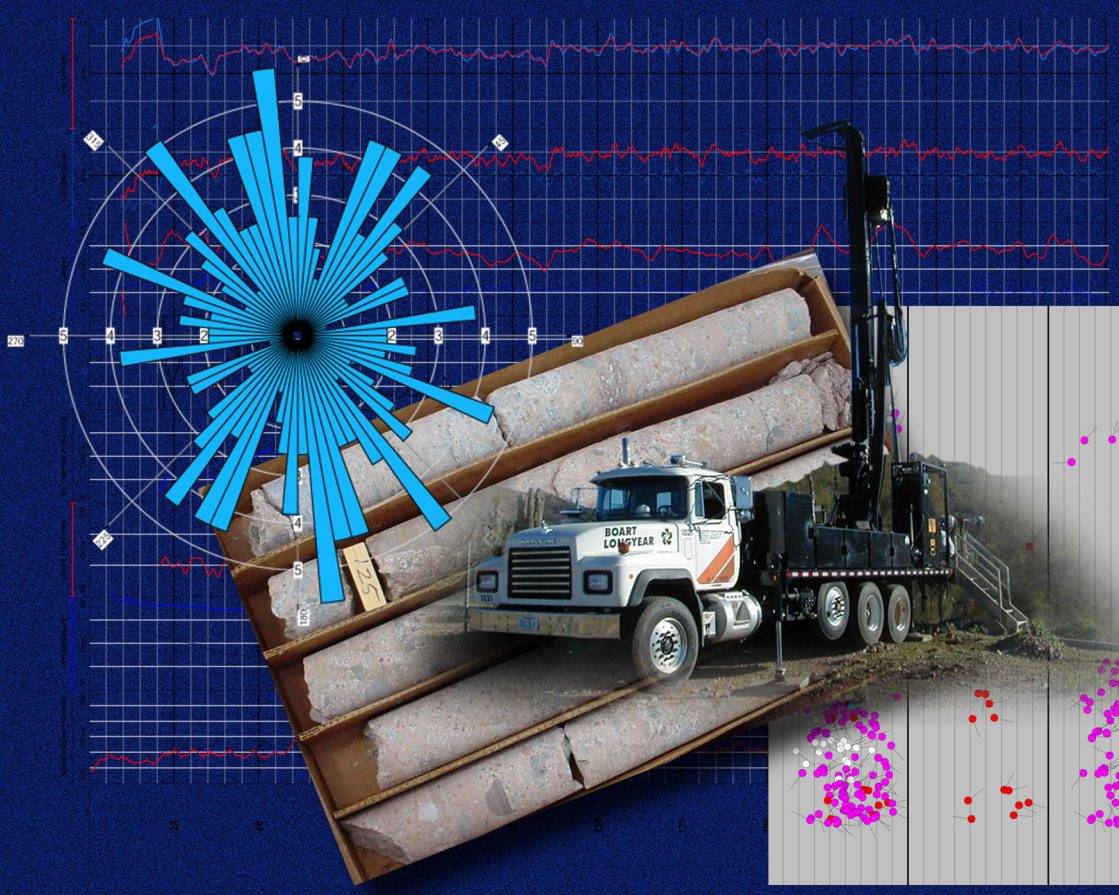
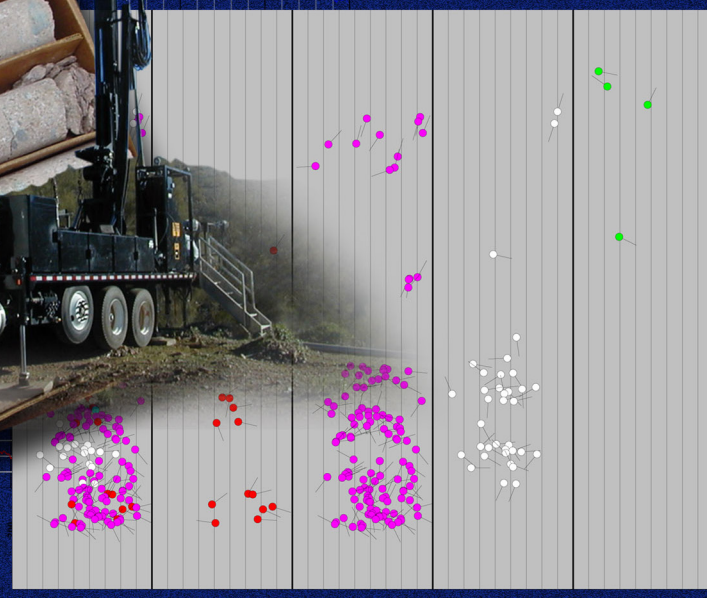
Final Remedial Investigation Report

Universal Propulsion Co. Inc.





June 2011

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Universal Propulsion Company, Inc.
25401 N. Central Avenue • Phoenix, AZ 85085-2837

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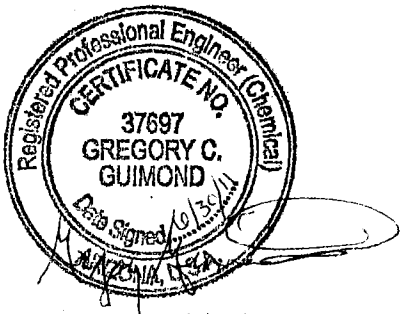

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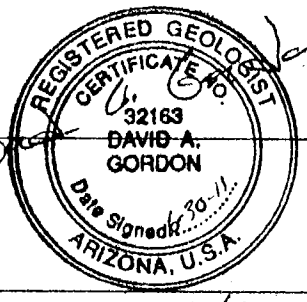

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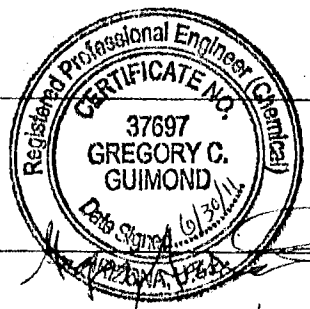

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LIST OF ACRONYMS

ADEQ	Arizona Department of Environmental Quality
ADHS	Arizona Department of Health Services
ADOT	Arizona Department of Transportation
ADWR	Arizona Department of Water Resources
AFC	Ambient Flow Characterization
AOC	Area of Concern
API	American Petroleum Institute
APP	Aquifer Protection Permit
ASLD	Arizona State Land Department
ASTM	American Society for Testing and Materials
AWQS	Aquifer Water Quality Standards
bgs	Below Ground Surface
BTLM	Batch Test Leaching Method
°C	degrees Celsius
C&D	Construction and Demolition
CAD	Cartridge Actuated Device
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
cfm	Cubic Feet per Minute
cm/day	Centimeters per day
CMS	Corrective Measures Study
CSM	Conceptual Site Model
COPC	Contaminant of Potential Concern
DAF	Dilution-Attenuation Factors
DCA	Dichloroethane
DCE	Dichloroethylene
DI	De-ionized
EED	Electronic Explosive Device
EPA	United States Environmental Protection Agency
FEC	Fluid Electrical Conductivity
GPL	Groundwater Protection Level
gpm	Gallon Per Minute
gpm/ft	Gallon Per Minute Per Feet
HBGL	Health Based Guidance Level

HC	Hydraulic Characterization
HPL	Hydrophysical Logging
IDW	Investigative Derived Waste
IPA	Isopropyl Alcohol
J&E	Johnson and Ettinger
K	Hydraulic Conductivity
Kd	Soil-Water Partition Coefficient
LAU	Lower Alluvial Unit
LES	Liquid Environmental Solutions
m	meter
MAU	Middle Alluvial Unit
MEK	Methyl Ethyl Ketone
mg/kg	Milligram per Kilogram
mg/L	Milligram per Liter
mL	Milliliter
µg/L	Microgram per Liter
µS	Microsiemens
MIBK	Methyl Isobutyl Ketone
msl	Mean Sea Level
NAD 83	North American Datum 1983
NGVD 29	Arizona State Plane Coordinate System
NTU	Nephlometric Turbidity Unit
OBD	Open Burning Devices
OBI	Optical Borehole Imaging
OBU	Open Burn Unit
PAD	Propellant Actuated Device
PDI	Pumping During Injection
POE	Point of entry
ppbv	Parts Per Billion per Volume
PRG	Preliminary Remediation Goal
PVC	Polyvinyl Chloride
PW	Production well
QA/QC	Quality Assurance/ Quality Control
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act

RFA	RCRA Facility Assessment
RFI	Remedial Feasibility Investigation
RI	Remedial Investigation
RQD	Rock Quality Designation
S	Storativity
SA+B	Scott, Allard & Bohannon, Inc.
SAIC	Science Applications International Corporation
SMA	Storage Magazine Area
SP	Spontaneous Potential
SPLP	Synthetic Precipitation Leaching Procedure
SRL	Soil Remediation Level
SU	Standard Units
SVOC	Semi-Volatile Organic Compound
SWMU	Solid Waste Management Unit
T	Transmissivity
TCA	Trichloroethane
TCLP	Toxicity Characteristic Leaching Procedure
TNT	Trinitrotoluene
TTU	Thermal Treatment Unit
UAU	Upper Alluvial Unit
UPCO	Universal Propulsion Company
USCS	Unified Soil Classification System
USGS	United States Geologic Survey
VOC	Volatile Organic Compound

1. Introduction

This Final Remedial Investigation (RI) Report (report) summarizes the soil, soil vapor, and groundwater investigation activities conducted at the former Universal Propulsion Company, Inc. (UPCO) facility (site) in Phoenix, Arizona. The work has been conducted under Consent Order No. P-136-04 (Appendix A) between UPCO and the Arizona Department of Environmental Quality (ADEQ). The purpose of the RI activities was to identify and delineate contaminants of potential concern (COPCs) that may have been released into the soil and/or groundwater as a result of past operational activities. This report is a revision to the Interim RI Summary Report submitted in February 2009 (Malcolm Pirnie, 2009b) and includes additional information and RI data obtained between January 2009 and May 2011. As such, previous submittals such as the draft RI Summary Report and related Technical Memorandums and the Interim RI Summary Report should be considered superseded by this Final RI Report.

1.1. Site Description

The former UPCO facility is located at 25401 North Central Avenue in Phoenix, Arizona, near the intersection of Central Avenue and Happy Valley Road (Figure 1). The site is within the southeast quarter, Section 5, Township 4 North, Range 3 East of the Union Hills 7.5' United States Geologic Survey (USGS) quadrangle. The former UPCO facility was situated on approximately 160 acres of land leased from the State of Arizona and was initially constructed in 1972. The western, southern, and eastern boundaries of the property are undeveloped land owned by the State of Arizona. Residential properties are to the north along Yearling Road. The former operational areas of the facility are surrounded by a security fence and primary access is limited to a gate along Happy Valley Road.

The facility consisted of various manufacturing, storage, and administrative buildings/structures which were separated into seven operational areas. These areas of the site are illustrated on Figure 2 and include:

- A-Complex;
- B-Complex;
- C-Complex;
- D-Complex;

- E-Complex (Storage Magazine Area);
- F-Complex; and
- Open Burn Unit (New Burn Area).

1.2. Site History

UPCO, a Delaware corporation, is the successor to the original Universal Propulsion Co., a California Corporation, incorporated in 1959. UPCO began operations at its current Arizona facility in 1972. UPCO became part of Goodrich Corporation in 1998. A more detailed corporate history can be found in the draft Remedial Investigation Work Plans (Hargis+Associates, Inc. (H+A), 2004a and 2004b).

The UPCO operations were transferred to a facility in Fairfield, California in the fourth quarter of 2009. Demolition of the UPCO facility occurred throughout 2009 and was completed in January 2010.

1.3. Facility Operations

The former UPCO facility primarily produced components for crew escape systems for military aircraft. Component products such as gas generators, rocket motors, cartridge actuated devices (CADs), propellant actuated devices (PADs), and electronic explosive devices (EEDs) were also developed and manufactured at the facility.

