	USEPA
50293	4,4'-DDT	NA	NA	2.50E+00	NA	2.00E-01	2.00E-01	USEPA
319868	delta-BHC	NA	NA	NA	NA	NA	NA	NA
Dichloprop	Dichloropropanol	NA	NA	NA	NA	NA	NA	NA
60571	Dieldrin	NA	NA	5.00E-02	4.20E-03	4.20E-03	4.20E-03	USEPA
959988	Endosulfan I*	NA	NA	NA	NA	2.20E+02	2.20E+02	USEPA
33213659	Endosulfan II*	NA	NA	NA	NA	NA	NA	NA
1031078	Endosulfan Sulfate	NA	NA	NA	NA	NA	NA	NA
72208	Endrin	NA	NA	2.00E+00	1.10E+01	1.10E+01	2.00E-01	ADEC
7421934	Endrin aldehyde	NA	NA	NA	NA	NA	NA	NA
53494705	Endrin ketone	NA	NA	NA	NA	NA	NA	NA
57749	gamma Chlordane	NA	NA	NA	NA	NA	NA	NA

TABLE 3-2
ADEC and USEPA Groundwater Screening Levels

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58899	gamma-BHC (Lindane)	NA	NA	2.00E-01	5.20E-02	5.20E-02	2.00E-02	ADEC
76448	Heptachlor	NA	NA	4.00E-01	1.50E-02	1.50E-02	1.50E-02	USEPA
1024573	Heptachlor epoxide	NA	NA	2.00E-01	7.40E-03	7.40E-03	7.40E-03	USEPA
72435	Methoxychlor	NA	NA	4.00E+01	1.80E+02	1.80E+02	4.00E+00	ADEC
8001352	Toxaphene	NA	NA	3.00E+00	6.10E-02	NA	3.00E-01	ADEC
8082 PCBs								
12674112	Aroclor 1016*	5.00E-04	NA	5.00E-01	9.60E-01	9.60E-01	5.00E-02	ADEC
11104282	Aroclor 1221*	5.00E-04	NA	5.00E-01	3.40E-02	3.40E-02	3.40E-02	USEPA
11141165	Aroclor 1232*	5.00E-04	NA	5.00E-01	3.40E-02	3.40E-02	3.40E-02	USEPA
53469219	Aroclor 1242*	5.00E-04	NA	5.00E-01	3.40E-02	3.40E-02	3.40E-02	USEPA
12672296	Aroclor 1248*	5.00E-04	NA	5.00E-01	3.40E-02	3.40E-02	3.40E-02	USEPA
11097691	Aroclor 1254*	5.00E-04	NA	5.00E-01	3.40E-02	3.40E-02	3.40E-02	USEPA
11096825	Aroclor 1260*	5.00E-04	NA	5.00E-01	3.40E-02	3.40E-02	3.40E-02	USEPA
1336363	PCBs, total	5.00E-04	NA	5.00E-01	3.40E-02	NA	5.00E-02	ADEC
VPH								
	C6-C8 Aromatics			7.30E+03	NA	NA	7.30E+02	ADEC
	C8-C10 Aromatics			7.30E+03	NA	NA	7.30E+02	ADEC
	C10-C12 Aromatics			1.50E+03	NA	NA	1.50E+02	ADEC
	C5-C6 Aliphatics			1.30E+03	NA	NA	1.30E+02	ADEC
	C6-C8 Aliphatics			1.30E+03	NA	NA	1.30E+02	ADEC
	C8-C10 Aliphatics			1.30E+03	NA	NA	1.30E+02	ADEC
	C10-C12 Aliphatics			1.00E+02	NA	NA	1.00E+01	ADEC
EPH								
	C10-C12 Aromatics			1.50E+03	NA	NA	1.50E+02	ADEC

TABLE 3-2
ADEC and USEPA Groundwater Screening Levels

CAS No.	Analyte	Human Health Screening Levels for Groundwater: Maximum Contaminant Level[a] (µg/L)	Federal Drinking Water Equivalent[a] (µg/L)	ADEC Table C Values[b] (µg/L)	USEPA Region 9 Tap Water PRG[c] (µg/L)	USEPA Region 6 Tapwater Screening Level[d] (µg/L)	Taku Groundwater Screening Level (ug/L) Lower of 1/10th ADEC Level or USEPA Region 6 Level	Source of Screening Level (NA= no screening level)
	C12-C16 Aromatics			1.50E+03	NA	NA	1.50E+02	ADEC
	C16-C21 Aromatics			1.50E+03	NA	NA	1.50E+02	ADEC
	C21-C34 Aromatics			1.10E+00	NA	NA	1.10E-01	ADEC
	C10-C12 Aliphatics			1.00E+02	NA	NA	1.00E+01	ADEC
	C12-C16 Aliphatics			1.00E+02	NA	NA	1.00E+01	ADEC
	C16-C21 Aliphatics			1.00E+02	NA	NA	1.00E+01	ADEC
	C21-C34 Aliphatics			NA	NA	NA	NA	NA
Metals & Other Inorganics								
7429905	Aluminum			NA	3.60E+04	3.70E+04	3.70E+04	USEPA
7664417	Ammonia (as N)			NA	NA	NA	NA	NA
7440360	Antimony			6.00E+00	1.50E+01	1.50E+01	6.00E-01	ADEC
7440382	Arsenic			5.00E+01	4.50E-02	4.50E-02	7.73E+01	Site Specific
7440393	Barium			2.00E+03	2.60E+03	7.30E+03	2.00E+02	ADEC
7440417	Beryllium			4.00E+00	3.60E+00	7.30E+01	4.00E-01	ADEC
7440439	Cadmium			5.00E+00	1.80E+01	1.80E+01	5.00E-01	ADEC
7440702	Calcium				NA	NA	0.00E+00	ADEC
7440473	Chromium total	1.00E+02		1.00E+02	NA	NA	1.00E+01	ADEC
16065-83-1	Chromium +3	1.00E+02		5.50E+04	NA	5.50E+04	5.50E+03	ADEC
18540-29-9	Chromium +6	1.00E+02		1.00E+02	NA	1.10E+02	1.00E+01	ADEC
7440484	Cobalt			NA	7.30E+02	7.30E+02	7.30E+02	USEPA
7440508	Copper			1.30E+03	1.50E+03	1.40E+03	1.30E+02	ADEC
7439896	Iron			NA	1.10E+04	2.60E+04	2.60E+04	USEPA
7439921	Lead	1.50E+01	NA	1.50E+01	NA	1.50E+01	1.50E+00	ADEC
7439954	Magnesium			NA	NA	NA	NA	NA
7439965	Manganese			NA	8.80E+02	1.70E+03	1.70E+03	USEPA

TABLE 3-2
ADEC and USEPA Groundwater Screening Levels

		Human Health Screening Levels for Groundwater						
CAS No.	Analyte	Maximum Contaminant Level[a] (µg/L)	Federal Drinking Water Equivalent[a] (µg/L)	ADEC Table C Values[b] (µg/L)	USEPA Region 9 Tap Water PRG[c] (µg/L)	USEPA Region 6 Tapwater Screening Level[d] (µg/L)	Taku Groundwater Screening Level (ug/L) Lower of 1/10th ADEC Level or USEPA Region 6 Level	Source of Screening Level (NA= no screening level)
7439976	Mercury			2.00E+00	NA	1.10E+01	2.00E-01	ADEC
7440020	Nickel			1.00E+02	7.30E+02	7.30E+02	1.00E+01	ADEC
NO3/NO2	Nitrate/Nitrite			NA	NA	NA	NA	NA
7440097	Potassium			NA	NA	NA	NA	NA
7782492	Selenium			5.00E+01	1.80E+02	1.80E+02	5.00E+00	ADEC
7440224	Silver			1.80E+02	1.80E+02	1.80E+02	1.80E+01	ADEC
7440235	Sodium			NA	NA	NA	NA	NA
14808798	Sulfate			NA	NA	NA	NA	NA
7440280	Thallium			2.00E+00	2.40E+00	2.60E+00	2.00E-01	ADEC
7440622	Vanadium			2.60E+02	2.60E+02	1.80E+02	2.60E+01	ADEC
7440666	Zinc			1.10E+04	1.10E+04	1.10E+04	1.10E+03	ADEC
Chlorinated Herbicides								
94-75-7	2,4-D			NA	NA	NA	NA	NA
94-82-6	2,4-DB			NA	NA	NA	NA	NA
	2,4,5-T			NA	NA	NA	NA	NA
	2,4,5-TP (Silvex)			NA	NA	NA	NA	NA
75-99-0	Dalapon			NA	1100	1100	1.10E+03	USEPA
1918-00-9	Dicamba			NA	1100	1100	1.10E+03	USEPA
	Dichlorprop			NA	NA	NA	NA	NA
88-85-7	Dinoseb			NA	36	37	3.70E+01	USEPA
16484-77-8	MCPA			NA	NA	NA	NA	NA
Dioxins								
	2,3,7,8-TCDD			3.00E-05		0.00000045	4.50E-07	USEPA
	1,2,3,7,8-PeCDD			NA		NA	NA	NA

TABLE 3-2
ADEC and USEPA Groundwater Screening Levels

		Human Health Screening Levels for Groundwater						
CAS No.	Analyte	Maximum Contaminant Level[a] (µg/L)	Federal Drinking Water Equivalent[a] (µg/L)	ADEC Table C Values[b] (µg/L)	USEPA Region 9 Tap Water PRG[c] (µg/L)	USEPA Region 6 Tapwater Screening Level[d] (µg/L)	Taku Groundwater Screening Level (ug/L) Lower of 1/10th ADEC Level or USEPA Region 6 Level	Source of Screening Level (NA= no screening level)
	1,2,3,4,7,8-HxCDD			NA		NA	NA	NA
	1,2,3,6,7,8-HxCDD			NA		NA	NA	NA
	1,2,3,7,8,9-HxCDD			NA		NA	NA	NA
	1,2,3,4,6,7,8-HpCDD			NA		NA	NA	NA
	OCDD			NA		NA	NA	NA
	2,3,7,8-TCDF			NA		NA	NA	NA
	1,2,3,7,8-PeCDF			NA		NA	NA	NA
	2,3,4,7,8-PeCDF			NA		NA	NA	NA
	1,2,3,4,7,8-HxCDF			NA		NA	NA	NA
	1,2,3,6,7,8-HxCDF			NA		NA	NA	NA
	2,3,4,6,7,8-HxCDF			NA		NA	NA	NA
	1,2,3,7,8,9-HxCDF			NA		NA	NA	NA
	1,2,3,4,6,7,8-HpCDF			NA		NA	NA	NA
	1,2,3,4,7,8,9-HpCDF			NA		NA	NA	NA
	OCDF			NA		NA	NA	NA
Explosives								
99-35-4	1,3,5-Trinitrobenzene			NA	1100	1100	1.10E+03	USEPA
99-65-0	1,3-Dinitrobenzene			NA	3.6	3.7	3.70E+00	USEPA
121142	2,4-Dinitrotoluene			NA	73	73	7.30E+01	USEPA
606202	2,6-Dinitrotoluene			NA	36	37	3.70E+01	USEPA
118-96-7	2,4,6-Trinitrotoluene (TNT)			NA	2.2	2.2	2.20E+00	USEPA
	2-Amino-4,6-dinitrotoluene			NA	7.3	NA	NA	NA
	2-Nitrotoluene			NA	0.049	0.29	2.90E-01	USEPA
	3-Nitrotoluene			NA	120	120	1.20E+02	USEPA
	4-Amino-4,6-dinitrotoluene			NA	7.3	NA	NA	NA

TABLE 3-2
ADEC and USEPA Groundwater Screening Levels

CAS No.	Analyte	Human Health Screening Levels for Groundwater: Maximum Contaminant Level[a] (µg/L)	Federal Drinking Water Equivalent[a] (µg/L)	ADEC Table C Values[b] (µg/L)	USEPA Region 9 Tap Water PRG[c] (µg/L)	USEPA Region 6 Tapwater Screening Level[d] (µg/L)	Taku Groundwater Screening Level (ug/L) Lower of 1/10th ADEC Level or USEPA Region 6 Level	Source of Screening Level (NA= no screening level)
	4-Nitrotoluene			NA	0.66	4	4.00E+00	USEPA
121-82-4	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)			NA	0.61	0.61	6.10E-01	USEPA
	Methyl-2,4,6-trinitrophenylnitramine (Tetryl)			NA	NA	NA	NA	NA
98953	Nitrobenzene			NA	3.4	3.4	3.40E+00	USEPA
2691-41-0	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)			NA	1800	1800	1.80E+03	USEPA

Notes:
NA = not available
ADEC = Alaska Department of Environmental Conservation
µg/L = micrograms per liter
PRG = preliminary remediation goal
USEPA = United States Environmental Protection Agency
* Surrogate compound was used.

References:
[a] U.S. Environmental Protection Agency, 2002. 2002 Edition of the Drinking Water Standards and Health Advisories. MCLs and DWELs. USEPA 822R02038. Office of Water. Summer 2002.
[b] Alaska Department of Environmental Conservation, 2003. 18 AAC 75 Oil and Other Hazardous Substances Pollution Control. *Alaska Administrative Code,* Chapter18, Section 75.345(b) Method 2 Groundwater Cleanup Levels.
[c] U.S. Environmental Protection Agency, 2002. Region IX Preliminary Remediation Goals (PRGs). Available at USEPA Region IX website: www.USEPA.gov/region 09/waste/sfund/prg/intro.htm October, 2002.

TABLE 3-3
Analyte Frequency of Detection in In Situ Soil

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: In Situ Soil**	**Percent Detect in In Situ Soil**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Arsenic	7440-38-2	16.63	181	100	97.79	2.21	0	0	0
Barium	7440-39-3	110	181	100	75.69	24.31	0	0	0
Beryllium	7440-41-7	4.2	129	100	100	0	0	0	0
Chromium	7440-47-3	2.6	181	100	0	97.7	2.2	0	0
Cobalt	7440-48-4	90	129	100	100	0	0	0	0
Copper	7440-50-8	406	129	100	98.45	1.55	0	0	0
Lead	7439-92-1	40	181	100	93.92	5.52	0	0	0.55
Nickel	7440-02-0	8.7	129	100	2.33	96.9	0.78	0	0
Vanadium	7440-62-2	71	129	100	100	0	0	0	0
Zinc	7440-66-6	910	129	100	100	0	0	0	0
Selenium	7782-49-2	0.35	180	82.78	43.89	38.89	0	0	0
Cadmium	7440-43-9	0.5	181	75.69	70.17	3.87	1.66	0	0
Thallium	7440-28-0	5.5	129	62.02	62.02	0	0	0	0
Antimony	7440-36-0	0.36	129	61.24	42.64	17.83	0.78	0	0
TPH-Motor Oil	TPH-Oil	1000	87	60.92	60.92	0	0	0	0
Mercury	7439-97-6	0.14	173	60.12	57.8	2.31	0	0	0
4,4'-DDT	50-29-3	1.7	157	57.96	56.69	0.64	0.64	0	0
TPH-Diesel	PHCD	25	131	54.2	39.69	1.53	2.29	10.69	0
Silver	7440-22-4	2.1	181	51.93	51.93	0	0	0	0
4,4'-DDE	72-55-9	1.7	151	42.38	41.72	0.66	0	0	0
4,4'-DDD	72-54-8	2.4	158	39.24	38.61	0.63	0	0	0
Xylenes, Total	1330-20-7	7.8	71	38.03	38.03	0	0	0	0
Acetone	67-64-1	1	197	16.75	13.2	3.55	0	0	0
PCBs (total)	1336-36-3	0.1	933	16.08	5.14	8.36	1.29	0.75	0.54
PCB-1260 (Aroclor 1260)	11096-82-5	0.1	928	15.73	8.19	5.17	1.08	0.75	0.54

TABLE 3-3
Analyte Frequency of Detection in In Situ Soil

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: In Situ Soil**	**Percent Detect in In Situ Soil**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Toluene	108-88-3	0.54	241	14.52	13.69	0.41	0	0.41	0
1,3,5-Trinitrobenzene	99-35-4	1800	91	13.19	13.19	0	0	0	0
Benzene	71-43-2	0.002	241	12.45	0.83	11.2	0	0.41	0
Ethylbenzene	100-41-4	0.55	241	11.62	11.2	0	0.41	0	0
Di-n-butyl phthalate	84-74-2	170	174	8.62	8.62	0	0	0	0
Methylene chloride	75-09-2	0.0015	197	7.61	0	0	5.08	2.03	0.51
bis-(2-Ethylhexyl)phthalate	117-81-7	35	174	7.47	7.47	0	0	0	0
Dieldrin	60-57-1	0.0015	150	6.67	0.67	5.33	0.67	0	0
2-Butanone	78-93-3	6	197	5.58	5.08	0.51	0	0	0
Heptachlor epoxide	1024-57-3	0.02	162	5.56	5.56	0	0	0	0
gamma-Chlordane	12789-03-6	0.3	155	4.52	4.52	0	0	0	0
Fluorene	86-73-7	27	174	4.02	4.02	0	0	0	0
Phenanthrene	85-01-8	430	174	4.02	4.02	0	0	0	0
TPH-Gasoline	PHCG	30	64	3.13	3.13	0	0	0	0
1,3,5-Trimethylbenzene	108-67-8	2.5	197	3.05	3.05	0	0	0	0
Benzo(a)anthracene	56-55-3	0.15	174	2.87	2.3	0.57	0	0	0
Pyrene	129-00-0	150	174	2.87	2.87	0	0	0	0
m,p-Xylene	108-38-3/1	210	197	2.54	2.54	0	0	0	0
Xylene (calculated total)	XYLENESCALC	280	197	2.54	2.54	0	0	0	0
Methoxychlor	72-43-5	5.2	160	2.5	2.5	0	0	0	0
1,2,4-Trichlorobenzene	120-82-1	0.2	212	2.36	0	0	0.47	0	1.89
Fluoranthene	206-44-0	210	174	2.3	2.3	0	0	0	0
Pentachlorophenol	87-86-5	0.001	176	2.27	0	0	1.7	0.57	0
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	4.4	91	2.2	2.2	0	0	0	0

TABLE 3-3
Analyte Frequency of Detection in In Situ Soil

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: In Situ Soil**	**Percent Detect in In Situ Soil**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
1,2,4-Trimethylbenzene	95-63-6	9.22	197	2.03	2.03	0	0	0	0
1,2-Dichlorobenzene	95-50-1	0.7	212	1.89	0	0.47	1.42	0	0
Benzo(a)pyrene	50-32-8	0.015	174	1.72	0	1.15	0.57	0	0
Benzo(k)fluoranthene	207-08-9	11	174	1.72	1.72	0	0	0	0
n-Butylbenzene	104-51-8	61	197	1.52	1.52	0	0	0	0
o-Xylene	95-47-6	280	197	1.52	1.52	0	0	0	0
Heptachlor	76-44-8	0.08	147	1.36	1.36	0	0	0	0
beta-BHC	319-85-7	0.0009	156	1.28	0.64	0	0.64	0	0
Endosulfan II	33213-65-9	0.7	163	1.23	1.23	0	0	0	0
2-Methylnaphthalene	91-57-6	6.09	174	1.15	1.15	0	0	0	0
Acenaphthene	83-32-9	21	174	1.15	1.15	0	0	0	0
Benzyl butyl phthalate	85-68-7	240	174	1.15	1.15	0	0	0	0
Indeno(1,2,3-cd)pyrene	193-39-5	0.15	174	1.15	0.57	0.57	0	0	0
n-Nitrosodi-n-propylamine	621-64-7	0.000036	174	1.15	0	0	0	0	1.15
3-Nitrotoluene	99-08-1	1600	91	1.1	1.1	0	0	0	0
4-Nitrotoluene	99-99-0	38	91	1.1	1.1	0	0	0	0
Carbazole	86-74-8	0.2	96	1.04	1.04	0	0	0	0
1,1,2-Trichloroethane	79-00-5	0.0017	197	1.02	0	0.51	0.51	0	0
Isopropylbenzene	98-82-8	22.7	197	1.02	1.02	0	0	0	0
sec-Butylbenzene	135-98-8	61	197	1.02	1.02	0	0	0	0
Aldrin	309-00-2	0.029	135	0.74	0.74	0	0	0	0
gamma-BHC (Lindane)	58-89-9	0.0003	136	0.74	0.74	0	0	0	0
Endosulfan I	959-98-8	0.7	141	0.71	0.71	0	0	0	0
alpha-BHC	319-84-6	0.00026	142	0.7	0	0.7	0	0	0
Benzoic acid	65-85-0	39	148	0.68	0.68	0	0	0	0

TABLE 3-3
Analyte Frequency of Detection in In Situ Soil

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: In Situ Soil**	**Percent Detect in In Situ Soil**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Endrin	72-20-8	0.03	158	0.63	0.63	0	0	0	0
Anthracene	120-12-7	430	174	0.57	0.57	0	0	0	0
Benzo(b)fluoranthene	205-99-2	0.15	174	0.57	0	0.57	0	0	0
Benzo(g,h,i)perylene	191-24-2	1.5	174	0.57	0.57	0	0	0	0
Chrysene	218-01-9	15	174	0.57	0.57	0	0	0	0
Dibenzo(a,h)anthracene	53-70-3	0.015	174	0.57	0	0.57	0	0	0
Diethyl phthalate	84-66-2	19	174	0.57	0.57	0	0	0	0
Phenol	108-95-2	6.7	174	0.57	0.57	0	0	0	0
Chloromethane	74-87-3	1.3	197	0.51	0.51	0	0	0	0
tert-Butylbenzene	98-06-6	130	197	0.51	0.51	0	0	0	0
Naphthalene	91-20-3	2.1	212	0.47	0	0.47	0	0	0
PCB-1254 (Aroclor 1254)	11097-69-1	0.1	928	0.43	0	0.43	0	0	0
1,1,1,2-Tetrachloroethane	630-20-6	3	197	0	0	0	0	0	0
1,1,1-Trichloroethane	71-55-6	0.1	197	0	0	0	0	0	0
1,1,2,2-Tetrachloroethane	79-34-5	0.0017	197	0	0	0	0	0	0
1,1-Dichloroethane	75-34-3	1.2	197	0	0	0	0	0	0
1,1-Dichloroethene	75-35-4	0.003	197	0	0	0	0	0	0
1,2,3-Trichloropropane	96-18-4	0.0002	197	0	0	0	0	0	0
1,2-Dibromo-3-chloropropane	96-12-8	0.0026	197	0	0	0	0	0	0
1,2-Dibromoethane	106-93-4	0.00000306	197	0	0	0	0	0	0
1,2-Dichloroethane	107-06-2	0.0015	197	0	0	0	0	0	0
1,2-Dichloropropane	78-87-5	0.0017	197	0	0	0	0	0	0
1,3-Dichlorobenzene	541-73-1	1.21	212	0	0	0	0	0	0
1,3-Dinitrobenzene	99-65-0	6.1	91	0	0	0	0	0	0
1,4-Dichlorobenzene	106-46-7	0.08	212	0	0	0	0	0	0

TABLE 3-3
Analyte Frequency of Detection in In Situ Soil

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: In Situ Soil**	**Percent Detect in In Situ Soil**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
1-Methylnaphthalene	90-12-0	4.3	0	0	0	0	0	0	0
2,4,5-Trichlorophenol	95-95-4	9	174	0	0	0	0	0	0
2,4,6-Trichlorophenol	88-06-2	0.06	174	0	0	0	0	0	0
2,4,6-Trinitrotoluene	118-96-7	16	91	0	0	0	0	0	0
2,4-D	94-75-7	690	68	0	0	0	0	0	0
2,4-DB	94-82-6	490	68	0	0	0	0	0	0
2,4-Dichlorophenol	120-83-2	0.045	174	0	0	0	0	0	0
2,4-Dimethylphenol	105-67-9	0.4	174	0	0	0	0	0	0
2,4-Dinitrophenol	51-28-5	0.02	173	0	0	0	0	0	0
2,4-Dinitrotoluene	121-14-2	0.0005	178	0	0	0	0	0	0
2,6-Dinitrotoluene	606-20-2	0.00044	178	0	0	0	0	0	0
2-Chloronaphthalene	91-58-7	7	174	0	0	0	0	0	0
2-Chlorophenol	95-57-8	0.14	174	0	0	0	0	0	0
2-Chlorotoluene	95-49-8	160	197	0	0	0	0	0	0
2-Methylphenol (o-Cresol)	95-48-7	0.7	174	0	0	0	0	0	0
2-Nitroaniline	88-74-4	180	174	0	0	0	0	0	0
2-Nitrotoluene	88-72-2	2.8	91	0	0	0	0	0	0
3,3'-Dichlorobenzidine	91-94-1	0.002	174	0	0	0	0	0	0
4-Chloro-3-methylphenol	59-50-7	310	148	0	0	0	0	0	0
4-Chloroaniline	106-47-8	0.05	174	0	0	0	0	0	0
4-Nitrophenol	100-02-7	490	176	0	0	0	0	0	0
Acenaphthylene	208-96-8	21	174	0	0	0	0	0	0
Benzyl alcohol	100-51-6	18000	148	0	0	0	0	0	0
bis-(2-Chloroethyl)ether	111-44-4	0.0002	174	0	0	0	0	0	0
bis(2-Chloroisopropyl)ether	108-60-1	2.9	174	0	0	0	0	0	0

TABLE 3-3
Analyte Frequency of Detection in In Situ Soil

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: In Situ Soil**	**Percent Detect in In Situ Soil**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Bromobenzene	108-86-1	73	197	0	0	0	0	0	0
Bromodichloromethane	75-27-4	1	197	0	0	0	0	0	0
Bromoform	75-25-2	0.038	197	0	0	0	0	0	0
Bromomethane	74-83-9	3.9	197	0	0	0	0	0	0
Carbon disulfide	75-15-0	1.7	185	0	0	0	0	0	0
Carbon tetrachloride	56-23-5	0.003	197	0	0	0	0	0	0
Chlorobenzene	108-90-7	0.06	197	0	0	0	0	0	0
Chloroform	67-66-3	0.034	197	0	0	0	0	0	0
cis-1,2-Dichloroethene	156-59-2	0.02	197	0	0	0	0	0	0
cis-1,3-Dichloropropene	10061-01-5	NA	197	0	0	0	0	0	0
Dalapon	75-99-0	1800	68	0	0	0	0	0	0
Dicamba	1918-00-9	1800	68	0	0	0	0	0	0
Dichlorodifluoromethane	75-71-8	6	197	0	0	0	0	0	0
Dimethyl phthalate	131-11-3	140	174	0	0	0	0	0	0
Di-n-octyl phthalate	117-84-0	200	174	0	0	0	0	0	0
Dinoseb	88-85-7	61	68	0	0	0	0	0	0
Hexachlorobenzene	118-74-1	0.073	174	0	0	0	0	0	0
Hexachlorobutadiene	87-68-3	0.8	212	0	0	0	0	0	0
Hexachlorocyclopentadiene	77-47-4	0.7	78	0	0	0	0	0	0
Hexachloroethane	67-72-1	0.16	174	0	0	0	0	0	0
Isophorone	78-59-1	0.3	174	0	0	0	0	0	0
MCPA (2-Methyl-4-chlorophenoxy acetic acid)	94-74-6	61	68	0	0	0	0	0	0
Methyl-tert-butyl ether (MTBE)	1634-04-4	32	167	0	0	0	0	0	0
Nitrobenzene	98-95-3	0.006	178	0	0	0	0	0	0

TABLE 3-3
Analyte Frequency of Detection in In Situ Soil

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: In Situ Soil**	**Percent Detect in In Situ Soil**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
n-Nitrosodimethylamine	62-75-9	0.0023	148	0	0	0	0	0	0
n-Nitrosodiphenylamine	86-30-6	0.34	174	0	0	0	0	0	0
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	3100	91	0	0	0	0	0	0
PCB-1016 (Aroclor 1016)	12674-11-2	0.1	928	0	0	0	0	0	0
PCB-1221 (Aroclor 1221)	11104-28-2	0.1	928	0	0	0	0	0	0
PCB-1232 (Aroclor 1232)	11141-16-5	0.1	928	0	0	0	0	0	0
PCB-1242 (Aroclor 1242)	53469-21-9	0.1	928	0	0	0	0	0	0
PCB-1248 (Aroclor 1248)	12672-29-6	0.1	928	0	0	0	0	0	0
Styrene	100-42-5	0.13	197	0	0	0	0	0	0
Tetrachloroethene (PCE)	127-18-4	0.003	197	0	0	0	0	0	0
Toxaphene	8001-35-2	0.8	166	0	0	0	0	0	0
trans-1,2-Dichloroethene	156-60-5	0.04	197	0	0	0	0	0	0
trans-1,3-Dichloropropene	10061-02-6	0.002	197	0	0	0	0	0	0
Trichloroethene (TCE)	79-01-6	0.002	197	0	0	0	0	0	0
Trichlorofluoromethane	75-69-4	390	197	0	0	0	0	0	0
Trichlorotrifluoroethane (Freon 113)	76-13-1	466	4	0	0	0	0	0	0
Vinyl chloride	75-01-4	0.0009	197	0	0	0	0	0	0

Notes:
µg/L = micrograms per liter
NA = not available

TABLE 3-4
Analyte Frequency of Detection in Groundwater

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: Groundwater**	**Percent Detect in Groundwater**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Arsenic	7440-38-2	77.3	20	100	100	0	0	0	0
Barium	7440-39-3	200	20	100	90	10	0	0	0
Iron	7439-89-6	26000	20	100	100	0	0	0	0
Manganese	7439-96-5	1700	20	100	100	0	0	0	0
Zinc	7440-66-6	1100	20	85	85	0	0	0	0
Nickel	7440-02-0	10	20	80	80	0	0	0	0
Cobalt	7440-48-4	730	20	65	65	0	0	0	0
TPH-Diesel	PHCD	150	20	40	20	5	15	0	0
Chromium	7440-47-3	10	20	30	0	30	0	0	0
Copper	7440-50-8	130	20	25	25	0	0	0	0
Dichlorodifluoromethane	75-71-8	390	20	25	25	0	0	0	0
4-Nitrotoluene	99-99-0	4	10	20	20	0	0	0	0
Aluminum	7429-90-5	37000	20	20	20	0	0	0	0
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	1800	10	20	20	0	0	0	0
TPH-Gasoline	PHCG	130	20	20	20	0	0	0	0
Nitrobenzene	98-95-3	1.8	20	15	10	5	0	0	0
1,3-Dinitrobenzene	99-65-0	3.7	10	10	0	10	0	0	0
3-Nitrotoluene	99-08-1	120	10	10	10	0	0	0	0
Acetone	67-64-1	365	20	10	10	0	0	0	0
Benzo(g,h,i)perylene	191-24-2	0.3	20	10	0	10	0	0	0
cis-1,2-Dichloroethene	156-59-2	7	20	10	10	0	0	0	0
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	0.61	10	10	0	0	10	0	0
sec-Butylbenzene	135-98-8	110	20	10	10	0	0	0	0
tert-Butylbenzene	98-06-6	61	20	10	10	0	0	0	0

TABLE 3-4
Analyte Frequency of Detection in Groundwater

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: Groundwater**	**Percent Detect in Groundwater**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
1,1,2,2-Tetrachloroethane	79-34-5	0.055	20	5	0	0	5	0	0
1,1-Dichloroethene	75-35-4	0.7	20	5	5	0	0	0	0
1,2,3-Trichloropropane	96-18-4	0.0016	20	5	0	0	0	5	0
1,3,5-Trimethylbenzene	108-67-8	12	20	5	5	0	0	0	0
2,4-Dinitrotoluene	121-14-2	0.125	20	5	0	5	0	0	0
2,6-Dinitrotoluene	606-20-2	0.125	20	5	0	0	5	0	0
2-Butanone	78-93-3	2200	20	5	5	0	0	0	0
4,4'-DDE	72-55-9	0.2	20	5	5	0	0	0	0
4,4'-DDT	50-29-3	0.2	20	5	5	0	0	0	0
Acenaphthene	83-32-9	220	20	5	5	0	0	0	0
Dieldrin	60-57-1	0.0042	20	5	0	5	0	0	0
Diethyl phthalate	84-66-2	2900	20	5	5	0	0	0	0
Di-n-butyl phthalate	84-74-2	365	20	5	5	0	0	0	0
Endrin	72-20-8	0.2	20	5	5	0	0	0	0
Fluorene	86-73-7	146	20	5	5	0	0	0	0
Heptachlor epoxide	1024-57-3	0.0074	20	5	5	0	0	0	0
Isopropylbenzene	98-82-8	365	20	5	5	0	0	0	0
Methoxychlor	72-43-5	4	20	5	5	0	0	0	0
Naphthalene	91-20-3	6.2	20	5	5	0	0	0	0
TPH-Motor Oil	TPH-Oil	110	20	5	0	5	0	0	0
1,1,1,2-Tetrachloroethane	630-20-6	0.43	20	0	0	0	0	0	0
1,1,1-Trichloroethane	71-55-6	20	20	0	0	0	0	0	0
1,1,2-Trichloroethane	79-00-5	0.2	20	0	0	0	0	0	0
1,1-Dichloroethane	75-34-3	365	20	0	0	0	0	0	0
1,2,4-Trichlorobenzene	120-82-1	7	20	0	0	0	0	0	0

TABLE 3-4
Analyte Frequency of Detection in Groundwater

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: Groundwater**	**Percent Detect in Groundwater**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
1,2,4-Trimethylbenzene	95-63-6	12	20	0	0	0	0	0	0
1,2-Dibromo-3-chloropropane	96-12-8	0.0002	20	0	0	0	0	0	0
1,2-Dibromoethane	106-93-4	0.005	20	0	0	0	0	0	0
1,2-Dichlorobenzene	95-50-1	49	20	0	0	0	0	0	0
1,2-Dichloroethane	107-06-2	0.12	20	0	0	0	0	0	0
1,2-Dichloropropane	78-87-5	0.16	20	0	0	0	0	0	0
1,3,5-Trinitrobenzene	99-35-4	1100	10	0	0	0	0	0	0
1,3-Dichlorobenzene	541-73-1	14	20	0	0	0	0	0	0
1,4-Dichlorobenzene	106-46-7	0.47	20	0	0	0	0	0	0
2,4,5-Trichlorophenol	95-95-4	365	20	0	0	0	0	0	0
2,4,6-Trichlorophenol	88-06-2	6.1	20	0	0	0	0	0	0
2,4,6-Trinitrotoluene	118-96-7	2.2	10	0	0	0	0	0	0
2,4-Dichlorophenol	120-83-2	10	20	0	0	0	0	0	0
2,4-Dimethylphenol	105-67-9	70	20	0	0	0	0	0	0
2,4-Dinitrophenol	51-28-5	7	20	0	0	0	0	0	0
2-Chloronaphthalene	91-58-7	290	20	0	0	0	0	0	0
2-Chlorophenol	95-57-8	20	20	0	0	0	0	0	0
2-Chlorotoluene	95-49-8	120	20	0	0	0	0	0	0
2-Methylnaphthalene	91-57-6	78	20	0	0	0	0	0	0
2-Methylphenol (o-Cresol)	95-48-7	180	20	0	0	0	0	0	0
2-Nitroaniline	88-74-4	110	20	0	0	0	0	0	0
2-Nitrotoluene	88-72-2	0.29	10	0	0	0	0	0	0
3,3'-Dichlorobenzidine	91-94-1	0.15	20	0	0	0	0	0	0
4,4'-DDD	72-54-8	0.28	20	0	0	0	0	0	0
4-Chloro-3-methylphenol	59-50-7	180	20	0	0	0	0	0	0

TABLE 3-4
Analyte Frequency of Detection in Groundwater

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: Groundwater**	**Percent Detect in Groundwater**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
4-Chloroaniline	106-47-8	15	20	0	0	0	0	0	0
4-Nitrophenol	100-02-7	290	20	0	0	0	0	0	0
Acenaphthylene	208-96-8	220	20	0	0	0	0	0	0
Aldrin	309-00-2	0.0043	20	0	0	0	0	0	0
alpha-BHC	319-84-6	0.01	20	0	0	0	0	0	0
Anthracene	120-12-7	1100	20	0	0	0	0	0	0
Antimony	7440-36-0	0.6	20	0	0	0	0	0	0
Benzene	71-43-2	0.35	20	0	0	0	0	0	0
Benzo(a)anthracene	56-55-3	0.03	20	0	0	0	0	0	0
Benzo(a)pyrene	50-32-8	0.003	20	0	0	0	0	0	0
Benzo(b)fluoranthene	205-99-2	0.03	20	0	0	0	0	0	0
Benzo(k)fluoranthene	207-08-9	1	20	0	0	0	0	0	0
Benzoic acid	65-85-0	14600	15	0	0	0	0	0	0
Benzyl alcohol	100-51-6	11000	20	0	0	0	0	0	0
Benzyl butyl phthalate	85-68-7	730	20	0	0	0	0	0	0
Beryllium	7440-41-7	0.4	20	0	0	0	0	0	0
beta-BHC	319-85-7	0.037	20	0	0	0	0	0	0
bis-(2-Chloroethyl)ether	111-44-4	0.0098	20	0	0	0	0	0	0
bis(2-Chloroisopropyl)ether	108-60-1	0.27	20	0	0	0	0	0	0
bis-(2-Ethylhexyl)phthalate	117-81-7	0.6	20	0	0	0	0	0	0
Bromobenzene	108-86-1	23	20	0	0	0	0	0	0
Bromodichloromethane	75-27-4	0.18	20	0	0	0	0	0	0
Bromoform	75-25-2	8.5	20	0	0	0	0	0	0
Bromomethane	74-83-9	8.7	20	0	0	0	0	0	0
Cadmium	7440-43-9	0.5	20	0	0	0	0	0	0

TABLE 3-4
Analyte Frequency of Detection in Groundwater

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: Groundwater**	**Percent Detect in Groundwater**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Carbazole	86-74-8	3.4	14	0	0	0	0	0	0
Carbon disulfide	75-15-0	365	20	0	0	0	0	0	0
Carbon tetrachloride	56-23-5	0.17	20	0	0	0	0	0	0
Chlorobenzene	108-90-7	10	20	0	0	0	0	0	0
Chloroform	67-66-3	0.17	20	0	0	0	0	0	0
Chloromethane	74-87-3	2.1	20	0	0	0	0	0	0
Chrysene	218-01-9	2.9	20	0	0	0	0	0	0
cis-1,3-Dichloropropene	10061-01-5	NA	20	0	0	0	0	0	0
Dibenzo(a,h)anthracene	53-70-3	0.003	20	0	0	0	0	0	0
Dimethyl phthalate	131-11-3	370000	20	0	0	0	0	0	0
Di-n-octyl phthalate	117-84-0	70	20	0	0	0	0	0	0
Endosulfan I	959-98-8	220	20	0	0	0	0	0	0
Ethylbenzene	100-41-4	70	20	0	0	0	0	0	0
Fluoranthene	206-44-0	146	20	0	0	0	0	0	0
gamma-BHC (Lindane)	58-89-9	0.02	20	0	0	0	0	0	0
gamma-Chlordane	12789-03-6	0.2	20	0	0	0	0	0	0
Heptachlor	76-44-8	0.015	20	0	0	0	0	0	0
Hexachlorobenzene	118-74-1	0.042	20	0	0	0	0	0	0
Hexachlorobutadiene	87-68-3	0.86	20	0	0	0	0	0	0
Hexachlorocyclopentadiene	77-47-4	5	6	0	0	0	0	0	0
Hexachloroethane	67-72-1	4.8	20	0	0	0	0	0	0
Indeno(1,2,3-cd)pyrene	193-39-5	0.03	20	0	0	0	0	0	0
Isophorone	78-59-1	71	20	0	0	0	0	0	0
Lead	7439-92-1	1.5	20	0	0	0	0	0	0
m,p-Xylene	108-38-3/1	210	20	0	0	0	0	0	0

TABLE 3-4
Analyte Frequency of Detection in Groundwater

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: Groundwater**	**Percent Detect in Groundwater**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Mercury	7439-97-6	0.2	20	0	0	0	0	0	0
Methylene chloride	75-09-2	0.5	20	0	0	0	0	0	0
Methyl-tert-butyl ether (MTBE)	1634-04-4	11	20	0	0	0	0	0	0
n-Butylbenzene	104-51-8	140	20	0	0	0	0	0	0
n-Nitrosodimethylamine	62-75-9	0.00042	20	0	0	0	0	0	0
n-Nitrosodi-n-propylamine	621-64-7	0.0096	20	0	0	0	0	0	0
n-Nitrosodiphenylamine	86-30-6	14	20	0	0	0	0	0	0
o-Xylene	95-47-6	1400	20	0	0	0	0	0	0
PCB-1016 (Aroclor 1016)	12674-11-2	0.05	10	0	0	0	0	0	0
PCB-1221 (Aroclor 1221)	11104-28-2	0.034	10	0	0	0	0	0	0
PCB-1232 (Aroclor 1232)	11141-16-5	0.034	10	0	0	0	0	0	0
PCB-1242 (Aroclor 1242)	53469-21-9	0.034	10	0	0	0	0	0	0
PCB-1248 (Aroclor 1248)	12672-29-6	0.034	10	0	0	0	0	0	0
PCB-1254 (Aroclor 1254)	11097-69-1	0.034	10	0	0	0	0	0	0
PCB-1260 (Aroclor 1260)	11096-82-5	0.034	10	0	0	0	0	0	0
PCBs (total)	1336-36-3	0.05	10	0	0	0	0	0	0
Pentachlorophenol	87-86-5	0.1	20	0	0	0	0	0	0
Phenanthrene	85-01-8	1100	20	0	0	0	0	0	0
Phenol	108-95-2	2200	20	0	0	0	0	0	0
Pyrene	129-00-0	110	20	0	0	0	0	0	0
Selenium	7782-49-2	5	20	0	0	0	0	0	0
Silver	7440-22-4	18	20	0	0	0	0	0	0
Styrene	100-42-5	10	20	0	0	0	0	0	0
Tetrachloroethene (PCE)	127-18-4	0.1	20	0	0	0	0	0	0
Thallium	7440-28-0	0.2	20	0	0	0	0	0	0

TABLE 3-4
Analyte Frequency of Detection in Groundwater

1	2	3	4	5	6	7	8	9	10
Analyte Name	**CAS Number**	**Screening Level (µg/L)**	**Total Count: Groundwater**	**Percent Detect in Groundwater**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Toluene	108-88-3	100	20	0	0	0	0	0	0
Toxaphene	8001-35-2	0.3	20	0	0	0	0	0	0
trans-1,2-Dichloroethene	156-60-5	10	20	0	0	0	0	0	0
trans-1,3-Dichloropropene	10061-02-6	0.4	20	0	0	0	0	0	0
Trichloroethene (TCE)	79-01-6	0.028	20	0	0	0	0	0	0
Trichlorofluoromethane	75-69-4	1300	20	0	0	0	0	0	0
Vanadium	7440-62-2	26	20	0	0	0	0	0	0
Vinyl chloride	75-01-4	0.015	20	0	0	0	0	0	0
Xylene (calculated total)	XYLENESCALC	1400	20	0	0	0	0	0	0

