



**REMEDIAL INVESTIGATION REPORT
FOR THE
CAMP SUMMIT SITE
FULTON, NEW YORK**

NYSDEC SITE NO. 4-48-006

January 21, 2004

Submitted to:

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1.0 INTRODUCTION

1.1 Background

Camp Summit (the site) is a large complex of New York State Department of Environmental Conservation (NYSDEC) crew headquarters and a New York State Department of Correctional Services (NYSDCS) active incarceration facility. The incarceration facility is operated by the NYSDCS but is located on property managed by the NYSDEC. Work activities formerly performed by the inmates at Camp Summit included the operation of a sawmill and wood treatment facility. Wood treatment operations were conducted from approximately 1962 until 1975. The site is located in the Town of Fulton, Schoharie County, New York (**Figure 1**).

The operation of the wood treatment facility and sawmill provided lumber and round poles for NYSDEC construction and maintenance projects. The pole treatment plant pre-dates the Division of Operations and was originally under the jurisdiction of the Division of Lands and Forests, Regional Forester. The pole treatment plant is no longer operational.

The pole treatment plant was constructed from 1962 to 1964 and designed as a dip tank process. Initial treatment, which began during the fall of 1964, and continued for approximately one year, used copper naphthenate. The process consisted of soaking poles and lumber in copper naphthenate-filled dip tanks, hanging the wood over the tanks to allow a majority of the treating material to drip off, and transporting the treated wood on a small rail cart to drip and dry in a staging area outside the building.

Pentachlorophenol (PCP) was recommended for the use in late 1965 or early 1966 to replace the copper naphthenate. PCP was mixed with fuel oil at an approximate ratio of one to eleven (1/11), and poles were treated in a manner identical to the copper naphthenate process. The plant was shut down in July of 1975 due to fish kill in the on-site pond, resulting from the flow of product through the pond to Panther Creek. The camp water supply was tested in November 1975 and found not to contain PCP. The remaining PCP product and PCP dip tanks were transferred off-site in July 1977.

Following the discontinuation of wood treatment activities, several incidents involving the potential exposure of employees to contaminants from the wood treatment process were reported by NYSDEC employees (NYSDEC *"Preliminary Investigation Report"*, September 1998). In October 1997 the Division of Operations recommended that the NYSDEC perform a preliminary site investigation and sampling of the water supply well at Camp Summit. Representatives from the Divisions of Operations, Environmental Enforcement, and Environmental Remediation participated in a site walkover as part of a scoping effort for future investigations. The Division of Operations requested the assistance of the Division of

Environmental Remediation in the investigation of Camp Summit in January 1998. As a result of this request, the Division of Environmental Remediation initiated a preliminary site investigation. Based on the findings of this preliminary investigation, it was concluded that the site should be added to the State's Registry of Inactive Hazardous Waste Disposal Sites. In December of 1999, the site was listed on the Registry as a Class 2 Site, A Class 2 site represents a "significant threat" to public health and/or the environment.

NYSDEC conducted a preliminary investigation (PI) of the site in 1998. Results of the PI can be found in the Preliminary Investigation Report dated August 1998 and the Supplemental PI dated June 1999. Shaw Environmental Inc. (Shaw), formerly the IT Corporation, prepared a *Remedial Investigation and Feasibility Study (RI/FS) Work Plan* (dated October 4, 2001) and conducted the associated field activities between November 2001 and January 2002. Shaw conducted additional remedial investigation activities at the site between July 21 and July 30, 2003. These remedial investigation activities included the advancement of nine (9) soil borings (three (3) of which became monitoring wells), excavation of eleven (11) test pits and the collection of four (4) sediment samples from the seasonal overflow area, ten (10) background samples from locations removed from daily facility operations, and ten (10) samples from existing and newly-installed monitoring wells. This remedial investigation was completed to collect data to further characterize site conditions, determine the lateral and vertical distribution of the Contaminants of Concern (COCs), to accurately evaluate the potential risk to human health and/or the environment, and to determine the potential need for remedial action. The results of all site investigative activities are discussed in the remaining portions of this report.

1.2 Objectives

The objective of this *Remedial Investigation Report* is to present the investigative tasks and technologies that were used to complete the remedial investigation at the site and present the results of those investigations. In addition, the results from the Human Health Qualitative Exposure Assessment and Step IIA Fish and Wildlife Impact Analysis (FWIA) are presented. Conclusions and Recommendations are presented based on the results of both the preliminary investigation and this remedial investigation.

1.3 Site Location

Camp Summit is located in the Town of Fulton, Schoharie County, NY. More specifically, the site is located in a New York State Reforestation Area known as the Schoharie County Reforestation Area No. 6, Proposal G located in a rural area in the foothills of the Catskill Mountains (**Figure 1**). The property includes the former wood treatment area, the satellite

areas off of the access road to the shooting ranges, and the incarceration facility. The incarceration facility is operated by the NYSDCS, but is located on property under the jurisdiction of the NYSDEC Division of Lands and Forests. Camp Summit is bordered on the southeast by additional New York State land. The remainder of the property is bordered by private property, some of which is used for residential purposes. The local topography is characteristic of a former glaciated region, with hills and valleys. An on-site pond feeds a tributary of Panther Creek. The tributary is a Class C (fish propagation) stream and Panther Creek is a Class C (TS) (trout spawning) stream. A NYSDEC Regulated Wetland is located approximately 0.5 miles southeast of the site.

1.4 Summary of Previous Investigations

In April of 1998 the NYSDEC finalized a work plan for the Preliminary Investigation of the Camp Summit site. The Preliminary Investigation (PI) was planned in response to reports of the use of PCP as part of the historic wood treatment operations that were conducted at the site. The objective of the Preliminary Investigation was to determine whether hazardous waste was disposed at the site and evaluate the extent of that contamination, if existing. The Preliminary Investigation was initiated in April 1998; the final *Preliminary Investigation Report* was issued by the NYSDEC in June 1999. Data generated from this report is included on **Tables 1** through **7** and **Figures 2** through **7** for comparison and discussion purposes.

1.5 Contaminants of Concern

Based on the NYSDEC's review of the treatment process at the plant and the results from the preliminary investigation, the COCs for this investigation included:

- PCP
- Fuel Oil
- Dioxins
- Furans
- Copper Napthenate

The PCP solutions used in the wood preserving process were prepared by dissolving technical grade PCP in fuel oil to produce a solution that was 4 to 8 percent PCP. Technical grade PCP contained 85-90 percent PCP, 2 to 6 percent higher molecular weight chlorophenols, 4 to 8 percent 2,3,4,6-tetrachlorophenol, and about 0.1 percent tetrachlorodibenzo-p-dioxins (dioxins) and tetrachlorodibenzofurans (furans). The possible presence of dioxins and furans in PCP solutions pose the most concern to human health and the environment. PCP is slightly soluble

in water (8 mg per 100 mL) and adheres strongly to soils (based on organic content, pH, and soil type). Discarded, unused formulations of PCP are regulated as acute hazardous waste (F027 waste) under RCRA. Waste waters, process residue, preservative drippings, and spent formulations from the wood preserving processes are listed as F032 waste and bottom sediment sludges from the treatment of the waste waters are listed as K001 waste.

The terms dioxin and furan refer to two classes of organic compounds. Dioxins and furans are found in technical grade PCP, and therefore could be expected to be present in areas that contain PCP. The polychlorinated dibenzo-p-dioxin (PCDD) molecule is composed of two benzene rings held together by two oxygen bridges. Chlorine atoms may be substituted for hydrogen at any of the eight positions on the benzene rings. The number and positions of the chlorine atoms determine the toxicity of the molecule. There are 75 possible configurations of dioxin, called congeners. Different configurations with the same number of substituted chlorine atoms are referred to as isomers. The most toxic dioxin congener is 2,3,7,8 tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD). Dioxin congeners with fewer than four substituted chlorine atoms are generally less toxic than the other, more highly substituted congeners.

Dioxins and furans are compounds that form as byproducts during the production of certain chlorophenolic chemicals. The dioxin congener that poses the greatest risk, 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), has not been found in PCP produced in the United States. Dioxins and furans display a very low solubility in water, adsorb strongly to organic matter, and are persistent under ambient environmental conditions. Dioxins and furans migrate primarily through the movement of particulate matter (ex: dust generated by earth moving activities or sediments carried by water) and are also transported by the migration of organic solvents and carrier oils. Since the primary source of dioxins and furans at wood preserving sites is discharged PCP, these compounds can be expected to occur in areas where PCP was used or where PCP wastes were disposed.

Furans are structurally identical to dioxins except that only one oxygen bridge connects the two benzene rings. There are 135 possible furan congeners. Similar to dioxins, the most toxic furan is 2,3,7,8 tetrachlorinated dibenzofuran (2,3,7,8-TCDF).

Because 2,3,7,8-TCDD is the most toxic form of dioxin, the USEPA has established factors that equate the toxicity for other dioxin congeners and furans to that of 2,3,7,8-TCDD. Therefore, concentrations of dioxin and furan results will be discussed as the 2,3,7,8-TCDD equivalence, rather than reporting each individual congener.

Fuel oils are mixtures of aliphatic and aromatic petroleum hydrocarbons and include several polycyclic aromatic hydrocarbons (PAHs) and BTEX (benzene, toluene, ethylbenzene, and xylene) related compounds. Fuel oil No. 2 is typically used as a home heating oil or as an industrial heating oil. At this site, fuel oil No. 2 was used as a carrier for wood preserving compounds. Fuel oil is a colorless to brown liquid that is less dense than water.

1.6 Report Organization

This Remedial Investigation Report is organized into five sections as described below:

- **Section 1.0: Introduction.** Includes a summary of the project background, a statement of the project objectives, a description of the site location, a summary of previous investigations, and describes the report organization.
- **Section 2.0: Scope of Work.** Includes a description of the scope and methodologies of the field investigation tasks completed, and describes the general parameters used when completing the human health and fish and wildlife exposure assessments.
- **Section 3.0: Investigation Results.** Presents a summary of the site's physical characteristics and a description of the nature and extent of impacts based on field and laboratory results from the remedial investigation activities.
- **Section 4.0: Conclusions and Recommendations.** Includes a summary of the conclusions and recommendations developed based upon the data collected.
- **Section 5.0: References.** Provides a listing of references used when developing the remedial investigation report.

Due to the volume of data generated, laboratory reports have been summarized in tables and included in the *Tables* appendix. Similarly, all figures referenced in this report are included in the *Figures* appendix.

2.0 SCOPE OF WORK

Site investigative activities included the assessment of surface and subsurface soils, stream sediments and groundwater. These investigative activities are discussed below.

2.1 Field Investigation

A description of field activities performed at the site is presented in the following sections. All site activities were conducted in compliance with the Remedial Investigation Work Plan, the Site Health and Safety Plan (HASp), Field Sampling Plan (FSP), and Quality Assurance Project Plan (QAPP). Any deviations from the Department-approved plans are noted in the text.

2.1.1 Surface Soil Investigation

Surface soil samples were collected from twenty-five (25) locations northeast of the treatment plant. These samples were collected to define potential impacts by surface runoff from the treatment area. Additionally, four (4) surface soil samples were collected from the drainage swale located behind the soil backstop at the shooting range. Samples were collected from approximately 0 to 2 inches below ground surface (bgs) with a decontaminated stainless steel trowel. All surface soil samples were sent for laboratory analysis of Semivolatile Organic Compounds (SVOCs) via USEPA Method 8270. Additionally, 16 of the surface soil samples collected from the treatment plant, and one surface soil sample collected from behind the backstop were submitted for analysis of dioxin and metals.

Three (3) samples for metals analysis were collected from 0-1 foot below ground surface (bgs) in the southwest portion of the site to characterize "Background" concentrations. In July 2003, and November 2003, additional background samples were collected in the woods west of Building 49 and analyzed for SVOCs and dioxins. In November 2003 five background samples were collected for dioxin analysis. The samples were in an area that the NYSDEC proposed for the site of a new building. The background sample locations were selected in consultation with an NYSDEC representative in an effort to establish soil conditions in areas where former treatment operations did not occur. All soil samples were placed in jars supplied by the contract laboratory. A summary of the laboratory analytical methods and quantity of samples analyzed is provided in **Table 1**. Surface soil sample locations are illustrated on **Figures 2A, 2B, 2C and 2E**.

2.1.2 Sediment Sampling

A total of thirty seven (37) sediment samples were collected from twenty seven (27) sampling locations during both the PI and RI investigative activities. A total of fourteen (14) of the 37 sediment samples were collected during the formal RI from the following locations:

- SED-1, SED-2 and SED03-1 near the outflow from the site pond, approximately 60 ft. east-northeast, 115 ft. east-northeast and 25 ft. northeast of Production Well 3, respectively.
- SED-3 and SED-4 from the outlet of the creek, approximately 120 and 190 ft. northeast of Production Well 3.
- SED03-2 and SED03-3 west of the creek outlet, approximately 60 and 90 ft. north-northeast of Production Well 3.
- SED-5, SED-6 and SED-7 from the wetlands north of the site pond, approximately 265 ft. north-northeast, 265 ft. north and 275 north-northeast of Production Well 3.
- SED03-1 near the south side of the site pond, approximately 260 ft. south of Building 14 and 190 ft. southeast of Production Well 4.

Additionally, three deeper sediment samples (0-1 foot bgs) were collected from the northern end of pond bottom using a hand auger.

Sediment sampling locations are shown in **Figure 2D**.

Sediments were collected with decontaminated sampling equipment and packed in laboratory-supplied sample jars. Sediment samples were analyzed for SVOCs, dioxins, and total organic carbon (TOC). **Table 3** summarizes the laboratory analytical data.

2.1.3 Test Pit Sampling

A total of seventy eight (78) test pits (shallow and deep in depth) were excavated during the PI and RI investigation activities. Thirty (30) of these test pits were shallow test pits excavated to a maximum depth of two feet and examined for evidence of contamination (staining, odor, elevated PID readings, presence of a product sheen, etc.) in the fill material. The remaining forty eight (48) test pits were excavated to a zone of observed contamination, groundwater, the limits of the backhoe, or were terminated at the discretion of the on-site DEC representative. During July 25 and 28, 2003, an additional 11 test pits were excavated to a maximum of five (5) bgs (bgs). Further detail of the test pit excavations are found in the following sections.

2.1.3.1 Shallow Test Pit Sampling

A total of thirty (30) shallow test pits were excavated to collect shallow soils in the former treated lumber staging area (located behind Building 51). Sample locations are illustrated on **Figure 2C**. Gravel and shale fill has been added to these areas since wood treating activities ceased.

Shallow test pits generally consisted of humic topsoil and shale fill overlying a tan glacial till. A Shaw geologist observed and recorded notes regarding the installation of the test pits.

A grab soil sample was collected from each shallow test pit and analyzed for SVOCs. In addition, 17 of the soil samples were analyzed for dioxin and metals. **Table 4** summarizes the test pit analytical results.

2.1.3.2 Test Pit Excavation and Sampling

Based upon anecdotal information supplied by former employees regarding the presence of possible buried debris, a subcontractor was retained to perform a ground penetrating radar (GPR) survey at portions of the site. The GPR survey was used to further delineate underground anomalies that could represent of historic disposal areas. Several areas (GPR-1 through GPR-3) exhibited anomalies on the GPR that warranted further investigation through the installation of test pits. These three areas (GPR Area 1, GPR Area 2 and GPR Area 3) are shown on **Figures 2B, 2C and 2E**. GPR-1 and GPR-2 are located in satellite areas off the access road to the shooting range. GPR-3 is located near former Building 52 and the drum rinse area.

Thirty-seven (37) test pits were excavated at the site in 2001-2002 to further investigate subsurface soil in former treatment areas. An additional eleven (11) test pits were excavated in 2003 using a track-mounted backhoe. A total of fifty three (53) soil samples were collected and analyzed for one or more of the following analytical constituents: VOCs, SVOCs, dioxins, metals and pesticides. Test pit locations are shown on **Figures 2B, 2C and 2E** and were installed as follows:

- Twenty-one (21) test pits were excavated in the general vicinity of the treatment plant. TP-31, TP-37 and TP-30 are located northeast and south of Building 48. TP-29 is located midway between Building 48 and the former Building 49. TP-28 is parallel and adjacent to the west side of former Building 49. TP-34 is perpendicular to the northeast corner of former Building 49 and directly south of MW-12. TP-33 is parallel to the rail cart track slab, west of MW-12. TP-32 is also perpendicular to the former Building 49, located west of the most northern tip of the rail cart track slab. TP-20 and TP-21 are located west of the Building 50 ruins. TP03-1 through TP03-4 and TP-19 are located between Building 51 and the Building 50 ruins. TP-22 through TP-26 are located along the edge of the woods near MW-31, MW-2 and MW-3.
- TP-13 is located south of Building 52 in area GPR-3.
- TP03-5 and TP03-6 are located in the woods south of Building 52, approximately 135 feet and 60 feet southwest of MW-10, respectively.
- TP-12, TP03-7 and TP03-8 are located at the edge of the woods, south of Building 52, between MW-10 and MW-11.
- TP-14, TP-15, TP-16 and TP-17 are in the area reported to be the drum rinse area south of MW-10.

- TP03-11 is located in the woods, south of MW-10 and north of the reported drum rinse area.
- TP-3 is in the area reported to be a disposal area located along the access road to the shale pit. TP-1 and TP-2 are located in a reported disposal area east of the access road.
- TP03-9 and TP03-10 are in the area reported to be a disposal area north of the shale pit.
- TP-18, TP-35 and TP-36 are located in the area of the shooting range backstop.

Test pit locations are illustrated on **Figures 2B, 2C and 2E**. Test pit dimensions were largely determined by field observations. Generally, the test pits were the width of the backhoe bucket (approximately 2.5 - 3 feet); each test pit was approximately 10 - 25.5 feet long.

The field geologist prepared test pit logs that described the subsurface conditions at each location. These conditions include soil structure, apparent depth to groundwater, thickness and type of fill material, test pit dimensions, observed contamination, observed debris, and any other pertinent observations. During excavation, soils were continuously field screened for VOCs using a properly calibrated PID equipped with a 10.6 eV lamp. The test pit logs are included as **Appendix A**.

2.1.5 Soil Boring Installation and Sampling

A total of forty-one (41) soil borings were advanced at the site during PI and RI investigative activities. Thirteen (13) of the 41 soil borings were converted to monitoring wells. The approximate locations of the borings completed during formal RI investigative activities are as follows:

- Two (2) borings (SB-7 and MW-9) were installed in the parking area located northwest of the NYSDEC office.
- Four (4) borings (SB-4, SB-5, SB-6, and MW-7) were advanced in the area of the NYSDEC office.
- Boring MW-8 was advanced upgradient of the treatment facility.
- Four (4) borings (SB-1, SB-2, SB-3, and MW-6) were installed in the area of the treatment building.
- Monitoring well MW-11 was installed southeast of Building 53.
- Monitoring well MW-10 was installed in the drum rinse area.
- Monitoring well MW-12 was installed half way between MW-2 and MW-4, near TP-7.
- Monitoring well MW-13 was installed south-southeast of Building 21.
- Monitoring well MW-14 was installed southeast of Building 8.
- Three (3) borings (SSB03-10, SSB03-14 and SSB03-9) were installed within the footprint of the former Building 49.
- Boring SSB03-8 is located directly south of MW-14 and east of the rail cart slab.

- Boring SSB03-7 is located southwest of MW-12 and east of the rail cart slab.

The locations of the borings are shown on **Figures 2B** and **2C**. A planned boring downgradient of the treatment facility was not installed due to the proximity to overhead power lines. Two additional borings/wells (MW-10, MW-11) were added by the NYSDEC representative based upon impacts observed during test pitting activities. Disturbed areas were repaired to prevent the formation of erosion ruts from runoff following drilling activities. Drill logs are included in **Appendix A**.

Borings were advanced via air hammer drilling techniques. Split spoon soil samples were collected continuously during boring installation. The field geologist recorded soil descriptions, including any visual or olfactory evidence of contamination. Additionally, a portion of each soil sample was split for a headspace reading using a properly calibrated PID. Borings were advanced to 8 feet below the apparent water table or to a depth approved by the NYSDEC representative. Soil samples were collected for laboratory analysis from the zone of highest impact, based on field observations. These observations include odor, staining, presence of non-aqueous phase liquids (NAPL), and PID readings. A sample was collected at the soil/water interface if no impact was noted. Samples were sent for laboratory analysis of SVOCs and dioxins via USEPA Methods 8270 and 8280/8290, respectively. All down-hole drilling equipment was properly decontaminated between borings.

2.1.6 Monitoring Well Installation

Nine (9) of the soil borings were converted to monitoring wells including:

- Monitoring well MW-6 in the treatment building.
- Monitoring well MW-7 in the vicinity of the NYSDEC office.
- Monitoring well MW-8 west of the former treatment building.
- Monitoring well MW-9 in the parking lot.
- Monitoring well MW-10 in the former drum rinsing area.
- Monitoring well MW-11 southeast of Building 53.
- Monitoring well MW-12 approximately 160 feet northeast of Building 49.
- Monitoring well MW-13 approximately 50 feet south of Building 21.
- Monitoring well MW-14 approximately 25 feet southeast of Building 8.

Monitoring well locations are illustrated on **Figures 2B** and **2C**. Borings not converted to monitoring wells were properly abandoned with a cement grout. Monitoring wells are constructed of 2-inch diameter, Schedule 40 polyvinyl chloride (PVC) casing and 2-inch diameter, 0.010-inch slotted, Schedule 40 PVC well screen. Monitoring wells are constructed such that the well screen intersects the water table. The annulus was backfilled with No. 1

Morie sand to 2 feet above the well screen. The remaining annulus was backfilled with a cement bentonite grout. The monitoring wells were completed with a 4-inch diameter, above ground, steel protective casing. Weep holes were drilled at the base of the protective casing which will drain any water that may become entrained between the inner and outer casing. A concrete pad, approximately 2 feet by 2 feet, was constructed at the base of the protective casing to secure it in place. Due to its location in the parking lot north of the former NYSDEC building, MW-9 was completed with a flush-mount protective casing.

2.1.6.1 Monitoring Well Development

Monitoring wells (MW-6 through MW-13) installed during RI investigative activities were developed to remove sediments from the well screen and sand pack after installation. Development was accomplished using either disposable polyethylene bailers or peristaltic pumps with disposable polyethylene tubing. The monitoring wells were developed no sooner than 48 hours after completion of construction. Consistent with the requirements of the *Field Sampling Plan* (FSP), efforts were made to develop each monitoring well until pH, conductivity, and temperature had stabilized and water had a turbidity of less than 50 NTUs. Monitoring wells MW-12, MW-13 and MW-14 were purged three times until dry and had to be sampled with a turbidity greater than 50 NTUs because it would not stabilize prior to the wells becoming dry. Each monitoring well was gauged prior to and after development. Recharge rates were recorded for each well prior to development. All development water was containerized in US DOT approved 55-gallon drums staged near the former treatment building pending off-site disposal. Specific methods for sample collection as detailed in the project specific QAPP and FSP were followed.

2.1.7 Groundwater Sample Collection

Prior to sampling in 2002, the water level in each monitoring well (MW-2 through MW-13) was gauged to provide information on hydraulic gradients and groundwater flow at the site, as well as to provide information on the occurrence of immiscible liquids. Note that a monitoring well was never installed at MW-1 during the PI because no saturated aquifer material was encountered. Measurement of water levels was obtained using an electronic water-level interface probe (IP). A sheen and fuel-like odor was detected during sample collection of MW-6 and MW-11. A sheen was not present however during well installation. Specific procedures for data collection as detailed in the project specific QAPP and FSP were followed. Gauging data is presented as **Appendix B**.

Monitoring wells MW-2 through MW-8, MW-10 and MW-11 were gauged and sampled in July 2003 in addition to the newly-installed wells (MW-12 through MW-14). MW-9 was not sampled because it was covered in asphalt. No product-like sheens or odors were noted during this sampling event.

2.1.8 Water Supply Well Sampling

Five (5) previously decommissioned water supply wells (PW-1, PW-2, PW-3, PW-4, and PW-5) were sampled. The location of these water supply wells is shown on **Figures 2A, 2B and 2C**. Due to the depths of these wells, a casing depth indicator was used to determine the purge location just below the level of casing prior to sample collection. The supply wells were micro-purged (i.e., a low flow purge to minimize turbidity and flux in other groundwater parameters) using a Grundfos pump. Groundwater samples collected were sent for laboratory analysis of full TCL parameters using NYSDEC ASP methodologies. **Table 1** summarizes laboratory analytical methods.

2.1.9 Biota Sampling

A total of thirty (30) trout samples were collected from various locations within Panther Creek, which is located north (down-gradient) of the site (**Figure 3**). Trout samples were collected by electric shock sampling methods. The entire fish was submitted for analysis for trout measuring less than six inches in length; only the filet was submitted for analysis of dioxins for trout that were more than six inches in length.

2.1.10 Mapping and Surveying

Following completion of the field investigation activities, a third party licensed surveyor was contracted to expand the existing site map to include the new sampling locations and site topography. The survey shows all pertinent site features including monitoring wells, site buildings, roads, test pit locations, surface sample locations, topography, and utilities. Additionally, the elevation of the top of casing for all newly installed monitoring wells was collected. This survey information has been used to produce the figures included in this *Remedial Investigation Report*.

2.2 Exposure Assessments

2.2.1 Qualitative Exposure Assessment

A Qualitative Exposure Assessment was to determine the current and potential future exposure pathways associated with baseline (i.e., current or unremediated) site conditions. A field survey to collect site specific information was conducted on January 24, 2002. The Qualitative Exposure Assessment report was written as a stand-alone report and is included in **Appendix E**. The report is summarized in **Section 3.3.1**.

2.2.2 Fish and Wildlife Impact Assessment

A Step IIA Fish and Wildlife Impact Assessment (FWIA) was conducted to identify resource areas and associated fish and wildlife at and within the vicinity of the site, and potential site-related impacts to those resources. A site walk-over and area drive-by were conducted on January 24, 2002 to collect the required site information. This FWIA report was also prepared as a stand-alone report and is included in **Appendix F**.

As described in the NYSDEC's document titled *Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites*, the Step I analysis (Contaminant-Specific Impact Assessment) consists of:

- Site maps (including topographic, cover type, and drainage maps)
- Description of the fish and wildlife resources
- Description of the fish and wildlife resource value
- Identification of applicable fish and wildlife regulatory criteria

The primary objective of Step I was to identify the wildlife resources that presently exist and that existed before contaminant introduction.

The Step II analysis (contaminant-specific impact assessment) consists of:

- Pathway analysis

The primary objective of the Step II was to determine the impacts of the site-related contaminants on the wildlife resources. The pathway analysis identifies resources, COCs, sources of contaminants, and determines if any potential pathways of contaminant migration exist. The results of the Step IIA Fish and Wildlife Impact Assessment are discussed in **Section 3.3.2**.

3.0 INVESTIGATION RESULTS

The results from the remedial investigation are presented in the following sections. A description of the site's physical characteristics, the nature and extent of chemical impacts, and the results from the exposure assessments are provided.

3.1 Physical Characteristics

The geologic and hydrogeologic information presented below is based on a USGS publication entitled *The Groundwater Resources of Schoharie County, NY* (USGS Bulletin GW-22), local topography, test pit information, and well logs for monitoring and water supply wells.

3.1.1 Regional Geology

The site is underlain by bedrock from the Gilboa and Hamilton Formations of the Middle Devonian. The Gilboa and Hamilton Formations are typically 325 feet and 2,175 feet thick, respectively. They consist of gray, medium to fine grained sandstone; thin bedded siltstone; and dark gray shale. The most common overburden found in the area is glacial till, a heterogeneous mixture of fragments ranging in size from boulders to clay particles. The till (also known as boulder clay or hardpan) was deposited beneath an ice sheet, and is comprised mainly of fragments of local bedrock eroded during glaciation. The till in this area also contains boulders and cobbles of resistant rock, which were transported by the ice from areas farther north. Therefore, while a majority of the coarse material found in the till is comprised of sandstone and limestone, cobbles and pebbles of metamorphic and igneous rock from the Adirondacks is common. The till found in the area has a high clay content due to the large amount of shale and limestone exposed in Schoharie County and the Mohawk Valley to the north.

3.1.2 Site Specific Geology

Depth to bedrock across the site varies greatly, ranging from zero to 95 feet or more below ground surface (bgs). This is evident by the visible rock outcrops in the shale quarry, and the water supply well logs documenting 21 to 95 feet of overburden. Water supply well logs for supply wells located at the correctional facility reported the bedrock as brown rock, blue and gray sandstone, and blue shale. The overburden was described as brown and gray hardpan, boulders, and gray clay. The wells range in depth from 250 feet to 610 feet bgs.

Observations of the shallow overburden were made during the test pit investigation. In general, the top two feet of overburden consists of broken gray shale that ranges in size from gravel to boulders. Intermixed within the shale is brown silt and sand. This surface layer is likely fill material placed as a base for buildings and for staging treated and untreated lumber. A shale quarry located on the southeast portion of the site is the likely source of the fill material. Beneath the fill is very dense glacial till consisting of clay, sand, silt, and shale cobbles and boulders varying in color; including orange, gray, tan, and brown. A geologic cross section is shown on **Figure 4**.

3.1.3 Regional Hydrogeology

The Camp Summit property is located approximately 10 miles from the Schoharie Creek, which is the nearest discharge point for Panther Creek. Regionally, groundwater would be anticipated to flow toward the Schoharie Creek. Shallow groundwater in the area of the site is typically found in coarser-grained glacially derived sediments or as perched water over deposits of fined-grained sediments of lower permeability.

3.1.4 Site Specific Hydrogeology

Groundwater occurs within the till unit, primarily in the lenses of sand and gravel. Although these lenses appear to be discontinuous, they are likely hydraulically connected to some degree through fractures in the till. Vertical fractures found within the till would also yield to unconfined groundwater conditions observed at the site. Shallow groundwater recharge occurs through the infiltration of precipitation.

Groundwater discharge, if present, appears to occur to the on-site pond. Groundwater is known to exist in the bedrock based on the production well logs for the site. It is expected that confined or semi-confined conditions exist within the bedrock. It was not determined if groundwater within the till and bedrock is hydraulically connected; however, this interconnectedness could reasonably be expected in areas where bedrock is relatively shallow or in areas where vertical fractures bifurcate the entire overburden aquifer. Evidence of this interconnectedness was not observed during field work conducted by Shaw.

Depth to groundwater ranged from four (4) to twenty (20) feet bgs during the latest groundwater sampling event. Gauging data indicates that groundwater flows in a northeasterly direction, generally following surface topography in the direction of the pond. A groundwater contour map is shown on **Figure 5**.

3.2 Nature and Extent of Contamination

This section presents the analytical results from the surface, sediment, and subsurface soils, and groundwater samples collected at the site. For screening and discussion purposes only, these results are compared to published New York State standards and/or screening criteria.

Soil criteria from the NYSDEC's *Division Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels HWR 4046* (TAGM 4046) was used for comparison of the surface and subsurface soil results. This document does not include soil clean-up objectives for dioxins and furans. Therefore, for the purposes of this report, and to be consistent with the previous investigation report for the site, 1 ppb (ug/kg) 2,3,7,8-TCDD equivalence has been used as the soil screening level. The NYSDEC has used 1 ppb (ug/kg) 2,3,7,8-TCDD equivalence as a remediation goal at other hazardous waste sites.

For the remaining COCs (VOCs, SVOCs and metals), TAGM 4046 was used for screening soils and *Division of Water Technical and Operational Guidance Series 1.1.1* (TOGS 1.1.1) was used for screening groundwater. The soil clean-up objective listed in TAGM 4046 for PCP is 1 ppm (mg/kg) for protection of groundwater. Consistent with the *Preliminary Investigation Report* prepared for this site, this value has been adopted as a groundwater protection screening level for soil. The New York State Department of Health (NYSDOH) has recommended a screening level of 1.0 ppm (mg/kg) PCP for the protection of human health be adopted. This value is based on a one in a million risk to children in a residential setting (a conservative value given that the site is not considered residential).

The groundwater standard for total phenolic compounds listed in TOGS 1.1.1 is 1.0 ppb (ug/l). Here again, to be consistent with the *Preliminary Investigation Report*, and because PCP is the only phenolic compound detected in the groundwater at the site, a groundwater screening level of 1.0 ppb (ug/l) has been used.

Finally, 6NYCRR Part 700-705 lists a groundwater standard of 0.0007 ng/l (parts per trillion) for 2,3,7,8-TCDD. This value has been adopted as the groundwater screening level, with the other forms of dioxins and furans normalized to 2,3,7,8-TCDD using the USEPA's toxicity equivalence factors (TEFs).

Sediment sample results were compared to screening criteria provided in the *NYSDEC Technical Guidance for Screening Contaminated Sediments*, January 1999. Sediment criteria are presented as micrograms of contaminant per gram of organic carbon in sediment (ug/gOC). For each sample, the screening level is calculated based on TOC measured in the sample. A location specific benchmark was calculated since TOC was not consistent among the samples.

The 2,3,7,8-TCDD fish concentration data was compared to risk calculations which evaluate possible effects on wildlife through the consumption of fish contained in the NYSDEC's *Division of Fish, Wildlife and Marine Resources Technical Guidance for Screening Contaminated Sediments* which is based on *The Niagara River Biota Contamination Project: Fish Flesh Criteria for Piscivorous Wildlife*, A.J. Newell et al., July 1987, NYSDEC Technical Report 87-3. The criteria listed are 3.0 pg/g (ppt).

3.2.1 Surface Soil Results

A total of 67 surface soil samples were collected during the PI and RI and sent for analysis of SVOCs, metals, and dioxins. Three surface samples (BGM-1, BGM-2 and BGM-3) were collected during the 2003 RI investigative activities and sent for laboratory analysis to determine background concentrations of metals at the site. In July 2003 and November 2003, a total of ten (10) additional samples (BGM03-1 through BGM03-10) were collected to determine background concentrations for both SVOC and dioxins. A summary of the analytical results from the PI and RI is summarized in **Table 2** and is presented on **Figures 3, 6A and 6B**.

Thirty-four (34) out of the 67 surface soil samples collected were sent for laboratory analysis of SVOCs. Analytical results indicated several SVOCs detected at various concentrations. Pentachlorophenol (PCP) was the only SVOC detected above TAGM 4046 Guidance Value. Six surface soil samples (SS-6, SS-7, SS-12, SS-16, SS-19 and SS-22) collected during RI investigative activities and located northeast of Building 49, indicate concentrations of PCP above the TAGM 4046 Guidance Value (1.0 ppm). Concentrations of PCP in these surface soil samples range from 1.6 ppm (SS-6) to 6.3 ppm (SS-16). PCP was detected above the method detection limit, but below the TAGM 4046 guidance value (1.0 ppm), in eight additional samples (SS-1, SS-3, SS-12, SS-17, SS-18, SS-23, SS-24 and SS-25) collected northeast of Building 49 at levels between 0.38 ppm (SS-1) to 0.660 ppm (SS-24).

Surface soil samples (SS-4, SS-8, SS-9, SS-25, SS-26, SS-29, and SS-32,) collected from the area just south of Building 50 and one sample (SS-37) collected near the former drum rinsing area indicated PCP concentrations greater than TAGM 4046. PCP concentrations ranged from 1.4 ppm (SS-8) to 253 ppm (SS-32). The remaining surface soil samples exhibited PCP concentrations well below the TAGM 4046 guidance value.

A total of twenty-four (24) of the sixty-seven (67) surface soil samples collected from former treatment areas were sent for laboratory analysis of metals. For discussion purposes, the results of the "on-site" samples were compared to the average value for each metal from the background samples or to the TAGM 4046 guidance value for metals. Results from "on-site" samples that exceeded the TAGM 4046 metal guidance values or the average value of the background samples are shaded on **Table 2**.

Analytical results indicate all 24 surface soil samples collected for metals analysis in areas northeast of Building 49 contained at least one metal in concentrations above their associative

TAGM 4046 guidance value or the average background level. Beryllium and calcium most frequently exceeded the TAGM or "background" levels (23 out of 24 samples). Other metals detected above TAGM 4046 or background levels include nickel (22 of 24 samples), potassium (22 of 24 samples), zinc (22 of 24 samples), lead (21 of 24 samples), copper (20 of 24 samples), magnesium (19 of 24 samples), antimony (17 of 24 samples), arsenic (16 of 24 samples), chromium (12 of 24 samples) and manganese (13 of 24 samples). Surface soil sample SS-14 collected northeast of Building 49, and SS-26, which was collected from the shooting range area, contained the most metal analytes above their average background concentrations (15 of the 23 metals reported by analysis).

No surface soil samples collected exhibited barium, cadmium, sodium or vanadium concentrations above the TAGM 4046 guidance values or the average background concentration.

Three (3) surface soil samples (BGM-1 through BGM-3) were collected to determine background concentrations for metals. Of the three COCs, arsenic was detected in all three samples at a range between 8.2 ppm (BGM-2) to 10.5 ppm (BGM-3). The average concentration was 9.1 ppm. Chromium was also detected in all three samples with a concentration range of 18.0 ppm (BGM-3) through 21.0 ppm (BGM-1) and an average concentration of 19.06 ppm. The third COC, copper, was detected in all 3 background samples and exhibited a range between 8.2 ppm to 14.9 ppm in BGM-2 and BGM-3, respectively. The average concentration for copper in the three background samples is equal to 10.76.

The background metal concentrations, along with the metal concentrations observed on-site, was compared to TAGM 4046 guidance values to determine the guidance values used for site remedial actions.

Five (5) surface soil samples (BMG03-1 through BGM03-5) were collected in July 2003 to determine background concentrations for SVOCs. PCP was below detection limits in all five samples. No additional SVOC compounds were detected above the TAGM 4046 guidance value in the five samples.

A total of ten (10) surface soil samples (BGM03-1 through BGM03-10) were collected to determine background concentrations for dioxins. No dioxin or furan congeners were detected above their TEFs. All 2,3,7,8 TCDD equivalences were well below the 1.0 ppb screening level. 2,3,7,8 TCDD equivalences for the 10 background samples ranged from 0.000036 ppb (BGM03-1) to 0.402015 ppb (BGM03-7).

In addition, 37 of the 54 surface soil samples collected were sent for the analysis of dioxins. Analytical results of the samples were compared to Technical Equivalence Factors (TEFs) for that specific compound (**Table 2** and **Figures 3, 6A** and **6B**). Six (6) samples (SS-25 and SS-38 (south of Building 50) of the PI and SS-12, SS-17, SS-19 and SS-23 (northeast of Building

49) of the RI) exhibited 2,3,7,8-TCDD equivalence concentrations above the 1 ppb (ng/g) screening level. Three of the six samples (SS-25, SS-38, and SS-19) with 2,3,7,8-TCDD equivalence concentrations above the screening level also possessed PCP concentrations above TAGM 4046 guidance values.

3.2.2 Sediment Soil Results

A total of thirty-seven (37) sediment samples were collected from twenty-seven (27) sampling locations during the PI and RI from the on-site pond and the seasonal overflow area along the northwest corner for analysis of SVOCs, metals, dioxins, and total organic carbon (TOC). The analytical results are summarized on **Table 3** and presented on **Figure 7**,

All sediment samples collected were analyzed for SVOCs. No SVOCs, including PCP, were detected in any of the 37 sediment soil samples collected above the guidance criteria (as set forth in the NYSDEC *“Technical Guidance for Screening Contaminated Sediments”* guidance document (January 1999)).

Of the 37 sediment samples collected, four samples (SED03-1 through SED03-4) were analyzed for metals. Of the three metals of concern (arsenic, chromium, and copper), arsenic was the analyte (both COC and SVOC) detected most frequently (all four samples) above the guidance criteria. Arsenic concentrations ranged from 6.4 ppm (SED03-1) to 12.1 ppm (SED03-2). Chromium and copper were not detected above the guidance criteria in any of the four samples collected for metals analysis. Even though detected, given the slightly elevated concentrations observed, arsenic does not seem to impose any significant environmental effect to the pond or biota present in the pond.

Additional metals detected above their associated guidance criteria included calcium, magnesium, manganese, nickel, and zinc. These concentrations can be contributed to the lithology of the area as discussed above.