The facility included several separate operational areas for manufacturing, assembling, testing and storing energetic materials. Sections 1.3.1 through 1.3.7 provide an explanation of the operational practices within each area.

Utilities available at the facility at the time of operation included electrical power and communications; however, municipal services were not available in the area; therefore, the facility relied on a production well and septic systems.

1.3.1. A-Complex

The A-Complex Area (Figure 3) consisted of buildings associated with the administrative and management functions. It consisted of four buildings (A-1 through A-4). RI field sampling activities were not conducted in the A-Complex Area as there were no historical operations activities identified which could have released COPCs to the environment.

1.3.2. B-Complex

The B-Complex Area (Figure 3) consisted of various buildings/structures used primarily for ejection seat, EED, CAD, and PAD assemblies. Examples of EED and CAD products assembled in the B-Complex included squibs, explosive bolts, explosive cutters, initiators, and cartridges. Examples of PAD products included solid propellant rocket motors and gas generators. The assembly process involved the manual loading of small quantities of delay powders or energetic material powder blends (milligram or gram quantities) into the device hardware. These devices were then further assembled into gas generator or rocket motor assemblies.

Additional activities performed in the B-Complex to support assembly operations included surface coating operations, x-ray inspection, shipping, receiving, and facilities maintenance. Small quantities of solvents, solvent-based sealants, and adhesives were used in the assembly process within the B-Complex.

Surface coating activities occurred in Building B-11. Chemicals used in the process have included a variety of military-specification solvent-based primers, coatings and thinners that may have included, but were not limited to, chromates, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), toluene, and historically trichloroethane (TCA).

The x-ray inspection facilities were located on the west side of the B-Complex. Building B-9 housed a large x-ray tube for the inspection of rocket motors. Building B-1 housed three x-ray machines as well as the x-ray film developing equipment. X-ray wastewater discharge from the Building B-1 operations had historically been pretreated and discharged to a septic tank and leach field under an Aquifer Protection Permit (APP). The x-ray wastewater discharge to the septic tank/leach field was ceased on February 5, 2007 and a clean closure application was filed with ADEQ. The clean closure application was approved by ADEQ on August 23, 2010 (see Appendix B).

A more detailed description of the B-Complex Area operations is provided in the Site Investigation Work Plan for the B-Complex (Malcolm Pirnie, 2005e).

1.3.3. C-Complex

The C-Complex Area (Figure 3) consisted of various buildings/structures used for the manufacturing of castable propellants including material weigh-out, oxidizer grinding, propellant mixing and casting. The C-Complex also served as a research and development area to improve and refine products and performance. The research and development activities included development of new castable propellants and energetic powders. Historically, Buildings C-2, C-9, and C-11 were used for the quality

assurance/quality control laboratory activities. These activities were later relocated to the F-Complex Building F-10 QC Laboratory. Oxidizers, binders, and metallic powders were also stored in the C-Complex Area.

During the manufacturing process, dry oxidizer materials were mechanically ground to the desired particle size distribution, sieved to break up agglomerates, and weighed out for a particular batch size. Polymeric binders consisting of polyurethane or polybutadiene and carbon black were then evenly applied to the interior of the motor tubes. Solvents were used to fluidize the binder for ease of application during the lining process. These solvents included methylene chloride and historically TCA. After the lining cured, the tubes were placed into the casting fixture. Tooling was inserted into the tubes to form the appropriate annulus space that was filled with the propellant mixture. Polymeric binders and fuels (magnesium or aluminum powders) were added to the oxidizer to form a raw propellant blend. The propellant was then vacuum-cast into the lined tubes and cured in ovens. After curing, the tooling was removed and the propellant tubes were prepared for further assembly.

During research and development activities, new castable propellants and powders were generated in smaller quantities using the same techniques described for the manufacturing process.

The chemicals predominantly used in the C-Complex included ammonium perchlorate, potassium perchlorate, lead nitrate, ammonium nitrate, potassium nitrate, iron oxide, polymeric binders (e.g. polyurethane or polybutadiene-based materials), magnesium or aluminum-based powders, methylene chloride, acetone, and isopropyl alcohol (IPA).

A more detailed description of the C-Complex Area operations is provided in the Site Investigation Work Plan for the C-Complex Area (Malcolm Pirnie, 2004c).

1.3.4. D-Complex

The D-Complex Area was located in the northwest portion of the facility (Figure 3) and consisted of various buildings/structures used primarily for device testing, as well as the waterbore process. There were three specific areas of focus within the D-Complex which included the Old Burn Area, the Thermal Treatment Unit (TTU), and Waterbore Area. The activities conducted at each of these focus areas within the D-Complex are discussed below.

1.3.4.1. Old Burn Area

The Old Burn Area was located in the northern portion of the D-Complex and used to burn off-specification energetic materials and devices. Open burning of waste materials occurred in the Old Burn Area during the 1970s and early 1980s, until open burn operations were moved to the Open Burn Unit (OBU) in the New Burn Area. Activities consisted of open burning of primarily high density propellants by various methods including placing the materials in a metal cage on the ground, placing the materials in concrete culvert pipes (oriented vertically and embedded in the ground), and/or spreading materials along the bottom of an ephemeral wash. The concrete culverts were approximately six feet in diameter and extended approximately four feet above grade. Open burn operations in the ephemeral wash occurred in an area approximately 5 to 10 feet wide and 10 to 20 feet long.

A more detailed description of the Old Burn Area operations is provided in the Site Investigation Work Plan for the Old Burn Area and Thermal Treatment Unit (Malcolm Pirnie, 2005b).

1.3.4.2. Thermal Treatment Unit

The TTU was located south of the D-Complex fence line (Figure 3) and was used to burn off-specification solid propellant materials. The TTU was not used for the treatment of energetic powders, devices or energetic material contaminated trash and debris.

The TTU was installed in 1992 and operated from December 1992 to May 2004. The TTU was approximately 100 feet long and 18 feet wide and consisted of a conveyor, a combustion chamber, a series of expansion/cooling chambers, a blower, and a dust collector (baghouse). The baghouse exhaust stack rose approximately 38 feet above ground level. Concrete secondary containment structures were located beneath each section of the TTU. The unit was used to perform self-sustaining thermal treatment of waste propellant and did not meet the Resource Conservation and Recovery Act (RCRA) definition of an incinerator.

During TTU operation, waste propellant was transported from the Storage Magazine Area (SMA) in the E-Complex to Building D-7 where the material was weighed and cut into approximately two-pound sections. These quantities of waste propellant were then fed into the combustion chamber by a conveyor belt running from a control booth located approximately 25 feet northwest of the TTU. Maximum feed rate of the TTU was 90 pounds of propellant per hour. The rate was determined through stack testing as the maximum allowable burn rate to ensure that hydrogen chloride emissions from the operation remained below the facility's air permit limits. The first quantity of waste

introduced into the TTU was ignited by a propane pilot flame. Each successive quantity of propellant fed into the TTU was ignited by the previously burning quantity. Emissions from the burning propellant cooled as they were pulled through a series of expansion chambers by a blower operating at approximately 13,000 cubic feet per minute (cfm). The blower directed the emissions through a baghouse that filtered the particulate emissions using polyester cloth bags.

Temperatures in the combustion and expansion chambers were monitored at the control booth so that an appropriate propellant feed rate was maintained for flame propagation in the combustion chamber. Pressure drop across the baghouse was also periodically monitored to verify the filter media was not blocked. As necessary, the residue collected on the filter media was dislodged by a manually controlled shaker and collected in drums and/or cubic yard boxes.

RCRA Closure of the TTU was conducted in December 2007 and January 2008 in accordance with the RCRA Closure Workplan, Attachment G of the facility Part B permit (see Section 1.4.10). Closure activities included decontamination, demolition, and disposal. Decontamination activities included removal of solid residue and paint from the interior of the expansion/cooling chamber and pressure washing the interior of the chambers and the baghouse. The TTU, support equipment, and concrete pad were demolished using various equipment (cutting torches, track mounted excavator, front-end loader, and forklift). Waste materials were separated and characterized for disposal. Metal debris was recycled, concrete debris was sent to a construction and demolition (C&D) landfill, other solid debris was sent to a non-hazardous landfill, and the collected rinsate and sediment from the pressure washing activities were transported off-site either as hazardous waste or non-hazardous waste based on characterization sampling and analysis. See the RCRA Closure Report (Malcolm Pirnie, 2008j), submitted to ADEQ on December 19, 2008, for more details.

A more detailed description of the TTU operations is provided in the Site Investigation Work Plan for the Old Burn Area and Thermal Treatment Unit (Malcolm Pirnie, 2005b).

1.3.4.3. Waterbore Area

Since at least 1983, a high-pressure water spray wand operation had been used to remove solid propellant and binders from rocket motor tubes so that the tubes could be reused. This process was referred to as the waterbore operation. The Waterbore Area (Figure 3), where waterbore operation was performed, was located at the southern end of the D-Complex within the fence line.

The Waterbore Area consisted of the waterbore water wand station, fiberglass and polyethylene above ground waterbore wastewater evaporation tanks, and two fiberglass evaporation tanks used for the evaporation of non-hazardous mop/rinse water generated throughout the facility.

The original (former) water wand was located approximately 30 feet north of the current water wand. The former water wand was located in a fiberglass containment tank and in November 2002, the wand was shielded with plastic sheeting to limit horizontal water spray. In mid 2003, the former wand was decommissioned and replaced with a fully-contained water wand station.

The wastewater generated by the waterbore operation contained suspended solids and dissolved oxidizers. The wastewater was filtered to remove the solids and the remaining solution containing the oxidizers was piped to the open-top evaporation tanks.

Prior to 1988, waterbore wastewater was collected and diverted into two earthen containment ponds lined with plastic. The former ponds covered a surface area of approximately 2,000 square feet and were located adjacent to the water wand station. The wastewater in the ponds was allowed to evaporate and the remaining solids removed for treatment or disposal. The ponds were excavated and removed from service in the fall of 1988 and replaced with fiberglass open-top tanks. In 2003, inner open-top polyethylene tanks were added so that the fiberglass tanks function as secondary containment. Additional containment was also provided by a 40 mil polyethylene liner which was beneath the tanks and a six-inch sand layer.

The non-hazardous mop/rinse-water evaporation tanks were utilized for the evaporation of non-hazardous process rinse water and mop water generated throughout the facility. The resulting solution/solids were transported off-site for disposal.

In January 2008, concurrent with the RCRA closure activities conducted at the Open Burn Unit and the TTU, the former water wand and associated containment basis were removed from the Waterbore Area in accordance with the RCRA Closure Workplan, Attachment G of the facility's RCRA Part B Permit. Closure activities included decontamination, demolition, and disposal. Decontamination activities included pressure washing the wand and the fiberglass collection basin. The wand, basin, and concrete pad were then demolished and the waste materials were separated and characterized for disposal. Metal debris was recycled, concrete debris was sent to a C&D landfill, other solid debris was sent to a non-hazardous landfill, and the rinsate was transported off-site as non-hazardous waste based on characterization sampling and analysis. See the RCRA

Closure Report (Malcolm Pirnie, 2008j), submitted to ADEQ on December 19, 2008, for more details.

A more detailed description of the Waterbore Area operations is provided in the Site Investigation Work Plan for the Waterbore Area (Malcolm Pirnie, 2004a).

1.3.5. E-Complex (Storage Magazine Area)

The E-Complex (Figure 3), also referred to as the SMA, consisted of portable prefabricated metal (Conex-type) containers used for the storage of energetic materials and devices used at the facility. Waste materials and devices were also stored at the SMA while awaiting off-site disposal and historically while awaiting on-site treatment. The stored materials included propellants, energetic powders and devices containing oxidizers such as lead nitrate, ammonium nitrate, ammonium perchlorate, and potassium perchlorate and fuel/additive compounds containing aluminum, barium, chromium, iron, potassium, cobalt, titanium, boron, magnesium, and zirconium.