Notes:
µg/L = micrograms per liter
NA = not available

TABLE 3-5
Soil Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Ending Depth (ft)	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (mg/kg)	Flag	Screening Level (mg/kg)	Color
Explosives Non-detect Results with Yellow, Orange, & Red Colors											
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	287	U	0.006	Red
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	336	U	0.006	Red
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	458	U	0.006	Red
TGHP-8-BH08	07/28/05	8	05FTW-TGHP-8-BH08-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.52	U	0.006	Yellow
TGHP-8-BH06	07/28/05	8	05FTW-TGHP-8-BH06-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.58	U	0.006	Yellow
TGHP-8-BH05	07/28/05	8	05FTW-TGHP-8-BH05-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.61	U	0.006	Yellow
TGHP-8-BH09	07/28/05	8	05FTW-TGHP-8-BH09-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.61	U	0.006	Yellow
TGHP-10-BH07	07/28/05	10	05FTW-TGHP-10-BH07-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.56	U	0.006	Yellow
TGHP-10-BH09	07/28/05	10	05FTW-TGHP-10-BH09-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.6	U	0.006	Yellow
TGHP-10-BH04	07/27/05	10	05FTW-TGHP-10-BH04-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.7	U	0.006	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.7	U	0.006	Yellow
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.71	U	0.006	Yellow
TGHP-10-BH08	07/28/05	10	05FTW-TGHP-10-BH08-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.74	U	0.006	Yellow
06SI31	09/08/06	12	06SI31S01	SW8270C	98-95-3	Nitrobenzene	NO2BZ	7	U	0.006	Orange
06SI29	09/06/06	14	06SI29S01	SW8270C	98-95-3	Nitrobenzene	NO2BZ	7	U	0.006	Orange
06SI20	08/29/06	16	06SI20S03	SW8270C	98-95-3	Nitrobenzene	NO2BZ	18	U	0.006	Orange
06SI34	09/11/06	16	06SI34S01	SW8270C	98-95-3	Nitrobenzene	NO2BZ	18	U	0.006	Orange
Semivolatile Organic Compound Non-detect Results with Yellow, Orange, & Red Colors											
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	287	U	0.006	Red
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	336	U	0.006	Red
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	458	U	0.006	Red
TGHP-8-BH08	07/28/05	8	05FTW-TGHP-8-BH08-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.52	U	0.006	Yellow
TGHP-8-BH06	07/28/05	8	05FTW-TGHP-8-BH06-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.58	U	0.006	Yellow
TGHP-8-BH05	07/28/05	8	05FTW-TGHP-8-BH05-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.61	U	0.006	Yellow
TGHP-8-BH09	07/28/05	8	05FTW-TGHP-8-BH09-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.61	U	0.006	Yellow
TGHP-10-BH07	07/28/05	10	05FTW-TGHP-10-BH07-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.56	U	0.006	Yellow

TABLE 3-5
Soil Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Ending Depth (ft)	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (mg/kg)	Flag	Screening Level (mg/kg)	Color
TGHP-10-BH09	07/28/05	10	05FTW-TGHP-10-BH09-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.6	U	0.006	Yellow
TGHP-10-BH04	07/27/05	10	05FTW-TGHP-10-BH04-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.7	U	0.006	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.7	U	0.006	Yellow
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.71	U	0.006	Yellow
TGHP-10-BH08	07/28/05	10	05FTW-TGHP-10-BH08-SO	SW8270C	98-95-3	Nitrobenzene	NO2BZ	2.74	U	0.006	Yellow
06SI31	09/08/06	12	06SI31S01	SW8270C	98-95-3	Nitrobenzene	NO2BZ	7	U	0.006	Orange
06SI29	09/06/06	14	06SI29S01	SW8270C	98-95-3	Nitrobenzene	NO2BZ	7	U	0.006	Orange
06SI20	08/29/06	16	06SI20S03	SW8270C	98-95-3	Nitrobenzene	NO2BZ	18	U	0.006	Orange
06SI34	09/11/06	16	06SI34S01	SW8270C	98-95-3	Nitrobenzene	NO2BZ	18	U	0.006	Orange
Pesticides Non-detect Results with Yellow, Orange, & Red Colors											
DB09-01	08/01/07	0.3	07FW-DB09-01-080107	SW8081A	319-84-6	alpha-BHC	BHCALPHA	0.09	U	0.00026	Yellow
AP-8960	02/05/04	6	04FHFW26SL	SW8081A	319-84-6	alpha-BHC	BHCALPHA	0.1	U	0.00026	Yellow
06TP14	06/13/06	10	06TP14S03	SW8081A	58-89-9	gamma-BHC (Lindane)	BHCGAMMA	0.1	U	0.0003	Yellow
06TP14	06/13/06	10	06TP14S03	SW8081A	319-84-6	alpha-BHC	BHCALPHA	0.1	U	0.00026	Yellow
DB09-01	08/01/07	0.3	07FW-DB09-01-080107	SW8081A	319-85-7	beta-BHC	BHCBETA	0.09	U	0.0009	Yellow
AP-8960	02/05/04	6	04FHFW26SL	SW8081A	319-85-7	beta-BHC	BHCBETA	0.2	U	0.0009	Yellow
DB09-01	08/01/07	0.3	07FW-DB09-01-080107	SW8081A	58-89-9	gamma-BHC (Lindane)	BHCGAMMA	0.09	U	0.0003	Yellow
AP-8960	02/05/04	6	04FHFW26SL	SW8081A	58-89-9	gamma-BHC (Lindane)	BHCGAMMA	0.1	U	0.0003	Yellow
Volatile Organic Compound Non-detect Results with Yellow, Orange, & Red Colors											
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	71-43-2	Benzene	BZ	2.46	U	0.002	Orange
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	71-43-2	Benzene	BZ	2.67	U	0.002	Orange
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	71-43-2	Benzene	BZ	2.95	U	0.002	Orange
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	71-43-2	Benzene	BZ	21.7	U	0.002	Red
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8260B	71-43-2	Benzene	BZ	0.138	U	0.002	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8260B	71-43-2	Benzene	BZ	0.934	U	0.002	Yellow

TABLE 3-5
Soil Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Ending Depth (ft)	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (mg/kg)	Flag	Screening Level (mg/kg)	Color
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	108-88-3	Toluene	BZME	83.4	U	0.54	Yellow
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	75-15-0	Carbon disulfide	CDS	167	U	1.7	Yellow
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	108-90-7	Chlorobenzene	CLBZ	4.73	U	0.06	Yellow
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	108-90-7	Chlorobenzene	CLBZ	5.13	U	0.06	Yellow
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	108-90-7	Chlorobenzene	CLBZ	5.68	U	0.06	Yellow
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	108-90-7	Chlorobenzene	CLBZ	41.7	U	0.06	Orange
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	56-23-5	Carbon tetrachloride	CTCL	4.73	U	0.003	Orange
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	56-23-5	Carbon tetrachloride	CTCL	5.13	U	0.003	Orange
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	56-23-5	Carbon tetrachloride	CTCL	5.68	U	0.003	Orange
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	56-23-5	Carbon tetrachloride	CTCL	41.7	U	0.003	Red
TGHP-8-BH05	07/28/05	8	05FTW-TGHP-8-BH05-SO	SW8260B	56-23-5	Carbon tetrachloride	CTCL	0.232	U	0.003	Yellow
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8260B	56-23-5	Carbon tetrachloride	CTCL	0.266	U	0.003	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8260B	56-23-5	Carbon tetrachloride	CTCL	1.8	U	0.003	Yellow
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	107-06-2	1,2-Dichloroethane	DCA12	4.73	U	0.0015	Orange
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	107-06-2	1,2-Dichloroethane	DCA12	5.13	U	0.0015	Orange
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	107-06-2	1,2-Dichloroethane	DCA12	5.68	U	0.0015	Orange
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	107-06-2	1,2-Dichloroethane	DCA12	41.7	U	0.0015	Red
TGHP-8-BH10	07/28/05	8	05FTW-TGHP-8-BH10-SO	SW8260B	107-06-2	1,2-Dichloroethane	DCA12	0.188	U	0.0015	Yellow

TABLE 3-5
Soil Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Ending Depth (ft)	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (mg/kg)	Flag	Screening Level (mg/kg)	Color
TGHP-8-BH05	07/28/05	8	05FTW-TGHP-8-BH05-SO	SW8260B	107-06-2	1,2-Dichloroethane	DCA12	0.232	U	0.0015	Yellow
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8260B	107-06-2	1,2-Dichloroethane	DCA12	0.266	U	0.0015	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8260B	107-06-2	1,2-Dichloroethane	DCA12	1.8	U	0.0015	Orange
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	106-46-7	1,4-Dichlorobenzene	DCBZ14	41.7	U	0.08	Yellow
06SI21	08/29/06	12	06SI21S01	SW8270C	106-46-7	1,4-Dichlorobenzene	DCBZ14	17	U	0.08	Yellow
06SI21	08/29/06	16	06SI21S02	SW8270C	106-46-7	1,4-Dichlorobenzene	DCBZ14	17	U	0.08	Yellow
06SI20	08/29/06	16	06SI20S03	SW8270C	106-46-7	1,4-Dichlorobenzene	DCBZ14	18	U	0.08	Yellow
06SI34	09/11/06	16	06SI34S01	SW8270C	106-46-7	1,4-Dichlorobenzene	DCBZ14	18	U	0.08	Yellow
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	75-35-4	1,1-Dichloroethene	DCE11	4.73	U	0.003	Orange
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	75-35-4	1,1-Dichloroethene	DCE11	5.13	U	0.003	Orange
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	75-35-4	1,1-Dichloroethene	DCE11	5.68	U	0.003	Orange
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	75-35-4	1,1-Dichloroethene	DCE11	41.7	U	0.003	Red
TGHP-8-BH05	07/28/05	8	05FTW-TGHP-8-BH05-SO	SW8260B	75-35-4	1,1-Dichloroethene	DCE11	0.232	U	0.003	Yellow
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8260B	75-35-4	1,1-Dichloroethene	DCE11	0.266	U	0.003	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8260B	75-35-4	1,1-Dichloroethene	DCE11	1.8	U	0.003	Yellow
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	156-59-2	cis-1,2-Dichloroethene	DCE12C	4.73	U	0.02	Yellow

TABLE 3-5
Soil Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Ending Depth (ft)	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (mg/kg)	Flag	Screening Level (mg/kg)	Color
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	156-59-2	cis-1,2-Dichloroethene	DCE12C	5.13	U	0.02	Yellow
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	156-59-2	cis-1,2-Dichloroethene	DCE12C	5.68	U	0.02	Yellow
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	156-59-2	cis-1,2-Dichloroethene	DCE12C	41.7	U	0.02	Orange
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8260B	156-59-2	cis-1,2-Dichloroethene	DCE12C	1.8	U	0.02	Yellow
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	156-60-5	trans-1,2-Dichloroethene	DCE12T	4.73	U	0.04	Yellow
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	156-60-5	trans-1,2-Dichloroethene	DCE12T	5.13	U	0.04	Yellow
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	156-60-5	trans-1,2-Dichloroethene	DCE12T	5.68	U	0.04	Yellow
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	156-60-5	trans-1,2-Dichloroethene	DCE12T	41.7	U	0.04	Orange
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	10061-01-5	cis-1,3-Dichloropropene	DCP13C	4.73	U	0.002	Orange
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	10061-01-5	cis-1,3-Dichloropropene	DCP13C	5.13	U	0.002	Orange
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	10061-01-5	cis-1,3-Dichloropropene	DCP13C	5.68	U	0.002	Orange
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	10061-01-5	cis-1,3-Dichloropropene	DCP13C	41.7	U	0.002	Red
TGHP-8-BH10	07/28/05	8	05FTW-TGHP-8-BH10-SO	SW8260B	10061-01-5	cis-1,3-Dichloropropene	DCP13C	0.188	U	0.002	Yellow
TGHP-8-BH05	07/28/05	8	05FTW-TGHP-8-BH05-SO	SW8260B	10061-01-5	cis-1,3-Dichloropropene	DCP13C	0.232	U	0.002	Yellow
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8260B	10061-01-5	cis-1,3-Dichloropropene	DCP13C	0.266	U	0.002	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8260B	10061-01-5	cis-1,3-Dichloropropene	DCP13C	1.8	U	0.002	Orange

TABLE 3-5
Soil Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Ending Depth (ft)	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (mg/kg)	Flag	Screening Level (mg/kg)	Color
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	10061-02-6	trans-1,3-Dichloropropene	DCP13T	4.73	U	0.002	Orange
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	10061-02-6	trans-1,3-Dichloropropene	DCP13T	5.13	U	0.002	Orange
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	10061-02-6	trans-1,3-Dichloropropene	DCP13T	5.68	U	0.002	Orange
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	10061-02-6	trans-1,3-Dichloropropene	DCP13T	41.7	U	0.002	Red
TGHP-8-BH10	07/28/05	8	05FTW-TGHP-8-BH10-SO	SW8260B	10061-02-6	trans-1,3-Dichloropropene	DCP13T	0.188	U	0.002	Yellow
TGHP-8-BH05	07/28/05	8	05FTW-TGHP-8-BH05-SO	SW8260B	10061-02-6	trans-1,3-Dichloropropene	DCP13T	0.232	U	0.002	Yellow
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8260B	10061-02-6	trans-1,3-Dichloropropene	DCP13T	0.266	U	0.002	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8260B	10061-02-6	trans-1,3-Dichloropropene	DCP13T	1.8	U	0.002	Orange
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	78-87-5	1,2-Dichloropropane	DCPA12	4.73	U	0.0017	Orange
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	78-87-5	1,2-Dichloropropane	DCPA12	5.13	U	0.0017	Orange
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	78-87-5	1,2-Dichloropropane	DCPA12	5.68	U	0.0017	Orange
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	78-87-5	1,2-Dichloropropane	DCPA12	41.7	U	0.0017	Red
TGHP-8-BH10	07/28/05	8	05FTW-TGHP-8-BH10-SO	SW8260B	78-87-5	1,2-Dichloropropane	DCPA12	0.188	U	0.0017	Yellow
TGHP-8-BH05	07/28/05	8	05FTW-TGHP-8-BH05-SO	SW8260B	78-87-5	1,2-Dichloropropane	DCPA12	0.232	U	0.0017	Yellow
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8260B	78-87-5	1,2-Dichloropropane	DCPA12	0.266	U	0.0017	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8260B	78-87-5	1,2-Dichloropropane	DCPA12	1.8	U	0.0017	Orange

TABLE 3-5
Soil Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Ending Depth (ft)	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (mg/kg)	Flag	Screening Level (mg/kg)	Color
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	100-41-4	Ethylbenzene	EBZ	41.7	U	0.55	Yellow
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	87-68-3	Hexachlorobutadiene	HCBU	83.4	U	0.8	Yellow
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	78-93-3	2-Butanone	MEK	417	U	6	Yellow
TSW-64-4	09/15/05	3	05FTW-TSW-64-4-SO	SW8260B	79-34-5	1,1,2,2-Tetrachloroethane	PCA	0.133	U	0.0017	Yellow
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	79-34-5	1,1,2,2-Tetrachloroethane	PCA	9.46	U	0.0017	Orange
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	79-34-5	1,1,2,2-Tetrachloroethane	PCA	10.3	U	0.0017	Orange
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	79-34-5	1,1,2,2-Tetrachloroethane	PCA	11.4	U	0.0017	Red
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	79-34-5	1,1,2,2-Tetrachloroethane	PCA	83.4	U	0.0017	Red
MW02	09/17/05	9	05FTW-MW-2-1-SO	SW8260B	79-34-5	1,1,2,2-Tetrachloroethane	PCA	0.121	U	0.0017	Yellow
TGHP-8-BH10	07/28/05	8	05FTW-TGHP-8-BH10-SO	SW8260B	79-34-5	1,1,2,2-Tetrachloroethane	PCA	0.376	U	0.0017	Yellow
TGHP-8-BH05	07/28/05	8	05FTW-TGHP-8-BH05-SO	SW8260B	79-34-5	1,1,2,2-Tetrachloroethane	PCA	0.464	U	0.0017	Yellow
MW02	09/17/05	12	05FTW-MW-2-2-SO	SW8260B	79-34-5	1,1,2,2-Tetrachloroethane	PCA	0.137	U	0.0017	Yellow
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8260B	79-34-5	1,1,2,2-Tetrachloroethane	PCA	0.531	U	0.0017	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8260B	79-34-5	1,1,2,2-Tetrachloroethane	PCA	3.59	U	0.0017	Orange
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	127-18-4	Tetrachloroethene (PCE)	PCE	4.73	U	0.003	Orange
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	127-18-4	Tetrachloroethene (PCE)	PCE	5.13	U	0.003	Orange
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	127-18-4	Tetrachloroethene (PCE)	PCE	5.68	U	0.003	Orange

TABLE 3-5
Soil Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Ending Depth (ft)	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (mg/kg)	Flag	Screening Level (mg/kg)	Color
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	127-18-4	Tetrachloroethene (PCE)	PCE	41.7	U	0.003	Red
TGHP-8-BH05	07/28/05	8	05FTW-TGHP-8-BH05-SO	SW8260B	127-18-4	Tetrachloroethene (PCE)	PCE	0.232	U	0.003	Yellow
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8260B	127-18-4	Tetrachloroethene (PCE)	PCE	0.266	U	0.003	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8260B	127-18-4	Tetrachloroethene (PCE)	PCE	1.8	U	0.003	Yellow
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	100-42-5	Styrene	STY	41.7	U	0.13	Yellow
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	75-25-2	Bromoform	TBME	4.73	U	0.038	Yellow
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	75-25-2	Bromoform	TBME	5.13	U	0.038	Yellow
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	75-25-2	Bromoform	TBME	5.68	U	0.038	Yellow
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	75-25-2	Bromoform	TBME	41.7	U	0.038	Orange
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	71-55-6	1,1,1-Trichloroethane	TCA111	41.7	U	0.1	Yellow
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	79-00-5	1,1,2-Trichloroethane	TCA112	4.73	U	0.0017	Orange
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	79-00-5	1,1,2-Trichloroethane	TCA112	5.13	U	0.0017	Orange
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	79-00-5	1,1,2-Trichloroethane	TCA112	5.68	U	0.0017	Orange
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	79-00-5	1,1,2-Trichloroethane	TCA112	41.7	U	0.0017	Red
TGHP-8-BH10	07/28/05	8	05FTW-TGHP-8-BH10-SO	SW8260B	79-00-5	1,1,2-Trichloroethane	TCA112	0.188	U	0.0017	Yellow
TGHP-8-BH05	07/28/05	8	05FTW-TGHP-8-BH05-SO	SW8260B	79-00-5	1,1,2-Trichloroethane	TCA112	0.232	U	0.0017	Yellow
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8260B	79-00-5	1,1,2-Trichloroethane	TCA112	0.266	U	0.0017	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8260B	79-00-5	1,1,2-Trichloroethane	TCA112	1.8	U	0.0017	Orange

TABLE 3-5
Soil Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Ending Depth (ft)	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (mg/kg)	Flag	Screening Level (mg/kg)	Color
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	79-01-6	Trichloroethene (TCE)	TCE	4.73	U	0.002	Orange
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	79-01-6	Trichloroethene (TCE)	TCE	5.13	U	0.002	Orange
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	79-01-6	Trichloroethene (TCE)	TCE	5.68	U	0.002	Orange
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	79-01-6	Trichloroethene (TCE)	TCE	41.7	U	0.002	Red
TGHP-8-BH10	07/28/05	8	05FTW-TGHP-8-BH10-SO	SW8260B	79-01-6	Trichloroethene (TCE)	TCE	0.188	U	0.002	Yellow
TGHP-8-BH05	07/28/05	8	05FTW-TGHP-8-BH05-SO	SW8260B	79-01-6	Trichloroethene (TCE)	TCE	0.232	U	0.002	Yellow
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8260B	79-01-6	Trichloroethene (TCE)	TCE	0.266	U	0.002	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8260B	79-01-6	Trichloroethene (TCE)	TCE	1.8	U	0.002	Orange
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	67-66-3	Chloroform	TCLME	4.73	U	0.034	Yellow
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	67-66-3	Chloroform	TCLME	5.13	U	0.034	Yellow
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	67-66-3	Chloroform	TCLME	5.68	U	0.034	Yellow
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	67-66-3	Chloroform	TCLME	41.7	U	0.034	Orange
TSW-64-4	09/15/05	3	05FTW-TSW-64-4-SO	SW8260B	75-01-4	Vinyl chloride	VC	0.0665	U	0.0009	Yellow
AP-8933	12/13/03	1	03FHFW19SL	SW8260B	75-01-4	Vinyl chloride	VC	0.076	U	0.0009	Yellow
AP-8958	01/25/04	0.5	04FHFW04SL	SW8260B	75-01-4	Vinyl chloride	VC	0.1	U	0.0009	Yellow
TG-A52-03	07/22/05	0.33	05FTW-TG-A52-03-SO	SW8260B	75-01-4	Vinyl chloride	VC	4.73	U	0.0009	Orange
TG-A52-05	07/22/05	0.33	05FTW-TG-A52-05-SO	SW8260B	75-01-4	Vinyl chloride	VC	5.13	U	0.0009	Orange
TG-A52-02	07/22/05	0.33	05FTW-TG-A52-02-SO	SW8260B	75-01-4	Vinyl chloride	VC	5.68	U	0.0009	Orange
TG-A52-04	07/22/05	0.33	05FTW-TG-A52-04-SO	SW8260B	75-01-4	Vinyl chloride	VC	41.7	U	0.0009	Red
06SI37	09/14/06	3	06SI37S01	SW8260B	75-01-4	Vinyl chloride	VC	0.23	UJ	0.0009	Yellow
06SI46	09/15/06	4	06SI46S01	SW8260B	75-01-4	Vinyl chloride	VC	0.22	UJ	0.0009	Yellow
MW02	09/17/05	9	05FTW-MW-2-1-SO	SW8260B	75-01-4	Vinyl chloride	VC	0.0607	U	0.0009	Yellow

TABLE 3-5
Soil Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Ending Depth (ft)	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (mg/kg)	Flag	Screening Level (mg/kg)	Color
TGHP-8-BH10	07/28/05	8	05FTW-TGHP-8-BH10-SO	SW8260B	75-01-4	Vinyl chloride	VC	0.188	U	0.0009	Yellow
TGHP-8-BH05	07/28/05	8	05FTW-TGHP-8-BH05-SO	SW8260B	75-01-4	Vinyl chloride	VC	0.232	U	0.0009	Yellow
MW02	09/17/05	12	05FTW-MW-2-2-SO	SW8260B	75-01-4	Vinyl chloride	VC	0.0684	U	0.0009	Yellow
TGHP-10-BH05	07/28/05	10	05FTW-TGHP-10-BH05-SO	SW8260B	75-01-4	Vinyl chloride	VC	0.266	U	0.0009	Yellow
TGHP-10-BH06	07/28/05	10	05FTW-TGHP-10-BH06-SO	SW8260B	75-01-4	Vinyl chloride	VC	1.8	U	0.0009	Orange

Note:
mg/kg = milligrams per kilogram

TABLE 3-6
Groundwater Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (ug/L)	Flag	Screening Level (mg/kg)	Color
Volatile Organic Compound Non-detect Results with Yellow, Orange, & Red Colors										
MW01	9/21/05	05FTW-TK-MW-1-W	SW8260B	75-01-4	Vinyl chloride	VC	1	U	0.015	Yellow
MW02	9/22/05	05FTW-TK-MW-2-W	SW8260B	75-01-4	Vinyl chloride	VC	1	U	0.015	Yellow
MW03	9/22/05	05FTW-TK-MW-3-W	SW8260B	75-01-4	Vinyl chloride	VC	1	U	0.015	Yellow
MW04	9/22/05	05FTW-TK-MW-04-W	SW8260B	75-01-4	Vinyl chloride	VC	1	U	0.015	Yellow
TW-6	9/21/05	05FTW-TK-TW-6-W	SW8260B	75-01-4	Vinyl chloride	VC	1	U	0.015	Yellow
TW-8	9/21/05	05FTW-TK-TW-8-W	SW8260B	75-01-4	Vinyl chloride	VC	1	U	0.015	Yellow
Pesticide Non-detect Results with Yellow, Orange, & Red Colors										
MW06B	5/17/07	07MW06BS01	SW8081A	60-57-1	Dieldrin	DIELDRIN	2	U	0.0042	Yellow
MW12	5/17/07	07MW12S01	SW8081A	60-57-1	Dieldrin	DIELDRIN	2	U	0.0042	Yellow
MW06A	5/17/07	07MW06AS01	SW8081A	60-57-1	Dieldrin	DIELDRIN	2.1	U	0.0042	Yellow
MW06B	5/17/07	07MW06BS01	SW8081A	8001-35-2	Toxaphene	TOXAP	39	U	0.3	Yellow
MW12	5/17/07	07MW12S01	SW8081A	8001-35-2	Toxaphene	TOXAP	40	U	0.3	Yellow
MW06A	5/17/07	07MW06AS01	SW8081A	8001-35-2	Toxaphene	TOXAP	42	U	0.3	Yellow
Polychlorinated Biphenyl (PCB) Non-detect Results with Yellow, Orange, & Red Colors										
MW02	7/12/06	06MW02S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.1064	U	0.05	Green
MW01	9/21/05	05FTW-TK-MW-1-W	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.1085	U	0.05	Green
MW01	7/11/06	06MW01S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.1085	U	0.05	Green
MW03	9/22/05	05FTW-TK-MW-3-W	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.1085	U	0.05	Green
MW03	7/12/06	06MW03S02	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.1085	U	0.05	Green
MW04	9/22/05	05FTW-TK-MW-04-W	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.1085	U	0.05	Green
TW-6	9/21/05	05FTW-TK-TW-6-W	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.1085	U	0.05	Green
TW-8	9/21/05	05FTW-TK-TW-8-W	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.1085	U	0.05	Green
MW02	9/22/05	05FTW-TK-MW-2-W	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.1106	U	0.05	Green
MW03	7/12/06	06MW03S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.1106	U	0.05	Green
MW06B	5/17/07	07MW06BS01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.8	U	0.05	Yellow
MW02	5/15/07	07MW02S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.815	U	0.05	Yellow

TABLE 3-6
Groundwater Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (ug/L)	Flag	Screening Level (mg/kg)	Color
MW05	5/14/07	07MW05S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.815	U	0.05	Yellow
MW01	5/15/07	07MW01S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.82	U	0.05	Yellow
MW08	5/14/07	07MW08S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.82	U	0.05	Yellow
MW08	5/14/07	07MW08S02	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.82	U	0.05	Yellow
MW09	5/15/07	07MW09S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.82	U	0.05	Yellow
MW10	5/16/07	07MW10S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.82	U	0.05	Yellow
MW11	5/16/07	07MW11S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.82	U	0.05	Yellow
MW12	5/17/07	07MW12S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.82	U	0.05	Yellow
MW03	5/11/07	07MW03S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.835	U	0.05	Yellow
MW04	5/11/07	07MW04S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.835	U	0.05	Yellow
MW06A	5/17/07	07MW06AS01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.85	U	0.05	Yellow
MW07	5/14/07	07MW07S01	SW8082	1336-36-3	PCBs (total)	PCBCALC	0.85	U	0.05	Yellow
Semivolatile Organic Compounds Non-detect Results with Yellow, Orange, & Red Colors										
MW10	5/16/07	07MW10S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	9.6	U	0.03	Yellow
MW07	9/20/06	06MW07S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	9.7	U	0.03	Yellow
MW07	5/14/07	07MW07S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	9.7	U	0.03	Yellow
MW11	9/19/06	06MW11S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	9.7	U	0.03	Yellow
MW01	5/15/07	07MW01S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	9.8	U	0.03	Yellow
MW04	5/11/07	07MW04S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	9.8	U	0.03	Yellow
MW12	5/17/07	07MW12S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	9.8	U	0.03	Yellow
MW02	9/21/06	06MW12S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	9.9	U	0.03	Yellow
MW02	5/15/07	07MW02S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	9.9	U	0.03	Yellow
MW05	5/14/07	07MW05S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	9.9	U	0.03	Yellow
MW06A	9/20/06	06MW06AS01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	9.9	U	0.03	Yellow
MW08	5/14/07	07MW08S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	9.9	U	0.03	Yellow
MW01	9/21/05	05FTW-TK-MW-1-W	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW01	7/11/06	06MW01S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW02	9/22/05	05FTW-TK-MW-2-W	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow

TABLE 3-6
Groundwater Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (ug/L)	Flag	Screening Level (mg/kg)	Color
MW02	7/12/06	06MW02S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW03	9/22/05	05FTW-TK-MW-3-W	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW03	7/12/06	06MW03S02	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW03	5/11/07	07MW03S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW04	9/22/05	05FTW-TK-MW-04-W	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW04	9/18/06	06MW04S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW05	9/18/06	06MW05S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW06A	5/17/07	07MW06AS01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW06B	9/13/06	06MW06BS01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW06B	5/17/07	07MW06BS01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW08	5/14/07	07MW08S02	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW09	9/26/06	06MW09S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW09	5/15/07	07MW09S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW10	9/19/06	06MW10S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW11	5/16/07	07MW11S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW11	5/16/07	07MW11S02	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
TW-6	9/21/05	05FTW-TK-TW-6-W	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
TW-8	9/21/05	05FTW-TK-TW-8-W	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	10	U	0.03	Yellow
MW03	7/12/06	06MW03S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	11	U	0.03	Yellow
MW08	9/21/06	06MW08S01	SW8270C	56-55-3	Benzo(a)anthracene	BZAA	11	U	0.03	Yellow
MW10	5/16/07	07MW10S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	9.6	U	0.003	Orange
MW07	9/20/06	06MW07S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	9.7	U	0.003	Orange
MW07	5/14/07	07MW07S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	9.7	U	0.003	Orange
MW11	9/19/06	06MW11S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	9.7	U	0.003	Orange
MW01	5/15/07	07MW01S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	9.8	U	0.003	Orange
MW04	5/11/07	07MW04S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	9.8	U	0.003	Orange
MW12	5/17/07	07MW12S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	9.8	U	0.003	Orange
MW02	9/21/06	06MW12S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	9.9	U	0.003	Orange

TABLE 3-6
Groundwater Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (ug/L)	Flag	Screening Level (mg/kg)	Color
MW02	5/15/07	07MW02S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	9.9	U	0.003	Orange
MW05	5/14/07	07MW05S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	9.9	U	0.003	Orange
MW06A	9/20/06	06MW06AS01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	9.9	U	0.003	Orange
MW08	5/14/07	07MW08S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	9.9	U	0.003	Orange
MW01	9/21/05	05FTW-TK-MW-1-W	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW01	7/11/06	06MW01S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW02	9/22/05	05FTW-TK-MW-2-W	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW02	7/12/06	06MW02S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW03	9/22/05	05FTW-TK-MW-3-W	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW03	7/12/06	06MW03S02	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW03	5/11/07	07MW03S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW04	9/22/05	05FTW-TK-MW-04-W	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW04	9/18/06	06MW04S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW05	9/18/06	06MW05S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW06A	5/17/07	07MW06AS01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW06B	9/13/06	06MW06BS01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW06B	5/17/07	07MW06BS01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW08	5/14/07	07MW08S02	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW09	9/26/06	06MW09S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW09	5/15/07	07MW09S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW10	9/19/06	06MW10S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW11	5/16/07	07MW11S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW11	5/16/07	07MW11S02	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
TW-6	9/21/05	05FTW-TK-TW-6-W	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
TW-8	9/21/05	05FTW-TK-TW-8-W	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	10	U	0.003	Orange
MW03	7/12/06	06MW03S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	11	U	0.003	Orange
MW08	9/21/06	06MW08S01	SW8270C	50-32-8	Benzo(a)pyrene	BZAP	11	U	0.003	Orange
MW10	5/16/07	07MW10S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	9.6	U	0.03	Yellow

TABLE 3-6
Groundwater Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (ug/L)	Flag	Screening Level (mg/kg)	Color
MW07	9/20/06	06MW07S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	9.7	U	0.03	Yellow
MW07	5/14/07	07MW07S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	9.7	U	0.03	Yellow
MW11	9/19/06	06MW11S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	9.7	U	0.03	Yellow
MW01	5/15/07	07MW01S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	9.8	U	0.03	Yellow
MW04	5/11/07	07MW04S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	9.8	U	0.03	Yellow
MW12	5/17/07	07MW12S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	9.8	U	0.03	Yellow
MW02	9/21/06	06MW12S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	9.9	U	0.03	Yellow
MW02	5/15/07	07MW02S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	9.9	U	0.03	Yellow
MW05	5/14/07	07MW05S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	9.9	U	0.03	Yellow
MW06A	9/20/06	06MW06AS01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	9.9	U	0.03	Yellow
MW08	5/14/07	07MW08S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	9.9	U	0.03	Yellow
MW01	9/21/05	05FTW-TK-MW-1-W	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW01	7/11/06	06MW01S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW02	9/22/05	05FTW-TK-MW-2-W	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW02	7/12/06	06MW02S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW03	9/22/05	05FTW-TK-MW-3-W	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW03	7/12/06	06MW03S02	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW03	5/11/07	07MW03S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW04	9/22/05	05FTW-TK-MW-04-W	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW04	9/18/06	06MW04S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW05	9/18/06	06MW05S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW06A	5/17/07	07MW06AS01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW06B	9/13/06	06MW06BS01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW06B	5/17/07	07MW06BS01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW08	5/14/07	07MW08S02	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW09	9/26/06	06MW09S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW09	5/15/07	07MW09S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW10	9/19/06	06MW10S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow

TABLE 3-6
Groundwater Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (ug/L)	Flag	Screening Level (mg/kg)	Color
MW11	5/16/07	07MW11S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW11	5/16/07	07MW11S02	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
TW-6	9/21/05	05FTW-TK-TW-6-W	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
TW-8	9/21/05	05FTW-TK-TW-8-W	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	10	U	0.03	Yellow
MW03	7/12/06	06MW03S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	11	U	0.03	Yellow
MW08	9/21/06	06MW08S01	SW8270C	205-99-2	Benzo(b)fluoranthene	BZBF	11	U	0.03	Yellow
MW10	5/16/07	07MW10S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	9.6	U	0.003	Orange
MW07	9/20/06	06MW07S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	9.7	U	0.003	Orange
MW07	5/14/07	07MW07S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	9.7	U	0.003	Orange
MW11	9/19/06	06MW11S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	9.7	U	0.003	Orange
MW01	5/15/07	07MW01S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	9.8	U	0.003	Orange
MW04	5/11/07	07MW04S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	9.8	U	0.003	Orange
MW12	5/17/07	07MW12S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	9.8	U	0.003	Orange
MW02	9/21/06	06MW12S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	9.9	U	0.003	Orange
MW02	5/15/07	07MW02S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	9.9	U	0.003	Orange
MW05	5/14/07	07MW05S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	9.9	U	0.003	Orange
MW06A	9/20/06	06MW06AS01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	9.9	U	0.003	Orange
MW08	5/14/07	07MW08S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	9.9	U	0.003	Orange
MW01	9/21/05	05FTW-TK-MW-1-W	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW01	7/11/06	06MW01S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW02	9/22/05	05FTW-TK-MW-2-W	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW02	7/12/06	06MW02S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW03	9/22/05	05FTW-TK-MW-3-W	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW03	7/12/06	06MW03S02	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW03	5/11/07	07MW03S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW04	9/22/05	05FTW-TK-MW-04-W	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW04	9/18/06	06MW04S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW05	9/18/06	06MW05S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange

TABLE 3-6
Groundwater Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (ug/L)	Flag	Screening Level (mg/kg)	Color
MW06A	5/17/07	07MW06AS01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW06B	9/13/06	06MW06BS01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW06B	5/17/07	07MW06BS01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW08	5/14/07	07MW08S02	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW09	9/26/06	06MW09S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW09	5/15/07	07MW09S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW10	9/19/06	06MW10S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW11	5/16/07	07MW11S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW11	5/16/07	07MW11S02	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
TW-6	9/21/05	05FTW-TK-TW-6-W	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
TW-8	9/21/05	05FTW-TK-TW-8-W	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	10	U	0.003	Orange
MW03	7/12/06	06MW03S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	11	U	0.003	Orange
MW08	9/21/06	06MW08S01	SW8270C	53-70-3	Dibenzo(a,h)anthracene	DBAHA	11	U	0.003	Orange
MW01	9/21/05	05FTW-TK-MW-1-W	SW8270C	118-74-1	Hexachlorobenzene	HCLBZ	10	U	0.042	Yellow
MW02	9/22/05	05FTW-TK-MW-2-W	SW8270C	118-74-1	Hexachlorobenzene	HCLBZ	10	U	0.042	Yellow
MW03	9/22/05	05FTW-TK-MW-3-W	SW8270C	118-74-1	Hexachlorobenzene	HCLBZ	10	U	0.042	Yellow
MW04	9/22/05	05FTW-TK-MW-04-W	SW8270C	118-74-1	Hexachlorobenzene	HCLBZ	10	U	0.042	Yellow
TW-6	9/21/05	05FTW-TK-TW-6-W	SW8270C	118-74-1	Hexachlorobenzene	HCLBZ	10	U	0.042	Yellow
TW-8	9/21/05	05FTW-TK-TW-8-W	SW8270C	118-74-1	Hexachlorobenzene	HCLBZ	10	U	0.042	Yellow
MW01	9/21/05	05FTW-TK-MW-1-W	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	10	U	0.03	Yellow
MW02	9/22/05	05FTW-TK-MW-2-W	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	10	U	0.03	Yellow
MW03	9/22/05	05FTW-TK-MW-3-W	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	10	U	0.03	Yellow
MW04	9/22/05	05FTW-TK-MW-04-W	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	10	U	0.03	Yellow
TW-6	9/21/05	05FTW-TK-TW-6-W	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	10	U	0.03	Yellow
TW-8	9/21/05	05FTW-TK-TW-8-W	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	10	U	0.03	Yellow
MW10	5/16/07	07MW10S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	14	U	0.03	Yellow
MW01	5/15/07	07MW01S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW02	7/12/06	06MW02S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow

TABLE 3-6
Groundwater Non-detect Results with Detection Limits Exceeding Screening Levels

Location	Sample Date	Sample Name	Analytical Method	CAS Number	Analyte Name	ERPIMS Abbreviation	Result (ug/L)	Flag	Screening Level (mg/kg)	Color
MW02	9/21/06	06MW12S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW02	5/15/07	07MW02S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW03	5/11/07	07MW03S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW04	9/18/06	06MW04S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW04	5/11/07	07MW04S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW05	9/18/06	06MW05S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW05	5/14/07	07MW05S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW06A	9/20/06	06MW06AS01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW06A	5/17/07	07MW06AS01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW06B	9/13/06	06MW06BS01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW06B	5/17/07	07MW06BS01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW07	9/20/06	06MW07S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW07	5/14/07	07MW07S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW08	5/14/07	07MW08S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW08	5/14/07	07MW08S02	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW09	9/26/06	06MW09S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW09	5/15/07	07MW09S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW11	9/19/06	06MW11S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW11	5/16/07	07MW11S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW11	5/16/07	07MW11S02	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW12	5/17/07	07MW12S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	15	U	0.03	Yellow
MW01	7/11/06	06MW01S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	16	U	0.03	Yellow
MW03	7/12/06	06MW03S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	16	U	0.03	Yellow
MW03	7/12/06	06MW03S02	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	16	U	0.03	Yellow
MW08	9/21/06	06MW08S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	16	U	0.03	Yellow
MW10	9/19/06	06MW10S01	SW8270C	193-39-5	Indeno(1,2,3-cd)pyrene	INP123	16	U	0.03	Yellow