Sixteen (16) of the 37 sediment samples collected were analyzed for dioxins. Of the 16 samples analyzed, two sediment samples collected during the PI (SED-3 and SED-10A) exhibited elevated 2,3,7,8 TCDD equivalence values.

3.2.3 Shallow Test Pit Soil Results

A total of thirty (30) shallow test pits (STP) were excavated south of Building 51 within the former lumber storage treatment area. The soil collected was sent for laboratory analysis of SVOCs, metals and dioxins. The analytical results are summarized in **Table 4** and presented on **Figure 8A**.

Fill material was present in several shallow test pits and appeared to be widespread across the Site (as evident in the deeper test pits). This is consistent with reports of shale from satellite areas of the site being used as a fill material.

All 30 of the shallow test pits were analyzed for SVOCs. Several SVOC compounds were detected in nineteen (19) of the 30 test pit samples. PCP was the only SVOC detected above the TAGM 4046 guidance value. Shallow test pits STP-18, STP-19, STP-21 and STP-22 all exhibited PCP concentrations above the TAGM 4046 1 ppm guidance value. PCP concentrations ranged from 1.6 ppm (STP-18) to 26 ppm (STP-19). These two test pits (STP-18 and STP-19) in particular were located within the former lumber storage area and northwest of Building 52. Elevated concentrations of PCP found within the lumber storage area suggests that historic site processes contributed to subsurface impact to soil.

Sixteen (16) of the pit soil samples were sent for laboratory analysis of metals. For discussion purposes, the results of the shallow test pit samples were compared to TAGM 4046 and the average background value (guidance criteria) for each metal (as observed in surface soil samples). Results from shallow test pit samples that exceeded the higher concentration of the two criteria are shaded on **Table 4**. When the data was evaluated by this method, all 16 shallow test pit samples had at least one analyte that exceeded the guidance criteria.

Of the three metals of concern (arsenic, chromium, and copper), arsenic was detected above the guidance criteria in six (STP-3, STP-13, STP-15, STP-25, STP-26, and STP-27) of the 16 shallow test pit soil samples collected. Arsenic concentrations ranged from 9.4 ppm (STP-3) to 13.9 ppm (STP-25) within these shallow test pit samples. Chromium was detected above guidance criteria in 12 (STP-1, STP-5, STP-7, STP-9, STP-10, STP-13, STP-15, STP-19, STP-20, STP-23, STP-25, and STP-26) of the 16 shallow test pit samples collected for metals analysis. Concentrations of chromium ranged from 19.3 ppm (STP-5) to 24.3 ppm (STP-10). Eleven (STP-1, STP-7, STP-9, STP-10, STP-13, STP-15, STP-17, STP-19, STP-20, STP-25, and STP-26) of the 16 shallow test pit samples collected for metals analysis exhibited concentrations of copper above the guidance criteria. Copper concentrations ranged from 12.3 ppm (STP-15 and STP-17) to 23.8 ppm (STP-10). These elevated chemicals of concern concentrations suggest that historic site operations have impacted the surface soils in the former treated lumber storage area.

Calcium, nickel, and potassium were the analytes that exceeded the guidance criteria for metals most frequently. These three analytes were detected above the guidance criteria in all 16 shallow test pit soil samples collected. Calcium was also observed in abundance in the surface soil samples collected. As stated above, the occurrence of calcium in the shallow test pits can be contributed to the minerals present in the bedrock found in the area of the site. Potassium is a metal found in abundance in basement rock and can be excused for similar reasons. Furthermore, given the continued use of off-site fill to raise the grade on site, these

exceedances in guidance criteria can be contributed to non-site specific processes (e.g., are not related to the wood treatment process).

As described above, TAGM 4046 does not include a soil clean-up objective for dioxins and furans, but a screening level of 1 ppb (ng/g) has been used at other hazardous waste sites and has been adopted as a screening concentration for the Camp Summit site. Also as described above, because 2,3,7,8-TCDD is the most toxic form of dioxin, the USEPA has established factors that equate the toxicity for other dioxin and furan congeners to that of 2,3,7,8-TCDD. Therefore, the concentrations of dioxin and furan results are discussed in this report as the 2,3,7,8-TCDD-equivalence by reporting the exceedance of the 1 ppb (ng/g) screening concentration rather than by reporting each individual congener.

A total of seventeen (17) shallow test pit samples were sent for laboratory analysis of dioxins. While several congeners were detected in several of the samples, only STP-17 and STP-19 exhibited a 2,3,7,8-TCDD equivalence above the 1ppb (ng/g) screening level at a equivalence 1.3861 JE and 1.8969 JE respectively. The elevated 2,3,7,8-TCDD equivalence in STP-19 (1.8969) is consistent with the elevated PCP concentrations detected in this sample. Both STP-17 and STP-19 are located in the former treated lumber storage area and north of Building 52.

3.2.4 Test Pit Soil Results

A total of forty-eight (48) test pits were excavated across the site. A total of fifty three (53) samples were collected from the 48 locations for analysis of SVOCs, VOCs, metals, and dioxins. The test pit analytical results are summarized on **Table 4** and presented on **Figures 6B, 8A and 8B**.

Test pits TP-1 and TP-2 were excavated in response to the GPR survey (GPR Area 1). Three rusted drums and other debris were uncovered approximately 28 inches bgs in TP-1. Photoionization detector (PID) readings of 813 ppm were recorded within this pit. Shale fill was also noted in the test pit. At the request of the NYSDEC representative, samples were sent to the laboratory for analysis of VOCs and pesticides in addition to SVOCs, dioxins and metals. Undisturbed soils were noted in TP-2, which was excavated approximately 100 feet northeast of TP-1. No issues of potential concern were noted within TP-2.

Test pit TP-3 was excavated in GPR Area 2. Metal banding along with wood debris, was found to 6 feet bgs in the test pit.

Test pit TP-4 through TP-11 were excavated in the shale pit disposal area. Wood and other debris such as tires and metal banding were observed in several test pits (TP-4, TP-6, TP-8, TP-9, and TP-11) and an empty, rusted drum was encountered in TP-11. No elevated PID readings were noted in any of the test pits installed in this area.

Test pits TP-12 and TP-13 were installed south of Building 53 in response to the GPR investigation (GPR Area 3). Metal banding, believed to be the source of the GPR anomaly, was discovered in both pits. Both test pits contained non-native fill to about four (4) feet bgs.

Test pits TP-14, TP-15, TP-16 and TP-17 were located in the former drum rinse area. TP-16 was a long, shallow trench running north-south and TP-14, TP-15, TP-17 branched west into the woods. TP-14 contained drum lids on the surface and uncompacted overburden soils (based upon field observations). TP-15 was excavated to 4 feet bgs. The overburden soils were stained in the 2-3 foot interval, exhibiting PID readings of 384 PPM. TP-16 contained stained soils with a petroleum-like odor and elevated PID readings.

Test pits TP-18, TP-35 and TP-36 were excavated in the area of the shooting range backstop. No visual impacts were noted in this area.

TP03-1 through TP03-4 are located between Buildings 51 and 50. Excavated soils consisted of light brown, brown, orange and gray clayey silt, shale, organics, gray silt and clay and light brown to brown till. A concrete slab was also encountered in TP03-3. Test pits TP03-1, TP03-2 and TP03-4 did not encounter any groundwater nor have PID detections. Groundwater was noted percolating into TP03-3 under the concrete slab at approximately 2.5 ft. bgs. The highest PID reading in this test pit was 13.7 ppm.

Test pits TP03-5 through TP03-8 and TP03-11 were excavated in the woods between the gravel road and Building 53, directly south of Building 52. Each test pit was excavated to a depth of 2-3 ft. bgs. Excavated soils consisted of brown and gray silt, clay, shale and organics. Till was encountered in TP03-5, TP03-7 and TP03-8. Decaying wood was noted in TP03-7 and TP03-8. Concrete was found in TP03-7. Groundwater was not encountered in any of these test pits. There were also no PID detections from these test pit soils.

Test pits TP03-9 and TP03-10 are located between Buildings 50 and 52. TP03-9 is located perpendicular to Building 52. Soils in this excavation were topsoil, shale organics, clayey silt, silt and till. The highest PID detection from the south end of the excavation was 50.1 ppm. There were no PID detections from the north end of the excavation. A soil sample was collected from both the north and south ends of the excavation. Groundwater was encountered at approximately five feet bgs in the south end of the excavation. TP03-10 is located perpendicular to TP03-9 in the south end of the TP03-9 excavation where strong odors and PID readings were noted. It extends nine feet east and west of TP03-9. Soil in the west end of the excavation consisted of sandy silt, clay, shale, organics, silty clay, clayey silt and till. The soil consisted of sandy silt, clay, shale, organics and clayey silt in the east end of the excavation. A strong odor was noted throughout the excavation with the highest PID reading in this excavation at 8.1 ppm. Groundwater was only noted in the intersection of TP03-9 and TP03-10.

Soil excavated from TP03-1 through TP03-11 was temporarily staged on plastic sheeting next to the excavation. All test pits were backfilled with the excavated soils in a reverse manner (i.e., last out, first in). The backhoe was manually cleansed of all foreign material above the test pit. The backhoe bucket was then steam cleaned over the decontamination pad.

Soils that were visually impacted and or contained elevated PID readings, odor, or other anomalies were collected for laboratory analysis. At least one sample from each test pit was submitted for analysis for SVOCs (with the exception of TP-2, TP-4 and TP-10 at the request of the NYSDEC representative). A total of 27 of the samples exhibiting the most evidence of contamination were submitted for analysis for dioxins. Additionally, soil from TP-1 and TP-16 was submitted for laboratory analysis of metals at the request of the NYSDEC representative.

Four (4) (TP-1, TP -16, TP-32, and TP-33) of the 53 test pit samples collected were sent for laboratory analysis of VOCs. Total VOC concentrations ranged from 318 ppm (TP-16) to 58,717 ppm (TP-1). Acetone, 2-butanone, methylene chloride and total xylenes were detected in TP-1 in concentrations above TAGM 4046 guidance values. Total xylenes were in exceedance of TAGM 4046 guidance values in TP-33. Test Pit TP-1 is located in a former satellite disposal area (GPR Area 1) and TP-33 is located just east of the railroad slab attached to the former treatment building. These elevated concentrations suggest that site-related processes have impacted the subsurface soil in these areas.

A total of 50 of the 53 test pit samples collected across the site were analyzed for SVOCs. PCP was detected above the TAGM 4046 guidance value in seven (TP-1, TP-12, TP -32, TP-33, TP03-7W, TP03-9N, and TP03-10E) of the 50 test pit samples. Test pit TP-12 and TP03-7W are located in GPR Area 3, TP-32 is located northwest of the former treatment building, TP-33 is located adjacent to the east side of the former treatment building railroad slab and TP-03E is located between Buildings 50 and 52. PCP concentrations ranged from 1.2 ppm (TP-12) to 130 ppm (TP-1). TP-1 is located in area GPR-1, while the remaining test pit locations are located on-site in the former treatment areas.

Several SVOCs were detected in three (TP-18, TP-32, TP-33) of the 53 test pit soil samples above the TAGM 4046 guidance values. Total SVOC concentrations in these three samples ranged from 3.32 ppm (TP-18) to 115 ppm (TP-32). The elevated concentrations observed at TP-18 (shooting range area) can be contributed to wood debris and high organics in soil as observed during the excavation of TP-18. Test pits TP-32 and 33 however are located in the former treatment process area and can most likely be caused by the former treatment processes on-site.

Eighteen (18) test pit soil samples (TP-1, TP-16, TP03-1 through TP03-11E) were collected from the former treatment areas and the area of GPR-1 (TP-1) for analysis of metals. All collected samples for metals analysis exhibited concentrations above the guidance criteria (TAGM 4046 and background averages) for at least one metal. Of the three metals of concern

(arsenic, chromium, and copper) arsenic was detected above the guidance criteria in 16 of the 18 test pit samples (those mentioned above with the exception of TP03-1 and TP03-9S). Concentrations for arsenic ranged from 9.9 ppm (TP03-8) to 28.6 ppm (TP-1). Chromium concentrations exceeded the guidance criteria in all the test pit samples collected for metals analysis with the exception of TP03-9S. Chromium concentrations ranged from 19.6 ppm (TP03-11E) to 37.2 ppm (TP-1). Copper was detected above the guidance criteria in all the samples collected for metals analysis. Concentration of copper ranged from 11.8 ppm (TP03-6SW) to 125 ppm (TP-16). The elevated concentrations of COCs suggest that historic site operations have impacted the subsurface soil in these areas.

Calcium, magnesium, nickel, potassium, and sodium was also detected above background levels in all 18 test pit soil samples. The elevated concentrations could be contributed to the lithology and fill found in the area of the site.

A total of thirty-two (32) test pit soil samples were collected and sent for the laboratory analysis of dioxins. Only three test pit soil samples (TP-1, TP-3, and TP03-9S) of the 32 samples analyzed contained 2,3,7,8-TCDD equivalence above the 1ppb (ng/g) screening level. Test pits TP-1 (GPR Area 1) and TP- 3 (GPR Area 2) exhibited concentrations for 2,3,7,8-TCDD equivalence of 7.41 ppb (ng/g) and 1.3564 ppb (ng/g) respectively. The 2,3,7,8-TCDD equivalence for TP03-9S (former treated lumber storage area) was 1.7483 ppb.

Only one test pit soil sample (TP-33) was collected for analysis of pesticides. Concentrations of 4,4 DDD and 4,4 DDT exceeded the TAGM 4046 guidance value in TP-33 with values of 37 ppm and 20 ppm, respectively.

A total of forty-eight (48) test pits were installed in the former treatment building area, the treated lumber staging area, the drum rinse area, and several satellite areas near the access road to the shooting range. Test pits soil samples were analyzed for VOCs, SVOCs, and dioxins. Test pit depth, on average, extended five feet below ground surface. A complete summary of the test pit analytical results are in **Table 4** and presented on **Figures 6B, 8A, and 8B** of this report. The results of the test pit program show that the primary impacts were observed around the rail cart slab, TP-12 (PI), TP-32 and TP-33.

3.2.5 Monitoring Well and Soil Boring Results

A total of fifty-six (56) subsurface soil samples were collected from forty-one (41) soil boring locations across the site and analyzed for VOCs, SVOCs, metals, dioxins, and pesticides. Thirteen (13) of the 41 borings were completed as monitoring wells (MW-2 through MW-14). A summary of the soil borings completed during the formal RI are as follows:

- A weathered fuel-like odor and a sheen was noted in four (SB-1, 2, 3 and MW-6) of seven soil borings installed through the former treatment building slab. No odor or sheen was detected in SSB03-9, SSB-3-10 or SSB03-14.
- Soil borings SB-4, SB-5, SB-6 and MW-7 were installed in the location of the former NYSDEC building. Borings SB-5, SB-6 and SB-7 exhibited a fuel-like odor with PID readings up to 110 ppm. The borings were dry to a depth of 16 feet bgs. Water was detected in SB-4 at approximately 8 feet bgs.
- Soil borings SB-7 and MW-9 were installed in the parking lot, northwest of the former NYSDEC building and the former treatment building. Neither location exhibited visual or olfactory evidence of impacts.
- MW-8 is located west of the former treatment building and the former NYSDEC building. Soils from this boring, to a depth of 20 feet bgs, did not exhibit any visual evidence of impacts.
- Two additional monitoring wells/borings (MW-10, MW-11) were installed south of Building 53 at the request of the NYSDEC representative. The location of these borings was determined by the on-site NYSDEC representative based upon observations of impacts during test pitting activities. The soils collected from both of the borings did not exhibit any visual evidence of impacts.
- Soil borings SSB03-8 and SSB03-7 are located west of the rail cart slab near the former treatment building. A strong odor was noted from 3 feet bgs to 10 feet bgs in SSB03-8. A slight sheen was noted at the 4-6 ft interval in this boring. No odor or sheen was noted in SSB03-7.
- Monitoring wells MW-12, MW-13 and MW-14 located east, northeast and northwest of the RR slab next to the former treatment building showed no visual or olfactory signs of contamination. Wells were set at 14 ft, 20 ft and 22 ft bgs.

Eight (8) of the 56 soil samples collected were analyzed for VOCs. There were no exceedances of TAGM 4046 in any of the eight samples sent for VOC analysis.

A total of 55 of the 56 soil samples collected were sent for laboratory analysis of SVOCs. SVOCs were sporadically detected above TAGM 4046 guidance values in 28 of the 55 soil samples. PCP was detected at concentrations above TAGM 4046 guidance values in 17 of the 55 soil samples sent for SVOC analysis. PCP concentrations ranged from 1.8 ppm (SB-5, 2-4') to 820 ppm at sample B7-3 which is located in the northwest corner of Building 49. Total SVOC concentrations ranged from 0.692 ppm (B1-1) to 8542.6 ppm (B8-3).

Of the 56 soil samples collected, eight samples (B4-3, B6-1, B7-1, B10-3, B11-3, B12, B-15, and B18-3) were analyzed for metals. Each soil sample contained at least one analyte that exceeded the guidance criteria (TAGM 4046 or background) a particular analyte. Of the three metals which are COC, arsenic was detected in exceedance of guidance criteria in five (B4-3, B6-1, B7-1, B11-3, and B12) of the eight samples. Arsenic concentrations ranged from 9.9 ppm (B4-3) to 22.2 ppm (B6-1). Chromium was detected at concentrations above the guidance criteria in six (B4-3, B6-1, B11-3, B12, B-15, and B18-3) of the eight samples collected for metals analysis. Chromium ranged in concentration from 20.1 ppm (B18-3) to 24 ppm (B4-3).

Copper was also detected above the guidance criteria in seven (B4-3, B6-1, B7-1, B11-3, B12, B-15, and B18-3) of the eight soil samples. Concentrations for copper ranged from 13.2 ppm (B4-3) to 19.2 (B-12). Historic site procedures have impacted the subsurface soils with metals as evident by the above analytical.

Twenty-eight (28) samples of the 56 collected were sent for laboratory analysis of dioxins. Of the 28 analyzed for dioxins only one sample, MW-7 (2-4'), exhibited a 2,3,7,8-TCDD equivalence above the 1ppb (ng/g) screening level for dioxins with a equivalence of 1.0715. This is consistent with the elevated PCP concentrations also detected in MW-7.

A total of seven (B4-3, B7-1, B10-3, B11-3, B-12, B-15, and B18-3) of the 56 soil samples were analyzed for pesticides. Only one sample, B7-1, exhibited concentrations (3000 ppm) above the TAGM 4046 guidance value.

A complete summary of the soil boring/monitoring well analytical results is found on **Table 5** and presented on **Figure 9**. The resulting soil quality data indicates that the primary impacts were observed in subsurface soils to a depth of approximately eight feet below ground surface around MW-4 and MW-7.

3.2.6 Groundwater Analytical Results

As described in **Section 2.1.7**, groundwater samples from on-site monitoring wells and production wells were collected in December 2001, January 2002, and July 2003. Groundwater samples collected were analyzed for VOCs, fuel oil, PCBs, SVOCs, pesticides, metals and dioxins. A total of 31 groundwater samples have been collected from the 13 monitoring wells and 5 production wells on-site. Of the 31 groundwater samples collected, four samples (MW-2 through MW-5 (PI)) were analyzed for VOCs. Total xylene isomers was the only compound that exceeded the TOGS guidance value (5 ppb) in MW-4 during the preliminary investigation.

In addition to VOCs, nine (MW-2 through MW-11 during the 2002 sampling event) of the 31 groundwater samples were analyzed for fuel oil components. Diesel fuel was detected in MW-4 at 24,000 ug/L. No fuel oil constituents were detected in any of the other nine samples analyzed.

Four (MW-2 through MW-5 (PI)) of the 31 groundwater samples collected were analyzed for PCBs. PCBs was not detected in any of the groundwater samples collected.

All 31 groundwater samples collected during the PI and RI were analyzed for SVOCs. PCP was detected above the TOGS groundwater guidance value in eight (MW-4 (PI), MW-4 (2002), MW-6 (2002), MW-7 (2002), MW-4 (2003), MW-6 (2003), MW-7 (2003), and MW-12 (2003)) of the groundwater samples collected. PCP concentrations ranged from 11 ppb in MW-12 (2003) to 810 ppb in MW-7 (2003).

A total of nine groundwater samples (including the ones exhibiting concentrations of PCP) had at least one analyte that exceeded the TOGS guidance values. Total SVOC concentrations ranged from 10.6 (MW-10 (2003)) to 4400 ppb (MW-7 (2002)). The highest SVOC concentrations (and the most analyte detections) were encountered in monitoring well MW-7. Acenaphthene, 4-chloro-3-methylphenol, 2-chlorophenol, 2,4-dinitrotoluene, 1,4-dichlorobenzene, 4-nitrophenol, N-nitroso-di-n-propylamine, phenol, pyrene, and 1,2,4-trichlorobenzene were all detected above TOGS 1.1.1 guidance values. Detections of bis (2-ethylhexyl) phthalate are believed to be laboratory artifacts.

The five production wells (PW-1 through PW-5) were sampled for pesticides. A pesticide (4-4' DDD) was detected in PW-3 (0.11 ug/L) below NYSDEC TOGS 1.1.1 guidance values.

Fourteen (14) groundwater samples (ten from on-site monitoring wells, and four from on-site production wells) have been collected during the PI and RI for analysis of metals. No COCs (i.e., arsenic, chromium, and copper) exceeded the TOGS guidance values. The most frequent metals detected were aluminum, iron, manganese and sodium. These metals are not considered to be associated with treatment operations and most likely represent background or naturally occurring levels.

A total of 17 groundwater samples have been collected during the PI and RI for analysis of dioxins. Of the 17 groundwater samples there have been five instances (MW-3 (2002), MW-4(2002), MW-3(2003), MW-4(2003), MW-6(2003), and MW-7(2003)) when the 0.007 ppt screening level (for 2,3,7,8 TCDD equivalence) has been exceeded. TOGS 1.1.1 lists a groundwater guidance value for 2,3,7,8 TCDD as 7×10^{-7} ppb (ug/l) or 0.0007 ppt (ng/l). This had been adopted as the groundwater screening level, with the concentrations of other forms of dioxins and furans normalized to 2,3,7,8 TCDD using the toxicity equivalence factors (TEQs). Dioxins equivalence values range from 0.003679 ppt (MW-6(2003)) to 0.065403 ppt (MW-4 (2002)).

The analytical results from the groundwater sampling events are summarized on **Table 6** and presented on **Figure 10**. The results of this sampling program indicate that the primary dissolved impacts have been observed in areas which correspond with elevated soil impacts (e.g., MW-4 and MW-7).

3.2.7 Biota Analytical Results

A total of thirty (30) stream trout samples was collected from various locations from Panther Creek. Trout samples were collected using electric shock sampling methods as described in **Section 2.1.9**. The analytical results are summarized in **Table 7**.

Several dioxin and furan congeners were detected in the trout samples collected from Panther Creek. A total of fourteen (14) (2PC-1 through 2PC-9, 3PC-1, 3PC-5, 3PC-8, 3PC-12, and

3PC-15) of the 30 biota samples collected exhibited 2,3,7,8 TCDD equivalences greater than the 0.0003ppt guidance value. 2,3,7,8 TCDD equivalences ranged from 0.00053 ppt (2PC-6) to 0.0916 ppt (3PC-13).

3.2.8 Summary

Soil, sediment, groundwater, and biota data generated during several phases of site investigative activities indicate the following:

- Overburden at the site consists of fill and glacial lodgment till interspersed with sand lenses.
- Depth to groundwater at the site ranges between four (4) feet bgs to twenty (20) feet bgs as evident in the monitoring wells.
- Recharge of the water table is likely provided by precipitation infiltrating areas of the site.
- Soils beneath the former treatment building, within the treated lumber staging areas, drum rinse area, and several satellite areas are impacted with PCP and/or dioxins.
- The sediments collected from the on-site pond and the seasonal overflow areas were shown to no concentrations of PCP above the guidance criteria.
- Two sediment samples (SED-3 and SED-10A) exhibited slightly elevated 2,3,7,8 TCDD equivalences.
- Fourteen of the thirty biota (trout) samples exhibited concentrations greater than the 2,3,7,8 TCDD guidance value.
- Several monitoring wells (MW-4, MW-6, MW-7, and MW-12) exhibited PCP concentrations greater than the 1.0 ppb guidance value during the latest round of groundwater sampling.
- A total of five groundwater samples collected from monitoring wells MW-3, MW-4, MW-6, and MW-7 exhibited 2,3,7,8 TCDD equivalence concentrations above the 0.0007 ppb guidance value.
- Groundwater impacts at the site are generally located in those areas where it remains in contact with impacted soils.
- Groundwater is not contiguous across the site, occurring primarily within the more porous sand lenses or as perched water above the impermeable clay layers.
- The overburden soils are very dense and transmit water minimally based upon hydraulic conductivity values. This very low conductivity, combined with minimal lateral recharge of groundwater precludes the widespread migration of groundwater within the overburden sediments.
- Existing soil data indicates that the primary impacted areas on-site include areas beneath the former treatment building, treated lumber storage areas, drum rinse area, and localized several satellite areas. These areas are shown of **Figure 2A**.
- Widespread groundwater impacts were not observed at the site. The primary impacts were observed within monitoring wells MW-4, MW-6, and MW-7. These well locations are shown on **Figure 2A**.

3.3 Exposure Assessments

3.3.1 Qualitative Human Health Exposure Assessment

The Qualitative Human Health Exposure Assessment (QEA) (Shaw, 2004) was used to determine the current and potential future exposure pathways associated with current or unremediated (baseline) site conditions (**Appendix E**). The QEA identified chemicals of potential concern (COPCs) and complete exposure pathways (mechanisms by which receptors may come into contact with site-related contaminants). The risk to receptors via complete pathways were then assessed based on comparison to screening levels in the context of current and reasonably foreseeable site exposures. The role of completed, ongoing and proposed remedial activities at the site in mitigating exposures was addressed where appropriate. The QEA used data from the PI (NYSDEC, 1998 and 1999) and this RI.

The QEA process was derived from the guidance set forth in the United States Environmental Protection Agency's Risk Assessment Guidance for Superfund (RAGS; 1989, 1991). The complete exposure assessment report is included as **Appendix E**. The following sections present a brief summary of the pertinent results from the report.

3.3.1.1 Exposure Setting

Camp Summit is a large complex of NYSDEC crew headquarters and an active NYSDCS incarceration facility, situated in the town of Fulton, Schoharie County, NY. Camp Summit is bordered on the southeast by New York State land, and the remainder of the facility is bordered by private property, some of which is used for residential purposes. A small pond is located on-site; its outlet feeds a tributary of Panther Creek. The outlet is a Class C (fish propagation) stream, and Panther Creek is a Class C (TS) (trout spawning) stream. A NYSDEC Regulated Wetland is located approximately 0.5 miles southeast of the site. The surrounding area is rural, generally consisting of undeveloped forest and farmland.

Wood treatment operations were conducted at Camp Summit between 1962 and 1975. Based on previous investigations, several areas potentially impacted by releases at the site have been identified, including:

- The NYSDEC office (Building 48).
- The former wood treatment plant (Building 49).
- The planer room in the old sawmill (Building 51).
- The former staging areas for treated lumber.
- The shale pit and several satellite areas previously used for waste disposal.

- The pond and associated drainage area on-site.

Each of these areas is indicated on **Figure 2A**.

3.3.1.2 *Chemicals of Potential Concern*

The following media were addressed during the Camp Summit investigative activities: surface soils, sediment, subsurface soils, and groundwater. Samples were collected from each media during the investigative activities and laboratory analysis was performed to determine chemicals present. Detected chemicals were compared to NYSDEC TAGM and NYSDEC Ambient Groundwater Quality Standards to determine COPCs. The following substances were identified as COPCs:

- Pentachlorophenol (PCP)
- Dioxin
- Fuel Oil
- Copper
- Arsenic
- Chromium

3.3.1.3 *Identification of Exposure Pathways*

The exposure pathway is the route a chemical may take from its source to the receptor. An exposure pathway has five elements:

- contaminant source
- contaminant release and transport mechanisms
- point of exposure
- route of exposure
- potential receptor

Sources of Contamination

Contaminant sources exist at the site and are associated with historical releases and surficial spills of wood treatment products (PCP, copper naphthenate, and fuel oil) to soil.

Fate and Transport

Contaminant release and transport mechanisms carry contaminants from the source to points where individuals may be exposed. Chemical migration between media such as soil and groundwater is influenced by the chemical's characteristics such as water solubility or molecular size or shape, in addition to the chemical and physical characteristics particular to a site's media. Information about the fate and transport of the source chemicals is summarized below.

Pentachlorophenol

PCP has a low water solubility and a strong tendency to adsorb onto soil or sediment particles in the environment. Adsorption to soils and sediments is highly pH-dependent, and is more likely to occur under acidic conditions than under neutral or basic conditions. Therefore, leaching of PCP from soil to groundwater may be possible, particularly at lower pHs. Disassociated forms of PCP may be rapidly photolyzed by sunlight; PCP may also undergo biodegradation by microorganisms, animals, and plants, although degradation is generally slow (Howard, 1991).

PCP is lipid-soluble and therefore has a tendency to bioaccumulate in organisms. Bioaccumulation is largely pH-dependent, with considerable variation among species. Significant biomagnification of PCP in either terrestrial or aquatic food chains, however, has not been demonstrated (ATSDR, 2000).

PCP products often contain impurities such as chlorophenols, dioxins, and furans. Once released to the environment, these compounds generally adsorb to soil or sediment particles. Due to their high adsorption rate, these compounds are not expected to leach from soil. Volatilization from either subsurface soil or water is not expected to be a major transport pathway, although may be significant for surficial impacts (ATSDR, 2000).

Fuel Oil

PCP is a preservative which uses oil as an emulsifier. At the site, PCP was mixed with No. 2 fuel oil as the carrier fluid. Fuel oils are mixtures of numerous aliphatic and aromatic hydrocarbons. Individual components of fuel oil include n-alkanes, branched alkanes, benzene and alkylbenzenes, naphthalenes, and PAHs (ATSDR, 2000). Primary constituents identified in soil and/or groundwater at the site are PAHs. Soil adsorption, volatilization to air, and leaching potential depend on a PAH's individual chemical characteristics; however, as a class of compounds, they are generally insoluble in water, with a strong tendency to bind to soil or sediment particles. Degradation may occur through photolysis, oxidation, biological action, and other mechanisms.

As nonpolar, organic compounds, PAHs may be accumulated in organisms from water, soil, sediments, and food.

Copper Naphthenate

Copper naphthenate is a wood preservative/biocide comprised of copper compounds and naphthenic acid. The United States Environmental Protection Agency classifies copper naphthenate as a general-use (unrestricted) pesticide. Most preparations consist of 6-8% copper as copper naphthenate is typically diluted in solvents such as diesel fuel or mineral spirits (Merichem, 1999). Naphthenic acids are predominantly alicyclic (saturated, non-aromatic), and are naturally-occurring byproducts of petroleum.

Horizontal and vertical migration of copper naphthenate from a release area is not anticipated to be significant, as the preservative has a strong tendency to bind to soil and/or organic particles. Adsorption of copper is particularly dependent on the soil's chemical and physical composition, such as pH, amount of organic matter, and cation exchange capacity, with the greatest potential for leaching occurring in acidic, sandy soils (ATSDR, 2000). In water, copper naphthenate will generally adsorb to or complex with mineral or organic constituents. At higher pHs, copper may precipitate out of solution (ATSDR, 2000). Volatilization and biodegradation of copper naphthenate may occur in soil and groundwater (Merichem, 1999).

The bioconcentration factor (BCF) of copper may range considerably among species, from 10 in fish to 30,000 in mollusks; the potential for uptake may be influenced by feeding mechanisms, such as filter-feeding, as opposed to dermal or gill absorption (ATSDR, 2000). Copper is not known to biomagnify through the food chain (ATSDR, 2000). There is little information regarding the bioconcentration potential of naphthenic acids.

Points of Exposure

The exposure point is a location where actual or potential human contact with a contaminated medium may occur. Analytical results for samples collected at Camp Summit indicate that soil, sediment and groundwater have been impacted by numerous contaminants, including the following:

- Pentachlorophenol (PCP) and other phenolic compounds.
- Polychlorinated dioxins (CDDs) and dibenzofurans (CDFs).
- Petroleum hydrocarbons.
- Polycyclic aromatic hydrocarbons (PAHs).
- Metals, including arsenic, chromium and copper.

Exposure Routes and Potential Receptors

Camp Summit is currently maintained as a NYSDEC maintenance facility and as a NYSDCS correctional facility. Although the area is posted as off-limits and the treatment building is demolished/sealed off, inmates and NYSDEC/NYSDCS employees occasionally utilize buildings 52 and 53 as part of their wood management operations. There are currently no deed restrictions on the property that would restrict future land use. Therefore, the following receptors have been identified for the site under current and reasonable foreseeable future land use scenarios:

- Adult inmates and staff at Camp Summit.
- Construction workers performing excavation activities.
- Future NYSDEC maintenance and/or operation activities.

Based on the nature of the chemicals of potential concern, the types of media impacted at the site, and land use scenarios, the following exposure routes were identified:

- Direct contact with exposed surficial soil. Exposure routes include incidental ingestion of, dermal contact with, and inhalation of, volatile or particulate-bound contaminants.
- Direct contact with subsurface soil and/or groundwater. Future construction activities involving excavation in the area of concern may allow exposure to impacted soil and shallow groundwater. Exposure routes include incidental ingestion of and dermal contact with soil and groundwater, and the inhalation of volatile or particulate-bound contaminants.
- Direct contact with groundwater used as a future drinking water source. Routes of exposure include ingestion and dermal contact. Currently, there are eight water supply wells located at the site. Samples previously collected from these wells confirmed that contaminants related to the wood processing activities were not present at detectable levels. Recent analysis of samples from five other water supply wells currently not in use have also shown that contaminants related to the wood processing activities are not present. However, there are no restrictions on the property that would limit the future placement of a water supply well in any area of the site.
- Ingestion of fish or of game species such as deer or wild turkey. As the site and surrounding area provide ample habitat for game species and the opportunity for hunting, there is the potential for site-associated compounds (like dioxin) to accumulate in tissues of animals that forage at the site. Hunters may later ingest these contaminated tissues. Analysis of fish tissue samples have shown the presence of dioxins and furans that may or may not be related to wood processing activities.

3.3.1.4 Conclusions

Complete exposure pathways have been identified for potential current and future human receptors based on exposure to contaminated soil, groundwater, fish tissue and sediment.

Under current conditions, prison inmates, NYSDEC and NYSDCS staff, and other receptors may visit impacted soil areas of Camp Summit. Additionally, Panther Creek and the tributary to Panther Creek are trout spawning and fish propagation streams, respectively, and fishing may occur in these areas. Therefore, fishermen may come into contact with sediment in the pond, and fish tissue through consumption of fish caught in the tributary or Panther Creek.

Surface and subsurface soils are impacted with dioxins and PCP in various areas around the site, including in and around Buildings 48, 49, 50, 51, and 52. In addition, several suspected disposal locations have been shown to be impacted as well as the drum rinsing area. Recent groundwater data show impacts from the site releases in wells close to Buildings 48 and 49.

There is considerable uncertainty about levels of exposure to consumers of game species. Terrestrial game likely to be hunted in this area would include species such as white-tailed deer and turkey. Both species consume vegetation; additionally, turkeys are opportunistic feeders that will also include invertebrates in their diet. Heavy metals and, to a lesser degree, dioxins

and associated compounds are known persistent and bioaccumulative substances in plants. Dioxins, dibenzofurans, PCP and metals may accumulate in invertebrate tissue. There is the potential for bioaccumulation of these compounds in game species through dietary consumption, and therefore, people who ingest these species may likewise be exposed to these contaminants.

3.3.2 Step IIA Fish and Wildlife Impact Analysis

A Step IIA Fish and Wildlife Impact Analysis was prepared by an IT Corporation Environmental Scientist/Risk Assessor to determine if potential impacts to fish and wildlife resources exist at the site from the former wood treatment operations. The FWIA consisted of the following steps:

- **Step IIA:** Pathway Analysis

The complete FWIA report is included as **Appendix D**. The following sections present a brief summary of the pertinent results of the report.

3.3.2.1 Contaminant-Specific Impact Assessment

Site conditions indicate that: 1) various species of fish and wildlife are likely to be present at the site; 2) compounds that are mobile, persistent, or have the potential to bioaccumulate have been documented on the site; and 3) these compounds exist at or near the surface of soil, and have the potential to be taken up by plants and animals. Therefore, the following pathways of chemical movement and exposure to fish and wildlife were considered possible:

- Dermal contact with chemicals present in the surface soil, groundwater and sediments.
- Ingestion of chemicals in surface soil, groundwater, sediment and food sources.
- Direct uptake of chemicals in soil, sediment or groundwater by terrestrial and aquatic plants.

3.3.2.2 Conclusions

A Step IIA FWIA was prepared for the Camp Summit site. Chemical impacts have been identified in soil, groundwater and sediment. Various terrestrial and riverine ecosystems are found at the site and within the surrounding area. Potential biological receptors include the fish and wildlife species indigenous to the area.

Given the nature of the chemicals present at the site (i.e., dioxins, phenols, PAHs and heavy metals) and the distribution of impact, complete exposure pathways were identified for terrestrial and aquatic receptors. Aquatic invertebrate tissue analysis was conducted and dioxins were not detected above the appropriate wildlife protection criteria beyond the on-site pond.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Background

- A PI was conducted at the site by the NYSDEC to determine if historic wood treatment processes had impacted the subsurface soil and groundwater. Data summarized in the PIR determined that further soil and groundwater investigations were required at the site. The RI further delineates the horizontal and aerial extent of impacts to soil and groundwater across the site.

Site Specific Geology

- Overburden across the site consists of two to three feet of fill (most likely originating from the shale quarry located northeast of the on-site buildings) underlain by very dense glacial till. Depth to bedrock across the site ranges between zero to 95 feet below ground surface. Bedrock at the site consists of blue and gray sandstone and blue shales as indicated by water supply well logs and local outcrops.

Site Specific Hydrogeology

- Groundwater occurs within the till unit, primarily in the lenses of sand and gravel under unconfined conditions. Recharge of the water table is likely provided by precipitation infiltrating areas of the site. Depth to groundwater observed in the on-site monitoring wells ranges from four (4) to twenty (20) feet bgs and generally flows in a northeasterly direction towards the on-site pond.

Nature and Extent of Impacts

Surface Soil Results

- A total of sixty-seven (67) surface soil samples were collected during PI and RI investigative activities. Surface soil samples were collected from the former treatment building area, the treated lumber storage area south of former Building 50, the drum rinse area, and from the shooting range area. Surface soil samples collected were analyzed for SVOCs, metals and dioxins. Impacts to surface soil were mainly observed in the treated lumber storage area and in close proximity to the former treatment building. Surface soil sample, SS-32, located within the treated lumber storage area, exhibited the highest concentration for PCP. Surface soil analytical indicates that impacts are not widespread and are limited to the above-mentioned areas. Analytical results are summarized on **Table 2** and presented on **Figures 6A and 6B**.

Sediment Soil Results

- A total of thirty-seven (37) sediment samples were collected from twenty seven (27) sampling locations during the PI and RI. Sample locations include the outflow of the on-site pond, the outlet of the creek, the wetlands north of the pond, and the south side of the on-site pond. Sediment samples were analyzed for SVOCs, TOC, and dioxins. No significant impacts were observed in the samples collected from the selected sampling locations. Sediment sample analytical results are summarized on **Table 3** and presented on **Figure 7**.

Shallow Test Pit Results

- A total of thirty (30) shallow test pit samples were collected south of Building 51 (treated lumber storage area) and analyzed for SVOCs, metals, and dioxins. Shallow tests were excavated to a depth of two to three feet below ground surface. STP-19, which is located north of Building 52, exhibited the highest concentration of PCP. Concentrations of the PCP and dioxins suggest that historic treatment processes have impacted the shallow subsurface. A complete summary of the shallow test pit soil analytical is in **Table 4** and presented on **Figure 8A**.