A more detailed description of the SMA area operations is provided in the Soil Characterization Work Plan for the Storage Magazine Area (H+A, 2004d).

1.3.6. F-Complex

The F-Complex Area (Figure 3) consisted of various buildings/structures used for manufacturing of powder-based energetic formulations, assembly operations and quality assurance/quality control (QA/QC) testing. Historically it was also used for the manufacturing of castable and extruded propellants. The F-Complex operations included powder processing, stun grenade assembly and QA/QC testing.

The powder processing area consisted of Buildings F-1 through F-4. Dry oxidizer materials were mechanically ground to the desired particle size distribution, sieved to break up agglomerates, and weighed to a particular batch size. The oxidizers were then mixed with fuel materials, binders, and solvent materials in remote operating areas to produce the powder formulations. The powder formulations were dried in ovens and either sent to storage magazines or assembly operations.

Oxidizers used in powder processing included ammonium perchlorate, potassium perchlorate, and chromate-based materials. The fuel materials included zirconium, tungsten, barium, boron, aluminum, and magnesium. Other materials including small quantities of lead azide, lead styphnate, and tetracene were also processed in this area. Solvents were used to decrease the sensitivity of the powder-based formulations during

the processing steps and included water, hexane, heptane, MEK, ethanol, isopropyl alcohol, acetone, and methylene chloride.

The stun grenade assembly area was located in Building F-10, South. The units were assembled using energetic powder-based formulations. The assembled devices were packaged for transportation off-site.

The QA/QC laboratory activities that historically occurred in the C-Complex were relocated to Building F-10, North in December 2003. The laboratory activities performed in this area included wet chemistry and bench-top testing of physical parameters such as pH, density, material assays, moisture content, heat of reaction, burn rate, particle size, conductivity, products of combustion, product compatibility, and product sensitivity. The sample sizes typically ranged from approximately 10 to 100 grams.

Historical processes in the F-Complex included manufacturing of castable and extruded propellant, manufacturing of large rocket motors, lining of rocket motor tubes, liner drying, tool pull, propellant mixing, propellant casting, and propellant curing, and weigh-out of oxidizers, binders, and fuel powders.

The extruded propellant manufacturing area in the F-Complex was located in Buildings F-5 through F-9. Oxidizer materials for the extruder operations were initially ground and weighed out to a particular batch size in the C-Complex. The ground oxidizer was then transferred to the F-Complex and loaded into hoppers along with polymeric binders, plasticizers, fuel materials, and burn rate modifiers. Once the propellant was extruded, it was cut into specified lengths and packaged for off-site shipment.

The oxidizers used in the extruder operations included potassium perchlorate, ammonium perchlorate, potassium chlorate, iron oxide, and sodium nitrate. Other ingredients included polymeric compounds and burn rate modifiers. Solvents were not used in the propellant mixing or extrusion process but were used in small amounts for equipment cleaning.

A more detailed description of the F-Complex Area operations is provided in the Site Investigation Work Plan for the F-Complex (Malcolm Pirnie, 2005c).

1.3.7. Open Burn Unit (New Burn Area)

The OBU was operated in the New Burn Area, located south of the C-Complex near the south central property boundary (Figure 3). Open burning of waste/off-specification solid propellant materials were performed in this area since 1980. Originally, wastes were

burned on bare soil. In 1986, a burn pad consisting of 25 feet by 75 feet of four-inch steel-reinforced concrete covered with six inches of sand was installed. In 1989, a 10-foot wide outer concrete apron, sloped towards the center, was constructed around the perimeter of the burn pad. Open burning activities were discontinued in December 2004.

RCRA Closure of the OBU and associated open burning devices (OBDs) was conducted in December 2007 and January 2008 in accordance with the RCRA Closure Workplan, Attachment G of the facility's RCRA Part B Permit (see Section 1.4.10). Closure activities included decontamination, demolition, and disposal. Decontamination activities included removal of rainwater from the burn pad and pressure washing the OBDs. The OBDs, concrete burn pad, and the concrete apron around the burn pad were demolished using various equipment (cutting torches, track mounted excavator, front-end loader, and forklift). Waste materials were separated and characterized for disposal. The metal OBDs were recycled, concrete debris from the apron was sent to a C&D landfill, concrete from the burn pad was transported off site as hazardous waste, and the collected rainwater/rinsate were transported off-site as non-hazardous waste.

Limited removal of impacted soil was conducted in September 2008. Surface soils from three areas where lead, arsenic, and perchlorate concentrations in soil were above the Arizona non-residential Soil Remediation Levels (SRLs) were excavated. Confirmation samples were collected to verify that the extent of the impacted soil in each area was removed. The excavated soil was transported off site for disposal as non-hazardous waste. See the RCRA Closure Report (Malcolm Pirnie, 2008j), submitted to ADEQ on December 19, 2008, for more details.

A more detailed description of the New Burn Area operations is provided in the Soil Characterization Work Plan for the New Burn Area (H+A, 2004c) and Site Investigation Work Plan for the New Burn Area (Malcolm Pirnie, 2005d).

1.4. Previous Investigations

Summaries of previous site inspections, assessments, and investigations performed prior to the RI activities described in this report are summarized below.

1.4.1. RCRA Part B Permit Application (UPCO, 1988-2008)

Due to the on-site thermal treatment of hazardous wastes, the UPCO facility maintained a RCRA Hazardous Waste Facility, Part B Permit. The permit application and subsequent revisions have presented descriptions of the open burn and TTU operations, as well as, listing the types and characteristics of wastes treated in the Old Burn Area, New Burn

Area, and at the TTU. Thermal decomposition products and air emission modeling were also evaluated during the application process.

The permit application/revisions identified that aluminum, copper, iron, lead, and magnesium were present in significant quantities in waste materials historically burned at the Old Burn Area and the New Burn Area. In addition, barium, boron, chromium, titanium, tungsten, and zirconium were present in lesser amounts in the waste materials. Metals present in waste materials historically treated in the TTU include significant quantities of aluminum and lead and smaller quantities of copper, iron, magnesium and tin. Perchlorate was present in waste materials treated at the Old Burn Area, New Burn Area, and the TTU. Appendix D-1 of the Part B Permit provides information on the composition and quantity of waste propellants and oxidizers burned at the Open Burn Unit or treated at the TTU.

Emissions from the Old Burn Area and New Burn Area included typical combustion by-products (carbon dioxide, carbon monoxide, oxides of nitrogen, sulfur dioxide, and water), hydrogen chloride, and particulate matter (metallic oxides and metallic chlorides). Open burning was authorized to occur when the wind direction was to the north-northeast or northeast. Appendix D-2 of the Part B Permit presents the combustion products and estimated emissions and emission rates from the historic open burn operations. Although all permitted operations are undergoing closure, a Part B Permit Renewal Application was submitted to ADEQ in January 2009 for corrective actions and is currently being reviewed by ADEQ. RCRA Closure activities were conducted at the permitted treatment units (OBU and TTU) in late 2007 and 2008 (Malcolm Pirnie, 2008j). The UPCO facility submitted the RCRA Closure Report and Closure Certification to ADEQ on December 19, 2008, and ADEQ approved the Closure Certification on February 23, 2009 (Appendix C).

1.4.2. Waterbore Surface Impoundment Excavation (EarthTech, 1988)

The former waterbore containment pond was decommissioned in the fall of 1988. The pond liner was removed and the surface soil excavated to approximately one foot below ground surface (bgs). Earth Technology, Inc. (EarthTech) collected soil samples from the bottom of the excavation that were analyzed for lead by EP Toxicity and Synthetic Precipitation Leach methods. The analyses indicated that the leachable extract from two of the soil samples contained elevated lead concentrations. Additional soil was excavated to a depth of approximately two feet below grade from the areas where these two soil samples were collected. Additional soil sampling in these areas indicated that the leachable extracts did not contain lead at concentrations above the regulatory threshold.

The samples were not analyzed for perchlorate during the containment pond removal because that constituent was not considered a COPC at that time.

1.4.3. Facility Inspection (ADEQ, 1989)

A facility inspection was performed by ADEQ in March 1989 (ADEQ, 1989). The inspection report identified two areas in the C-Complex where releases to the ground surface had occurred. One release was observed at the particulate collection tank/drum on the north side of Building C-1. The other release was observed on the east side of Building C-2 where the propellant tube rinsing operation was performed. The propellant tank spill was subsequently cleaned up, the tank repaired, and the operation moved indoors. The propellant tube washing operation is currently performed in a sink that drains to a holding tank. The non-hazardous wastewater in the holding tank is ultimately transferred to an evaporation tank at the Waterbore Area.

1.4.4. TTU Stack Testing (SA&B, 1992 and 1993)

In December 1992 and March 1993, Scott, Allard & Bohannon, Inc. (SA&B) conducted two compliance stack emission tests for the TTU. During each test, particulate and hydrogen chloride emissions were monitored. The testing demonstrated that the particulate removal efficiency of the TTU baghouse was greater than 98 percent. In addition, the testing determined that a propellant treatment rate of 90 pounds per hour emitted less than 20 pounds per hour of hydrogen chloride, which was the emissions limitation for hydrogen chloride in the facility's air quality permit. This treatment rate was subsequently set as the maximum allowable feed rate for the TTU.

1.4.5. RCRA Facility Assessment (SAIC, 1993)

In December 1993, the U.S. Environmental Protection Agency (EPA) contracted with Science Applications International Corporation (SAIC) to conduct a RCRA Facility Assessment (RFA) as part of the Part B permitting process. The RFA report identified and assessed 22 Solid Waste Management Units (SWMUs) and other Areas of Concern (AOCs) at the UPCO facility. The SWMUs and AOCs are located within the operational areas discussed above. A SWMU includes any part of an area which has been used for the treatment, storage, or disposal of solid waste. Appendix D provides a summary of the SWMUs identified during the RFA, as well as additional SWMUs identified by UPCO after the 1993 assessment. Figure 3 shows the SWMUs relative to facility buildings/structures. The RFA report identified six SWMUs (5, 10, 11, 19, 20, and 22) and eight AOCs (1 through 8) as potential sources of releases to the environment and recommended further investigation of these areas. The remaining SWMUs were not considered potential threats to the environment and were not recommended for further investigation.

1.4.6. RCRA Facility Investigation Report (SA&B, 1999 & 2001)

Between 1999 and 2001, SA&B conducted a Remedial Feasibility Investigation (RFI) of several SWMUs for UPCO, as recommended in the RFA report. Surface and subsurface soil samples were collected from SWMUs 5, 10, 11, 19, 20, and 22 (Figure 3). The samples were analyzed for selected organic and inorganic constituents based on the chemicals of potential concern associated with operations conducted at or near each SWMU (SA&B, 1999 and 2001).

SWMU 5 (B-Complex)

Six borings were drilled in the vicinity of former Building B-5 (SWMU 5) during the RFI. SWMU 5 was a former solvent storage building. The soil samples collected from the borings were analyzed for priority pollutant metals and volatile organic compounds (VOCs) by the EPA Methods 6010/7471 and 8260B, respectively. Metals were not detected at concentrations that exceeded the respective Arizona residential SRLs. VOCs were detected in two of the samples. The detected VOC concentrations were below the respective residential SRLs. Based on the analytical results, the report concluded that a potential solvent release at SWMU 5 had not adversely impacted subsurface soil.

SWMU 10 / SWMU 11 (D-Complex)

The investigation of the Waterbore Area SWMUs 10 and 11 (current waterbore evaporation tanks and former waterbore evaporation ponds) during the RFI was conducted in four phases from August 1999 to March 2001 (SA&B, 1999 and 2001). A summary of the perchlorate results from previous investigations is provided in Appendix E.