Notes:
ug/L = micrograms per liter mg/kg = milligrams per kilogram

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or μg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
1,1,1,2-Tetrachloroethane	630-20-6	SO	IN SITU	Y	3	0	0	0	0	0	0	197	0	0	0	0	0	0
1,1,1,2-Tetrachloroethane	630-20-6	SO	IN SITU	N	3	196	1	0	0	0	197	197	100	99.49	0.51	0	0	0
1,1,1,2-Tetrachloroethane	630-20-6	SO	EX SITU	Y	3	0	0	0	0	0	0	76	0	0	0	0	0	0
1,1,1,2-Tetrachloroethane	630-20-6	SO	EX SITU	N	3	74	2	0	0	0	76	76	100	97.37	2.63	0	0	0
1,1,1,2-Tetrachloroethane	630-20-6	GW	IN SITU	Y	0.43	0	0	0	0	0	0	20	0	0	0	0	0	0
1,1,1,2-Tetrachloroethane	630-20-6	GW	IN SITU	N	0.43	20	0	0	0	0	20	20	100	100	0	0	0	0
1,1,1-Trichloroethane	71-55-6	SO	IN SITU	Y	0.1	0	0	0	0	0	0	197	0	0	0	0	0	0
1,1,1-Trichloroethane	71-55-6	SO	IN SITU	N	0.1	192	4	1	0	0	197	197	100	97.46	2.03	0.51	0	0
1,1,1-Trichloroethane	71-55-6	SO	EX SITU	Y	0.1	0	0	0	0	0	0	76	0	0	0	0	0	0
1,1,1-Trichloroethane	71-55-6	SO	EX SITU	N	0.1	72	1	2	1	0	76	76	100	94.74	1.32	2.63	1.32	0
1,1,1-Trichloroethane	71-55-6	GW	IN SITU	Y	20	0	0	0	0	0	0	20	0	0	0	0	0	0
1,1,1-Trichloroethane	71-55-6	GW	IN SITU	N	20	20	0	0	0	0	20	20	100	100	0	0	0	0
1,1,2,2-Tetrachloroethane	79-34-5	SO	IN SITU	Y	0.0017	0	0	0	0	0	0	197	0	0	0	0	0	0
1,1,2,2-Tetrachloroethane	79-34-5	SO	IN SITU	N	0.0017	17	169	6	3	2	197	197	100	8.63	85.79	3.05	1.52	1.02
1,1,2,2-Tetrachloroethane	79-34-5	SO	EX SITU	Y	0.0017	0	0	0	0	0	0	76	0	0	0	0	0	0
1,1,2,2-Tetrachloroethane	79-34-5	SO	EX SITU	N	0.0017	16	56	0	1	3	76	76	100	21.05	73.68	0	1.32	3.95
1,1,2,2-Tetrachloroethane	79-34-5	GW	IN SITU	Y	0.055	0	0	1	0	0	1	20	5	0	0	5	0	0
1,1,2,2-Tetrachloroethane	79-34-5	GW	IN SITU	N	0.055	0	19	0	0	0	19	20	95	0	95	0	0	0
1,1,2-Trichloroethane	79-00-5	SO	IN SITU	Y	0.0017	0	1	1	0	0	2	197	1.02	0	0.51	0.51	0	0
1,1,2-Trichloroethane	79-00-5	SO	IN SITU	N	0.0017	12	175	3	4	1	195	197	98.98	6.09	88.83	1.52	2.03	0.51
1,1,2-Trichloroethane	79-00-5	SO	EX SITU	Y	0.0017	0	0	0	0	0	0	76	0	0	0	0	0	0
1,1,2-Trichloroethane	79-00-5	SO	EX SITU	N	0.0017	3	69	0	1	3	76	76	100	3.95	90.79	0	1.32	3.95
1,1,2-Trichloroethane	79-00-5	GW	IN SITU	Y	0.2	0	0	0	0	0	0	20	0	0	0	0	0	0
1,1,2-Trichloroethane	79-00-5	GW	IN SITU	N	0.2	20	0	0	0	0	20	20	100	100	0	0	0	0
1,1-Dichloroethane	75-34-3	SO	IN SITU	Y	1.2	0	0	0	0	0	0	197	0	0	0	0	0	0
1,1-Dichloroethane	75-34-3	SO	IN SITU	N	1.2	196	1	0	0	0	197	197	100	99.49	0.51	0	0	0
1,1-Dichloroethane	75-34-3	SO	EX SITU	Y	1.2	0	0	0	0	0	0	76	0	0	0	0	0	0
1,1-Dichloroethane	75-34-3	SO	EX SITU	N	1.2	73	2	1	0	0	76	76	100	96.05	2.63	1.32	0	0
1,1-Dichloroethane	75-34-3	GW	IN SITU	Y	365	0	0	0	0	0	0	20	0	0	0	0	0	0
1,1-Dichloroethane	75-34-3	GW	IN SITU	N	365	20	0	0	0	0	20	20	100	100	0	0	0	0
1,1-Dichloroethene	75-35-4	SO	IN SITU	Y	0.003	0	0	0	0	0	0	197	0	0	0	0	0	0
1,1-Dichloroethene	75-35-4	SO	IN SITU	N	0.003	71	119	3	3	1	197	197	100	36.04	60.41	1.52	1.52	0.51
1,1-Dichloroethene	75-35-4	SO	EX SITU	Y	0.003	0	0	0	0	0	0	76	0	0	0	0	0	0
1,1-Dichloroethene	75-35-4	SO	EX SITU	N	0.003	20	52	0	1	3	76	76	100	26.32	68.42	0	1.32	3.95
1,1-Dichloroethene	75-35-4	GW	IN SITU	Y	0.7	1	0	0	0	0	1	20	5	5	0	0	0	0
1,1-Dichloroethene	75-35-4	GW	IN SITU	N	0.7	19	0	0	0	0	19	20	95	95	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
1,2,3-Trichloropropane	96-18-4	SO	IN SITU	Y	0.0002	0	0	0	0	0	0	197	0	0	0	0	0	0
1,2,3-Trichloropropane	96-18-4	SO	IN SITU	N	0.0002	0	7	102	83	5	197	197	100	0	3.55	51.78	42.13	2.54
1,2,3-Trichloropropane	96-18-4	SO	EX SITU	Y	0.0002	0	0	0	0	1	1	76	1.32	0	0	0	0	1.32
1,2,3-Trichloropropane	96-18-4	SO	EX SITU	N	0.0002	0	15	16	41	3	75	76	98.68	0	19.74	21.05	53.95	3.95
1,2,3-Trichloropropane	96-18-4	GW	IN SITU	Y	0.0016	0	0	0	1	0	1	20	5	0	0	0	5	0
1,2,3-Trichloropropane	96-18-4	GW	IN SITU	N	0.0016	0	0	19	0	0	19	20	95	0	0	95	0	0
1,2,4-Trichlorobenzene	120-82-1	SO	IN SITU	Y	0.2	0	0	1	0	4	5	212	2.36	0	0	0.47	0	1.89
1,2,4-Trichlorobenzene	120-82-1	SO	IN SITU	N	0.2	202	5	0	0	0	207	212	97.64	95.28	2.36	0	0	0
1,2,4-Trichlorobenzene	120-82-1	SO	EX SITU	Y	0.2	0	0	1	0	0	1	85	1.18	0	0	1.18	0	0
1,2,4-Trichlorobenzene	120-82-1	SO	EX SITU	N	0.2	78	3	2	0	1	84	85	98.82	91.76	3.53	2.35	0	1.18
1,2,4-Trichlorobenzene	120-82-1	GW	IN SITU	Y	7	0	0	0	0	0	0	20	0	0	0	0	0	0
1,2,4-Trichlorobenzene	120-82-1	GW	IN SITU	N	7	20	0	0	0	0	20	20	100	100	0	0	0	0
1,2,4-Trimethylbenzene	95-63-6	SO	IN SITU	Y	9.22	4	0	0	0	0	4	197	2.03	2.03	0	0	0	0
1,2,4-Trimethylbenzene	95-63-6	SO	IN SITU	N	9.22	193	0	0	0	0	193	197	97.97	97.97	0	0	0	0
1,2,4-Trimethylbenzene	95-63-6	SO	EX SITU	Y	9.22	1	0	1	1	0	3	76	3.95	1.32	0	1.32	1.32	0
1,2,4-Trimethylbenzene	95-63-6	SO	EX SITU	N	9.22	73	0	0	0	0	73	76	96.05	96.05	0	0	0	0
1,2,4-Trimethylbenzene	95-63-6	GW	IN SITU	Y	12	0	0	0	0	0	0	20	0	0	0	0	0	0
1,2,4-Trimethylbenzene	95-63-6	GW	IN SITU	N	12	20	0	0	0	0	20	20	100	100	0	0	0	0
1,2-Dibromo-3-chloropropane	96-12-8	SO	IN SITU	Y	0.0026	0	0	0	0	0	0	197	0	0	0	0	0	0
1,2-Dibromo-3-chloropropane	96-12-8	SO	IN SITU	N	0.0026	0	141	51	1	4	197	197	100	0	71.57	25.89	0.51	2.03
1,2-Dibromo-3-chloropropane	96-12-8	SO	EX SITU	Y	0.0026	0	0	0	0	0	0	76	0	0	0	0	0	0
1,2-Dibromo-3-chloropropane	96-12-8	SO	EX SITU	N	0.0026	0	34	38	1	3	76	76	100	0	44.74	50	1.32	3.95
1,2-Dibromo-3-chloropropane	96-12-8	GW	IN SITU	Y	0.0002	0	0	0	0	0	0	20	0	0	0	0	0	0
1,2-Dibromo-3-chloropropane	96-12-8	GW	IN SITU	N	0.0002	0	0	0	0	20	20	20	100	0	0	0	0	100
1,2-Dibromoethane	106-93-4	SO	IN SITU	Y	0.00000306	0	0	0	0	0	0	197	0	0	0	0	0	0
1,2-Dibromoethane	106-93-4	SO	IN SITU	N	0.00000306	0	0	0	128	69	197	197	100	0	0	0	64.97	35.03
1,2-Dibromoethane	106-93-4	SO	EX SITU	Y	0.00000306	0	0	0	0	0	0	76	0	0	0	0	0	0
1,2-Dibromoethane	106-93-4	SO	EX SITU	N	0.00000306	0	0	0	28	48	76	76	100	0	0	0	36.84	63.16
1,2-Dibromoethane	106-93-4	GW	IN SITU	Y	0.005	0	0	0	0	0	0	20	0	0	0	0	0	0
1,2-Dibromoethane	106-93-4	GW	IN SITU	N	0.005	0	0	20	0	0	20	20	100	0	0	100	0	0
1,2-Dichlorobenzene	95-50-1	SO	IN SITU	Y	0.7	0	1	3	0	0	4	212	1.89	0	0.47	1.42	0	0
1,2-Dichlorobenzene	95-50-1	SO	IN SITU	N	0.7	204	4	0	0	0	208	212	98.11	96.23	1.89	0	0	0
1,2-Dichlorobenzene	95-50-1	SO	EX SITU	Y	0.7	0	0	0	0	0	0	85	0	0	0	0	0	0
1,2-Dichlorobenzene	95-50-1	SO	EX SITU	N	0.7	80	4	0	1	0	85	85	100	94.12	4.71	0	1.18	0
1,2-Dichlorobenzene	95-50-1	GW	IN SITU	Y	49	0	0	0	0	0	0	20	0	0	0	0	0	0
1,2-Dichlorobenzene	95-50-1	GW	IN SITU	N	49	20	0	0	0	0	20	20	100	100	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
1,2-Dichloroethane	107-06-2	SO	IN SITU	Y	0.0015	0	0	0	0	0	0	197	0	0	0	0	0	0
1,2-Dichloroethane	107-06-2	SO	IN SITU	N	0.0015	26	163	3	4	1	197	197	100	13.2	82.74	1.52	2.03	0.51
1,2-Dichloroethane	107-06-2	SO	EX SITU	Y	0.0015	0	0	0	0	0	0	76	0	0	0	0	0	0
1,2-Dichloroethane	107-06-2	SO	EX SITU	N	0.0015	15	57	0	1	3	76	76	100	19.74	75	0	1.32	3.95
1,2-Dichloroethane	107-06-2	GW	IN SITU	Y	0.12	0	0	0	0	0	0	20	0	0	0	0	0	0
1,2-Dichloroethane	107-06-2	GW	IN SITU	N	0.12	20	0	0	0	0	20	20	100	100	0	0	0	0
1,2-Dichloropropane	78-87-5	SO	IN SITU	Y	0.0017	0	0	0	0	0	0	197	0	0	0	0	0	0
1,2-Dichloropropane	78-87-5	SO	IN SITU	N	0.0017	43	146	3	4	1	197	197	100	21.83	74.11	1.52	2.03	0.51
1,2-Dichloropropane	78-87-5	SO	EX SITU	Y	0.0017	0	0	0	0	0	0	76	0	0	0	0	0	0
1,2-Dichloropropane	78-87-5	SO	EX SITU	N	0.0017	18	54	0	1	3	76	76	100	23.68	71.05	0	1.32	3.95
1,2-Dichloropropane	78-87-5	GW	IN SITU	Y	0.16	0	0	0	0	0	0	20	0	0	0	0	0	0
1,2-Dichloropropane	78-87-5	GW	IN SITU	N	0.16	20	0	0	0	0	20	20	100	100	0	0	0	0
1,3,5-Trimethylbenzene	108-67-8	SO	IN SITU	Y	2.5	6	0	0	0	0	6	197	3.05	3.05	0	0	0	0
1,3,5-Trimethylbenzene	108-67-8	SO	IN SITU	N	2.5	190	1	0	0	0	191	197	96.95	96.45	0.51	0	0	0
1,3,5-Trimethylbenzene	108-67-8	SO	EX SITU	Y	2.5	0	0	1	1	0	2	76	2.63	0	0	1.32	1.32	0
1,3,5-Trimethylbenzene	108-67-8	SO	EX SITU	N	2.5	74	0	0	0	0	74	76	97.37	97.37	0	0	0	0
1,3,5-Trimethylbenzene	108-67-8	GW	IN SITU	Y	12	1	0	0	0	0	1	20	5	5	0	0	0	0
1,3,5-Trimethylbenzene	108-67-8	GW	IN SITU	N	12	19	0	0	0	0	19	20	95	95	0	0	0	0
1,3,5-Trinitrobenzene	99-35-4	SO	IN SITU	Y	1800	12	0	0	0	0	12	91	13.19	13.19	0	0	0	0
1,3,5-Trinitrobenzene	99-35-4	SO	IN SITU	N	1800	79	0	0	0	0	79	91	86.81	86.81	0	0	0	0
1,3,5-Trinitrobenzene	99-35-4	SO	EX SITU	Y	1800	26	0	0	0	0	26	64	40.63	40.63	0	0	0	0
1,3,5-Trinitrobenzene	99-35-4	SO	EX SITU	N	1800	38	0	0	0	0	38	64	59.38	59.38	0	0	0	0
1,3,5-Trinitrobenzene	99-35-4	GW	IN SITU	Y	1100	0	0	0	0	0	0	10	0	0	0	0	0	0
1,3,5-Trinitrobenzene	99-35-4	GW	IN SITU	N	1100	10	0	0	0	0	10	10	100	100	0	0	0	0
1,3-Dichlorobenzene	541-73-1	SO	IN SITU	Y	1.21	0	0	0	0	0	0	212	0	0	0	0	0	0
1,3-Dichlorobenzene	541-73-1	SO	IN SITU	N	1.21	211	1	0	0	0	212	212	100	99.53	0.47	0	0	0
1,3-Dichlorobenzene	541-73-1	SO	EX SITU	Y	1.21	0	0	0	0	0	0	85	0	0	0	0	0	0
1,3-Dichlorobenzene	541-73-1	SO	EX SITU	N	1.21	80	4	0	1	0	85	85	100	94.12	4.71	0	1.18	0
1,3-Dichlorobenzene	541-73-1	GW	IN SITU	Y	14	0	0	0	0	0	0	20	0	0	0	0	0	0
1,3-Dichlorobenzene	541-73-1	GW	IN SITU	N	14	20	0	0	0	0	20	20	100	100	0	0	0	0
1,3-Dinitrobenzene	99-65-0	SO	IN SITU	Y	6.1	0	0	0	0	0	0	91	0	0	0	0	0	0
1,3-Dinitrobenzene	99-65-0	SO	IN SITU	N	6.1	91	0	0	0	0	91	91	100	100	0	0	0	0
1,3-Dinitrobenzene	99-65-0	SO	EX SITU	Y	6.1	0	0	0	0	0	0	64	0	0	0	0	0	0
1,3-Dinitrobenzene	99-65-0	SO	EX SITU	N	6.1	64	0	0	0	0	64	64	100	100	0	0	0	0
1,3-Dinitrobenzene	99-65-0	GW	IN SITU	Y	3.7	0	1	0	0	0	1	10	10	0	10	0	0	0
1,3-Dinitrobenzene	99-65-0	GW	IN SITU	N	3.7	9	0	0	0	0	9	10	90	90	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
1,4-Dichlorobenzene	106-46-7	SO	IN SITU	Y	0.08	0	0	0	0	0	0	212	0	0	0	0	0	0
1,4-Dichlorobenzene	106-46-7	SO	IN SITU	N	0.08	204	3	5	0	0	212	212	100	96.23	1.42	2.36	0	0
1,4-Dichlorobenzene	106-46-7	SO	EX SITU	Y	0.08	0	0	0	0	0	0	85	0	0	0	0	0	0
1,4-Dichlorobenzene	106-46-7	SO	EX SITU	N	0.08	78	2	4	0	1	85	85	100	91.76	2.35	4.71	0	1.18
1,4-Dichlorobenzene	106-46-7	GW	IN SITU	Y	0.47	0	0	0	0	0	0	20	0	0	0	0	0	0
1,4-Dichlorobenzene	106-46-7	GW	IN SITU	N	0.47	20	0	0	0	0	20	20	100	100	0	0	0	0
1-Methylnaphthalene	90-12-0	SO	IN SITU	Y	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0
1-Methylnaphthalene	90-12-0	SO	IN SITU	N	4.3	0	0	0	0	0	0	0	0	0	0	0	0	0
1-Methylnaphthalene	90-12-0	SO	EX SITU	Y	4.3	0	1	0	0	0	1	1	100	0	100	0	0	0
1-Methylnaphthalene	90-12-0	SO	EX SITU	N	4.3	0	0	0	0	0	0	1	0	0	0	0	0	0
1-Methylnaphthalene	90-12-0	GW	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
1-Methylnaphthalene	90-12-0	GW	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
2,4,5-Trichlorophenol	95-95-4	SO	IN SITU	Y	9	0	0	0	0	0	0	174	0	0	0	0	0	0
2,4,5-Trichlorophenol	95-95-4	SO	IN SITU	N	9	171	3	0	0	0	174	174	100	98.28	1.72	0	0	0
2,4,5-Trichlorophenol	95-95-4	SO	EX SITU	Y	9	1	0	0	0	0	1	67	1.49	1.49	0	0	0	0
2,4,5-Trichlorophenol	95-95-4	SO	EX SITU	N	9	65	0	1	0	0	66	67	98.51	97.01	0	1.49	0	0
2,4,5-Trichlorophenol	95-95-4	GW	IN SITU	Y	365	0	0	0	0	0	0	20	0	0	0	0	0	0
2,4,5-Trichlorophenol	95-95-4	GW	IN SITU	N	365	20	0	0	0	0	20	20	100	100	0	0	0	0
2,4,6-Trichlorophenol	88-06-2	SO	IN SITU	Y	0.06	0	0	0	0	0	0	174	0	0	0	0	0	0
2,4,6-Trichlorophenol	88-06-2	SO	IN SITU	N	0.06	152	14	5	2	1	174	174	100	87.36	8.05	2.87	1.15	0.57
2,4,6-Trichlorophenol	88-06-2	SO	EX SITU	Y	0.06	0	0	0	0	0	0	67	0	0	0	0	0	0
2,4,6-Trichlorophenol	88-06-2	SO	EX SITU	N	0.06	57	3	6	0	1	67	67	100	85.07	4.48	8.96	0	1.49
2,4,6-Trichlorophenol	88-06-2	GW	IN SITU	Y	6.1	0	0	0	0	0	0	20	0	0	0	0	0	0
2,4,6-Trichlorophenol	88-06-2	GW	IN SITU	N	6.1	20	0	0	0	0	20	20	100	100	0	0	0	0
2,4,6-Trinitrotoluene	118-96-7	SO	IN SITU	Y	16	0	0	0	0	0	0	91	0	0	0	0	0	0
2,4,6-Trinitrotoluene	118-96-7	SO	IN SITU	N	16	91	0	0	0	0	91	91	100	100	0	0	0	0
2,4,6-Trinitrotoluene	118-96-7	SO	EX SITU	Y	16	0	0	0	0	0	0	64	0	0	0	0	0	0
2,4,6-Trinitrotoluene	118-96-7	SO	EX SITU	N	16	64	0	0	0	0	64	64	100	100	0	0	0	0
2,4,6-Trinitrotoluene	118-96-7	GW	IN SITU	Y	2.2	0	0	0	0	0	0	10	0	0	0	0	0	0
2,4,6-Trinitrotoluene	118-96-7	GW	IN SITU	N	2.2	10	0	0	0	0	10	10	100	100	0	0	0	0
2,4-D	94-75-7	SO	IN SITU	Y	690	0	0	0	0	0	0	68	0	0	0	0	0	0
2,4-D	94-75-7	SO	IN SITU	N	690	68	0	0	0	0	68	68	100	100	0	0	0	0
2,4-D	94-75-7	SO	EX SITU	Y	690	0	0	0	0	0	0	8	0	0	0	0	0	0
2,4-D	94-75-7	SO	EX SITU	N	690	8	0	0	0	0	8	8	100	100	0	0	0	0
2,4-D	94-75-7	GW	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
2,4-D	94-75-7	GW	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
2,4-DB	94-82-6	SO	IN SITU	Y	490	0	0	0	0	0	0	68	0	0	0	0	0	0
2,4-DB	94-82-6	SO	IN SITU	N	490	68	0	0	0	0	68	68	100	100	0	0	0	0
2,4-DB	94-82-6	SO	EX SITU	Y	490	0	0	0	0	0	0	8	0	0	0	0	0	0
2,4-DB	94-82-6	SO	EX SITU	N	490	8	0	0	0	0	8	8	100	100	0	0	0	0
2,4-DB	94-82-6	GW	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
2,4-DB	94-82-6	GW	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
2,4-Dichlorophenol	120-83-2	SO	IN SITU	Y	0.045	0	0	0	0	0	0	174	0	0	0	0	0	0
2,4-Dichlorophenol	120-83-2	SO	IN SITU	N	0.045	145	21	5	1	2	174	174	100	83.33	12.07	2.87	0.57	1.15
2,4-Dichlorophenol	120-83-2	SO	EX SITU	Y	0.045	0	0	0	0	0	0	67	0	0	0	0	0	0
2,4-Dichlorophenol	120-83-2	SO	EX SITU	N	0.045	57	2	7	0	1	67	67	100	85.07	2.99	10.45	0	1.49
2,4-Dichlorophenol	120-83-2	GW	IN SITU	Y	10	0	0	0	0	0	0	20	0	0	0	0	0	0
2,4-Dichlorophenol	120-83-2	GW	IN SITU	N	10	20	0	0	0	0	20	20	100	100	0	0	0	0
2,4-Dimethylphenol	105-67-9	SO	IN SITU	Y	0.4	0	0	0	0	0	0	174	0	0	0	0	0	0
2,4-Dimethylphenol	105-67-9	SO	IN SITU	N	0.4	155	11	5	3	0	174	174	100	89.08	6.32	2.87	1.72	0
2,4-Dimethylphenol	105-67-9	SO	EX SITU	Y	0.4	0	0	0	0	0	0	67	0	0	0	0	0	0
2,4-Dimethylphenol	105-67-9	SO	EX SITU	N	0.4	58	2	6	1	0	67	67	100	86.57	2.99	8.96	1.49	0
2,4-Dimethylphenol	105-67-9	GW	IN SITU	Y	70	0	0	0	0	0	0	20	0	0	0	0	0	0
2,4-Dimethylphenol	105-67-9	GW	IN SITU	N	70	20	0	0	0	0	20	20	100	100	0	0	0	0
2,4-Dinitrophenol	51-28-5	SO	IN SITU	Y	0.02	0	0	0	0	0	0	173	0	0	0	0	0	0
2,4-Dinitrophenol	51-28-5	SO	IN SITU	N	0.02	0	3	148	18	4	173	173	100	0	1.73	85.55	10.4	2.31
2,4-Dinitrophenol	51-28-5	SO	EX SITU	Y	0.02	0	0	0	0	0	0	67	0	0	0	0	0	0
2,4-Dinitrophenol	51-28-5	SO	EX SITU	N	0.02	0	18	41	3	5	67	67	100	0	26.87	61.19	4.48	7.46
2,4-Dinitrophenol	51-28-5	GW	IN SITU	Y	7	0	0	0	0	0	0	20	0	0	0	0	0	0
2,4-Dinitrophenol	51-28-5	GW	IN SITU	N	7	0	20	0	0	0	20	20	100	0	100	0	0	0
2,4-Dinitrotoluene	121-14-2	SO	IN SITU	Y	0.0005	0	0	0	0	0	0	178	0	0	0	0	0	0
2,4-Dinitrotoluene	121-14-2	SO	IN SITU	N	0.0005	0	3	155	15	5	178	178	100	0	1.69	87.08	8.43	2.81
2,4-Dinitrotoluene	121-14-2	SO	EX SITU	Y	0.0005	0	0	0	0	0	0	76	0	0	0	0	0	0
2,4-Dinitrotoluene	121-14-2	SO	EX SITU	N	0.0005	0	18	49	2	7	76	76	100	0	23.68	64.47	2.63	9.21
2,4-Dinitrotoluene	121-14-2	GW	IN SITU	Y	0.125	0	1	0	0	0	1	20	5	0	5	0	0	0
2,4-Dinitrotoluene	121-14-2	GW	IN SITU	N	0.125	7	6	6	0	0	19	20	95	35	30	30	0	0
2,6-Dinitrotoluene	606-20-2	SO	IN SITU	Y	0.00044	0	0	0	0	0	0	178	0	0	0	0	0	0
2,6-Dinitrotoluene	606-20-2	SO	IN SITU	N	0.00044	0	3	150	19	6	178	178	100	0	1.69	84.27	10.67	3.37
2,6-Dinitrotoluene	606-20-2	SO	EX SITU	Y	0.00044	0	0	2	1	0	3	76	3.95	0	0	2.63	1.32	0
2,6-Dinitrotoluene	606-20-2	SO	EX SITU	N	0.00044	0	17	47	1	8	73	76	96.05	0	22.37	61.84	1.32	10.53
2,6-Dinitrotoluene	606-20-2	GW	IN SITU	Y	0.125	0	0	1	0	0	1	20	5	0	0	5	0	0
2,6-Dinitrotoluene	606-20-2	GW	IN SITU	N	0.125	7	6	6	0	0	19	20	95	35	30	30	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
2-Butanone	78-93-3	SO	IN SITU	Y	6	10	1	0	0	0	11	197	5.58	5.08	0.51	0	0	0
2-Butanone	78-93-3	SO	IN SITU	N	6	183	2	1	0	0	186	197	94.42	92.89	1.02	0.51	0	0
2-Butanone	78-93-3	SO	EX SITU	Y	6	5	0	1	0	0	6	76	7.89	6.58	0	1.32	0	0
2-Butanone	78-93-3	SO	EX SITU	N	6	68	2	0	0	0	70	76	92.11	89.47	2.63	0	0	0
2-Butanone	78-93-3	GW	IN SITU	Y	2200	1	0	0	0	0	1	20	5	5	0	0	0	0
2-Butanone	78-93-3	GW	IN SITU	N	2200	19	0	0	0	0	19	20	95	95	0	0	0	0
2-Chloronaphthalene	91-58-7	SO	IN SITU	Y	7	0	0	0	0	0	0	174	0	0	0	0	0	0
2-Chloronaphthalene	91-58-7	SO	IN SITU	N	7	171	2	1	0	0	174	174	100	98.28	1.15	0.57	0	0
2-Chloronaphthalene	91-58-7	SO	EX SITU	Y	7	0	0	0	0	0	0	67	0	0	0	0	0	0
2-Chloronaphthalene	91-58-7	SO	EX SITU	N	7	66	0	1	0	0	67	67	100	98.51	0	1.49	0	0
2-Chloronaphthalene	91-58-7	GW	IN SITU	Y	290	0	0	0	0	0	0	20	0	0	0	0	0	0
2-Chloronaphthalene	91-58-7	GW	IN SITU	N	290	20	0	0	0	0	20	20	100	100	0	0	0	0
2-Chlorophenol	95-57-8	SO	IN SITU	Y	0.14	0	0	0	0	0	0	174	0	0	0	0	0	0
2-Chlorophenol	95-57-8	SO	IN SITU	N	0.14	154	17	0	3	0	174	174	100	88.51	9.77	0	1.72	0
2-Chlorophenol	95-57-8	SO	EX SITU	Y	0.14	0	0	0	0	0	0	67	0	0	0	0	0	0
2-Chlorophenol	95-57-8	SO	EX SITU	N	0.14	59	5	2	0	1	67	67	100	88.06	7.46	2.99	0	1.49
2-Chlorophenol	95-57-8	GW	IN SITU	Y	20	0	0	0	0	0	0	20	0	0	0	0	0	0
2-Chlorophenol	95-57-8	GW	IN SITU	N	20	20	0	0	0	0	20	20	100	100	0	0	0	0
2-Chlorotoluene	95-49-8	SO	IN SITU	Y	160	0	0	0	0	0	0	197	0	0	0	0	0	0
2-Chlorotoluene	95-49-8	SO	IN SITU	N	160	197	0	0	0	0	197	197	100	100	0	0	0	0
2-Chlorotoluene	95-49-8	SO	EX SITU	Y	160	1	0	0	0	0	1	76	1.32	1.32	0	0	0	0
2-Chlorotoluene	95-49-8	SO	EX SITU	N	160	75	0	0	0	0	75	76	98.68	98.68	0	0	0	0
2-Chlorotoluene	95-49-8	GW	IN SITU	Y	120	0	0	0	0	0	0	20	0	0	0	0	0	0
2-Chlorotoluene	95-49-8	GW	IN SITU	N	120	20	0	0	0	0	20	20	100	100	0	0	0	0
2-Methylnaphthalene	91-57-6	SO	IN SITU	Y	6.09	2	0	0	0	0	2	174	1.15	1.15	0	0	0	0
2-Methylnaphthalene	91-57-6	SO	IN SITU	N	6.09	169	2	1	0	0	172	174	98.85	97.13	1.15	0.57	0	0
2-Methylnaphthalene	91-57-6	SO	EX SITU	Y	6.09	0	0	2	0	0	2	67	2.99	0	0	2.99	0	0
2-Methylnaphthalene	91-57-6	SO	EX SITU	N	6.09	64	0	1	0	0	65	67	97.01	95.52	0	1.49	0	0
2-Methylnaphthalene	91-57-6	GW	IN SITU	Y	78	0	0	0	0	0	0	20	0	0	0	0	0	0
2-Methylnaphthalene	91-57-6	GW	IN SITU	N	78	20	0	0	0	0	20	20	100	100	0	0	0	0
2-Methylphenol (o-Cresol)	95-48-7	SO	IN SITU	Y	0.7	0	0	0	0	0	0	174	0	0	0	0	0	0
2-Methylphenol (o-Cresol)	95-48-7	SO	IN SITU	N	0.7	166	5	2	1	0	174	174	100	95.4	2.87	1.15	0.57	0
2-Methylphenol (o-Cresol)	95-48-7	SO	EX SITU	Y	0.7	0	0	0	0	0	0	67	0	0	0	0	0	0
2-Methylphenol (o-Cresol)	95-48-7	SO	EX SITU	N	0.7	60	6	0	1	0	67	67	100	89.55	8.96	0	1.49	0
2-Methylphenol (o-Cresol)	95-48-7	GW	IN SITU	Y	180	0	0	0	0	0	0	20	0	0	0	0	0	0
2-Methylphenol (o-Cresol)	95-48-7	GW	IN SITU	N	180	20	0	0	0	0	20	20	100	100	0	0	0	0