Test Pit Soil Results

- Forty-eight (48) test pits were excavated across the site to further investigate impacts to subsurface soil and to determine potential water bearing horizons that may act as migrational pathways for contaminants. A total of fifty-three (53) soil samples were collected from the 48 test pits. Test pit soils were analyzed for VOCs, SVOCs, metals, and dioxins. Test pits were excavated in areas of the former treatment building area, treated lumber storage area, drum rinse area, and several satellite areas along the shooting range access road. Test pits were excavated to an average depth of six (6) to eight (8) feet below ground surface, the deepest test pit excavated to fifteen (15) feet bgs. Test pits in the area of the rail cart slab exhibited the highest concentrations of site-related contaminants but impacts were also observed in the drum rinse area and the satellite areas along the shooting range access road. A complete summary of the test pit analytical is given in **Table 4** and presented on **Figures 6B, 8A, and 8B**.

Monitoring Well and Soil Boring Results

- A total of fifty-six (56) subsurface soil samples were collected from forty one (41) soil boring locations across the site and analyzed for VOCs, SVOCs, metals, dioxins, and pesticides. Thirteen (13) of the 41 borings were completed as monitoring wells MW-2 through MW-14. MW-1 was not installed during the PI because no aquifer bearing material was encountered during installation of this boring. Soil borings were completed in the areas of the former treatment building, treated lumber storage area, and drum rinse area. Impacts to subsurface soils were observed at depths greater than the groundwater table in wells/borings. Boring B8, located adjacent to the cart rail slab, exhibited the highest concentration of site-related compounds. A complete summary of the subsurface soil analytical is depicted on **Table 5** and shown on **Figure 9**.

Groundwater Analytical Results

- Groundwater samples were collected during three separate sampling events (PI, 2002, and 2003). On-site monitoring wells were sampled for VOCs, SVOCs, fuel oil, PCBs, pesticides, metals and dioxins. Results from the three sampling events indicate that historic treatment processes completed at the site have contributed to groundwater impacts. These impacts were observed in the former treatment building area and correspond with subsurface soil impacts (e.g., the impacted soils appear to be the source of impact) in the area of the former treatment building. The analytical results from the groundwater sampling events are summarized on **Table 6** and presented on **Figure 10**.

Biota Analytical Results

- Dioxins detected in fish samples collected from the Panther Creek suggest minimal site-related impacts to the aquatic life in close proximity to the site. **Table 7** summarizes the biota analytical results.

Qualitative Human Health Exposure Assessment

Conclusion of the assessment indicated that sources of contamination to the environment exist at the site. These sources are associated with historic releases and surficial spills of wood treatment products to soil. Contaminants of concern (COC) identified were PCP, dioxin, fuel oil, and copper naphthenate. Points of exposure include surficial soil, groundwater, and sediments of the on-site pond through four (4) potential exposure routes under current land uses. The Qualitative Exposure Assessment is included in **Appendix E** of this report.

Fish and Wildlife Impacts Analysis

A Step IIA FWIA was prepared for the site. Chemical impacts have been identified in soil, groundwater and sediment. Various terrestrial and rivertine ecosystems are found at the site and within the surrounding area. Potential biological receptors include the fish and wildlife species indigenous of the area. Given the nature of the chemicals present at the site and the distribution of impacts, complete exposure pathways were identified for terrestrial and aquatic receptors. Aquatic invertebrate tissue analysis was conducted and dioxins were not detected above the appropriate wildlife protection criteria beyond the on-site pond. The FWIA report is included as **Appendix F** of this report.

4.2 Recommendations

A feasibility study should be completed for further remedial action at this site.

5.0 REFERENCES

- New York State Division of Environmental Remediation Technical and Administrative Guidance Memorandum 4025 (TAGM 4025), "Guidelines for Remedial Investigations/Feasibility Studies", March 31, 1989, and TAGM 4030, "Selection of Remedial Actions at Inactive Hazardous Waste Sites".
- New York State Department of Environmental Conservation's Technical and Administrative Guidance Memorandum # HWR-94-4046 (TAGM 4046), "Recommended Soil Cleanup Objectives", January 1994.
- New York State Department of Environmental Conservation Department of Water Technical and Operational Guidance Series (TOGS 1.1.1), "Ambient Water Quality Standards and Guidance Values", June 1998.
- New York State Department of Environmental Conservation Division of Fish, Wildlife, and Marine Resources, "Technical Guidance for Screening Contaminated Sediments", January 1999.
- New York State Department of Environmental Conservation Division of Fish, Wildlife and Marine Resources, Fish and Wildlife, "Impact Analysis for Inactive Hazardous Waste Sites".
- United States Geologic Survey (USGS), "The Groundwater Resources of Schoharie County, NY" Bulletin GW-22.
- NYSDEC, Division of Hazardous Waste Remediation, Division Technical and Administrative Guidance Memorandum, "Selection of Remedial Actions at Inactive Hazardous Waste Sites", HWR-90-4030, May 1990.
- NYSDEC, Division of Hazardous Waste Remediation, Division Technical and Administrative Guidance Memorandum, "Determination of Soil Cleanup Objectives and Cleanup Levels, HWR-92-4046", January 1994.
- U.S. EPA, "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA", EPA 540/G-89/004, October 1988.
- Work Assignment, "State Superfund Standby Contract", Work Assignment# D003666-36.0.
- "Preliminary Investigation Report, Camp Summit", NYSDEC, September 1998
- "Preliminary Investigation Report Addendum No. 1, Camp Summit", NYSDEC, June 1999.
- "Remedial Investigation Feasibility Study (RI/FS) Work Plan, Camp Summit Site", IT Corporation, Inc., October 4, 2001.
- "Work Plan for Additional Work at Camp Summit", June 2003.
- "Quality Assurance Project Plan (QAPP)", Camp Summit, IT Corporation, Inc., October 4, 2001.
- "Field Sampling Plan (FSP), Camp Summit", IT Corporation, Inc.

“Site Specific Health and Safety Plan, Camp Summit”, IT Corporation, Inc.

D. Cadwell, “Surficial Geologic Map of New York, Lower Hudson Sheet”, 1989.

TABLES

Table 1
Sample and Analytical Method Summary
Camp Summit

Test Pits					
Location	SVOC	Dioxins	Metals	PEST/PCB	VOC
Analytical Method	8270	8290/8280	TAL	8080	8260
TP-1	1	1	1	1	1
TP-2	0	0	0	0	0
TP-3	1	1	0	0	0
TP-4	0	0	0	0	0
TP-5	1	0	0	0	0
TP-6	1	0	0	0	0
TP-7	1	1	0	0	0
TP-8	1	1	0	0	0
TP-9	1	1	0	0	0
TP-10	0	0	0	0	0
TP-11	1	0	0	0	0
TP-12	1	0	0	0	0
TP-13	1	0	0	0	0
TP-14	1	1	0	0	0
TP-15	1	0	0	0	0
TP-16	1	1	1	0	1
TP-17	1	0	0	0	0
TP-18	1	1	0	0	1
TP-19	1	1	0	0	0
TP-20	1	0	0	0	0
TP-21	1	1	0	0	0
TP-22	1	0	0	0	0
TP-23	1	0	0	0	0
TP-24	1	1	0	0	0
TP-25	1	0	0	0	0
TP-26	1	1	0	0	0
TP-27	1	1	0	0	0
TP-28	1	1	0	0	0
TP-29	1	0	0	0	0
TP-30	1	0	0	0	0
TP-31	1	0	0	0	0
TP-32	1	1	0	0	1
TP-33	1	1	0	1	1
TP-34	1	0	0	0	0
TP-35	1	0	0	0	0
TP-36	1	0	0	0	0
TP-37	1	0	0	0	0

Monitoring Well Soil Samples					
Location	SVOC	Dioxins	Metals	PEST/PCB	VOC
Analytical Method	8270	8290/8280	TAL	8080	8260
MW-6	1	1	0	0	0
MW-7	1	1	0	0	0
MW-8	1	1	0	0	0
MW-9	1	1	0	0	0
MW-10	1	1	0	0	0
MW-11	1	1	0	0	0

Deep Sediment Samples					
Location	SVOC	Dioxins	Metals	PEST/PCB	VOC
Analytical Method	8270	8290/8280	TAL	8080	8260
DSED-1	1	1	0	0	0
DSED-2	1	1	0	0	0
DSED-3	1	1	0	0	0
DSED-4	1	1	0	0	0

Surface Soil Samples					
Location	SVOC	Dioxins	Metals	PEST/PCB	VOC
Analytical Method	8270	8290/8280	TAL	8080	8260
SS-1	1	1	0	0	0
SS-2	1	1	1	0	0
SS-3	1	1	1	0	0
SS-4	1	0	0	0	0
SS-5	1	1	1	0	0
SS-6	1	0	0	0	0
SS-7	1	0	0	0	0
SS-8	1	1	1	0	0
SS-9	1	0	0	0	0
SS-10	1	1	1	0	0
SS-11	1	1	1	0	0
SS-12	1	1	1	0	0
SS-13	1	0	0	0	0
SS-14	1	1	1	0	0
SS-15	1	0	0	0	0
SS-16	1	0	0	0	0
SS-17	1	1	1	0	0
SS-18	1	0	0	0	0
SS-19	1	1	1	0	0
SS-20	1	0	0	0	0
SS-21	1	1	1	0	0
SS-22	1	1	1	0	0
SS-23	1	1	1	0	0
SS-24	1	1	1	0	0
SS-25	1	1	1	0	0
SS-26	1	1	1	0	0
SS-27	1	0	0	0	0
SS-28	1	0	0	0	0
SS-29	1	0	0	0	0
BGM-1	0	0	1	0	0
BGM-2	0	0	1	0	0
BGM-3	0	0	1	0	0

Soil Boring Soil Samples					
Location	SVOC	Dioxins	Metals	PEST/PCB	VOC
Analytical Method	8270	8290/8280	TAL	8080	8260
SB-1	1	1	0	0	0
SB-2	1	1	0	0	0
SB-3	1	1	0	0	0
SB-4	1	1	0	0	0
SB-5	1	1	0	0	0
SB-6	1	1	0	0	0
SB-7	1	1	0	0	0

Sediment Samples					
Location	SVOC	Dioxins	Metals	PEST/PCB	VOC
Analytical Method	8270	8290/8280	TAL	8080	8260
SED-1	1	1	0	0	0
SED-2	1	1	0	0	0
SED-3	1	1	0	0	0
SED-4	1	1	0	0	0
SED-5	1	1	0	0	0
SED-6	1	1	0	0	0
SED-7	1	1	0	0	0

Table 1
Sample and Analytical Method Summary
Camp Summit

Shallow Test Pit Soil Samples					
Location	SVOC	Dioxins	Metals	PEST/PCB	VOC
Analytical Method	8270	8290/8280	TAL	8080	8260
STP-1	1	1	1	0	0
STP-2	1	1	0	0	0
STP-3	1	1	1	0	0
STP-4	1	0	0	0	0
STP-5	1	1	1	0	0
STP-6	1	0	0	0	0
STP-7	1	1	1	0	0
STP-8	1	0	0	0	0
STP-9	1	1	1	0	0
STP-10	1	1	1	0	0
STP-11	1	1	1	0	0
STP-12	1	0	0	0	0
STP-13	1	1	1	0	0
STP-14	1	0	0	0	0
STP-15	1	1	1	0	0
STP-16	1	0	0	0	0
STP-17	1	1	1	0	0
STP-18	1	0	0	0	0
STP-19	1	1	1	0	0
STP-20	1	1	1	0	0
STP-21	1	0	0	0	0
STP-22	1	0	0	0	0
STP-23	1	1	1	0	0
STP-24	1	0	0	0	0
STP-25	1	1	1	0	0
STP-26	1	1	1	0	0
STP-27	1	1	1	0	0
STP-28	1	0	0	0	0
STP-29	1	0	0	0	0
STP-30	1	0	0	0	0

Production Wells Groundwater					
Location	SVOC	Dioxins	Metals	PEST/PCB	VOC
Analytical Method	8270	8290/8280	TAL	8080	8260
PW-1	1	0	1	1	1
PW-2	1	0	1	1	1
PW-3	1	0	1	1	1
PW-4	1	0	1	1	1
PW-5	1	0	1	1	1

Fish Samples					
Location	SVOC	Dioxins	Metals	PEST/PCB	VOC
Analytical Method	8270	8290	TAL	8080	8260
2PC-1	0	1	0	0	0
2PC-2	0	1	0	0	0
2PC-3	0	1	0	0	0
2PC-4	0	1	0	0	0
2PC-5	0	1	0	0	0
2PC-6	0	1	0	0	0
2PC-7	0	1	0	0	0
2PC-8	0	1	0	0	0
2PC-9	0	1	0	0	0
2PC-10	0	1	0	0	0
2PC-11	0	1	0	0	0
3PC-12	0	1	0	0	0
3PC-13	0	1	0	0	0
3PC-14	0	1	0	0	0
3PC-15	0	1	0	0	0
3PC-16	0	1	0	0	0
3PC-17	0	1	0	0	0
3PC-18	0	1	0	0	0
3PC-19	0	1	0	0	0

Existing Wells Groundwater					
Location	SVOC	Dioxins	Metals	PEST/PCB	VOC
Analytical Method	8270	8290/8280	TAL	8080	8260
MW-2	1	1	0	0	1
MW-3	1	1	0	0	1
MW-4	1	1	0	0	1
MW-5	1	1	0	0	1

New Wells Groundwater					
Location	SVOC	Dioxins	Metals	PEST/PCB	VOC
Analytical Method	8270	8290/8280	TAL	8080	8260
MW-6	1	0	1	1	1
MW-7	1	0	1	1	1
MW-8	1	0	1	1	1
MW-9	1	0	1	1	1
MW-10	1	0	1	1	1
MW-11	1	0	1	1	1

Table 1
Sample and Analytical Method Summary
Camp Summit

Task	# of Samples	Depth of Sample Collection	Reason for Additional Samples	Laboratory Analysis	Laboratory Method
Monitoring Well Soil					
MW - 12	up to 2	Field Observations	Depth info past 5 ft. bgs. needed	Svoc/Dioxin	8270/8280
MW - 13	up to 2	Field Observations	Further Investigation	Svoc/Dioxin	8270/8280
MW - 14	up to 2	Field Observations	Further Investigation	Svoc/Dioxin	8270/8280
Soil Boring Soil					
SSB03 - 7	up to 2	Greater than 2 ft. bgs.	Depth info past 2 ft. bgs. needed.	Svoc/Dioxin	8270/8280
SSB03 - 8	up to 2	Greater than 5 ft. bgs.	Depth info past 5 ft. bgs. needed	Svoc/Dioxin	8270/8280
SSB03 - 9	up to 2	Greater than 4 ft. bgs.	Depth info past 4 ft. bgs. needed.	Svoc/Dioxin	8270/8280
SSB03 - 10	up to 2	Greater than 4 ft. bgs.	Depth info past 4 ft. bgs. needed.	Svoc/Dioxin	8270/8280
SSB03 - 14	up to 2	Greater than 4 ft. bgs.	Depth info past 4 ft. bgs. needed.	Svoc/Dioxin	8270/8280
SSB03 - 15	up to 2	Greater than 5 ft. bgs.	Depth info past 5 ft. bgs. needed	Svoc/Dioxin	8270/8280
SSB03 - 16	up to 2	Greater than 5 ft. bgs.	Depth info past 5 ft. bgs. needed	Svoc/Dioxin	8270/8280
SSB03 - 17	up to 2	Greater than 5 ft. bgs.	Depth info past 5 ft. bgs. needed	Svoc/Dioxin	8270/8280
SSB03 - 18	up to 2	Greater than 5 ft. bgs.	Depth info past 5 ft. bgs. needed	Svoc/Dioxin	8270/8280
SSB03 - 19	up to 2	Greater than 5 ft. bgs.	Depth info past 5 ft. bgs. needed	Svoc/Dioxin	8270/8280
Field Dupe	3	NA	NA	Svoc/Dioxin	8270/8280
MS	3	NA	NA	Svoc/Dioxin	8270/8280
MSD	3	NA	NA	Svoc/Dioxin	8270/8280
Test Pits					
TP03 - 1	1 Composite	Field Observations	Further Investigation	Svoc/Dioxin/Metals	8270/8280/CLP-M
TP03 - 2	1 Composite	Field Observations	Further Investigation	Svoc/Dioxin/Metals	8270/8280/CLP-M
TP03 - 3	1 Composite	Field Observations	Further Investigation	Svoc/Dioxin/Metals	8270/8280/CLP-M
TP03 - 4	1 Composite	Field Observations	Further Investigation	Svoc/Dioxin/Metals	8270/8280/CLP-M
TP03 - 5	1 Composite	Field Observations	Further Investigation	Svoc/Dioxin/Metals	8270/8280/CLP-M
TP03 - 6	1 Composite	Field Observations	Further Investigation	Svoc/Dioxin/Metals	8270/8280/CLP-M
TP03 - 7	1 Composite	Field Observations	Further Investigation	Svoc/Dioxin/Metals	8270/8280/CLP-M
TP03 - 8	1 Composite	Field Observations	Further Investigation	Svoc/Dioxin/Metals	8270/8280/CLP-M
TP03 - 9	2 Composites	1 from the north part of the	Further Investigation	Svoc/Dioxin/Metals	8270/8280/CLP-M
		excavation; 1 from the south			
		part of the excavation			
TP03-10	1 Composite	Field Observations	Further Investigation	Svoc/Dioxin/Metals	8270/8280/CLP-M
TP03-11	1 Composite	Field Observations	Further Investigation	Svoc/Dioxin/Metals	8270/8280/CLP-M

Table 1
Sample and Analytical Method Summary
Camp Summit

Background Surface Soils					
BGM03 - 1	1 Composite	0-2"	Background Concentrations	Dioxins	8280
BGM03 - 2	1 Composite	0-2"	Background Concentrations	Dioxins	8280
BGM03 - 3	1 Composite	0-2"	Background Concentrations	Dioxins	8280
BGM03 - 4	1 Composite	0-2"	Background Concentrations	Dioxins	8280
BGM03 - 5	1 Composite	0-2"	Background Concentrations	Dioxins	8280
Sediment Samples					
SED03 - 1	1 Composite	0-2"	To address seasonal overflow	Svoc/Dioxin/TOC	8270/8290/TOC
SED03 - 2	1 Composite	0-2"	To address seasonal overflow	Svoc/Dioxin/TOC	8270/8290/TOC
SED03 - 3	1 Composite	0-2"	To address seasonal overflow	Svoc/Dioxin/TOC	8270/8290/TOC
SED03 - 4	1 Composite	0-2"	Further Delineation	Svoc/Dioxin/TOC	8270/8290/TOC
Monitoring Well Water					
MW - 2	1	NA	Further Investigation	Svoc/Dioxin	8270/8290
MW - 3	1	NA	Further Investigation	Svoc/Dioxin	8270/8290
MW- 4	1	NA	Further Investigation	Svoc/Dioxin	8270/8290
MW - 5	1	NA	Further Investigation	Svoc/Dioxin	8270/8290
MW - 6	1	NA	Further Investigation	Svoc/Dioxin	8270/8290
MW - 7	1	NA	Further Investigation	Svoc/Dioxin	8270/8290
MW - 8	1	NA	Further Investigation	Svoc/Dioxin	8270/8290
MW - 9	1	NA	Further Investigation	Svoc/Dioxin	8270/8290
MW - 10	1	NA	Further Investigation	Svoc/Dioxin	8270/8290
MW - 11	1	NA	Further Investigation	Svoc/Dioxin	8270/8290
MW - 12 (new)	1	NA	Further Investigation	Svoc/Dioxin	8270/8290
MW - 13 (new)	1	NA	Further Investigation	Svoc/Dioxin	8270/8290
MW-14 (new)	1	NA	Further Investigation	Svoc/Dioxin	8270/8290
Field Dupe	3	NA	NA	Svoc/Dioxin	8270/8290
MS	3	NA	NA	Svoc/Dioxin	8270/8290
MSD	3	NA	NA	Svoc/Dioxin	8270/8290

Table 2
Surface Soil Analytical Results
Camp Summit

Analyte (units)	TAGM	Preliminary Investigation											
		SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11	SS-12
SVOC/PAH (mg/kg)													
Acenaphthene	50	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	50	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	0.33	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(ghi) perylene	50	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (a) Pyrene	0.33	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	2.7	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NP	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	0.4	--	--	--	--	--	--	--	--	--	--	--	--
Bis (2-Ethylhexyl) Phthalate	50	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	6.2	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl Phthalate	8.1	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	7.1	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	120	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	50	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	50	--	--	--	--	--	--	--	--	--	--	--	--
Indeno (1,2,3-cd) pyrene	3.2	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	36.4	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	13	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	1*	0.73	0.88	0.13	1.09	0.87	0.4	0.47	1.4	3.28	0.37	0.3	ND
Phenanthrene	50	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	50	--	--	--	--	--	--	--	--	--	--	--	--
Total SVOC	500	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives

BDL= Below Laboratory Method Detection Limit

ND= Non-Detect

NP = Not Promulgated

< = Below MDL

-- = Not Sampled

SVOC Data Qualifiers:

All results in mg/kg or parts per million

J=Estimated result, result is less than the reporting limit

B=Analyte was found in method blank as well as the sample

< = Analyte was not detected above laboratory method detection limit

Table 2
Surface Soil Analytical Results
Camp Summit

Analyte (units)		Preliminary Iqvestigation												
		SVOC/PAH (mg/kg)	TAGM	SS-13	SS-14	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20	SS-21	SS-22	SS-23
Acenaphthene	50	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	50	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]anthracene	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[ghi] perylene	50	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (a) Pyrene	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	2.7	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NP	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	0.4	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis (2-Ethylhexyl) Phthalate	50	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	6.2	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl Phthalate	8.1	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	7.1	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	120	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	50	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	50	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno (1,2,3-cd) pyrene	3.2	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	36.4	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	13	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	1*	0.32	0.31	0.55	ND	0.24	0.34	1.86	1.59	ND	0.56	0.5	0.6	
Phenanthrene	50	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	50	--	--	--	--	--	--	--	--	--	--	--	--	--
Total SVOC	500	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

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SVOC Data Qualifiers:

All results in mg/kg or parts per million

J=Estimated result, result is less than the reporting limit

B=Analyte was found in method blank as well as the sample

< = Analyte was not detected above laboratory method detection limit

Table 2
Surface Soil Analytical Results
Camp Summit

Analyte (units)		Preliminary Investigation														
		SVOC/PAH (mg/kg)	TAGM	SS-25	SS-26	SS-27	SS-28	SS-29	SS-30	SS-31	SS-32	SS-33	SS-34	SS-35	SS-36	SS-37
Acenaphthene	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Anthracene	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(ghi) perylene	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (a) Pyrene	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzoic Acid	2.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Carbazole	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis (2-Ethylhexyl) Phthalate	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	6.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl Phthalate	8.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	7.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-octyl phthalate	120	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno (1,2,3-cd) pyrene	3.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	36.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	1*	4.79	1.14	0.14	0.74	1.7	0.7	0.98	253	0.18	ND	0.36	0.12	80	1.55	
Phenanthrene	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Pyrene	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total SVOC	500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives

BDL= Below Laboratory Method Detection Limit

ND= Non-Detect

NP = Not Promulgated

< = Below MDL

-- = Not Sampled

SVOC Data Qualifiers:

All results in mg/kg or parts per million

J=Estimated result, result is less than the reporting limit

B=Analyte was found in method blank as well as the sample

< = Analyte was not detected above laboratory method detection limit

Table 2
Surface Soil Analytical Results
Camp Summit

		Remedial Investigation															
Analyte (units)																	
SVOC/PAH (mg/kg)	TAGM	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11	SS-12	SS-13	SS-14	SS-15	SS-16
Acenaphthene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Anthracene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Benzo(a)anthracene	0.33	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.089 J	0.024 J	<0.330
Benzo(b)fluoranthene	1.1	<0.330	<0.330	<0.330	<0.330	0.024 J	<0.330	<0.330	<0.330	0.035 J	<0.330	<0.330	<0.330	0.068 J	0.039 J	<0.330	<0.330
Benzo(k)fluoranthene	1.1	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.034 J	<0.330	<0.330	<0.330	0.062 J	<0.330	<0.330	<0.330
Benzo(ghi) perylene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Benzo (a) Pyrene	0.33	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.024 J	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Benzoic Acid	2.7	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Carbazole	NP	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Chrysene	0.4	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.040 J	<0.330	<0.330	<0.330	0.078 J	0.030 J	<0.330	<0.330
Bis (2-Ethylhexyl) Phthalate	50	<0.330	<0.330	<0.330	<0.330	0.023 J	<0.330	<0.330	<0.330	0.023 J	<0.330	<0.330	0.031 J	<0.330	<0.330	<0.330	<0.330
Dibenzofuran	6.2	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Di-n-butyl Phthalate	8.1	<0.330	<0.330	<0.330	0.039 J	0.040 J	<0.330	<0.330	0.042 J	<0.330	<0.330	0.071 J	<0.330	<0.330	<0.330	<0.330	<0.330
Diethylphthalate	7.1	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Di-n-octyl phthalate	120	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.025 J	<0.330	<0.330
Fluoranthene	50	<0.330	<0.330	<0.330	<0.330	0.027 J	<0.330	<0.330	<0.330	0.041 J	<0.330	<0.330	<0.330	0.054 J	0.046 J	0.021 J	<0.330
Fluorene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Indeno (1,2,3-cd) pyrene	3.2	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
2-Methylnaphthalene	36.4	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.220 J
Naphthalene	13	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Pentachlorophenol	1*	0.038 J	<1.6	0.062 J	<1.6	<1.6	1.6	2	<1.6	<1.6	<1.6	<1.6	1	<1.6	<1.6	<1.6	6.3
Phenanthrene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.110 J
Pyrene	50	<0.330	<0.330	<0.330	<0.330	0.025 J	<0.330	<0.330	<0.330	0.039 J	<0.330	<0.330	<0.330	0.055 J	0.044 J	0.020 J	0.071 J
Total SVOC	500	0.038 J	BDL	0.062 J	0.039 J	0.139 J	1.6	2	0.042 J	0.271 J	BDL	71 J	1.03	0.426 J	0.208 J	0.041 J	6.701 J

Notes:
Only analytes detected at or above laboratory method detection limits included on tables
*PCP results from PIR Immunoassay Results
Bold Text=Analyte detected above laboratory method detection limit
Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives
BDL= Below Laboratory Method Detection Limit
ND= Non-Detect
NP = Not Promulgated
< = Below MDL
-- = Not Sampled
SVOC Data Qualifiers:
All results in mg/kg or parts per million
J=Estimated result, result is less than the reporting limit
B=Analyte was found in method blank as well as the sample
< = Analyte was not detected above laboratory method detection limit

Table 2
Surface Soil Analytical Results
Camp Summit

		Remedial Investigation																						
Analyte (units)			SS-17	SS-18	SS-19	SS-20	SS-21	SS-22	SS-23	SS-24	SS-25	SS-26	SS-27	SS-28	SS-29	BGM-1	BGM-2	BGM-3	BGM03-1	BGM03-2	BGM03-3	BGM03-4	BGM03-5	
SVOC/PAH (mg/kg)	TAGM																							
Acenaphthene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<0.410	<0.440	<0.900	<0.420	
Anthracene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<0.410	<0.440	<0.900	<0.420	
Benzo[a]anthracene	0.33	<0.330	<0.330	0.110 J	0.072 J	<0.330	0.040 J	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<0.410	<0.440	<0.900	<0.420	
Benzo[b]fluoranthene	1.1	<0.330	<0.330	0.110 J	0.047 J	<0.330	0.044 J	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<0.410	<0.440	<0.900	<0.420	
Benzo[k]fluoranthene	1.1	<0.330	<0.330	0.130 J	0.052 J	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<0.410	<0.440	<0.900	<0.420	
Benzo(ghi) perylene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<0.410	<0.440	<0.900	<0.420	
Benzo (a) Pyrene	0.33	<0.330	<0.330	<0.330	0.046 J	<0.330	0.025 J	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<0.410	<0.440	<0.900	<0.420	
Benzoic Acid	2.7	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	0.550 J	<1.6	-	-	-	<1.0	<1.0	<1.1	<2.2	<0.420	
Carbazole	NP	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<0.410	<0.440	<0.900	<0.420	
Chrysene	0.4	<0.330	<0.330	0.210 J	0.079 J	<0.330	0.047 J	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<0.410	<0.440	<0.900	<0.420	
Bis (2-Ethylhexyl) Phthalate	50	<0.330	0.032 J	<0.330	0.030 J	<0.330	<0.330	<0.330	<0.330	0.098 J	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	0.024J	0.031J	<0.440	0.048J	0.360J	
Dibenzofuran	6.2	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<410	<0.440	<0.900	<0.420	
Di-n-butyl Phthalate	8.1	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<410	<0.440	<0.900	<0.420	
Diethylphthalate	7.1	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<410	<0.440	<0.900	<0.420	
Di-n-octyl phthalate	120	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.049 J	<0.330	-	-	-	<0.400	<410	<0.440	<0.900	<0.420	
Fluoranthene	50	<0.330	<0.330	0.290 J	0.160 J	<0.330	0.061 J	<0.330	0.021 J	0.028 J	0.050 J	0.037 J	<0.330	<0.330	<0.330	-	-	-	<0.400	0.026J	<0.440	<0.900	<0.420	
Fluorene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<410	<0.440	<0.900	<0.420	
Indeno (1,2,3-cd) pyrene	3.2	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<410	<0.440	<0.900	<0.420	
2-Methylnaphthalene	36.4	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<410	<0.440	<0.900	<0.420	
Naphthalene	13	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<410	<0.440	<0.900	<0.420	
Pentachlorophenol	1*	0.400 J	0.460 J	1.6	0.045 J	<1.6	1.6 J	0.110 J	0.660 J	0.470 J	<1.6	<1.6	<1.6	<1.6	<1.6	-	-	-	<1.000	<1.000	<1.1	<2.2	<0.420	
Phenanthrene	50	<0.330	<0.330	<0.330	0.046 J	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	-	-	<0.400	<410	<0.440	<0.900	<0.420	
Pyrene	50	<0.330	<0.330	0.35	0.140 J	<0.330	0.110 J	<0.330	0.022 J	0.028 J	0.051 J	0.034 J	<0.330	<0.330	<0.330	-	-	-	<0.400	<410	<0.440	<0.900	<0.420	
Total SVOC	500	0.400 J	0.492 J	2.8 J	0.717 J	BDL	1.927 J	0.110 J	0.703 J	0.624 J	0.101 J	0.071 J	0.599 J	BDL		-	-	-	0.024J	0.057J	ND	0.048J	0.360J	

Notes:
 Only analytes detected at or above laboratory method detection limits included on tables
 *PCP results from PIR Immunoassay Results
 Bold Text=Analyte detected above laboratory method detection limit
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SVOC Data Qualifiers:
 All results in mg/kg or parts per million
 J=Estimated result, result is less than the reporting limit
 B=Analyte was found in method blank as well as the sample
 < = Analyte was not detected above laboratory method detection limit

Table 2
Surface Soil Analytical Results
Camp Summit

			Preliminary Investigation											
Metals (mg/kg)	TAGM	BGM Average	SS-4	SS-6	SS-8	SS-9	SS-19	SS-20	SS-25	SS-26	SS-29	SS-32	SS-36	SS-38
Aluminum	NV	18866.6	--	13000	--	--	--	--	--	--	--	--	16700	--
Antimony	NV	0.283	--	ND	--	--	--	--	--	--	--	--	ND	--
Arsenic	7.5	9.1	--	6.7	--	--	--	--	--	--	--	--	15	--
Barium	300	54.6	--	116	--	--	--	--	--	--	--	--	59.3	--
Berillium	0.16	0.54	--	1.1	--	--	--	--	--	--	--	--	0.78 B	--
Cadmium	1	0.15	--	0.6 B	--	--	--	--	--	--	--	--	ND	--
Calcium	NV	110.6	--	2090	--	--	--	--	--	--	--	--	2370	--
Chromium	10	19.06	--	10.8	--	--	--	--	--	--	--	--	25.1	--
Cobalt	30	9.33	--	9	--	--	--	--	--	--	--	--	21.8	--
Copper	0.25	10.76	--	5.9	--	--	--	--	--	--	--	--	25.7	--
Iron	2000	30633.3	--	15200	--	--	--	--	--	--	--	--	36700	--
Lead	NV	17.86	--	17.3	--	--	--	--	--	--	--	--	36.5	--
Magnesium	NV	2300	--	1380	--	--	--	--	--	--	--	--	5410	--
Manganese	NV	929	--	1970	--	--	--	--	--	--	--	--	1770	--
Nickel	13	14.9	--	18.6	--	--	--	--	--	--	--	--	39.8	--
Potassium	NV	561	--	401 B	--	--	--	--	--	--	--	--	1470	--
Selenium	2	1.5	--	0.84 B	--	--	--	--	--	--	--	--	ND	--
Silver	NV	0.0	--	ND	--	--	--	--	--	--	--	--	ND	--
Mercury	0.1	0.045	--	ND	--	--	--	--	--	--	--	--	0.06	--
Sodium	NV	NP	--	368 B	--	--	--	--	--	--	--	--	68.7	--
Thallium	NV	6.3	--	ND	--	--	--	--	--	--	--	--	ND	--
Vanadium	150	27.16	--	10.1	--	--	--	--	--	--	--	--	16.6	--
Zinc	20	67.36	--	67.2	--	--	--	--	--	--	--	--	141	--
Total Metals			--	15279.1	--	--	--	--	--	--	--	--	42291.88	--

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives

BDL= Below Laboratory Method Detection Limit

ND= Non-Detect

NP = Not Promulgated

< = Below MDL

-- = Not Sampled

Metal Data Qualifiers:

All results in mg/kg or parts per million

D=Result obtained from dilution

B=Indicates a value greater than or equal to the instrument detection limit but less than the quantitation limit

NV=Indicates TAGM recommended soil clean-up objective is site background

Metals SCGs used for comparison were either TAGM 4046 or Site Background average, which ever is higher

Bold Text=SCG used for Regulatory Comparison

The SCG for Cadmium (10 ppm) and Chromium (50 ppm) are generally accepted clean-up levels

The SCG for Lead (400 ppm) was adopted from the EPA

Table 2
Surface Soil Analytical Results
Camp Summit

			Remedial Investigation											
Metals (mg/kg)	TAGM	BGM Average	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11	SS-12
Aluminum	NV	18866.6	-	13700	15300	-	12800	-	-	13800	-	14800	12400	14100
Antimony	NV	0.283	-	0.91 B	0.80 B	-	0.66 B	-	-	0.70 B	-	<0.65	0.65 B	<0.60
Arsenic	7.5	9.1	-	17.9	6.8	-	6.5	-	-	9.5	-	9.3	9.2	9
Barium	300	54.6	-	36.7	21.6 B	-	43.1	-	-	24.1	-	39	23	45.9
Berillium	0.16	0.54	-	0.66	0.79	-	0.62	-	-	0.69	-	0.76	0.55 B	0.66
Cadmium	1	0.15	-	0.30 B	0.33 B	-	0.33 B	-	-	0.30 B	-	0.38 B	0.23 B	0.38 B
Calcium	NV	110.6	-	703	469 B	-	2300	-	-	1770	-	7830	379	2360
Chromium	10	19.06	-	22.5	21.7	-	19.1	-	-	20.6	-	22	18.1	19.8
Cobalt	30	9.33	-	20.1	17.3	-	13.3	-	-	15.4	-	15.1	21.9	15.2
Copper	0.25	10.76	-	18.5	21.7	-	15.5	-	-	20	-	19.3	10.9	25.9
Iron	2000	30633.3	-	32200	35800	-	29300	-	-	33000	-	37300	29300	30700
Lead	NV	17.86	-	42.1	24.1	-	21.6	-	-	24	-	24.9	18.1	22.8
Magnesium	NV	2300	-	4060	4900	-	4080	-	-	4870	-	5300	3960	4190
Manganese	NV	929	-	784	428	-	939	-	-	603	-	826	726	955
Nickel	13	14.9	-	31.6	32.7	-	29.3	-	-	33.6	-	34	29.4	30.4
Potassium	NV	561	-	783	826	-	904	-	-	903	-	1070	729	804
Selenium	2	1.5	-	1.7	1.1	-	1.2	-	-	1.2	-	1.8	1.1	1.2
Silver	NV	0.0	-	<0.09	<0.10	-	<0.10	-	-	<0.10	-	<0.12 U	<0.011	<0.11
Mercury	0.1	0.045	-	<0.011	<0.011	-	0.029 B	-	-	<0.013	-	0.014 B	<0.10	<0.012
Sodium	NV	NP	-	29.4 B	46.6 B	-	44.4 B	-	-	53.3 B	-	85.8	30.5	43.8 B
Thallium	NV	6.3	-	4.3	5.6	-	4.5	-	-	5	-	5	4.6	5
Vanadium	150	27.16	-	18.2	13.3	-	15.3	-	-	16.3	-	17.8	14.5	17.5
Zinc	20	67.36	-	62.9	120	-	71.7	-	-	70	-	124	52.5	80.9
Total Metals			-	52,537.77	58,057.42	-	50,610.14	-	-	52,240.69	-	67,525.15	47,729.43	53,427.44

Notes:

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*PCP results from PIR Immunoassay Results

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The SCG for Cadmium (10 ppm) and Chromium (50 ppm) are generally accepted clean-up levels

The SCG for Lead (400 ppm) was adopted from the EPA

Table 2
Surface Soil Analytical Results
Camp Summit

			Remedial Investigation													
Metals (mg/kg)	TAGM	BGM Average	SS-13	SS-14	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20	SS-21	SS-22	SS-23	SS-24	SS-25	SS-26
Aluminum	NV	18866.6	-	16700 E	-	-	17700 E	-	13000 E	-	13100 E	17900 E	13800 E	15000 E	13500 E	19900 E
Antimony	NV	0.283	-	1.8 B	-	-	1.0 B	-	0.77 B	-	0.70 B	1.1 B	0.98 B	1.3 B	0.88 B	1.3 B
Arsenic	7.5	9.1	-	11.6	-	-	13.4	-	11.6	-	10.8	12.9	9.9	13.7	9.7	13.8
Barium	300	54.6	-	47.2 E	-	-	52.5 E	-	42.0 E	-	39.7 E	75.4 E	47.1 E	44.4 E	42.9 E	103 E
Berillium	0.16	0.54	-	0.97	-	-	0.79	-	0.65	-	0.6	0.68 B	0.59 B	0.7	0.63 B	1.4
Cadmium	1	0.15	-	0.39 B	-	-	0.19 B	-	0.83	-	0.20 B	0.29 B	0.20 B	0.19 B	0.11 B	0.62 B
Calcium	NV	110.6	-	2900 E	-	-	2410 E	-	4450 E	-	47900 E	3060 E	2750 E	2270 E	3450 E	3790 E
Chromium	10	19.06	-	23.6 E	-	-	24.0 E	-	18.0 E	-	17.8 E	19.7 E	17.2 E	19.0 E	18.8 E	16.8 E
Cobalt	30	9.33	-	18.1 E	-	-	16.69 E	-	15.4 E	-	12.1 E	12.1 E	12.1 E	17.3 E	13.9 E	46.2 E
Copper	0.25	10.76	-	16.5 E	-	-	23.5 E	-	26.5 E	-	15.8 E	15.1 E	16.6 E	25.6 E	17.7 E	18.8 E
Iron	2000	30633.3	-	40300 E	-	-	39100 E	-	29900 E	-	31300 E	31800 E	26700 E	31400 E	29500 E	26700 E
Lead	NV	17.86	-	26.7 E	-	-	27.1 E	-	25.9 E	-	25.3 E	45.9 E	25.4 E	32.9 E	26.7 E	104 E
Magnesium	NV	2300	-	5060 E	-	-	4890 E	-	5400 E	-	5570 E	2970 E	3120 E	3690 E	4170 E	190 E
Manganese	NV	929	-	1180 E	-	-	1130 E	-	821 E	-	646 E	1240 E	1150 E	1950 E	828 E	4510 E
Nickel	13	14.9	-	35.3 E	-	-	36.4 E	-	29.0 E	-	29.5 E	21.4 E	23.0 E	30.0 E	29.1 E	17.6 E
Potassium	NV	561	-	1410	-	-	1150	-	988	-	941	970	959	950	1120	889 B
Selenium	2	1.5	-	2.2	-	-	1.7	-	1.4	-	1.3	2	1.7	1.6	1.4	2.7
Silver	NV	0.0	-	0.28 B	-	-	<0.12	-	<0.10	-	<0.09	<0.13	<0.12	<0.11	<0.12	0.21 B
Mercury	0.1	0.045	-	0.044 B	-	-	0.037 B	-	0.034 B	-	<0.010	0.048 B	<0.014	<0.012	<0.015	0.256
Sodium	NV	NP	-	56.7 B	-	-	61.5 B	-	56.5 B	-	95.7 B	139 B	161 B	73.4 B	91.2 B	<59.9
Thallium	NV	6.3	-	3.5	-	-	3	-	1.7	-	<0.53	2.7	2.2	2	1.6	3.3
Vanadium	150	27.16	-	19.5 E	-	-	21.7 E	-	15.5 E	-	15.3 E	25.3 E	18.5 E	19.1 E	16.7 E	26.5 E
Zinc	20	67.36	-	122 E	-	-	131 E	-	255 E	-	79.4 E	106 E	101 E	86.5 E	129 E	86.5 E
Total Metals			-	67,936.38	-	-	66,749.51	-	55,059.78	-	99,801.20	58,419.62	48,916.47	55,627.69	52,968.32	56,431.99