The first phase of the investigation consisted of sampling surface soils in the vicinity of the waterbore operations. The investigation included the collection of soil in the immediate vicinity of the waterbore operations, as well as along a 175-foot section of the adjacent wash located to the southeast. Perchlorate was not detected in the surface soil samples collected along the wash at concentrations above the laboratory reporting limit of 2 milligrams per kilogram (mg/kg) except for one location approximately 30 feet downstream of the Waterbore Area where the perchlorate concentration was 2.4 mg/kg (SA&B, 1999 and 2001). Within the Waterbore Area, the highest concentrations were found in surface soil located in the vicinity of the former water wand, the former containment ponds, and topographically downgradient from the former pond (sample locations D, E and F in Appendix E). Concentrations of perchlorate in the surface soil ranged from not detected (< 2 mg/kg) to 1,800 mg/kg (SA&B, 1999 and 2001).

The next three phases of investigation involved the collection of a series of progressively deeper soil samples, analyzed for perchlorate, in areas that had the highest observed impact to surface soil. The deepest borehole, D1, completed to 67 bgs, was drilled a few feet outside the northwest edge of the former containment pond. Concentrations of perchlorate in the subsurface soil ranged from not detected (< 2 mg/kg) to 369 mg/kg (SA&B, 1999 and 2001).

SWMU 19 (B-Complex)
Three borings were drilled in the vicinity of SWMU 19 (septic tank/leach field associated with Building B-1 x-ray inspection activities) during the RFI to assess if there had been a release of VOCs and/or silver to soil. Historic sampling of x-ray wastewater indicated detections of acetate, TCA, lead, silver, and chromium in the wastewater that had been discharged to the septic leach field.

Soil samples were analyzed for total silver and VOCs by EPA Methods 6010 and 8260B, respectively. Analytical results indicated that silver was detected at concentrations less than 2 mg/kg in each sample and VOCs were not detected above the laboratory reporting limits. Based on the analytical results, SA&B concluded that potential historical releases of silver and VOCs to the Building B-1 leach field (SWMU 19) did not adversely impact subsurface soil and additional investigation of the leach field was not recommended.

SWMU 20 (C-Complex)
During the RFI, five borings were attempted within SWMU 20 (leach field associated with the former C-Complex laboratory) using a hollow stem auger drill rig. Auger refusal occurred at less than five feet in three locations and no soil samples were collected. At one location, auger refusal occurred between five and 10 feet bgs and at another location, auger refusal occurred between 10 and 15 feet bgs. Samples were collected in these two borings at 5 and 10 feet bgs. COPCs identified at that time, VOCs and metals, were either not detected or were detected in concentrations below their respective residential SRL (SA&B, 1999 and 2001). The samples were not analyzed for perchlorate during the RFI.

SWMU 22 (B-Complex)
Five surface soil samples were collected along the bottom of a 150 foot stretch of ephemeral wash west of Building B-9 (SWMU 22) to assess the concentration of silver that may have impacted soil due to discharge of x-ray film processing wastewater from 1983 to 1986. Five soil samples were analyzed for total silver by using EPA Method 6010. Analytical results indicated that silver was not detected above the laboratory reporting limit in these samples. Based on the analytical results, SA&B concluded that historical releases of x-ray film processing wastewater did not adversely impact surface

soil within the ephemeral wash behind Building B-1. Additional investigation of the ephemeral wash adjacent to Building B-9 was not recommended.

1.4.7. SMA Soil Sampling (UPCO, 2002)

In response to a 2002 incident involving the deflagration of energetic materials and the release of debris within the SMA (E-Complex), UPCO collected surface soil samples at 12 locations within the observed debris field to evaluate potential impacts to the surrounding soil (Appendix E). The surface soil samples were analyzed for perchlorate, RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) by Toxicity Characteristic Leaching Procedure (TCLP), aluminum, copper, iron, and magnesium (total recoverable), chloride, potassium, sulfur, nitrate, nitrite, nitrogen, total Kjeldahl nitrogen, and pH.

The surface soil samples collected approximately 90 feet east of Magazine E-1D contained perchlorate concentrations that ranged from 0.02 mg/kg to 124 mg/kg. Analytical results from the October 2002 SMA sampling event are presented in Appendix E.

1.4.8. Mop Water Investigation (UPCO, 2002)

In 2002, UPCO had an accidental release of approximately 100 gallons of mop water to the soil in the C-Complex Area. The mop water contained perchlorate and lead generated by housekeeping activities in the C-Complex process areas. The spill area (Mop Water Area) is bounded by a sidewalk that allows access to Buildings C-1, C-2, C-3, and C-7. The topography of the Mop Water Area slopes downhill generally from east to west. A visible drainage feature trends roughly through the center of the Mop Water Area and exits the C-Complex Area to the west into an ephemeral wash.

Following the mop water spill incident, 11 soil samples were collected by UPCO to assess the extent of impacted soil. Based on the analytical data, approximately 56 cubic yards of soil was excavated to a depth of approximately five feet bgs and transported off site for disposal. Soil with a perchlorate concentration greater than 610 mg/kg, the Arizona Department of Health Services (ADHS) Health Based Guidance Level (HBGL), or lead concentrations greater than the non-residential SRL of 1,200 mg/kg was removed. Three confirmation samples were collected to evaluate if enough soil had been removed to the specified levels. The concentration of perchlorate in the confirmation samples ranged from 13.7 mg/kg to 197 mg/kg. A polyethylene liner was placed at the bottom of the excavation and the excavation was backfilled to grade with import material.

1.4.9. Initial Groundwater Investigation (H+A and ADEQ, 2003 and 2004)

Two monitor wells, MW-1 and MW-2, were installed at the UPCO facility in December 2003 (H+A, 2004e). An exploratory boring, SH-1, was also drilled in the Waterbore Area, northwest of the current water wand, as part of this investigation. The purpose of the well installation and borehole activities was to investigate the hydrogeologic conditions and groundwater quality at the facility. The results of the investigation are summarized below.

- The total depth drilled at MW-1, MW-2, and SH-1 was 243, 253, and 278 feet, respectively. Each boring intersected the groundwater surface. Table 1 provides a description of the well construction details for MW-1 and MW-2 and Figure 4 presents well locations.
- Two separate subsurface geologic units were observed in the three borings which included an overlying sedimentary unit and a bedrock unit. The interpreted depth to the bedrock unit for MW-1, MW-2, and SH-1 was 100, 95, and 167 feet bgs respectively.
- Subsurface soil samples were collected at each boring at 10 foot intervals to a total depth of 50 feet bgs. The samples were analyzed for perchlorate. The analytical results at MW-1 and MW-2 indicated perchlorate was not present above laboratory reporting limits for each depth interval. The soil results at SH-1 had detectable concentrations of perchlorate ranging from 0.10 to 2.6 mg/kg.
- Groundwater levels collected from the monitor wells MW-1 and MW-2 were initially interpreted to show a general flow direction to the west-southwest. The groundwater flow direction was considered approximate and additional monitor well installation was recommended.
- Perchlorate was detected in groundwater samples collected from MW-1 and MW-2. Water quality samples were not collected from SH-1. Perchlorate concentrations in MW-1 ranged in concentration from 88 to 130 micrograms per liter (µg/L) over three initial monthly sampling events. Perchlorate concentrations in MW-2 ranged in concentration from 39 to 47 µg/L over the same time period. Perchlorate and 1,1-dichloroethene (DCE) were also detected in the facility production well, PW-1.

During March 2004, ADEQ sampled private domestic wells in the neighborhood areas located north and west of the facility, and production wells at the Arizona Department of Transportation (ADOT) facility located at 24251 North 7th Avenue. Perchlorate was not detected above the laboratory reporting limit in groundwater samples collected from the private wells or at the ADOT facility.

1.4.10. RCRA Closure (Malcolm Pirnie, 2008)

The RCRA permitted hazardous waste treatment units at the UPCO facility (OBU and TTU), ceased operations in December 2004 and May 2004, respectively. The treatment units were decontaminated and demolished in December 2007 and January 2008 following the ADEQ-approved Closure Plan (Attachment G of the facility's RCRA Part B Permit). The closure of the OBU also included limited excavation and disposal of impacted soil adjacent to the burn pad. The soil removal was conducted on September 20, 2008. A summary of the closure activities is included in the RCRA Closure Report submitted to ADEQ on December 19, 2008 (Malcolm Pirnie, 2008j).

1.5. Regional Setting

1.5.1. Regional Geology

The Site is located within the Basin and Range physiographic province of Arizona. The Basin and Range is characterized by northwest trending bedrock mountain ranges separated by gently sloping alluvial valleys (basins). The UPCO facility is located between and within the southern flanks of the Union Hills, a northwest trending bedrock mountain range, and the northern margin of the West Salt River Valley within the Union Hills USGS 7.5' Quadrangle (Figure 5). Topographic relief near the facility ranges up to 800 feet, and generally slopes in a south-southwest direction from the Union Hill towards the West Salt River Valley. The geology of the Union Hills and West Salt River Valley are described below.

1.5.1.1. Bedrock Geology of the Union Hills

Near the former UPCO facility, the Union Hills are comprised of Early to Middle Proterozoic (1740 to 1335 Ma) metavolcanic, metasedimentary, and plutonic bedrock. The bedrock is described as comprising part of a Proterozoic terrane that contains rocks of similar metamorphic grade and deformational fabrics largely correlative with the Tonto Basin Supergroup, Diamond Rim Intrusive Suite, and a younger intrusive suite (Holloway and Leighty, 1998). The bedrock is often covered by a thin veneer of regolith, but it may locally outcrop in the dry washes or road cuts in the Union Hills. Figure 6 shows the surface distribution of the bedrock at and surrounding the facility.

Descriptions of the individual bedrock units are provided below and are based on geologic mapping by Holloway and Leighty (1998) and Wilson et al. (1957).

Metavolcanic Units

The metavolcanic bedrock units (Xva, Xvat, Xvd, Xvf, and Xvft on Figure 6) are highly foliated, predominantly intermediate to mafic in composition, and are of greenschist or lower metamorphic grade. The geochemical composition of the meta-volcanic rocks vary from rhyolitic to basaltic, with textures ranging from aphanitic to porphyritic. The different volcanic units are locally interbedded and are collectively referred to as the greenstone throughout this report. The greenstone forms one of the predominant bedrock types mapped near the facility, and is observed to weather red, brown, orange, and green at the surface. Hydrothermally altered zones of the more feslic rocks within the unit are described as rich in hematite, limonite, goethite, and ilmenite (Holloway and Leighty, 1998). The rocks within the greenstone unit were deposited in the proximal and distal portions of a submarine volcanic system (Anderson, 1989b).

Metasedimentary Unit

The metasedimentary bedrock unit (Xs and Xfc on Figure 6) is comprised of indurated, slightly foliated meta-greywacke with lesser amounts of stretched pebble conglomerate, breccia, and ferruginous chert. This unit is interbedded with the metavolcanic sequence, forming only a minor component of the mapped bedrock in the Union Hills (Holloway and Leighty, 1998).

Plutonic Units

The plutonic bedrock units (YXd, YXg, YXgd, Xd, Xg, Xgp, and Xgd on Figure 6) are predominantly granitic to granodioritic in composition. Two intrusive bodies are present near the UPCO facility, a foliated suite (Xd, Xg, Xgp, and Xgd) and a relatively unfoliated suite (YXd, YXg, and YXgd). The foliated suite is geochemically similar to the meta-volcanic bedrock discussed above, and may be related to its parent magma (Anderson, 1989b). The relatively unfoliated plutonic rocks cross-cut the metavolcanic bedrock; and most likely belong to a younger group (1485–1380 Ma) of granitic batholiths extending from the mid-continent region to the Mojave Desert (Anderson, 1989a).