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
2-Nitroaniline	88-74-4	SO	IN SITU	Y	180	0	0	0	0	0	0	174	0	0	0	0	0	0
2-Nitroaniline	88-74-4	SO	IN SITU	N	180	174	0	0	0	0	174	174	100	100	0	0	0	0
2-Nitroaniline	88-74-4	SO	EX SITU	Y	180	0	0	0	0	0	0	67	0	0	0	0	0	0
2-Nitroaniline	88-74-4	SO	EX SITU	N	180	66	1	0	0	0	67	67	100	98.51	1.49	0	0	0
2-Nitroaniline	88-74-4	GW	IN SITU	Y	110	0	0	0	0	0	0	20	0	0	0	0	0	0
2-Nitroaniline	88-74-4	GW	IN SITU	N	110	20	0	0	0	0	20	20	100	100	0	0	0	0
2-Nitrotoluene	88-72-2	SO	IN SITU	Y	2.8	0	0	0	0	0	0	91	0	0	0	0	0	0
2-Nitrotoluene	88-72-2	SO	IN SITU	N	2.8	91	0	0	0	0	91	91	100	100	0	0	0	0
2-Nitrotoluene	88-72-2	SO	EX SITU	Y	2.8	0	0	0	0	0	0	64	0	0	0	0	0	0
2-Nitrotoluene	88-72-2	SO	EX SITU	N	2.8	64	0	0	0	0	64	64	100	100	0	0	0	0
2-Nitrotoluene	88-72-2	GW	IN SITU	Y	0.29	0	0	0	0	0	0	10	0	0	0	0	0	0
2-Nitrotoluene	88-72-2	GW	IN SITU	N	0.29	7	3	0	0	0	10	10	100	70	30	0	0	0
3,3'-Dichlorobenzidine	91-94-1	SO	IN SITU	Y	0.002	0	0	0	0	0	0	174	0	0	0	0	0	0
3,3'-Dichlorobenzidine	91-94-1	SO	IN SITU	N	0.002	0	3	135	26	10	174	174	100	0	1.72	77.59	14.94	5.75
3,3'-Dichlorobenzidine	91-94-1	SO	EX SITU	Y	0.002	0	0	1	0	0	1	67	1.49	0	0	1.49	0	0
3,3'-Dichlorobenzidine	91-94-1	SO	EX SITU	N	0.002	0	17	39	2	8	66	67	98.51	0	25.37	58.21	2.99	11.94
3,3'-Dichlorobenzidine	91-94-1	GW	IN SITU	Y	0.15	0	0	0	0	0	0	20	0	0	0	0	0	0
3,3'-Dichlorobenzidine	91-94-1	GW	IN SITU	N	0.15	0	0	20	0	0	20	20	100	0	0	100	0	0
3-Nitrotoluene	99-08-1	SO	IN SITU	Y	1600	1	0	0	0	0	1	91	1.1	1.1	0	0	0	0
3-Nitrotoluene	99-08-1	SO	IN SITU	N	1600	90	0	0	0	0	90	91	98.9	98.9	0	0	0	0
3-Nitrotoluene	99-08-1	SO	EX SITU	Y	1600	2	0	0	0	0	2	64	3.13	3.13	0	0	0	0
3-Nitrotoluene	99-08-1	SO	EX SITU	N	1600	62	0	0	0	0	62	64	96.88	96.88	0	0	0	0
3-Nitrotoluene	99-08-1	GW	IN SITU	Y	120	1	0	0	0	0	1	10	10	10	0	0	0	0
3-Nitrotoluene	99-08-1	GW	IN SITU	N	120	9	0	0	0	0	9	10	90	90	0	0	0	0
4,4'-DDD	72-54-8	SO	IN SITU	Y	2.4	61	1	0	0	0	62	158	39.24	38.61	0.63	0	0	0
4,4'-DDD	72-54-8	SO	IN SITU	N	2.4	96	0	0	0	0	96	158	60.76	60.76	0	0	0	0
4,4'-DDD	72-54-8	SO	EX SITU	Y	2.4	51	1	0	0	0	52	57	91.23	89.47	1.75	0	0	0
4,4'-DDD	72-54-8	SO	EX SITU	N	2.4	5	0	0	0	0	5	57	8.77	8.77	0	0	0	0
4,4'-DDD	72-54-8	GW	IN SITU	Y	0.28	0	0	0	0	0	0	20	0	0	0	0	0	0
4,4'-DDD	72-54-8	GW	IN SITU	N	0.28	20	0	0	0	0	20	20	100	100	0	0	0	0
4,4'-DDE	72-55-9	SO	IN SITU	Y	1.7	63	1	0	0	0	64	151	42.38	41.72	0.66	0	0	0
4,4'-DDE	72-55-9	SO	IN SITU	N	1.7	87	0	0	0	0	87	151	57.62	57.62	0	0	0	0
4,4'-DDE	72-55-9	SO	EX SITU	Y	1.7	51	0	0	0	0	51	57	89.47	89.47	0	0	0	0
4,4'-DDE	72-55-9	SO	EX SITU	N	1.7	6	0	0	0	0	6	57	10.53	10.53	0	0	0	0
4,4'-DDE	72-55-9	GW	IN SITU	Y	0.2	1	0	0	0	0	1	20	5	5	0	0	0	0
4,4'-DDE	72-55-9	GW	IN SITU	N	0.2	19	0	0	0	0	19	20	95	95	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	CAS Number	Matrix	In Situ or Ex Situ?	Was Analyte Detected?	Screening Level (mg/kg or µg/L)	Blue Count (<=1*SL)	Green Count (>1*SL & <=10*SL)	Yellow Count (>10*SL & <=100*SL)	Orange Count (>100*SL & <=1000*SL)	Red Count (>1000*SL)	Total Count: Detect+ Non-detect	Total Count: In Situ Soil; Ex Situ Soil; Groundwater	Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups	Percent Blue	Percent Green	Percent Yellow	Percent Orange	Percent Red
4,4'-DDT	50-29-3	SO	IN SITU	Y	1.7	89	1	1	0	0	91	157	57.96	56.69	0.64	0.64	0	0
4,4'-DDT	50-29-3	SO	IN SITU	N	1.7	66	0	0	0	0	66	157	42.04	42.04	0	0	0	0
4,4'-DDT	50-29-3	SO	EX SITU	Y	1.7	52	0	1	0	0	53	57	92.98	91.23	0	1.75	0	0
4,4'-DDT	50-29-3	SO	EX SITU	N	1.7	4	0	0	0	0	4	57	7.02	7.02	0	0	0	0
4,4'-DDT	50-29-3	GW	IN SITU	Y	0.2	1	0	0	0	0	1	20	5	5	0	0	0	0
4,4'-DDT	50-29-3	GW	IN SITU	N	0.2	19	0	0	0	0	19	20	95	95	0	0	0	0
4-Chloro-3-methylphenol	59-50-7	SO	IN SITU	Y	310	0	0	0	0	0	0	148	0	0	0	0	0	0
4-Chloro-3-methylphenol	59-50-7	SO	IN SITU	N	310	148	0	0	0	0	148	148	100	100	0	0	0	0
4-Chloro-3-methylphenol	59-50-7	SO	EX SITU	Y	310	1	0	0	0	0	1	62	1.61	1.61	0	0	0	0
4-Chloro-3-methylphenol	59-50-7	SO	EX SITU	N	310	60	1	0	0	0	61	62	98.39	96.77	1.61	0	0	0
4-Chloro-3-methylphenol	59-50-7	GW	IN SITU	Y	180	0	0	0	0	0	0	20	0	0	0	0	0	0
4-Chloro-3-methylphenol	59-50-7	GW	IN SITU	N	180	20	0	0	0	0	20	20	100	100	0	0	0	0
4-Chloroaniline	106-47-8	SO	IN SITU	Y	0.05	0	0	0	0	0	0	174	0	0	0	0	0	0
4-Chloroaniline	106-47-8	SO	IN SITU	N	0.05	151	13	7	1	2	174	174	100	86.78	7.47	4.02	0.57	1.15
4-Chloroaniline	106-47-8	SO	EX SITU	Y	0.05	0	0	0	0	0	0	67	0	0	0	0	0	0
4-Chloroaniline	106-47-8	SO	EX SITU	N	0.05	57	2	5	2	1	67	67	100	85.07	2.99	7.46	2.99	1.49
4-Chloroaniline	106-47-8	GW	IN SITU	Y	15	0	0	0	0	0	0	20	0	0	0	0	0	0
4-Chloroaniline	106-47-8	GW	IN SITU	N	15	20	0	0	0	0	20	20	100	100	0	0	0	0
4-Nitrophenol	100-02-7	SO	IN SITU	Y	490	0	0	0	0	0	0	176	0	0	0	0	0	0
4-Nitrophenol	100-02-7	SO	IN SITU	N	490	176	0	0	0	0	176	176	100	100	0	0	0	0
4-Nitrophenol	100-02-7	SO	EX SITU	Y	490	1	0	0	0	0	1	67	1.49	1.49	0	0	0	0
4-Nitrophenol	100-02-7	SO	EX SITU	N	490	65	1	0	0	0	66	67	98.51	97.01	1.49	0	0	0
4-Nitrophenol	100-02-7	GW	IN SITU	Y	290	0	0	0	0	0	0	20	0	0	0	0	0	0
4-Nitrophenol	100-02-7	GW	IN SITU	N	290	20	0	0	0	0	20	20	100	100	0	0	0	0
4-Nitrotoluene	99-99-0	SO	IN SITU	Y	38	1	0	0	0	0	1	91	1.1	1.1	0	0	0	0
4-Nitrotoluene	99-99-0	SO	IN SITU	N	38	90	0	0	0	0	90	91	98.9	98.9	0	0	0	0
4-Nitrotoluene	99-99-0	SO	EX SITU	Y	38	0	0	0	0	0	0	64	0	0	0	0	0	0
4-Nitrotoluene	99-99-0	SO	EX SITU	N	38	64	0	0	0	0	64	64	100	100	0	0	0	0
4-Nitrotoluene	99-99-0	GW	IN SITU	Y	4	2	0	0	0	0	2	10	20	20	0	0	0	0
4-Nitrotoluene	99-99-0	GW	IN SITU	N	4	8	0	0	0	0	8	10	80	80	0	0	0	0
Acenaphthene	83-32-9	SO	IN SITU	Y	21	2	0	0	0	0	2	174	1.15	1.15	0	0	0	0
Acenaphthene	83-32-9	SO	IN SITU	N	21	169	3	0	0	0	172	174	98.85	97.13	1.72	0	0	0
Acenaphthene	83-32-9	SO	EX SITU	Y	21	1	0	0	0	0	1	67	1.49	1.49	0	0	0	0
Acenaphthene	83-32-9	SO	EX SITU	N	21	65	0	1	0	0	66	67	98.51	97.01	0	1.49	0	0
Acenaphthene	83-32-9	GW	IN SITU	Y	220	1	0	0	0	0	1	20	5	5	0	0	0	0
Acenaphthene	83-32-9	GW	IN SITU	N	220	19	0	0	0	0	19	20	95	95	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Acenaphthylene	208-96-8	SO	IN SITU	Y	21	0	0	0	0	0	0	174	0	0	0	0	0	0
Acenaphthylene	208-96-8	SO	IN SITU	N	21	171	3	0	0	0	174	174	100	98.28	1.72	0	0	0
Acenaphthylene	208-96-8	SO	EX SITU	Y	21	0	0	0	0	0	0	67	0	0	0	0	0	0
Acenaphthylene	208-96-8	SO	EX SITU	N	21	66	0	1	0	0	67	67	100	98.51	0	1.49	0	0
Acenaphthylene	208-96-8	GW	IN SITU	Y	220	0	0	0	0	0	0	20	0	0	0	0	0	0
Acenaphthylene	208-96-8	GW	IN SITU	N	220	20	0	0	0	0	20	20	100	100	0	0	0	0
Acetone	67-64-1	SO	IN SITU	Y	1	26	7	0	0	0	33	197	16.75	13.2	3.55	0	0	0
Acetone	67-64-1	SO	IN SITU	N	1	159	4	1	0	0	164	197	83.25	80.71	2.03	0.51	0	0
Acetone	67-64-1	SO	EX SITU	Y	1	22	0	0	0	0	22	76	28.95	28.95	0	0	0	0
Acetone	67-64-1	SO	EX SITU	N	1	50	1	3	0	0	54	76	71.05	65.79	1.32	3.95	0	0
Acetone	67-64-1	GW	IN SITU	Y	365	2	0	0	0	0	2	20	10	10	0	0	0	0
Acetone	67-64-1	GW	IN SITU	N	365	18	0	0	0	0	18	20	90	90	0	0	0	0
Aldrin	309-00-2	SO	IN SITU	Y	0.029	1	0	0	0	0	1	135	0.74	0.74	0	0	0	0
Aldrin	309-00-2	SO	IN SITU	N	0.029	134	0	0	0	0	134	135	99.26	99.26	0	0	0	0
Aldrin	309-00-2	SO	EX SITU	Y	0.029	7	0	0	0	0	7	57	12.28	12.28	0	0	0	0
Aldrin	309-00-2	SO	EX SITU	N	0.029	50	0	0	0	0	50	57	87.72	87.72	0	0	0	0
Aldrin	309-00-2	GW	IN SITU	Y	0.0043	0	0	0	0	0	0	20	0	0	0	0	0	0
Aldrin	309-00-2	GW	IN SITU	N	0.0043	12	8	0	0	0	20	20	100	60	40	0	0	0
alpha-BHC	319-84-6	SO	IN SITU	Y	0.00026	0	1	0	0	0	1	142	0.7	0	0.7	0	0	0
alpha-BHC	319-84-6	SO	IN SITU	N	0.00026	97	41	3	0	0	141	142	99.3	68.31	28.87	2.11	0	0
alpha-BHC	319-84-6	SO	EX SITU	Y	0.00026	0	5	1	0	0	6	57	10.53	0	8.77	1.75	0	0
alpha-BHC	319-84-6	SO	EX SITU	N	0.00026	20	26	5	0	0	51	57	89.47	35.09	45.61	8.77	0	0
alpha-BHC	319-84-6	GW	IN SITU	Y	0.01	0	0	0	0	0	0	20	0	0	0	0	0	0
alpha-BHC	319-84-6	GW	IN SITU	N	0.01	18	2	0	0	0	20	20	100	90	10	0	0	0
Aluminum	7429-90-5	SO	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
Aluminum	7429-90-5	SO	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
Aluminum	7429-90-5	SO	EX SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
Aluminum	7429-90-5	SO	EX SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
Aluminum	7429-90-5	GW	IN SITU	Y	37000	4	0	0	0	0	4	20	20	20	0	0	0	0
Aluminum	7429-90-5	GW	IN SITU	N	37000	16	0	0	0	0	16	20	80	80	0	0	0	0
Anthracene	120-12-7	SO	IN SITU	Y	430	1	0	0	0	0	1	174	0.57	0.57	0	0	0	0
Anthracene	120-12-7	SO	IN SITU	N	430	173	0	0	0	0	173	174	99.43	99.43	0	0	0	0
Anthracene	120-12-7	SO	EX SITU	Y	430	2	0	0	0	0	2	67	2.99	2.99	0	0	0	0
Anthracene	120-12-7	SO	EX SITU	N	430	65	0	0	0	0	65	67	97.01	97.01	0	0	0	0
Anthracene	120-12-7	GW	IN SITU	Y	1100	0	0	0	0	0	0	20	0	0	0	0	0	0
Anthracene	120-12-7	GW	IN SITU	N	1100	20	0	0	0	0	20	20	100	100	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Antimony	7440-36-0	SO	IN SITU	Y	0.36	55	23	1	0	0	79	129	61.24	42.64	17.83	0.78	0	0
Antimony	7440-36-0	SO	IN SITU	N	0.36	50	0	0	0	0	50	129	38.76	38.76	0	0	0	0
Antimony	7440-36-0	SO	EX SITU	Y	0.36	29	19	1	1	0	50	71	70.42	40.85	26.76	1.41	1.41	0
Antimony	7440-36-0	SO	EX SITU	N	0.36	19	2	0	0	0	21	71	29.58	26.76	2.82	0	0	0
Antimony	7440-36-0	GW	IN SITU	Y	0.6	0	0	0	0	0	0	20	0	0	0	0	0	0
Antimony	7440-36-0	GW	IN SITU	N	0.6	6	14	0	0	0	20	20	100	30	70	0	0	0
Arsenic	7440-38-2	SO	IN SITU	Y	16.63	177	4	0	0	0	181	181	100	97.79	2.21	0	0	0
Arsenic	7440-38-2	SO	IN SITU	N	16.63	0	0	0	0	0	0	181	0	0	0	0	0	0
Arsenic	7440-38-2	SO	EX SITU	Y	16.63	78	1	0	0	0	79	81	97.53	97.53	1.23	0	0	0
Arsenic	7440-38-2	SO	EX SITU	N	16.63	2	0	0	0	0	2	81	2.47	2.47	0	0	0	0
Arsenic	7440-38-2	GW	IN SITU	Y	77.3	20	0	0	0	0	20	20	100	100	0	0	0	0
Arsenic	7440-38-2	GW	IN SITU	N	77.3	0	0	0	0	0	0	20	0	0	0	0	0	0
Barium	7440-39-3	SO	IN SITU	Y	110	137	44	0	0	0	181	181	100	75.69	24.31	0	0	0
Barium	7440-39-3	SO	IN SITU	N	110	0	0	0	0	0	0	181	0	0	0	0	0	0
Barium	7440-39-3	SO	EX SITU	Y	110	62	16	1	0	0	79	81	97.53	76.54	19.75	1.23	0	0
Barium	7440-39-3	SO	EX SITU	N	110	2	0	0	0	0	2	81	2.47	2.47	0	0	0	0
Barium	7440-39-3	GW	IN SITU	Y	200	18	2	0	0	0	20	20	100	90	10	0	0	0
Barium	7440-39-3	GW	IN SITU	N	200	0	0	0	0	0	0	20	0	0	0	0	0	0
Benzene	71-43-2	SO	IN SITU	Y	0.002	2	27	0	1	0	30	241	12.45	0.83	11.2	0	0.41	0
Benzene	71-43-2	SO	IN SITU	N	0.002	162	43	2	3	1	211	241	87.55	67.22	17.84	0.83	1.24	0.41
Benzene	71-43-2	SO	EX SITU	Y	0.002	3	3	0	0	0	6	85	7.06	3.53	3.53	0	0	0
Benzene	71-43-2	SO	EX SITU	N	0.002	35	40	1	2	1	79	85	92.94	41.18	47.06	1.18	2.35	1.18
Benzene	71-43-2	GW	IN SITU	Y	0.35	0	0	0	0	0	0	20	0	0	0	0	0	0
Benzene	71-43-2	GW	IN SITU	N	0.35	20	0	0	0	0	20	20	100	100	0	0	0	0
Benzo(a)anthracene	56-55-3	SO	IN SITU	Y	0.15	4	1	0	0	0	5	174	2.87	2.3	0.57	0	0	0
Benzo(a)anthracene	56-55-3	SO	IN SITU	N	0.15	148	18	0	3	0	169	174	97.13	85.06	10.34	0	1.72	0
Benzo(a)anthracene	56-55-3	SO	EX SITU	Y	0.15	7	0	0	0	0	7	67	10.45	10.45	0	0	0	0
Benzo(a)anthracene	56-55-3	SO	EX SITU	N	0.15	52	5	2	0	1	60	67	89.55	77.61	7.46	2.99	0	1.49
Benzo(a)anthracene	56-55-3	GW	IN SITU	Y	0.03	0	0	0	0	0	0	20	0	0	0	0	0	0
Benzo(a)anthracene	56-55-3	GW	IN SITU	N	0.03	0	0	20	0	0	20	20	100	0	0	100	0	0
Benzo(a)pyrene	50-32-8	SO	IN SITU	Y	0.015	0	2	1	0	0	3	174	1.72	0	1.15	0.57	0	0
Benzo(a)pyrene	50-32-8	SO	IN SITU	N	0.015	111	38	19	0	3	171	174	98.28	63.79	21.84	10.92	0	1.72
Benzo(a)pyrene	50-32-8	SO	EX SITU	Y	0.015	3	1	0	1	0	5	67	7.46	4.48	1.49	0	1.49	0
Benzo(a)pyrene	50-32-8	SO	EX SITU	N	0.015	53	2	4	2	1	62	67	92.54	79.1	2.99	5.97	2.99	1.49
Benzo(a)pyrene	50-32-8	GW	IN SITU	Y	0.003	0	0	0	0	0	0	20	0	0	0	0	0	0
Benzo(a)pyrene	50-32-8	GW	IN SITU	N	0.003	0	0	0	20	0	20	20	100	0	0	0	100	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Benzo(b)fluoranthene	205-99-2	SO	IN SITU	Y	0.15	0	1	0	0	0	1	174	0.57	0	0.57	0	0	0
Benzo(b)fluoranthene	205-99-2	SO	IN SITU	N	0.15	151	19	0	3	0	173	174	99.43	86.78	10.92	0	1.72	0
Benzo(b)fluoranthene	205-99-2	SO	EX SITU	Y	0.15	4	0	0	0	0	4	66	6.06	6.06	0	0	0	0
Benzo(b)fluoranthene	205-99-2	SO	EX SITU	N	0.15	55	4	2	0	1	62	66	93.94	83.33	6.06	3.03	0	1.52
Benzo(b)fluoranthene	205-99-2	GW	IN SITU	Y	0.03	0	0	0	0	0	0	20	0	0	0	0	0	0
Benzo(b)fluoranthene	205-99-2	GW	IN SITU	N	0.03	0	0	20	0	0	20	20	100	0	0	100	0	0
Benzo(g,h,i)perylene	191-24-2	SO	IN SITU	Y	1.5	1	0	0	0	0	1	174	0.57	0.57	0	0	0	0
Benzo(g,h,i)perylene	191-24-2	SO	IN SITU	N	1.5	170	0	3	0	0	173	174	99.43	97.7	0	1.72	0	0
Benzo(g,h,i)perylene	191-24-2	SO	EX SITU	Y	1.5	2	1	0	0	0	3	67	4.48	2.99	1.49	0	0	0
Benzo(g,h,i)perylene	191-24-2	SO	EX SITU	N	1.5	61	2	0	1	0	64	67	95.52	91.04	2.99	0	1.49	0
Benzo(g,h,i)perylene	191-24-2	GW	IN SITU	Y	0.3	0	2	0	0	0	2	20	10	0	10	0	0	0
Benzo(g,h,i)perylene	191-24-2	GW	IN SITU	N	0.3	12	6	0	0	0	18	20	90	60	30	0	0	0
Benzo(k)fluoranthene	207-08-9	SO	IN SITU	Y	11	3	0	0	0	0	3	174	1.72	1.72	0	0	0	0
Benzo(k)fluoranthene	207-08-9	SO	IN SITU	N	11	168	3	0	0	0	171	174	98.28	96.55	1.72	0	0	0
Benzo(k)fluoranthene	207-08-9	SO	EX SITU	Y	11	4	0	0	0	0	4	66	6.06	6.06	0	0	0	0
Benzo(k)fluoranthene	207-08-9	SO	EX SITU	N	11	61	0	1	0	0	62	66	93.94	92.42	0	1.52	0	0
Benzo(k)fluoranthene	207-08-9	GW	IN SITU	Y	1	0	0	0	0	0	0	20	0	0	0	0	0	0
Benzo(k)fluoranthene	207-08-9	GW	IN SITU	N	1	14	6	0	0	0	20	20	100	70	30	0	0	0
Benzoic acid	65-85-0	SO	IN SITU	Y	39	1	0	0	0	0	1	148	0.68	0.68	0	0	0	0
Benzoic acid	65-85-0	SO	IN SITU	N	39	144	3	0	0	0	147	148	99.32	97.3	2.03	0	0	0
Benzoic acid	65-85-0	SO	EX SITU	Y	39	4	0	0	0	0	4	62	6.45	6.45	0	0	0	0
Benzoic acid	65-85-0	SO	EX SITU	N	39	57	0	1	0	0	58	62	93.55	91.94	0	1.61	0	0
Benzoic acid	65-85-0	GW	IN SITU	Y	14600	0	0	0	0	0	0	15	0	0	0	0	0	0
Benzoic acid	65-85-0	GW	IN SITU	N	14600	15	0	0	0	0	15	15	100	100	0	0	0	0
Benzyl alcohol	100-51-6	SO	IN SITU	Y	18000	0	0	0	0	0	0	148	0	0	0	0	0	0
Benzyl alcohol	100-51-6	SO	IN SITU	N	18000	148	0	0	0	0	148	148	100	100	0	0	0	0
Benzyl alcohol	100-51-6	SO	EX SITU	Y	18000	1	0	0	0	0	1	61	1.64	1.64	0	0	0	0
Benzyl alcohol	100-51-6	SO	EX SITU	N	18000	60	0	0	0	0	60	61	98.36	98.36	0	0	0	0
Benzyl alcohol	100-51-6	GW	IN SITU	Y	11000	0	0	0	0	0	0	20	0	0	0	0	0	0
Benzyl alcohol	100-51-6	GW	IN SITU	N	11000	20	0	0	0	0	20	20	100	100	0	0	0	0
Benzyl butyl phthalate	85-68-7	SO	IN SITU	Y	240	2	0	0	0	0	2	174	1.15	1.15	0	0	0	0
Benzyl butyl phthalate	85-68-7	SO	IN SITU	N	240	172	0	0	0	0	172	174	98.85	98.85	0	0	0	0
Benzyl butyl phthalate	85-68-7	SO	EX SITU	Y	240	4	0	0	0	0	4	67	5.97	5.97	0	0	0	0
Benzyl butyl phthalate	85-68-7	SO	EX SITU	N	240	62	1	0	0	0	63	67	94.03	92.54	1.49	0	0	0
Benzyl butyl phthalate	85-68-7	GW	IN SITU	Y	730	0	0	0	0	0	0	20	0	0	0	0	0	0
Benzyl butyl phthalate	85-68-7	GW	IN SITU	N	730	20	0	0	0	0	20	20	100	100	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Beryllium	7440-41-7	SO	IN SITU	Y	4.2	129	0	0	0	0	129	129	100	100	0	0	0	0
Beryllium	7440-41-7	SO	IN SITU	N	4.2	0	0	0	0	0	0	129	0	0	0	0	0	0
Beryllium	7440-41-7	SO	EX SITU	Y	4.2	69	2	0	0	0	71	71	100	97.18	2.82	0	0	0
Beryllium	7440-41-7	SO	EX SITU	N	4.2	0	0	0	0	0	0	71	0	0	0	0	0	0
Beryllium	7440-41-7	GW	IN SITU	Y	0.4	0	0	0	0	0	0	20	0	0	0	0	0	0
Beryllium	7440-41-7	GW	IN SITU	N	0.4	20	0	0	0	0	20	20	100	100	0	0	0	0
beta-BHC	319-85-7	SO	IN SITU	Y	0.0009	1	0	1	0	0	2	156	1.28	0.64	0	0.64	0	0
beta-BHC	319-85-7	SO	IN SITU	N	0.0009	139	13	2	0	0	154	156	98.72	89.1	8.33	1.28	0	0
beta-BHC	319-85-7	SO	EX SITU	Y	0.0009	1	0	1	0	0	2	57	3.51	1.75	0	1.75	0	0
beta-BHC	319-85-7	SO	EX SITU	N	0.0009	44	11	0	0	0	55	57	96.49	77.19	19.3	0	0	0
beta-BHC	319-85-7	GW	IN SITU	Y	0.037	0	0	0	0	0	0	20	0	0	0	0	0	0
beta-BHC	319-85-7	GW	IN SITU	N	0.037	20	0	0	0	0	20	20	100	100	0	0	0	0
bis-(2-Chloroethyl)ether	111-44-4	SO	IN SITU	Y	0.0002	0	0	0	0	0	0	174	0	0	0	0	0	0
bis-(2-Chloroethyl)ether	111-44-4	SO	IN SITU	N	0.0002	0	0	105	49	20	174	174	100	0	0	60.34	28.16	11.49
bis-(2-Chloroethyl)ether	111-44-4	SO	EX SITU	Y	0.0002	0	0	0	0	0	0	67	0	0	0	0	0	0
bis-(2-Chloroethyl)ether	111-44-4	SO	EX SITU	N	0.0002	0	0	57	2	8	67	67	100	0	0	85.07	2.99	11.94
bis-(2-Chloroethyl)ether	111-44-4	GW	IN SITU	Y	0.0098	0	0	0	0	0	0	20	0	0	0	0	0	0
bis-(2-Chloroethyl)ether	111-44-4	GW	IN SITU	N	0.0098	0	0	14	6	0	20	20	100	0	0	70	30	0
bis(2-Chloroisopropyl)ether	108-60-1	SO	IN SITU	Y	2.9	0	0	0	0	0	0	174	0	0	0	0	0	0
bis(2-Chloroisopropyl)ether	108-60-1	SO	IN SITU	N	2.9	171	0	3	0	0	174	174	100	98.28	0	1.72	0	0
bis(2-Chloroisopropyl)ether	108-60-1	SO	EX SITU	Y	2.9	0	0	0	0	0	0	67	0	0	0	0	0	0
bis(2-Chloroisopropyl)ether	108-60-1	SO	EX SITU	N	2.9	63	3	0	1	0	67	67	100	94.03	4.48	0	1.49	0
bis(2-Chloroisopropyl)ether	108-60-1	GW	IN SITU	Y	0.27	0	0	0	0	0	0	20	0	0	0	0	0	0
bis(2-Chloroisopropyl)ether	108-60-1	GW	IN SITU	N	0.27	0	20	0	0	0	20	20	100	0	100	0	0	0
bis-(2-Ethylhexyl)phthalate	117-81-7	SO	IN SITU	Y	35	13	0	0	0	0	13	174	7.47	7.47	0	0	0	0
bis-(2-Ethylhexyl)phthalate	117-81-7	SO	IN SITU	N	35	158	3	0	0	0	161	174	92.53	90.8	1.72	0	0	0
bis-(2-Ethylhexyl)phthalate	117-81-7	SO	EX SITU	Y	35	7	0	0	0	0	7	67	10.45	10.45	0	0	0	0
bis-(2-Ethylhexyl)phthalate	117-81-7	SO	EX SITU	N	35	59	0	1	0	0	60	67	89.55	88.06	0	1.49	0	0
bis-(2-Ethylhexyl)phthalate	117-81-7	GW	IN SITU	Y	0.6	0	0	0	0	0	0	20	0	0	0	0	0	0
bis-(2-Ethylhexyl)phthalate	117-81-7	GW	IN SITU	N	0.6	14	6	0	0	0	20	20	100	70	30	0	0	0
Bromobenzene	108-86-1	SO	IN SITU	Y	73	0	0	0	0	0	0	197	0	0	0	0	0	0
Bromobenzene	108-86-1	SO	IN SITU	N	73	197	0	0	0	0	197	197	100	100	0	0	0	0
Bromobenzene	108-86-1	SO	EX SITU	Y	73	0	0	0	0	0	0	76	0	0	0	0	0	0
Bromobenzene	108-86-1	SO	EX SITU	N	73	76	0	0	0	0	76	76	100	100	0	0	0	0
Bromobenzene	108-86-1	GW	IN SITU	Y	23	0	0	0	0	0	0	20	0	0	0	0	0	0
Bromobenzene	108-86-1	GW	IN SITU	N	23	20	0	0	0	0	20	20	100	100	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Bromodichloromethane	75-27-4	SO	IN SITU	Y	1	0	0	0	0	0	0	197	0	0	0	0	0	0
Bromodichloromethane	75-27-4	SO	IN SITU	N	1	196	1	0	0	0	197	197	100	99.49	0.51	0	0	0
Bromodichloromethane	75-27-4	SO	EX SITU	Y	1	0	0	0	0	0	0	76	0	0	0	0	0	0
Bromodichloromethane	75-27-4	SO	EX SITU	N	1	73	3	0	0	0	76	76	100	96.05	3.95	0	0	0
Bromodichloromethane	75-27-4	GW	IN SITU	Y	0.18	0	0	0	0	0	0	20	0	0	0	0	0	0
Bromodichloromethane	75-27-4	GW	IN SITU	N	0.18	20	0	0	0	0	20	20	100	100	0	0	0	0
Bromoform	75-25-2	SO	IN SITU	Y	0.038	0	0	0	0	0	0	197	0	0	0	0	0	0
Bromoform	75-25-2	SO	IN SITU	N	0.038	191	2	3	1	0	197	197	100	96.95	1.02	1.52	0.51	0
Bromoform	75-25-2	SO	EX SITU	Y	0.038	0	0	0	0	0	0	76	0	0	0	0	0	0
Bromoform	75-25-2	SO	EX SITU	N	0.038	72	0	1	3	0	76	76	100	94.74	0	1.32	3.95	0
Bromoform	75-25-2	GW	IN SITU	Y	8.5	0	0	0	0	0	0	20	0	0	0	0	0	0
Bromoform	75-25-2	GW	IN SITU	N	8.5	20	0	0	0	0	20	20	100	100	0	0	0	0
Bromomethane	74-83-9	SO	IN SITU	Y	3.9	0	0	0	0	0	0	197	0	0	0	0	0	0
Bromomethane	74-83-9	SO	IN SITU	N	3.9	196	1	0	0	0	197	197	100	99.49	0.51	0	0	0
Bromomethane	74-83-9	SO	EX SITU	Y	3.9	0	0	0	0	0	0	76	0	0	0	0	0	0
Bromomethane	74-83-9	SO	EX SITU	N	3.9	73	2	1	0	0	76	76	100	96.05	2.63	1.32	0	0
Bromomethane	74-83-9	GW	IN SITU	Y	8.7	0	0	0	0	0	0	20	0	0	0	0	0	0
Bromomethane	74-83-9	GW	IN SITU	N	8.7	20	0	0	0	0	20	20	100	100	0	0	0	0
Cadmium	7440-43-9	SO	IN SITU	Y	0.5	127	7	3	0	0	137	181	75.69	70.17	3.87	1.66	0	0
Cadmium	7440-43-9	SO	IN SITU	N	0.5	44	0	0	0	0	44	181	24.31	24.31	0	0	0	0
Cadmium	7440-43-9	SO	EX SITU	Y	0.5	53	17	1	0	0	71	81	87.65	65.43	20.99	1.23	0	0
Cadmium	7440-43-9	SO	EX SITU	N	0.5	10	0	0	0	0	10	81	12.35	12.35	0	0	0	0
Cadmium	7440-43-9	GW	IN SITU	Y	0.5	0	0	0	0	0	0	20	0	0	0	0	0	0
Cadmium	7440-43-9	GW	IN SITU	N	0.5	20	0	0	0	0	20	20	100	100	0	0	0	0
Carbazole	86-74-8	SO	IN SITU	Y	0.2	1	0	0	0	0	1	96	1.04	1.04	0	0	0	0
Carbazole	86-74-8	SO	IN SITU	N	0.2	87	7	1	0	0	95	96	98.96	90.63	7.29	1.04	0	0
Carbazole	86-74-8	SO	EX SITU	Y	0.2	0	0	0	0	0	0	60	0	0	0	0	0	0
Carbazole	86-74-8	SO	EX SITU	N	0.2	55	2	3	0	0	60	60	100	91.67	3.33	5	0	0
Carbazole	86-74-8	GW	IN SITU	Y	3.4	0	0	0	0	0	0	14	0	0	0	0	0	0
Carbazole	86-74-8	GW	IN SITU	N	3.4	14	0	0	0	0	14	14	100	100	0	0	0	0
Carbon disulfide	75-15-0	SO	IN SITU	Y	1.7	0	0	0	0	0	0	185	0	0	0	0	0	0
Carbon disulfide	75-15-0	SO	IN SITU	N	1.7	181	3	1	0	0	185	185	100	97.84	1.62	0.54	0	0
Carbon disulfide	75-15-0	SO	EX SITU	Y	1.7	0	0	0	0	0	0	76	0	0	0	0	0	0
Carbon disulfide	75-15-0	SO	EX SITU	N	1.7	73	3	0	0	0	76	76	100	96.05	3.95	0	0	0
Carbon disulfide	75-15-0	GW	IN SITU	Y	365	0	0	0	0	0	0	20	0	0	0	0	0	0
Carbon disulfide	75-15-0	GW	IN SITU	N	365	20	0	0	0	0	20	20	100	100	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Carbon tetrachloride	56-23-5	SO	IN SITU	Y	0.003	0	0	0	0	0	0	197	0	0	0	0	0	0
Carbon tetrachloride	56-23-5	SO	IN SITU	N	0.003	117	73	3	3	1	197	197	100	59.39	37.06	1.52	1.52	0.51
Carbon tetrachloride	56-23-5	SO	EX SITU	Y	0.003	0	0	0	0	0	0	76	0	0	0	0	0	0
Carbon tetrachloride	56-23-5	SO	EX SITU	N	0.003	27	45	1	1	2	76	76	100	35.53	59.21	1.32	1.32	2.63
Carbon tetrachloride	56-23-5	GW	IN SITU	Y	0.17	0	0	0	0	0	0	20	0	0	0	0	0	0
Carbon tetrachloride	56-23-5	GW	IN SITU	N	0.17	20	0	0	0	0	20	20	100	100	0	0	0	0
Chlorobenzene	108-90-7	SO	IN SITU	Y	0.06	0	0	0	0	0	0	197	0	0	0	0	0	0
Chlorobenzene	108-90-7	SO	IN SITU	N	0.06	192	1	3	1	0	197	197	100	97.46	0.51	1.52	0.51	0
Chlorobenzene	108-90-7	SO	EX SITU	Y	0.06	0	0	0	0	0	0	76	0	0	0	0	0	0
Chlorobenzene	108-90-7	SO	EX SITU	N	0.06	72	1	2	1	0	76	76	100	94.74	1.32	2.63	1.32	0
Chlorobenzene	108-90-7	GW	IN SITU	Y	10	0	0	0	0	0	0	20	0	0	0	0	0	0
Chlorobenzene	108-90-7	GW	IN SITU	N	10	20	0	0	0	0	20	20	100	100	0	0	0	0
Chloroform	67-66-3	SO	IN SITU	Y	0.034	0	0	0	0	0	0	197	0	0	0	0	0	0
Chloroform	67-66-3	SO	IN SITU	N	0.034	190	3	3	1	0	197	197	100	96.45	1.52	1.52	0.51	0
Chloroform	67-66-3	SO	EX SITU	Y	0.034	1	1	0	0	0	2	76	2.63	1.32	1.32	0	0	0
Chloroform	67-66-3	SO	EX SITU	N	0.034	70	1	2	1	0	74	76	97.37	92.11	1.32	2.63	1.32	0
Chloroform	67-66-3	GW	IN SITU	Y	0.17	0	0	0	0	0	0	20	0	0	0	0	0	0
Chloroform	67-66-3	GW	IN SITU	N	0.17	20	0	0	0	0	20	20	100	100	0	0	0	0
Chloromethane	74-87-3	SO	IN SITU	Y	1.3	1	0	0	0	0	1	197	0.51	0.51	0	0	0	0
Chloromethane	74-87-3	SO	IN SITU	N	1.3	195	1	0	0	0	196	197	99.49	98.98	0.51	0	0	0
Chloromethane	74-87-3	SO	EX SITU	Y	1.3	0	0	0	0	0	0	76	0	0	0	0	0	0
Chloromethane	74-87-3	SO	EX SITU	N	1.3	73	2	1	0	0	76	76	100	96.05	2.63	1.32	0	0
Chloromethane	74-87-3	GW	IN SITU	Y	2.1	0	0	0	0	0	0	20	0	0	0	0	0	0
Chloromethane	74-87-3	GW	IN SITU	N	2.1	20	0	0	0	0	20	20	100	100	0	0	0	0
Chromium	7440-47-3	SO	IN SITU	Y	2.6	0	177	4	0	0	181	181	100	0	97.7	2.2	0	0
Chromium	7440-47-3	SO	IN SITU	N	2.6	0	0	0	0	0	0	181	0	0	0	0	0	0
Chromium	7440-47-3	SO	EX SITU	Y	2.6	0	75	4	2	0	81	81	100	0	92.6	4.9	2.47	0
Chromium	7440-47-3	SO	EX SITU	N	2.6	0	0	0	0	0	0	81	0	0	0	0	0	0
Chromium	7440-47-3	GW	IN SITU	Y	10	0	6	0	0	0	6	20	30	0	30	0	0	0
Chromium	7440-47-3	GW	IN SITU	N	10	14	0	0	0	0	14	20	70	70	0	0	0	0
Chrysene	218-01-9	SO	IN SITU	Y	15	1	0	0	0	0	1	174	0.57	0.57	0	0	0	0
Chrysene	218-01-9	SO	IN SITU	N	15	170	3	0	0	0	173	174	99.43	97.7	1.72	0	0	0
Chrysene	218-01-9	SO	EX SITU	Y	15	2	0	0	0	0	2	67	2.99	2.99	0	0	0	0
Chrysene	218-01-9	SO	EX SITU	N	15	64	0	1	0	0	65	67	97.01	95.52	0	1.49	0	0
Chrysene	218-01-9	GW	IN SITU	Y	2.9	0	0	0	0	0	0	20	0	0	0	0	0	0
Chrysene	218-01-9	GW	IN SITU	N	2.9	20	0	0	0	0	20	20	100	100	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
cis-1,2-Dichloroethene	156-59-2	SO	IN SITU	Y	0.02	0	0	0	0	0	0	197	0	0	0	0	0	0
cis-1,2-Dichloroethene	156-59-2	SO	IN SITU	N	0.02	189	3	4	1	0	197	197	100	95.94	1.52	2.03	0.51	0
cis-1,2-Dichloroethene	156-59-2	SO	EX SITU	Y	0.02	0	0	0	0	0	0	76	0	0	0	0	0	0
cis-1,2-Dichloroethene	156-59-2	SO	EX SITU	N	0.02	72	0	1	3	0	76	76	100	94.74	0	1.32	3.95	0
cis-1,2-Dichloroethene	156-59-2	GW	IN SITU	Y	7	2	0	0	0	0	2	20	10	10	0	0	0	0
cis-1,2-Dichloroethene	156-59-2	GW	IN SITU	N	7	18	0	0	0	0	18	20	90	90	0	0	0	0
cis-1,3-Dichloropropene	10061-01-5	SO	IN SITU	Y	NA	NA	NA	NA	NA	NA	0	197	0	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	10061-01-5	SO	IN SITU	N	NA	NA	NA	NA	NA	NA	197	197	100	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	10061-01-5	SO	EX SITU	Y	NA	NA	NA	NA	NA	NA	0	76	0	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	10061-01-5	SO	EX SITU	N	NA	NA	NA	NA	NA	NA	76	76	100	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	10061-01-5	GW	IN SITU	Y	NA	NA	NA	NA	NA	NA	0	20	0	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	10061-01-5	GW	IN SITU	N	NA	NA	NA	NA	NA	NA	20	20	100	NA	NA	NA	NA	NA
Cobalt	7440-48-4	SO	IN SITU	Y	90	129	0	0	0	0	129	129	100	100	0	0	0	0
Cobalt	7440-48-4	SO	IN SITU	N	90	0	0	0	0	0	0	129	0	0	0	0	0	0
Cobalt	7440-48-4	SO	EX SITU	Y	90	69	0	0	0	0	69	71	97.18	97.18	0	0	0	0
Cobalt	7440-48-4	SO	EX SITU	N	90	2	0	0	0	0	2	71	2.82	2.82	0	0	0	0
Cobalt	7440-48-4	GW	IN SITU	Y	730	13	0	0	0	0	13	20	65	65	0	0	0	0
Cobalt	7440-48-4	GW	IN SITU	N	730	7	0	0	0	0	7	20	35	35	0	0	0	0
Copper	7440-50-8	SO	IN SITU	Y	406	127	2	0	0	0	129	129	100	98.45	1.55	0	0	0
Copper	7440-50-8	SO	IN SITU	N	406	0	0	0	0	0	0	129	0	0	0	0	0	0
Copper	7440-50-8	SO	EX SITU	Y	406	65	2	4	0	0	71	71	100	91.55	2.82	5.63	0	0
Copper	7440-50-8	SO	EX SITU	N	406	0	0	0	0	0	0	71	0	0	0	0	0	0
Copper	7440-50-8	GW	IN SITU	Y	130	5	0	0	0	0	5	20	25	25	0	0	0	0
Copper	7440-50-8	GW	IN SITU	N	130	15	0	0	0	0	15	20	75	75	0	0	0	0
Dalapon	75-99-0	SO	IN SITU	Y	1800	0	0	0	0	0	0	68	0	0	0	0	0	0
Dalapon	75-99-0	SO	IN SITU	N	1800	68	0	0	0	0	68	68	100	100	0	0	0	0
Dalapon	75-99-0	SO	EX SITU	Y	1800	0	0	0	0	0	0	8	0	0	0	0	0	0
Dalapon	75-99-0	SO	EX SITU	N	1800	8	0	0	0	0	8	8	100	100	0	0	0	0
Dalapon	75-99-0	GW	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
Dalapon	75-99-0	GW	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
Dibenzo(a,h)anthracene	53-70-3	SO	IN SITU	Y	0.015	0	1	0	0	0	1	174	0.57	0	0.57	0	0	0
Dibenzo(a,h)anthracene	53-70-3	SO	IN SITU	N	0.015	113	38	19	0	3	173	174	99.43	64.94	21.84	10.92	0	1.72
Dibenzo(a,h)anthracene	53-70-3	SO	EX SITU	Y	0.015	0	1	0	1	0	2	67	2.99	0	1.49	0	1.49	0
Dibenzo(a,h)anthracene	53-70-3	SO	EX SITU	N	0.015	56	2	4	2	1	65	67	97.01	83.58	2.99	5.97	2.99	1.49
Dibenzo(a,h)anthracene	53-70-3	GW	IN SITU	Y	0.003	0	0	0	0	0	0	20	0	0	0	0	0	0
Dibenzo(a,h)anthracene	53-70-3	GW	IN SITU	N	0.003	0	0	0	20	0	20	20	100	0	0	0	100	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Dicamba	1918-00-9	SO	IN SITU	Y	1800	0	0	0	0	0	0	68	0	0	0	0	0	0
Dicamba	1918-00-9	SO	IN SITU	N	1800	68	0	0	0	0	68	68	100	100	0	0	0	0
Dicamba	1918-00-9	SO	EX SITU	Y	1800	0	0	0	0	0	0	8	0	0	0	0	0	0
Dicamba	1918-00-9	SO	EX SITU	N	1800	8	0	0	0	0	8	8	100	100	0	0	0	0
Dicamba	1918-00-9	GW	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
Dicamba	1918-00-9	GW	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
Dichlorodifluoromethane	75-71-8	SO	IN SITU	Y	6	0	0	0	0	0	0	197	0	0	0	0	0	0
Dichlorodifluoromethane	75-71-8	SO	IN SITU	N	6	196	1	0	0	0	197	197	100	99.49	0.51	0	0	0
Dichlorodifluoromethane	75-71-8	SO	EX SITU	Y	6	0	0	0	0	0	0	75	0	0	0	0	0	0
Dichlorodifluoromethane	75-71-8	SO	EX SITU	N	6	74	1	0	0	0	75	75	100	98.67	1.33	0	0	0
Dichlorodifluoromethane	75-71-8	GW	IN SITU	Y	390	5	0	0	0	0	5	20	25	25	0	0	0	0
Dichlorodifluoromethane	75-71-8	GW	IN SITU	N	390	15	0	0	0	0	15	20	75	75	0	0	0	0
Dieldrin	60-57-1	SO	IN SITU	Y	0.0015	1	8	1	0	0	10	150	6.67	0.67	5.33	0.67	0	0
Dieldrin	60-57-1	SO	IN SITU	N	0.0015	136	4	0	0	0	140	150	93.33	90.67	2.67	0	0	0
Dieldrin	60-57-1	SO	EX SITU	Y	0.0015	7	5	1	0	0	13	57	22.81	12.28	8.77	1.75	0	0
Dieldrin	60-57-1	SO	EX SITU	N	0.0015	34	10	0	0	0	44	57	77.19	59.65	17.54	0	0	0
Dieldrin	60-57-1	GW	IN SITU	Y	0.0042	0	1	0	0	0	1	20	5	0	5	0	0	0
Dieldrin	60-57-1	GW	IN SITU	N	0.0042	10	9	0	0	0	19	20	95	50	45	0	0	0
Diethyl phthalate	84-66-2	SO	IN SITU	Y	19	1	0	0	0	0	1	174	0.57	0.57	0	0	0	0
Diethyl phthalate	84-66-2	SO	IN SITU	N	19	170	3	0	0	0	173	174	99.43	97.7	1.72	0	0	0
Diethyl phthalate	84-66-2	SO	EX SITU	Y	19	2	0	0	0	0	2	67	2.99	2.99	0	0	0	0
Diethyl phthalate	84-66-2	SO	EX SITU	N	19	64	0	1	0	0	65	67	97.01	95.52	0	1.49	0	0
Diethyl phthalate	84-66-2	GW	IN SITU	Y	2900	1	0	0	0	0	1	20	5	5	0	0	0	0
Diethyl phthalate	84-66-2	GW	IN SITU	N	2900	19	0	0	0	0	19	20	95	95	0	0	0	0
Dimethyl phthalate	131-11-3	SO	IN SITU	Y	140	0	0	0	0	0	0	174	0	0	0	0	0	0
Dimethyl phthalate	131-11-3	SO	IN SITU	N	140	174	0	0	0	0	174	174	100	100	0	0	0	0
Dimethyl phthalate	131-11-3	SO	EX SITU	Y	140	1	0	0	0	0	1	67	1.49	1.49	0	0	0	0
Dimethyl phthalate	131-11-3	SO	EX SITU	N	140	65	1	0	0	0	66	67	98.51	97.01	1.49	0	0	0
Dimethyl phthalate	131-11-3	GW	IN SITU	Y	370000	0	0	0	0	0	0	20	0	0	0	0	0	0
Dimethyl phthalate	131-11-3	GW	IN SITU	N	370000	20	0	0	0	0	20	20	100	100	0	0	0	0
Di-n-butyl phthalate	84-74-2	SO	IN SITU	Y	170	15	0	0	0	0	15	174	8.62	8.62	0	0	0	0
Di-n-butyl phthalate	84-74-2	SO	IN SITU	N	170	159	0	0	0	0	159	174	91.38	91.38	0	0	0	0
Di-n-butyl phthalate	84-74-2	SO	EX SITU	Y	170	0	0	0	0	0	0	67	0	0	0	0	0	0
Di-n-butyl phthalate	84-74-2	SO	EX SITU	N	170	66	1	0	0	0	67	67	100	98.51	1.49	0	0	0
Di-n-butyl phthalate	84-74-2	GW	IN SITU	Y	365	1	0	0	0	0	1	20	5	5	0	0	0	0
Di-n-butyl phthalate	84-74-2	GW	IN SITU	N	365	19	0	0	0	0	19	20	95	95	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Di-n-octyl phthalate	117-84-0	SO	IN SITU	Y	200	0	0	0	0	0	0	174	0	0	0	0	0	0
Di-n-octyl phthalate	117-84-0	SO	IN SITU	N	200	174	0	0	0	0	174	174	100	100	0	0	0	0
Di-n-octyl phthalate	117-84-0	SO	EX SITU	Y	200	4	0	0	0	0	4	67	5.97	5.97	0	0	0	0
Di-n-octyl phthalate	117-84-0	SO	EX SITU	N	200	62	1	0	0	0	63	67	94.03	92.54	1.49	0	0	0
Di-n-octyl phthalate	117-84-0	GW	IN SITU	Y	70	0	0	0	0	0	0	20	0	0	0	0	0	0
Di-n-octyl phthalate	117-84-0	GW	IN SITU	N	70	20	0	0	0	0	20	20	100	100	0	0	0	0
Dinoseb	88-85-7	SO	IN SITU	Y	61	0	0	0	0	0	0	68	0	0	0	0	0	0
Dinoseb	88-85-7	SO	IN SITU	N	61	68	0	0	0	0	68	68	100	100	0	0	0	0
Dinoseb	88-85-7	SO	EX SITU	Y	61	0	0	0	0	0	0	8	0	0	0	0	0	0
Dinoseb	88-85-7	SO	EX SITU	N	61	8	0	0	0	0	8	8	100	100	0	0	0	0
Dinoseb	88-85-7	GW	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
Dinoseb	88-85-7	GW	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
Endosulfan I	959-98-8	SO	IN SITU	Y	0.7	1	0	0	0	0	1	141	0.71	0.71	0	0	0	0
Endosulfan I	959-98-8	SO	IN SITU	N	0.7	140	0	0	0	0	140	141	99.29	99.29	0	0	0	0
Endosulfan I	959-98-8	SO	EX SITU	Y	0.7	6	0	0	0	0	6	57	10.53	10.53	0	0	0	0
Endosulfan I	959-98-8	SO	EX SITU	N	0.7	51	0	0	0	0	51	57	89.47	89.47	0	0	0	0
Endosulfan I	959-98-8	GW	IN SITU	Y	220	0	0	0	0	0	0	20	0	0	0	0	0	0
Endosulfan I	959-98-8	GW	IN SITU	N	220	20	0	0	0	0	20	20	100	100	0	0	0	0
Endosulfan II	33213-65-9	SO	IN SITU	Y	0.7	2	0	0	0	0	2	163	1.23	1.23	0	0	0	0
Endosulfan II	33213-65-9	SO	IN SITU	N	0.7	161	0	0	0	0	161	163	98.77	98.77	0	0	0	0
Endosulfan II	33213-65-9	SO	EX SITU	Y	0.7	14	0	0	0	0	14	57	24.56	24.56	0	0	0	0
Endosulfan II	33213-65-9	SO	EX SITU	N	0.7	43	0	0	0	0	43	57	75.44	75.44	0	0	0	0
Endosulfan II	33213-65-9	GW	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
Endosulfan II	33213-65-9	GW	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
Endrin	72-20-8	SO	IN SITU	Y	0.03	1	0	0	0	0	1	158	0.63	0.63	0	0	0	0
Endrin	72-20-8	SO	IN SITU	N	0.03	157	0	0	0	0	157	158	99.37	99.37	0	0	0	0
Endrin	72-20-8	SO	EX SITU	Y	0.03	13	0	0	0	0	13	57	22.81	22.81	0	0	0	0
Endrin	72-20-8	SO	EX SITU	N	0.03	44	0	0	0	0	44	57	77.19	77.19	0	0	0	0
Endrin	72-20-8	GW	IN SITU	Y	0.2	1	0	0	0	0	1	20	5	5	0	0	0	0
Endrin	72-20-8	GW	IN SITU	N	0.2	19	0	0	0	0	19	20	95	95	0	0	0	0
Ethylbenzene	100-41-4	SO	IN SITU	Y	0.55	27	0	1	0	0	28	241	11.62	11.2	0	0.41	0	0
Ethylbenzene	100-41-4	SO	IN SITU	N	0.55	210	2	1	0	0	213	241	88.38	87.14	0.83	0.41	0	0
Ethylbenzene	100-41-4	SO	EX SITU	Y	0.55	0	0	1	1	0	2	85	2.35	0	0	1.18	1.18	0
Ethylbenzene	100-41-4	SO	EX SITU	N	0.55	82	1	0	0	0	83	85	97.65	96.47	1.18	0	0	0
Ethylbenzene	100-41-4	GW	IN SITU	Y	70	0	0	0	0	0	0	20	0	0	0	0	0	0
Ethylbenzene	100-41-4	GW	IN SITU	N	70	20	0	0	0	0	20	20	100	100	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Fluoranthene	206-44-0	SO	IN SITU	Y	210	4	0	0	0	0	4	174	2.3	2.3	0	0	0	0
Fluoranthene	206-44-0	SO	IN SITU	N	210	170	0	0	0	0	170	174	97.7	97.7	0	0	0	0
Fluoranthene	206-44-0	SO	EX SITU	Y	210	7	0	0	0	0	7	67	10.45	10.45	0	0	0	0
Fluoranthene	206-44-0	SO	EX SITU	N	210	59	1	0	0	0	60	67	89.55	88.06	1.49	0	0	0
Fluoranthene	206-44-0	GW	IN SITU	Y	146	0	0	0	0	0	0	20	0	0	0	0	0	0
Fluoranthene	206-44-0	GW	IN SITU	N	146	20	0	0	0	0	20	20	100	100	0	0	0	0
Fluorene	86-73-7	SO	IN SITU	Y	27	7	0	0	0	0	7	174	4.02	4.02	0	0	0	0
Fluorene	86-73-7	SO	IN SITU	N	27	164	3	0	0	0	167	174	95.98	94.25	1.72	0	0	0
Fluorene	86-73-7	SO	EX SITU	Y	27	2	0	0	0	0	2	67	2.99	2.99	0	0	0	0
Fluorene	86-73-7	SO	EX SITU	N	27	64	0	1	0	0	65	67	97.01	95.52	0	1.49	0	0
Fluorene	86-73-7	GW	IN SITU	Y	146	1	0	0	0	0	1	20	5	5	0	0	0	0
Fluorene	86-73-7	GW	IN SITU	N	146	19	0	0	0	0	19	20	95	95	0	0	0	0
gamma-BHC (Lindane)	58-89-9	SO	IN SITU	Y	0.0003	1	0	0	0	0	1	136	0.74	0.74	0	0	0	0
gamma-BHC (Lindane)	58-89-9	SO	IN SITU	N	0.0003	103	29	3	0	0	135	136	99.26	75.74	21.32	2.21	0	0
gamma-BHC (Lindane)	58-89-9	SO	EX SITU	Y	0.0003	0	8	5	0	0	13	57	22.81	0	14.04	8.77	0	0
gamma-BHC (Lindane)	58-89-9	SO	EX SITU	N	0.0003	21	18	5	0	0	44	57	77.19	36.84	31.58	8.77	0	0
gamma-BHC (Lindane)	58-89-9	GW	IN SITU	Y	0.02	0	0	0	0	0	0	20	0	0	0	0	0	0
gamma-BHC (Lindane)	58-89-9	GW	IN SITU	N	0.02	20	0	0	0	0	20	20	100	100	0	0	0	0
gamma-Chlordane	12789-03-6	SO	IN SITU	Y	0.3	7	0	0	0	0	7	155	4.52	4.52	0	0	0	0
gamma-Chlordane	12789-03-6	SO	IN SITU	N	0.3	148	0	0	0	0	148	155	95.48	95.48	0	0	0	0
gamma-Chlordane	12789-03-6	SO	EX SITU	Y	0.3	12	0	0	0	0	12	57	21.05	21.05	0	0	0	0
gamma-Chlordane	12789-03-6	SO	EX SITU	N	0.3	45	0	0	0	0	45	57	78.95	78.95	0	0	0	0
gamma-Chlordane	12789-03-6	GW	IN SITU	Y	0.2	0	0	0	0	0	0	20	0	0	0	0	0	0
gamma-Chlordane	12789-03-6	GW	IN SITU	N	0.2	20	0	0	0	0	20	20	100	100	0	0	0	0
Heptachlor	76-44-8	SO	IN SITU	Y	0.08	2	0	0	0	0	2	147	1.36	1.36	0	0	0	0
Heptachlor	76-44-8	SO	IN SITU	N	0.08	145	0	0	0	0	145	147	98.64	98.64	0	0	0	0
Heptachlor	76-44-8	SO	EX SITU	Y	0.08	6	0	0	0	0	6	57	10.53	10.53	0	0	0	0
Heptachlor	76-44-8	SO	EX SITU	N	0.08	51	0	0	0	0	51	57	89.47	89.47	0	0	0	0
Heptachlor	76-44-8	GW	IN SITU	Y	0.015	0	0	0	0	0	0	20	0	0	0	0	0	0
Heptachlor	76-44-8	GW	IN SITU	N	0.015	20	0	0	0	0	20	20	100	100	0	0	0	0
Heptachlor epoxide	1024-57-3	SO	IN SITU	Y	0.02	9	0	0	0	0	9	162	5.56	5.56	0	0	0	0
Heptachlor epoxide	1024-57-3	SO	IN SITU	N	0.02	153	0	0	0	0	153	162	94.44	94.44	0	0	0	0
Heptachlor epoxide	1024-57-3	SO	EX SITU	Y	0.02	3	0	0	0	0	3	57	5.26	5.26	0	0	0	0
Heptachlor epoxide	1024-57-3	SO	EX SITU	N	0.02	54	0	0	0	0	54	57	94.74	94.74	0	0	0	0
Heptachlor epoxide	1024-57-3	GW	IN SITU	Y	0.0074	1	0	0	0	0	1	20	5	5	0	0	0	0
Heptachlor epoxide	1024-57-3	GW	IN SITU	N	0.0074	19	0	0	0	0	19	20	95	95	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Hexachlorobenzene	118-74-1	SO	IN SITU	Y	0.073	0	0	0	0	0	0	174	0	0	0	0	0	0
Hexachlorobenzene	118-74-1	SO	IN SITU	N	0.073	152	18	1	3	0	174	174	100	87.36	10.34	0.57	1.72	0
Hexachlorobenzene	118-74-1	SO	EX SITU	Y	0.073	0	0	0	0	0	0	67	0	0	0	0	0	0
Hexachlorobenzene	118-74-1	SO	EX SITU	N	0.073	59	4	3	0	1	67	67	100	88.06	5.97	4.48	0	1.49
Hexachlorobenzene	118-74-1	GW	IN SITU	Y	0.042	0	0	0	0	0	0	20	0	0	0	0	0	0
Hexachlorobenzene	118-74-1	GW	IN SITU	N	0.042	0	14	6	0	0	20	20	100	0	70	30	0	0
Hexachlorobutadiene	87-68-3	SO	IN SITU	Y	0.8	0	0	0	0	0	0	212	0	0	0	0	0	0
Hexachlorobutadiene	87-68-3	SO	IN SITU	N	0.8	205	6	1	0	0	212	212	100	96.7	2.83	0.47	0	0
Hexachlorobutadiene	87-68-3	SO	EX SITU	Y	0.8	0	0	0	0	0	0	85	0	0	0	0	0	0
Hexachlorobutadiene	87-68-3	SO	EX SITU	N	0.8	80	4	0	1	0	85	85	100	94.12	4.71	0	1.18	0
Hexachlorobutadiene	87-68-3	GW	IN SITU	Y	0.86	0	0	0	0	0	0	20	0	0	0	0	0	0
Hexachlorobutadiene	87-68-3	GW	IN SITU	N	0.86	20	0	0	0	0	20	20	100	100	0	0	0	0
Hexachlorocyclopentadiene	77-47-4	SO	IN SITU	Y	0.7	0	0	0	0	0	0	78	0	0	0	0	0	0
Hexachlorocyclopentadiene	77-47-4	SO	IN SITU	N	0.7	64	11	0	3	0	78	78	100	82.05	14.1	0	3.85	0
Hexachlorocyclopentadiene	77-47-4	SO	EX SITU	Y	0.7	0	0	0	0	0	0	8	0	0	0	0	0	0
Hexachlorocyclopentadiene	77-47-4	SO	EX SITU	N	0.7	5	2	0	0	1	8	8	100	62.5	25	0	0	12.5
Hexachlorocyclopentadiene	77-47-4	GW	IN SITU	Y	5	0	0	0	0	0	0	6	0	0	0	0	0	0
Hexachlorocyclopentadiene	77-47-4	GW	IN SITU	N	5	6	0	0	0	0	6	6	100	100	0	0	0	0
Hexachloroethane	67-72-1	SO	IN SITU	Y	0.16	0	0	0	0	0	0	174	0	0	0	0	0	0
Hexachloroethane	67-72-1	SO	IN SITU	N	0.16	153	17	1	3	0	174	174	100	87.93	9.77	0.57	1.72	0
Hexachloroethane	67-72-1	SO	EX SITU	Y	0.16	0	0	0	0	0	0	67	0	0	0	0	0	0
Hexachloroethane	67-72-1	SO	EX SITU	N	0.16	59	4	3	0	1	67	67	100	88.06	5.97	4.48	0	1.49
Hexachloroethane	67-72-1	GW	IN SITU	Y	4.8	0	0	0	0	0	0	20	0	0	0	0	0	0
Hexachloroethane	67-72-1	GW	IN SITU	N	4.8	20	0	0	0	0	20	20	100	100	0	0	0	0
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	SO	IN SITU	Y	4.4	2	0	0	0	0	2	91	2.2	2.2	0	0	0	0
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	SO	IN SITU	N	4.4	89	0	0	0	0	89	91	97.8	97.8	0	0	0	0
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	SO	EX SITU	Y	4.4	0	0	0	0	0	0	64	0	0	0	0	0	0
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	SO	EX SITU	N	4.4	64	0	0	0	0	64	64	100	100	0	0	0	0
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	GW	IN SITU	Y	0.61	0	0	1	0	0	1	10	10	0	0	10	0	0
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	121-82-4	GW	IN SITU	N	0.61	9	0	0	0	0	9	10	90	90	0	0	0	0
Indeno(1,2,3-cd)pyrene	193-39-5	SO	IN SITU	Y	0.15	1	1	0	0	0	2	174	1.15	0.57	0.57	0	0	0
Indeno(1,2,3-cd)pyrene	193-39-5	SO	IN SITU	N	0.15	150	19	0	3	0	172	174	98.85	86.21	10.92	0	1.72	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Indeno(1,2,3-cd)pyrene	193-39-5	SO	EX SITU	Y	0.15	5	1	1	0	0	7	67	10.45	7.46	1.49	1.49	0	0
Indeno(1,2,3-cd)pyrene	193-39-5	SO	EX SITU	N	0.15	54	3	2	0	1	60	67	89.55	80.6	4.48	2.99	0	1.49
Indeno(1,2,3-cd)pyrene	193-39-5	GW	IN SITU	Y	0.03	0	0	0	0	0	0	20	0	0	0	0	0	0
Indeno(1,2,3-cd)pyrene	193-39-5	GW	IN SITU	N	0.03	0	0	20	0	0	20	20	100	0	0	100	0	0
Iron	7439-89-6	SO	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
Iron	7439-89-6	SO	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
Iron	7439-89-6	SO	EX SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
Iron	7439-89-6	SO	EX SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
Iron	7439-89-6	GW	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
Iron	7439-89-6	GW	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
Isophorone	78-59-1	SO	IN SITU	Y	0.3	0	0	0	0	0	0	174	0	0	0	0	0	0
Isophorone	78-59-1	SO	IN SITU	N	0.3	156	15	0	3	0	174	174	100	89.66	8.62	0	1.72	0
Isophorone	78-59-1	SO	EX SITU	Y	0.3	0	0	0	0	0	0	67	0	0	0	0	0	0
Isophorone	78-59-1	SO	EX SITU	N	0.3	59	7	0	0	1	67	67	100	88.06	10.45	0	0	1.49
Isophorone	78-59-1	GW	IN SITU	Y	71	0	0	0	0	0	0	20	0	0	0	0	0	0
Isophorone	78-59-1	GW	IN SITU	N	71	20	0	0	0	0	20	20	100	100	0	0	0	0
Isopropylbenzene	98-82-8	SO	IN SITU	Y	22.7	2	0	0	0	0	2	197	1.02	1.02	0	0	0	0
Isopropylbenzene	98-82-8	SO	IN SITU	N	22.7	195	0	0	0	0	195	197	98.98	98.98	0	0	0	0
Isopropylbenzene	98-82-8	SO	EX SITU	Y	22.7	1	1	0	0	0	2	76	2.63	1.32	1.32	0	0	0
Isopropylbenzene	98-82-8	SO	EX SITU	N	22.7	74	0	0	0	0	74	76	97.37	97.37	0	0	0	0
Isopropylbenzene	98-82-8	GW	IN SITU	Y	365	1	0	0	0	0	1	20	5	5	0	0	0	0
Isopropylbenzene	98-82-8	GW	IN SITU	N	365	19	0	0	0	0	19	20	95	95	0	0	0	0
Lead	7439-92-1	SO	IN SITU	Y	40	170	10	0	0	1	181	181	100	93.92	5.52	0	0	0.55
Lead	7439-92-1	SO	IN SITU	N	40	0	0	0	0	0	0	181	0	0	0	0	0	0
Lead	7439-92-1	SO	EX SITU	Y	40	70	9	2	0	0	81	81	100	86.42	11.11	2.47	0	0
Lead	7439-92-1	SO	EX SITU	N	40	0	0	0	0	0	0	81	0	0	0	0	0	0
Lead	7439-92-1	GW	IN SITU	Y	1.5	0	0	0	0	0	0	20	0	0	0	0	0	0
Lead	7439-92-1	GW	IN SITU	N	1.5	20	0	0	0	0	20	20	100	100	0	0	0	0
m,p-Xylene	108-38-3/1	SO	IN SITU	Y	210	5	0	0	0	0	5	197	2.54	2.54	0	0	0	0
m,p-Xylene	108-38-3/1	SO	IN SITU	N	210	192	0	0	0	0	192	197	97.46	97.46	0	0	0	0
m,p-Xylene	108-38-3/1	SO	EX SITU	Y	210	4	1	0	0	0	5	79	6.33	5.06	1.27	0	0	0
m,p-Xylene	108-38-3/1	SO	EX SITU	N	210	74	0	0	0	0	74	79	93.67	93.67	0	0	0	0
m,p-Xylene	108-38-3/1	GW	IN SITU	Y	210	0	0	0	0	0	0	20	0	0	0	0	0	0
m,p-Xylene	108-38-3/1	GW	IN SITU	N	210	20	0	0	0	0	20	20	100	100	0	0	0	0
Manganese	7439-96-5	SO	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
Manganese	7439-96-5	SO	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Manganese	7439-96-5	SO	EX SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
Manganese	7439-96-5	SO	EX SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
Manganese	7439-96-5	GW	IN SITU	Y	1700	20	0	0	0	0	20	20	100	100	0	0	0	0
Manganese	7439-96-5	GW	IN SITU	N	1700	0	0	0	0	0	0	20	0	0	0	0	0	0
MCPA (2-Methyl-4-chlorophenoxy acetic acid)	94-74-6	SO	IN SITU	Y	61	0	0	0	0	0	0	68	0	0	0	0	0	0
MCPA (2-Methyl-4-chlorophenoxy acetic acid)	94-74-6	SO	IN SITU	N	61	68	0	0	0	0	68	68	100	100	0	0	0	0
MCPA (2-Methyl-4-chlorophenoxy acetic acid)	94-74-6	SO	EX SITU	Y	61	0	0	0	0	0	0	8	0	0	0	0	0	0
MCPA (2-Methyl-4-chlorophenoxy acetic acid)	94-74-6	SO	EX SITU	N	61	8	0	0	0	0	8	8	100	100	0	0	0	0
MCPA (2-Methyl-4-chlorophenoxy acetic acid)	94-74-6	GW	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
MCPA (2-Methyl-4-chlorophenoxy acetic acid)	94-74-6	GW	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
Mercury	7439-97-6	SO	IN SITU	Y	0.14	100	4	0	0	0	104	173	60.12	57.8	2.31	0	0	0
Mercury	7439-97-6	SO	IN SITU	N	0.14	69	0	0	0	0	69	173	39.88	39.88	0	0	0	0
Mercury	7439-97-6	SO	EX SITU	Y	0.14	70	0	0	0	0	70	80	87.5	87.5	0	0	0	0
Mercury	7439-97-6	SO	EX SITU	N	0.14	10	0	0	0	0	10	80	12.5	12.5	0	0	0	0
Mercury	7439-97-6	GW	IN SITU	Y	0.2	0	0	0	0	0	0	20	0	0	0	0	0	0
Mercury	7439-97-6	GW	IN SITU	N	0.2	20	0	0	0	0	20	20	100	100	0	0	0	0
Methoxychlor	72-43-5	SO	IN SITU	Y	5.2	4	0	0	0	0	4	160	2.5	2.5	0	0	0	0
Methoxychlor	72-43-5	SO	IN SITU	N	5.2	156	0	0	0	0	156	160	97.5	97.5	0	0	0	0
Methoxychlor	72-43-5	SO	EX SITU	Y	5.2	10	0	0	0	0	10	57	17.54	17.54	0	0	0	0
Methoxychlor	72-43-5	SO	EX SITU	N	5.2	47	0	0	0	0	47	57	82.46	82.46	0	0	0	0
Methoxychlor	72-43-5	GW	IN SITU	Y	4	1	0	0	0	0	1	20	5	5	0	0	0	0
Methoxychlor	72-43-5	GW	IN SITU	N	4	19	0	0	0	0	19	20	95	95	0	0	0	0
Methylene chloride	75-09-2	SO	IN SITU	Y	0.0015	0	0	10	4	1	15	197	7.61	0	0	5.08	2.03	0.51
Methylene chloride	75-09-2	SO	IN SITU	N	0.0015	20	144	13	2	3	182	197	92.39	10.15	73.1	6.6	1.02	1.52
Methylene chloride	75-09-2	SO	EX SITU	Y	0.0015	0	0	2	0	0	2	76	2.63	0	0	2.63	0	0
Methylene chloride	75-09-2	SO	EX SITU	N	0.0015	14	50	6	1	3	74	76	97.37	18.42	65.79	7.89	1.32	3.95
Methylene chloride	75-09-2	GW	IN SITU	Y	0.5	0	0	0	0	0	0	20	0	0	0	0	0	0
Methylene chloride	75-09-2	GW	IN SITU	N	0.5	20	0	0	0	0	20	20	100	100	0	0	0	0
Methyl-tert-butyl ether (MTBE)	1634-04-4	SO	IN SITU	Y	32	0	0	0	0	0	0	167	0	0	0	0	0	0
Methyl-tert-butyl ether (MTBE)	1634-04-4	SO	IN SITU	N	32	167	0	0	0	0	167	167	100	100	0	0	0	0
Methyl-tert-butyl ether (MTBE)	1634-04-4	SO	EX SITU	Y	32	0	0	0	0	0	0	70	0	0	0	0	0	0
Methyl-tert-butyl ether (MTBE)	1634-04-4	SO	EX SITU	N	32	70	0	0	0	0	70	70	100	100	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	CAS Number	Matrix	In Situ or Ex Situ?	Was Analyte Detected?	Screening Level (mg/kg or µg/L)	Blue Count (<=1*SL)	Green Count (>1*SL & <=10*SL)	Yellow Count (>10*SL & <=100*SL)	Orange Count (>100*SL & <=1000*SL)	Red Count (>1000*SL)	Total Count: Detect+ Non-detect	Total Count: In Situ Soil; Ex Situ Soil; Groundwater	Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups	Percent Blue	Percent Green	Percent Yellow	Percent Orange	Percent Red
Methyl-tert-butyl ether (MTBE)	1634-04-4	GW	IN SITU	Y	11	0	0	0	0	0	0	20	0	0	0	0	0	0
Methyl-tert-butyl ether (MTBE)	1634-04-4	GW	IN SITU	N	11	20	0	0	0	0	20	20	100	100	0	0	0	0
Naphthalene	91-20-3	SO	IN SITU	Y	2.1	0	1	0	0	0	1	212	0.47	0	0.47	0	0	0
Naphthalene	91-20-3	SO	IN SITU	N	2.1	210	1	0	0	0	211	212	99.53	99.06	0.47	0	0	0
Naphthalene	91-20-3	SO	EX SITU	Y	2.1	1	0	1	0	1	3	85	3.53	1.18	0	1.18	0	1.18
Naphthalene	91-20-3	SO	EX SITU	N	2.1	79	2	0	1	0	82	85	96.47	92.94	2.35	0	1.18	0
Naphthalene	91-20-3	GW	IN SITU	Y	6.2	1	0	0	0	0	1	20	5	5	0	0	0	0
Naphthalene	91-20-3	GW	IN SITU	N	6.2	19	0	0	0	0	19	20	95	95	0	0	0	0
n-Butylbenzene	104-51-8	SO	IN SITU	Y	61	3	0	0	0	0	3	197	1.52	1.52	0	0	0	0
n-Butylbenzene	104-51-8	SO	IN SITU	N	61	194	0	0	0	0	194	197	98.48	98.48	0	0	0	0
n-Butylbenzene	104-51-8	SO	EX SITU	Y	61	1	0	0	0	0	1	76	1.32	1.32	0	0	0	0
n-Butylbenzene	104-51-8	SO	EX SITU	N	61	75	0	0	0	0	75	76	98.68	98.68	0	0	0	0
n-Butylbenzene	104-51-8	GW	IN SITU	Y	140	0	0	0	0	0	0	20	0	0	0	0	0	0
n-Butylbenzene	104-51-8	GW	IN SITU	N	140	20	0	0	0	0	20	20	100	100	0	0	0	0
Nickel	7440-02-0	SO	IN SITU	Y	8.7	3	125	1	0	0	129	129	100	2.33	96.9	0.78	0	0
Nickel	7440-02-0	SO	IN SITU	N	8.7	0	0	0	0	0	0	129	0	0	0	0	0	0
Nickel	7440-02-0	SO	EX SITU	Y	8.7	1	70	0	0	0	71	71	100	1.41	98.59	0	0	0
Nickel	7440-02-0	SO	EX SITU	N	8.7	0	0	0	0	0	0	71	0	0	0	0	0	0
Nickel	7440-02-0	GW	IN SITU	Y	10	16	0	0	0	0	16	20	80	80	0	0	0	0
Nickel	7440-02-0	GW	IN SITU	N	10	4	0	0	0	0	4	20	20	20	0	0	0	0
Nitrobenzene	98-95-3	SO	IN SITU	Y	0.006	0	0	0	0	0	0	178	0	0	0	0	0	0
Nitrobenzene	98-95-3	SO	IN SITU	N	0.006	3	158	10	4	3	178	178	100	1.69	88.76	5.62	2.25	1.69
Nitrobenzene	98-95-3	SO	EX SITU	Y	0.006	0	0	1	0	0	1	76	1.32	0	0	1.32	0	0
Nitrobenzene	98-95-3	SO	EX SITU	N	0.006	17	49	1	5	3	75	76	98.68	22.37	64.47	1.32	6.58	3.95
Nitrobenzene	98-95-3	GW	IN SITU	Y	1.8	2	1	0	0	0	3	20	15	10	5	0	0	0
Nitrobenzene	98-95-3	GW	IN SITU	N	1.8	17	0	0	0	0	17	20	85	85	0	0	0	0
n-Nitrosodimethylamine	62-75-9	SO	IN SITU	Y	0.0023	0	0	0	0	0	0	148	0	0	0	0	0	0
n-Nitrosodimethylamine	62-75-9	SO	IN SITU	N	0.0023	0	73	55	17	3	148	148	100	0	49.32	37.16	11.49	2.03
n-Nitrosodimethylamine	62-75-9	SO	EX SITU	Y	0.0023	0	0	0	0	0	0	60	0	0	0	0	0	0
n-Nitrosodimethylamine	62-75-9	SO	EX SITU	N	0.0023	0	54	1	2	3	60	60	100	0	90	1.67	3.33	5
n-Nitrosodimethylamine	62-75-9	GW	IN SITU	Y	0.00042	0	0	0	0	0	0	20	0	0	0	0	0	0
n-Nitrosodimethylamine	62-75-9	GW	IN SITU	N	0.00042	0	0	0	0	20	20	20	100	0	0	0	0	100
n-Nitrosodi-n-propylamine	621-64-7	SO	IN SITU	Y	0.000036	0	0	0	0	2	2	174	1.15	0	0	0	0	1.15
n-Nitrosodi-n-propylamine	621-64-7	SO	IN SITU	N	0.000036	0	0	3	109	60	172	174	98.85	0	0	1.72	62.64	34.48
n-Nitrosodi-n-propylamine	621-64-7	SO	EX SITU	Y	0.000036	0	0	0	0	0	0	67	0	0	0	0	0	0
n-Nitrosodi-n-propylamine	621-64-7	SO	EX SITU	N	0.000036	0	0	18	40	9	67	67	100	0	0	26.87	59.7	13.43