Notes:

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The SCG for Cadmium (10 ppm) and Chromium (50 ppm) are generally accepted clean-up levels

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Table 2
Surface Soil Analytical Results
Camp Summit

			Remedial Investigation										
Metals (mg/kg)	IAGM	BGM Average	SS-27	SS-28	SS-29	BGM-1	BGM-2	BGM-3	BGM03-1	BGM03-2	BGM03-3	BGM03-4	BGM03-5
Aluminum	NV	18866.6	14800 E	16200 E	14200 E	21800 E*	17800 E*	17000 E*	-	-	-	-	-
Antimony	NV	0.283	1.3 B	0.75 B	<0.71	0.85 BN	<6.9 N	<8.0 N	-	-	-	-	-
Arsenic	7.5	9.1	10.8	9.8	5.8	8.6	8.2	10.5	-	-	-	-	-
Barium	300	54.6	91.0 E	51.7 E	52.1 E	50.3 E*	54.4 E*	59.3 E*	-	-	-	-	-
Berilium	0.16	0.54	0.85	0.72	0.62 B	0.57 B	0.46 B	0.60 B	-	-	-	-	-
Cadmium	1	0.15	0.47 B	0.09 B	0.18 B	0.16 B	0.17 B	0.12 B	-	-	-	-	-
Calcium	NV	110.6	2710 E	475 BE	845 E	128 B	81.0 B	123 B	-	-	-	-	-
Chromium	10	19.06	15.2 E	17.4 E	15.7 E	21.0 E*	18.2 E*	18.0 E*	-	-	-	-	-
Cobalt	30	9.33	28.4 E	23.1 E	14.2 E	7.1 E	10.5 E	10.4 E	-	-	-	-	-
Copper	0.25	10.76	11.6 E	9.4 E	6.7 E	9.2 E	8.2 E	14.9 E	-	-	-	-	-
Iron	2000	30633.3	23900 E	23300 E	20000 E	32700E*	27700 E*	31500 E*	-	-	-	-	-
Lead	NV	17.86	51.2 E	37.2 E	30.3 E	15.7	22.1	15.8	-	-	-	-	-
Magnesium	NV	2300	1980 E	2630 E	2510 E	2260 E	2090 E	2550 E	-	-	-	-	-
Manganese	NV	929	1410 E	393 E	411 E	330 E*	1500 E*	957 E*	-	-	-	-	-
Nickel	13	14.9	16.8 E	17.3 E	15.9 E	14.2 E	13.0 E	17.6 E	-	-	-	-	-
Potassium	NV	561	751 B	798	773	565 B	574 B	544 B	-	-	-	-	-
Selenium	2	1.5	1.9	1.8	1.3	1.5*	1.5 *	1.5 *	-	-	-	-	-
Silver	NV	0.0	0.2 B	<0.12	<0.12	<1.2	<1.2	<1.3	-	-	-	-	-
Mercury	0.1	0.045	0.13	0.046	0.018 B	0.044 B	0.072	0.018 B	-	-	-	-	-
Sodium	NV	NP	61.1 B	37.1 B	41.8 B	<606	<577	<671	-	-	-	-	-
Thallium	NV	6.3	1.9	1.3 B	2.5	6.4*	6.5*	6.1*	-	-	-	-	-
Vanadium	150	27.16	23.8 E	23.7 E	21.6 E	31.6 E*	26.7 E*	23.2 E*	-	-	-	-	-
Zinc	20	67.36	112 E	107 E	93.3 E	70.2 E*	63.3 E*	68.6 E*	-	-	-	-	-
Total Metals			45,979.65	44,134.41	39,041.02	58,020.72	49,978.30	52,920.64	-	-	-	-	-

Notes:

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The SCG for Cadmium (10 ppm) and Chromium (50 ppm) are generally accepted clean-up levels

The SCG for Lead (400 ppm) was adopted from the EPA

Table 2
Surface Soil Analytical Results
Camp Summit

Dioxins (ng/g)	TEFs	Preliminary Investigation											
		SS-4	SS-6	SS-8	SS-9	SS-19	SS-20	SS-25	SS-26	SS-29	SS-32	SS-36	SS-38
Total TCDF	NP	0.0173	--	0.057	0.0542	0.0718	0.0379	0.118	0.028	0.0544	0.0643	--	0.0857
Total PeCDF	NP	0.0976	--	0.179	0.189	0.312	0.174	0.601	0.143	0.235	0.24	--	0.59
Total HxCDF	NP	0.758	--	1.38	1.78	3	1.58	8.03	1.61	2.08	2.29	--	7.99
Total HpCDF	NP	6.48	--	11.6	14.1	18.9	18.1	57.2	--	12.8	17.5	--	61.8
Total TCDD	NP	0.0173	--	0.0432	0.0432	0.0773	0.035	0.141	0.0363	0.0323	0.0507	--	0.212
Total PeCDD	NP	0.0709	--	0.23	0.23	0.442	0.211	0.949	0.219	0.112	0.189	--	1.01
Total HxCDD	NP	0.82	--	1.84	2.3	3.92	1.85	3.93	1.97	2.07	2.66	--	6.8
Total HpCDD	NP	2.79	--	5.89	4.73	6.54	4.98	37.8	2.11	4.71	7.27	--	50
2,3,7,8-TCDD	1	0.00401	--	0.0082	0.00683	0.0138	0.00748	0.0225	0.00507	0.00835	0.0124	--	0.0144
1,2,3,7,8-PeCDD	0.5	0.0201	--	0.0433	0.0425	0.0889	0.0441	0.185	0.0446	0.0621	0.0576	--	0.141
1,2,3,4,7,8-HxCDD	0.1	0.0433	--	0.0943	0.107	0.203	0.105	0.452	0.123	0.137	0.0957	--	0.265
1,2,3,6,7,8-HxCDD	0.1	0.132	--	0.268	0.399	0.635	0.665	2.08	0.37	0.477	0.616	--	2.42
1,2,3,7,8,9-HxCDD	0.1	0.0748	--	0.192	0.208	0.399	0.212	1.03	0.225	0.29	0.227	--	0.707
1,2,3,4,6,7,8-HpCDD	0.01	3.84	--	7.01	8.93	12.1	11.3	37.7	--	8.26	11.5	--	41
OCDD	0.0001	24.1	--	29	53.7	61.4	75.4	159	--	64.3	96.8	--	426
2,3,7,8-TCDF	0.1	0.0012	--	0.0032	0.00314	0.00424	0.00199	0.00758	0.00159	0.00211	0.0041	--	0.0233
1,2,3,7,8-PeCDF	0.05	0.0033	--	0.0102	0.0103	0.0145	0.00677	0.0251	0.00477	0.00575	0.0124	--	0.0788
2,3,4,7,8-PeCDF	0.5	0.00301	--	0.00671	0.00829	0.0123	0.00478	0.0235	0.00435	0.00512	0.009	--	0.0753
1,2,3,4,7,8-HxCDF	0.1	0.0191	--	0.0456	0.0518	0.0862	0.0421	0.193	0.0408	0.0434	0.062	--	0.491
1,2,3,6,7,8-HxCDF	0.1	0.0169	--	0.0383	0.0377	0.077	0.0351	0.159	0.0329	0.0394	0.0466	--	0.313
2,3,4,6,7,8-HxCDF	0.1	0.00571	--	0.00202	<1.90	<2.84	<3.55	<22.9	<4.25	0.00194	<3.3	--	<14.6
1,2,3,7,8,9-HxCDF	0.1	0.0144	--	0.0294	0.0264	0.0568	0.0283	0.148	0.028	0.0317	0.0375	--	0.195
1,2,3,4,6,7,8-HpCDF	0.01	0.746	--	1.78	2	3.49	1.79	9.07	2	2.34	2.98	--	12.7
1,2,3,4,7,8,9-HpCDF	0.01	0.0415	--	0.0815	0.0997	0.193	0.0995	0.505	0.0856	0.125	0.165	--	0.508
OCDF	0.0001	3.1	--	3.95	9.42	8.77	7.09	29.3	--	7.42	9.31	--	58.4
2,3,7,8-TCDD Equivalence	1	0.12	--	0.102	0.289	0.439	0.323	1.196	0.317	0.323	0.408	--	1.594

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Dioxin Data Qualifiers:

All results in ng/kg or parts per trillion

J=Estimated result, result is less than the reporting limit

E=Estimated result, result exceeds calibration range

CON=Confirmation analysis

Table 2
Surface Soil Analytical Results
Camp Summit

Dioxins (ng/g)	TEFs	Preliminary Investigation											
		SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10	SS-11	SS-12
Total TCDF	NP	<0.084	0.012	<0.00044	-	0.0067	-	-	0.0091	-	0.018	0.013	0.13
Total PeCDF	NP	<0.18	0.068	0.0084	-	0.13	-	-	0.14	-	0.12	0.14	2.3
Total HxCDF	NP	<0.61	0.53	0.2	-	1.5	-	-	1.3	-	1.1	1.6	24
Total HpCDF	NP	3.3	1.6	1.5	-	6.7	-	-	4.3	-	4.8	6.3	110
Total TCDD	NP	<0.042	0.0039	<0.00044	-	0.017	-	-	0.011	-	0.04	0.0074	0.15
Total PeCDD	NP	<0.21	0.057	0.003	-	0.099	-	-	0.1	-	0.23	0.091	0.93
Total HxCDD	NP	<0.39	0.46	0.19	-	1.2	-	-	1.2	-	1.5	1.4	17
Total HpCDD	NP	13	4.3	3.4	-	12	-	-	10	-	12	14	280
2,3,7,8-TCDD	1	<0.042	0.0014	<0.00029	-	0.0047	-	-	0.0044	-	0.008	0.0031	0.042
1,2,3,7,8-PeCDD	0.5	<0.21	0.012	0.003 J	-	0.03	-	-	0.038	-	0.047	0.037	0.28
1,2,3,4,7,8-HxCDD	0.1	<0.57	0.021	0.0089	-	0.064	-	-	0.075	-	0.08	0.093	0.78 D
1,2,3,6,7,8-HxCDD	0.1	<0.56	0.099	0.055	-	0.32	-	-	0.27	-	0.29	0.37	4.7 D
1,2,3,7,8,9-HxCDD	0.1	<0.55	0.054	0.022	-	0.16	-	-	0.17	-	0.2	0.23	2.1 D
1,2,3,4,6,7,8-HpCDD	0.01	7.9	2.7 E	2.2 E	-	7.6 D	-	-	6.5 E	-	7.2 E	8.9 D	180 DE
OCDD	0.0001	54	15 E	20.0 E	-	55.0 D	-	-	38 E	-	51 E	44.0 D	930 DE
2,3,7,8-TCDF	0.1	<0.084	0.0096 JCON	<0.00018	-	0.0014 CON	-	-	0.0011 JCON	-	0.0014	0.0012 CON	0.028 CON
1,2,3,7,8-PeCDF	0.05	<0.18	0.0039 J	<0.00044	-	0.012	-	-	0.01	-	0.0082	0.0085	0.19
2,3,4,7,8-PeCDF	0.5	<0.18	0.0035 J	<0.00023	-	0.0078	-	-	0.0061	-	0.0079	0.0059	0.12
1,2,3,4,7,8-HxCDF	0.1	<0.059	0.018	0.0041 J	-	0.041	-	-	0.034	-	0.037	0.042	0.74
1,2,3,6,7,8-HxCDF	0.1	<0.059	0.013	0.003 J	-	0.028	-	-	0.03	-	0.022	0.037	0.33
2,3,4,6,7,8-HxCDF	0.1	<0.068	0.012	<0.0025	-	0.022	-	-	0.025	-	0.018	0.023	0.25
1,2,3,7,8,9-HxCDF	0.1	<0.068	<0.00079	<0.00085	-	<0.0025	-	-	<0.0017	-	<0.002	<0.0021	0.045
1,2,3,4,6,7,8-HpCDF	0.01	0.87 J	0.46	0.32	-	1.5	-	-	1.2	-	1.1	1.5	24 D
1,2,3,4,7,8,9-HpCDF	0.01	<0.14	0.025	0.017	-	0.081	-	-	0.061	-	0.072	0.085	1.6 D
OCDF	0.0001	2.6 J	1.5	1.8	-	5.8	-	-	4	-	5	5.0 D	95 D
2,3,7,8-TCDD Equivalence	1	0.09336 J	0.06551 EJ	0.03835 J	-	0.18573	-	-	0.16927 E	-	0.19002 E	0.214345 D	3.3073 DE

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives

BDL= Below Laboratory Method Detection Limit

ND= Non-Detect

NP = Not Promulgated

< = Below MDL

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Dioxin Data Qualifiers:

All results in ng/kg or parts per trillion

J=Estimated result, result is less than the reporting limit

E=Estimated result, result exceeds calibration range

CON=Confirmation analysis

Table 2
Surface Soil Analytical Results
Camp Summit

Dioxins (ng/g)	TEFs	Remedial Investigation													
		SS-13	SS-14	SS-15	SS-16	SS-17	SS-18	SS-19	SS-20	SS-21	SS-22	SS-23	SS-24	SS-25	SS-26
Total TCDF	NP	-	0.03	-	-	0.093	-	0.25	-	0.0089	0.033	0.12	0.041	0.039	0.034
Total PeCDF	NP	-	0.28	-	-	1.4	-	3	-	0.086	0.29	1.4	0.53	0.55	0.019
Total HxCDF	NP	-	2.5	-	-	17	-	38	-	0.82	4.5	24	4.4	4.1	0.049
Total HpCDF	NP	-	10	-	-	89	-	140	-	2.9	25	120	14	12	0.11
Total TCDD	NP	-	0.021	-	-	0.11	-	0.071	-	0.023	0.026	0.11	0.057	0.077	0.0048
Total PeCDD	NP	-	0.17	-	-	0.84	-	0.69	-	0.11	0.25	0.96	0.44	0.45	0.0057
Total HxCDD	NP	-	2	-	-	14	-	15	-	0.85	4.6	20	3.6	3.8	0.05
Total HpCDD	NP	-	19	-	-	210	-	200	-	7	72	320	36	34	0.26
2,3,7,8-TCDD	1	-	0.005	-	-	0.021	-	0.016	-	0.0071	0.0049	0.022	0.014	0.017	<0.00045
1,2,3,7,8-PeCDD	0.5	-	0.049	-	-	0.31	-	0.24	-	0.03	0.088	0.32	0.1	0.095	<0.0017
1,2,3,4,7,8-HxCDD	0.1	-	0.1	-	-	0.92	-	0.56	-	0.042	0.24	0.81	0.16	0.19	<0.0026
1,2,3,6,7,8-HxCDD	0.1	-	0.51	-	-	3.7 E	-	5.6 E	-	0.16	1.4	6.5 E	0.88	0.91	0.0081
1,2,3,7,8,9-HxCDD	0.1	-	0.26	-	-	2.2	-	1.4	-	0.1	0.62	2.2	0.44	0.48	0.0065 J
1,2,3,4,6,7,8-HpCDD	0.01	-	12 D	-	-	140 DE	-	130 DE	-	4.1 E	47 D	210 DE	23 D	21 D	0.16
OCDD	0.0001	-	89 D	-	-	690 DE	-	770 DE	-	30 E	200 D	1200 DE	130 DE	170 DE	0.94
2,3,7,8-TCDF	0.1	-	0.0021 CON	-	-	0.011 CON	-	0.014 CON	-	0.00089 JCON	0.0029 CON	0.013 CON	0.005 CON	0.0052 CON	0.0027 CON
1,2,3,7,8-PeCDF	0.05	-	0.017	-	-	0.067	-	0.15	-	0.0065	0.017	0.085	0.036	0.032	<0.003
2,3,4,7,8-PeCDF	0.5	-	0.011	-	-	0.045	-	0.13	-	0.0041 J	0.014	0.062	0.024	0.022	<0.0031
1,2,3,4,7,8-HxCDF	0.1	-	0.069	-	-	0.39	-	1.7	-	0.021	0.1	0.52	0.13	0.12	0.0053 J
1,2,3,6,7,8-HxCDF	0.1	-	0.051	-	-	0.24	-	0.78	-	0.015	0.08	0.36	0.088	0.096	<0.0034
2,3,4,6,7,8-HxCDF	0.1	-	0.033	-	-	0.2	-	0.51	-	0.0096	0.058	0.24	0.052	0.053	0.0038 J
1,2,3,7,8,9-HxCDF	0.1	-	<0.0031	-	-	0.017	-	0.075	-	<0.0023	0.0048 J	0.026	0.0085	0.0082	<0.00042
1,2,3,4,6,7,8-HpCDF	0.01	-	2.5	-	-	21 D	-	38 D	-	0.63	5.7 D	24 D	3.3 D	3.9 E	0.043
1,2,3,4,7,8,9-HpCDF	0.01	-	0.13	-	-	1.1 D	-	2.9 D	-	0.042	0.29 D	1.1 D	0.18 D	0.23	<0.0029
OCDF	0.0001	-	9.2 D	-	-	84 D	-	88 D	-	2.9	25 D	130 D	13 D	18 D	0.12
2,3,7,8-TCDD Equivalence	1	-	0.29448 D	-	-	2.66805 DE	-	3.0672 DE	-	0.110334 JE	0.85972 JD	3.76815 DE	0.53325 DE	0.53344 DE	0.00478 J

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

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Dioxin Data Qualifiers:

All results in ng/kg or parts per trillion

J=Estimated result, result is less than the reporting limit

E=Estimated result, result exceeds calibration range

CON=Confirmation analysis

Table 2
Surface Soil Analytical Results
Camp Summit

		Remedial Investigation										
Dioxins (ng/g)	TEFs	SS-27	SS-28	SS-29	BGM-1	BGM-2	BGM-3	BGM03-1	BGM03-2	BGM03-3	BGM03-4	BGM03-5
Total TCDF	NP	-	-	-	-	-	-	<0.03	<0.02	<0.03	<0.02	<0.02
Total PeCDF	NP	-	-	-	-	-	-	<0.06	<0.05	<0.05	<0.05	<0.03
Total HxCDF	NP	-	-	-	-	-	-	<0.05	<0.07	<0.07	0.12	<0.02
Total HpCDF	NP	-	-	-	-	-	-	<0.07	<0.09	<0.12	1.1	0.29
Total TCDD	NP	-	-	-	-	-	-	<0.03	<0.03	<0.03	<0.03	<0.03
Total PeCDD	NP	-	-	-	-	-	-	<0.04	<0.03	<0.04	<0.04	<0.05
Total HxCDD	NP	-	-	-	-	-	-	<0.06	<0.10	<0.10	<0.10	<0.05
Total HpCDD	NP	-	-	-	-	-	-	<0.12	0.42	0.22	2.5	0.7J
2,3,7,8-TCDD	1	-	-	-	-	-	-	<0.03	<0.03	<0.03	<0.03	<0.03
1,2,3,7,8-PeCDD	0.5	-	-	-	-	-	-	<0.04	<0.03	<0.04	<0.04	<0.05
1,2,3,4,7,8-HxCDD	0.1	-	-	-	-	-	-	<0.06	<0.10	<0.10	<0.10	<0.05
1,2,3,6,7,8-HxCDD	0.1	-	-	-	-	-	-	<0.05	<0.08	<0.08	<0.09	<0.04
1,2,3,7,8,9-HxCDD	0.1	-	-	-	-	-	-	<0.05	<0.08	<0.08	<0.09	<0.04
1,2,3,4,6,7,8-HpCDD	0.01	-	-	-	-	-	-	<0.12	0.28	0.15	1.7	0.46J
OCDD	0.0001	-	-	-	-	-	-	0.36J	1.8	1.1	8.1	3.4
2,3,7,8-TCDF	0.1	-	-	-	-	-	-	<0.03	<0.02	<0.03	<0.02	<0.02
1,2,3,7,8-PeCDF	0.05	-	-	-	-	-	-	<0.06	<0.05	<0.05	<0.05	<0.03
2,3,4,7,8-PeCDF	0.5	-	-	-	-	-	-	<0.06	<0.05	<0.05	<0.05	<0.03
1,2,3,4,7,8-HxCDF	0.1	-	-	-	-	-	-	<0.05	<0.06	<0.07	<0.04	<0.02
1,2,3,6,7,8-HxCDF	0.1	-	-	-	-	-	-	<0.04	<0.05	<0.06	<0.04	<0.02
2,3,4,6,7,8-HxCDF	0.1	-	-	-	-	-	-	<0.05	<0.06	<0.07	<0.04	<0.02
1,2,3,7,8,9-HxCDF	0.1	-	-	-	-	-	-	<0.05	<0.07	<0.07	<0.04	<0.02
1,2,3,4,6,7,8-HpCDF	0.01	-	-	-	-	-	-	<0.06	<0.08	<0.10	0.28	0.07J
1,2,3,4,7,8,9-HpCDF	0.01	-	-	-	-	-	-	<0.07	<0.09	<0.12	<0.07	<0.03
OCDF	0.0001	-	-	-	-	-	-	<0.05	0.15	0.06	1.2	0.4J
2,3,7,8-TCDD Equivalence	1	-	-	-	-	-	-	0.000036	0.002995	0.001616	0.02073	0.00568

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

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All results in ng/kg or parts per trillion

J=Estimated result, result is less than the reporting limit

E=Estimated result, result exceeds calibration range

CON=Confirmation analysis

Table 2
Surface Soil Analytical Results
Camp Summit

Dioxins (ng/g)	TEFs	Remedial Investigation				
		BGM03-6	BGM03-7	BGM03-8	BGM03-9	BGM03-10
Total TCDF	NP	<0.03	<0.03	<0.38	<0.04	<0.06
Total PeCDF	NP	<0.04	<0.06 JS	<0.51	<0.07	<0.13
Total HxCDF	NP	<0.03	2.3 S	<0.33	<0.06	<0.07
Total HpCDF	NP	0.68 JS	16	<1.5	0.73 JS	1.4 JS
Total TCDD	NP	<0.06	<0.04	<0.40	<0.05	<0.07
Total PeCDD	NP	<0.05	<0.14	<0.63	<0.06	<0.10
Total HxCDD	NP	<0.04	1.8 JS	<1.0	<0.26	<0.11
Total HpCDD	NP	2.1	42 E/ 41	4.5	2.7	4.1
2,3,7,8-TCDD	1	<0.06	<0.04	<0.40	<0.05	<0.07
1,2,3,7,8-PeCDD	0.5	<0.05	<0.14	<0.63	<0.06	<0.10
1,2,3,4,7,8-HxCDD	0.1	<0.04	0.1 JS	<1.0	<0.26	<0.11
1,2,3,6,7,8-HxCDD	0.1	<0.03	0.47 JS	<0.75	<0.19	<0.08
1,2,3,7,8,9-HxCDD	0.1	<0.03	0.21 JS	<0.82	<0.21	<0.09
1,2,3,4,6,7,8-HpCDD	0.01	1.3	28 E/ 27	<4.5	1.7	2.6
OCDD	0.0001	6.2 B	162 EB/160 B	6.5 B	9.0 B	14 B
2,3,7,8-TCDF	0.1	<0.03	<0.03	<0.38	<0.04	<0.06
1,2,3,7,8-PeCDF	0.05	<0.04	<0.06	<0.51	<0.07	<0.13
2,3,4,7,8-PeCDF	0.5	<0.04	<0.06	<0.50	<0.07	<0.13
1,2,3,4,7,8-HxCDF	0.1	<0.03	0.04 JS	<0.28	<0.05	<0.06
1,2,3,6,7,8-HxCDF	0.1	<0.03	<0.03	<0.24	<0.04	<0.05
2,3,4,6,7,8-HxCDF	0.1	<0.03	0.02 JS	<0.30	<0.05	<0.07
1,2,3,7,8,9-HxCDF	0.1	<0.03	<0.04	<0.33	<0.06	<0.07
1,2,3,4,6,7,8-HpCDF	0.01	0.18 JS	3.2	<1.0	0.20 JS	0.32 JS
1,2,3,4,7,8,9-HpCDF	0.01	<0.09	<0.05	<0.15	<0.07	<0.16
OCDF	0.0001	0.63 JB	0.15	0.51 JB	0.66 JB	1.1 JB
2,3,7,8-TCDD Equivalence	1	0.015483	0.402015	0.000701	0.019966	0.03071

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

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Dioxin Data Qualifiers:

All results in ng/kg or parts per trillion

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Table 3
Sediment Analytical Data
Camp Summit

Analyte		NYSDEC Guidance Criteria	Preliminary Investigation											
SVOCs (mg/kg or ppm)			SED-1	SED-2	SED-3	SED-4	SED-5	SED-6A	SED-6B	SED-6C	SED-7A	SED-7B	SED-8	
Phenanthrene	84.41		ND	ND	1.2	ND	ND	--	--	--	--	--	--	
Anthracene	84.41		ND	ND	0.29 J	ND	ND	--	--	--	--	--	--	
Carbazole	NA		--	--	--	--	--	--	--	--	--	--	--	
Fluoranthrene	463.87		ND	0.29 J	2.1	ND	ND	--	--	--	--	--	--	
Pyrene	625.7		ND	0.29 J	2	ND	ND	--	--	--	--	--	--	
Benzo(a) anthracene	1220.1		ND	ND	0.92 J	ND	ND	--	--	--	--	--	--	
Chrysene	0.4**		ND	0.2 J	1.1	ND	ND	--	--	--	--	--	--	
Benzo (l) fluoranthene	1.1**		ND	ND	0.82 J	ND	ND	--	--	--	--	--	--	
Benzo (k) fluoranthene	1.1**		--	--	--	--	--	--	--	--	--	--	--	
Benzo (b) fluoranthene	1.1**		ND	ND	0.88 J	ND	ND	--	--	--	--	--	--	
Benzo (a) pyrene	3179.8		ND	ND	0.78 J	0.53 J	ND	--	--	--	--	--	--	
Indeno (1,2,3-cd) pyrene	3.2**		ND	ND	0.34 J	ND	ND	--	--	--	--	--	--	
Benzo(ghi) perylene	800.0**		ND	ND	0.34 J	ND	ND	--	--	--	--	--	--	
Bis(2-ethylhexyl) phthalate	597.6		ND	ND	0.41 J	ND	ND	--	--	--	--	--	--	
Pentachlorophenol	299.5		1.9 U	1.0 J	3.7 J	2.2 U	28.0 U	0.12	0.1	<0.1	0.4	0.4	0.1	
Di-n-octyl phthalate	120**		--	--	--	--	--	--	--	--	--	--	--	
Di-n-butyl phthalate	8.1		--	--	--	--	--	--	--	--	--	--	--	
2-Methylnaphthalene	217		--	--	--	--	--	--	--	--	--	--	--	
Naphthalene	7.02		--	--	--	--	--	--	--	--	--	--	--	
Butylbenzylphthalate	122.0**		--	--	--	--	--	--	--	--	--	--	--	
Total SVOCs		-	-	-	-	-	-	-	-	-	-	-	-	

Notes:
Criteria used PIR and if no sediment criteria available used TAGM 4046 criteria for protection of groundwater
Only analytes detected at or above laboratory method detection limits included on tables
*PCP results from PIR Immunoassay Results
Bold Text=Analyte detected above laboratory method detection limit
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BDL= Below Laboratory Method Detection Limit
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NP = Not Promulgated
** = TAGM 4046 Value; Soil clean-up objective for the protection of groundwater

SVOC Data Qualifiers:
All results in ug/kg or parts per billion
J=Estimated result, result is less than the reporting limit
B=Analyte was found in method blank as well as the sample
< = Analyte was not detected above laboratory method detection limit

Table 3
Sediment Analytical Data
Camp Summit

		Preliminary Investigation		Remedial Investigation								
Dioxins (ng/g or ppb)	TEF	SED-3	SED-10A	DSED-1	DSED-2	DSED-3	SED-1	SED-2	SED-3	SED-4	SED-5	SED-6
Total TCDF	-	0.77	1.07	<0.12	<0.12	<0.14	<0.14	<0.096	<0.14	<0.13	<0.097	<0.18
Total PeCDF	-	2.41	3.43	<0.097	<0.34	<0.17	<0.080	<0.010	<0.039	<0.22	<0.071	<0.18
TotalHxCDF	-	15.2	20.2	<0.064	<0.35	<0.17	<0.072	<0.0077	<0.11	<0.12	<0.051	<0.38
Total HpCDF	-	101	86.7	<0.22	<0.64	<0.49	<0.078	<0.011	<0.33	<0.061	<0.033	<0.31
Total TCDD	-	0.421	0.81	<0.043	<0.15	<0.065	<0.041	<0.016	<0.026	<0.067	<0.051	<0.059
Total PeCDD	-	1.19	1.83	<0.14	<0.38	<0.16	<0.082	<0.027	<0.11	<0.19	<0.19	<0.54
Total HxCDD	-	10.5	22.5	<0.093	<0.45	<0.21	<0.19	<0.017	<0.10	<0.32	<0.12	<0.23
Total HpCDD	-	65.6	55.8	<0.051	<0.59	<1.1	<0.20	<0.023	<0.58	<0.11	<0.040	<0.39
2,3,7,8-TCDD	1	0.0306	0.0492	<0.043	<0.015	<0.065	<0.041	<0.016	<0.026	<0.067	<0.051	<0.059
1,2,3,7,8-PeCDD	0.14	0.243	0.331	<0.14	<0.38	<0.16	<0.082	<0.027	<0.11	<0.19	<0.19	<0.54
1,2,3,4,7,8-HxCDD	0.0048	0.584	0.815	<0.097	<0.46	<0.22	<0.19	<0.018	<0.11	<0.33	<0.12	<0.24
1,2,3,6,7,8-HxCDD	0.0016	3.34	3.31	<0.096	<0.46	<0.22	<0.19	<0.018	<0.11	<0.33	<0.12	<0.23
1,2,3,7,8,9-HxCDD	0.0016	1.49	2.09	<0.093	<0.45	<0.21	<0.19	<0.017	<0.10	<0.32	<0.12	<0.23
1,2,3,4,6,7,8-HpCDD	0.000032	65.6	53.2	<0.51	<0.59	<1.1	<0.20	<0.023	<0.58	<0.11	<0.040	<0.39
OCDD	0.000000025	459	43.2	<1.6	3.1 J	8.4	<0.61	<0.061	4.7 J	<0.73	<0.090	<1.7
2,3,7,8-TCDF	0.25	0.0241	0.0396	<0.12	<0.12	<0.14	<0.14	<0.096	<0.14	<0.13	<0.097	<0.18
1,2,3,7,8-PeCDF	0.010	0.0802	0.0998	<0.098	<0.34	<0.17	<0.081	<0.010	<0.040	<0.23	<0.072	<0.19
2,3,4,7,8-PeCDF	0.80	0.0592	0.0691	<0.097	<0.34	<0.17	<0.080	<0.010	<0.039	<0.22	<0.071	<0.18
1,2,3,4,7,8-HxCDF	0.0025	0.451	0.532	<0.064	<0.35	<0.17	<0.072	<0.0077	<0.0066	<0.12	<0.051	<0.095
1,2,3,6,7,8-HxCDF	0.0063	0.332	0.518	<0.064	<0.35	<0.17	<0.072	<0.0077	<0.0066	<0.12	<0.051	<0.095
2,3,4,6,7,8-HxCDF	0.022	<26.4	<25	<0.075	<0.41	<0.20	<0.083	<0.0090	<0.0076	<0.14	<0.060	<0.11
1,2,3,7,8,9-HxCDF	0.019	0.252	0.363	<0.075	<0.41	<0.20	<0.083	<0.0090	<0.0076	<0.14	<0.060	<0.11
1,2,3,4,6,7,8-HpCDF	0.000010	16.1	16.6	<0.22	<0.64	<0.24	<0.078	<0.011	<0.097	<0.061	<0.033	<0.31
1,2,3,4,7,8,9-HpCDF	0.00040	0.677	0.894	<0.28	<0.81	<0.52	<0.099	<0.014	<0.0031	<0.077	<0.041	<0.40
OCDF	0.000000032	62.9	48.4	<0.30	<1.2	<1.0	<0.084	<0.058	<0.20	<0.087	<0.093	<0.54
2,3,7,8-TCDD Equivalence	-	2.68	1.82	BDL	0.000000077	0.00000021	BDL	BDL	0.00000012	BDL	BDL	BDL
Total Organic Carbon %	-	32.7	34.9	50.4	40.6	3.83	78.5	30.3	15.8	61	48.6	---
Site-specific Benchmark	-	0.00654	0.00698	0.01008	0.00812	0.000766	0.0157	0.00606	0.00316	0.0122	0.00972	---

Notes:
Only analytes detected at or above laboratory method detection limits included on tables
*PCP results from PIR Immunoassay Results
Bold Text=Analyte detected above laboratory method detection limit
Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives
BDL= Below Laboratory Method Detection Limit
ND= Non-Detect
NP = Not Promulgated
Dioxin Data Qualifiers:
All results in ng/kg or parts per trillion
J=Estimated result, result is less than the reporting limit
E=Estimated result, result exceeds calibration range
CON=Confirmation analysis

Table 3
Sediment Analytical Data
Camp Summit

Analyte		Preliminary Investigation	Remedial Investigation									
Metals (mg/kg)		SED-10A	DSED-1	DSED-2	DSED-3	SED-1	SED-2	SED-3	SED-4	SED-5	SED-6	SED-7
Aluminum	33000"	28900	---	---	---	---	---	---	---	---	---	---
Antimony	N/A"	ND	---	---	---	---	---	---	---	---	---	---
Arsenic	6.0	10.1	---	---	---	---	---	---	---	---	---	---
Barium	15-600"	150	---	---	---	---	---	---	---	---	---	---
Berillium	0.0-1.75"	1.5 B	---	---	---	---	---	---	---	---	---	---
Cadmium	0.60	3.1	---	---	---	---	---	---	---	---	---	---
Calcium	130-35000"	2220 B	---	---	---	---	---	---	---	---	---	---
Chromium	26.0	33.8	---	---	---	---	---	---	---	---	---	---
Cobalt	2.5-60"	20.3 B	---	---	---	---	---	---	---	---	---	---
Copper	16.0	11.5 B	---	---	---	---	---	---	---	---	---	---
Iron	200,000	38900	---	---	---	---	---	---	---	---	---	---
Lead	31.0	54.9	---	---	---	---	---	---	---	---	---	---
Magnesium	100-5000"	5170	---	---	---	---	---	---	---	---	---	---
Manganese	460.0	1250	---	---	---	---	---	---	---	---	---	---
Nickel	16.0	42.2	---	---	---	---	---	---	---	---	---	---
Potassium	8500-43000"	1330 B	---	---	---	---	---	---	---	---	---	---
Selenium	0.1-3.9"	ND	---	---	---	---	---	---	---	---	---	---
Silver	N/A"	ND	---	---	---	---	---	---	---	---	---	---
Mercury	0.20	ND	---	---	---	---	---	---	---	---	---	---
Sodium	6000-8000"	236	---	---	---	---	---	---	---	---	---	---
Thallium	N/A"	ND	---	---	---	---	---	---	---	---	---	---
Vanadium	N/A"	33	---	---	---	---	---	---	---	---	---	---
Zinc	120.0	160	---	---	---	---	---	---	---	---	---	---
Total Metals												

Only analytes detected at or above laboratory method detection limits included on tables
*PCP results from PIR Immunoassay Results
Bold Text=Analyte detected above laboratory method detection limit
Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives
BDL= Below Laboratory Method Detection Limit
ND= Non-Detect
NP = Not Promulgated
Metal Data Qualifiers:
All results in mg/kg or parts per million
D=Result obtained from dilution
B=Indicates a value greater than or equal to the instrument detection limit but less than the quantitation limit
NV=Indicates TAGM recommened soil clean-up objective is site background
Metals SCGs used for comparison were either TAGM 4046 or Site Background average, which ever is higher
Bold Text=SCG used for Regulatory Comparison
" = Eastern USA background limits

Table 3
Sediment Analytical Data
Camp Summit

Analyte		Preliminary Investigation												
NYSDEC Guidance Criteria		SED-9A	SED-9B	SED-9C	SED-10A	SED-10B	SED-10C	D-1	SED-11B	SED-11C	SED-12A	SED-12B	SED-13	
SVOCs (mg/kg or ppm)														
Phenanthrene	84.41	--	--	--	--	--	--	--	--	--	--	--	--	
Anthracene	84.41	--	--	--	--	--	--	--	--	--	--	--	--	
Carbazole	NA	--	--	--	--	--	--	--	--	--	--	--	--	
Fluoranthrene	463.87	--	--	--	--	--	--	--	--	--	--	--	--	
Pyrene	625.7	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(a) anthracene	1220.1	--	--	--	--	--	--	--	--	--	--	--	--	
Chrysene	0.4**	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo (l) fluoranthene	1.1**	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo (k) fluoranthene	1.1**	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo (b) fluoranthene	1.1**	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo (a) pyrene	3179.8	--	--	--	--	--	--	--	--	--	--	--	--	
Indeno (1,2,3-cd) pyrene	3.2**	--	--	--	--	--	--	--	--	--	--	--	--	
Benzo(ghi) perylene	800.0**	--	--	--	--	--	--	--	--	--	--	--	--	
Bis(2-ethylhexyl) phthalate	597.6	--	--	--	--	--	--	--	--	--	--	--	--	
Pentachlorophenol	299.5	0.06	0.06	0.05	0.5	<0.1	<0.1	0	0.2	<0.1	0.1	<0.1	0.1	
Di-n-octyl phthalate	120**	--	--	--	--	--	--	--	--	--	--	--	--	
Di-n-butyl phthalate	8.1	--	--	--	--	--	--	--	--	--	--	--	--	
2-Methylnaphthalene	217	--	--	--	--	--	--	--	--	--	--	--	--	
Naphthalene	7.02	--	--	--	--	--	--	--	--	--	--	--	--	
Butylbenzylphthalate	122.0**	--	--	--	--	--	--	--	--	--	--	--	--	
Total SVOCs	-	-	-	-	-	-	-	-	-	-	-	-	-	

Notes:
Criteria used PIR and if no sediment criteria available used T^A
Only analytes detected at or above laboratory method detectio
*PCP results from PIR Immunoassay Results
Bold Text=Analyte detected above laboratory method detectio
Shaded Text=Exceedence of TAGM 4046 soil cleanup objecti
BDL= Below Laboratory Method Detection Limit
ND= Non-Detect
NP = Not Promulgated
** = TAGM 4046 Value; Soil clean-up objective for the protecti
SVOC Data Qualifiers:
All results in ug/kg or parts per billion
J=Estimated result, result is less than the reporting limit
B=Analyte was found in method blank as well as the sample
< = Analyte was not detected above laboratory method detect