Bedrock Structure

As reported by Holloway and Leighty, 1998, a foliated structural fabric is present in the Early to Middle Proterozoic bedrock units of the Union Hills; and has a preferred strike to the north and/or northeast and is steeply dipping to northwest. The foliation is defined by alignment of mica grains, segregation of felsic and mafic minerals, and cleavage. The foliation is most pronounced in the greenstone bedrock unit. A secondary horizontal foliation is also reported within the greenstone unit near the site. Tight, northeast-trending isoclinal folds and large megascopic folds of the metavolcanic and co-eval plutonic rocks

are reported in the central portions of the Union Hills; however, faulting is not reported or mapped. The deformational fabric (i.e. foliation and folds) likely developed during the Yavapai Orogeny (1700 to 1690 Ma), which predates the emplacement of the unfoliated granitic suite. The entire Proterozoic bedrock basement sequence of the Union Hills has been dissected by detachment and normal faulting during extensional events which occurred from 25 to 8 Ma. Faulting associated with the extensional tectonics is not mapped near the Site, and is likely obscured by recent (Holocene) sedimentation (Holloway and Leighty, 1998).

The interpreted geologic history of the bedrock is summarized below:

- Compositionally diverse volcanism (basalt, andesite, dacite, and rhyolite) and related sediments were erupted/deposited during the Early Proterozoic (1740 to 1710) as part of a submarine volcanic complex. Co-eval, and potential co-genetic granitic to dioritic plutons were emplaced during this period.
- The volcanic and plutonic suite was deformed during the Yavapai Orogeny (1700 to 1690 Ma). The deformational event resulted in the dominant north to northeast striking sub-vertical foliation.
- Middle Proterozoic (1485 to 1380 Ma) granitic to dioritic plutons were emplaced into the older Proterozoic terrane.
- Two periods of extensional tectonics dissect the Proterozoic basement. The first is related to the low angle detachment faulting associated with the South Mountain-White Tank Metamorphic core complex (Spencer and Reynolds, 1989). The second is related to high-angle rotational block faulting of Basin and Range tectonics which resulted in the northeast trending mountain ranges and valleys that we see today (Menges and Pearthree, 1989).

1.5.1.2. Geology of the West Salt River Valley

The West Salt River Valley in the Union Hills quadrangle, also referred to as Deer Valley, is comprised of Cenozoic (Late Oligocene to Pleistocene) basin fill sedimentary deposits and basaltic flows which overlie and/or are deposited on top of the down-dropped, tilted bedrock units described previously. Descriptions of the West Salt River Valley units are provided below and are based on geologic mapping by Holloway and Leighty (1998) and Wilson et al. (1957).

Tertiary Basalts

Tertiary basaltic flows are not observed near the Site; however, they are mapped as isolated mesa-capping units within the Union Hills quadrangle. The basalts post-date low-angle extensional tectonics, but predate rotational block faulting. Basaltic clasts

derived from the erosion of the Tertiary basalts are preserved in the sedimentary deposits described below.

Sedimentary Units
A thin veneer of unconsolidated to well cemented alluvial/colluvial sediments (Undifferentiated Quaternary on Figure 6) comprise the majority of the surface area within the Union Hills quadrangle. Near the Site, the surface deposits are described as middle Pleistocene alluvial fan and terrace deposits that are comprised of sandy to loamy, tan sandstones and conglomerates. The conglomerates have abundant granitic and metamorphic gravel clasts in a tan to brown sandy/silty matrix. The alluvial/colluvial sediments are locally eroded or are covered by small active dry-washes, low terraces, and broad alluvial fans.

The Undifferentiated Quaternary deposits cover older (Tertiary) Basin Fill deposits throughout most of the Union Hills; however, the older Basin Fill deposits locally outcrop to the southwest of the Site (Tsy on Figure 6). The Basin Fill deposits, where observed at the surface, are described as clast-supported, poorly sorted, conglomerate. The clast compositions include Proterozoic granite, granodiorite, and diorite; and Tertiary basalts. The matrix of the conglomerate is calcareous and sandy with variable amounts of hematite. The sedimentary deposits within Deer Valley near the Site are likely derived from the surrounding Union Hills (Holloway and Leighty, 1998).

The young colluvial/alluvial cover, and the older Basin Fill deposits are collectively referred to as the Sedimentary Unit throughout this report. Previous research suggests that the sedimentary strata within Deer Valley does not form a significant basin. The thickness of the Sedimentary Unit near the Site is generally mapped as less than 500 feet in thickness (Corkhill et al., 1993; Brown and Pool, 1989).

Sedimentary Unit Structure
Surface expressions of normal faults, such as fault scarps in the sediment or bedrock, are not reported in recent geologic investigation of the Union Hills (Holloway and Leighty, 1998). However, Quaternary faulting within nearby sedimentary deposits is reported by Pearthree and Scarborough (1984). The surface contact between the Sedimentary Unit and the Precambrian basement near the site is mapped as a nonconformity.

1.5.2. Regional Hydrogeology

The regional hydrogeology encompasses two significant hydrogeologic units. They include the Sedimentary Unit within the West Salt River Valley Basin, and the Proterozoic bedrock which comprises the Union Hills and underlies the alluvial deposits.

The West Salt River Valley Basin is comprised of a heterogeneous interbedded mixture of valley-fill deposits generally surrounded by bedrock outcrops. The basin is bounded on its eastern margin by the Union Hills, the Phoenix Mountains, and the Papago Buttes. The southern boundary includes South Mountain, the Sierra Estrella Mountains and the Buckeye Hills. The western boundary consists of the White Tank Mountains and the northern boundary consists of the Hieroglyphic Mountains (Reeter and Remick, 1986; Hammett and Herther, 1995).

The water-bearing units within the valley-fill deposits are traditionally divided based on lithologic characteristics. In descending order from the land surface, the water-bearing units include the upper alluvial unit (UAU), the middle fine-grained unit (MAU), and the lower alluvial unit (LAU). The primary water bearing unit in the West Salt River Valley Sub-basin is the UAU. The UAU ranges in thickness from zero feet near the mountain fronts to more than 1,000 feet in the interior of the sub-basin (Reeter and Remick, 1986). A direct correlation between the typical hydrogeologic units of the Salt River Valley (e.g. UAU, MAU, and LAU) and those underlying the UPCO facility has not been made.

Depths to groundwater vary within the UAU temporally and with location. On a regional scale, the groundwater flow direction near the UPCO facility appears to be from the northeast to the southwest away from the Union Hills (Rascona, 2003). Generally, groundwater levels are shallowest near the primary surface water courses including the Agua Fria, Salt, and Gila Rivers, and increase in depth as distance from the main water courses increases. Groundwater levels are also affected by centers of groundwater pumpage and recharge. A Regional Groundwater Elevation Map is provided as Figure 7.

Groundwater in the UAU generally occurs under unconfined conditions and ranges from a sodium/calcium-bicarbonate water type to a sodium-chloride type (Reeter and Remick, 1986). Confined or leaky-confined conditions may locally occur where substantial fine grained units overly the main water-bearing unit, or where fine-grained and coarse-grained units interfinger (Anderson, 1995). Total dissolved solids concentrations in upper alluvial groundwater range from as low as 200 milligrams per liter (mg/L) in the northern portion of the sub-basin to approximately 2,400 mg/L generally along the western extent of the Salt River (Reeter and Remick, 1986). Chemical quality of groundwater in the basins varies spatially and with depth and is closely related to mineralogy, structure, and drainage patterns with the basin (Anderson, 1995).

The bedrock units, which underlie the basin sediments and comprises the Union Hills, may contain usable amounts of groundwater where they are significantly fractured or faulted (Anderson, 1995).

1.6. Report Organization

This report has been organized to follow the guidelines for remedial investigation reporting outlined in the EPA's Guidance for Conducting Remedial Investigations and Feasibility Studies under Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (EPA, 1988) and the American Society for Testing and Materials (ASTM) E1689-95 Standard Guide for Developing Conceptual Site Models for Contaminated Sites (ASTM, 1995). It consists of the following main sections:

- Introduction – overview of the facility operations, previous investigations, and regional geology / hydrogeology;
- Study Area Investigation – a summary of field activities performed during the soil, soil gas and groundwater investigations conducted as part of the RI
- Nature and Extent of Contamination – a summary of the analytical results of the RI investigations
- Physical Characteristics of Study Area – a summary of the geologic and hydrogeologic properties of the site
- Conceptual Site Model (CSM) – a summary of current site conditions and the predicted fate, transport, and potential exposure; and
- Summary and Conclusions

2. Study Area Investigation

2.1. Soil Investigation Summary

Initial RI soil characterization activities were conducted between July 2004 and August 2005 and supplemental soil characterization was performed between February and March 2008. The soil investigation activities included the sampling and analysis of soil samples at each of the following operational areas:

- B-Complex;
- C-Complex;
- D-Complex
    - Waterbore Area
    - Thermal Treatment Unit
    - Old Burn Area;
- E-Complex
    - Storage Magazine Area;
- F-Complex; and
- Open Burn Unit (New Burn Area).

The area by area investigations were focused on the suspected or known releases of COPCs. The soil boring and sampling activities were intended to provide sufficient data to vertically and horizontally characterize surface and subsurface soils that may contain COPCs above the applicable screening levels.

The results of each area by area investigation were originally presented to ADEQ in separate draft site investigation reports organized by operational area. ADEQ reviewed and commented on these draft area reports, as well as the draft RI Summary Report (Malcolm Pirnie, 2006e), and the Interim RI Summary Report (Malcolm Pirnie, 2009b). In response, additional information and revisions were incorporated into this Final RI Report, where applicable. The detailed rationale for sample methodology, sample location, sample depth, and sample analysis are described in the site investigation work plans for each of the operational areas which include:

- Soil Characterization Work Plan, Storage Magazine Area (H+A, 2004d), (E-Complex);
- Site Investigation Work Plan, Waterbore Area (Malcolm Pirnie, 2004a), (D-Complex);
- Site Investigation Work Plan, C-Complex Area (Malcolm Pirnie, 2004c);
- Site Investigation Work Plan, F-Complex (Malcolm Pirnie, 2005c);
- Site Investigation Work Plan, Old Burn Area and Thermal Treatment Unit (Malcolm Pirnie, 2005b), (D-Complex);
- Site Investigation Work Plan, New Burn Area (Open Burn Unit) (Malcolm Pirnie, 2005d);
- Site Investigation Work Plan, B-Complex (Malcolm Pirnie, 2005e); and
- Supplemental Soil and Soil Gas Investigation Work Plan (Malcolm Pirnie, 2008a).

A summary of the initial RI soil characterization activities in 2004 and 2005 and supplemental RI soil characterization in 2008 are presented in the following sections.

Contaminants of Potential Concern and Characterization Targets

The COPCs were identified for each operational area from a detailed review of operational history at the facility. To ensure soil samples were representative, the facility operations, chemicals used, and location information associated with processes and disposal were considered and incorporated into the characterization approach and sampling methodology. Following consultation with ADEQ, vertical and horizontal site characterization targets for COPCs were identified. The vertical characterization target for perchlorate in soil was identified as the project laboratory reporting limit of 0.04 mg/kg. The horizontal characterization target was identified as the EPA residential Preliminary Remediation Goal (PRG) of 7.8 mg/kg. The vertical and horizontal characterization targets for COPCs, other than perchlorate, were identified as the Arizona residential SRLs, if established. It should be noted that vertical characterization targets were superseded in instances where bedrock was encountered in the subsurface and soil sampling could not be accomplished. Site-specific clean-up objectives have not been established.

Surface and subsurface borings advanced during the 2004 and 2005 investigation activities provided initial sample results to characterize the nature, magnitude, and extent

of COPCs in soil. Supplemental surface and subsurface borings advanced in 2004, 2005 and 2008 provided additional characterization data for the horizontal and vertical delineation of COPCs in soil relative to horizontal and vertical characterization targets, respectively.

2.1.1. Soil Sampling Methodology

The general soil sampling methodology followed during the soil investigations is summarized in the following sections.

2.1.1.1. Surface Soil Sampling

Surface soil samples were collected using a disposable and/or decontaminated stainless steel scoop. The surface soil samples were defined between the depths of 0 feet (ground surface) and 1-foot below ground. Soil was scooped into a disposable plastic bowl (or decontaminated stainless steel bowl), homogenized, and transferred into laboratory-provided sample containers. The stainless steel sampling equipment was decontaminated with an Alconox® solution followed by a distilled water rinse prior to and between sample collection.