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
n-Nitrosodi-n-propylamine	621-64-7	GW	IN SITU	Y	0.0096	0	0	0	0	0	0	20	0	0	0	0	0	0
n-Nitrosodi-n-propylamine	621-64-7	GW	IN SITU	N	0.0096	0	0	14	6	0	20	20	100	0	0	70	30	0
n-Nitrosodiphenylamine	86-30-6	SO	IN SITU	Y	0.34	0	0	0	0	0	0	174	0	0	0	0	0	0
n-Nitrosodiphenylamine	86-30-6	SO	IN SITU	N	0.34	155	16	0	3	0	174	174	100	89.08	9.2	0	1.72	0
n-Nitrosodiphenylamine	86-30-6	SO	EX SITU	Y	0.34	1	0	0	0	0	1	67	1.49	1.49	0	0	0	0
n-Nitrosodiphenylamine	86-30-6	SO	EX SITU	N	0.34	58	7	0	0	1	66	67	98.51	86.57	10.45	0	0	1.49
n-Nitrosodiphenylamine	86-30-6	GW	IN SITU	Y	14	0	0	0	0	0	0	20	0	0	0	0	0	0
n-Nitrosodiphenylamine	86-30-6	GW	IN SITU	N	14	20	0	0	0	0	20	20	100	100	0	0	0	0
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	SO	IN SITU	Y	3100	0	0	0	0	0	0	91	0	0	0	0	0	0
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	SO	IN SITU	N	3100	91	0	0	0	0	91	91	100	100	0	0	0	0
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	SO	EX SITU	Y	3100	0	0	0	0	0	0	64	0	0	0	0	0	0
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	SO	EX SITU	N	3100	64	0	0	0	0	64	64	100	100	0	0	0	0
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	GW	IN SITU	Y	1800	2	0	0	0	0	2	10	20	20	0	0	0	0
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	2691-41-0	GW	IN SITU	N	1800	8	0	0	0	0	8	10	80	80	0	0	0	0
o-Xylene	95-47-6	SO	IN SITU	Y	280	3	0	0	0	0	3	197	1.52	1.52	0	0	0	0
o-Xylene	95-47-6	SO	IN SITU	N	280	194	0	0	0	0	194	197	98.48	98.48	0	0	0	0
o-Xylene	95-47-6	SO	EX SITU	Y	280	1	1	0	0	0	2	79	2.53	1.27	1.27	0	0	0
o-Xylene	95-47-6	SO	EX SITU	N	280	77	0	0	0	0	77	79	97.47	97.47	0	0	0	0
o-Xylene	95-47-6	GW	IN SITU	Y	1400	0	0	0	0	0	0	20	0	0	0	0	0	0
o-Xylene	95-47-6	GW	IN SITU	N	1400	20	0	0	0	0	20	20	100	100	0	0	0	0
PCB-1016 (Aroclor 1016)	12674-11-2	SO	IN SITU	Y	0.1	0	0	0	0	0	0	928	0	0	0	0	0	0
PCB-1016 (Aroclor 1016)	12674-11-2	SO	IN SITU	N	0.1	923	1	1	3	0	928	928	100	99.46	0.11	0.11	0.32	0
PCB-1016 (Aroclor 1016)	12674-11-2	SO	EX SITU	Y	0.1	0	0	0	0	0	0	276	0	0	0	0	0	0
PCB-1016 (Aroclor 1016)	12674-11-2	SO	EX SITU	N	0.1	273	2	0	0	1	276	276	100	98.91	0.72	0	0	0.36
PCB-1016 (Aroclor 1016)	12674-11-2	GW	IN SITU	Y	0.05	0	0	0	0	0	0	10	0	0	0	0	0	0
PCB-1016 (Aroclor 1016)	12674-11-2	GW	IN SITU	N	0.05	10	0	0	0	0	10	10	100	100	0	0	0	0
PCB-1221 (Aroclor 1221)	11104-28-2	SO	IN SITU	Y	0.1	0	0	0	0	0	0	928	0	0	0	0	0	0
PCB-1221 (Aroclor 1221)	11104-28-2	SO	IN SITU	N	0.1	814	110	1	3	0	928	928	100	87.72	11.85	0.11	0.32	0
PCB-1221 (Aroclor 1221)	11104-28-2	SO	EX SITU	Y	0.1	0	0	0	0	0	0	276	0	0	0	0	0	0
PCB-1221 (Aroclor 1221)	11104-28-2	SO	EX SITU	N	0.1	215	60	0	0	1	276	276	100	77.9	21.74	0	0	0.36
PCB-1221 (Aroclor 1221)	11104-28-2	GW	IN SITU	Y	0.034	0	0	0	0	0	0	10	0	0	0	0	0	0
PCB-1221 (Aroclor 1221)	11104-28-2	GW	IN SITU	N	0.034	10	0	0	0	0	10	10	100	100	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
PCB-1232 (Aroclor 1232)	11141-16-5	SO	IN SITU	Y	0.1	0	0	0	0	0	0	928	0	0	0	0	0	0
PCB-1232 (Aroclor 1232)	11141-16-5	SO	IN SITU	N	0.1	923	1	1	3	0	928	928	100	99.46	0.11	0.11	0.32	0
PCB-1232 (Aroclor 1232)	11141-16-5	SO	EX SITU	Y	0.1	0	0	0	0	0	0	276	0	0	0	0	0	0
PCB-1232 (Aroclor 1232)	11141-16-5	SO	EX SITU	N	0.1	273	2	0	0	1	276	276	100	98.91	0.72	0	0	0.36
PCB-1232 (Aroclor 1232)	11141-16-5	GW	IN SITU	Y	0.034	0	0	0	0	0	0	10	0	0	0	0	0	0
PCB-1232 (Aroclor 1232)	11141-16-5	GW	IN SITU	N	0.034	10	0	0	0	0	10	10	100	100	0	0	0	0
PCB-1242 (Aroclor 1242)	53469-21-9	SO	IN SITU	Y	0.1	0	0	0	0	0	0	928	0	0	0	0	0	0
PCB-1242 (Aroclor 1242)	53469-21-9	SO	IN SITU	N	0.1	923	1	1	3	0	928	928	100	99.46	0.11	0.11	0.32	0
PCB-1242 (Aroclor 1242)	53469-21-9	SO	EX SITU	Y	0.1	0	0	0	0	0	0	276	0	0	0	0	0	0
PCB-1242 (Aroclor 1242)	53469-21-9	SO	EX SITU	N	0.1	273	2	0	0	1	276	276	100	98.91	0.72	0	0	0.36
PCB-1242 (Aroclor 1242)	53469-21-9	GW	IN SITU	Y	0.034	0	0	0	0	0	0	10	0	0	0	0	0	0
PCB-1242 (Aroclor 1242)	53469-21-9	GW	IN SITU	N	0.034	10	0	0	0	0	10	10	100	100	0	0	0	0
PCB-1248 (Aroclor 1248)	12672-29-6	SO	IN SITU	Y	0.1	0	0	0	0	0	0	928	0	0	0	0	0	0
PCB-1248 (Aroclor 1248)	12672-29-6	SO	IN SITU	N	0.1	923	1	1	3	0	928	928	100	99.46	0.11	0.11	0.32	0
PCB-1248 (Aroclor 1248)	12672-29-6	SO	EX SITU	Y	0.1	0	0	0	0	0	0	276	0	0	0	0	0	0
PCB-1248 (Aroclor 1248)	12672-29-6	SO	EX SITU	N	0.1	273	2	0	0	1	276	276	100	98.91	0.72	0	0	0.36
PCB-1248 (Aroclor 1248)	12672-29-6	GW	IN SITU	Y	0.034	0	0	0	0	0	0	10	0	0	0	0	0	0
PCB-1248 (Aroclor 1248)	12672-29-6	GW	IN SITU	N	0.034	10	0	0	0	0	10	10	100	100	0	0	0	0
PCB-1254 (Aroclor 1254)	11097-69-1	SO	IN SITU	Y	0.1	0	4	0	0	0	4	928	0.43	0	0.43	0	0	0
PCB-1254 (Aroclor 1254)	11097-69-1	SO	IN SITU	N	0.1	919	1	1	3	0	924	928	99.57	99.03	0.11	0.11	0.32	0
PCB-1254 (Aroclor 1254)	11097-69-1	SO	EX SITU	Y	0.1	0	0	0	0	0	0	276	0	0	0	0	0	0
PCB-1254 (Aroclor 1254)	11097-69-1	SO	EX SITU	N	0.1	273	2	0	0	1	276	276	100	98.91	0.72	0	0	0.36
PCB-1254 (Aroclor 1254)	11097-69-1	GW	IN SITU	Y	0.034	0	0	0	0	0	0	10	0	0	0	0	0	0
PCB-1254 (Aroclor 1254)	11097-69-1	GW	IN SITU	N	0.034	10	0	0	0	0	10	10	100	100	0	0	0	0
PCB-1260 (Aroclor 1260)	11096-82-5	SO	IN SITU	Y	0.1	76	48	10	7	5	146	928	15.73	8.19	5.17	1.08	0.75	0.54
PCB-1260 (Aroclor 1260)	11096-82-5	SO	IN SITU	N	0.1	782	0	0	0	0	782	928	84.27	84.27	0	0	0	0
PCB-1260 (Aroclor 1260)	11096-82-5	SO	EX SITU	Y	0.1	11	17	5	0	1	34	276	12.32	3.99	6.16	1.81	0	0.36
PCB-1260 (Aroclor 1260)	11096-82-5	SO	EX SITU	N	0.1	241	1	0	0	0	242	276	87.68	87.32	0.36	0	0	0
PCB-1260 (Aroclor 1260)	11096-82-5	GW	IN SITU	Y	0.034	0	0	0	0	0	0	10	0	0	0	0	0	0
PCB-1260 (Aroclor 1260)	11096-82-5	GW	IN SITU	N	0.034	10	0	0	0	0	10	10	100	100	0	0	0	0
PCBs (total)	1336-36-3	SO	IN SITU	Y	0.1	48	78	12	7	5	150	933	16.08	5.14	8.36	1.29	0.75	0.54
PCBs (total)	1336-36-3	SO	IN SITU	N	0.1	676	107	0	0	0	783	933	83.92	72.45	11.47	0	0	0
PCBs (total)	1336-36-3	SO	EX SITU	Y	0.1	4	24	5	0	1	34	277	12.27	1.44	8.66	1.81	0	0.36
PCBs (total)	1336-36-3	SO	EX SITU	N	0.1	183	60	0	0	0	243	277	87.73	66.06	21.66	0	0	0
PCBs (total)	1336-36-3	GW	IN SITU	Y	0.05	0	0	0	0	0	0	10	0	0	0	0	0	0
PCBs (total)	1336-36-3	GW	IN SITU	N	0.05	0	10	0	0	0	10	10	100	0	100	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Pentachlorophenol	87-86-5	SO	IN SITU	Y	0.001	0	0	3	1	0	4	176	2.27	0	0	1.7	0.57	0
Pentachlorophenol	87-86-5	SO	IN SITU	N	0.001	45	21	0	88	18	172	176	97.73	25.57	11.93	0	50	10.23
Pentachlorophenol	87-86-5	SO	EX SITU	Y	0.001	0	0	10	0	1	11	67	16.42	0	0	14.93	0	1.49
Pentachlorophenol	87-86-5	SO	EX SITU	N	0.001	2	13	1	32	8	56	67	83.58	2.99	19.4	1.49	47.76	11.94
Pentachlorophenol	87-86-5	GW	IN SITU	Y	0.1	0	0	0	0	0	0	20	0	0	0	0	0	0
Pentachlorophenol	87-86-5	GW	IN SITU	N	0.1	0	0	14	6	0	20	20	100	0	0	70	30	0
Phenanthrene	85-01-8	SO	IN SITU	Y	430	7	0	0	0	0	7	174	4.02	4.02	0	0	0	0
Phenanthrene	85-01-8	SO	IN SITU	N	430	167	0	0	0	0	167	174	95.98	95.98	0	0	0	0
Phenanthrene	85-01-8	SO	EX SITU	Y	430	16	0	0	0	0	16	67	23.88	23.88	0	0	0	0
Phenanthrene	85-01-8	SO	EX SITU	N	430	51	0	0	0	0	51	67	76.12	76.12	0	0	0	0
Phenanthrene	85-01-8	GW	IN SITU	Y	1100	0	0	0	0	0	0	20	0	0	0	0	0	0
Phenanthrene	85-01-8	GW	IN SITU	N	1100	20	0	0	0	0	20	20	100	100	0	0	0	0
Phenol	108-95-2	SO	IN SITU	Y	6.7	1	0	0	0	0	1	174	0.57	0.57	0	0	0	0
Phenol	108-95-2	SO	IN SITU	N	6.7	170	2	1	0	0	173	174	99.43	97.7	1.15	0.57	0	0
Phenol	108-95-2	SO	EX SITU	Y	6.7	0	0	0	0	0	0	67	0	0	0	0	0	0
Phenol	108-95-2	SO	EX SITU	N	6.7	66	0	1	0	0	67	67	100	98.51	0	1.49	0	0
Phenol	108-95-2	GW	IN SITU	Y	2200	0	0	0	0	0	0	20	0	0	0	0	0	0
Phenol	108-95-2	GW	IN SITU	N	2200	20	0	0	0	0	20	20	100	100	0	0	0	0
Pyrene	129-00-0	SO	IN SITU	Y	150	5	0	0	0	0	5	174	2.87	2.87	0	0	0	0
Pyrene	129-00-0	SO	IN SITU	N	150	169	0	0	0	0	169	174	97.13	97.13	0	0	0	0
Pyrene	129-00-0	SO	EX SITU	Y	150	14	0	0	0	0	14	67	20.9	20.9	0	0	0	0
Pyrene	129-00-0	SO	EX SITU	N	150	52	1	0	0	0	53	67	79.1	77.61	1.49	0	0	0
Pyrene	129-00-0	GW	IN SITU	Y	110	0	0	0	0	0	0	20	0	0	0	0	0	0
Pyrene	129-00-0	GW	IN SITU	N	110	20	0	0	0	0	20	20	100	100	0	0	0	0
sec-Butylbenzene	135-98-8	SO	IN SITU	Y	61	2	0	0	0	0	2	197	1.02	1.02	0	0	0	0
sec-Butylbenzene	135-98-8	SO	IN SITU	N	61	195	0	0	0	0	195	197	98.98	98.98	0	0	0	0
sec-Butylbenzene	135-98-8	SO	EX SITU	Y	61	1	1	0	0	0	2	76	2.63	1.32	1.32	0	0	0
sec-Butylbenzene	135-98-8	SO	EX SITU	N	61	74	0	0	0	0	74	76	97.37	97.37	0	0	0	0
sec-Butylbenzene	135-98-8	GW	IN SITU	Y	110	2	0	0	0	0	2	20	10	10	0	0	0	0
sec-Butylbenzene	135-98-8	GW	IN SITU	N	110	18	0	0	0	0	18	20	90	90	0	0	0	0
Selenium	7782-49-2	SO	IN SITU	Y	0.35	79	70	0	0	0	149	180	82.78	43.89	38.89	0	0	0
Selenium	7782-49-2	SO	IN SITU	N	0.35	31	0	0	0	0	31	180	17.22	17.22	0	0	0	0
Selenium	7782-49-2	SO	EX SITU	Y	0.35	29	44	1	0	0	74	81	91.36	35.8	54.32	1.23	0	0
Selenium	7782-49-2	SO	EX SITU	N	0.35	7	0	0	0	0	7	81	8.64	8.64	0	0	0	0
Selenium	7782-49-2	GW	IN SITU	Y	5	0	0	0	0	0	0	20	0	0	0	0	0	0
Selenium	7782-49-2	GW	IN SITU	N	5	20	0	0	0	0	20	20	100	100	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Silver	7440-22-4	SO	IN SITU	Y	2.1	94	0	0	0	0	94	181	51.93	51.93	0	0	0	0
Silver	7440-22-4	SO	IN SITU	N	2.1	87	0	0	0	0	87	181	48.07	48.07	0	0	0	0
Silver	7440-22-4	SO	EX SITU	Y	2.1	68	0	0	0	0	68	81	83.95	83.95	0	0	0	0
Silver	7440-22-4	SO	EX SITU	N	2.1	13	0	0	0	0	13	81	16.05	16.05	0	0	0	0
Silver	7440-22-4	GW	IN SITU	Y	18	0	0	0	0	0	0	20	0	0	0	0	0	0
Silver	7440-22-4	GW	IN SITU	N	18	20	0	0	0	0	20	20	100	100	0	0	0	0
Styrene	100-42-5	SO	IN SITU	Y	0.13	0	0	0	0	0	0	197	0	0	0	0	0	0
Styrene	100-42-5	SO	IN SITU	N	0.13	192	4	1	0	0	197	197	100	97.46	2.03	0.51	0	0
Styrene	100-42-5	SO	EX SITU	Y	0.13	0	0	0	0	0	0	76	0	0	0	0	0	0
Styrene	100-42-5	SO	EX SITU	N	0.13	72	1	3	0	0	76	76	100	94.74	1.32	3.95	0	0
Styrene	100-42-5	GW	IN SITU	Y	10	0	0	0	0	0	0	20	0	0	0	0	0	0
Styrene	100-42-5	GW	IN SITU	N	10	20	0	0	0	0	20	20	100	100	0	0	0	0
tert-Butylbenzene	98-06-6	SO	IN SITU	Y	130	1	0	0	0	0	1	197	0.51	0.51	0	0	0	0
tert-Butylbenzene	98-06-6	SO	IN SITU	N	130	196	0	0	0	0	196	197	99.49	99.49	0	0	0	0
tert-Butylbenzene	98-06-6	SO	EX SITU	Y	130	0	0	0	0	0	0	76	0	0	0	0	0	0
tert-Butylbenzene	98-06-6	SO	EX SITU	N	130	76	0	0	0	0	76	76	100	100	0	0	0	0
tert-Butylbenzene	98-06-6	GW	IN SITU	Y	61	2	0	0	0	0	2	20	10	10	0	0	0	0
tert-Butylbenzene	98-06-6	GW	IN SITU	N	61	18	0	0	0	0	18	20	90	90	0	0	0	0
Tetrachloroethene (PCE)	127-18-4	SO	IN SITU	Y	0.003	0	0	0	0	0	0	197	0	0	0	0	0	0
Tetrachloroethene (PCE)	127-18-4	SO	IN SITU	N	0.003	143	47	3	3	1	197	197	100	72.59	23.86	1.52	1.52	0.51
Tetrachloroethene (PCE)	127-18-4	SO	EX SITU	Y	0.003	0	0	0	0	0	0	76	0	0	0	0	0	0
Tetrachloroethene (PCE)	127-18-4	SO	EX SITU	N	0.003	37	35	1	2	1	76	76	100	48.68	46.05	1.32	2.63	1.32
Tetrachloroethene (PCE)	127-18-4	GW	IN SITU	Y	0.1	0	0	0	0	0	0	20	0	0	0	0	0	0
Tetrachloroethene (PCE)	127-18-4	GW	IN SITU	N	0.1	0	20	0	0	0	20	20	100	0	100	0	0	0
Thallium	7440-28-0	SO	IN SITU	Y	5.5	80	0	0	0	0	80	129	62.02	62.02	0	0	0	0
Thallium	7440-28-0	SO	IN SITU	N	5.5	49	0	0	0	0	49	129	37.98	37.98	0	0	0	0
Thallium	7440-28-0	SO	EX SITU	Y	5.5	21	0	0	0	0	21	71	29.58	29.58	0	0	0	0
Thallium	7440-28-0	SO	EX SITU	N	5.5	50	0	0	0	0	50	71	70.42	70.42	0	0	0	0
Thallium	7440-28-0	GW	IN SITU	Y	0.2	0	0	0	0	0	0	20	0	0	0	0	0	0
Thallium	7440-28-0	GW	IN SITU	N	0.2	6	14	0	0	0	20	20	100	30	70	0	0	0
Toluene	108-88-3	SO	IN SITU	Y	0.54	33	1	0	1	0	35	241	14.52	13.69	0.41	0	0.41	0
Toluene	108-88-3	SO	IN SITU	N	0.54	204	1	1	0	0	206	241	85.48	84.65	0.41	0.41	0	0
Toluene	108-88-3	SO	EX SITU	Y	0.54	2	0	2	0	0	4	85	4.71	2.35	0	2.35	0	0
Toluene	108-88-3	SO	EX SITU	N	0.54	80	1	0	0	0	81	85	95.29	94.12	1.18	0	0	0
Toluene	108-88-3	GW	IN SITU	Y	100	0	0	0	0	0	0	20	0	0	0	0	0	0
Toluene	108-88-3	GW	IN SITU	N	100	20	0	0	0	0	20	20	100	100	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Toxaphene	8001-35-2	SO	IN SITU	Y	0.8	0	0	0	0	0	0	166	0	0	0	0	0	0
Toxaphene	8001-35-2	SO	IN SITU	N	0.8	166	0	0	0	0	166	166	100	100	0	0	0	0
Toxaphene	8001-35-2	SO	EX SITU	Y	0.8	0	0	0	0	0	0	57	0	0	0	0	0	0
Toxaphene	8001-35-2	SO	EX SITU	N	0.8	57	0	0	0	0	57	57	100	100	0	0	0	0
Toxaphene	8001-35-2	GW	IN SITU	Y	0.3	0	0	0	0	0	0	20	0	0	0	0	0	0
Toxaphene	8001-35-2	GW	IN SITU	N	0.3	17	3	0	0	0	20	20	100	85	15	0	0	0
TPH-Diesel	PHCD	SO	IN SITU	Y	25	52	2	3	14	0	71	131	54.2	39.69	1.53	2.29	10.69	0
TPH-Diesel	PHCD	SO	IN SITU	N	25	60	0	0	0	0	60	131	45.8	45.8	0	0	0	0
TPH-Diesel	PHCD	SO	EX SITU	Y	25	23	15	22	0	1	61	67	91.04	34.33	22.39	32.84	0	1.49
TPH-Diesel	PHCD	SO	EX SITU	N	25	6	0	0	0	0	6	67	8.96	8.96	0	0	0	0
TPH-Diesel	PHCD	GW	IN SITU	Y	150	4	1	3	0	0	8	20	40	20	5	15	0	0
TPH-Diesel	PHCD	GW	IN SITU	N	150	12	0	0	0	0	12	20	60	60	0	0	0	0
TPH-Gasoline	PHCG	SO	IN SITU	Y	30	2	0	0	0	0	2	64	3.13	3.13	0	0	0	0
TPH-Gasoline	PHCG	SO	IN SITU	N	30	62	0	0	0	0	62	64	96.88	96.88	0	0	0	0
TPH-Gasoline	PHCG	SO	EX SITU	Y	30	10	1	0	1	0	12	67	17.91	14.93	1.49	0	1.49	0
TPH-Gasoline	PHCG	SO	EX SITU	N	30	55	0	0	0	0	55	67	82.09	82.09	0	0	0	0
TPH-Gasoline	PHCG	GW	IN SITU	Y	130	4	0	0	0	0	4	20	20	20	0	0	0	0
TPH-Gasoline	PHCG	GW	IN SITU	N	130	16	0	0	0	0	16	20	80	80	0	0	0	0
TPH-Motor Oil	TPH-Oil	SO	IN SITU	Y	1000	53	0	0	0	0	53	87	60.92	60.92	0	0	0	0
TPH-Motor Oil	TPH-Oil	SO	IN SITU	N	1000	34	0	0	0	0	34	87	39.08	39.08	0	0	0	0
TPH-Motor Oil	TPH-Oil	SO	EX SITU	Y	1000	35	1	0	0	0	36	60	60	58.33	1.67	0	0	0
TPH-Motor Oil	TPH-Oil	SO	EX SITU	N	1000	24	0	0	0	0	24	60	40	40	0	0	0	0
TPH-Motor Oil	TPH-Oil	GW	IN SITU	Y	110	0	1	0	0	0	1	20	5	0	5	0	0	0
TPH-Motor Oil	TPH-Oil	GW	IN SITU	N	110	16	3	0	0	0	19	20	95	80	15	0	0	0
trans-1,2-Dichloroethene	156-60-5	SO	IN SITU	Y	0.04	0	0	0	0	0	0	197	0	0	0	0	0	0
trans-1,2-Dichloroethene	156-60-5	SO	IN SITU	N	0.04	191	2	3	1	0	197	197	100	96.95	1.02	1.52	0.51	0
trans-1,2-Dichloroethene	156-60-5	SO	EX SITU	Y	0.04	0	0	0	0	0	0	76	0	0	0	0	0	0
trans-1,2-Dichloroethene	156-60-5	SO	EX SITU	N	0.04	72	1	2	1	0	76	76	100	94.74	1.32	2.63	1.32	0
trans-1,2-Dichloroethene	156-60-5	GW	IN SITU	Y	10	0	0	0	0	0	0	20	0	0	0	0	0	0
trans-1,2-Dichloroethene	156-60-5	GW	IN SITU	N	10	20	0	0	0	0	20	20	100	100	0	0	0	0
trans-1,3-Dichloropropene	10061-02-6	SO	IN SITU	Y	0.002	0	0	0	0	0	0	197	0	0	0	0	0	0
trans-1,3-Dichloropropene	10061-02-6	SO	IN SITU	N	0.002	70	119	3	4	1	197	197	100	35.53	60.41	1.52	2.03	0.51
trans-1,3-Dichloropropene	10061-02-6	SO	EX SITU	Y	0.002	0	0	0	0	0	0	76	0	0	0	0	0	0
trans-1,3-Dichloropropene	10061-02-6	SO	EX SITU	N	0.002	22	50	0	1	3	76	76	100	28.95	65.79	0	1.32	3.95
trans-1,3-Dichloropropene	10061-02-6	GW	IN SITU	Y	0.4	0	0	0	0	0	0	20	0	0	0	0	0	0
trans-1,3-Dichloropropene	10061-02-6	GW	IN SITU	N	0.4	20	0	0	0	0	20	20	100	100	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