Table 3
Sediment Analytical Data
Camp Summit

		Remedial Investigation					
Dioxins (ng/g or ppb)	TEF	SED-7	SED03-01	SED03-02	SED03-03	SED03-04	
Total TCDF	-	<0.15	<0.09	<0.25	<0.13	<0.05	
Total PeCDF	-	<0.31	<0.17	<0.83	<0.12	<0.14	
TotalHxCDF	-	<1.6	<0.10	<0.61	<0.80	<0.08	
Total HpCDF	-	<0.10	<0.16	<2.3	<0.26	0.06JS	
Total TCDD	-	<0.073	<0.10	<0.37	<0.22	<0.06	
Total PeCDD	-	<0.46	<0.14	<4.5	<1.4	<0.08	
Total HxCDD	-	<3.1	<0.14	<0.62	<0.45	<0.12	
Total HpCDD	-	<0.20	0.73 J	<0.45	2.1	<0.86	
2,3,7,8-TCDD	1	<0.073	<0.10	<0.37	<0.22	<0.06	
1,2,3,7,8-PeCDD	0.14	<0.46	<0.14	<4.5	<1.4	<0.08	
1,2,3,4,7,8-HxCDD	0.0048	<0.41	<0.14	<0.62	<0.45	<0.12	
1,2,3,6,7,8-HxCDD	0.0016	<0.41	<0.11	<0.48	<0.35	<0.09	
1,2,3,7,8,9-HxCDD	0.0016	<0.40	<0.12	<0.51	<0.37	<0.10	
1,2,3,4,6,7,8-HpCDD	0.000032	<0.20	0.45 J	<0.45	1.3	<0.86	
OCDD	0.000000025	<0.74	2.5	1.8	11	2.3	
2,3,7,8-TCDF	0.25	<0.15	<0.09	<0.25	<0.13	<0.05	
1,2,3,7,8-PeCDF	0.010	<0.31	<0.17	<0.83	<0.12	<0.14	
2,3,4,7,8-PeCDF	0.80	<0.31	<0.17	<0.80	<0.11	<0.14	
1,2,3,4,7,8-HxCDF	0.0025	<0.19	<0.09	<0.56	<0.72	<0.07	
1,2,3,6,7,8-HxCDF	0.0063	<0.19	<0.07	<0.47	<0.60	<0.06	
2,3,4,6,7,8-HxCDF	0.022	<0.22	<0.09	<0.57	<0.74	<0.07	
1,2,3,7,8,9-HxCDF	0.019	<0.22	<0.10	<0.61	<0.80	<0.08	
1,2,3,4,6,7,8-HpCDF	0.000010	<0.10	<0.12	<1.7	<0.19	0.06	
1,2,3,4,7,8,9-HpCDF	0.00040	<0.13	<0.16	<2.3	<0.26	<0.11	
OCDF	0.000000032	<0.24	<0.14	<1.2	<1.1	0.3 J	
2,3,7,8-TCDD Equivalence	-	BDL	1.42593E-05	4.5214E-08	4.12885E-05	6.67283E-07	
Total Organic Carbon %	-	---	---	---	---	---	---
Site-specific Benchmark	-	---	---	---	---	---	---

Notes:
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All results in ng/kg or parts per trillion
J=Estimated result, result is less than the reporting limit
E=Estimated result, result exceeds calibration range
CON=Confirmation analysis

Table 3
Sediment Analytical Data
Camp Summit

Analyte		Remedial Investigation			
Metals (mg/kg)		SED03-01	SED03-02	SED03-03	SED03-04
Aluminum	33000"	5,570	8,550	9,030	17,500
Antimony	N/A"	<0.42	<0.34	<0.36	<0.51
Arsenic	6.0	6.4	12.1	8.1	7.3
Barium	15-600"	41.6	87.2	33.7	66.9
Berillium	0.0-1.75"	0.46	0.51	0.6	0.86
Cadmium	0.60	0.31	3.3	0.31	0.09
Calcium	130-35000"	181,000	70,400	150,000	1,460
Chromium	26.0	12.6	18.9	12.3	22.2
Cobalt	2.5-60"	3.9	6.9	8.5	11.0
Copper	16.0	14.9	27.7	12.1	7.1
Iron	200,000	9,700	16,800	20,300	26,500
Lead	31.0	26.7	22.8	21	18.9
Magnesium	100-5000"	34,600	5,800	5,060	3,990
Manganese	460.0	455	765	688	490
Nickel	16.0	14.9	19.0	20.9	26.4
Potassium	8500-43000"	1,190	1,150	1,150	1,910
Selenium	0.1-3.9"	<0.42	<0.34	<0.36	<0.51
Silver	N/A"	<0.12	<0.09	<0.10	<0.14
Mercury	0.20	0.02	0.06	0.04	0.03
Sodium	6000-8000"	406	801	333	238
Thallium	N/A"	<0.80	<0.64	<0.68	<0.96
Vanadium	N/A"	36.4	20.9	12.4	22.1
Zinc	120.0	103	140	72.1	83.2
Total Metals		233,182	104,625	186,763	52,354

Only analytes detected at or above laboratory method detectio
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Metal Data Qualifiers:
All results in mg/kg or parts per million
D=Result obtained from dilution
B=Indicates a value greater than or equal to the instrument de
NV=Indicates TAGM recommened soil clean-up objective is si
Metals SCGs used for comparison were either TAGM 4046 or
Bold Text=SCG used for Regulatory Comparison
" = Eastern USA background limits

Table 3
Sediment Analytical Data
Camp Summit

Analyte		NYSDEC Guidance Criteria		Remedial Investigation													
SVOCs (mg/kg or ppm)				DSED-1	DSED-2	DSED-3	SED-1	SED-2	SED-3	SED-4	SED-5	SED-6	SED-7	SED03-01	SED03-02	SED03-03	SED03-04
Phenanthrene	84.41			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	<5.4	0.17J	<0.00062
Anthracene	84.41			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	<5.4	<2.4	<0.00062
Carbazole	NA			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	<5.4	<2.4	<0.00062
Fluoranthrene	463.87			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	<5.4	0.26J	<0.00062
Pyrene	625.7			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	<5.4	0.27J	<0.00062
Benzo(a) anthracene	1220.1			--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	0.4**			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	<5.4	0.15J	<0.00062
Benzo (l) fluoranthene	1.1**			--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (k) fluoranthene	1.1**			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	0.27J	0.15J	<0.00062
Benzo (b) fluoranthene	1.1**			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	<5.4	<2.4	<0.00062
Benzo (a) pyrene	3179.8			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	0.69	<0.33	<0.33	<11.0	<5.4	<2.4	<0.00062
Indeno (1,2,3-cd) pyrene	3.2**			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	<5.4	<2.4	<0.00062
Benzo(ghi) perylene	800.0**			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	<5.4	<2.4	<0.00062
Bis(2-ethylhexyl) phthalate	597.6			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	0.66J	<5.4	<2.4	<0.00062
Pentachlorophenol	299.5			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<28.0	<13.0	<6.0	<0.0015
Di-n-octyl phthalate	120**			0.44	2.1	1.1	<0.44	<0.33	<1.1	0.19 J	<0.33	<0.33	<0.33	<11.0	<5.4	<2.4	<0.00062
Di-n-butyl phthalate	8.1			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	<5.4	<2.4	<0.00062
2-Methylnaphthalene	217			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	<5.4	<2.4	<0.00062
Naphthalene	7.02			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	<5.4	<2.4	<0.00062
Butylbenzylphthalate	122.0**			<0.41	<0.55	<0.41	<0.44	<0.33	<1.1	<0.33	<0.33	<0.33	<0.33	<11.0	<5.4	0.36J	<0.00062
Total SVOCs		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 4
Test Pit Soil Analytical Results
Preliminary Investigation
Camp Summit

Analyte (units)	TAGM (4046) or SiteBackground Average		TP-1	TP-7
Metals (mg/kg)				
Aluminum	NV	18866.6	11100	11100
Antimony	NV	0.283	0.47 B	0.47 B
Arsenic	7.5	9.1	6	6.7
Barium	300	54.6	59.3	45.1
Berillium	0.16	0.54	0.63 B	0.64
Cadmium	1 or 0.15		0.51 B	0.3 B
Calcium	NV	110.6	912	1070
Chromium	10	19.06	13.4	17.1
Cobalt	30	9.33	13.2	13.7
Copper	0.25	10.76	9.8	17.7
Iron	2000	30633.3	24500	27400
Lead	NV	17.86	31.6	17.7
Magnesium	NV	2300	1660	3560
Manganese	NV	929	542	801
Mercury	13	14.9	0.12 B	ND
Nickel	NV	561	14.2	28.5
Potassium	2	1.5	427 B	587
Selenium	NV	0.0	0.73 B	0.37 B
Silver	0.1	0.045	0.26 B	0.14 B
Sodium	NP	0.047	56.8 B	43.9
Thallium	NV	6.3	1.4	ND
Vanadium	150	27.16	17.8	10.5
Zinc	20	67.36	54.2	61.1

Pentachlorophenol Immunoassay Test Results (ug/kg)					
TP2-1	TP2-2	TP-3	TP-4	TP-5	TP-6
140	2070	ND	ND	690	>10000
Pentachlorophenol Immunoassay Test Results (ug/kg)					
TP-13	TP-14	TP-15	TP-16	TP-17	TP-18
ND	ND	ND	1000	6430	ND
Pentachlorophenol Immunoassay Test Results (ug/kg)					
TP-7	TP-8	TP-9	TP-10	TP-11	TP-12
7580	ND	13500	580	128000(78000)	1700
Pentachlorophenol Immunoassay Test Results (ug/kg)					
TP-19	TP-20	TP-21	TP-22	TP-23	TP-24
ND	ND	ND	140	ND	100

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives

BDL= Below Laboratory Method Detection Limit

ND= Non-Detect

NP = Not Promulgated

Metal Data Qualifiers:

All results in mg/kg or parts per million

D=Result obtained from dilution

B=Indicates a value greater than or equal to the instrument detection limit but less than the quantitation limit

NV=Indicates TAGM recommended soil clean-up objective is site background

Metals SCGs used for comparison were either TAGM 4046 or Site Background average, whichever is higher

Bold Text=SCG used for Regulatory Comparison

The SCG for Cadmium (10 ppm) and Chromium (50 ppm) are generally accepted clean-up levels

The SCG for Lead (400 ppm) was adopted from the EPA

Table 4
Test Pit Soil Analytical Results
Remedial Investigation
Camp Summit

Analyte (units)		STP-1	STP-2	STP-3	STP-4	STP-5	STP-6	STP-7	STP-8	STP-9	STP-10	STP-11	STP-12
VOC (mg/kg)	TAGM												
Acetone	0.2	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	0.3	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	5.5	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	0.1	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	1.5	--	--	--	--	--	--	--	--	--	--	--	--
Total Xylenes	1.2	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs		--	--	--	--	--	--	--	--	--	--	--	--

Pesticides (mg/kg)	TAGM	STP-1	STP-2	STP-3	STP-4	STP-5	STP-6	STP-7	STP-8	STP-9	STP-10	STP-11	STP-12
4,4-DDD	2.9	--	--	--	--	--	--	--	--	--	--	--	--
4,4-DDT	2.1	--	--	--	--	--	--	--	--	--	--	--	--

SVOC/PAH (mg/kg)	TAGM	STP-1	STP-2	STP-3	STP-4	STP-5	STP-6	STP-7	STP-8	STP-9	STP-10	STP-11	STP-12
Acenaphthene	50	<0.330	<0.330	0.031 J	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Anthracene	50	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	0.33	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Benzo(b)fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (a) Pyrene	0.33	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	0.4	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Bis (2-Ethylhexyl) Phthalate	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.037 J	<0.330
Dibenzofuran	6.2	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	7.1	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl Phthalate	8.1	<0.330	<0.330	<0.330	0.110 J	0.072 J	0.079 J	0.044 J	<0.330	<0.330	0.056 J	<0.330	<0.330
Di-n-octyl phthalate	120	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Fluoranthene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Fluorene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Indeno(1,2,3-cd)pyrene	3.2	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	36.4	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	13	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	1	<1.6	<1.6	0.420 J	<1.6	<1.6	0.190 J	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Phenanthrene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Pyrene	50	<0.330	<0.330	<0.330	<0.330	<0.330	0.034 J	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Total SVOC		BDL	BDL	0.451 J	0.110 J	0.072 J	0.303 J	0.044 J	BDL	BDL	0.056 J	0.037 J	BDL

Notes:

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*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

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All results in mg/kg or parts per billion

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Table 4
Test Pit Soil Analytical Results
Remedial Investigation
Camp Summit

Analyte (units)		STP-13	STP-14	STP-15	STP-16	STP-17	STP-18	STP-19	STP-20	STP-21	STP-22	STP-23	STP-24
VOC (mg/kg)	TAGM												
Acetone	0.2	--	--	--	--	--	--	--	--	--	--	--	--
2-Butanone	0.3	--	--	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	5.5	--	--	--	--	--	--	--	--	--	--	--	--
Methylene Chloride	0.1	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	1.5	--	--	--	--	--	--	--	--	--	--	--	--
Total Xylenes	1.2	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs		--	--	--	--	--	--	--	--	--	--	--	--

Pesticides (mg/kg)	TAGM	STP-13	STP-14	STP-15	STP-16	STP-17	STP-18	STP-19	STP-20	STP-21	STP-22	STP-23	STP-24
4,4-DDD	2.9	--	--	--	--	--	--	--	--	--	--	--	--
4,4-DDT	2.1	--	--	--	--	--	--	--	--	--	--	--	--

SVOC/PAH (mg/kg)	TAGM	STP-13	STP-14	STP-15	STP-16	STP-17	STP-18	STP-19	STP-20	STP-21	STP-22	STP-23	STP-24
Acenaphthene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Anthracene	50	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a)anthracene	0.33	<0.330	<0.330	<0.330	<0.330	<0.330	0.030 J	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Benzo(b)fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (a) Pyrene	0.33	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	0.4	<0.330	<0.330	<0.330	<0.330	<0.330	0.056 J	0.027 J	<0.330	<0.330	<0.330	<0.330	<0.330
Bis (2-Ethylhexyl) Phthalate	50	<0.330	<0.330	<0.330	<0.330	<0.330	0.047 J	0.038 J	<0.330	<0.330	0.052 J	<0.330	<0.330
Dibenzofuran	6.2	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	7.1	--	--	--	--	--	--	--	--	--	--	--	--
Di-n-butyl Phthalate	8.1	<0.330	<0.330	<0.330	0.089 J	0.037 J	0.150 J	<0.330	<0.330	<0.330	<0.330	0.047 J	0.042 J
Di-n-octyl phthalate	120	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Fluoranthene	50	<0.330	<0.330	<0.330	<0.330	<0.330	0.037 J	<0.330	<0.330	<0.330	0.045 J	<0.330	<0.330
Fluorene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.031 J	<0.330	<0.330	<0.330	<0.330	<0.330
Indeno(1,2,3-cd)pyrene	3.2	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	36.4	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	13	--	--	--	--	--	--	--	--	--	--	--	--
Pentachlorophenol	1	<1.6	<1.6	0.460 J	<1.6	0.460 J	1.6	26.0 D	<1.6	4.7	12.0 D	<1.6	<1.6
Phenanthrene	50	<0.330	<0.330	<0.330	<0.330	<0.330	0.190 J	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Pyrene	50	<0.330	<0.330	<0.330	<0.330	<0.330	0.37	0.290 J	<0.330	<0.330	0.160 J	<0.330	<0.330
Total SVOC		BDL	BDL	0.460 J	0.089 J	0.497 J	2.450 J	26.125 JD	BDL	4.7	12.257 JD	0.047 J	0.042 J

Notes:

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*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

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Table 4
Test Pit Soil Analytical Results
Remedial Investigation
Camp Summit

Analyte (units)		STP-25	STP-26	STP-27	STP-28	STP-29	STP-30	TP-1	TP-2	TP-3	TP-4	TP-5	TP-6
VOC (mg/kg)	TAGM												
Acetone	0.2	--	--	--	--	--	--	3200	-	-	-	-	-
2-Butanone	0.3	--	--	--	--	--	--	410	-	-	-	-	-
Ethylbenzene	5.5	--	--	--	--	--	--	12000 D	-	-	-	-	-
Methylene Chloride	0.1	--	--	--	--	--	--	7	-	-	-	-	-
Toluene	1.5	--	--	--	--	--	--	100	-	-	-	-	-
Total Xylenes	1.2	--	--	--	--	--	--	43000 D	-	-	-	-	-
Total VOCs		--	--	--	--	--	--	58717 D					

Pesticides (mg/kg)	TAGM	STP-25	STP-26	STP-27	STP-28	STP-29	STP-30	TP-1	TP-2	TP-3	TP-4	TP-5	TP-6
4,4-DDD	2.9	--	--	--	--	--	--	<22	-	-	-	-	-
4,4-DDT	2.1	--	--	--	--	--	--	<22	-	-	-	-	-

SVOC/PAH (mg/kg)	TAGM	STP-25	STP-26	STP-27	STP-28	STP-29	STP-30	TP-1	TP-2	TP-3	TP-4	TP-5	TP-6
Acenaphthene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	<0.330	-	<0.330	<0.330
Anthracene	50	--	--	--	--	--	--	<0.330	-	<0.330	-	<0.330	<0.330
Benzo(a)anthracene	0.33	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	0.062 J	-	<0.330	<0.330
Benzo(b)fluoranthene	1.1	--	--	--	--	--	--	<0.330	-	0.110 J	-	<0.330	<0.330
Benzo(k)fluoranthene	1.1	--	--	--	--	--	--	<0.330	-	0.097 J	-	<0.330	<0.330
Benzo (a) Pyrene	0.33	--	--	--	--	--	--	<0.330	-	0.041 J	-	<0.330	<0.330
Chrysene	0.4	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	0.130 J	-	<0.330	<0.330
Bis (2-Ethylhexyl) Phthalate	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	0.170 J	-	<0.330	<0.330
Dibenzofuran	6.2	--	--	--	--	--	--	<0.330	-	<0.330	-	<0.330	<0.330
Diethylphthalate	7.1	--	--	--	--	--	--	--				<0.330	<0.330
Di-n-butyl Phthalate	8.1	<0.330	0.130 J	0.039 J	0.083 J	<0.330	<0.330	<0.330	-	0.090 BJ	-	<0.330	<0.330
Di-n-octyl phthalate	120	<0.330	0.050 J	0.026 J	0.032 J	<0.330	<0.330	<0.330	-	<0.330	-	<0.330	<0.330
Fluoranthene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	0.34	-	<0.330	<0.330
Fluorene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	<0.330	-	<0.330	<0.330
Indeno(1,2,3-cd)pyrene	3.2	--	--	--	--	--	--	<0.330	-	0.022 J	-	<0.330	<0.330
2-Methylnaphthalene	36.4	--	--	--	--	--	--	<0.330	-	<0.330	-	<0.330	<0.330
Naphthalene	13	--	--	--	--	--	--	<0.330	-	<0.330	-	<0.330	<0.330
Pentachlorophenol	1	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	130 D	-	0.570 J	-	0.230 J	<1.6
Phenanthrene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	0.170 J	-	<0.330	<0.330
Pyrene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	-	0.200 J	-	<0.330	<0.330
Total SVOC		BDL	0.180 J	0.065 J	0.115 J	BDL	BDL	130 D	-	2.002 BJ	-	0.230 J	BDL

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Table 4
Test Pit Soil Analytical Results
Remedial Investigation
Camp Summit

Analyte (units)		TP-7	TP-8	TP-9	TP-10	TP-11	TP-12	TP-13	TP-14	TP-15	TP-16	TP-17	TP-18
VOC (mg/kg)	TAGM												
Acetone	0.2	-	-	-	-	-	-	-	-	-	<25	-	-
2-Butanone	0.3	-	-	-	-	-	-	-	-	-	<25	-	-
Ethylbenzene	5.5	-	-	-	-	-	-	-	-	-	33	-	-
Methylene Chloride	0.1	-	-	-	-	-	-	-	-	-	5	-	-
Toluene	1.5	-	-	-	-	-	-	-	-	-	<5	-	-
Total Xylenes	1.2	-	-	-	-	-	-	-	-	-	280 B	-	-
Total VOCs											318 B		

Pesticides (mg/kg)	TAGM	TP-7	TP-8	TP-9	TP-10	TP-11	TP-12	TP-13	TP-14	TP-15	TP-16	TP-17	TP-18
4,4-DDD	2.9	-	-	-	-	-	-	-	-	-	-	-	-
4,4-DDT	2.1	-	-	-	-	-	-	-	-	-	-	-	-

SVOC/PAH (mg/kg)	TAGM	TP-7	TP-8	TP-9	TP-10	TP-11	TP-12	TP-13	TP-14	TP-15	TP-16	TP-17	TP-18
Acenaphthene	50	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Anthracene	50	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Benzo(a)anthracene	0.33	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.42
Benzo(b)fluoranthene	1.1	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.39
Benzo(k)fluoranthene	1.1	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.280 J
Benzo (a) Pyrene	0.33	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.39
Chrysene	0.4	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	0.44
Bis (2-Ethylhexyl) Phthalate	50	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Dibenzofuran	6.2	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	0.55	<0.330	<0.330
Diethylphthalate	7.1	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Di-n-butyl Phthalate	8.1	<0.330	<0.330	<0.330	-	<0.330	0.091 BJ	<0.330	<0.330	<0.330	<0.330	0.048 J	<0.330
Di-n-octyl phthalate	120	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Fluoranthene	50	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	0.040 J	<0.330	0.6
Fluorene	50	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	0.69	<0.330	<0.330
Indeno(1,2,3-cd)pyrene	3.2	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
2-Methylnaphthalene	36.4	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	14 D	<0.330	<0.330
Naphthalene	13	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	1.6	<0.330	<0.330
Pentachlorophenol	1	<1.6	<1.6	<1.6	-	0.890 J	1.2 J	0.160 J	<1.6	0.150 J	0.220 J	<1.6	<1.6
Phenanthrene	50	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	1	<0.330	0.120 J
Pyrene	50	<0.330	<0.330	<0.330	-	<0.330	<0.330	<0.330	<0.330	<0.330	0.072 J	<0.330	0.68
Total SVOC		BDL	BDL	BDL	-	0.890 J	1.291 BJ	0.160 J	BDL	0.150 J	18.972 DJ	0.048 J	3.320 J

Notes:

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Table 4
Test Pit Soil Analytical Results
Remedial Investigation
Camp Summit

Analyte (units)		TP-19	TP-20	TP-21	TP-22	TP-23	TP-24	TP-25	TP-26	TP-27	TP-28	TP-29	TP-30
VOC (mg/kg)	TAGM												
Acetone	0.2	-	-	-	-	-	-	-	-	-	-	-	-
2-Butanone	0.3	-	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	5.5	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	0.1	-	-	-	-	-	-	-	-	-	-	-	-
Toluene	1.5	-	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	1.2	-	-	-	-	-	-	-	-	-	-	-	-
Total VOCs													

Pesticides (mg/kg)	TAGM	TP-19	TP-20	TP-21	TP-22	TP-23	TP-24	TP-25	TP-26	TP-27	TP-28	TP-29	TP-30
4,4-DDD	2.9	-	-	-	-	-	-	-	-	-	-	-	-
4,4-DDT	2.1	-	-	-	-	-	-	-	-	-	-	-	-

SVOC/PAH (mg/kg)	TAGM	TP-19	TP-20	TP-21	TP-22	TP-23	TP-24	TP-25	TP-26	TP-27	TP-28	TP-29	TP-30
Acenaphthene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Anthracene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Benzo(a)anthracene	0.33	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Benzo(b)fluoranthene	1.1	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Benzo(k)fluoranthene	1.1	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Benzo (a) Pyrene	0.33	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Chrysene	0.4	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Bis (2-Ethylhexyl) Phthalate	50	<0.330	0.260 J	<0.330	<0.330	<0.330	<0.330	<0.330	0.021 J	<0.330	<0.330	<0.330	<0.330
Dibenzofuran	6.2	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Diethylphthalate	7.1	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Di-n-butyl Phthalate	8.1	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Di-n-octyl phthalate	120	0.051 J	0.050 J	0.058 J	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Fluoranthene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Fluorene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Indeno(1,2,3-cd)pyrene	3.2	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
2-Methylnaphthalene	36.4	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Naphthalene	13	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Pentachlorophenol	1	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	0.065 J	0.420 J	<1.6	<1.6	<1.6	<1.6
Phenanthrene	50	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Pyrene	50	0.33	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330
Total SVOC		0.381 J	0.310 J	0.058 J	BDL	BDL	BDL	0.065 J	0.441 J	BDL	BDL	BDL	BDL

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives

BDL= Below Laboratory Method Detection Limit

ND= Non-Detect

NP = Not Promulgated

SVOC, VOC, Pesticide Data Qualifiers:

All results in mg/kg or parts per billion

J=Estimated result, result is less than the reporting limit

B=Analyte was found in method blank as well as the sample

< = Analyte was not detected above laboratory method detection limit

Table 4
Test Pit Soil Analytical Results
Remedial Investigation
Camp Summit

Analyte (units)		TP-31	TP-32	TP-33	TP-34	TP-35	TP-36	TP-37	TP03-1	TP03-2	TP03-3	TP03-4	TP03-5W
VOC (mg/kg)	TAGM												
Acetone	0.2	-	110	<25	-	-	-	-	-	-	-	-	-
2-Butanone	0.3	-	18 J	6 J	-	-	-	-	-	-	-	-	-
Ethylbenzene	5.5	-	64	230	-	-	-	-	-	-	-	-	-
Methylene Chloride	0.1	-	9	8	-	-	-	-	-	-	-	-	-
Toluene	1.5	-	<5	78	-	-	-	-	-	-	-	-	-
Total Xylenes	1.2	-	510 B	7200 D	-	-	-	-	-	-	-	-	-
Total VOCs			711 JB	7522 JD					-	-	-	-	-

Pesticides (mg/kg)	TAGM	TP-31	TP-32	TP-33	TP-34	TP-35	TP-36	TP-37	TP03-1	TP03-2	TP03-3	TP03-4	TP03-5W
4,4-DDD	2.9	-	-	37	-	-	-	-	-	-	-	-	-
4,4-DDT	2.1	-	-	20	-	-	-	-	-	-	-	-	-

SVOC/PAH (mg/kg)	TAGM	TP-31	TP-32	TP-33	TP-34	TP-35	TP-36	TP-37	TP03-1	TP03-2	TP03-3	TP03-4	TP03-5W
Acenaphthene	50	<0.330	3.5	0.940	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Anthracene	50	<0.330	<0.330	0.130 J	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Benzo(a)anthracene	0.33	<0.330	0.052 J	<0.330	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Benzo(b)fluoranthene	1.1	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Benzo(k)fluoranthene	1.1	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Benzo (a) Pyrene	0.33	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Chrysene	0.4	<0.330	0.079 J	0.020 J	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Bis (2-Ethylhexyl) Phthalate	50	<0.330	0.031 J	<0.330	<0.330	0.019 J	0.025 J	<0.330	0.130JB	0.082JB	0.100JB	<0.370	0.100JB
Dibenzofuran	6.2	<0.330	6.0	<0.330	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Diethylphthalate	7.1	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Di-n-butyl Phthalate	8.1	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Di-n-octyl phthalate	120	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Fluoranthene	50	<0.330	0.110 J	0.025 J	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Fluorene	50	<0.330	3.6	1.4	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Indeno(1,2,3-cd)pyrene	3.2	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
2-Methylnaphthalene	36.4	<0.330	73 D	17 D	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Naphthalene	13	<0.330	6.4	2.4	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Pentachlorophenol	1	<1.6	5.3	23 D	<1.6	<1.6	0.130 J	0.690 J	<1.1	<0.95	<1.00	<0.93	<0.94
Phenanthrene	50	<0.330	16.0	3.0	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Pyrene	50	<0.330	1.0	0.280 J	<0.330	<0.330	<0.330	<0.330	<0.450	<0.380	<0.400	<0.370	<0.380
Total SVOC		BDL	115.072 DJ	48.195 DJ	BDL	0.019 J	0.155 J	0.690 J	0.130JB	0.082JB	0.100JB	ND	0.100JB

Notes:

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Table 4
Test Pit Soil Analytical Results
Remedial Investigation
Camp Summit

Analyte (units)		TP03-5E	TP03-6NE	TP03-6SW	TP03-7W	TP03-8	TP03-9N	TP03-9S	TP03-10W	TP03-10E	TP03-11W	TP03-11E
VOC (mg/kg)	TAGM	-	-	-	-	-	-	-	-	-	-	-
Acetone	0.2	-	-	-	-	-	-	-	-	-	-	-
2-Butanone	0.3	-	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	5.5	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride	0.1	-	-	-	-	-	-	-	-	-	-	-
Toluene	1.5	-	-	-	-	-	-	-	-	-	-	-
Total Xylenes	1.2	-	-	-	-	-	-	-	-	-	-	-
Total VOCs		-	-	-	-	-	-	-	-	-	-	-

Pesticides (mg/kg)	TAGM	TP03-5E	TP03-6NE	TP03-6SW	TP03-7W	TP03-8	TP03-9N	TP03-9S	TP03-10W	TP03-10E	TP03-11W	TP03-11E
4,4-DDD	2.9	-	-	-	-	-	-	-	-	-	-	-
4,4-DDT	2.1	-	-	-	-	-	-	-	-	-	-	-

SVOC/PAH (mg/kg)	TAGM	TP03-5E	TP03-6NE	TP03-6SW	TP03-7W	TP03-8	TP03-9N	TP03-9S	TP03-10W	TP03-10E	TP03-11W	TP03-11E
Acenaphthene	50	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	<0.390	<0.420	0.110J	<0.400	<0.440
Anthracene	50	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	0.076J	0.033J	0.091J	<0.400	<0.440
Benzo(a)anthracene	0.33	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	0.039J	<0.420	0.029J	<0.400	<0.440
Benzo(b)fluoranthene	1.1	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	<0.390	<0.420	<0.380	<0.400	<0.440
Benzo(k)fluoranthene	1.1	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	<0.390	<0.420	<0.380	<0.400	<0.440
Benzo (a) Pyrene	0.33	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	<0.390	<0.420	<0.380	<0.400	<0.440
Chrysene	0.4	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	0.058J	<0.420	0.049J	<0.400	<0.440
Bis (2-Ethylhexyl) Phthalate	50	0.090JB	0.280JB	0.100JB	0.120JB	0.160JB	<0.370	0.040J	0.170JB	0.160JB	0.080JB	0.140JB
Dibenzofuran	6.2	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	<0.390	<0.420	<0.380	<0.400	<0.440
Diethylphthalate	7.1	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	<0.390	<0.420	0.620J	<0.400	<0.440
Di-n-butyl Phthalate	8.1	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	<0.390	<0.420	<0.380	<0.400	<0.440
Di-n-octyl phthalate	120	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	<0.390	<0.420	<0.380	<0.400	<0.440
Fluoranthene	50	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	0.079J	0.021J	0.071J	<0.400	<0.440
Fluorene	50	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	0.190J	0.120J	0.250J	<0.400	<0.440
Indeno(1,2,3-cd)pyrene	3.2	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	<0.370	<0.420	<0.380	<0.400	<0.440
2-Methylnaphthalene	36.4	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	<0.390	<0.420	2.6	<0.400	<0.440
Naphthalene	13	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	0.068J	<0.420	0.190J	<0.400	<0.440
Pentachlorophenol	1	<1.00	<0.94	<1.00	1.3	0.700J	6.1J	0.610J	0.410J	2.6	<0.990	0.370J
Phenanthrene	50	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	1.1	0.6	1.2	<0.400	<0.440
Pyrene	50	<0.420	<0.380	<0.400	<0.510	<0.410	<0.370	0.420J	0.800J	0.340J	<0.400	<0.440
Total SVOC		0.090JB	0.280JB	100JB	1.420JB	0.860JB	6.1J	2.507J	2.091J	8.031JB	0.080JB	0.510JB

Notes:

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SVOC, VOC, Pesticide Data Qualifiers:

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Table 4
Test Pit Soil Analytical Results
Remedial Investigation
Camp Summit

Metals (mg/kg)	TAGM (4046) or SiteBackground Average		STP-1	STP-2	STP-3	STP-4	STP-5	STP-6	STP-7	STP-8	STP-9	STP-10	STP-11	STP-12
Aluminum	NV	18866.6	16,300 E	-	16,900	-	14,900 E	-	22,000 E	-	21,200 E	18,000	12,400 E	-
Antimony	NV	0.283	<0.64	-	0.88 BN	-	<0.67	-	0.81 B	-	<0.62	1.5 BN	<0.55	-
Arsenic	7.5	9.1	5.9	-	9.4	-	8.3	-	6.6	-	7.2	7.9	11.3	-
Barium	300	54.6	44.7	-	57.1	-	37	-	106	-	54	33.3	21.7	-
Benilium	0.16	0.54	0.77	-	0.63 B	-	0.54 B	-	1.1	-	0.7	0.88	0.48 B	-
Cadmium	1	0.15	0.34 B	-	0.06 B	-	0.09 B	-	0.34 B	-	0.09 B	<0.04	<0.03	-
Calcium	NV	110.6	1600 E	-	1450	-	359 BE	-	1020 E	-	280 BE	1130	260 BE	-
Chromium	10	19.06	20	-	17.7	-	19.3	-	22.5	-	23	24.3	16.5	-
Cobalt	30	9.33	15.6	-	12.5	-	12.1	-	14	-	17.5	16.2	10.4	-
Copper	0.25	10.76	12.4	-	9.8	-	8.9	-	16.7	-	13.6	23.8	8.7	-
Iron	2000	30633.3	27,800 E	-	26,000	-	26,400 E	-	27,400 E	-	27,900 E	40,100	26,900 E	-
Lead	NV	17.86	23.5 E	-	21.7 *	-	16.5 E	-	27.3 E	-	20.4 E	37.8 *	15.8 E	-
Magnesium	NV	2300	3,780 E	-	2,360	-	3,410 E	-	3,310 E	-	3160 E	5250	3410 E	-
Manganese	NV	929	453 E	-	527	-	761 E	-	2,640 E	-	660 E	396	340 E	-
Nickel	13	14.9	26.2 E	-	17	-	23.9 E	-	31.3 E	-	24.3 E	34.8	23.3 E	-
Potassium	NV	561	911	-	770 E	-	824	-	1,060	-	903	1,210 E	659	-
Selenium	2	1.5	1.6	-	1.8	-	1.3	-	1.5	-	1.8	2.2	1.1	-
Silver	NV	0.0	0.27 B	-	<0.12	-	<0.12	-	<0.13	-	<0.11	<0.11	0.058	-
Mercury	0.1	0.045	0.038 B	-	0.035 B*	-	0.068	-	0.020 B	-	<0.048	0.042 B*	<0.10	-
Sodium	NP	0.047	122 B	-	141 B	-	241 B	-	90.6 B	-	114 B	88.1 B	70.7 B	-
Thallium	NV	6.3	5.3	-	0.91 B	-	5.6	-	5	-	4.2	<0.61	5	-
Vanadium	150	27.16	20.3	-	24	-	20	-	23.3	-	25.1	20.3	15.7	-
Zinc	20	67.36	86.3 E	-	72.9	-	68.1 E	-	128 E	-	92.0 E	105	52.9 E	-
Total Metals			51229.2	-	48,394.73	-	47,116.70	-	56,845.07	-	54,500.89	66,482.122	44,222.64	-

Notes:

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Bold Text=Analyte detected above laboratory method detection limit

Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives

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Metal Data Qualifiers:

All results in mg/kg or parts per million

D=Result obtained from dilution

B=Indicates a value greater than or equal to the instrument detection limit but less than the quantitation limit

NV=Indicates TAGM recommended soil clean-up objective is site background

Metals SCGs used for comparison were either TAGM 4046 or Site Background average, which ever is higher

Bold Text=SCG used for Regulatory Comparison

The SCG for Cadmium (10 ppm) and Chromium (50 ppm) are generally accepted clean-up levels

The SCG for Lead (400 ppm) was adopted from the EPA

Table 4
Test Pit Soil Analytical Results
Remedial Investigation
Camp Summit

Metals (mg/kg)	TAGM (4046) or SiteBackground Average		STP-13	STP-14	STP-15	STP-16	STP-17	STP-18	STP-19	STP-20	STP-21	STP-22	STP-23	STP-24
Aluminum	NV	18866.6	15,300 E	-	18,600 E	-	14,800 E	-	15,800 E	19200 E	-	-	19,200	-
Antimony	NV	0.283	0.95 B	-	0.76 B	-	<0.70	-	0.83 B	<0.75	-	-	0.95 BN	-
Arsenic	7.5	9.1	12.6	-	12.7	-	8.1	-	6.3	6.9	-	-	8.2	-
Barium	300	54.6	39.5	-	65.9	-	59.5	-	32.2	63.8	-	-	43.3	-
Berillium	0.16	0.54	0.7	-	0.68	-	0.63 B	-	0.69	0.74	-	-	0.66	-
Cadmium	1	0.15	0.03 B	-	0.12 B	-	0.17 B	-	0.08 B	0.16 B	-	-	<0.04	-
Calcium	NV	110.6	1,430 E	-	505 BE	-	977 E	-	1,100 E	929 E	-	-	284 B	-
Chromium	10	19.06	21.4	-	20.5	-	16.5	-	21	21.8	-	-	21.1	-
Cobalt	30	9.33	15.6	-	16.1	-	13	-	12.8	17	-	-	12.9	-
Copper	0.25	10.76	20.5	-	12.3	-	12.3	-	16.4	13.4	-	-	10.2	-
Iron	2000	30633.3	32,500 E	-	29,200 E	-	28,200 E	-	33,400 E	30,900 E	-	-	31,500	-
Lead	NV	17.86	23.9 E	-	25.5 E	-	25.2 E	-	26.0 E	26.5 E	-	-	15.8 *	-
Magnesium	NV	2300	4,550 E	-	3,000 E	-	2,390 E	-	4,450 E	3,570 E	-	-	3190	-
Manganese	NV	929	710 E	-	1,010 E	-	603 E	-	566 E	582 E	-	-	561	-
Nickel	13	14.9	33.9 E	-	22.6 E	-	18.7 E	-	29.6 E	25.5 E	-	-	25	-
Potassium	NV	561	990	-	881	-	919	-	842	881	-	-	825 E	-
Selenium	2	1.5	1.1	-	1.6	-	1.5	-	1.4	1.9	-	-	1.8	-
Silver	NV	0.0	0.030 B	-	<0.12	-	<0.12	-	<0.10	<0.13	-	-	<0.12	-
Mercury	0.1	0.045	<0.10	-	0.062 B	-	0.020 B	-	<0.11	0.043 B	-	-	<0.034 B*	-
Sodium	NP	0.047	61.3 B	-	93.5 B	-	271	-	65.6 B	223 B	-	-	44.5 B	-
Thallium	NV	6.3	4.3	-	6	-	5.7	-	5.6	5	-	-	1.8	-
Vanadium	150	27.16	18.6	-	25.2	-	22.6	-	18.2	25.2	-	-	22.6	-
Zinc	20	67.36	79.2 E	-	80.3 E	-	92.7 E	-	243 E	154 E	-	-	86.6	-
Total Metals			55,813.61	-	53,580.38	-	48,436.62	-	56,637.70	56,646.94	-	-	55,855.41	-

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Remedial Investigation
Camp Summit