2.1.1.2. Sub-Surface Soil Sampling

An ultrasonic rig was used to drill soil borings and collect soil cuttings at investigative locations. At some of the locations, drilling with the ultrasonic method was not effective due to highly cemented alluvium. At these locations an air rotary setup was used to advance the boring to within five feet of the desired sample depth to facilitate sample collection. The rig was then converted back to ultrasonic operation to drill the final five feet for sample collection in each of the investigation areas. Upon retrieving the core barrel to the surface, the soil core was placed into clear plastic bags. The cores produced ranged from one to three feet in length and were approximately six inches in diameter. The plastic wrapped soil cores were used to facilitate lithologic logging of the borehole and collection of soil samples. The samples were collected by opening the plastic core wrapping at the desired depth interval and transferring soil using disposable and/or decontaminated stainless steel scoops into laboratory-provided sample containers.

The soil cores from each boring were retained in their original plastic wrapping and placed in cardboard boxes, which were stacked on pallets for future sampling and/or observation, if necessary. After drilling and sampling to the specified total depth, each borehole was abandoned using cement grout in accordance with Arizona Department of Water Resources (ADWR) guidelines. In areas that were inaccessible to the drill rig (i.e., in the ephemeral washes), soil borings were advanced manually with a decontaminated hand auger.

2.1.1.3. Quality Assurance

Sample jars containing soil were preserved on ice in a cooler at approximately 4 degrees Celsius (^{o}C) under chain of custody protocol before transferring the samples to the laboratory. Procedures regarding sample collection, handling, and analysis were in accordance with the Quality Assurance Project Plan (QAPP) (H+A, 2004b).

Duplicate samples, matrix spike, and matrix spike duplicate samples were collected at a frequency of 10 percent for QA/QC purposes, as described in the QAPP (H+A, 2004b). Appendix F provides documentation of the quality assurance procedures.

2.1.2. Background and Fence Line Sampling

Background surface soil samples were collected at one location within the undeveloped portion of the UPCO property, northwest of UPCO's operations, during the SMA investigation (see Figure 8). The samples were collected to establish background concentrations of COPCs in soil. In addition, soil samples were collected, at the request of nearby homeowners, from nine primary surface soil borings within the UPCO facility lease boundary along the north and west fence line. The objective of the fence line sampling was to assess if surface soil that was representative of nearby residential properties had detectable concentrations of COPCs associated with historic open burning and testing activities at the UPCO facility. The COPCs investigated include perchlorate, RCRA metals, explosives, and dioxins.

2.1.3. B-Complex

A total of 117 soil samples were collected from 39 surface or subsurface soil boring locations within the B-Complex Area (see Figure 9). The sample locations, depths, and analyses were identified based on area operations, potential or known historic releases, and data gaps from previous assessments/investigations. The COPCs in soil include perchlorate, RCRA metals, nitrate, and acetate. A more detailed discussion regarding sampling locations and depths can be found in the Site Investigation Work Plan for the B-Complex Area (Malcolm Pirnie, 2005e), the draft Site Investigation Report for the B-Complex Area (Malcolm Pirnie, 2005h) and the Supplemental Soil and Soil Gas Investigation Work Plan (Malcolm Pirnie, 2008a).

2.1.4. C-Complex

A total of 98 soil samples were collected from 22 surface or subsurface soil boring locations within the C-Complex Area (see Figure 10). The sample locations, depths, and analyses were identified based on area operations, potential or known historic releases, and data gaps from previous assessments/investigations. The COPCs in soil include

perchlorate, RCRA metals, nitrate, cyanide, semi volatile organic compounds (SVOCs), and sodium azide. A more detailed discussion regarding sampling locations and depths can be found in the Site Investigation Work Plan for the C-Complex Area (Malcolm Pirnie, 2004e), the draft Site Investigation Report for the C-Complex Area (Malcolm Pirnie, 2005f) and the Supplemental Soil and Soil Gas Investigation Work Plan (Malcolm Pirnie, 2008a)

2.1.5. D-Complex

There were three specific sub-areas of focus within the D-Complex during the soil investigation. These areas include the Old Burn Area, TTU, and the Waterbore Area.

2.1.5.1. Old Burn Area

A total of 112 soil samples were collected from 51 surface or subsurface soil boring locations within the Old Burn Area (see Figures 11 and 12). The sample locations, depths, and analyses were identified based on area operations, potential or known historic releases, and data gaps from previous assessments/investigations. The COPCs in soil include perchlorate, RCRA metals plus aluminum and copper, nitrate, explosives, and dioxins. A more detailed discussion regarding sampling locations and depths can be found in the Old Burn and Thermal Treatment Unit Site Investigation Work Plan (Malcolm Pirnie, 2005b), the draft Old Burn and Thermal Treatment Unit Site Investigation Report (Malcolm Pirnie, 2005i) and the Supplemental Soil and Soil Gas Investigation Work Plan (Malcolm Pirnie, 2008a).

2.1.5.2. Thermal Treatment Unit

A total of 104 soil samples were collected from 30 surface or subsurface soil boring locations within the TTU Area (see Figure 13). The sample locations, depths, and analyses were identified based on area operations, potential or known historic releases, and data gaps from previous assessments/investigations. The COPCs in soil include perchlorate, RCRA metals plus aluminum and copper, nitrate, and pH. A more detailed discussion regarding sampling locations and depths can be found in the Site Investigation Work Plan for the Old Burn and Thermal Treatment Unit (Malcolm Pirnie, 2005b), the draft Site Investigation Report for the Old Burn and Thermal Treatment Unit (Malcolm Pirnie, 2005i) and the Supplemental Soil and Soil Gas Investigation Work Plan (Malcolm Pirnie, 2008a).

2.1.5.3. Waterbore Area

A total of 155 soil samples were collected from 15 surface or subsurface soil boring locations within the Waterbore Area (see Figure 14). The sample locations, depths, and analyses were identified based on area operations, potential or known historic releases,

and data gaps from previous assessments/investigations. The COPCs in soil include perchlorate, nitrate, and lead. A more detailed discussion regarding sample locations and depths can be found in the Site Investigation Work Plan for the Waterbore Area (Malcolm Pirnie, 2004a), the draft Site Investigation Report for the Waterbore Area (Malcolm Pirnie, 2004e) and the Supplemental Soil and Soil Gas Investigation Work Plan (Malcolm Pirnie, 2008a).

2.1.6. E-Complex (Storage Magazine Area)

A total of 61 soil samples were collected from 27 surface or subsurface soil boring locations within the SMA (see Figure 15). The sample locations, depths, and analyses were identified based on area operations, potential or known historic releases, and data gaps from previous assessments/investigations. The COPCs in soil include perchlorate, nitrate, and lead. A more detailed discussion regarding sampling locations and depths can be found in the Soil Characterization Work Plan for the Storage Magazine Area (H+A, 2004d) and draft Site Investigation Report for the Storage Magazine Area (Malcolm Pirnie, 2004b).

2.1.7. F-Complex

A total of 71 soil samples were collected from 22 surface or subsurface soil boring locations within the F-Complex Area (see Figure 16). The sample locations, depths, and analyses were identified based on area operations, potential or known historic releases, and data gaps from previous assessments/investigations. The COPCs in soil include perchlorate, RCRA metals, and nitrate. A more detailed discussion regarding sampling locations and depths can be found in the Site Investigation Work Plan for the F-Complex (Malcolm Pirnie, 2005c), the Proposed Supplemental F-Complex Soil Investigation letter to ADEQ (Malcolm Pirnie, 2006a), the draft Site Investigation Report for the F-Complex Area (Malcolm Pirnie, 2005g) and the Supplemental Soil and Soil Gas Investigation Work Plan (Malcolm Pirnie, 2008a).

2.1.8. Open Burn Unit (New Burn Area)

A total of 147 soil samples were collected from 47 surface or subsurface soil boring locations within the New Burn Area (see Figures 17 and 18). The sample locations, depths, and analyses were identified based on area operations, potential or known historic releases, and data gaps from previous assessments/investigations. The COPCs in soil include perchlorate, RCRA metals plus aluminum and copper, nitrate, explosives, and dioxins. A more detailed discussion regarding sampling location and depths can be found in the Site Investigation Work Plan for the New Burn Area (Malcolm Pirnie, 2005d) and the draft Site Investigation Report for the New Burn Area (Malcolm Pirnie, 2005j).

2.2. Soil Gas Investigation Summary

Initial soil gas investigation activities were conducted between July 2004 and August 2005 and supplemental soil gas characterization was performed between February and March 2008. The soil gas investigation activities included the sampling and analysis of soil gas samples at each of the following operational areas:

- B-Complex;
- C-Complex;
- D-Complex
    - Waterbore Area
    - Old Burn Area;
- F-Complex; and
- Open Burn Unit (New Burn Area).

The area investigations were focused on locations where solvents were managed, stored, or used and/or potentially released to the surrounding soil (e.g., septic leach fields). The soil boring and soil gas sampling activities were intended to provide sufficient data to assess for the presence or absence of VOCs in soil vapor and identify primary COPCs.

The results of each area investigation were originally presented to ADEQ in separate draft site investigation reports organized by operational area. ADEQ reviewed and commented on these draft area reports, and supplemental soil gas data was obtained to address ADEQ's comments. The detailed rationale for sample methodology, sample location sample depth, and sample analysis are described in the site investigation work plans for each of the operational areas including:

- Site Investigation Work Plan, C-Complex Area (Malcolm Pirnie, 2004c);
- Site Investigation Work Plan, F-Complex (Malcolm Pirnie, 2005c);
- Site Investigation Work Plan, Old Burn Area and Thermal Treatment Unit (Malcolm Pirnie, 2005b);
- Site Investigation Work Plan, New Burn Area (Malcolm Pirnie, 2005d);
- Site Investigation Work Plan, B-Complex (Malcolm Pirnie, 2005e); and
- Supplemental Soil and Soil Gas Investigation Work Plan (Malcolm Pirnie, 2008a).

Sampling methodology and the initial RI soil gas investigation activities in 2004 and 2005 and supplemental RI soil gas investigation in 2008 are summarized in the following sections.

2.2.1. Soil Gas Sampling Methodology

Soil gas samples were collected during the 2004 and 2005 investigations using direct push and/or packer assemblies, and during the 2008 supplemental investigation using a packer assembly. Both soil gas investigations utilized one-liter Summa canisters for sample collection. The total depth and number of samples varied for each location and area assessed during the investigations. Soil gas sampling performed beneath the septic leach fields started at a depth of 30 feet bgs so that samples were collected beneath the potential release areas.

2.2.1.1. Direct Push Soil Gas Sampling

Direct push soil gas sampling included the use of a discrete sampling probe that was advanced at borehole locations to the desired interval by the drill rig. The outer casing of the probe was then retracted a few inches as the drive point was held in place, exposing an air intake screen. Soil vapor was purged using a vacuum pump and disposable tubing connected to the probe's screened chamber. After purging the appropriate number of well volumes, a soil gas sample was collected. The soil gas sample was collected by connecting a one-liter stainless-steel Summa canister (under vacuum) to the disposable tubing using a stainless steel manifold system. The manifold valve was then opened allowing soil gas to flow into the canister under vacuum pressure. A flow control valve regulated the sample collection rate at approximately one liter per minute. Direct push sampling was not used during the 2008 supplemental investigation.

2.2.1.2. Packer Assembly Soil Gas Sampling

At locations where advancement of the direct-push sampling probe was unsuccessful, a packer assembly was used to collect soil gas samples. After the ultrasonic core rig advanced a borehole to the desired soil gas sampling depth, an inflatable packer was lowered to the bottom of the borehole. The packer was inflated so that a seal was created against the wall of the borehole. If a proper seal could not be achieved within the open borehole, a temporary casing was driven along the walls of the borehole to approximately one foot above the total borehole depth and the packer was inflated to create a seal against the casing. A flexible tube, which passed through the packer into the open borehole beneath the packer, was connected to a vacuum pump and the bottom of the borehole purged and sampled in the same manner described in the direct push method. The air pressure of the packer was monitored to ensure a seal was maintained during sample collection.