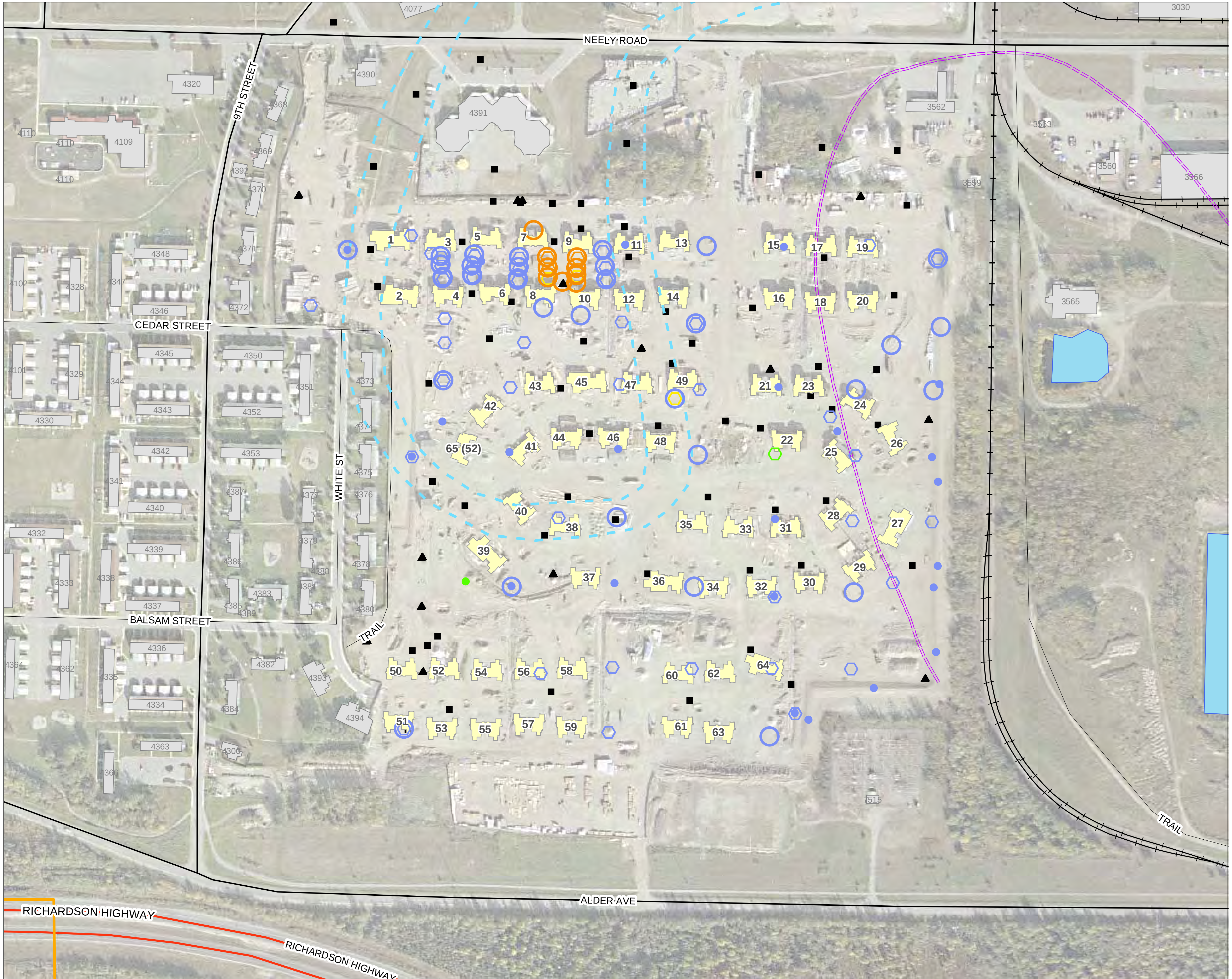
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Trichloroethene (TCE)	79-01-6	SO	IN SITU	Y	0.002	0	0	0	0	0	0	197	0	0	0	0	0	0
Trichloroethene (TCE)	79-01-6	SO	IN SITU	N	0.002	51	138	3	4	1	197	197	100	25.89	70.05	1.52	2.03	0.51
Trichloroethene (TCE)	79-01-6	SO	EX SITU	Y	0.002	0	0	0	0	0	0	76	0	0	0	0	0	0
Trichloroethene (TCE)	79-01-6	SO	EX SITU	N	0.002	18	54	0	1	3	76	76	100	23.68	71.05	0	1.32	3.95
Trichloroethene (TCE)	79-01-6	GW	IN SITU	Y	0.028	0	0	0	0	0	0	20	0	0	0	0	0	0
Trichloroethene (TCE)	79-01-6	GW	IN SITU	N	0.028	0	20	0	0	0	20	20	100	0	100	0	0	0
Trichlorofluoromethane	75-69-4	SO	IN SITU	Y	390	0	0	0	0	0	0	197	0	0	0	0	0	0
Trichlorofluoromethane	75-69-4	SO	IN SITU	N	390	197	0	0	0	0	197	197	100	100	0	0	0	0
Trichlorofluoromethane	75-69-4	SO	EX SITU	Y	390	0	0	0	0	0	0	76	0	0	0	0	0	0
Trichlorofluoromethane	75-69-4	SO	EX SITU	N	390	76	0	0	0	0	76	76	100	100	0	0	0	0
Trichlorofluoromethane	75-69-4	GW	IN SITU	Y	1300	0	0	0	0	0	0	20	0	0	0	0	0	0
Trichlorofluoromethane	75-69-4	GW	IN SITU	N	1300	20	0	0	0	0	20	20	100	100	0	0	0	0
Trichlorotrifluoroethane (Freon 113)	76-13-1	SO	IN SITU	Y	5600	0	0	0	0	0	0	4	0	0	0	0	0	0
Trichlorotrifluoroethane (Freon 113)	76-13-1	SO	IN SITU	N	5600	4	0	0	0	0	4	4	100	100	0	0	0	0
Trichlorotrifluoroethane (Freon 113)	76-13-1	SO	EX SITU	Y	5600	0	0	0	0	0	0	0	0	0	0	0	0	0
Trichlorotrifluoroethane (Freon 113)	76-13-1	SO	EX SITU	N	5600	0	0	0	0	0	0	0	0	0	0	0	0	0
Trichlorotrifluoroethane (Freon 113)	76-13-1	GW	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
Trichlorotrifluoroethane (Freon 113)	76-13-1	GW	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
Vanadium	7440-62-2	SO	IN SITU	Y	71	129	0	0	0	0	129	129	100	100	0	0	0	0
Vanadium	7440-62-2	SO	IN SITU	N	71	0	0	0	0	0	0	129	0	0	0	0	0	0
Vanadium	7440-62-2	SO	EX SITU	Y	71	71	0	0	0	0	71	71	100	100	0	0	0	0
Vanadium	7440-62-2	SO	EX SITU	N	71	0	0	0	0	0	0	71	0	0	0	0	0	0
Vanadium	7440-62-2	GW	IN SITU	Y	26	0	0	0	0	0	0	20	0	0	0	0	0	0
Vanadium	7440-62-2	GW	IN SITU	N	26	20	0	0	0	0	20	20	100	100	0	0	0	0
Vinyl chloride	75-01-4	SO	IN SITU	Y	0.0009	0	0	0	0	0	0	197	0	0	0	0	0	0
Vinyl chloride	75-01-4	SO	IN SITU	N	0.0009	0	182	10	4	1	197	197	100	0	92.39	5.08	2.03	0.51
Vinyl chloride	75-01-4	SO	EX SITU	Y	0.0009	0	0	0	0	0	0	76	0	0	0	0	0	0
Vinyl chloride	75-01-4	SO	EX SITU	N	0.0009	1	63	8	1	3	76	76	100	1.32	82.89	10.53	1.32	3.95
Vinyl chloride	75-01-4	GW	IN SITU	Y	0.015	0	0	0	0	0	0	20	0	0	0	0	0	0
Vinyl chloride	75-01-4	GW	IN SITU	N	0.015	0	14	6	0	0	20	20	100	0	70	30	0	0
Xylene (calculated total)	XYLENESCALC	SO	IN SITU	Y	280	5	0	0	0	0	5	197	2.54	2.54	0	0	0	0
Xylene (calculated total)	XYLENESCALC	SO	IN SITU	N	280	192	0	0	0	0	192	197	97.46	97.46	0	0	0	0
Xylene (calculated total)	XYLENESCALC	SO	EX SITU	Y	280	4	1	0	0	0	5	79	6.33	5.06	1.27	0	0	0
Xylene (calculated total)	XYLENESCALC	SO	EX SITU	N	280	74	0	0	0	0	74	79	93.67	93.67	0	0	0	0
Xylene (calculated total)	XYLENESCALC	GW	IN SITU	Y	1400	0	0	0	0	0	0	20	0	0	0	0	0	0
Xylene (calculated total)	XYLENESCALC	GW	IN SITU	N	1400	20	0	0	0	0	20	20	100	100	0	0	0	0

TABLE 3-7
Summary of Chemical Data Relative to Screening Levels

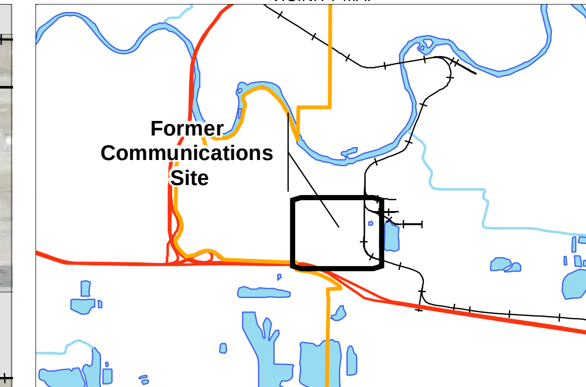
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Analyte Name	**CAS Number**	**Matrix**	**In Situ or Ex Situ?**	**Was Analyte Detected?**	**Screening Level (mg/kg or µg/L)**	**Blue Count (<=1*SL)**	**Green Count (>1*SL & <=10*SL)**	**Yellow Count (>10*SL & <=100*SL)**	**Orange Count (>100*SL & <=1000*SL)**	**Red Count (>1000*SL)**	**Total Count: Detect+ Non-detect**	**Total Count: In Situ Soil; Ex Situ Soil; Groundwater**	**Percent Detect or Non-detect in: In Situ; Ex Situ; Groundwater Groups**	**Percent Blue**	**Percent Green**	**Percent Yellow**	**Percent Orange**	**Percent Red**
Xylenes, Total	1330-20-7	SO	IN SITU	Y	7.8	27	0	0	0	0	27	71	38.03	38.03	0	0	0	0
Xylenes, Total	1330-20-7	SO	IN SITU	N	7.8	44	0	0	0	0	44	71	61.97	61.97	0	0	0	0
Xylenes, Total	1330-20-7	SO	EX SITU	Y	7.8	0	0	0	0	0	0	9	0	0	0	0	0	0
Xylenes, Total	1330-20-7	SO	EX SITU	N	7.8	9	0	0	0	0	9	9	100	100	0	0	0	0
Xylenes, Total	1330-20-7	GW	IN SITU	Y		0	0	0	0	0	0	0	0	0	0	0	0	0
Xylenes, Total	1330-20-7	GW	IN SITU	N		0	0	0	0	0	0	0	0	0	0	0	0	0
Zinc	7440-66-6	SO	IN SITU	Y	910	129	0	0	0	0	129	129	100	100	0	0	0	0
Zinc	7440-66-6	SO	IN SITU	N	910	0	0	0	0	0	0	129	0	0	0	0	0	0
Zinc	7440-66-6	SO	EX SITU	Y	910	66	1	4	0	0	71	71	100	92.96	1.41	5.63	0	0
Zinc	7440-66-6	SO	EX SITU	N	910	0	0	0	0	0	0	71	0	0	0	0	0	0
Zinc	7440-66-6	GW	IN SITU	Y	1100	17	0	0	0	0	17	20	85	85	0	0	0	0
Zinc	7440-66-6	GW	IN SITU	N	1100	3	0	0	0	0	3	20	15	15	0	0	0	0

Notes:
GW = groundwater
mg/kg = milligrams per kilogram
µg/L = micrograms per liter
NA = not available
SO = soil

Appendix B
Chemical Data Mapping



VICINITY MAP



LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

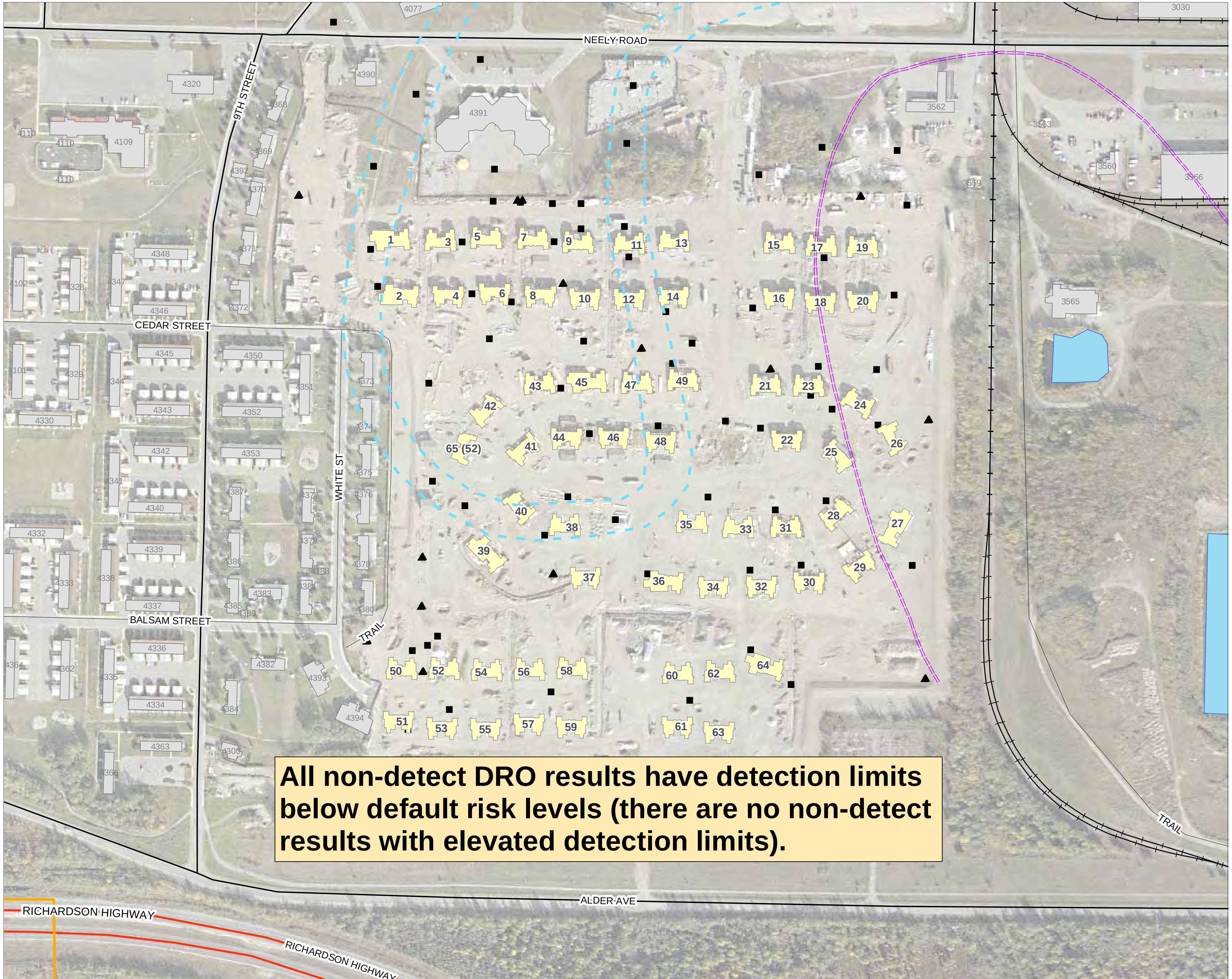
NOTES:
1. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
2. Projection: WGS84 UTM Zone 6N

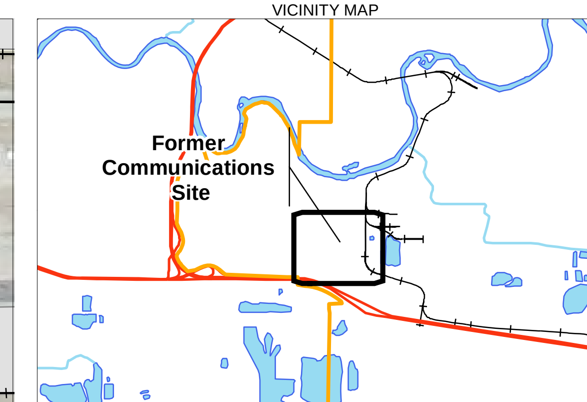
N

0 150 300
Feet

FIGURE 3-2
DRO IN SOILS
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT





LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

NOTES:
1. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
2. Projection: WGS84 UTM Zone 6N

N

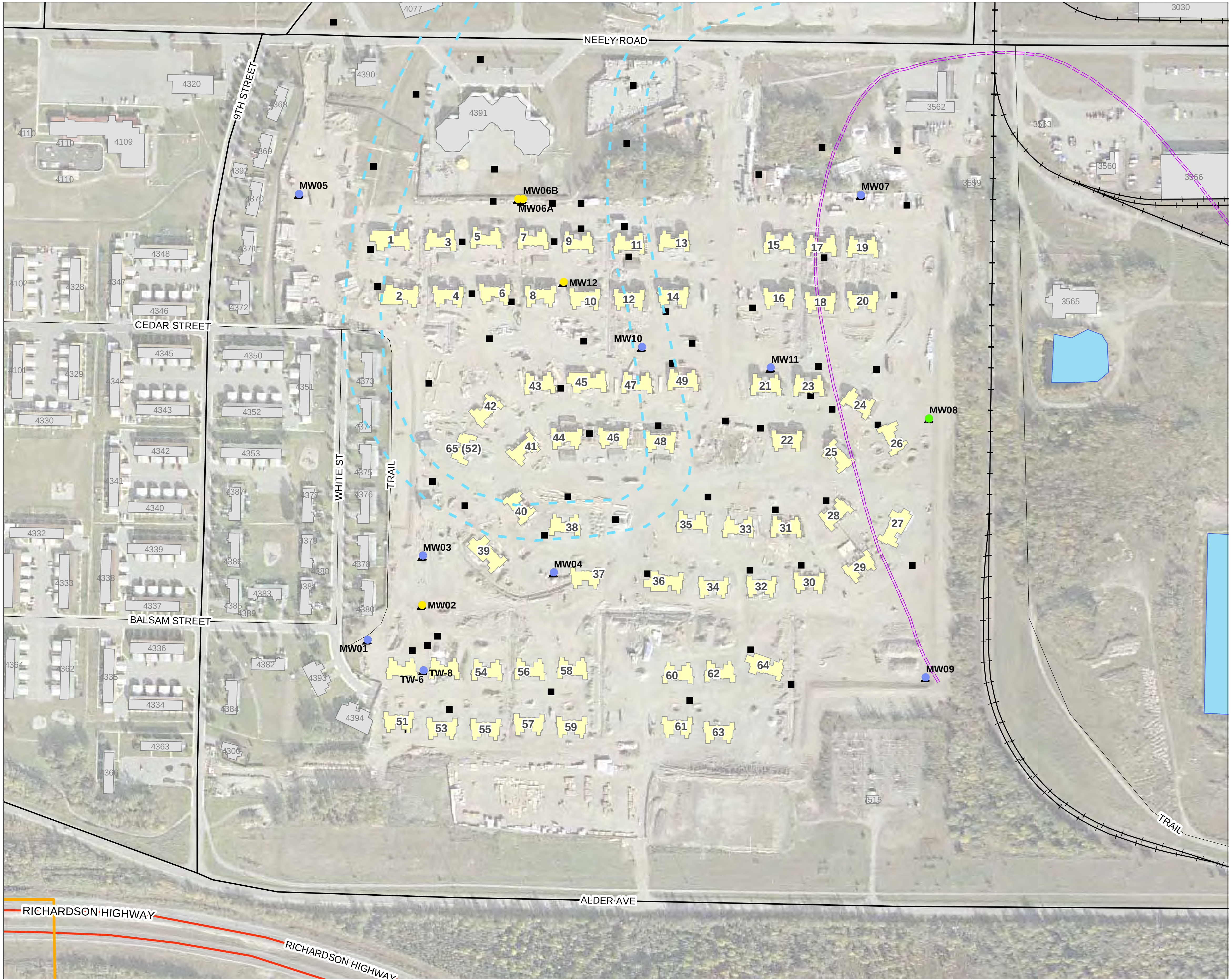
0 150 300
Feet

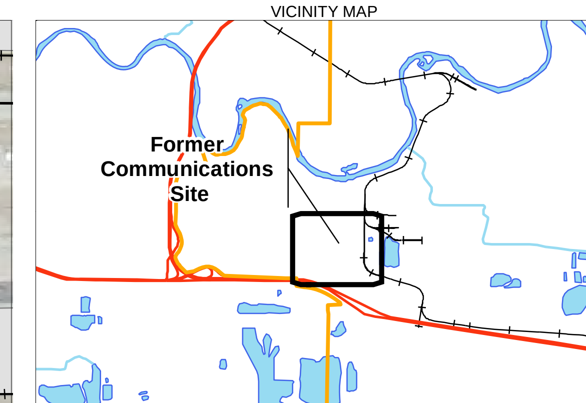
FIGURE 3-3
DRO SOIL NON-DETECT RESULTS WITH ELEVATED DETECTION LIMITS
Yellow, Orange & Red Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT

\\RDD31018132\PROJECTS\TAKU_35459807\MAPFILES\TAKU_DROS_NON-DETECT_SO.MXD TAKU_DROS_NON-DETECT_SO.PDF 10/14/2007 13:09:26

CH2MHILL





LEGEND

- Permanent monitoring well locations
- Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

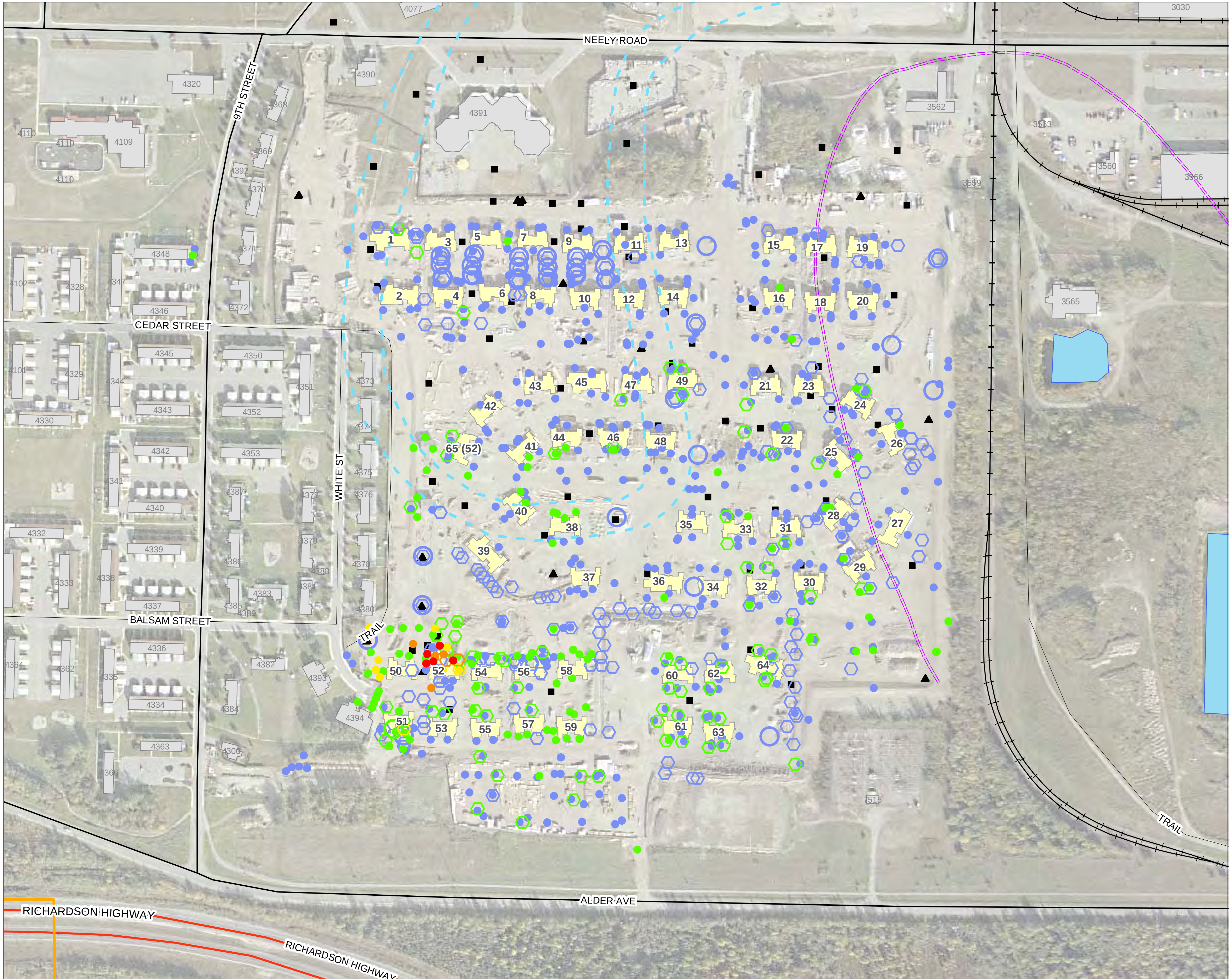
NOTES:
1. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
2. Projection: WGS84 UTM Zone 6N

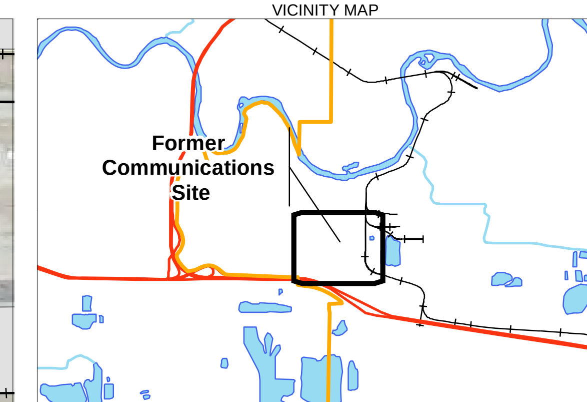
N

0 150 300
Feet

FIGURE 3-4
DRO IN GROUNDWATER
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

CH2MHILL





LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

NOTES:
1. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
2. Projection: WGS84 UTM Zone 6N

N

0 150 300
Feet

FIGURE 3-5
PCBs IN SOILS
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT

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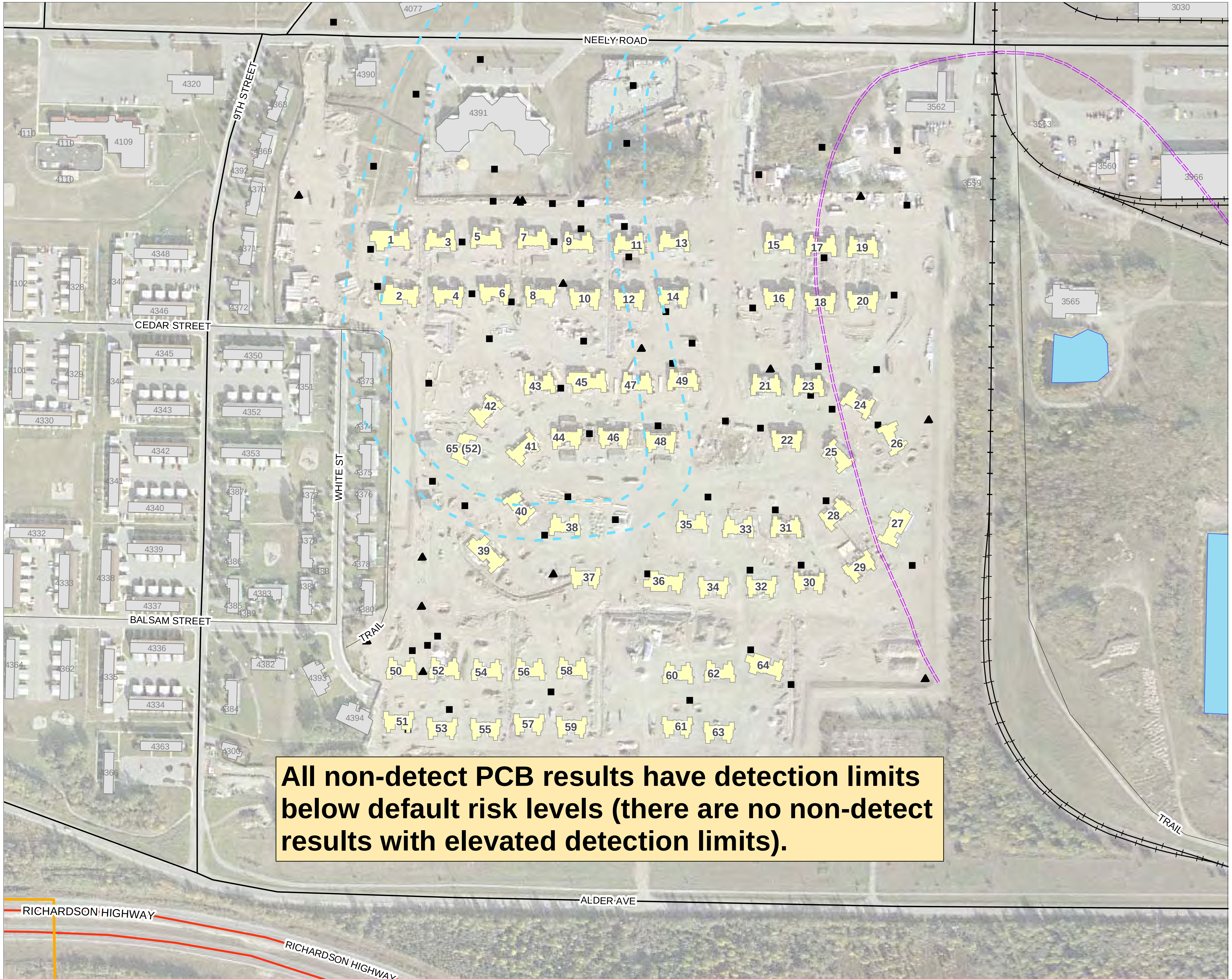
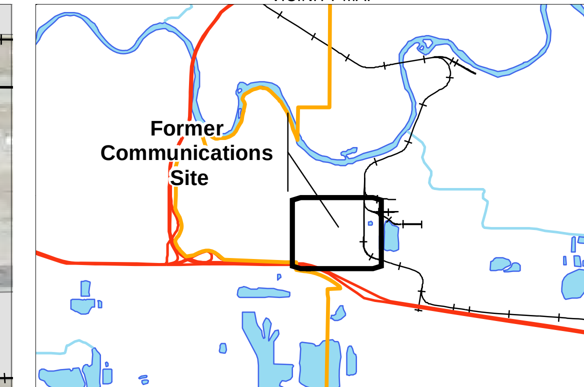
CH2MHILL



VICINITY MAP



LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

NOTES:
1. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
2. Projection: WGS84 UTM Zone 6N

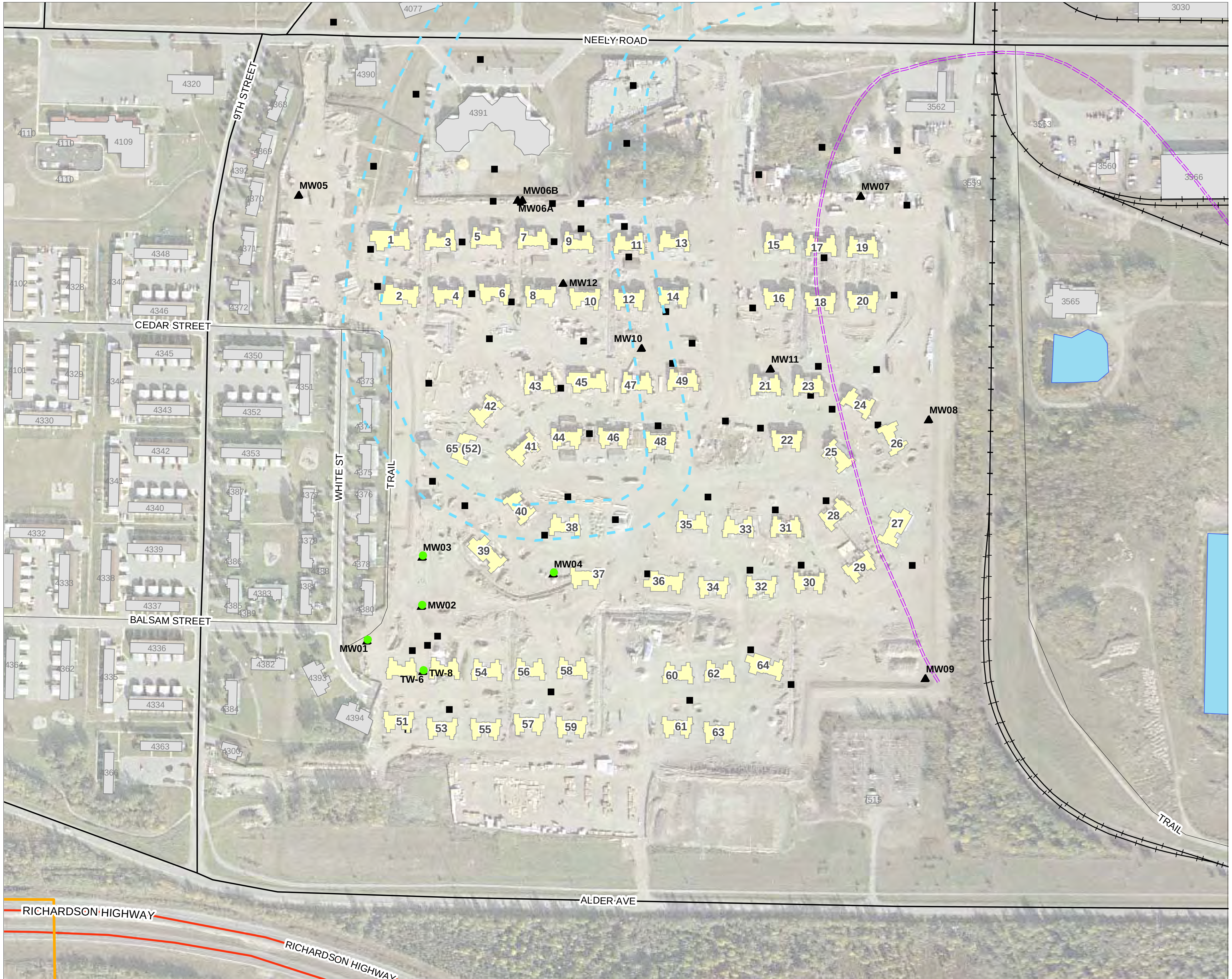
N

0 150 300
Feet

FIGURE 3-6
PCB SOIL NON-DETECT RESULTS WITH ELEVATED DETECTION LIMITS
Yellow, Orange & Red Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT

CH2MHILL



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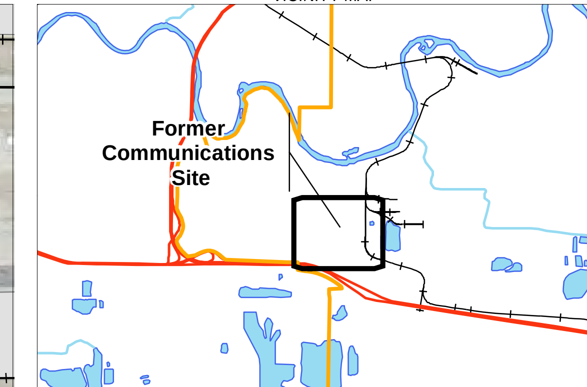

LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

NOTES:
1. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
2. Projection: WGS84 UTM Zone 6N

N

0 150 300
Feet

FIGURE 3-7
PCBs IN GROUNDWATER
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT

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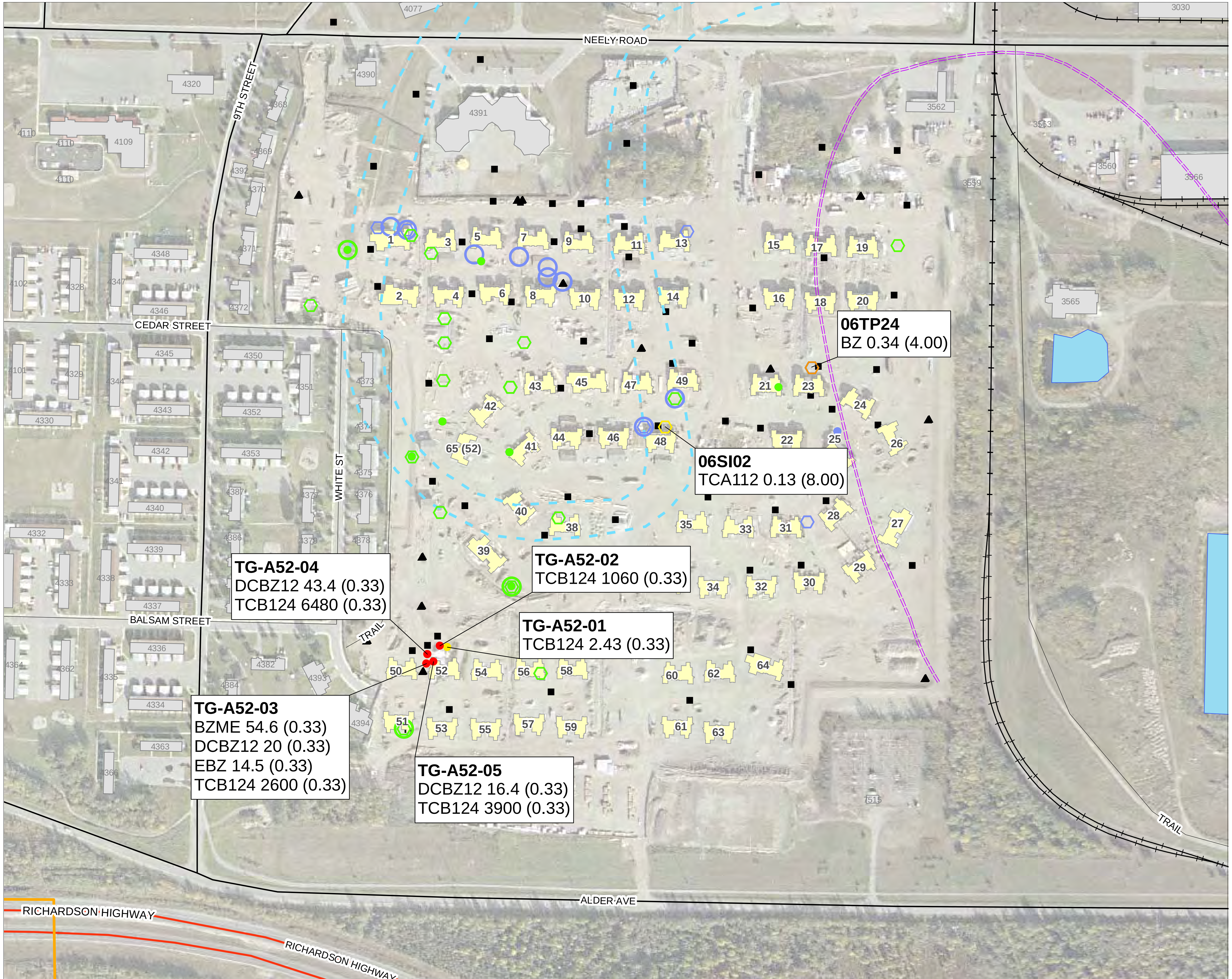
CH2MHILL