Metals (mg/kg)	TAGM (4046) or Site Background Average		STP-25	STP-26	STP-27	STP-28	STP-29	STP-30	TP-1	TP-2	TP-3	TP-4	TP-5	TP-6
Aluminum	NV	18866.6	16,800	16,600	17,500	-	-	-	25,800 E	-	-	-	-	-
Antimony	NV	0.283	1.3 BN	1.3 BN	0.94 BN	-	-	-	3.7 B	-	-	-	-	-
Arsenic	7.5	9.1	13.9	10	9.7	-	-	-	28.6	-	-	-	-	-
Barium	300	54.6	53.9	56.8	74.6	-	-	-	67.6 E	-	-	-	-	-
Berillium	0.16	0.54	0.75	0.71	0.59 B	-	-	-	1.1	-	-	-	-	-
Cadmium	1	0.15	0.07 B	0.12 B	0.04 B	-	-	-	-	-	-	-	-	-
Calcium	NV	110.6	2,930	4,900	489	-	-	-	228 B	-	-	-	-	-
Chromium	10	19.06	21.4	20.3	18	-	-	-	37.2 E	-	-	-	-	-
Cobalt	30	9.33	15.8	14.6	11.3	-	-	-	107 E	-	-	-	-	-
Copper	0.25	10.76	17.9	19.7	9.1	-	-	-	29.2 E	-	-	-	-	-
Iron	2000	30633.3	34,100	34,600	29,900	-	-	-	124,000	-	-	-	-	-
Lead	NV	17.86	28.2 *	26.4 *	21.8 *	-	-	-	173 E	-	-	-	-	-
Magnesium	NV	2300	4,180	3,980	2,190	-	-	-	1,100 E	-	-	-	-	-
Manganese	NV	929	1,160	1,160	812	-	-	-	20,000E	-	-	-	-	-
Nickel	13	14.9	39.7	27.7	15	-	-	-	8.7	-	-	-	-	-
Potassium	NV	561	973 E	1,180 E	786 E	-	-	-	708 B	-	-	-	-	-
Selenium	2	1.5	1.6	2.2	1.7	-	-	-	8.4	-	-	-	-	-
Silver	NV	0.0	<0.12	<0.12	<0.12	-	-	-	0.398	-	-	-	-	-
Mercury	0.1	0.045	0.040 B*	0.037 B*	0.034 B*	-	-	-	<0.16	-	-	-	-	-
Sodium	NP	0.047	371 B	386 B	326 B	-	-	-	50.7 B	-	-	-	-	-
Thallium	NV	6.3	<0.69	<0.67	2.9	-	-	-	0.94	-	-	-	-	-
Vanadium	150	27.16	20.9	22.8	26.9	-	-	-	97.9 E	-	-	-	-	-
Zinc	20	67.36	97.1	89.3	73	-	-	-	116 E	-	-	-	-	-
Total Metals			60,826.56	63,098.3	52,268.604	-	-	-	171,858.44	-	-	-	-	-

Notes:

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Aluminum	NV	18866.6	-	-	-	-	-	-	-	-	-	14,800 E	-	-
Antimony	NV	0.283	-	-	-	-	-	-	-	-	-	1.7 BN	-	-
Arsenic	7.5	9.1	-	-	-	-	-	-	-	-	-	14.3	-	-
Barium	300	54.6	-	-	-	-	-	-	-	-	-	31.7	-	-
Berillium	0.16	0.54	-	-	-	-	-	-	-	-	-	0.64	-	-
Cadmium	1	0.15	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	NV	110.6	-	-	-	-	-	-	-	-	-	340 B	-	-
Chromium	10	19.06	-	-	-	-	-	-	-	-	-	20.8 E	-	-
Cobalt	30	9.33	-	-	-	-	-	-	-	-	-	12.6 E	-	-
Copper	0.25	10.76	-	-	-	-	-	-	-	-	-	125 E*	-	-
Iron	2000	30633.3	-	-	-	-	-	-	-	-	-	31,600 E	-	-
Lead	NV	17.86	-	-	-	-	-	-	-	-	-	19.2 E	-	-
Magnesium	NV	2300	-	-	-	-	-	-	-	-	-	4,390 E	-	-
Manganese	NV	929	-	-	-	-	-	-	-	-	-	505 E	-	-
Nickel	13	14.9	-	-	-	-	-	-	-	-	-	30.8 E	-	-
Potassium	NV	561	-	-	-	-	-	-	-	-	-	883	-	-
Selenium	2	1.5	-	-	-	-	-	-	-	-	-	1.5 *	-	-
Silver	NV	0.0	-	-	-	-	-	-	-	-	-	<0.11	-	-
Mercury	0.1	0.045	-	-	-	-	-	-	-	-	-	0.017 B	-	-
Sodium	NP	0.047	-	-	-	-	-	-	-	-	-	34.3 B	-	-
Thallium	NV	6.3	-	-	-	-	-	-	-	-	-	<0.61	-	-
Vanadium	150	27.16	-	-	-	-	-	-	-	-	-	18.2 E	-	-
Zinc	20	67.36	-	-	-	-	-	-	-	-	-	64.8 E	-	-
Total Metals			-	-	-	-	-	-	-	-	-	52,893.55	-	-

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Metals (mg/kg)	TAGM (4046) or SiteBackground Average	TP-19	TP-20	TP-21	TP-22	TP-23	TP-24	TP-25	TP-26	TP-27	TP-28	TP-29	TP-30
Aluminum	NV 18866.6	-	-	-	-	-	-	-	-	-	-	-	-
Antimony	NV 0.283	-	-	-	-	-	-	-	-	-	-	-	-
Arsenic	7.5 9.1	-	-	-	-	-	-	-	-	-	-	-	-
Barium	300 54.6	-	-	-	-	-	-	-	-	-	-	-	-
Berillium	0.16 0.54	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium	1 0.15	-	-	-	-	-	-	-	-	-	-	-	-
Calcium	NV 110.6	-	-	-	-	-	-	-	-	-	-	-	-
Chromium	10 19.06	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	30 9.33	-	-	-	-	-	-	-	-	-	-	-	-
Copper	0.25 10.76	-	-	-	-	-	-	-	-	-	-	-	-
Iron	2000 30633.3	-	-	-	-	-	-	-	-	-	-	-	-
Lead	NV 17.86	-	-	-	-	-	-	-	-	-	-	-	-
Magnesium	NV 2300	-	-	-	-	-	-	-	-	-	-	-	-
Manganese	NV 929	-	-	-	-	-	-	-	-	-	-	-	-
Nickel	13 14.9	-	-	-	-	-	-	-	-	-	-	-	-
Potassium	NV 561	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	2 1.5	-	-	-	-	-	-	-	-	-	-	-	-
Silver	NV 0.0	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	0.1 0.045	-	-	-	-	-	-	-	-	-	-	-	-
Sodium	NP 0.047	-	-	-	-	-	-	-	-	-	-	-	-
Thallium	NV 6.3	-	-	-	-	-	-	-	-	-	-	-	-
Vanadium	150 27.16	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	20 67.36	-	-	-	-	-	-	-	-	-	-	-	-
Total Metals		-	-	-	-	-	-	-	-	-	-	-	-

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Aluminum	NV 18866.6	-	-	-	-	-	-	-	19,900	16,900	18,400	16,400	16,700N
Antimony	NV 0.283	-	-	-	-	-	-	-	<0.33	<0.32	0.45	<0.31N	<0.27N
Arsenic	7.5 9.1	-	-	-	-	-	-	-	8.2	10.5	19.6	10.7*	10.6*
Barium	300 54.6	-	-	-	-	-	-	-	68.6	47.0	48.9	36.2*	33.8
Berillium	0.16 0.54	-	-	-	-	-	-	-	0.86	0.86	1.2	0.72	0.59
Cadmium	1 0.15	-	-	-	-	-	-	-	0.13	<0.04	0.13	0.17*	0.34*
Calcium	NV 110.6	-	-	-	-	-	-	-	860	471	650	469*	202
Chromium	10 19.06	-	-	-	-	-	-	-	21.8	23.2	23.6	22.4	22.4
Cobalt	30 9.33	-	-	-	-	-	-	-	14.4	15.1	17.8	14.1	11.2
Copper	0.25 10.76	-	-	-	-	-	-	-	40.4	18.2	26.6	17.7	16.1
Iron	2000 30633.3	-	-	-	-	-	-	-	28,200	33,500	48,400	32500N	33100N
Lead	NV 17.86	-	-	-	-	-	-	-	22.9	20.2	88.2	19.4	14.1
Magnesium	NV 2300	-	-	-	-	-	-	-	3,060	4,810	4,300	4,900	4,660
Manganese	NV 929	-	-	-	-	-	-	-	792	819	1,330	554N	389N*
Nickel	13 14.9	-	-	-	-	-	-	-	22.1	37.0	38.2	33.9	29.4
Potassium	NV 561	-	-	-	-	-	-	-	13,200	1,330	1,310	1,110	1150E
Selenium	2 1.5	-	-	-	-	-	-	-	0.36	<0.32	<0.33	<0.31	0.33*
Silver	NV 0.0	-	-	-	-	-	-	-	<0.09	<0.09	<0.09	<0.08	<0.08
Mercury	0.1 0.045	-	-	-	-	-	-	-	0.08	0.04	0.06	0.04	0.07
Sodium	NP 0.047	-	-	-	-	-	-	-	57.8	59.2	54.9	54.7	47.4
Thallium	NV 6.3	-	-	-	-	-	-	-	<0.63	<0.61	<0.62	<0.58	0.54
Vanadium	150 27.16	-	-	-	-	-	-	-	27.9	19.3	22.0	18.7	21.7
Zinc	20 67.36	-	-	-	-	-	-	-	87.2	76.9	271	73.7	64.4
Total Metals		-	-	-	-	-	-	-	66,385	58,158	75,003	56,235N*	39774N*E

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Aluminum	NV	18866.6	17200N	15500N	17,500N	22,300N	15,700	14900N	11300N	17400N	15400N	17700N	16300N
Antimony	NV	0.283	<0.34N	<0.32N	<0.34N	<0.39N	<0.21N	<0.32N	<0.24N	<0.32N	<0.32N	<0.34N	<0.36N
Arsenic	7.5	9.1	11.3*	14.2*	10.3*	11.6*	9.9*	11.3*	8.5*	10.9*	12.7*	10.4*	12*
Barium	300	54.6	42.6	37.4	41.0	58.6	37.9	49.2*	31*	49.7	33.1	55.9	48.4
Berillium	0.16	0.54	0.54	0.58	0.55	0.88	0.58	0.76	0.55	0.74	0.55	0.63	0.52
Cadmium	1	0.15	0.39*	0.36*	0.33*	0.34*	0.25*	0.11*	0.09*	0.35*	0.39*	0.38*	0.36*
Calcium	NV	110.6	204	234	138	409	355	1570*	1230*	712	347	412	484
Chromium	10	19.06	20.3	20.7	20.3	26.1	22.2	21.3	16.6	22.4	21.3	21.3	19.6
Cobalt	30	9.33	13	13.8	10.9	16.6	13.4	13.1	10.7	15.9	13.5	12.9	12.6
Copper	0.25	10.76	13.2	18.9	11.8	14.0	14.8	20.7	15.1	20.5	17.9	14.6	61.3
Iron	2000	30633.3	30500N	32000N	28900N	34200N	28600N	31900N	24300N	32500N	31600N	29800N	27900N
Lead	NV	17.86	18.2	18.4	14.2	22.1	14.8	21.3	12.0	24.2	18.6	18.6	20.7
Magnesium	NV	2300	3,660	4,160	3,650	4360N	4,570	4,510	3,570	4,480	4,390	3,930	3,360
Manganese	NV	929	649N*	700N*	463N*	2550N*	580N*	847N	748N	855N*	875N*	950N*	964N*
Nickel	13	14.9	23.7	28.3	24.9	31.4	31.8	35.6	28.5	33.8	29.2	25.8	21.8
Potassium	NV	561	1150E	1,220E	1160E	1410E	1010E	1,230	892	1320E	1110E	1430E	1130E
Selenium	2	1.5	0.53*	0.55*	0.53*	0.65	0.5*	<0.32	<0.24	0.38*	<0.32	0.49*	0.79*
Silver	NV	0.0	0.14	<0.09	<0.09	0.11	<0.06	<0.09	<0.07	<0.09	<0.09	0.15	0.11
Mercury	0.1	0.045	0.09	0.07	0.1	0.18	0.07	0.03	0.05	0.08	0.04	0.09	0.1
Sodium	NP	0.047	87.9	42.3	42.7	54.6	41.9	57	50.4	80.0	220	50.2	42.9
Thallium	NV	6.3	<0.64	<0.61	0.65	<0.74	0.66	<0.60	<0.46	0.62	<0.60	<0.65	<0.68
Vanadium	150	27.16	23.6	20.4	22.1	27.7	19.7	18.9	14.5	22.9	20.5	23.1	22.1
Zinc	20	67.36	67.3	66.7	72.8	105	64.5	79.6	58.5	81.4	68.2	70.3	64.3
Total Metals			53,686N*	52,877N*	34,584N*	43,299N*	51,088N*	55,286N*	42,286N*	57,631N*	54,178N*	54,527N*	50,466N*

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Remedial Investigation
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Dioxins (ng/g)	TEFs	STP-1	STP-2	STP-3	STP-4	STP-5	STP-6	STP-7	STP-8	STP-9	STP-10	STP-11	STP-12
Total TCDF	NP	<0.065	<0.068	<0.072	-	<0.065	-	<0.084	-	<0.080	<0.072	<0.068	-
Total PeCDF	NP	<0.073	<0.061	<0.12	-	<0.089	-	<0.061	-	<0.082	<0.094	<0.056	-
Total HxCDF	NP	<0.093	<0.016	<0.066	-	<0.021	-	<0.20	-	<0.027	<0.11	<0.037	-
Total HpCDF	NP	<0.33	<0.029	<0.21	-	<0.034	-	1.5	-	<0.031	<0.13	<0.14	-
Total TCDD	NP	<0.035	<0.044	<0.32	-	<0.048	-	<0.024	-	<0.058	<0.027	<0.040	-
Total PeCDD	NP	<0.17	<0.14	<0.18	-	<0.13	-	<0.097	-	<0.16	<0.14	<0.11	-
Total HxCDD	NP	<0.083	<0.031	<0.13	-	<0.033	-	<0.14	-	<0.051	<0.27	<0.031	-
Total HpCDD	NP	<0.49	<0.042	<0.48	-	<0.053	-	2.8	-	<0.027	<0.12	<0.11	-
2,3,7,8-TCDD	1	<0.035	<0.044	<0.032	-	<0.048	-	<0.024	-	<0.058	<0.027	<0.040	-
1,2,3,7,8-PeCDD	0.5	<0.17	<0.14	<0.18	-	<0.13	-	<0.097	-	<0.16	<0.14	<0.11	-
1,2,3,4,7,8-HxCDD	0.1	<0.088	<0.033	<0.14	-	<0.035	-	<0.15	-	<0.054	<0.28	<0.033	-
1,2,3,6,7,8-HxCDD	0.1	<0.094	<0.035	<0.15	-	<0.037	-	<0.16	-	<0.057	<0.30	<0.035	-
1,2,3,7,8,9-HxCDD	0.1	<0.083	<0.031	<0.13	-	<0.033	-	<0.14	-	<0.051	<0.27	<0.031	-
1,2,3,4,6,7,8-HpCDD	0.01	<0.49	<0.042	<0.48	-	<0.053	-	0.91 J	-	<0.027	<0.12	<0.11	-
OCDD	0.0001	3.6 J	<0.37	3.6	-	<0.25	-	12	-	<0.054	1	<0.56	-
2,3,7,8-TCDF	0.1	<0.065	<0.068	<0.072	-	<0.065	-	<0.084	-	<0.080	<0.072	<0.068	-
1,2,3,7,8-PeCDF	0.05	<0.077	<0.065	<0.13	-	<0.095	-	<0.065	-	<0.087	<0.10	<0.059	-
2,3,4,7,8-PeCDF	0.5	<0.073	<0.061	<0.12	-	<0.089	-	<0.061	-	<0.082	<0.094	<0.056	-
1,2,3,4,7,8-HxCDF	0.1	<0.093	<0.016	<0.066	-	<0.021	-	<0.073	-	<0.027	<0.11	<0.037	-
1,2,3,6,7,8-HxCDF	0.1	<0.095	<0.017	<0.067	-	<0.021	-	<0.074	-	<0.027	<0.12	<0.037	-
2,3,4,6,7,8-HxCDF	0.1	<0.10	<0.018	<0.071	-	<0.023	-	<0.078	-	<0.029	<0.12	<0.040	-
1,2,3,7,8,9-HxCDF	0.1	<0.10	<0.018	<0.072	-	<0.023	-	<0.079	-	<0.029	<0.12	<0.040	-
1,2,3,4,6,7,8-HpCDF	0.01	<0.091	<0.029	<0.19	-	<0.034	-	<0.34	-	<0.031	<0.13	<0.14	-
1,2,3,4,7,8,9-HpCDF	0.01	<0.031	<0.033	<0.21	-	<0.038	-	<0.043	-	<0.035	<0.15	<0.16	-
OCDF	0.0001	<0.36	<0.036	<0.28	-	<0.042	-	2.4 J	-	<0.040	<0.24	<0.19	-
2,3,7,8-TCDD Equivalence	1	0.00036 J	BDL	0.00036	-	BDL	-	0.01054 J	-	BDL	0.0001 J	BDL	-

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Table 4
Test Pit Soil Analytical Results
Remedial Investigation
Camp Summit

Dioxins (ng/g)	TEFs	STP-13	STP-14	STP-15	STP-16	STP-17	STP-18	STP-19	STP-20	STP-21	STP-22	STP-23	STP-24
Total TCDF	NP	<0.048	-	<0.079	-	<0.067	-	<0.086	<0.089	-	-	<0.065	-
Total PeCDF	NP	<0.078	-	<0.087	-	<0.20	-	<1.4	<0.14	-	-	<0.094	-
Total HxCDF	NP	<0.22	-	1.7	-	5.3	-	23	<0.45	-	-	<0.37	-
Total HpCDF	NP	<0.19	-	13	-	34	-	100	3.3	-	-	<0.040	-
Total TCDD	NP	<0.030	-	<0.045	-	<0.035	-	<0.035	<0.050	-	-	<0.037	-
Total PeCDD	NP	<0.19	-	<0.15	-	<0.41	-	<0.26	<0.19	-	-	<0.20	-
Total HxCDD	NP	<0.19	-	<0.40	-	8.4	-	10	<0.24	-	-	<0.63	-
Total HpCDD	NP	<0.21	-	17	-	140	-	160	5.9	-	-	<0.054	-
2,3,7,8-TCDD	1	<0.030	-	<0.045	-	<0.035	-	<0.035	<0.050	-	-	<0.037	-
1,2,3,7,8-PeCDD	0.5	<0.19	-	<0.15	-	<0.41	-	<0.26	<0.19	-	-	<0.20	-
1,2,3,4,7,8-HxCDD	0.1	<0.12	-	<0.10	-	<0.50	-	<0.29	<0.15	-	-	<0.092	-
1,2,3,6,7,8-HxCDD	0.1	<0.12	-	<0.40	-	2.4	-	3.9	<0.21	-	-	<0.098	-
1,2,3,7,8,9-HxCDD	0.1	<0.11	-	<0.098	-	0.97 J	-	0.71 J	<0.12	-	-	<0.087	-
1,2,3,4,6,7,8-HpCDD	0.01	<0.21	-	12	-	91 E	-	110 E	3.9	-	-	<0.054	-
OCDD	0.0001	1.4 J	-	80 E	-	630 E	-	480 E	21	-	-	<0.29	-
2,3,7,8-TCDF	0.1	<0.048	-	<0.079	-	<0.067	-	<0.086	<0.089	-	-	<0.065	-
1,2,3,7,8-PeCDF	0.05	<0.083	-	<0.092	-	<0.21	-	<0.21	<0.15	-	-	<0.10	-
2,3,4,7,8-PeCDF	0.5	<0.078	-	<0.087	-	<0.20	-	<0.12	<0.14	-	-	<0.094	-
1,2,3,4,7,8-HxCDF	0.1	<0.061	-	<0.097	-	<0.13	-	0.70 J	<0.13	-	-	<0.096	-
1,2,3,6,7,8-HxCDF	0.1	<0.062	-	<0.098	-	<0.20	-	<0.33	<0.13	-	-	<0.098	-
2,3,4,6,7,8-HxCDF	0.1	<0.065	-	<0.10	-	<0.21	-	<0.24	<0.14	-	-	<0.10	-
1,2,3,7,8,9-HxCDF	0.1	<0.066	-	<0.11	-	<0.21	-	<0.16	<0.14	-	-	<0.10	-
1,2,3,4,6,7,8-HpCDF	0.01	<0.060	-	2.4	-	7.2	-	20	0.88 J	-	-	<0.040	-
1,2,3,4,7,8,9-HpCDF	0.01	<0.030	-	<0.21	-	<0.53	-	0.83 J	<0.12	-	-	<0.046	-
OCDF	0.0001	<0.17	-	16	-	41	-	96	3.0 J	-	-	<0.097	-
2,3,7,8-TCDD Equivalence	1	0.00014 J	-	0.1536 E	-	1.3861 JE	-	1.8969 JE	0.0502 J	-	-	BDL	-

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Remedial Investigation
Camp Summit

Dioxins (ng/g)	TEFs	STP-25	STP-26	STP-27	STP-28	STP-29	STP-30	TP-1	TP-2	TP-3	TP-4	TP-5	TP-6
Total TCDF	NP	<0.069	<0.068	<0.088	-	-	-	0.03	-	0.018	-	-	-
Total PeCDF	NP	<0.16	<0.095	<0.16	-	-	-	0.32	-	0.26	-	-	-
Total HxCDF	NP	<0.44	<0.28	<0.10	-	-	-	27	-	5.1	-	-	-
Total HpCDF	NP	<0.60	<0.23	<0.086	-	-	-	290	-	30	-	-	-
Total TCDD	NP	<0.031	<0.0049	<0.45	-	-	-	0.2	-	0.039	-	-	-
Total PeCDD	NP	<0.38	<0.32	<0.32	-	-	-	0.27	-	0.5	-	-	-
Total HxCDD	NP	<0.59	<0.31	<0.31	-	-	-	22	-	9.3	-	-	-
Total HpCDD	NP	2.3	<0.16	<0.19	-	-	-	790	-	110	-	-	-
2,3,7,8-TCDD	1	<0.031	<0.0049	<0.045	-	-	-	0.2 J	-	0.0091	-	-	-
1,2,3,7,8-PeCDD	0.5	<0.15	<0.027	<0.32	-	-	-	0.17	-	0.19	-	-	-
1,2,3,4,7,8-HxCDD	0.1	<0.29	<0.099	<0.32	-	-	-	0.42	-	0.56	-	-	-
1,2,3,6,7,8-HxCDD	0.1	<0.31	<0.11	<0.34	-	-	-	9	-	2.3	-	-	-
1,2,3,7,8,9-HxCDD	0.1	<0.27	<0.094	<0.31	-	-	-	1.2	-	1.7	-	-	-
1,2,3,4,6,7,8-HpCDD	0.01	1.4 J	<0.16	<0.19	-	-	-	480 D	-	64 E	-	-	-
OCDD	0.0001	9.1	<1.0	<0.53	-	-	-	5400 D	-	430 E	-	-	-
2,3,7,8-TCDF	0.1	<0.069	<0.068	<0.088	-	-	-	<0.01	-	<0.0025	-	-	-
1,2,3,7,8-PeCDF	0.05	<0.17	<0.10	<0.17	-	-	-	<0.014	-	<0.0073	-	-	-
2,3,4,7,8-PeCDF	0.5	<0.16	<0.095	<0.16	-	-	-	<0.014	-	<0.0093	-	-	-
1,2,3,4,7,8-HxCDF	0.1	<0.25	<0.11	<0.16	-	-	-	0.5	-	0.12	-	-	-
1,2,3,6,7,8-HxCDF	0.1	<0.25	<0.11	<0.10	-	-	-	0.18	-	0.096	-	-	-
2,3,4,6,7,8-HxCDF	0.1	<0.27	<0.12	<0.11	-	-	-	0.13 J	-	0.1	-	-	-
1,2,3,7,8,9-HxCDF	0.1	<0.30	<0.12	<0.11	-	-	-	<0.029	-	<0.011	-	-	-
1,2,3,4,6,7,8-HpCDF	0.01	<0.059	<0.23	<0.086	-	-	-	57	-	7.5	-	-	-
1,2,3,4,7,8,9-HpCDF	0.01	<0.60	<0.26	<0.098	-	-	-	2.7	-	0.39	-	-	-
OCDF	0.0001	<0.81	<0.15	<0.16	-	-	-	450 D	-	28 E	-	-	-
2,3,7,8-TCDD Equivalence	1	0.01491 J	BDL	BDL	-	-	-	7.41 DJ	-	1.3564 JE	-	-	-

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Test Pit Soil Analytical Results
Remedial Investigation
Camp Summit

Dioxins (ng/g)	TEFs	TP-7	TP-8	TP-9	TP-10	TP-11	TP-12	TP-13	TP-14	TP-15	TP-16	TP-17	TP-18
Total TCDF	NP	<0.0004	0.044	<0.000058	-	-	-	-	0.0095	-	<0.00042	-	<0.094
Total PeCDF	NP	<0.0013	0.7	<0.00036	-	-	-	-	0.035	-	0.0093	-	<0.25
Total HxCDF	NP	0.042	5.6	0.0051	-	-	-	-	0.39	-	0.13	-	<0.54
Total HpCDF	NP	<0.00045	22	0.049	-	-	-	-	1.9	-	0.64	-	1.7
Total TCDD	NP	0.014	0.0021	<0.000057	-	-	-	-	0.0036	-	0.00095	-	<0.067
Total PeCDD	NP	0.3	0.08	<0.00026	-	-	-	-	0.027	-	<0.0025	-	<0.33
Total HxCDD	NP	0.12	2	0.0024	-	-	-	-	0.32	-	0.1	-	<0.4
Total HpCDD	NP	<0.0002	19	0.085	-	-	-	-	3.4	-	1.5	-	4.2
2,3,7,8-TCDD	1	<0.0002	<0.0009	<0.000057	-	-	-	-	0.0017	-	<0.00019	-	<0.067
1,2,3,7,8-PeCDD	0.5	<0.00045	0.032	<0.00013	-	-	-	-	0.015	-	<0.0025	-	<0.33
1,2,3,4,7,8-HxCDD	0.1	<0.0013	0.087	<0.00025	-	-	-	-	0.021	-	0.0046 J	-	<0.42
1,2,3,6,7,8-HxCDD	0.1	0.0071	0.66	<0.002	-	-	-	-	0.09	-	0.031	-	<0.45
1,2,3,7,8,9-HxCDD	0.1	<0.0025	0.25	<0.0011	-	-	-	-	0.046	-	0.013	-	<0.4
1,2,3,4,6,7,8-HpCDD	0.01	0.2 D	14 E	0.057	-	-	-	-	2.1	-	0.86	-	2.8
OCDD	0.0001	1.0 D	72 E	0.33	-	-	-	-	12 E	-	7.5	-	15
2,3,7,8-TCDF	0.1	<0.0004	0.011 CON	<0.000054	-	-	-	-	0.00095 JCON	-	<0.00026	-	<0.094
1,2,3,7,8-PeCDF	0.05	<0.00088	0.057	<0.000087	-	-	-	-	<0.0023	-	<0.0013	-	<0.27
2,3,4,7,8-PeCDF	0.5	<0.00031	0.039	<0.000087	-	-	-	-	<0.0019	-	<0.0008	-	<0.25
1,2,3,4,7,8-HxCDF	0.1	<0.0017	0.19	<0.00031	-	-	-	-	0.016	-	0.0061	-	<0.13
1,2,3,6,7,8-HxCDF	0.1	<0.00061	0.1	<0.00022	-	-	-	-	0.012	-	0.0038 J	-	<0.13
2,3,4,6,7,8-HxCDF	0.1	<0.001	0.075	<0.00027	-	-	-	-	0.008	-	<0.0024	-	<0.14
1,2,3,7,8,9-HxCDF	0.1	<0.00046	0.015	<0.00028	-	-	-	-	<0.0011	-	<0.00062	-	<0.14
1,2,3,4,6,7,8-HpCDF	0.01	0.032	3.7	0.1	-	-	-	-	0.6	-	0.15	-	<0.58
1,2,3,4,7,8,9-HpCDF	0.01	<0.0026	0.4	<0.00088	-	-	-	-	0.03	-	0.0089	-	<0.1
OCDF	0.0001	0.15 D	12 E	0.047	-	-	-	-	2.4	-	0.77	-	<0.14
2,3,7,8-TCDD Equivalence	1	0.003145 D	0.36655 E	0.001608	-	-	-	-	0.057335 EJ	-	0.016866 DJ	-	0.0295 J

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Remedial Investigation
Camp Summit

Dioxins (ng/g)	TEFs	TP-19	TP-20	TP-21	TP-22	TP-23	TP-24	TP-25	TP-26	TP-27	TP-28	TP-29	TP-30
Total TCDF	NP	<0.077	-	0.089	-	-	<0.10	-	<0.083	<0.078	<0.064	-	-
Total PeCDF	NP	<0.12	-	<0.22	-	-	<0.15	-	0.14	<0.10	<0.10	-	-
Total HxCDF	NP	<0.066	-	<0.62	-	-	<0.074	-	1.1	<0.044	<0.034	-	-
Total HpCDF	NP	<0.033	-	2.2	-	-	<0.10	-	9.8	<0.036	<0.043	-	-
Total TCDD	NP	<0.036	-	<0.051	-	-	<0.071	-	<0.057	<0.049	<0.036	-	-
Total PeCDD	NP	<0.17	-	<0.38	-	-	<0.75	-	<0.25	<0.074	<0.15	-	-
Total HxCDD	NP	<0.19	-	<0.41	-	-	<0.19	-	<0.61	<0.080	<0.080	-	-
Total HpCDD	NP	<0.097	-	6.4	-	-	<0.37	-	16	<0.074	<0.11	-	-
2,3,7,8-TCDD	1	<0.036	-	<0.051	-	-	<0.071	-	<0.057	<0.049	<0.036	-	-
1,2,3,7,8-PeCDD	0.5	<0.17	-	<0.38	-	-	<0.75	-	<0.25	<0.13	<0.15	-	-
1,2,3,4,7,8-HxCDD	0.1	<0.21	-	<0.43	-	-	<0.2	-	<0.071	<0.085	<0.063	-	-
1,2,3,6,7,8-HxCDD	0.1	<0.22	-	<0.46	-	-	<0.22	-	<0.40	<0.090	<0.068	-	-
1,2,3,7,8,9-HxCDD	0.1	<0.19	-	<0.41	-	-	<0.19	-	<0.11	<0.080	<0.060	-	-
1,2,3,4,6,7,8-HpCDD	0.01	<0.097	-	4	-	-	<0.37	-	11	<0.074	<0.11	-	-
OCDD	0.0001	<0.43	-	31	-	-	1.3 J	-	59	<0.24	<0.55	-	-
2,3,7,8-TCDF	0.1	<0.077	-	<0.089	-	-	<0.10	-	<0.083	<0.078	<0.064	-	-
1,2,3,7,8-PeCDF	0.05	<0.12	-	<0.23	-	-	<0.16	-	<0.15	<0.11	<0.11	-	-
2,3,4,7,8-PeCDF	0.5	<0.12	-	<0.22	-	-	<0.15	-	<0.14	<0.10	<0.10	-	-
1,2,3,4,7,8-HxCDF	0.1	<0.066	-	<0.096	-	-	<0.074	-	<0.073	<0.044	<0.034	-	-
1,2,3,6,7,8-HxCDF	0.1	<0.067	-	<0.098	-	-	<0.075	-	<0.075	<0.044	<0.034	-	-
2,3,4,6,7,8-HxCDF	0.1	<0.071	-	<0.10	-	-	<0.080	-	<0.079	<0.047	<0.036	-	-
1,2,3,7,8,9-HxCDF	0.1	<0.072	-	<0.10	-	-	<0.081	-	<0.080	<0.048	<0.036	-	-
1,2,3,4,6,7,8-HpCDF	0.01	<0.033	-	<0.10	-	-	<0.10	-	1.6 J	<0.036	<0.043	-	-
1,2,3,4,7,8,9-HpCDF	0.01	<0.038	-	<0.80	-	-	<0.12	-	<0.15	<0.042	<0.049	-	-
OCDF	0.0001	<0.072	-	2.5 J	-	-	<0.37	-	10	<0.10	<0.087	-	-
2,3,7,8-TCDD Equivalence	1	BDL	-	0.04335 J	-	-	0.00013 J	-	0.1329 J	BDL	BDL	-	-

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Dioxins (ng/g)	TEFs	TP-31	TP-32	TP-33	TP-34	TP-35	TP-36	TP-37	TP03-1	TP03-2	TP03-3	TP03-4	TP03-5W
Total TCDF	NP	-	<0.021	<0.072	-	-	-	-	<0.03	<0.02	<0.01	<0.02	<0.02
Total PeCDF	NP	-	<0.076	<0.11	-	-	-	-	<0.04	<0.05	<0.02	<0.03	<0.03
Total HxCDF	NP	-	1.4	5.1	-	-	-	-	<0.05	<0.03	0.16J	<0.05	<0.03
Total HpCDF	NP	-	14	48	-	-	-	-	<0.10	1.1	1.2	0.23J	<0.03
Total TCDD	NP	-	<0.029	<0.041	-	-	-	-	<0.04	<0.03	<0.02	<0.03	<0.03
Total PeCDD	NP	-	<0.12	<0.12	-	-	-	-	<0.05	<0.04	<0.03	<0.04	<0.04
Total HxCDD	NP	-	<0.48	3.1	-	-	-	-	<0.04	<0.17	<0.02	<0.06	<0.03
Total HpCDD	NP	-	26	87	-	-	-	-	<0.04	3.5	3.0	0.68J	<0.03
2,3,7,8-TCDD	1	-	<0.029	<0.041	-	-	-	-	<0.04	<0.03	<0.02	<0.03	<0.03
1,2,3,7,8-PeCDD	0.5	-	<0.12	<0.12	-	-	-	-	<0.05	<0.04	<0.03	<0.04	<0.04
1,2,3,4,7,8-HxCDD	0.1	-	<0.090	<0.036	-	-	-	-	<0.04	<0.17	<0.02	<0.06	<0.03
1,2,3,6,7,8-HxCDD	0.1	-	<0.48	1.7	-	-	-	-	<0.03	<0.14	<0.02	<0.05	<0.02
1,2,3,7,8,9-HxCDD	0.1	-	<0.041	<0.098	-	-	-	-	<0.03	<0.14	<0.02	<0.05	<0.02
1,2,3,4,6,7,8-HpCDD	0.01	-	17	29	-	-	-	-	<0.04	2.2	1.9	0.46J	<0.03
OCDD	0.0001	-	5.5	430 E	-	-	-	-	0.35J	15	9.9	2.8	0.07J
2,3,7,8-TCDF	0.1	-	<0.021	<0.072	-	-	-	-	<0.03	<0.02	<0.01	<0.02	<0.02
1,2,3,7,8-PeCDF	0.05	-	<0.081	<0.11	-	-	-	-	<0.04	<0.05	<0.02	<0.03	<0.03
2,3,4,7,8-PeCDF	0.5	-	<0.076	<0.11	-	-	-	-	<0.04	<0.04	<0.02	<0.03	<0.03
1,2,3,4,7,8-HxCDF	0.1	-	<0.061	<1.0	-	-	-	-	<0.05	<0.02	<0.02	<0.04	<0.02
1,2,3,6,7,8-HxCDF	0.1	-	<0.062	<1.1	-	-	-	-	<0.04	<0.02	<0.02	<0.04	<0.02
2,3,4,6,7,8-HxCDF	0.1	-	<0.065	<1.1	-	-	-	-	<0.05	<0.02	<0.02	<0.04	<0.02
1,2,3,7,8,9-HxCDF	0.1	-	<0.066	<1.1	-	-	-	-	<0.05	<0.03	<0.02	<0.05	<0.03
1,2,3,4,6,7,8-HpCDF	0.01	-	2.3	8	-	-	-	-	<0.08	0.21J	0.18J	0.06JS	<0.03
1,2,3,4,7,8,9-HpCDF	0.01	-	<0.074	<0.34	-	-	-	-	<0.10	0.91	1.0	<0.04	<0.03
OCDF	0.0001	-	17	57	-	-	-	-	0.15	1.3	0.88	0.24J	<0.02
2,3,7,8-TCDD Equivalence	1	-	0.19525 D	0.5887 DJ	-	-	-	-	0.00005	0.02573	0.031878	0.005504	0.000007

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives

BDL= Below Laboratory Method Detection Limit

ND= Non-Detect

NP = Not Promulgated

Dioxin Data Qualifiers:

All results in ng/kg or parts per trillion

J=Estimated result, result is less than the reporting limit

E=Estimated result, result exceeds calibration range

CON=Confirmation analysis

Table 4
Test Pit Soil Analytical Results
Remedial Investigation
Camp Summit

Dioxins (ng/g)	TEFs	TP03-5E	TP03-6NE	TP03-6SW	TP03-7W	TP03-8	TP03-9N	TP03-9S	TP03-10W	TP03-10E	TP03-11W	TP03-11E
Total TCDF	NP	<0.04	<0.02	<0.03	<0.04	<0.020	<0.02	0.6J	<0.01	<0.01	<0.02	0.07J
Total PeCDF	NP	<0.07	<0.03	<0.07	<0.07	<0.04	<0.04	1.2J	0.44J	0.44J	<0.03	<0.08
Total HxCDF	NP	<0.04	<0.02	<0.02	<0.03	1.6	<0.02	32	6.8	11	<0.02	3.4
Total HpCDF	NP	<0.04	<0.03	<0.03	<0.05	6.0	0.47J	96	23	36	<0.03	33
Total TCDD	NP	<0.04	<0.02	<0.03	<0.04	<0.03	<0.03	<0.02	<0.02	<0.02	<0.03	<0.03
Total PeCDD	NP	<0.06	<0.03	<0.05	<0.05	<0.04	<0.04	<0.03	<0.03	<0.02	<0.04	<0.05
Total HxCDD	NP	<0.08	<0.06	<0.03	<0.04	0.79J	<0.05	5.6	1.7J	1.7	<0.05	3.1
Total HpCDD	NP	<0.06	<0.09	<0.03	<0.05	11	0.72J	115	30	40	<0.08	90
2,3,7,8-TCDD	1	<0.04	<0.02	<0.03	<0.04	<0.03	<0.03	<0.02	<0.02	<0.02	<0.03	<0.03
1,2,3,7,8-PeCDD	0.5	<0.06	<0.03	<0.05	<0.05	<0.04	<0.04	<0.03	<0.03	<0.02	<0.04	<0.05
1,2,3,4,7,8-HxCDD	0.1	<0.08	<0.06	<0.03	<0.04	<0.04	<0.05	<0.07	<0.04	<0.04	<0.05	0.26J
1,2,3,6,7,8-HxCDD	0.1	<0.06	<0.05	<0.03	<0.03	0.21J	<0.04	2.2	0.61J	0.67	<0.04	0.75
1,2,3,7,8,9-HxCDD	0.1	<0.06	<0.05	<0.03	<0.03	0.12J	<0.04	0.36J	0.14J	0.1J	<0.04	0.41J
1,2,3,4,6,7,8-HpCDD	0.01	<0.06	<0.09	<0.03	<0.05	7.2	0.48J	80	20	27	<0.08	53
OCDD	0.0001	0.14J	0.19J	0.10J	0.34J	29	3.1	457	118	140	0.3J	650
2,3,7,8-TCDF	0.1	<0.04	<0.02	<0.03	<0.04	<0.02	<0.02	0.6J	<0.01	<0.01	<0.02	<0.03
1,2,3,7,8-PeCDF	0.05	<0.07	<0.03	<0.07	<0.07	<0.04	<0.04	0.25J	0.06J	0.07J	<0.03	<0.08
2,3,4,7,8-PeCDF	0.5	<0.07	<0.03	<0.06	<0.07	<0.04	<0.04	0.12J	0.04J	0.06J	<0.02	<0.08
1,2,3,4,7,8-HxCDF	0.1	<0.04	<0.02	<0.02	<0.03	0.05J	<0.02	1.2	0.22J	0.4J	<0.02	0.09J
1,2,3,6,7,8-HxCDF	0.1	<0.03	<0.01	<0.02	<0.03	<0.02	<0.02	0.32J	0.06J	<0.03	<0.02	<0.03
2,3,4,6,7,8-HxCDF	0.1	<0.04	<0.02	<0.02	<0.03	<0.03	<0.02	0.82	0.13J	0.3J	<0.02	<0.03
1,2,3,7,8,9-HxCDF	0.1	<0.04	<0.02	<0.02	<0.03	<0.03	<0.02	1.2	0.13J	0.32J	<0.02	<0.03
1,2,3,4,6,7,8-HpCDF	0.01	<0.03	<0.02	<0.03	<0.04	1.5	0.08J	14	4.2	4.5	<0.02	6.7
1,2,3,4,7,8,9-HpCDF	0.01	<0.04	<0.03	<0.03	<0.05	0.04J	<0.03	1.5	0.22J	0.48J	<0.03	0.19J
OCDF	0.0001	<0.03	<0.08	<0.05	<0.02	5.4	45J	51	19	18	<0.2	41
2,3,7,8-TCDD Equivalence	1	0.000014	0.000019	0.00001	0.000034	0.12884	0.00741	1.7483	0.4099	0.5481	0.00003	0.819