At locations where refusal occurred during sonic drilling, an air rotary drilling setup was used to drill within five feet of the desired sampling depth. The rig was then converted to the sonic drill setup and advanced an additional five feet to the desired sampling depth. The packer assembly was then utilized to collect the soil gas sample as described above.

2.2.1.3. Quality Assurance

Duplicate samples, matrix spike, and matrix spike duplicate samples were collected at a frequency of 10 percent for QA/QC purposes, as described in the QAPP (H+A, 2004b). Appendix F provides documentation of the quality assurance procedures.

2.2.2. B-Complex

A total of 80 soil gas samples were collected from 41 subsurface soil borings within the B-Complex Area (see Figures 19, 20 and 21). The sample location, sample depth, and COPCs were identified based on B-Complex Area operations, potential historic releases, and data gaps from previous assessments/investigations. A detailed discussion on B-Complex Area operations, potential historic releases, previous site investigations, and the rationale for sampling locations and depths can be found in the Site Investigation Work Plan for the B-Complex Area (Malcolm Pirnie, 2005e) and the Supplemental Soil and Soil Gas Investigation Work Plan (Malcolm Pirnie, 2008a).

2.2.2.1. Soil Vapor Monitoring Well Installation

One of the boring locations, BC-SG41, was completed as a nested soil vapor monitoring well (SVMW-1) in October and November 2008 to allow for monitoring of the vertical distribution of COPCs in soil gas beneath the suspected source area in B-Complex (see Figures 19-21). The pilot borehole that was advanced during the soil gas investigation was reamed using a conventional air-rotary method. A 20-foot section of low carbon steel conductor casing was grouted in place to provide a surface seal and prevent collapse of the borehole during reaming. The boring had a nominal 10-inch diameter that was initially advanced approximately 20 feet below the water table to facilitate the collection of a grab sample near the surface of the groundwater table (see Section 3.3.3). Grab samples of the soil cuttings were collected at regular intervals while reaming and logged using the Unified Soil Classification System (USCS) method. If bedrock was encountered in the borehole, it was logged using USGS rock descriptions. The lithologic log for this borehole is provided in Appendix G.

The borehole was then grouted and a series of four nested soil gas monitoring screens, each ten feet in length, were installed at 190-200 feet bgs, 140-150 feet bgs, 90-100 feet bgs, and 30-40 feet bgs, respectively. The soil vapor monitor well was constructed with

one 0.5-inch diameter schedule 80 polyvinyl chloride (PVC) casing and 0.04-inch slot screen (installed at 190 to 200 feet bgs) and three 2-inch diameter schedule 80 PVC casing with 0.02-inch slot screens. Annular construction materials included #8-12 silica sand, 3/8”-inch washed pea gravel, bentonite pellets, and neat cement grout. Annular materials were delivered to the subsurface using a tremie pipe. An as-built well construction diagram is provided in Appendix G.

2.2.3. C-Complex

A total of 13 soil vapor samples were collected from 8 subsurface soil borings within the C-Complex Area (see Figure 22). The sample location, sample depth, and COPCs were identified based on C-Complex Area operations, potential historic releases, and data gaps from previous assessments/investigations. A more detailed discussion on C-Complex Area operations, potential historic releases, previous site investigations, and rationale for sampling locations and depths can be found in the Site Investigation Work Plan for the C-Complex Area (Malcolm Pirnie, 2004c) and the Supplemental Soil and Soil Gas Investigation Work Plan (Malcolm Pirnie, 2008a).

2.2.4. D-Complex

There were two sub-areas of focus within the D-Complex during the soil gas investigations: the Old Burn Area and the Waterbore Area. VOCs were not identified as COPCs at the TTU; therefore, a soil gas investigation was not conducted in that area. The following paragraphs describe soil gas sampling efforts in each area.

2.2.4.1. Old Burn Area

A total of four soil vapor samples were collected from three subsurface soil borings within the Old Burn Area (see Figure 23). The sample location, sample depth, and COPCs were identified based on Old Burn Area operations, potential historic releases, and data gaps from previous assessment/investigations. A detailed discussion on Old Burn Area operations, potential historic releases, previous site investigations, and rationale for sampling locations and depths can be found in the Site Investigation Work Plan for the Old Burn Area and Thermal Treatment Unit (Malcolm Pirnie, 2005b) and the Supplemental Soil and Soil Gas Investigation Work Plan (Malcolm Pirnie, 2008a).

2.2.4.2. Waterbore Area

A total of two soil gas samples were collected from one boring within the Waterbore Area during the supplemental soil gas investigation (see Figure 23). The sample location, sample depths, and COPCs were identified based on Waterbore Area operations, potential historic releases, and data gaps from previous assessment/investigations. A detailed discussion on Waterbore Area operations, potential historic releases, previous

site investigations, and rationale for sampling locations and depths can be found in the Site Investigation Work Plan for the Waterbore Area (Malcolm Pirnie, 2004a) and the Supplemental Soil and Soil Gas Investigation Work Plan (Malcolm Pirnie, 2008a).

2.2.5. F-Complex

A total of 34 soil vapor samples were collected from 13 subsurface soil borings within the F-Complex Area (see Figure 24). The sample location, sample depth, and COPCs were identified based on F-Complex Area operations, potential historic releases, and data gaps from previous assessments/investigations. A detailed discussion on F-Complex Area operations, potential historic releases, previous site investigations, and rationale for sampling locations and depths can be found in the Site Investigation Work Plan for the F-Complex (Malcolm Pirnie, 2005c) and the Supplemental Soil and Soil Gas Investigation Work Plan (Malcolm Pirnie, 2008a).

A fifth boring, identified in the work plan as FC-27, was not drilled during the supplemental investigation. The proposed boring was located in the vicinity of a compromised data line that was critical to operations at the F-Complex and D-Complex. UPCO was concerned that ground vibrations and heavy equipment travel associated with drilling at this location could permanently damage the data line, resulting in ceased operations and extensive repairs. ADEQ reviewed the previous soil gas data in this area and concurred that additional data obtained during the supplemental investigation would not provide enough value to warrant the risk of permanent damage to the data line.

After UPCO's operations were removed from the site, the necessity to collect a sample from location FC-27 was re-evaluated. Based on the data collected to date at the F-Complex, and knowledge of historical operations in the vicinity of proposed boring FC-27, the collection of additional data from FC-27 was not expected to identify a new contamination source or change the site conceptual model. Therefore, additional soil characterization in the F-Complex was not considered necessary to complete the RI and a sample from FC-27 was not collected.

2.2.6. Open Burn Unit (New Burn Area)

A total of nine soil vapor samples were collected from three subsurface soil borings within the New Burn Area (see Figure 25). The sample location, sample depth, and COPCs were identified based on New Burn Area operations, potential historic releases, and data gaps from previous assessments/investigations. A detailed discussion on New Burn Area operations, potential historic releases, previous site investigations, and rationale for sampling locations and depths can be found in the Site Investigation Work Plan for the New Burn Area (Malcolm Pirnie, 2005d).

2.3. Hydrogeologic Investigation

A hydrogeologic investigation was conducted between December 2003 and April 2011 at and near the UPCO facility. The hydrogeologic investigation included:

- The installation of monitor wells (MW-1 through MW-19) to assess the prevailing hydrogeologic conditions in the vicinity of the UPCO facility.
- Collection of core samples from four monitor well locations (MW-5, MW-6, MW-9, and MW-13) to assess the subsurface geology.
- Collection of geophysical logs from the open boreholes at most of the monitor well locations to assess the subsurface geology.
- Recording of groundwater elevations from the monitor wells, using a combination of manual depth to water measurement and pressure data downloaded from dedicated transducers installed in select wells to assess groundwater conditions.
- Collection of quarterly groundwater samples from monitor wells to assess groundwater quality beneath the facility.
- Analysis of the surface drainage pattern in the vicinity of the site.
- Collection of semi-annual samples from private off-site domestic wells north of the UPCO facility along Yearling Road.

The rationale for monitor well locations, groundwater monitoring, and groundwater sampling and analysis are described in multiple work plans including:

- Monitor Well Construction Work Plan (H+A, 2004e);
- Quality Assurance Project Plan (H+A, 2004b);
- Groundwater Monitoring Plan (Malcolm Pirnie, 2004d);
- Updated Groundwater Monitoring Plan (Malcolm Pirnie, 2008c); and
- Supplemental Groundwater Investigation Work Plan (Malcolm Pirnie, 2008a).

The groundwater monitor wells were installed in phases. The results for each phase activities are described in the well installation reports which include:

- Monitor Well Construction Summary Report (MW-1 and MW-2) (H+A, 2004f).
- Phase II Monitor Well Installation Report (MW-3 through MW-8)

(Malcolm Pirnie, 2005a).

- Phase III Monitor Well Installation Report (MW-9 through MW-12) (Malcolm Pirnie, 2006b).

Phase IV Monitor Well Installation (MW-13 through MW-15) and Phase V Monitor Well Installation (MW-16 through MW-19) results are included in this report. The results of the hydrogeologic investigation activities are summarized in the following sections.

2.3.1. Monitor Well Installation

Between 2004 and 2011, nineteen groundwater monitor wells were installed at on-site and off-site locations to assess groundwater quality, groundwater flow direction, and subsurface geology in the vicinity of the UPCO facility. The locations of the UPCO facility on site and off site monitor wells are shown in Figure 4. A summary of monitor well installation activities is presented in the following subsections.

2.3.1.1. Pilot Borehole Drilling (Core Drilling)

Pilot core holes were drilled at four monitor well locations (MW-5, MW-6, MW-9, and MW-13) to provide representative sections of the subsurface geology at the site (see Figure 4). An HQ core rig drilled a 3-inch diameter pilot borehole to a total depth of at least 50 feet below the first observed occurrence of groundwater, except MW-13 which was drilled to 500 feet bgs. A core barrel was utilized to collect lithologic samples. Continuous core was collected from the core barrel to the total depth drilled. The core barrel was advanced in up to five foot sections. The core samples were logged using the USCS visual manual method outlined in ASTM D2488 in unconsolidated layers. Consolidated units (i.e. bedrock) were logged using USGS rock descriptions. The lithologic logs for each borehole are provided in Appendix G. The recovered core was placed in labeled and indexed boxes which are currently stored on-site.

The total depth of the pilot boreholes for MW-5, MW-6, MW-9, and MW-13 are 285, 300, 240, and 500 feet bgs, respectively. Bedrock was encountered in the boring for MW-5 at a depth of 185 feet bgs, a depth of 48 feet bgs for MW-9, a depth of 195 feet bgs for MW-13, and not encountered in the boring for MW-6. Subsequent to pilot hole drilling and geophysics, the diameter of the pilot borehole was increased by reaming with an air rotary drill rig.

2.3.1.2. Air Rotary Drilling and Reaming

The boreholes for monitoring wells MW-1 through MW-19 were drilled, or reamed, using a conventional air-rotary method. The Phase I through Phase III borings (MW-1 through MW-11) were nominal 8-inch diameter with a total depth objective of

approximately 50 feet below the first observed occurrence of groundwater. The pilot borehole total depth was extended at MW-9 during reaming to achieve 50 feet of submergence below first observed occurrence of groundwater. The Phase IV and Phase V borings (MW-12 through MW-19) were nominal 10-inch diameter, to accommodate a larger well casing, with total depth objectives exceeding 300 feet below ground surface. At each location, a 20-foot section of low carbon steel conductor casing was grouted in place to provide a surface seal and prevent collapse of the borehole. Table 1 provides a description of the total depth drilled at each of the wells. Grab samples of the cuttings were collected at regular intervals from each boring and logged using USCS visual manual method outlined in ASTM D2488 in unconsolidated layers. If bedrock was encountered in the borehole, it was logged using USGS rock descriptions. The lithologic logs for each borehole are provided in Appendix G.