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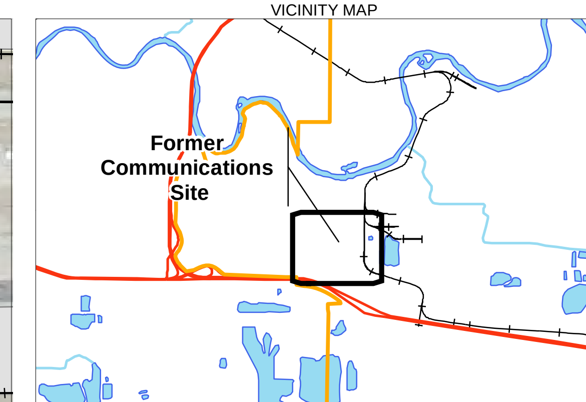


LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

SAMPLE LOCATION — TSW-64-1
ANALYTE ABBREVIATION — BZ 2.1 (4.0)
CONCENTRATION (mg/kg)
SAMPLE ENDING DEPTH (feet)

NOTES:
1. 999 = Unknown Sampling Depth
2. All sampling units are in mg/kg
3. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
4. Projection: WGS84 UTM Zone 6N

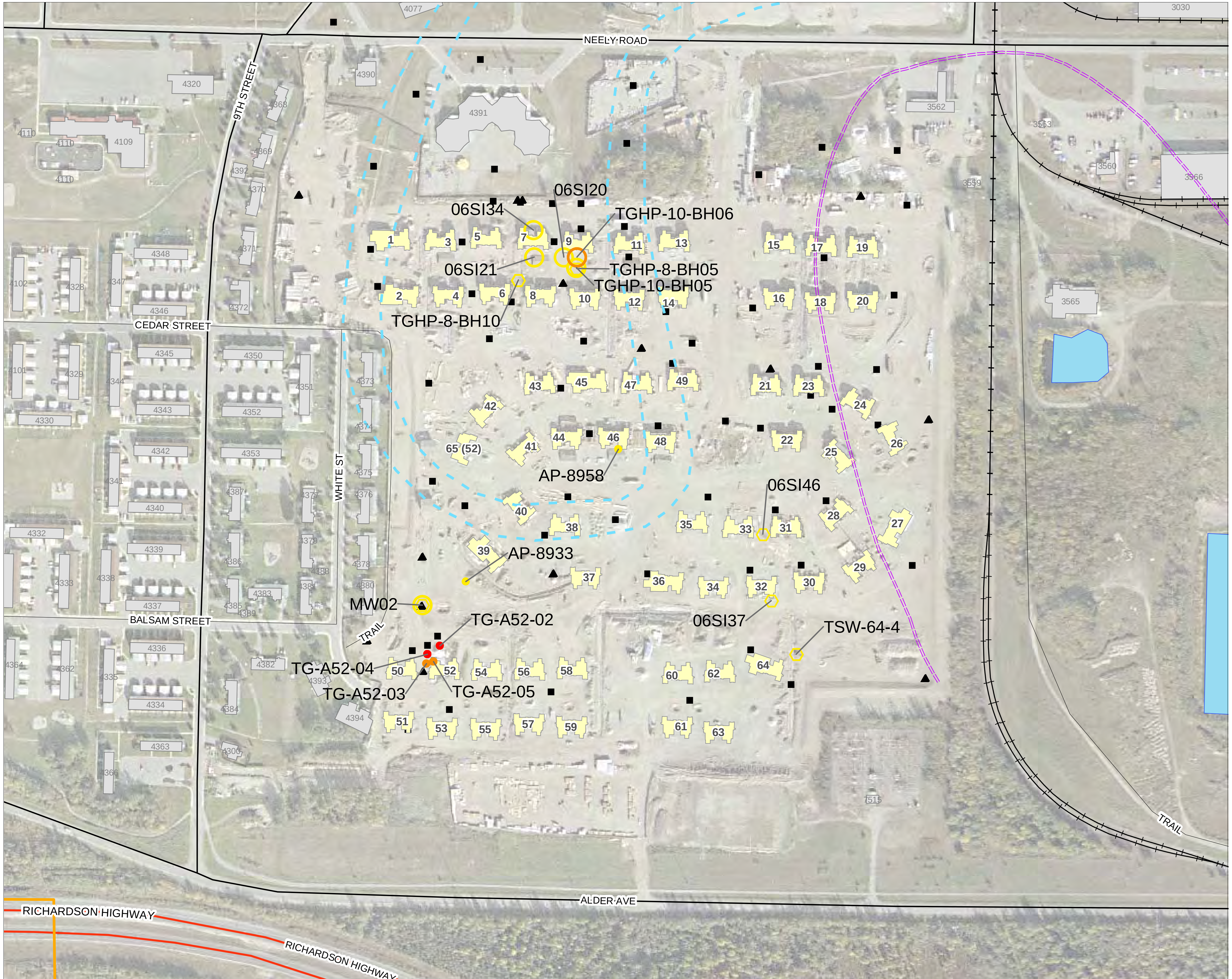
ANALYTE ABBREVIATION	ANALYTE NAME
BZ	Benzene
BZME	Toluene
DCBZ12	1,2-Dichlorobenzene
EBZ	Ethylbenzene
TCA112	1,1,2-Trichloroethane
TCB124	1,2,4-Trichlorobenzene

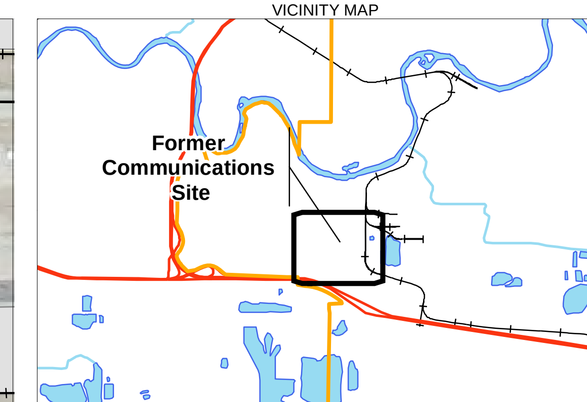
N

0 150 300
Feet

FIGURE 3-8
VOCs IN SOILS
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT





LEGEND

- Permanent monitoring well locations
- Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= less screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

NOTES:
1. Projection: WGS84 UTM Zone 6N
2. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs

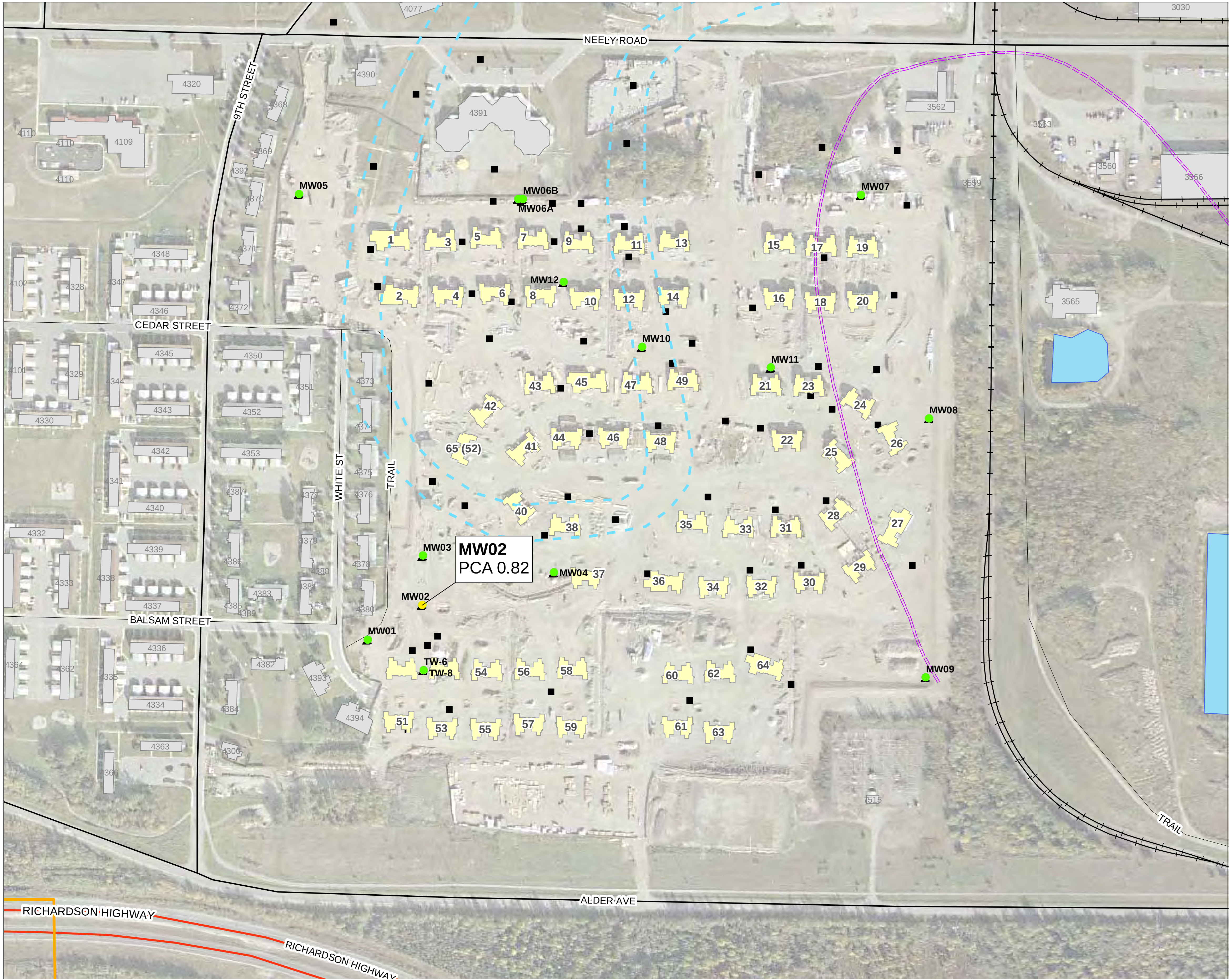
N

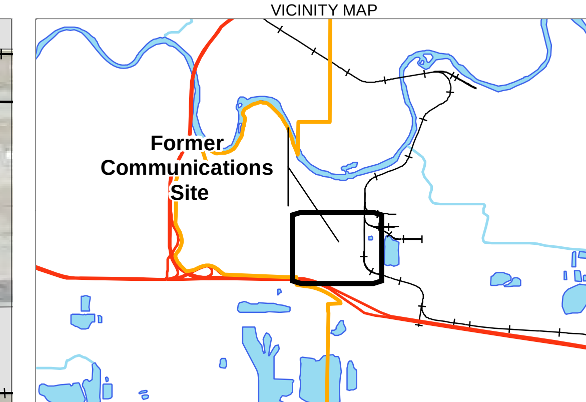
0 150 300
Feet

FIGURE 3-9
VOC SOIL NON-DETECT RESULTS WITH ELEVATED DETECTION LIMITS
Yellow, Orange & Red Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT

CH2MHILL





LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

SAMPLE LOCATION — MW02
ANALYTE ABBREVIATION — PCA 0.82
CONCENTRATION (µg/L)

NOTES:
1. All sampling units are in µg/L
2. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
3. Projection: WGS84 UTM Zone 6N
4. All Non-detect Results with Elevated Detection Limits are listed on Table 2.8

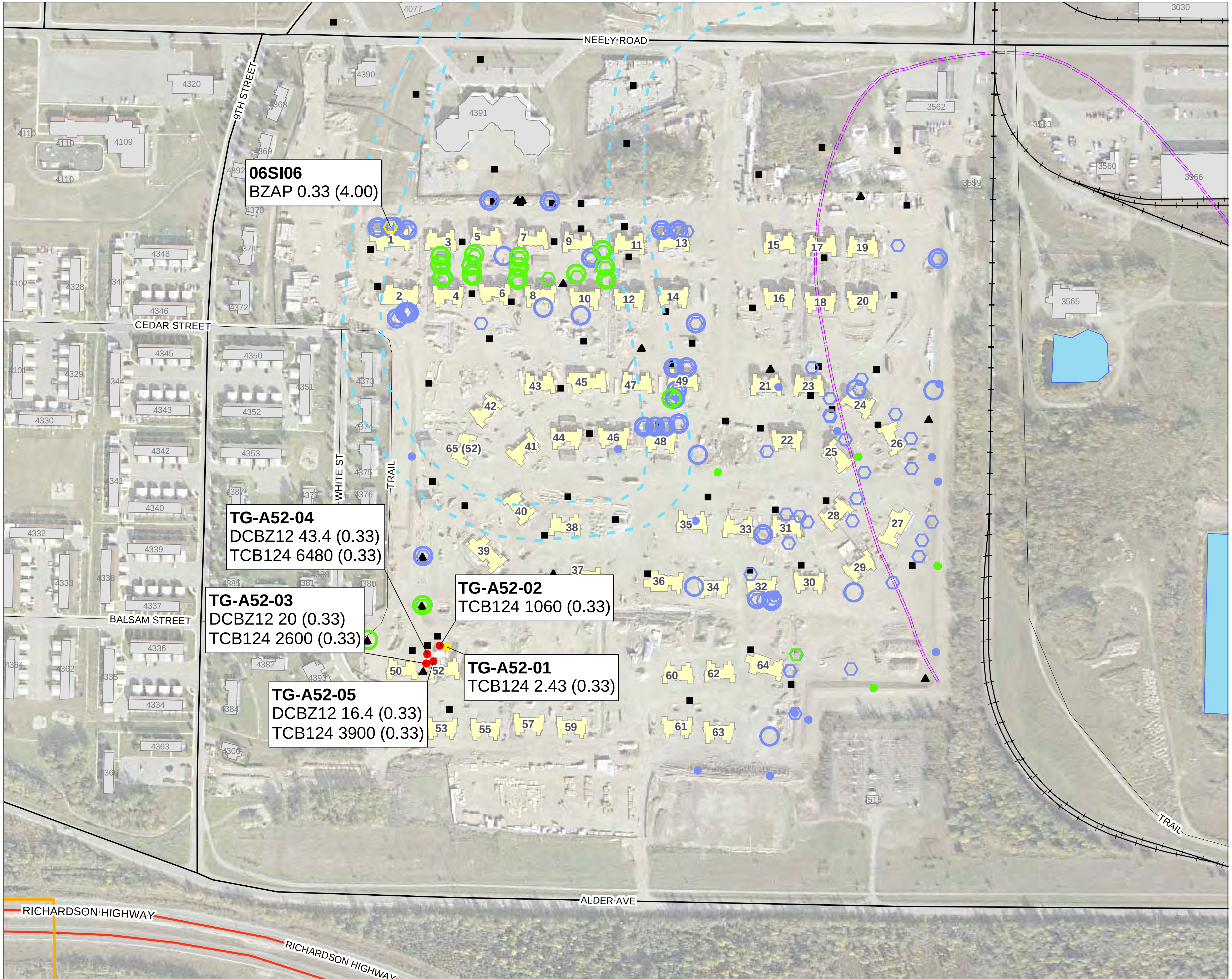
ANALYTE ABBREVIATION	ANALYTE NAME
PCA	1,1,2,2-Tetrachloroethane

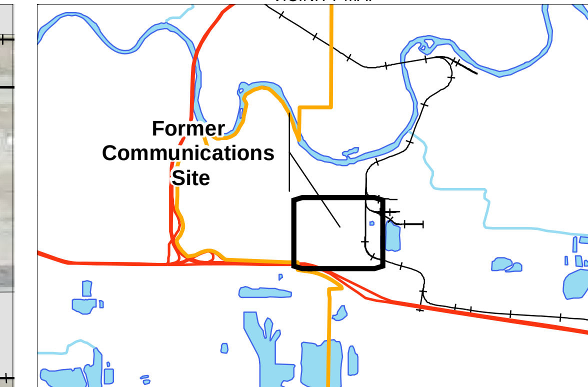
N

0 150 300
Feet

FIGURE 3-10
VOCs IN GROUNDWATER
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

CH2MHILL





LEGEND

- Permanent monitoring well locations
- Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

SAMPLE LOCATION — TSW-64-1
ANALYTE ABBREVIATION — BZ 2.1 (4.0)
CONCENTRATION (mg/kg)
SAMPLE ENDING DEPTH (feet)

NOTES:
1. 999 = Unknown Sampling Depth
2. All sampling units are in mg/kg
3. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
4. Projection: WGS84 UTM Zone 6N

ANALYTE ABBREVIATION	ANALYTE NAME
BZAP	Benzo(a)pyrene
DCBZ12	1,2-Dichlorobenzene
TCB124	1,2,4-Trichlorobenzene

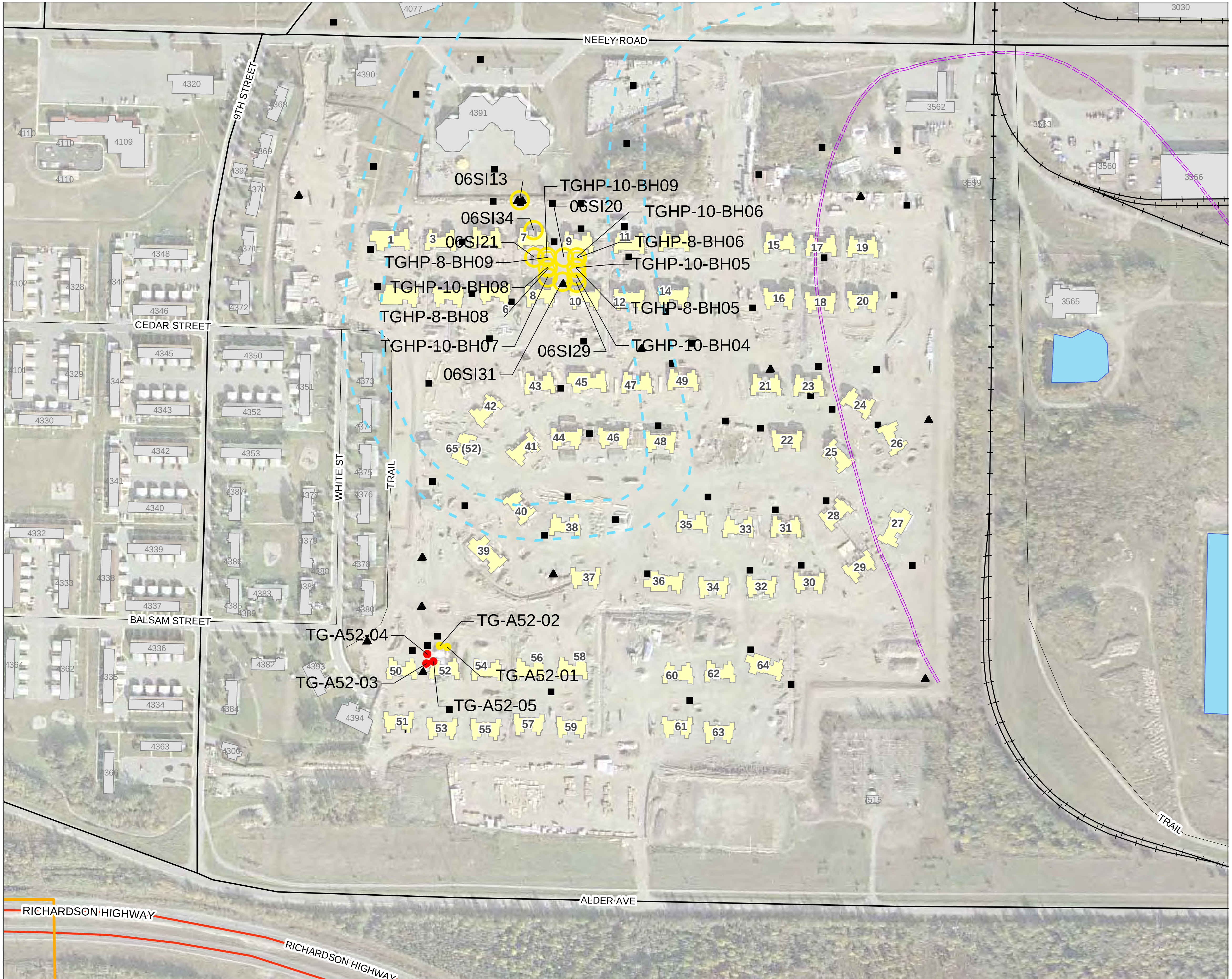
N

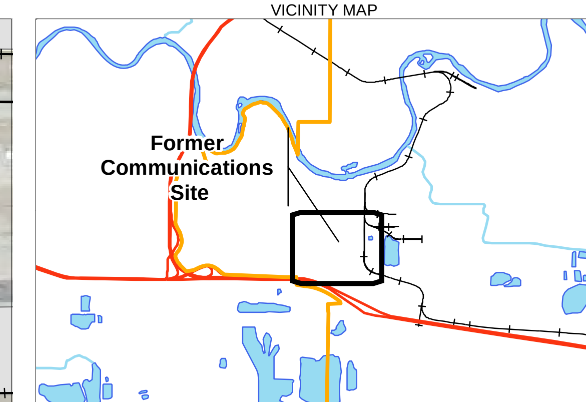
0 150 300
Feet

FIGURE 3-11
SVOCs IN SOILS
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT

CH2MHILL





LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

NOTES:
1. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
2. Projection: WGS84 UTM Zone 6N

N

0 150 300
Feet

FIGURE 3-12
SVOC SOIL NON-DETECT RESULTS WITH ELEVATED DETECTION LIMITS
Yellow, Orange & Red Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT

CH2MHILL

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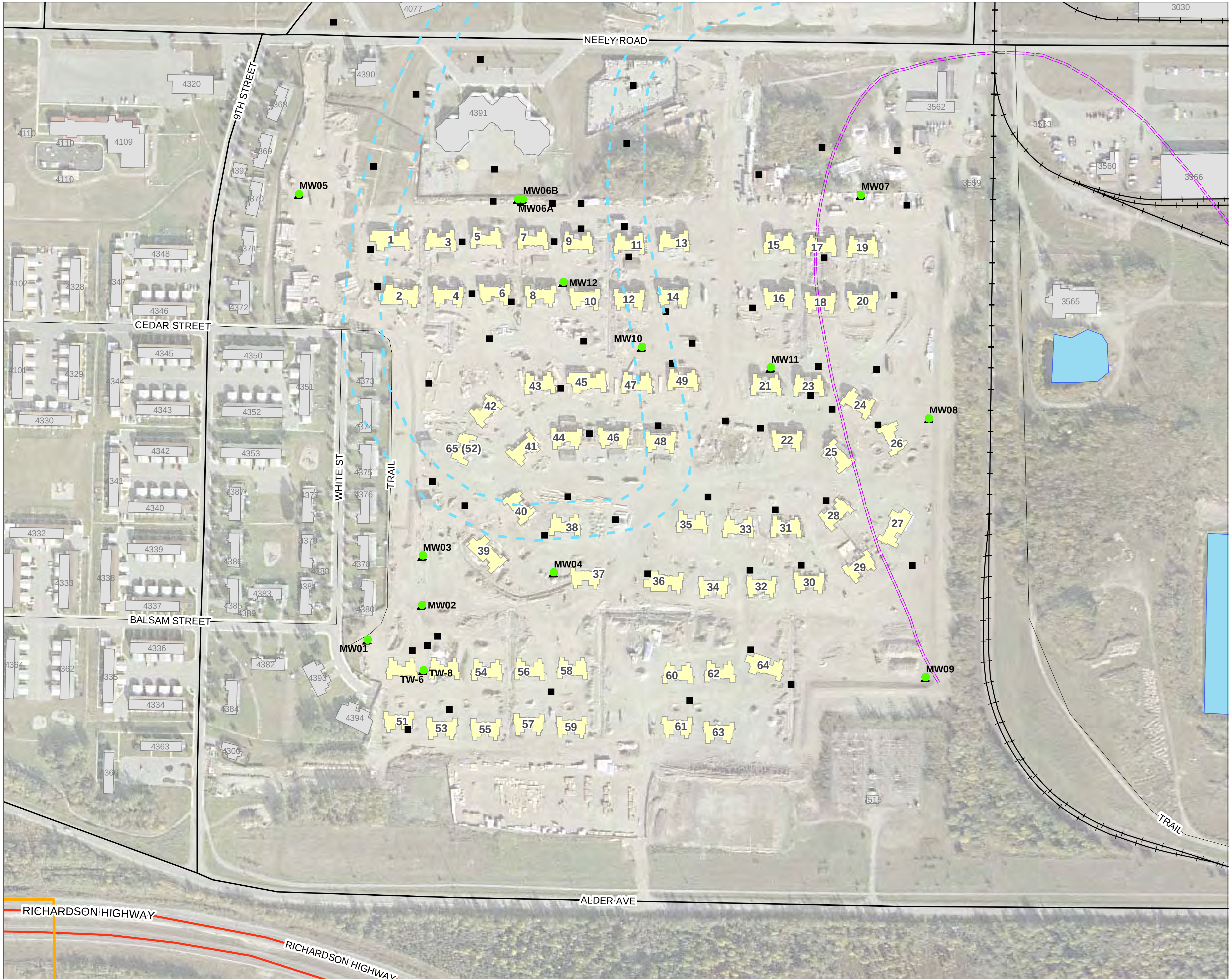
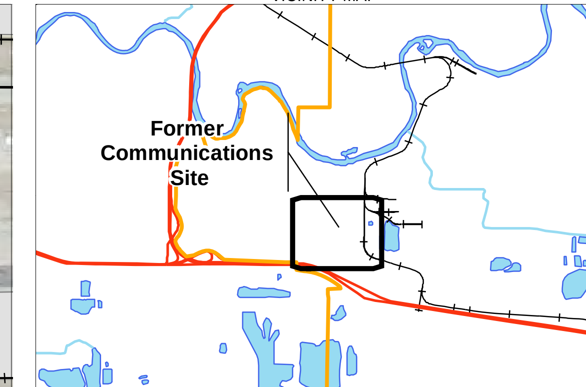


VICINITY MAP



LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

SAMPLE LOCATION — **MW02**
ANALYTE ABBREVIATION — PCA 0.82
CONCENTRATION (µg/L)

NOTES:
1. All sampling units are in µg/L
2. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
3. Projection: WGS84 UTM Zone 6N
4. All Non-detect Results with Elevated Detection Limits are listed on Table 2.8

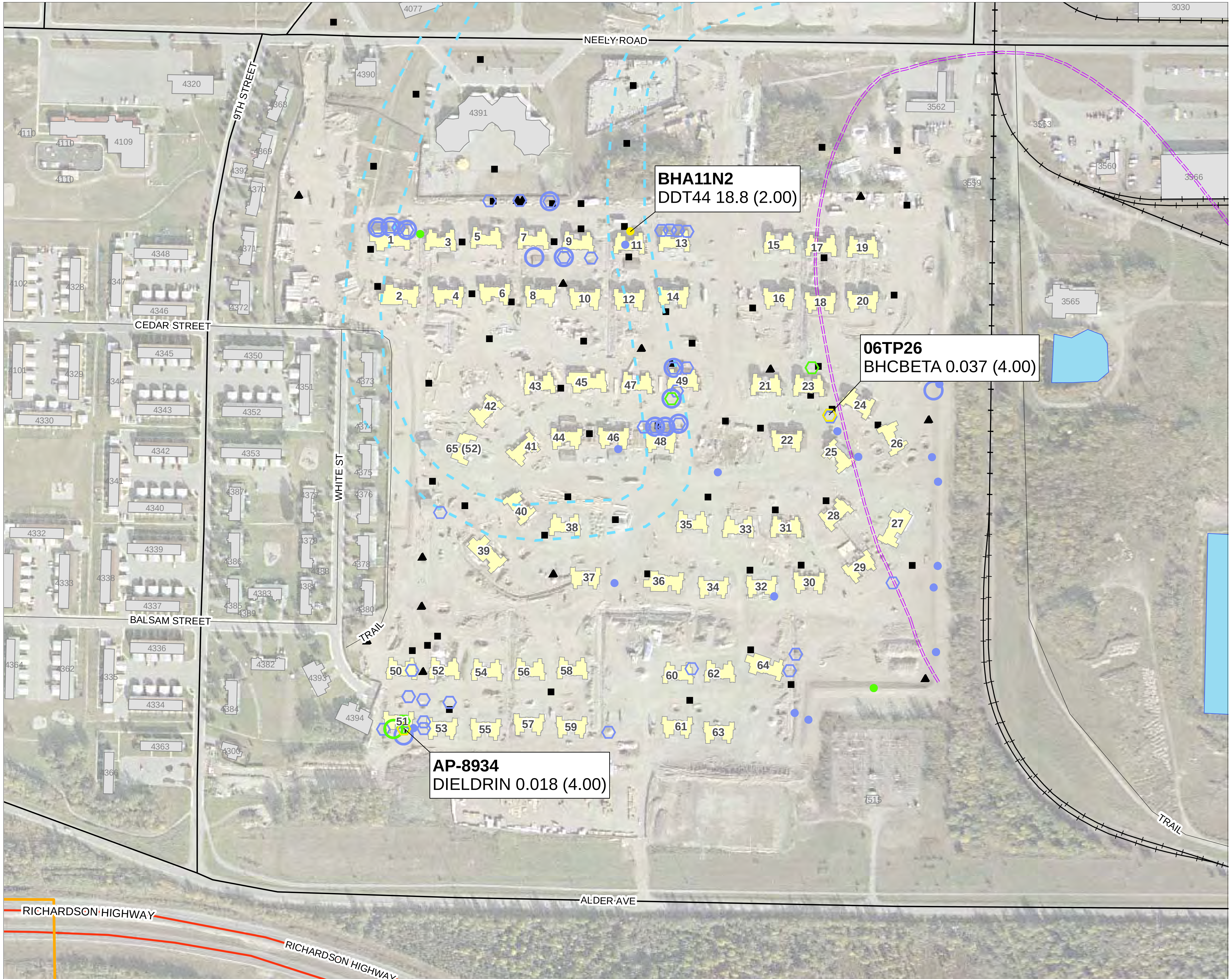
N

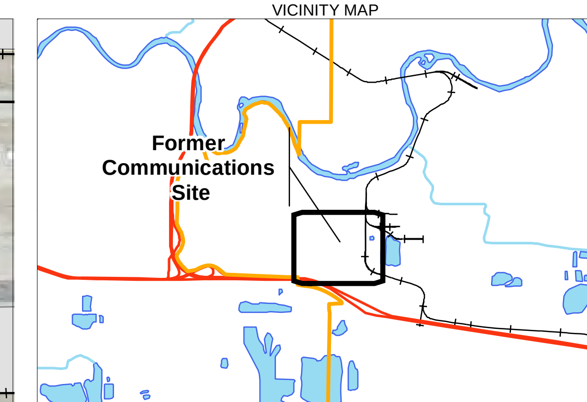
0 150 300
Feet

FIGURE 3-13
SVOCs IN GROUNDWATER
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT

CH2MHILL





LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

SAMPLE LOCATION — TSW-64-1
ANALYTE ABBREVIATION — BZ 2.1 (4.0)
CONCENTRATION (mg/kg)
SAMPLE ENDING DEPTH (feet)

NOTES:
1. 999 = Unknown Sampling Depth
2. All sampling units are in mg/kg
3. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
4. Projection: WGS84 UTM Zone 6N

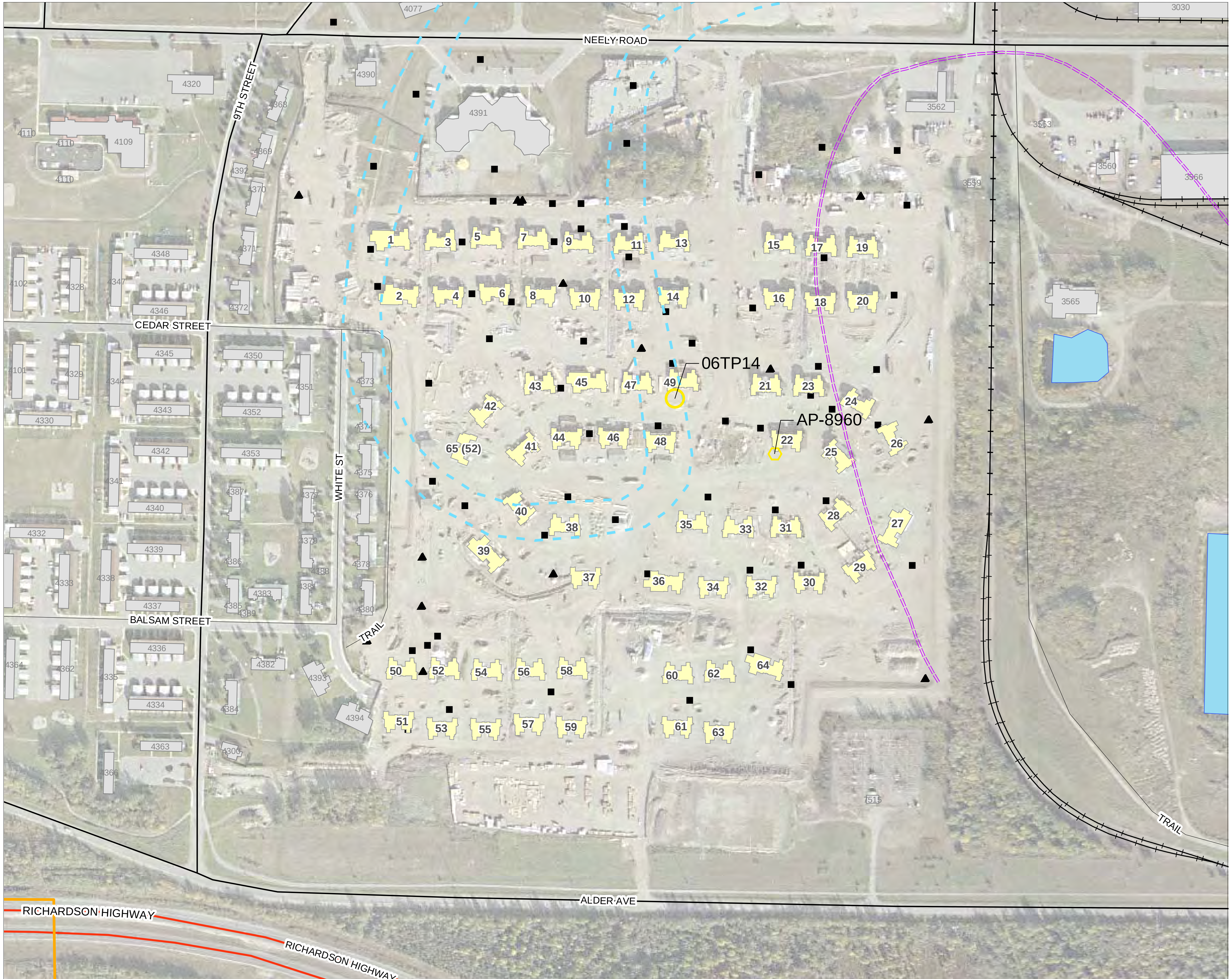
ANALYTE ABBREVIATION	ANALYTE NAME
BHCBETA	beta-BHC
DDT44	4,4'-DDT
DIELDRIN	Dieldrin

N

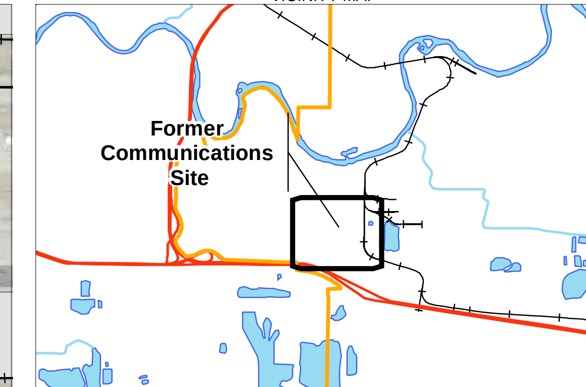
0 150 300
Feet

FIGURE 3-14
PESTICIDES IN SOILS
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT



VICINITY MAP



LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

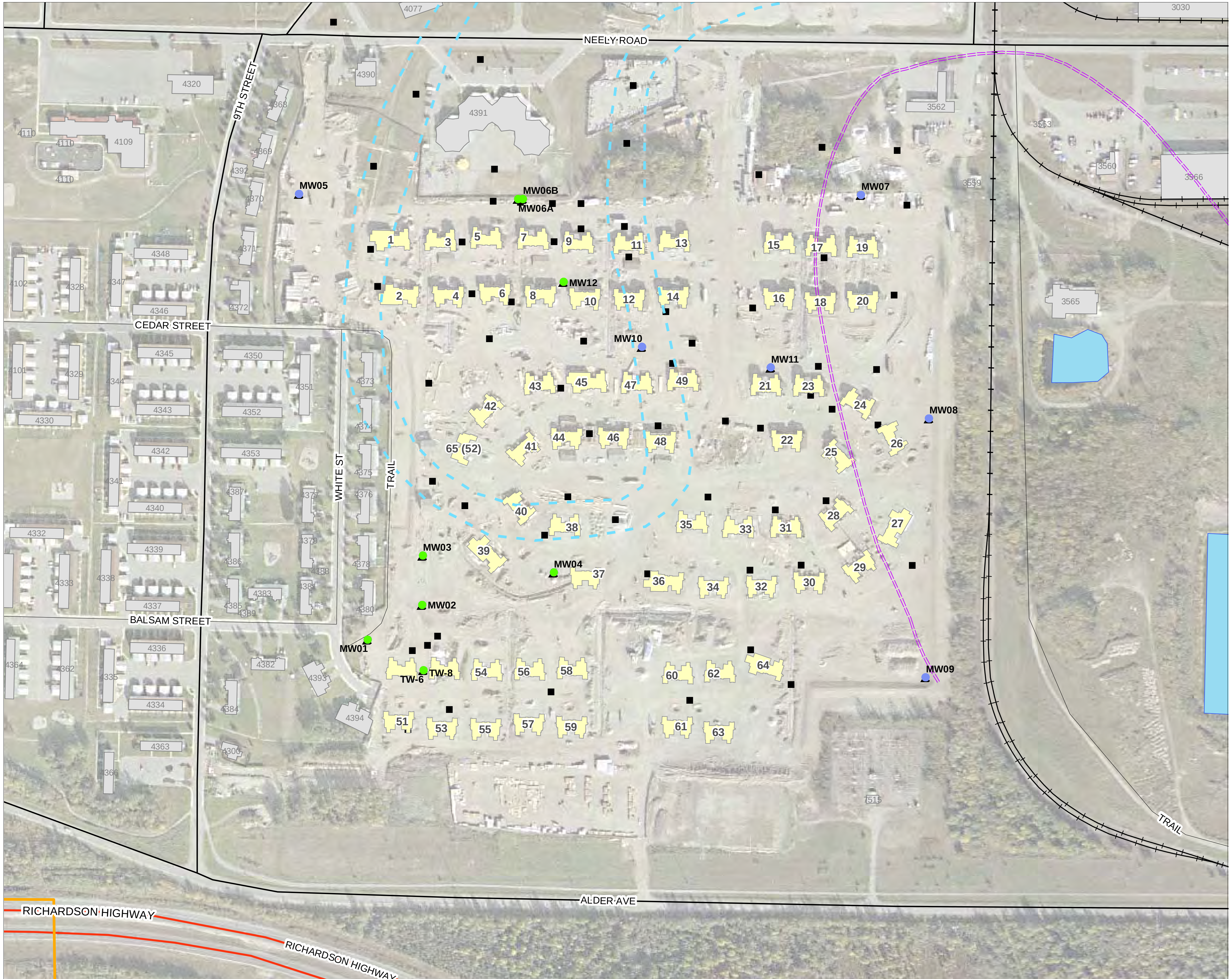
NOTES:
1. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
2. Projection: WGS84 UTM Zone 6N

N

0 150 300
Feet

FIGURE 3-15
PESTICIDE SOIL NON-DETECT RESULTS WITH ELEVATED DETECTION LIMITS
Yellow, Orange & Red Non-detects
Former Communications Site
Fort Wainwright, Alaska

CH2MHILL



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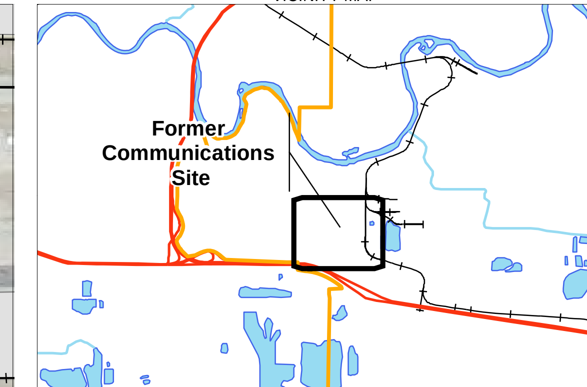

LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

SAMPLE LOCATION — **MW02**
ANALYTE ABBREVIATION — PCA 0.82
CONCENTRATION (µg/L)

NOTES:
1. All sampling units are in µg/L
2. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
3. Projection: WGS84 UTM Zone 6N
4. All Non-detect Results with Elevated Detection Limits are listed on Table 2.8

N

0 150 300
Feet

FIGURE 3-16
PESTICIDES IN GROUNDWATER
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT