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives

BDL= Below Laboratory Method Detection Limit

ND= Non-Detect

NP = Not Promulgated

Dioxin Data Qualifiers:

All results in ng/kg or parts per trillion

J=Estimated result, result is less than the reporting limit

E=Estimated result, result exceeds calibration range

CON=Confirmation analysis

Table 5
Soil Boring and Monitoring Well Soil Analytical Results
Camp Summit

Analyte (units)		Preliminary Investigation														
VOCs (mg/kg)	TAGM	B1-1	B1-5	B2-3	B3-1	B4-2	B4-3	B5-2	B5-3	B6-1	B6-4	B7-1	B7-3	B7-4	B8-3	
Acetone	0.2	-	-	-	-	-	0.084	-	-	ND	-	0.054 J	-	-	-	
2-Butanone	0.3	-	-	-	-	-	0.023	-	-	ND	-	ND	-	-	-	
Chloroform	0.3	-	-	-	-	-	ND	-	-	ND	-	ND	-	-	-	
Toluene	1.5	-	-	-	-	-	0.003 J	-	-	ND	-	ND	-	-	-	
Ethylbenzene	5.5	-	-	-	-	-	0.004 J	-	-	ND	-	ND	-	-	-	
Xylenes (total)	1.2	-	-	-	-	-	0.011 J	-	-	ND	-	ND	-	-	-	
Total VOCs		-	-	-	-	-	0.125	-	-	ND	-	0.054	-	-	-	

Pesticides and PCBs															
Analysis Results (ug/kg)	TAGM	B1-1	B1-5	B2-3	B3-1	B4-2	B4-3	B5-2	B5-3	B6-1	B6-4	B7-1	B7-3	B7-4	B8-3
4,4'-DDD	2900	-	-	-	-	-	ND	-	-	23	-	410	-	-	-
4,4'-DDT	2100	-	-	-	-	-	ND	-	-	39	-	3000	-	-	-
Total Pest. & PCB		-	-	-	-	-	ND	-	-	62	-	3410	-	-	-

SVOC/PAH (mg/kg)	TAGM	B1-1	B1-5	B2-3	B3-1	B4-2	B4-3	B5-2	B5-3	B6-1	B6-4	B7-1	B7-3	B7-4	B8-3
Acenaphthene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	8.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a) anthracene	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (k) fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (b) fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (a) pyrene	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(ghi) perylene	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis (2-Ethylhexyl) Phthalate	50	0.062 JB	0.076 JB	0.2 JB	0.072 JB	0.58 B	0.19 JB	29	ND	4.3 JB	16	ND	ND	12.0 JB	24.0 B
Carbazole	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	7.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9 J	ND
Di-n-butyl Phthalate	8.1	ND	ND	ND	0.046 J	0.048 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	6.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.6 J
Di-n-octyl phthalate	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8000 J
Indeno (1,2,3-cd) pyrene	3.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	36.4	ND	ND	ND	ND	ND	0.55	11.0 J	3.7 J	2.1 J	11.0 J	18.0 JD	15.0 J	4.7 J	63
Naphthalene	13	ND	ND	ND	ND	ND	0.33 J	1.9 J	ND	ND	ND	ND	ND	ND	18
Pentachlorophenol	1 or MDL	0.3 J	1.0 U	1.1 U	0.079 J	1.1 U	1.2 U	35.0 U	4.5 J	87	6.6 J	400 D	820	150 D	420 D
Phenanthrene	50	ND	ND	ND	ND	ND	2.6 J	ND	11.0 J	4.3 J	11.0 JD	ND	2.1J	13	
Pyrene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	0.03 or MDL	0.33 J	ND	0.19 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total SVOCs		0.692	1.076	1.49	0.197	1.728	2.27	79.5	8.2	104.4	37.9	429	835	170.7	8542.6

Notes:
Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

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SVOC & VOC Qualifiers:

All results in mg/kg or parts per million

J=Estimated result, result is less than the reporting limit

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Pesticide & PCB Data Qualifiers

All results in ug/kg or parts per billion

J=Estimated result, result is less than the reporting limit

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Table 5
Soil Boring and Monitoring Well Soil Analytical Results
Camp Summit

Analyte (units)		Preliminary Investigation													
		B9-2	B10-3	B11-1	B11-3	B12	B13	B14	B15	B16-2	B16-3	B17-2	B17-3	B18-3	B19-2
VOCs (mg/kg)	TAGM														
Acetone	0.2	-	0.037	-	0.010 J	ND	-	-	ND	-	-	-	-	0.046 J	-
2-Butanone	0.3	-	0.012 J	-	ND	ND	-	-	ND	-	-	-	-	ND	-
Chloroform	0.3	-	ND	-	ND	ND	-	-	0.002 J	-	-	-	-	ND	-
Toluene	1.5	-	ND	-	ND	ND	-	-	ND	-	-	-	-	ND	-
Ethylbenzene	5.5	-	ND	-	ND	ND	-	-	ND	-	-	-	-	ND	-
Xylenes (total)	1.2	-	0.002 J	-	ND	ND	-	-	ND	-	-	-	-	0.009 J	-
Total VOCs		-	0.051	-	0.1	ND	-	-	0.002	-	-	-	-	0.055	-

Pesticides and PCBs															
Analysis Results (ug/kg)	TAGM	B9-2	B10-3	B11-1	B11-3	B12	B13	B14	B15	B16-2	B16-3	B17-2	B17-3	B18-3	B19-2
4,4'-DDD	2900	-	ND	-	ND	ND	-	-	ND	-	-	-	-	ND	-
4,4'-DDT	2100	-	ND	-	ND	ND	-	-	ND	-	-	-	-	ND	-
Total Pest. & PCB		-	ND	-	ND	ND	-	-	ND	-	-	-	-	ND	-

SVOC/PAH (mg/kg)	TAGM	B9-2	B10-3	B11-1	B11-3	B12	B13	B14	B15	B16-2	B16-3	B17-2	B17-3	B18-3	B19-2
Acenaphthene	50	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2 J	ND
Anthracene	8.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(a) anthracene	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (k) fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (b) fluoranthene	1.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo (a) pyrene	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo(ghi) perylene	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bis (2-Ethylhexyl) Phthalate	50	38.0 B	16.0 B	--	0.042 B	0.089 JB	ND	ND	0.047 JB	ND	0.083 J	0.089 J	ND	1.2 J	ND
Carbazole	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Chrysene	0.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Diethylphthalate	7.1	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl Phthalate	8.1	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	6.2	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluoranthene	50	ND	ND	--	ND	ND	ND	ND	ND	0.11 J	ND	ND	ND	ND	ND
Fluorene	50	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno (1,2,3-cd) pyrene	3.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2-Methylnaphthalene	36.4	ND	7.7 J	--	0.32 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	13	ND	ND	--	0.051 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	1 or MDL	37	32.0 U	--	0.15 J	ND	1.5 U	1.7 U	0.13 J	1.5 U	1.5 U	10	2.5	83	13
Phenanthrene	50	ND	1.5 J	--	ND	ND	ND	ND	ND	0.099 J	ND	ND	ND	3.9 J	ND
Pyrene	50	ND	ND	--	ND	ND	ND	ND	ND	0.079 J	ND	ND	ND	ND	ND
Phenol	0.03 or MDL	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total SVOCs		75	57.2	--	0.563	0.089	1.5	1.7	0.177	1.788	1.583	10.089	2.5	88.1	13

Notes:
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*PCP results from PIR Immunoassay Results

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SVOC & VOC Qualifiers:

All results in mg/kg or parts per million

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< = Analyte was not detected above laboratory method detection limit

Pesticide & PCB Data Qualifiers

All results in ug/kg or parts per billion

J=Estimated result, result is less than the reporting limit

B=Analyte was found in method blank as well as the sample

< = Analyte was not detected above laboratory method detection limit

Table 5
Soil Boring and Monitoring Well Soil Analytical Results
Camp Summit

Analyte (units)			Preliminary Investigation				Remedial Investigation									
	TAGM	B19-3	SB-1 (6-8')	SB-2 (8-10')	SB-3 (6-8')	SB-4 10')	SB-5 (2-4')	SB-6 (6')	SB-7 (3-5')	MW-6 (6-8')	MW-7 4')	MW-8 (4-6')	MW-9 (8-10')	MW-10 (10-12')	MW-11 (2-4')	
VOCs (mg/kg)																
Acetone	0.2	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2-Butanone	0.3	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Chloroform	0.3	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Toluene	1.5	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Ethylbenzene	5.5	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Xylenes (total)	1.2	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Total VOCs	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Pesticides and PCBs				SB-1 (6-8')	SB-2 (8-10')	SB-3 (6-8')	SB-4 10')	SB-5 (2-4')	SB-6 (6')	SB-7 (3-5')	MW-6 (6-8')	MW-7 4')	MW-8 (4-6')	MW-9 (8-10')	MW-10 (10-12')	MW-11 (2-4')
Analysis Results (ug/kg)	TAGM	B19-3														
4,4'-DDD	2900	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	2100	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pest. & PCB	-	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SVOC/PAH (mg/kg)	TAGM	B19-3	SB-1 (6-8')	SB-2 (8-10')	SB-3 (6-8')	SB-4 10')	SB-5 (2-4')	SB-6 (6')	SB-7 (3-5')	MW-6 (6-8')	MW-7 4')	MW-8 (4-6')	MW-9 (8-10')	MW-10 (10-12')	MW-11 (2-4')
Acenaphthene	50	ND	<0.33	<0.33	<0.33	<0.33	<0.33	0.25 J	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Anthracene	8.1	--	<0.33	<0.8	<0.8	<0.33	<0.33	<0.33	<0.33	<0.33	<0.8	<0.33	<0.33	<0.33	<0.33
Benzo(a) anthracene	0.33	--	<0.33	<0.8	<0.8	<0.33	<0.33	<0.33	<0.33	<0.33	<0.8	<0.33	<0.33	<0.33	<0.33
Benzo (k) fluoranthene	1.1	--	<0.33	<0.8	<0.8	<0.33	<0.33	<0.33	<0.33	<0.33	<0.8	<0.33	<0.33	<0.33	<0.33
Benzo (b) fluoranthene	1.1	--	<0.33	<0.8	<0.8	<0.33	<0.33	<0.33	<0.33	<0.33	<0.8	<0.33	<0.33	<0.33	<0.33
Benzo (a) pyrene	0.33	--	<0.33	<0.8	<0.8	<0.33	<0.33	<0.33	<0.33	<0.33	<0.8	<0.33	<0.33	<0.33	<0.33
Benzo(ghi) perylene	50	--	<0.33	<0.8	<0.8	<0.33	<0.33	<0.33	<0.33	<0.33	<0.8	<0.33	<0.33	<0.33	<0.33
Bis (2-Ethylhexyl) Phthalate	50	2700	<0.33	<0.33	0.027 J	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.13 J
Carbazole	NP	--	<0.33	<0.8	<0.8	<0.33	<0.33	<0.33	<0.33	<0.33	<0.8	<0.33	<0.33	<0.33	<0.33
Chrysene	0.4	--	<0.33	<0.8	<0.8	<0.33	<0.33	<0.33	<0.33	<0.33	<0.8	<0.33	<0.33	<0.33	<0.33
Diethylphthalate	7.1	ND	<0.33	<0.8	<0.8	<0.33	<0.33	<0.33	<0.33	<0.33	<0.8	<0.33	<0.33	<0.33	<0.33
Di-n-butyl Phthalate	8.1	ND	<0.33	0.084 BJ	0.12 BJ	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.1 J
Dibenzofuran	6.2	ND	<0.33	0.058 J	0.16 J	<0.33	<0.33	0.19 J	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Di-n-octyl phthalate	50	--	<0.33	0.2 J	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	0.033 J	<0.33	<0.33	<0.33	<0.33
Fluoranthene	50	ND	<0.33	<0.33	0.021 J	<0.33	<0.33	0.024 J	<0.33	<0.33	0.048 J	<0.33	<0.33	<0.33	<0.33
Fluorene	50	ND	<0.33	0.061 J	0.35	<0.33	<0.33	0.41	<0.33	0.061 J	<0.33	<0.33	<0.33	<0.33	<0.33
Indeno (1,2,3-cd) pyrene	3.2	--	<0.33	<0.8	<0.8	<0.33	<0.33	<0.33	<0.33	<0.33	<0.8	<0.33	<0.33	<0.33	<0.33
2-Methylnaphthalene	36.4	ND	<0.33	0.39	1.9	<0.33	<0.33	2.1	<0.33	0.19 J	0.16 J	<0.33	<0.33	<0.33	<0.33
Naphthalene	13	ND	<0.33	0.03J	0.27	<0.33	<0.33	0.25 J	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
Pentachlorophenol	1 or MDL	7.5	0.16 J	9.8 D	9.6 D	<1.6	1.8	<1.6	<1.6	0.024 J	29.0 D	<1.6	<1.6	<1.6	<1.6
Phenanthrene	50	ND	<0.33	0.34	0.88	<0.33	<0.33	1.1	<0.33	0.15 J	0.41	<0.33	<0.33	<0.33	<0.33
Pyrene	50	ND	<0.33	0.043 J	0.055 J	<0.33	<0.33	<0.33	<0.33	<0.33	0.094 J	<0.33	<0.33	<0.33	<0.33
Phenol	0.03 or MDL	ND	-	-	-	-	-	-	-	-	-	-	-	-	-
Total SVOCs		2707.5	0.16 J	11.006 BJ	13.383 BJ	BDL	1.8 J	4.14 J	BDL	0.425 J	27.712 JD	BDL	BDL	BDL	0.23 J

Notes:
Only analytes detected at or above laboratory method detection limits included on tables
*PCP results from PIR Immunoassay Results
Bold Text=Analyte detected above laboratory method detection limit
Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives
BDL= Below Laboratory Method Detection Limit
ND= Non-Detect
NA = compound not analyzed for.
NP = Not Promulgated
SVOC & VOC Qualifiers:
All results in mg/kg or parts per million
J=Estimated result, result is less than the reporting limit
B=Analyte was found in method blank as well as the sample
< = Analyte was not detected above laboratory method detection limit
Pesticide & PCB Data Qualifiers
All results in ug/kg or parts per billion
J=Estimated result, result is less than the reporting limit
B=Analyte was found in method blank as well as the sample
< = Analyte was not detected above laboratory method detection limit

Table 5
Soil Boring and Monitoring Well Soil Analytical Results
Camp Summit

Analyte (units)		Remedial Investigation														
		MW-12 (8-10')	MW-12 (12- 14')	MW-13 (4-6')	MW-13 (8-10')	MW-14 (10-12')	MW-14 (18-20')	SSB03-03 (6- 7')	SSB03-01 (6- 12-13')	SSB03-01 (6- 8')	SSB03-02 (7- 9')	SSB03-05 (2- 4')	SSB03-05 (8- 10')	SSB03-04 (3- 5')	SSB03-04 (11-13')	SSB03-15 (4- 6')
VOCs (mg/kg)	TAGM															
Acetone	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Butanone	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloroform	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	5.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Xylenes (total)	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total VOCs		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Pesticides and PCBs Analysis Results (ug/kg)		MW-12 (8-10')	MW-12 (12- 14')	MW-13 (4-6')	MW-13 (8-10')	MW-14 (10-12')	MW-14 (18-20')	SSB03-03 (6- 7')	SSB03-03 (12-13')	SSB03-01 (6- 8')	SSB03-02 (7- 9')	SSB03-05 (2- 4')	SSB03-05 (8- 10')	SSB03-04 (3- 5')	SSB03-04 (11-13')	SSB03-15 (4- 6')
4,4'-DDD	2900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Pest. & PCB		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

SVOC/PAH (mg/kg)		MW-12 (8-10')	MW-12 (12- 14')	MW-13 (4-6')	MW-13 (8-10')	MW-14 (10-12')	MW-14 (18-20')	SSB03-03 (6- 7')	SSB03-03 (12-13')	SSB03-01 (6- 8')	SSB03-02 (7- 9')	SSB03-05 (2- 4')	SSB03-05 (8- 10')	SSB03-04 (3- 5')	SSB03-04 (11-13')	SSB03-15 (4- 6')
Acenaphthene	50	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	0.25J	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Anthracene	8.1	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	0.12J	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Benzo(a) anthracene	0.33	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	<0.120	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Benzo(k) fluoranthene	1.1	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	<0.120	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Benzo(b) fluoranthene	1.1	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	<0.120	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Benzo(a) pyrene	0.33	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	<0.120	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Benzo(ghi) perylene	50	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	<0.120	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Bis (2-Ethylhexyl) Phthalate	50	0.13J	0.06J	0.091J	0.023J	0.016JB	0.49B	0.047J	0.024J	0.072J	0.053J	0.038J	0.031J	0.033J	0.050J	<0.360
Carbazole	NP	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	<0.120	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Chrysene	0.4	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	<0.120	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Diethylphthalate	7.1	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	<0.120	<0.460	0.022J	<0.380	0.024J	0.032J	<0.360
Di-n-butyl Phthalate	8.1	<0.380	<0.380	<0.410	<0.370	<0.370	0.019J	<0.440	<0.420	<0.120	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Dibenzofuran	6.2	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	0.37J	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Di-n-octyl phthalate	50	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	<0.120	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Fluoranthene	50	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	0.11J	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Fluorene	50	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	0.66J	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Indeno (1,2,3-cd) pyrene	3.2	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	<0.120	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
2-Methylnaphthalene	36.4	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	7	<0.460	<0.420	<0.380	0.054J	<0.380	<0.360
Naphthalene	13	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	0.86J	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Pentachlorophenol	1 or MDL	<0.940	<0.940	<1.0	<0.920	<0.930	<0.940	<1.1	<1.0	0.36	<1.1	<1.0	<0.950	2.9	<0.960	<0.900
Phenanthrene	50	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	2	<0.460	<0.420	<0.380	0.083J	<0.380	<0.360
Pyrene	50	<0.380	<0.380	<0.410	<0.370	<0.370	<0.380	<0.440	<0.420	0.22J	<0.460	<0.420	<0.380	<0.440	<0.380	<0.360
Phenol	0.03 or MDL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total SVOCs		0.13J	0.06J	0.091J	0.023J	0.16JB	0.509JB	0.047J	0.024J	11.522J	0.053J	0.06J	0.031J	3.094J	0.082J	BDL

Notes:
Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives

BDL= Below Laboratory Method Detection Limit

ND= Non-Detect

NA = compound not analyzed for.

NP = Not Promulgated

SVOC & VOC Qualifiers:

All results in mg/kg or parts per million

J=Estimated result, result is less than the reporting limit

B=Analyte was found in method blank as well as the sample

< = Analyte was not detected above laboratory method detection limit

Pesticide & PCB Data Qualifiers

All results in ug/kg or parts per billion

J=Estimated result, result is less than the reporting limit

B=Analyte was found in method blank as well as the sample

< = Analyte was not detected above laboratory method detection limit

Table 5
Soil Boring and Monitoring Well Soil Analytical Results
Camp Summit

Analyte (units)		Preliminary Investigation													
Dioxins (ug/kg)	TEF	B1-1	B1-5	B2-3	B3-1	B4-2	B4-3	B5-2	B5-3	B6-1	B6-4	B7-1	B7-3	B7-4	B8-3
Total TCDF	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDF	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDF	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDF	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDD	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDD	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDD	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDD	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDD	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	0.0001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OCDF	0.0001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD Equivalence	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives

BDL= Below Laboratory Method Detection Limit

ND= Non-Detect

NP = Not Promulgated

Dioxin Data Qualifiers:

All results in ug/kg or parts per billion

J=Estimated result, result is less than the reporting limit

E=Estimated result, result exceeds calibration range

CON=Confirmation analysis

Table 5
Soil Boring and Monitoring Well Soil Analytical Results
Camp Summit

Analyte (units)		Preliminary Investigation													
Dioxins (ug/kg)	TEF	B9-2	B10-3	B11-1	B11-3	B12	B13	B14	B15	B16-2	B16-3	B17-2	B17-3	B18-3	B19-2
Total TCDF	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDF	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDF	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDF	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total TCDD	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total PeCDD	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total HxCDD	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total HpCDD	NP	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDD	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDD	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDD	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDD	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDD	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OCDD	0.0001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDF	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8-PeCDF	0.05	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,7,8-PeCDF	0.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8-HxCDF	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,6,7,8-HxCDF	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,4,6,7,8-HxCDF	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,7,8,9-HxCDF	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,6,7,8-HpCDF	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3,4,7,8,9-HpCDF	0.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--
OCDF	0.0001	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,3,7,8-TCDD Equivalence	1.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives

BDL= Below Laboratory Method Detection Limit

ND= Non-Detect

NP = Not Promulgated

Dioxin Data Qualifiers:

All results in ug/kg or parts per billion

J=Estimated result, result is less than the reporting limit

E=Estimated result, result exceeds calibration range

CON=Confirmation analysis

Table 5
Soil Boring and Monitoring Well Soil Analytical Results
Camp Summit

Analyte (units)		Preliminary Investigation					Remedial Investigation									
Dioxins (ug/kg)	TEF	B19-3	SB-1 (6-8')	SB-2 (8-10')	SB-3 (6-8')	SB-4 (10')	SB-5 (2-4')	SB-6 (6')	SB-7 (3-5')	MW-6 (6-8')	MW-7 (4')	MW-8 (4-6')	MW-9 (8-10')	MW-10 (10-12')	MW-11 (2-4')	
Total TCDF	NP	--	<0.001	<0.0033	0.046	<0.000087	<0.000085	<0.00013	<0.000032	0.0016	0.013	<0.00013	<0.00031	<0.036	<0.22	
Total PeCDF	NP	--	<0.0021	0.072	5.2	<0.00086	<0.000095	<0.000067	0.0048	0.081	<0.00013	0.011	<0.13	<0.073	<0.073	
Total HxCDF	NP	--	0.016	3.4	46	0.011	0.052	<0.00077	<0.00073	1	6.2	<0.0002	1.1	<0.046	<0.11	
Total HpCDF	NP	--	0.23	25	<0.0068	0.074	0.39	0.0049	0.0048	9.1	57	<0.0006	8.2	<0.21	<0.077	
Total TCDD	NP	--	<0.0015	<0.0047	<0.0053	<0.000084	<0.00033	<0.000087	<0.000074	0.0016	0.01	<0.000099	0.00061	<0.046	<0.030	
Total PeCDD	NP	--	<0.003	<0.0097	<0.022	<0.00073	<0.00026	<0.00032	0.0081	0.13	<0.00021	0.0052	<0.18	<0.13	<0.073	
Total HxCDD	NP	--	<0.0097	1.8	3.3	0.0066	0.029	<0.0012	<0.00049	0.66	6.1	<0.00013	0.72	<0.051	<0.043	
Total HpCDD	NP	--	0.46	52	98	0.16	0.6	0.044	0.013	14	150	<0.00078	17	<0.31	<0.10	
2,3,7,8-TCDD	1	--	<0.0015	<0.0047	<0.0053	<0.000066	<0.000083	0.000087	<0.000056	<0.00013	0.0023	<0.000099	0.00061 J	<0.046	<0.030	
1,2,3,7,8-PeCDD	0.5	--	<0.003	<0.0097	<0.012	<0.00022	<0.00019	<0.00026	<0.000057	<0.0004	0.041	<0.00021	0.0052 J	<0.18	<0.13	
1,2,3,4,7,8-HxCDD	0.1	--	<0.0023	<0.012	<0.021	<0.00056	<0.00027	<0.000053	<0.00006	<0.0025	0.12	<0.00012	0.013	<0.054	<0.045	
1,2,3,6,7,8-HxCDD	0.1	--	<0.0097	0.85	1.4	0.0031 J	0.013	<0.00075	<0.00034	0.28	2.3	<0.00013	0.28	<0.058	<0.048	
1,2,3,7,8,9-HxCDD	0.1	--	<0.0023	0.055	0.098	<0.0011	<0.0013	<0.00032	<0.00016	0.016	0.41	<0.00012	0.04	<0.051	<0.043	
1,2,3,4,6,7,8-HpCDD	0.01	--	0.29	34 D	64 D	0.096	0.39	0.025	0.0099	8.9 D	96 ED	<0.00078	11 D	<0.31	<0.10	
OCDD	0.0001	--	3.1	310 D	540 D	0.82	2.7	0.24	0.08	63 D	650 ED	<0.0046	96 DE	0.81 J	0.6	
2,3,7,8-TCDF	0.1	--	<0.001	<0.0033	<0.0055	<0.000087	<0.000085	<0.00013	<0.000026	<0.00037	<0.00075	<0.00013	<0.00031	<0.036	<0.22	
1,2,3,7,8-PeCDF	0.05	--	<0.0016	<0.019	<0.028	<0.00012	<0.00048	<0.000064	<0.000032	<0.0016	<0.004	<0.00013	<0.0014	<0.14	<0.077	
2,3,4,7,8-PeCDF	0.5	--	<0.0016	<0.011	<0.013	<0.00011	<0.0004	<0.000063	<0.000032	<0.0011	<0.0032	<0.00013	<0.001	<0.13	<0.073	
1,2,3,4,7,8-HxCDF	0.1	--	<0.0017	0.098	0.12	<0.00038	<0.0017	<0.000072	<0.00011	0.013	0.11	<0.00013	0.02	<0.046	<0.11	
1,2,3,6,7,8-HxCDF	0.1	--	<0.0016	<0.027	<0.033	<0.00029	<0.00058	<0.000063	<0.000021	0.0034 J	0.035	<0.00011	0.006	<0.047	<0.11	
2,3,4,6,7,8-HxCDF	0.1	--	<0.0017	<0.025	<0.022	<0.00035	<0.00037	<0.000078	<0.000036	<0.0024	0.032	<0.00014	0.0035 J	<0.050	<0.12	
1,2,3,7,8,9-HxCDF	0.1	--	<0.0019	<0.0084	<0.012	<0.00011	<0.00017	<0.000083	<0.000028	<0.0011	<0.0043	<0.00015	<0.0012	<0.050	<0.12	
1,2,3,4,6,7,8-HpCDF	0.01	--	0.038	4.4	8	0.014	0.063	<0.0022	<0.0014	1.3	11 D	<0.00028	1.6	<0.21	<0.077	
1,2,3,4,7,8,9-HpCDF	0.01	--	<0.0033	0.22	0.4	<0.00095	<0.0024	<0.00018	<0.00018	0.062	0.64 D	<0.00015	0.064	<0.24	<0.088	
OCDF	0.0001	--	0.23	32 D	63 D	0.1	0.41	0.0094 J	0.0073 J	11 D	66 D	<0.00073	11 D	<0.36	<0.12	
2,3,7,8-TCDD Equivalence	1.0	--	0.003613	0.5207 D	0.9461 D	0.001502 J	0.006141	0.000275 J	0.000108 J	0.14126 DJ	1.0715 ED	BDL	0.1768 JED	0.000081 J	0.00006	

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Table 5
Soil Boring and Monitoring Well Soil Analytical Results
Camp Summit

Analyte (units)		Remedial Investigation														
Dioxins (ug/kg)	TEF	MW-12 (8-10')	MW-12 (12- 14')	MW-13 (4-6')	MW-13 (8-10')	MW-14 (10-12')	MW-14 (18-20')	SSB03-03 (6- 7')	SSB03-03 (12-13')	SSB03-01 (6- 8')	SSB03-02 (7- 9')	SSB03-05 (2- 4')	SSB03-05 (6- 10')	SSB03-04 (3- 5')	SSB03-04 (11-13')	SSB03-15 (4- 6')
Total TCDF	NP	<0.08	<0.02	<0.03	<0.02	<0.03	<0.03	<0.03	<0.03	<0.02	<0.02	<0.04	<0.02	<0.02	<0.04	<0.02
Total PeCDF	NP	<0.14	<0.08	<0.06	<0.05	<0.08	<0.05	<0.11	<0.04	<0.05	<0.04	<0.10	<0.05	<0.03	<0.08	<0.03
Total HxCDF	NP	<0.21	<0.05	<0.05	<0.05	<0.04	<0.02	<0.04	<0.07	3.0	<0.03	<0.04	<0.09	3.8	<0.04	<0.07
Total HpCDF	NP	<0.45	<0.10	<0.06	<0.08	<0.03	<0.02	<0.05	<0.15	24	<0.05	<0.07	<0.21	34	<0.07	<0.07
Total TCDD	NP	<0.08	<0.03	<0.04	<0.03	<0.03	<0.04	<0.04	<0.04	<0.02	<0.03	<0.05	<0.03	<0.03	<0.04	<0.02
Total PeCDD	NP	<0.01	<0.04	<0.05	<0.04	<0.04	<0.07	<0.07	<0.05	<0.03	<0.05	<0.10	<0.04	<0.04	<0.05	<0.03
Total HxCDD	NP	<0.22	<0.05	<0.05	<0.07	<0.02	<0.02	<0.05	<0.11	1.6	<0.05	<0.06	<0.13	1.4JS	<0.05	<0.07
Total HpCDD	NP	<0.34	<0.05	<0.06	<0.06	<0.02	<0.02	<0.04	<0.08	58	<0.04	<0.09	<0.08	47	0.08JS	<0.06
2,3,7,8-TCDD	1	<0.08	<0.03	<0.04	<0.03	<0.03	<0.04	<0.04	<0.04	<0.02	<0.03	<0.05	<0.03	<0.03	<0.04	<0.02
1,2,3,7,8-PeCDD	0.5	<0.01	<0.04	<0.05	<0.04	<0.04	<0.07	<0.07	<0.05	<0.03	<0.05	<0.10	<0.04	<0.04	<0.05	<0.03
1,2,3,4,7,8-HxCDD	0.1	<0.22	<0.05	<0.05	<0.07	<0.02	<0.02	<0.05	<0.11	<0.06	<0.05	<0.06	<0.13	<0.06	<0.05	<0.07
1,2,3,6,7,8-HxCDD	0.1	<0.17	<0.04	<0.04	<0.05	<0.02	<0.02	<0.04	<0.09	0.66	<0.04	<0.04	<0.11	0.57JS	<0.04	<0.06
1,2,3,7,8,9-HxCDD	0.1	<0.18	<0.04	<0.04	<0.06	<0.02	<0.02	<0.04	<0.10	<0.05	<0.04	<0.05	<0.11	0.04JS	<0.04	<0.06
1,2,3,4,6,7,8-HpCDD	0.01	<0.34	<0.05	<0.06	<0.06	<0.02	<0.02	<0.04	<0.08	38	<0.04	<0.09	<0.08	32	0.08JS	<0.06
OCDD	0.0001	3.4	0.08J	0.23J	<0.02	0.03J	0.08J	0.1JB	0.15JB	214B	0.32JB	0.79JB	0.3JB	135B	0.69JB	<0.14
2,3,7,8-TCDF	0.1	<0.08	<0.02	<0.03	<0.02	<0.03	<0.03	<0.03	<0.03	<0.02	<0.02	<0.04	<0.02	<0.02	<0.04	<0.02
1,2,3,7,8-PeCDF	0.05	<0.14	<0.08	<0.06	<0.05	<0.08	<0.05	<0.11	<0.04	<0.05	<0.04	<0.10	<0.05	<0.03	<0.08	<0.03
2,3,4,7,8-PeCDF	0.5	<0.13	<0.08	<0.06	<0.05	<0.07	<0.05	<0.11	<0.04	<0.05	<0.04	<0.10	<0.05	<0.03	<0.07	<0.02
1,2,3,4,7,8-HxCDF	0.1	<0.19	<0.05	<0.05	<0.05	<0.03	<0.01	<0.03	<0.07	<0.06	<0.03	<0.04	<0.09	<0.06	<0.03	<0.06
1,2,3,6,7,8-HxCDF	0.1	<0.16	<0.04	<0.04	<0.04	<0.03	<0.01	<0.03	<0.06	<0.05	<0.03	<0.04	<0.07	3.2	<0.03	<0.05
2,3,4,6,7,8-HxCDF	0.1	<0.19	<0.05	<0.05	<0.05	<0.03	<0.01	<0.03	<0.07	<0.06	<0.03	<0.04	<0.09	<0.06	<0.04	<0.06
1,2,3,7,8,9-HxCDF	0.1	<0.21	<0.05	<0.05	<0.05	<0.04	<0.02	<0.04	<0.07	<0.07	<0.03	<0.04	<0.09	<0.07	<0.04	<0.07
1,2,3,4,6,7,8-HpCDF	0.01	<0.33	<0.07	<0.04	<0.06	<0.02	<0.01	<0.04	<0.12	3.7	<0.04	<0.06	<0.17	4.1	<0.05	<0.06
1,2,3,4,7,8,9-HpCDF	0.01	<0.45	<0.10	<0.06	<0.08	<0.03	<0.02	<0.05	<0.15	0.16J	<0.05	<0.07	<0.21	<0.10	<0.07	<0.07
OCDF	0.0001	<1.1	<0.02	<0.03	<0.02	<0.01	<0.01	<0.04	<0.03	28	<0.03	<0.06	<0.03	27	<0.04	<0.02
2,3,7,8-TCDD Equivalence	1.0	0.00034	0.000008	0.000023	BDL	0.000003	0.000008	0.00001	0.000015	0.5088	0.000032	0.000079	0.00003	0.7582	0.000869	BDL

Notes:

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*PCP results from PIR Immunoassay Results

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CON=Confirmation analysis

Table 5
Soil Boring and Monitoring Well Soil Analytical Results
Camp Summit

Analyte (units)		Preliminary Investigation													
Metals (mg/kg)	TAGM (4046) or Site Background Average	B1-1	B1-5	B2-3	B3-1	B4-2	B4-3	B5-2	B5-3	B6-1	B6-4	B7-1	B7-3	B7-4	B8-3
Aluminum	NV 18866.6	-	-	-	-	-	20500	-	-	16800	-	15800	-	-	-
Arsenic	7.5 9.1	-	-	-	-	-	9.9	-	-	22.2	-	12.3	-	-	-
Barium	300 54.6	-	-	-	-	-	99.4	-	-	84.5	-	62.9	-	-	-
Beryllium	0.16 0.54	-	-	-	-	-	0.76 B	-	-	0.65 B	-	0.72 B	-	-	-
Cadmium	1 0.15	-	-	-	-	-	0.12 B	-	-	0.10 B	-	ND	-	-	-
Calcium	NV 110.6	-	-	-	-	-	899 B	-	-	1510	-	1810	-	-	-
Chromium	10 19.06	-	-	-	-	-	24	-	-	21.2	-	19.7	-	-	-
Cobalt	30 9.33	-	-	-	-	-	15.5	-	-	16.8	-	14.3	-	-	-
Copper	0.25 10.76	-	-	-	-	-	13.2	-	-	13.8	-	14.1	-	-	-
Iron	2000 30633.3	-	-	-	-	-	31100	-	-	31000	-	27200	-	-	-
Lead	NV 17.86	-	-	-	-	-	21.7	-	-	25.3	-	19.8	-	-	-
Magnesium	NV 2300	-	-	-	-	-	3360	-	-	3230	-	3530	-	-	-
Manganese	NV 929	-	-	-	-	-	2660	-	-	2620	-	861	-	-	-
Mercury	0.1 0.045	-	-	-	-	-	0.11	-	-	0.13	-	0.05 B	-	-	-
Nickel	13 14.9	-	-	-	-	-	27.4	-	-	27	-	27.7	-	-	-
Potassium	NV 561	-	-	-	-	-	555 B	-	-	898 B	-	915 B	-	-	-
Selenium	2 1.5	-	-	-	-	-	0.6 B	-	-	1.1 B	-	0.34 B	-	-	-
Silver	NV 0.0	-	-	-	-	-	ND	-	-	ND	-	ND	-	-	-
Sodium	NV NP	-	-	-	-	-	87.1 B	-	-	76.2 B	-	74.6 B	-	-	-
Vandium	150 27.16	-	-	-	-	-	22.6	-	-	18.9	-	16.7	-	-	-
Zinc	20 67.36	-	-	-	-	-	104	-	-	85.6	-	77.6	-	-	-
Total Metals		-	-	-	-	-	59,500.39	-	-	56,451.48	-	50,456.81	-	-	-

Notes:

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All results in mg/kg or parts per million

D=Result obtained from dilution

B=Indicates a value greater than or equal to the instrument detection limit but less than the quantitation limit

NV=Indicates TAGM recommended soil clean-up objective is site background

Metals SCGs used for comparison were either TAGM 4046 or Site Background average, whichever is higher

Bold Text=SCG used for Regulatory Comparison

The SCG for Cadmium (10 ppm) and Chromium (50 ppm) are generally accepted clean-up levels

The SCG for Lead (400 ppm) was adopted from the EPA

Table 5
Soil Boring and Monitoring Well Soil Analytical Results
Camp Summit

Analyte (units)		Preliminary Investigation													
Metals (mg/kg)	TAGM (4046) or SiteBackground Average	B9-2	B10-3	B11-1	B11-3	B12	B13	B14	B15	B16-2	B16-3	B17-2	B17-3	B18-3	B19-2
Aluminum	NV 18866.6	-	12900	-	17500	17700	-	-	17200	-	-	-	-	14300	-
Arsenic	7.5 9.1	-	8.5	-	13.7	14.9	-	-	ND	-	-	-	-	ND	-
Barium	300 54.6	-	68.4	-	61.2	52.3	-	-	17	-	-	-	-	14.8	-
Beryllium	0.16 0.54	-	0.55 B	-	0.78 B	0.82 B	-	-	30.7 B	-	-	-	-	28.7 B	-
Cadmium	1 0.15	-	0.12 B	-	ND	ND	-	-	0.72 B	-	-	-	-	0.62 B	-
Calcium	NV 110.6	-	1440	-	1400	4630	-	-	276 B	-	-	-	-	254 B	-
Chromium	10 19.06	-	15.5	-	23.2	23.2	-	-	22.9	-	-	-	-	20.1	-
Cobalt	30 9.33	-	12.4	-	17.9	18.8	-	-	17.3	-	-	-	-	20.3	-
Copper	0.25 10.76	-	10.6	-	17.5	19.2	-	-	17.6	-	-	-	-	16.6	-
Iron	2000 30633.3	-	25400	-	30100	36800	-	-	32700	-	-	-	-	29100	-
Lead	NV 17.86	-	20.3	-	20.9	26.1	-	-	21.6	-	-	-	-	19.8	-
Magnesium	NV 2300	-	2550	-	4380	4550	-	-	4240	-	-	-	-	4820	-
Manganese	NV 929	-	2890	-	979	1020	-	-	537	-	-	-	-	789	-
Mercury	0.1 0.045	-	0.07 B	-	ND	0.09 B	-	-	0.06 B	-	-	-	-	ND	-
Nickel	13 14.9	-	21.4	-	34.4	31.5	-	-	32.1	-	-	-	-	33.3	-
Potassium	NV 561	-	828 B	-	1040	851 B	-	-	542 B	-	-	-	-	899 B	-
Selenium	2 1.5	-	0.35 B	-	0.45	0.31 B	-	-	0.4 B	-	-	-	-	ND	-
Silver	NV 0.0	-	ND	-	1.4	ND	-	-	ND	-	-	-	-	ND	-
Sodium	NV NP	-	84.6 B	-	78.8	45.8	-	-	1070	-	-	-	-	113 B	-
Vandium	150 27.16	-	15	-	18.7	18	-	-	16.6	-	-	-	-	13.1	-
Zinc	20 67.36	-	80	-	87	116	-	-	116	-	-	-	-	69.7	-
Total Metals		-	46,345.79	-	55,774.93	65,918.02	-	-	56,857.98	-	-	-	-	50,512.02	-

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Table 5
Soil Boring and Monitoring Well Soil Analytical Results
Camp Summit

Analyte (units)			Preliminary Investigation			Remedial Investigation										
Metals (mg/kg)	TAGM (4046) or SiteBackground Average		B19-3	SB-1 (6-8')	SB-2 (8-10')	SB-3 (6-8')	SB-4 10')	SB-5 (2-4')	SB-6 (4)	SB-7 (3-5)	MW-6 (6-8')	MW-7 4)	MW-8 (4-6)	MW-9 (8-10')	MW-10 (10- 12)	MW-11 (2-4)
Aluminum	NV	18866.6	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7.5	9.1	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	300	54.6	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.16	0.54	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1	0.15	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NV	110.6	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	10	19.06	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	30	9.33	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.25	10.76	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	2000	30633.3	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NV	17.86	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NV	2300	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NV	929	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.1	0.045	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	13	14.9	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NV	561	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	2	1.5	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NV	0.0	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NV	NP	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vandium	150	27.16	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	20	67.36	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals			-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

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*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

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BDL= Below Laboratory Method Detection Limit

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Metal Data Qualifiers:

All results in mg/kg or parts per million

D=Result obtained from dilution

B=Indicates a value greater than or equal to the instrument detection limit but less than the quantitation limit

NV=Indicates TAGM recommended soil clean-up objective is site background

Metals SCGs used for comparison were either TAGM 4046 or Site Background average, which ever is higher

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The SCG for Cadmium (10 ppm) and Chromium (50 ppm) are generally accepted clean-up levels

The SCG for Lead (400 ppm) was adopted from the EPA

Table 5
Soil Boring and Monitoring Well Soil Analytical Results
Camp Summit

Analyte (units)		Remedial Investigation														
Metals (mg/kg)	TAGM (4046) or SiteBackground Average	MW-12 (8-10')	MW-12 (12-14')	MW-13 (4-6')	MW-13 (8-10')	MW-14 (10-12')	MW-14 (18-20')	SSB03-03 (6-7')	SSB03-03 (12-13')	SSB03-01 (6-8')	SSB03-02 (7-9')	SSB03-05 (2-4')	SSB03-05 (6-10')	SSB03-04 (3-5')	SSB03-04 (11-13')	SSB03-15 (4-6')
Aluminum	NV 18866.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	7.5 9.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	300 54.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	0.16 0.54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1 0.15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Calcium	NV 110.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	10 19.06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cobalt	30 9.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	0.25 10.76	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Iron	2000 30633.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	NV 17.86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	NV 2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Manganese	NV 929	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	0.1 0.045	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	13 14.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Potassium	NV 561	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	2 1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	NV 0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sodium	NV NP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vandium	150 27.16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	20 67.36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

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Table 6
Groundwater Analytical Results
Camp Summit

Analyte	TOGS														
		Preliminary Investigation				Remedial Investigation 2002									
VOCs (ug/L or ppb)		SMW-2	SMW-3	SMW-4	SMW-5	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
Acetone	50	ND	ND	15	ND	---	---	---	---	---	---	---	---	---	---
Ethylbenzene	5	ND	ND	2 J	ND	---	---	---	---	---	---	---	---	---	---
Xylenes (Total)	5	ND	ND	18	ND	---	---	---	---	---	---	---	---	---	---
Fuel Oil	NP	---	---	---	---	<5000	<5000	24000	<5000	<5000	<5000	<5000	<5000	<5000	<5000
		Preliminary Investigation				Remedial Investigation 2002									
SVOCs (ug/L or ppb)		SMW-2	SMW-3	SMW-4	SMW-5	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
Acenaphthene	20	---	---	---	---	<10	<10	<10	<10	<10	440 B	<10	<10	<10	<10
Bis (2-ethylhexyl) phthalate	5	---	---	---	---	<10	1 J	<10	<10	1 BJ	<10	2 BJ	4 BJ	3 BJ	0.5 BJ
4-Chloro-3-methylphenol	1*	---	---	---	---	<10	<10	<10	<10	<10	450 B	<10	<10	<10	<10
2-Chlorophenol	1*	---	---	---	---	<10	<10	<10	<10	<10	380 B	<10	<10	<10	<10
Dibenzofuran	NP	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Diethylphthalate	50	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Di-n-butylphthalate	50	---	---	---	---	<10	<10	<10	1 J	1 J	<10	0.9 J	<10	<10	<10
2,4-Dichlorophenol	5	---	---	---	---	<10	<10	8 J	<10	<10	<10	<10	<10	<10	<10
2,4-Dinitrotoluene	5	---	---	---	---	<10	<10	<10	<10	<10	460 B	<10	<10	<10	<10
Di-n-octyl phthalate	50	---	---	---	---	<10	<10	<10	<10	0.6 J	<10	0.7 J	<10	1 J	0.5 J
1,4-Dichlorobenzene	3	---	---	---	---	<10	<10	<10	<10	<10	290	<10	<10	<10	<10
Fluorene	50	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Methylnaphthalene	NP	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2-Methylphenol	1*	---	---	---	---	<10	<10	0.7 J	<10	<10	<10	<10	<10	<10	<10
4-Methylphenol	1*	ND	ND	17	ND	<10	<10	8 J	<10	<10	<10	<10	<10	<10	<10
Naphthalene	10	ND	ND	120	ND	<10	<10	110	<10	<10	<10	<10	<10	<10	<10
4-Nitrophenol	1*	---	---	---	---	<50	<50	<50	<50	<50	360	<50	<50	<50	<50
N-Nitroso-Di-n-propylamine	50	---	---	---	---	<10	<10	<10	<10	<10	420 B	<10	<10	<10	<10
Pentachlorophenol	1*	ND	ND	300	ND	<50	<50	190 BD	<50	28 BJ	490 B	0.8 BJ	<50	<50	<50
Phenol	1*	---	---	---	---	<10	<10	1 BJ	<10	<10	290	<10	<10	<10	<10
Phenanthrene	50	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Pyrene	50	---	---	---	---	<10	<10	<10	<10	<10	510 B	<10	<10	<10	<10
1,2,4-Trichlorobenzene	5	---	---	---	---	<10	<10	<10	<10	<10	310 B	<10	<10	<10	<10
2,4,5-Trichlorophenol	1*	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2,3,6-Trichlorophenol	1*	---	---	---	---	<10	<10	2 J	<10	<10	<10	<10	<10	<10	<10
Total SVOCs		BDL	BDL	437	BDL	BDL	1J	319.7 JB	1J	2.6J	4400 B	4.4 BJ	4BJ	4BJ	1 BJ

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Table 6
Groundwater Analytical Results
Camp Summit

Analyte	TOGS													
		Remedial Investigation 2003												
VOCs (ug/L or ppb)		MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14
Acetone	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fuel Oil	NP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		Remedial Investigation 2003												
SVOCs (ug/L or ppb)		MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-14
Acenaphthene	20	<10	<10	<52	<10	0.9J	<100	<10	<10	<30	<10	<10	<10	<10
Bis (2-ethylhexyl) phthalate	5	5J	2J	9J	17	45	9J	27	3JB	6J	140	8JB	23B	13B
4-Chloro-3-methylphenol	1*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	1*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	NP	<10	<10	3J	<10	1J	<100	<10	<10	<10	<30	<10	<10	<10
Diethylphthalate	50	<10	<10	<52	<10	1J	<100	<10	1J	<10	<30	0.9J	<10	0.9J
Di-n-butylphthalate	50	1J	1J	<52	<10	2J	<100	<10	1JB	0.6J	<30	1J	0.8J	0.8J
2,4-Dichlorophenol	5	<10	<10	<52	<10	0.7J	<100	<10	<10	<10	<30	<10	<10	<10
2,4-Dinitrotoluene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50	<10	<10	5J	<10	3J	<100	<10	<10	<10	<30	<10	<10	<10
2-Methylnaphthalene	NP	<10	<10	57	<10	6J	<100	<10	<10	<10	<30	<10	<10	<10
2-Methylphenol	1*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	1*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	<10	<10	42J	<10	6J	<100	<10	<10	<10	<30	<10	<10	<10
4-Nitrophenol	1*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-Di-n-propylamine	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	1*	<25	<26	250	<26	24J	810	<26	0.8J	<25	<76	11J	<26	<26
Phenol	1*	<10	0.8J	<52	1J	1J	<100	0.6J	0.9J	4J	<30	0.7J	<10	1J
Phenanthrene	50	<10	<10	4J	<10	3J	<100	<10	<10	<10	<30	<10	<10	<10
Pyrene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	1*	<25	<26	<130	<26	3J	<250	<26	<26	<25	<76	<26	<26	<26
2,4,6-Trichlorophenol	1*	<10	<10	<52	<10	0.7J	<100	<10	<10	<10	<30	<10	<10	<10
Total SVOCs		6J	3.8 J	314 J	18 J	97.3 J	819 J	27.6 J	6.7 JB	10.6 J	140	21.6 J	23.8	15.7 J

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Table 6
Groundwater Analytical Results
Camp Summit

		Preliminary Investigation				Remedial Investigation 2002										
Metals (mg/L or ppm)	TOGS	SMW-2	SMW-3	SMW-4	SMW-5	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11	
Aluminum	0.1	0.456	0.509	0.698	2.31	-	-	-	-	1.150 N	0.229 N	0.98 N	1.87 N	2.180 N	0.602 N	
Antimony	0.003	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-	
Arsenic	0.025	ND	ND	0.0173	0.0247	-	-	-	-	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	<0.0034	
Barium	1	0.495	0.0381	0.0747	0.0274	-	-	-	-	0.0472 B	0.0773 B	0.0491 B	0.085 B	0.113 B	0.052 B	
Beryllium	0.003	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-	
Cadmium	0.005	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-	
Calcium	NP	58.5	64.3	36.5	36.5	-	-	-	-	51.3	79.5	109	83.2	45.7	38.8	
Chromium	0.05	ND	ND	ND	ND	-	-	-	-	0.0019 B	<0.00008	0.00098 B	0.0022 B	0.0025 B	0.0011 B	
Cobalt	0.005	ND	ND	ND	ND	-	-	-	-	0.0072 B	<0.0007	0.0017 B	0.0022 B	0.0013 B	0.00092 B	
Copper	0.2	ND	ND	ND	ND	-	-	-	-	0.0027 B	0.0010 B	0.0015 B	0.0023 B	0.0021 B	0.0016 B	
Iron	0.3	0.972	1.88	32.7	6.8	-	-	-	-	7.93	0.307	1.53	2.8	1.66	0.737	
Lead	0.025	ND	ND	ND	ND	-	-	-	-	0.0019 B	<0.0018	<0.0018	0.0019 B	<0.0018	<0.0018	
Magnesium	35	9.55	18.4	8.22	13.9	-	-	-	-	12.1	22.6	25.3	23.1	16	13.1	
Manganese	0.3	5.13	14.1	14.8	0.26	-	-	-	-	13.3	0.562	1.07	0.552	0.325	0.274	
Mercury	0.0007	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-	
Nickel	0.1	ND	ND	ND	ND	-	-	-	-	0.0073 B	0.0021 B	0.0032 B	0.0044 B	0.002 B	0.0017 B	
Potassium	NP	3.21	2.35	2.26	6.08	-	-	-	-	2.63 B	4.56 B	2.77 B	5.37	4.26 B	2.79 B	
Selenium	0.01	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-	
Silver	0.05	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	-	
Sodium	20	48.7	19.7	49.4	9.3	-	-	-	-	40	34.8	22.6	49.7	8	10.5	
Thallium	0.0005	ND	ND	ND	0.0118	-	-	-	-	-	-	-	-	-	-	
Vanadium	NP	ND	ND	ND	ND	-	-	-	-	0.0016 B	0.00099 B	0.0015 B	0.0025 B	0.0037 B	0.0011 B	
Zinc	2	0.0206	0.0154	0.0168	0.0198	-	-	-	-	0.0163 B	0.0049 B	0.0136 B	0.0097 B	0.0042 B	0.0055 B	
Total Metals		124.7956	121.2925	144.6868	75.2337	-	-	-	-	128.4798	120.0442	163.3216	166.7022	78.2538	66.8669	

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Camp Summit

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Aluminum	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Antimony	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Beryllium	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Calcium	NP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cobalt	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Iron	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lead	0.025	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Magnesium	35	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	0.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Mercury	0.0007	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nickel	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Potassium	NP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Selenium	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Silver	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Sodium	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.0005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium	NP	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Zinc	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Metals		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

Only analytes detected at or above laboratory method detection limits included on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

Shaded Text=Exceedence of TAGM 4046 soil cleanup objectives

BRL= Below Laboratory Reporting Limit

ND= Non-Detect

NP = Not Promulgated

PW = Production Well

NA = Not Analyzed

Metal Data Qualifiers:

All results in mg/L or parts per million

D=Result obtained from dilution

B=Indicates a value greater than or equal to the instrument detection limit but less than the quantitation limit

NV=Indicates TAGM recommended soil clean-up objective is site background

Metals SCGs used for comparison were either TAGM 4046 or Site Background average, which ever is higher

Bold Text=SCG used for Regulatory Comparison

The SCG for Cadmium (10 ppm) and Chromium (50 ppm) are generally accepted clean-up levels

The SCG for Lead (400 ppm) was adopted from the EPA

Table 6
Groundwater Analytical Results
Camp Summit

Dioxins (ng/L)	TEFs	Preliminary Investigation				Remedial Investigation 2002									
		SMW-2	SMW-3	SMW-4	SMW-5	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9	MW-10	MW-11
Total TCDF	-	---	---	---	---	<0.0019	<0.0021	<0.0017	<0.0018	-	-	-	-	-	-
Total PeCDF	-	---	---	---	---	<0.0040	<0.0053	<0.0039	<0.0036	-	-	-	-	-	-
Total HxCDF	-	---	---	---	---	<0.0040	0.04	0.31	<0.0034	-	-	-	-	-	-
Total HpCDF	-	---	---	---	---	<0.0021	0.32	3.2	<0.0068	-	-	-	-	-	-
Total TCDD	-	---	---	---	---	<0.0024	<0.0029	<0.0024	<0.0029	-	-	-	-	-	-
Total PeCDD	-	---	---	---	---	<0.0048	<0.0058	<0.0050	<0.0061	-	-	-	-	-	-
Total HxCDD	-	---	---	---	---	<0.0040	<0.024	0.25	<0.0048	-	-	-	-	-	-
Total HpCDD	-	---	---	---	---	0.37	0.73	6.6	<0.014	-	-	-	-	-	-
2,3,7,8-TCDD	1	---	---	---	---	<0.0024	<0.0029	<0.0024	<0.0029	-	-	-	-	-	-
1,2,3,7,8-PeCDD	0.5	---	---	---	---	<0.0048	<0.0058	<0.0050	<0.0061	-	-	-	-	-	-
1,2,3,4,7,8-HxCDD	0.1	---	---	---	---	<0.0036	<0.0040	<0.0040	<0.0044	-	-	-	-	-	-
1,2,3,6,7,8-HxCDD	0.1	---	---	---	---	<0.0040	<0.015	0.12	<0.0048	-	-	-	-	-	-
1,2,3,7,8,9-HxCDD	0.1	---	---	---	---	<0.0036	<0.0084	<0.011	<0.0044	-	-	-	-	-	-
1,2,3,4,6,7,8-HpCDD	0.01	---	---	---	---	0.037 J	0.46	4.4	<0.014	-	-	-	-	-	-
OCDD	0.0001	---	---	---	---	0.26	3	35	0.16	-	-	-	-	-	-
2,3,7,8-TCDF	0.1	---	---	---	---	<0.0019	<0.0021	<0.0017	<0.0018	-	-	-	-	-	-
1,2,3,7,8-PeCDF	0.05	---	---	---	---	<0.0030	<0.0033	<0.0033	<0.0036	-	-	-	-	-	-
2,3,4,7,8-PeCDF	0.5	---	---	---	---	<0.0030	<0.0032	<0.0032	<0.0035	-	-	-	-	-	-
1,2,3,4,7,8-HxCDF	0.1	---	---	---	---	<0.0036	<0.0034	<0.0032	<0.0031	-	-	-	-	-	-
1,2,3,6,7,8-HxCDF	0.1	---	---	---	---	<0.0034	<0.0033	<0.0031	<0.0029	-	-	-	-	-	-
2,3,4,6,7,8-HxCDF	0.1	---	---	---	---	<0.0037	<0.0036	<0.0034	<0.0032	-	-	-	-	-	-
1,2,3,7,8,9-HxCDF	0.1	---	---	---	---	<0.0040	<0.0039	<0.0037	<0.0034	-	-	-	-	-	-
1,2,3,4,6,7,8-HpCDF	0.01	---	---	---	---	<0.0067	0.093	0.59	<0.0037	-	-	-	-	-	-
1,2,3,4,7,8,9-HpCDF	0.01	---	---	---	---	<0.0053	<0.0044	<0.027	<0.0044	-	-	-	-	-	-
OCDF	0.0001	---	---	---	---	<0.027	0.032	4	<0.0098	-	-	-	-	-	-
2,3,7,8-TCDD Equivalence (ng/g or ppb)	0.0007	---	---	---	---	0.000396	0.005933	0.065403	0.000016	-	-	-	-	-	-

Notes:

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*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

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Dioxin Data Qualifiers:

All results in ug/kg or parts per billion

J=Estimated result, result is less than the reporting limit

E=Estimated result, result exceeds calibration range

CON=Confirmation analysis

Table 6
Groundwater Analytical Results
Camp Summit

Dioxins (ng/L)	TEFs	Remedial Investigation 2003						
		MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8
Total TCDF	-	NA	NA	NA	NA	NA	NA	NA
Total PeCDF	-	NA	NA	NA	NA	NA	NA	NA
Total HxCDF	-	NA	NA	NA	NA	NA	NA	NA
Total HpCDF	-	NA	NA	NA	NA	NA	NA	NA
Total TCDD	-	NA	NA	NA	NA	NA	NA	NA
Total PeCDD	-	NA	NA	NA	NA	NA	NA	NA
Total HxCDD	-	NA	NA	NA	NA	NA	NA	NA
Total HpCDD	-	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	1	<0.00124	<0.0012	<0.00108	<0.00192	<0.0016	<0.00208	<0.00188
1,2,3,4,7,8-HxCDD	0.5	<0.0026	0.00496 J	<0.00280	<0.00216	<0.0024	<0.00236	<0.0024
1,2,3,4,7,8-HxCDD	0.1	<0.00208	0.0113 J	<0.00396	<0.00164	<0.0044	<0.00104	<0.0016
1,2,3,6,7,8-HxCDD	0.1	<0.0044	0.0249 J	0.394	<0.00196	<0.0111	0.0157 J	<0.0008
1,2,3,7,8,9-HxCDD	0.1	<0.00268	0.0113 J	<0.00944	<0.0008	<0.0028	<0.0016	<0.00296
1,2,3,4,6,7,8-HpCDD	0.01	0.0131 J	0.826	1.63	0.0111 J	0.295	0.91	0.0102 J
OCDD	0.0001	0.0529	4.95	11.4	0.0886	1.72	13.3	0.0536
2,3,7,8-TCDF	0.1	<0.00232	<0.002	<0.00160	<0.0016	<0.0012	<0.0016	<0.00132
1,2,3,7,8-PeCDF	0.05	<0.0016	<0.00144	<0.002	<0.00192	<0.0016	<0.00128	<0.0016
2,3,4,7,8-PeCDF	0.5	<0.00128	<0.0016	<0.0024	<0.00064	<0.00064	<0.00052	<0.0016
1,2,3,4,7,8-HxCDF	0.1	<0.00068	0.0114 J	<0.00098	<0.00116	<0.00264	<0.00424	<0.0008
1,2,3,6,7,8-HxCDF	0.1	<0.0028	0.0374	0.0245 J	<0.00068	<0.00672	<0.0157	<0.00132
2,3,4,6,7,8-HxCDF	0.1	<0.00116	<0.0048	<0.0052	<0.00068	<0.0028	<0.0024	<0.0008
1,2,3,7,8,9-HxCDF	0.1	<0.002	<0.002	<0.0056	<0.0012	<0.0032	<0.001	<0.0008
1,2,3,4,6,7,8-HpCDF	0.01	0.00324 J	0.12	0.187	<0.00248	0.0537	0.0938	<0.00444
1,2,3,4,7,8,9-HpCDF	0.01	<0.0036	0.0115 J	0.0208 J	<0.0048	<0.00472	<0.0072	<0.0052
OCDF	0.0001	0.00708 J	0.481	1.34	0.00948 J	0.195	1.12	<0.003
2,3,7,8-TCDD Equivalence (ng/g or ppb)	0.0007	0.000169	0.01285	0.061502	0.000121	0.003679	0.01305	0.000107

Notes:

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All results in ug/kg or parts per billion

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CON=Confirmation analysis

Table 6
Groundwater Analytical Results
Camp Summit

Dioxins (ng/L)	TEFs						
		MW-9	MW-10	MW-11	MW-12	MW-13	MW-14
Total TCDF	-	NA	NA	NA	NA	NA	NA
Total PeCDF	-	NA	NA	NA	NA	NA	NA
Total HxCDF	-	NA	NA	NA	NA	NA	NA
Total HpCDF	-	NA	NA	NA	NA	NA	NA
Total TCDD	-	NA	NA	NA	NA	NA	NA
Total PeCDD	-	NA	NA	NA	NA	NA	NA
Total HxCDD	-	NA	NA	NA	NA	NA	NA
Total HpCDD	-	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD	1	<0.002	<0.00236	<0.0016	<0.002	<0.00184	<0.0036
1,2,3,4,7,8-HxCDD	0.5	<0.00248	<0.00196	<0.0036	<0.0032	<0.0032	<0.00416
1,2,3,4,7,8-HxCDD	0.1	<0.0016	<0.00204	<0.00052	<0.0036	0.00944 J	<0.00468
1,2,3,6,7,8-HxCDD	0.1	<0.0134	<0.00072	<0.00228	<0.00528	0.0492	<0.00328
1,2,3,7,8,9-HxCDD	0.1	<0.0056	<0.00156	<0.0012	<0.00472	0.0231 J	<0.00384
1,2,3,4,6,7,8-HpCDD	0.01	0.285	<0.0133	0.0157 J	0.0436	2.45	0.0353
OCDD	0.0001	2.51	0.386	0.313	0.537	23.9	0.412
2,3,7,8-TCDF	0.1	<0.00052	<0.00024	<0.0012	<0.002	<0.00208	<0.0016
1,2,3,7,8-PeCDF	0.05	<0.002	<0.0012	<0.0012	<0.00096	<0.0012	<0.00152
2,3,4,7,8-PeCDF	0.5	<0.002	<0.0012	<0.0016	<0.0016	<0.0016	<0.00112
1,2,3,4,7,8-HxCDF	0.1	<0.00172	<0.0008	<0.00108	<0.0016	<0.00088	<0.00108
1,2,3,6,7,8-HxCDF	0.1	<0.00164	<0.00056	<0.00152	<0.00344	0.0369	<0.00140
2,3,4,6,7,8-HxCDF	0.1	<0.0024	<0.00064	<0.00104	<0.00168	<0.0032	<0.002
1,2,3,7,8,9-HxCDF	0.1	<0.00172	<0.0014	<0.00104	<0.0016	<0.0036	<0.0024
1,2,3,4,6,7,8-HpCDF	0.01	0.0312	<0.00264	<0.00476	<0.0121	0.241	<0.00532
1,2,3,4,7,8,9-HpCDF	0.01	<0.00504	<0.001	<0.0036	<0.004	0.0199 J	<0.0052
OCDF	0.0001	0.218	0.012 J	<0.00988	0.0213 J	1.86	<0.0151
2,3,7,8-TCDD Equivalence (ng/g or ppb)	0.0007	0.003435	0.000040	0.000188	0.000492	0.041549	0.000394

Notes:

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Dioxin Data Qualifiers:

All results in ug/kg or parts per billion

J=Estimated result, result is less than the reporting limit

E=Estimated result, result exceeds calibration range

CON=Confirmation analysis

Table 7
Biota Analytical Results
Camp Summit

Sample Location		2PC-1	2PC-2	2PC-3	2PC-4	2PC-5	2PC-6	2PC-7	2PC-8	2PC-9	2PC-10	2PC-11	3PC-1
Sample Species		Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout
Individual Fish/Composite		Individual	Individual	Composite	Composite	Composite	Composite	Composite	Composite	Composite	Composite	Composite	Individual
Number of Fish in Composite		NA	NA	2	2	4	4	4	4	4	4	3	NA
Sample Length (mm)		199	179	324	302	530	561	520	541	514	482	278	162
Sample Weight (g)		54	46	60	48	66	74	60	68	59	49	17	52
Analyte													
Dioxins (pg/g or ppt)	TEFs	2PC-1	2PC-2	2PC-3	2PC-4	2PC-5	2PC-6	2PC-7	2PC-8	2PC-9	2PC-10	2PC-11	3PC-1
Total TCDF	-	<1.9	<0.99	<0.72	<0.88	<0.29	<1.0	1.2	<1.2	<0.23	<0.26	<0.52	<1.1
Total PeCDF	-	<1.4	<1.3	<1.2	<1.2	<0.17	<1.2	<1.2	<0.30	<0.18	<0.10	<0.26	<0.23
Total HxCDF	-	<1.6	<1.4	<1.3	<1.4	<0.21	<1.5	<1.0	<0.27	<0.44	<0.13	<0.32	<0.22
Total HpCDF	-	<0.73	<0.59	<0.62	<0.71	<0.26	<0.94	<0.68	<0.20	<0.17	<0.10	<0.11	<0.070
Total TCDD	-	<0.66	<0.67	<0.89	<0.64	<0.17	<0.58	<0.70	<0.12	<0.084	<0.10	<0.08	<0.10
Total PeCDD	-	<2.4	<1.7	<2.2	<2	<0.36	<2.2	<2.2	<0.20	<0.15	<0.25	<0.13	<0.20
Total HxCDD	-	<1.5	<1.6	<1.5	<1.4	<0.29	<1.5	<1.4	<0.25	<0.22	<0.26	<0.38	<0.086
Total HpCDD	-	<1.5	<1.7	<1.1	<0.98	<0.85	<1.0	<1.6	13	<0.52	<0.61	<0.84	<1.3
2,3,7,8-TCDD	1	<0.66	<0.67	<0.89	<0.64	<0.17	<0.58	<0.70	<0.12	<0.084	<0.10	<0.08	<0.10
1,2,3,7,8-PeCDD	0.5	<2.4	<1.7	<2.2	<2.0	<0.36	<2.2	<2.2	<0.20	<0.15	<0.17	<0.13	<0.14
1,2,3,4,7,8-HxCDD	0.1	<1.4	<1.5	<1.3	<1.3	<0.091	<1.4	<1.2	<0.081	<0.07	<0.072	<0.071	<0.08
1,2,3,6,7,8-HxCDD	0.1	<1.5	<1.6	<1.5	<1.4	<0.29	<1.5	<1.4	<0.25	<0.22	<0.26	<0.38	<0.086
1,2,3,7,8,9-HxCDD	0.1	<1.3	<1.5	<1.3	<1.2	<0.10	<1.4	<1.2	<0.082	<0.11	<0.070	<0.10	<0.078
1,2,3,4,6,7,8-HpCDD	0.01	<1.5	<1.7	<1.1	<0.98	<0.85	<1.0	<1.6	8.4	<0.52	<0.61	<0.84	<1.3
OCDD	0.0001	9 J	<4.1	6.3 J	8.2 J	7.3 J	5.3 J	9.4 J	47	5.9 J	<3.8	<4.2	8.6 J
2,3,7,8-TCDF	0.1	<0.74	0.58 J	<0.72	<0.88	<0.29	<0.85	<0.91	<0.31	<0.23	<0.26	<0.35	<0.14
1,2,3,7,8-PeCDF	0.05	<1.4	<1.3	<1.2	<1.2	<0.17	<1.2	<1.2	<0.14	<0.093	<0.079	<0.10	<0.11
2,3,4,7,8-PeCDF	0.5	<1.3	<1.3	<1.1	<1.2	<0.17	<1.2	<1.2	<0.14	<0.093	<0.10	<0.10	<0.11
1,2,3,4,7,8-HxCDF	0.1	<1.4	<1.3	<1.2	<1.2	<0.0084	<1.3	<0.89	<0.071	<0.075	<0.13	<0.08	<0.046
1,2,3,6,7,8-HxCDF	0.1	<1.3	<1.2	<1.1	<1.2	<0.079	<1.2	<0.84	<0.054	<0.083	<0.068	<0.082	<0.040
1,2,3,7,8,9-HxCDF	0.1	<1.4	<1.3	<1.2	<1.3	<0.089	<1.4	<0.92	<0.060	<0.073	<0.076	<0.055	<0.049
2,3,4,6,7,8-HxCDF	0.1	<1.6	<1.4	<1.3	<1.4	<0.10	<1.5	<1.0	<0.065	<0.078	<0.054	<0.059	<0.053
1,2,3,4,6,7,8-HpCDF	0.01	<0.61	<0.49	<0.52	<0.59	<0.22	<0.79	<0.57	<0.17	<0.14	<0.086	<0.094	<0.059
1,2,3,4,7,8,9-HpCDF	0.01	<0.73	<0.59	<0.62	<0.71	<0.26	<0.94	<0.68	<2.0	<0.17	<0.10	<0.072	<0.070
OCDF	0.0001	<2.0	<1.9	<1.8	<1.6	<0.14	<2.0	<1.6	<0.067	<0.16	<0.15	<0.14	<0.14
2,3,7,8- TCDD Equivalence	0.0003	0.0009	0.058	0.00063	0.00082	0.00073	0.00053	0.00094	0.0887	0.00059	BDL	BDL	0.00086

Notes:

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All results in pg/g or parts per trillion

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Table 7
Biota Analytical Results
Camp Summit

Sample Location		3PC-2	3PC-3	3PC-4	3PC-5	3PC-6	3PC-7	3PC-8	3PC-9	3PC-10	3PC-11	3PC-12	3PC-13
Sample Species		Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout
Individual Fish/Composite		Individual	Composite	Composite	Composite	Composite	Composite	Composite	Composite	Composite	Composite	Composite	Composite
Number of Fish in Composite		NA	3	2	3	3	3	4	3	4	5	17	15
Sample Length (mm)		176	434	333	405	460	408	499	390	510	599	1139	1060
Sample Weight (g)		54	61	60	56	59	54	59	51	62	61	46	47
Analyte													
Dioxins (pg/g or ppt)	TEFs	3PC-2	3PC-3	3PC-4	3PC-5	3PC-6	3PC-7	3PC-8	3PC-9	3PC-10	3PC-11	3PC-12	3PC-13
Total TCDF	-	<0.12	<0.17	<0.71	<0.12	<0.63	<1.8	<0.088	<0.38	<0.66	<0.90	<0.63	1.8
Total PeCDF	-	<0.10	<0.085	<0.28	<0.090	<0.14	<0.80	<0.085	<0.86	<1.7	<1.2	<1.2	<1.1
Total HxCDF	-	<0.087	<0.11	<0.12	<0.055	<0.28	<0.77	<0.15	<1.0	<2.0	<1.6	<1.5	<1.4
Total HpCDF	-	<0.071	<0.059	<0.087	<0.069	<0.078	<0.23	<0.44	<0.63	<1.0	<0.64	<0.78	<0.82
Total TCDD	-	<0.13	<0.11	<0.095	<0.10	<0.080	<0.069	<0.081	<0.36	<1.0	<0.46	<0.32	<0.42
Total PeCDD	-	<0.24	<0.15	<0.14	<0.17	<0.16	<0.13	<0.27	<1.5	<0.53	<2.7	<2.2	<2.1
Total HxCDD	-	<0.087	<0.079	<0.085	<0.079	<0.86	<0.10	<0.10	<1.2	<2.9	<1.8	<1.6	12
Total HpCDD	-	<0.10	<0.32	<0.12	<0.49	<0.19	<0.53	<0.72	<0.75	<2.1	<1.2	<1.3	<1.6
2,3,7,8-TCDD	1	<0.13	<0.11	<0.095	<0.10	<0.080	<0.069	<0.080	<0.36	<0.47	<0.46	<0.32	<0.42
1,2,3,7,8-PeCDD	0.5	<0.14	<0.14	<0.14	<0.13	<0.11	<0.13	<0.13	<1.5	<2.9	<2.7	<2.2	<2.1
1,2,3,4,7,8-HxCDD	0.1	<0.081	<0.072	<0.070	<0.073	<0.080	<0.10	<0.090	<1.0	<1.9	<1.6	<1.5	<1.4
1,2,3,6,7,8-HxCDD	0.1	<0.087	<0.078	<0.085	<0.079	<0.086	<0.10	<0.10	<1.2	<2.1	<1.8	<1.6	<1.6
1,2,3,7,8,9-HxCDD	0.1	<0.079	<0.071	<0.069	<0.072	<0.078	<0.10	<0.076	<1.0	<1.8	<1.6	<1.4	<1.4
1,2,3,4,6,7,8-HpCDD	0.01	<0.093	<0.32	<0.075	<0.49	<0.15	<0.53	<0.72	<0.75	<1.6	<1.2	<1.3	8.8
OCDD	0.0001	<0.67	<2.8	<1.3	5.4 J	<1.7	<3.5	6.8 J	<3.4	<3.1	<1.8	5.8 J	36
2,3,7,8-TCDF	0.1	<0.10	<0.10	<0.088	<0.077	<0.074	<0.10	<0.073	<0.38	<0.52	<0.90	<0.63	<0.85
1,2,3,7,8-PeCDF	0.05	<0.10	<0.085	<0.10	<0.090	<0.088	<0.10	<0.085	<0.86	<1.5	<1.2	<1.2	<1.1
2,3,4,7,8-PeCDF	0.5	<0.10	<0.085	<0.10	<0.090	<0.088	<0.10	<0.085	<0.84	<1.5	<1.2	<1.2	<1.0
1,2,3,4,7,8-HxCDF	0.1	<0.055	<0.068	<0.039	<0.048	<0.049	<0.048	<0.089	<0.89	<1.8	<1.4	<1.4	<1.2
1,2,3,6,7,8-HxCDF	0.1	<0.048	<0.046	<0.034	<0.042	<0.043	<0.18	<0.040	<0.85	<1.7	<1.3	<1.3	<1.2
1,2,3,7,8,9-HxCDF	0.1	<0.059	<0.056	<0.042	<0.052	<0.053	<0.051	<0.050	<0.93	<1.8	<1.4	<1.4	<1.3
2,3,4,6,7,8-HxCDF	0.1	<0.063	<0.060	<0.044	<0.055	<0.056	<0.055	<0.053	<1.0	<2.0	<1.6	<1.5	<1.4
1,2,3,4,6,7,8-HpCDF	0.01	<0.059	<0.049	<0.073	<0.058	<0.065	<0.064	<0.19	<0.53	<0.86	<0.54	<0.66	<0.69
1,2,3,4,7,8,9-HpCDF	0.01	<0.071	<0.059	<0.087	<0.069	<0.078	<0.077	<0.084	<0.63	<1.0	<0.64	<0.78	<0.82
OCDF	0.0001	<0.16	<0.16	<0.15	<0.14	<0.14	<0.14	<0.54	<1.2	<3.2	<2.8	2.9	<2.3
2,3,7,8- TCDD Equivalence	0.0003	BDL	BDL	BDL	0.00054	BDL	BDL	0.00068	BDL	BDL	BDL	0.00058	0.0916

Notes:

Only analytes detected at or above laboratory method detection limit on tables

*PCP results from PIR Immunoassay Results

Bold Text=Analyte detected above laboratory method detection limit

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BDL= Below Laboratory Method Detection Limit

ND= Non-Detect

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Dioxin Data Qualifiers:

All results in pg/g or parts per trillion

J=Estimated result, result is less than the reporting limit

E=Estimated result, result exceeds calibration range

CON=Confirmation analysis

Table 7
Biota Analytical Results
Camp Summit

Sample Location		3PC-14	3PC-14	3PC-15	3PC-16	3PC-17	3PC-18	3PC-19			
Sample Species		Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout	Steam Trout			
Individual Fish/Composite		Composite		Composite	Composite	Composite	Composite	Composite			
Number of Fish in Composite		15		5	6	5	5	5			
Sample Length (mm)		1033		605	717	586	585	561			
Sample Weight (g)		44		69	76	60	62	52			
Analyte											
Dioxins (pg/g or ppt)	TEFs	3PC-14	3PC-14	3PC-15	3PC-16	3PC-17	3PC-18	3PC-19	TURTLE-1	FISH-1	FISH-2
Total TCDF	-	<0.68	1.7	<2.6	<0.68	1.8	<2.2	<0.87	48.6	2.24	4.19
Total PeCDF	-	<0.097	<1.3	<0.68	<1.1	<1.4	<1.2	<1.3	206	6.95	15.6
Total HxCDF	-	<1.3	<1.4	<1.1	<1.3	<1.8	<1.2	<1.6	864	39.8	81.8
Total HpCDF	-	<0.62	<0.86	<1.3	<0.67	<0.96	<0.67	<0.71	515	98.5	356
Total TCDD	-	<0.79	<0.41	<0.67	<0.80	<0.47	<0.67	<0.43	0.35	0.24	0.96
Total PeCDD	-	<1.8	<2.2	<0.080	<1.7	<204	<1.8	<2.0	39.4	4.95	8.68
Total HxCDD	-	<1.3	<1.6	<1.7	<1.5	<1.7	<1.3	<1.6	56.2	17.5	50.1
Total HpCDD	-	<1.2	<1.3	<1.5	<1.2	<1.7	<1.2	<1.4	37.4	22.8	93.3
2,3,7,8-TCDD	1	<0.79	<0.41	<1.2	<0.8	<0.47	<0.67	<0.43	48.6	2.07	3.36
1,2,3,7,8-PeCDD	0.5	<1.8	<2.2	<0.80	<1.7	<2.4	<1.8	<2.0	206	6.95	11
1,2,3,4,7,8-HxCDD	0.1	<1.2	<1.4	<1.7	<1.4	<1.5	<1.2	<1.5	124	4.3	7.07
1,2,3,6,7,8-HxCDD	0.1	<1.3	<1.6	<1.4	<1.5	<1.7	<1.3	<1.6	683	20.5	.5.9
1,2,3,7,8,9-HxCDD	0.1	<1.2	<1.4	<1.5	<1.3	<1.5	<1.2	<1.5	43.4	3.65	7.77
1,2,3,4,6,7,8-HpCDD	0.01	<1.2	<1.3	<1.3	<1.2	<1.7	<1.2	<1.4	290	59.9	208
OCDD	0.0001	6.9 J	<3.3	<1.2	6.1 J	<4.9	5 J	<2.9	261	221	1180
2,3,7,8-TCDF	0.1	<0.68	<0.68	6.1 J	<0.68	<0.93	<0.69	<0.87	0.35	0.11	<0.14
1,2,3,7,8-PeCDF	0.05	<0.97	<1.3	<0.68	<0.97	<1.4	<1.2	<1.3	1.15	0.62	0.86
2,3,4,7,8-PeCDF	0.5	<0.95	<1.2	<0.97	<0.95	<1.3	<1.1	<1.3	36.4	1.28	2.25
1,2,3,4,7,8-HxCDF	0.1	<1.2	<1.2	<0.95	<1.2	<1.6	<1.1	<1.4	4.89	1.07	2.79
1,2,3,6,7,8-HxCDF	0.1	<1.1	<1.2	<1.2	<1.1	<1.5	<1.0	<1.3	25.7	1.27	2.95
1,2,3,7,8,9-HxCDF	0.1	<1.2	<1.3	<1.1	<1.2	<1.6	<1.1	<1.5	<0.30	<0.37	<0.55
2,3,4,6,7,8-HxCDF	0.1	<1.3	<1.4	<1.2	<1.3	<1.8	<1.2	<1.6	15.2	2.69	4.93
1,2,3,4,6,7,8-HpCDF	0.01	<0.52	<0.72	<1.3	<0.57	<0.81	<0.56	<0.60	18.5	9.18	32.7
1,2,3,4,7,8,9-HpCDF	0.01	<0.62	<0.86	<0.57	<0.67	<0.96	<0.67	<0.71	0.74	<0.58	2.11
OCDF	0.0001	<2.4	<1.9	<2.6	<2.6	<3.5	<2.5	<3.0	10.2	19.4	92.3
2,3,7,8- TCDD Equivalence	0.0003	0.00069	BDL	0.61	0.00061	BDL	0.0005	BDL	263	10.5	19.8

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FIGURES