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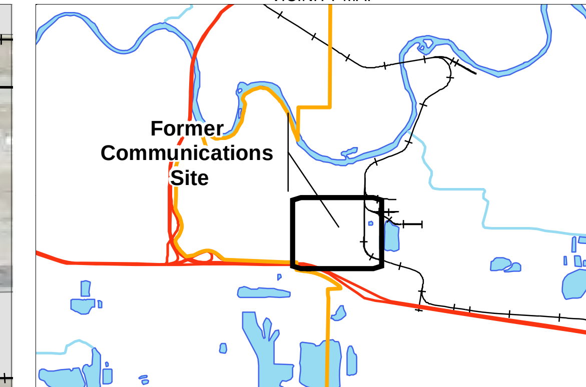
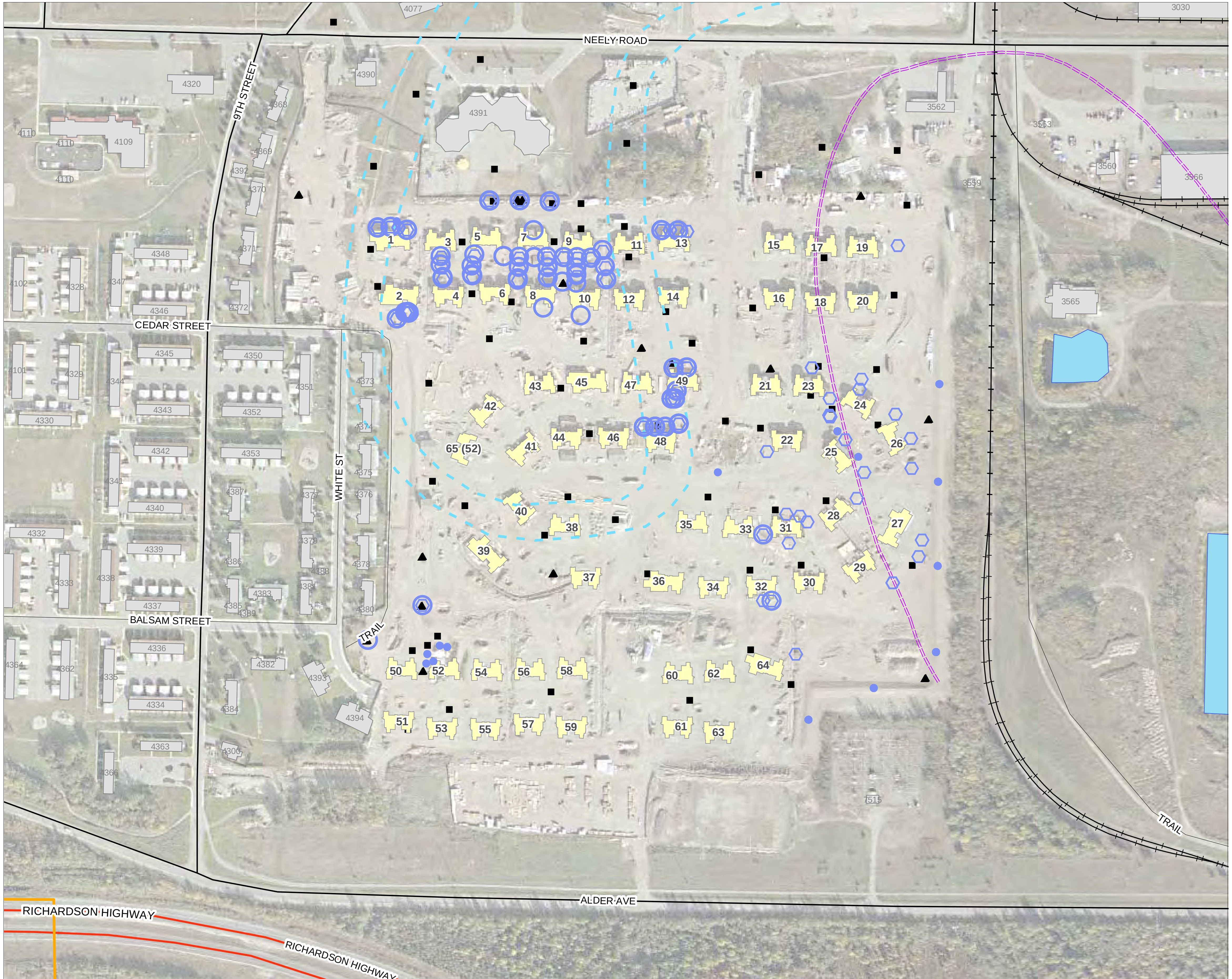
CH2MHILL





LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

SAMPLE LOCATION — **TSW-64-1**
ANALYTE ABBREVIATION — BZ 2.1 (4.0)
CONCENTRATION (mg/kg)
SAMPLE ENDING DEPTH (feet)

NOTES:
1. 999 = Unknown Sampling Depth
2. All sampling units are in mg/kg
3. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
4. Projection: WGS84 UTM Zone 6N

N

0 150 300
Feet

FIGURE 3-17
CHLORINATED HERBICIDES IN SOILS
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT

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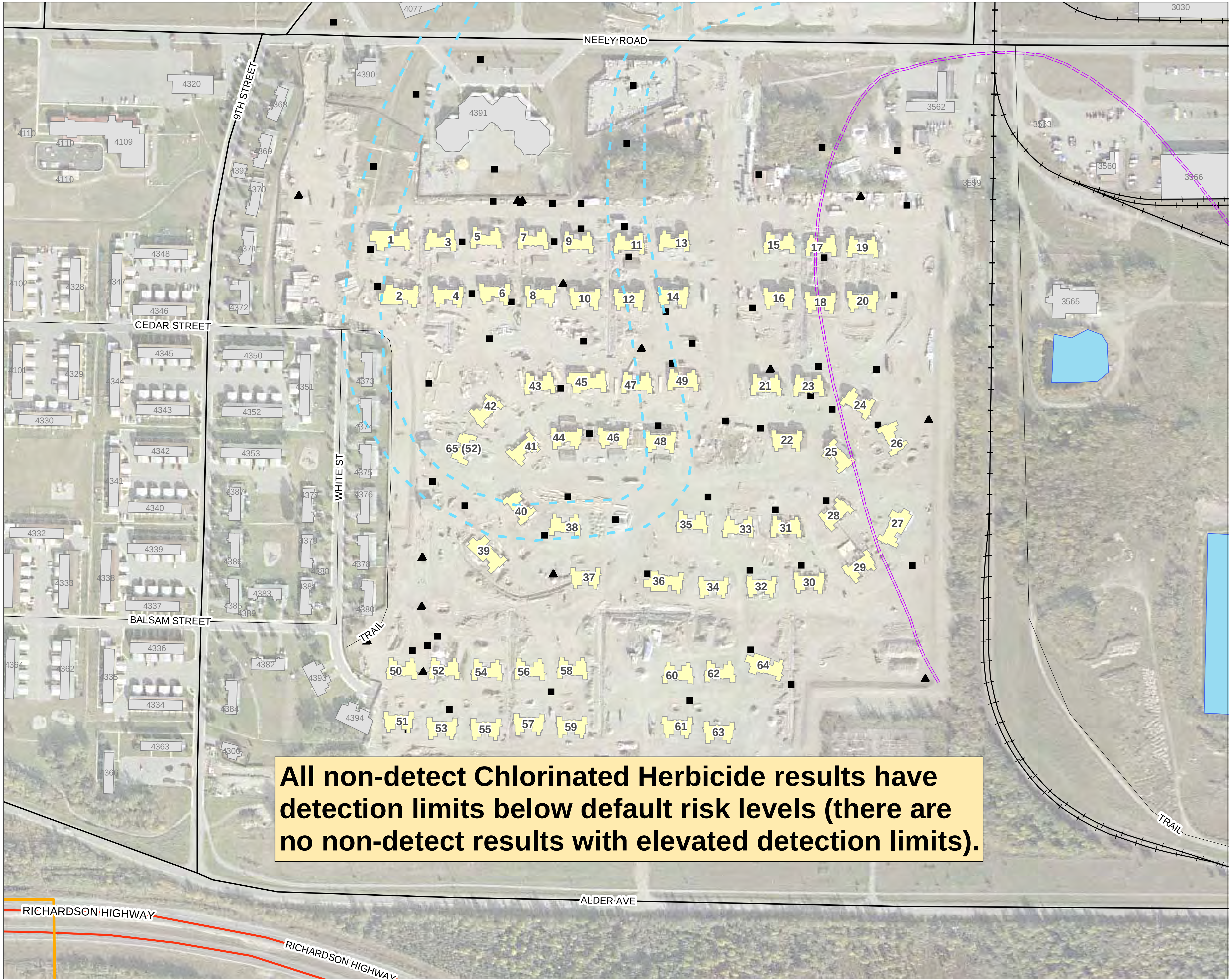
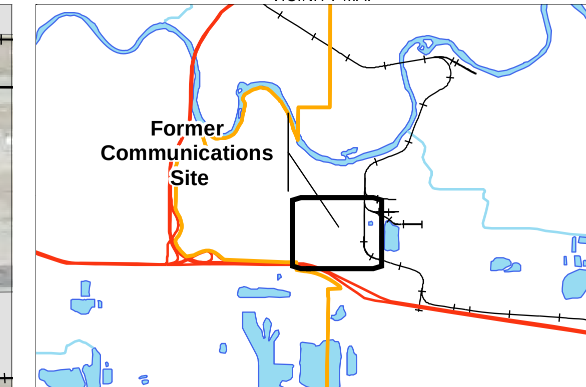
CH2MHILL



VICINITY MAP



LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

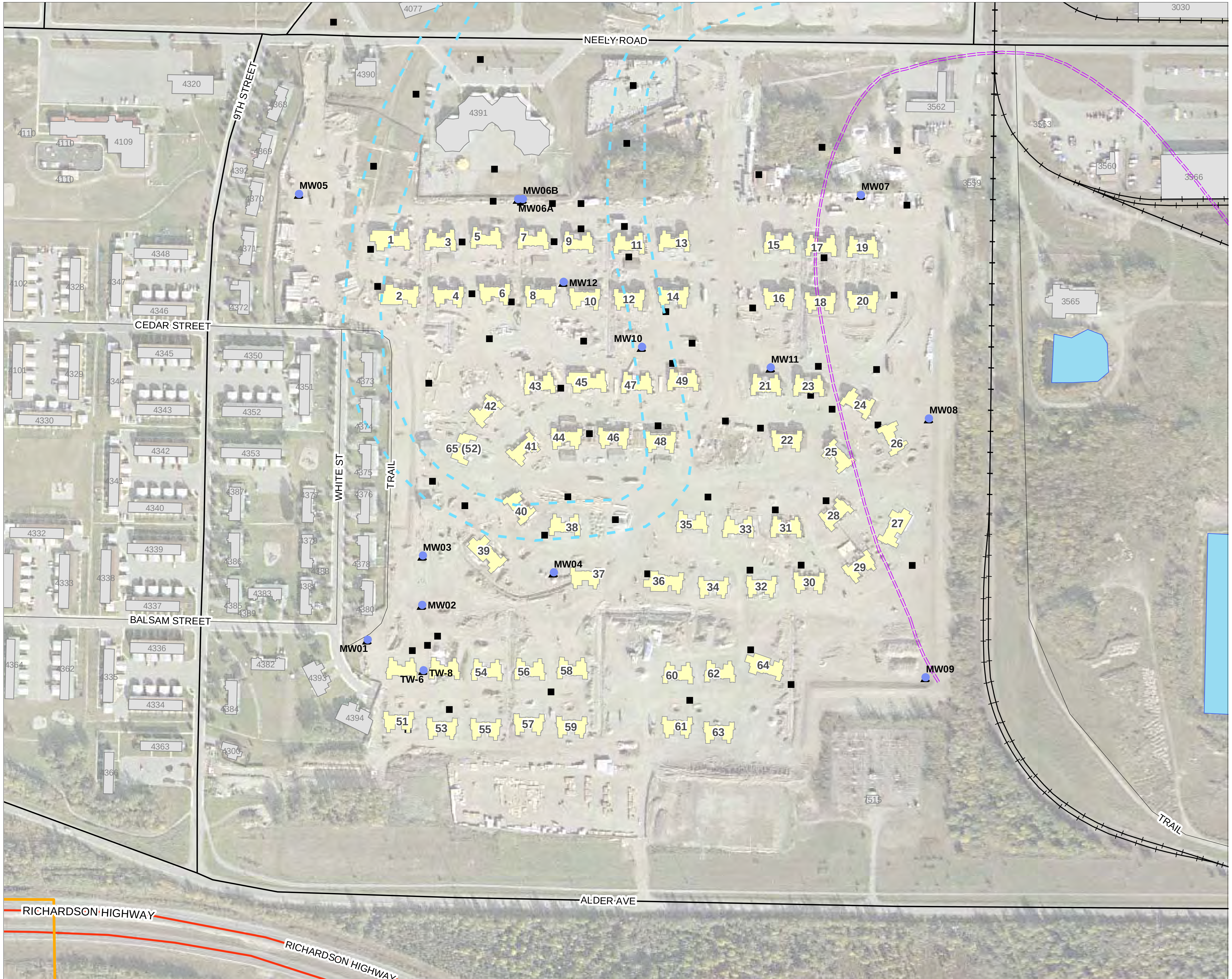
- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

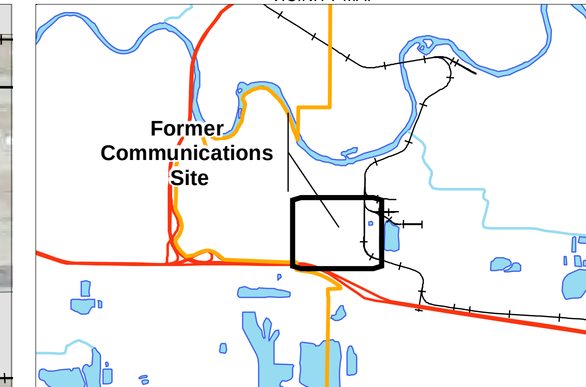
NOTES:
1. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
2. Projection: WGS84 UTM Zone 6N

N

0 150 300
Feet

FIGURE 3-18
CHLORINATED HERBICIDE SOIL NON-DETECT RESULTS WITH ELEVATED DETECTION LIMITS
Yellow, Orange & Red Non-detects
Former Communications Site
Fort Wainwright, Alaska





LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

SAMPLE LOCATION — **MW02**
ANALYTE ABBREVIATION — PCA 0.82
CONCENTRATION (µg/L)

NOTES:
1. All sampling units are in µg/L
2. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
3. Projection: WGS84 UTM Zone 6N
4. All Non-detect Results with Elevated Detection Limits are listed on Table 2.8

N

0 150 300
Feet

FIGURE 3-19
CHLORINATED HERBICIDES IN GROUNDWATER
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects

Former Communications Site

Fort Wainwright, Alaska

DRAFT

CH2MHILL

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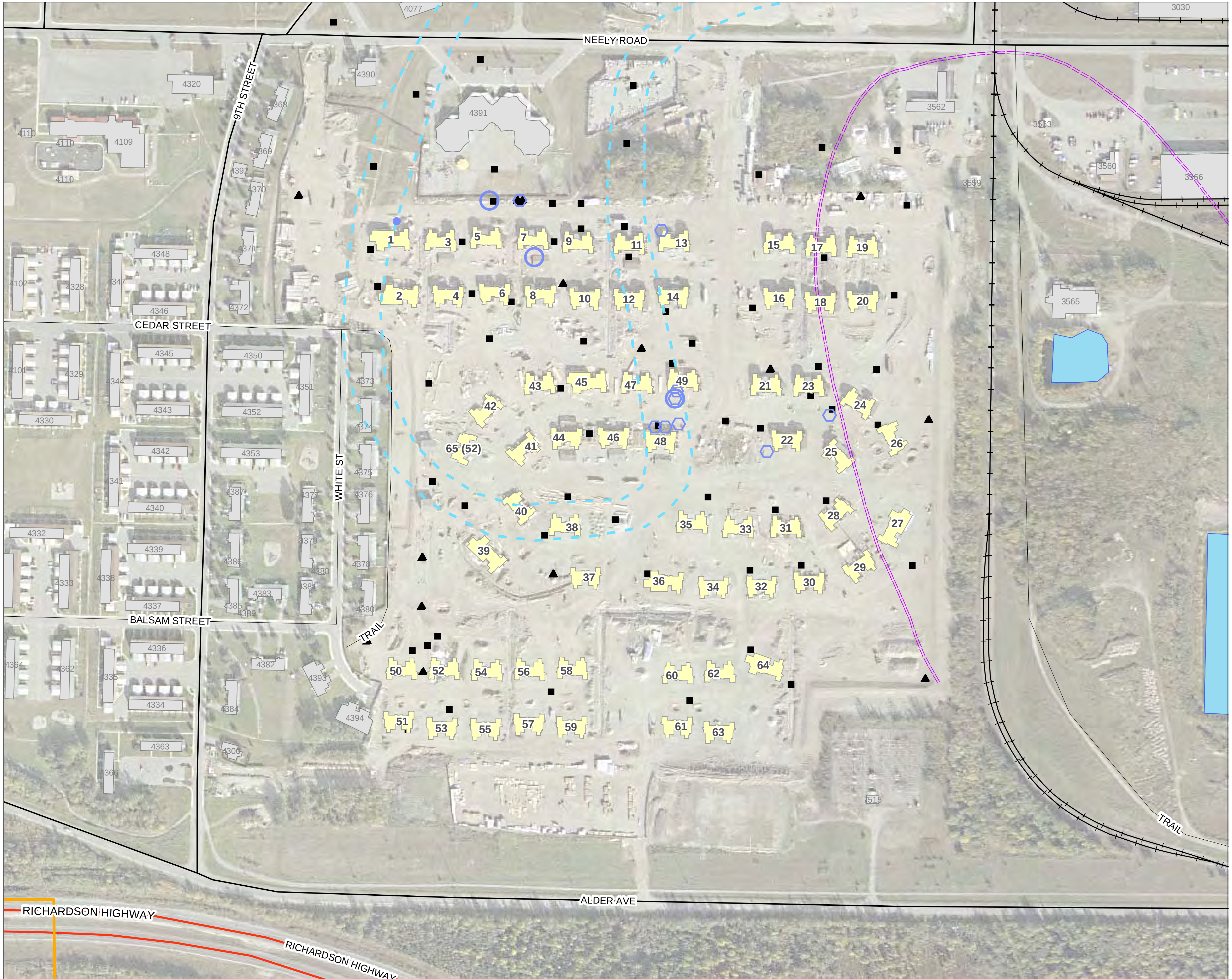
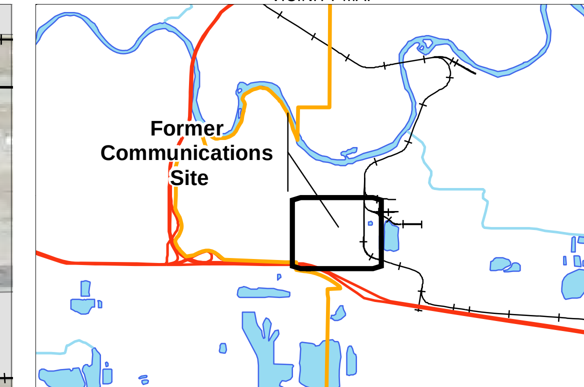


VICINITY MAP



LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

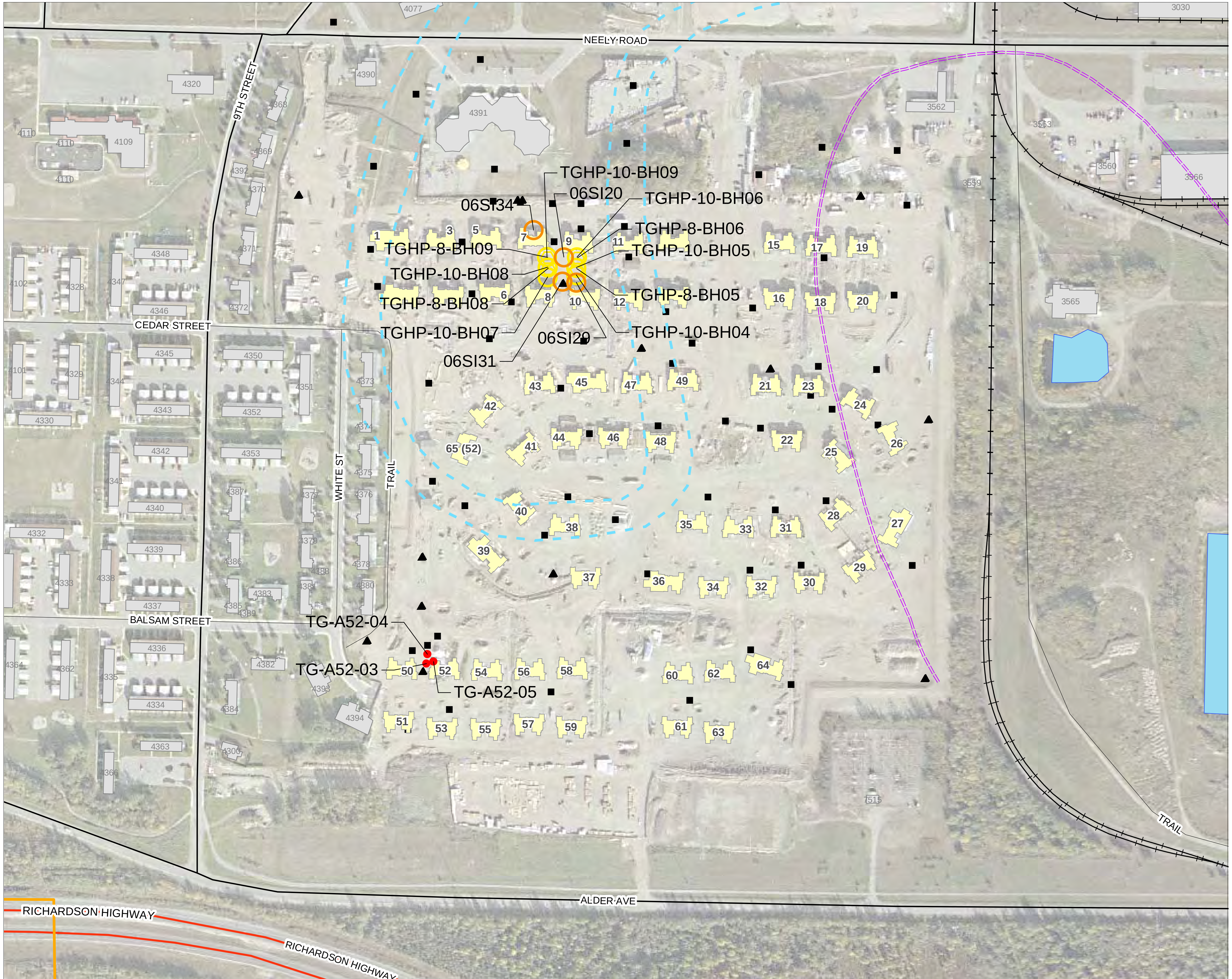
SAMPLE LOCATION — **TSW-64-1**
ANALYTE ABBREVIATION — BZ 2.1 (4.0)
CONCENTRATION (mg/kg)
SAMPLE ENDING DEPTH (feet)

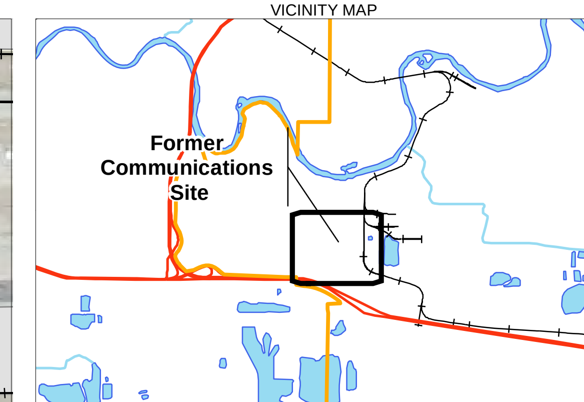
NOTES:
1. 999 = Unknown Sampling Depth
2. All sampling units are in mg/kg
3. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
4. Projection: WGS84 UTM Zone 6N

N

0 150 300
Feet

FIGURE 3-20
EXPLOSIVES IN SOILS
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska





LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
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- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

NOTES:
1. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
2. Projection: WGS84 UTM Zone 6N

N

0 150 300
Feet

FIGURE 3-21
EXPLOSIVE SOIL NON-DETECT RESULTS WITH ELEVATED DETECTION LIMITS
Yellow, Orange & Red Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT

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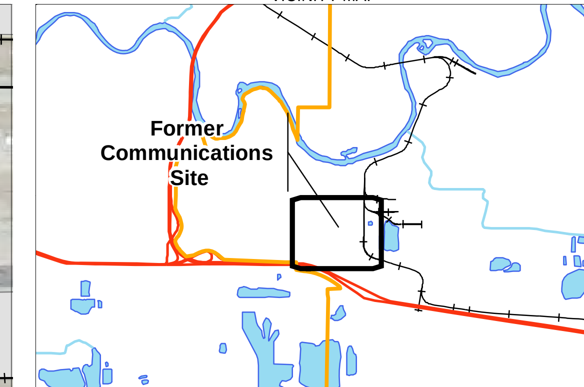
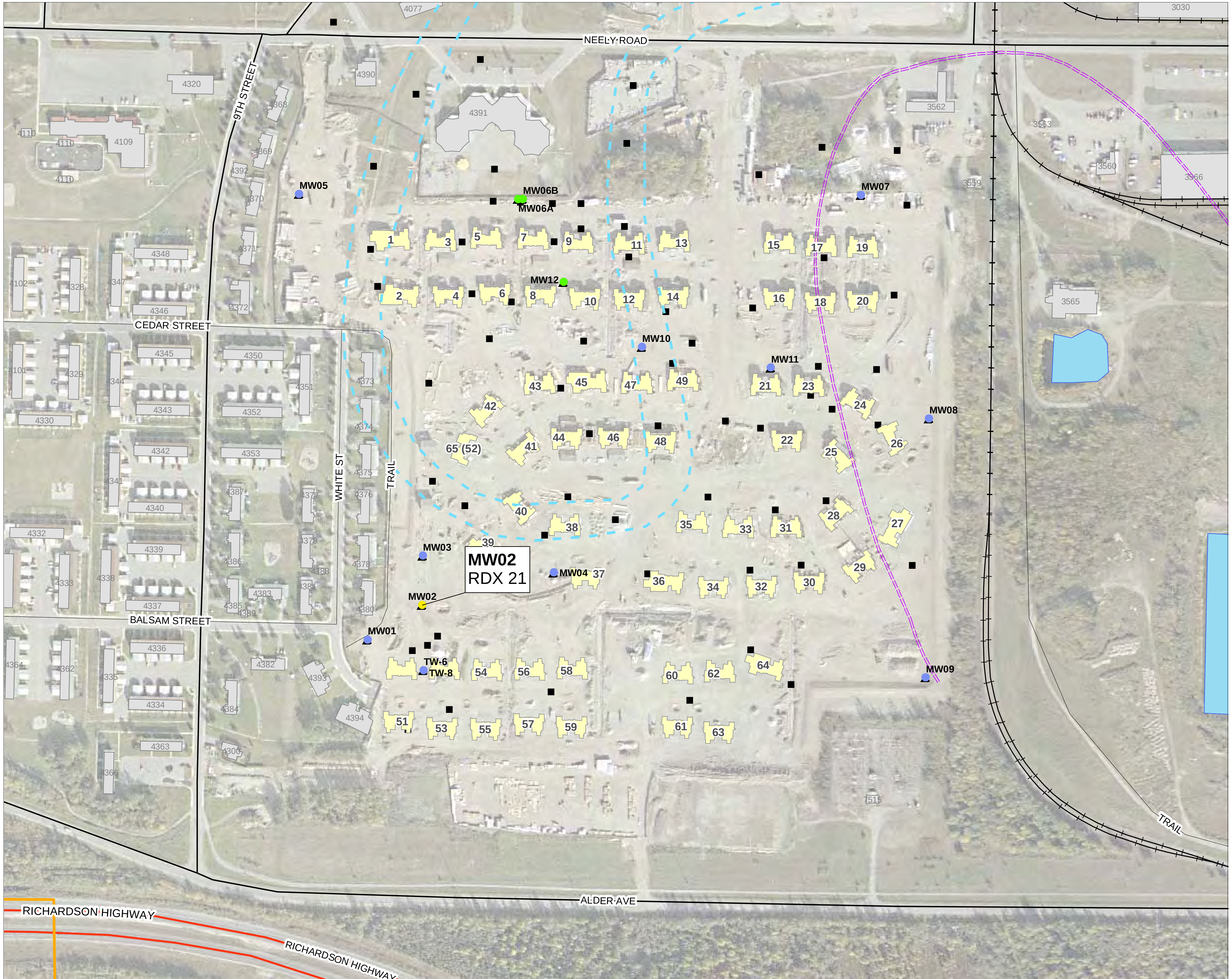
CH2MHILL

VICINITY MAP





LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

SAMPLE LOCATION — MW02
ANALYTE ABBREVIATION — PCA 0.82
CONCENTRATION (µg/L)

NOTES:
1. All sampling units are in µg/L
2. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
3. Projection: WGS84 UTM Zone 6N
4. All Non-detect Results with Elevated Detection Limits are listed on Table 2.8

ANALYTE ABBREVIATION	ANALYTE NAME
RDX	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)

N

0 150 300
Feet

FIGURE 3-22
EXPLOSIVES IN GROUNDWATER
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

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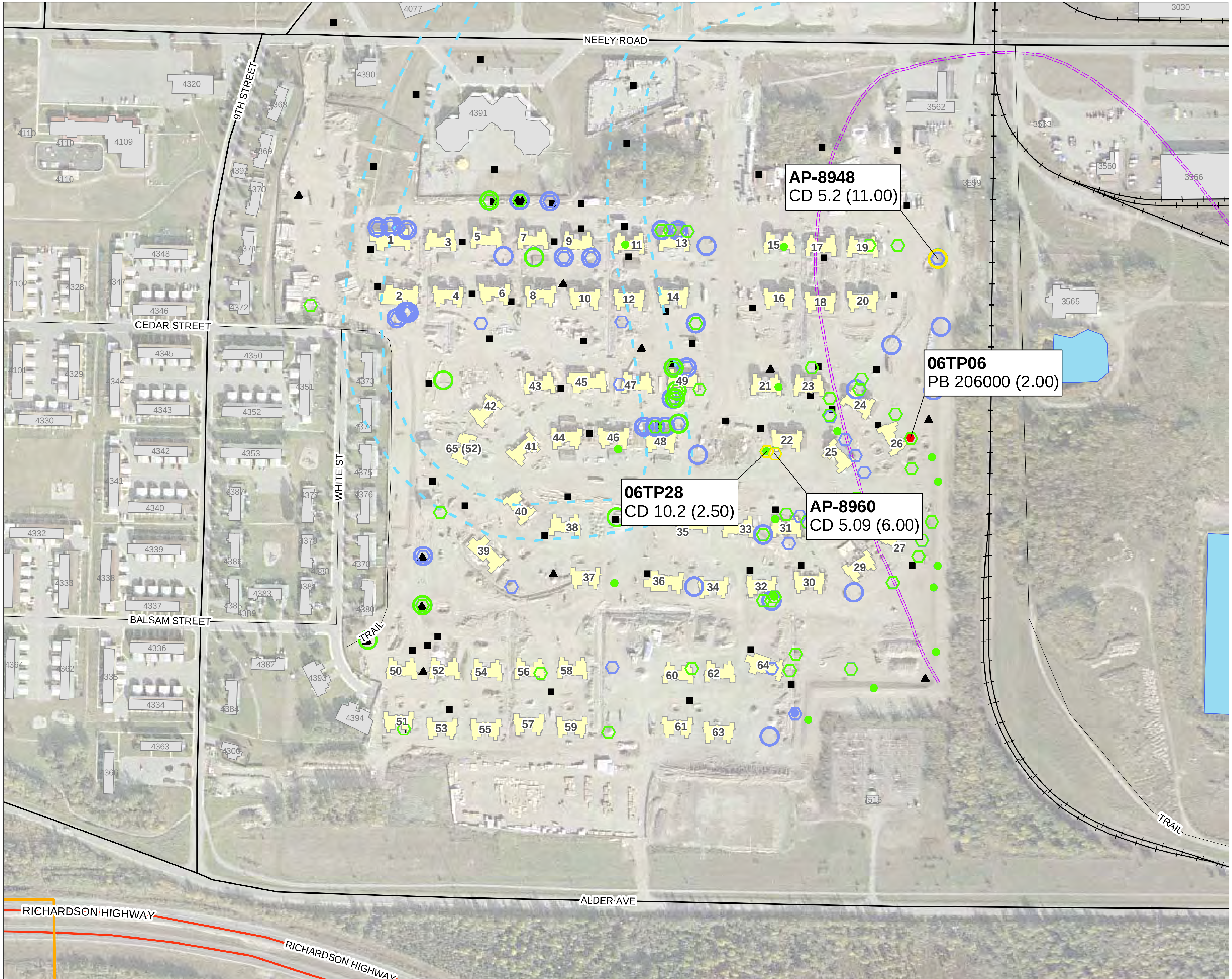
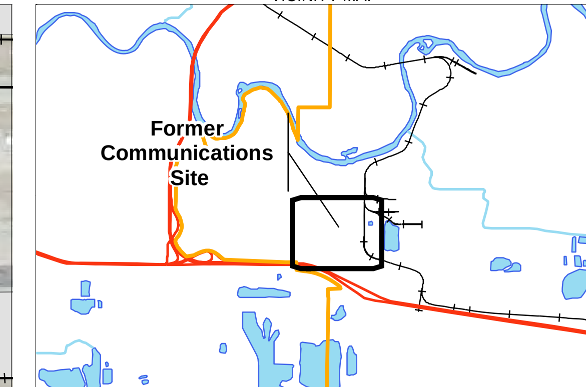


VICINITY MAP



LEGEND

- Permanent monitoring well locations
- Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

- Blue indicates concentrations <= screening level
- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

SAMPLE LOCATION — TSW-64-1
ANALYTE ABBREVIATION — BZ 2.1 (4.0)
CONCENTRATION (mg/kg)
SAMPLE ENDING DEPTH (feet)

NOTES:
1. 999 = Unknown Sampling Depth
2. All sampling units are in mg/kg
3. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
4. Projection: WGS84 UTM Zone 6N

ANALYTE ABBREVIATION	ANALYTE NAME
BH	Cadmium
TP	Lead

N

0 150 300
Feet

FIGURE 3-23
METALS IN SOILS
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT

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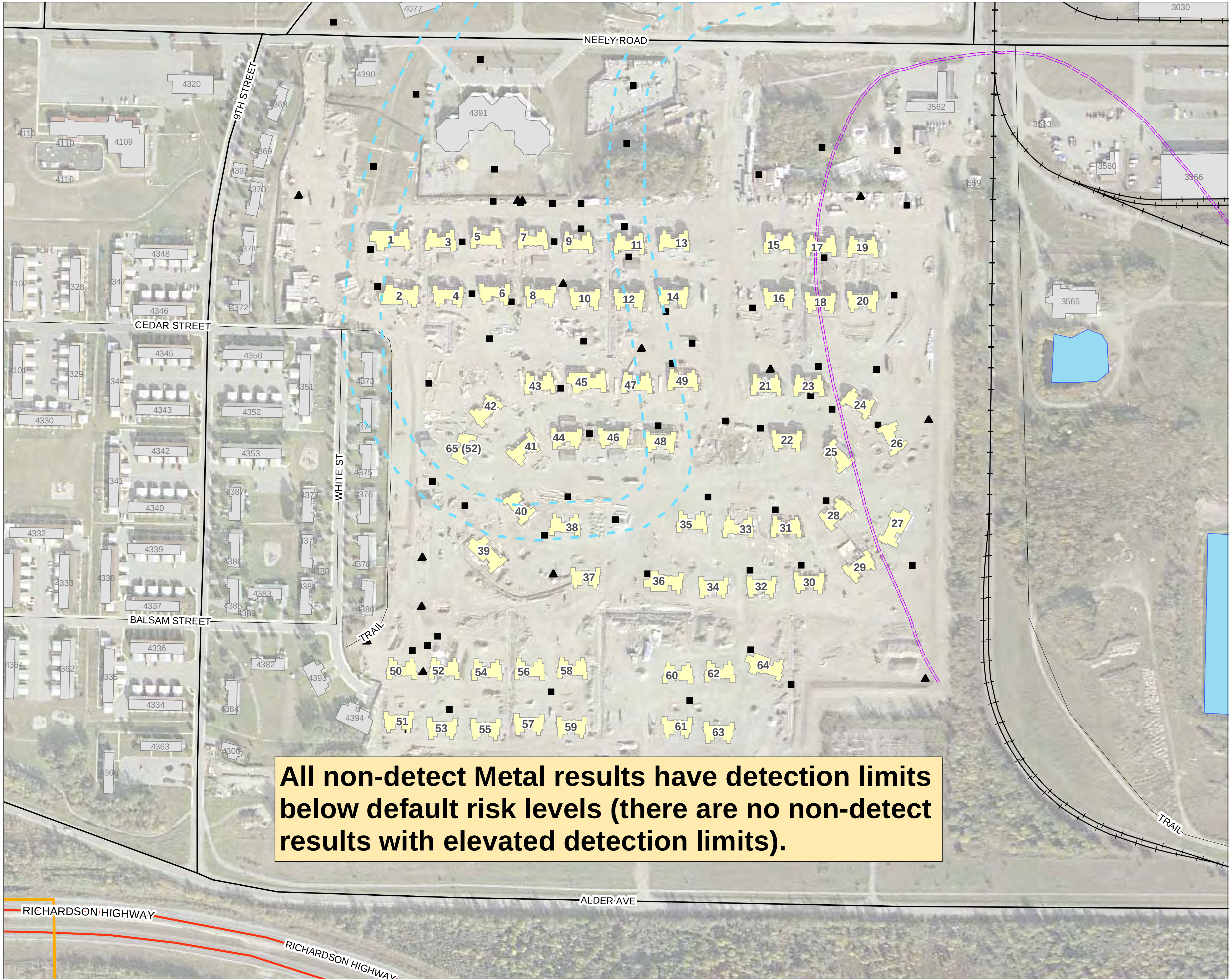
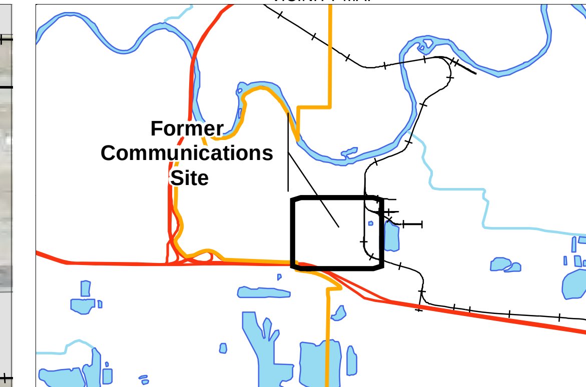


VICINITY MAP



LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

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- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
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- Red indicates concentrations > 1,000x screening level

Sample Depth

- Small Circle = 0 to 2 ft depth soil samples
- Medium Hexagon = 2 to 10 ft depth soil samples
- Large Circle = Greater than 10 ft depth soil samples

NOTES:
1. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
2. Projection: WGS84 UTM Zone 6N

N

0 150 300
Feet

FIGURE 3-24
METAL SOIL NON-DETECT RESULTS WITH ELEVATED DETECTION LIMITS
Yellow, Orange & Red Non-detects
Former Communications Site
Fort Wainwright, Alaska

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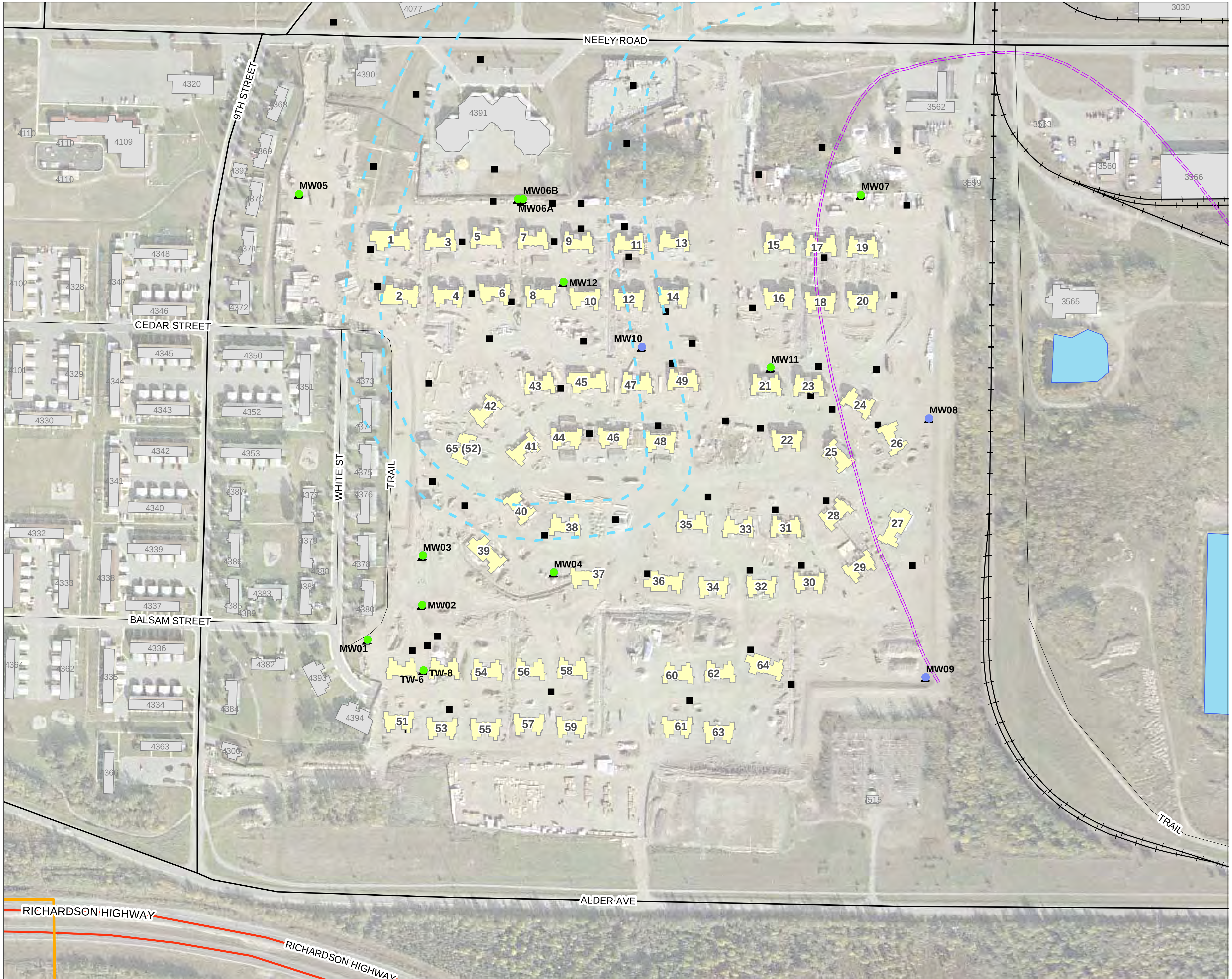
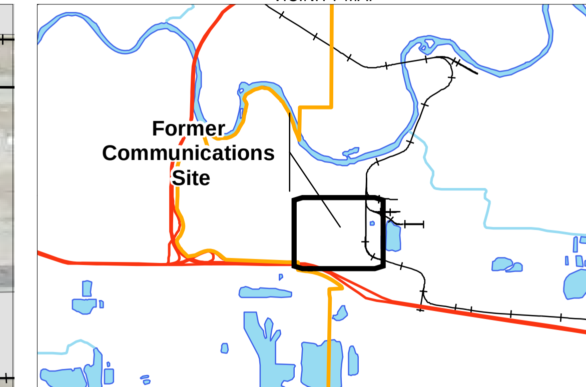


VICINITY MAP



LEGEND

- ▲ Permanent monitoring well locations
- ■ Proposed monitoring well locations
- Capture Zone, Supply Well 3559
- Former slough channel

Concentration Relative to Screening Level

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- Green indicates concentrations > screening level and <= 10x screening level
- Yellow indicates concentrations > 10x screening level and <= 100x screening level
- Orange indicates concentrations > 100x screening level and <= 1,000x screening level
- Red indicates concentrations > 1,000x screening level

SAMPLE LOCATION — **MW02**
ANALYTE ABBREVIATION — PCA 0.82
CONCENTRATION (µg/L)

NOTES:
1. All sampling units are in µg/L
2. Screening Levels are 1/10th of ADEC Cleanup Levels or EPA Region 6 PRGs
3. Projection: WGS84 UTM Zone 6N
4. All Non-detect Results with Elevated Detection Limits are listed on Table 2.8

N

0 150 300
Feet

FIGURE 3-25
METALS IN GROUNDWATER
Yellow, Orange & Red Detects
Blue & Green Detects and Non-detects
Former Communications Site
Fort Wainwright, Alaska

DRAFT

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