2.3.1.3. Borehole Geophysics

Geophysical surveys were performed in boreholes MW-3 through MW-14, and MW-16 through MW-18, and the private well installed at 18 E. Yearling. MW-15 and MW-19 were not logged because they were located within 50 feet of boreholes (MW-14 and MW-13, respectively) that were logged to at least 500 feet bgs. The geophysical techniques performed included:

- natural gamma ray;
- neutron;
- caliper;
- dual inductive resistance;
- density;
- spontaneous potential (SP);
- fluid temperature and fluid resistivity;
- normal, guard, and single point resistivity; and
- acoustic and optical borehole televiewer.

The type of geophysical methods employed at each location depended upon the stability of the borehole, type and level of fluid in the borehole, and potential of the borehole to retain fluid. Table 2 provides a summary of the geophysical surveys for each borehole. The geophysical data was collected by a variety of source and receivers. The processed data are provided in Appendix I. A description of each geophysical technique is provided below.

Acoustic Televiewer: The acoustic televiewer log produces a 360° oriented image of the fluid filled portions of a borehole using transmitted sound waves. The acoustic televiewer log is useful for indicating fractures and or bedding orientation, sedimentological characteristics, and unit contacts. The log is affected by borehole conditions, such as the roughness of the borehole wall and diameter, and centralization of the tool.

Caliper: The caliper log measures the borehole diameter in an open or fluid filled borehole. The caliper log is useful for assessing borehole integrity, zones of washout, or zones of borehole narrowing typically associated with swelling clays or blocks of fractured rock. The borehole diameter recorded by the caliper log critical to the interpretation for each of the other geophysical log types.

Density: The density log measures the electron density of the formation. Porosity can be interpreted from the density log in conjunction with lithologic identification. The log is affected by borehole diameter, decentralization of the tool, and quality of drill core.

Inductive Resistivity: The inductive resistivity log measures conductivity form alternating electrical currents that are induced into the formation in an open borehole. The inductive resistivity log is useful for stratigraphic comparisons between boreholes and determining porosity when the formation does not contain clay.

Normal Resistivity: The normal resistivity logs measures the resistivity of the surrounding formation in fluid filled boreholes. The resistivity logs is a useful tool for measuring pore fluid or interconnected pore spaces, and for stratigraphic comparisons with other boreholes.

Natural Gamma Ray: The natural gamma ray log measures the natural radioactivity of formations as the tool is lowered into an open or fluid filled borehole. The gamma ray log usually serves as an indicator of the shale or clay content of a formation due to the higher concentrations of radioactive isotopes, such as Potassium 40, which are found in these sedimentary units. The logs are useful for stratigraphic correlation between boreholes. The gamma ray log is affected by the centralization of the probe within the borehole, width of the borehole, presence of arkosic sands derived from granitic rocks, and the presence of caliche.

Neutron: The neutron log measures the results of the bombardment of the formation with neutrons emitted from a source on the tool as it is lowered into an open or fluid filled borehole. The neutrons commonly interact with hydrogen atoms as they are emitted, and

as a result the tool is a good indicator of moisture content above the water table, and saturated porosity below the water table. In conjunction with the gamma density log, the tool can be used to identify potential perched aquifers.

Optical Televiewer: The optical televiewer log produces a 360° oriented optical image of the fluid filled portions of a borehole. This technique is useful in clear fluid only. The optical televiewer log is useful for indicating fractures and or bedding orientation, sedimentological characteristics, and unit contacts. The log is affected by borehole conditions, such as the roughness of the borehole wall and diameter, and centralization of the tool.

Spontaneous Potential: The spontaneous potential log is a measure of electric potential, or voltage, measured between an electrode lowered into a fluid filled borehole and a second stationary electrode at the ground surface. The spontaneous potential log can be useful for correlating geologic units, determining bed thickness, delineating relative permeabilities, and determining the presence of shale.

2.3.1.4. Geophysical Fracture Analyses

Fracture analyses were performed in the Phase II through Phase V borings where bedrock was observed, which includes monitor wells MW-3, MW-4, MW-5, MW-8, MW-9, MW-11, MW-12, MW-13, MW-14, MW-16 and MW-18. Fracture analyses of MW-15 and MW-19 were not conducted due to analyses performed in deeper boreholes, located in proximity. MW-14 is considered representative of MW-14 and MW-13 is considered representative of. In addition, MW-12 is considered representative of MW-1. The analyses were performed to provide a quantitative assessment of the orientation and intensity of fractures. Acoustical and optical televiewer geophysical tools collected fracture data from bedrock sections with the boreholes. The data was reduced and digitized to conduct the fracture analyses. The orientation and depth interval were recorded for each fracture observed. Appendix I provides a summary of the fracture analyses.

2.3.1.5. Rock Quality Designation

Rock Quality Designation (RQD) analysis was performed on the bedrock core recovered from the pilot boreholes for MW-5, MW-9, and MW-13. RQD evaluates the relative degree of fracturing of the bedrock unit and provides a systematic method of identifying the location and extent of fracture zones. Appendix J provides the RQD data per core run for MW-5, MW-9, and MW-13.

2.3.1.6. Zonal Groundwater Sampling

Zonal groundwater sampling was conducted at select intervals in borings MW-12, MW-13, MW-14, MW-18 and SVMW-1, prior to well construction, to provide vertical characterization of perchlorate in groundwater. Some of the zonal samples were collected with a packer assembly which was lowered into the pilot borehole (approximately four inches in diameter) to the targeted sampling depth and then the packers were inflated to create a seal with the walls of the borehole, isolating a 20-foot section of the borehole for sample collection. A bladder pump supplied with nitrogen gas was used to purge the sampling interval and then collect the sample. Due to an obstruction in the MW-14 borehole at approximately 420 feet bgs, the deepest sample from this borehole was collected with a modified packer assembly. The bottom packer was removed and the top packer was set at approximately 413.5 feet bgs. The sample was collected from the open borehole between the packer seal at 413.5 feet and the bottom of the borehole, approximately 500 feet bgs. Additional water was purged prior to sample collection due to the larger sampling interval at this location.

Due to borehole instability, some of the zonal samples were collected using a temporary well set. As the borehole was reamed out to full diameter for well installation, the drilling was advanced to the targeted sampling depth and then the temporary well set was installed. The temporary well set consisted of a bentonite seal at the bottom of the sampling interval, a 10-foot or 20-foot screen, sand pack around the temporary screen, then another bentonite seal at the top of the sampling interval. A submersible pump was lowered into the temporary well screen for purging and sample collection within the targeted interval. At the completion of sample collection, the well screen was removed and the bentonite and sand pack were reamed out for well completion.

Zonal samples were collected from the MW-12, MW-13, MW-14, and SVMW-1 boreholes as follows:

- At MW-12, zonal samples were collected at 280 to 305 feet bgs and 370 to 380 feet bgs with temporary well sets.
- At MW-13, zonal samples were collected at 247 to 269 feet bgs with a temporary well set and at 480 to 502 feet bgs with a packer assembly.
- At MW-14, zonal samples were collected at 285 to 305 feet bgs and 413.5 to 500 feet bgs with a packer assembly and at 360 to 380 feet bgs with a temporary well set.
- At MW-18, zonal samples were collected at 175 feet to 195 feet bgs; 275 feet to 295 feet bgs and 369.5 feet to 389.5 feet bgs with temporary wells sets.

- At SVMW-1, a zonal sample was collected at 218 to 238 feet bgs (at the upper surface of groundwater) with a temporary well set.

2.3.1.7. Borehole Hydrophysics

Hydrogeophysical logging (HPL) activities were conducted in the borehole for monitor well MW-14 between June 23, 2008 and June 25, 2008. The tests were discrete in nature, and performed to identify water bearing zones, and quantify the flow rates under ambient and dynamic (pumping) conditions. Hydrophysical analyses consisted of an ambient flow characterization (AFC) test, a hydraulic characterization (HC) test using a prescribed draw down to assess well productivity, and a pumping during injection (PDI) test to monitor changes in fluid electrical conductivity (FEC). HPL testing planned at the MW-13 borehole location was not conducted due to borehole instability.

The HPL tool calibration was completed with prepared solutions of 3 micro Siemens (µs) and 547 µs. On the initial run down the borehole to conduct an ambient log, the HPL tool would not pass at approximately 422 feet bgs. Therefore, to avoid damaging the HPL tool, subsequent hydrophysical logging runs were made from a depth of 420 feet bgs to the water surface. Prior to conducting AFC testing, 450 gallons of deionizied (DI) water were injected at 420 feet bgs and emplaced groundwater between 420 feet bgs to the water surface. This process lasted approximately 2 hours. An electronic water level meter was used to record the ambient water level in the borehole during emplacement.

HC testing consisted of three and nine feet slug tests (rising head) and a constant pumping test at 7.7 gallons per minute (gpm). Water levels were logged during each test and evaluated to estimate hydraulic conductivity (K) and transmissivity (T) using the Hvorlsev equation (for the slug test data) and the Theim equation (for the pumping test data). Based on results from the slug tests and pumping test, an optimum ratio of 5 to 2 gpm (pumping of formation water to injection of DI water) was determined for the PDI test.

During the PDI test, the average extraction pumping rate was 8.5 gpm while the average DI water injection rate was 2.9 gpm. This resulted in a net formation production rate of 5.6 gpm during the test with a maximum drawdown of 9.9 feet. Flow and drawdown data was recorded throughout the test.

A post test HPL tool calibration was performed after the testing. Hydrophysical testing results are summarized in Section 4.2.2.

2.3.1.8. Well Construction

Monitor wells were installed in each borehole at the completion of drilling activities. Most of the monitor wells were constructed with four-inch diameter schedule 40 PVC casing and 0.02-inch slot screen. At MW-12, MW-13,MW-14, and MW-16 , five-inch diameter schedule 80 PVC casing was used to provide additional structural integrity due to the deeper construction. MW-19 was also constructed with five-inch diameter schedule 80 PVC casing to facilitate potential future pilot testing at the well during the corrective measures study. Annular construction materials included #10-20 or #8-12 silica sand, #60 sand, bentonite pellets, and neat cement grout. The well screen for MW-19 was constructed with larger 0.05-inch slot screen, since this well may be used pilot testing/aquifer testing during the corrective measures study. Annular materials were delivered to the subsurface using a tremie pipe. A summary of the well information for the UPCO facility monitor wells is provided in Table 1. As-built well construction diagrams are provided in Appendix G.

2.3.1.9. Well Development

Monitor wells MW-3 through MW-19 were typically developed within one week of installation. The monitor wells were developed by swabbing, surging, bailing and pumping. Development activities were conducted for two to eight hours at each well. The well screen was surged in 10-foot sections from the top of the interval to the bottom for between 30 and 45 minutes. A bailer was used to remove settled solids that had entered the casing during surging for between two to five hours. A submersible Grundfos pump was used for 1 to 2 hours to dislodge the finer grained materials from the filter pack and clarify the water.

Wells MW-3, MW-4, MW-6, MW-8, MW-10, MW-17, and MW-18 were purged dry during development pumping. Development was considered complete when turbidity in the effluent averaged one nephlometric turbidity unit (NTU) or after eight hours of pumping. Well development and pump installation occurred concurrently at monitoring wells MW-14, MW-15, MW-16, MW-17, and MW-19. MW-18 was not initially equipped with a dedicated sampling pump until it was deterrmined (after a couple of monitoring events) that the well would yield a sufficient volume of water for purging, prior to sampling.

2.3.1.10. Well Head Completion and Pump Installation

Following construction and development activities, dedicated submersible pump assemblies were installed and surface completions added. Dedicated stainless steel Grundfos submersible pumps were installed approximately three feet above the bottom of the well screen. The drop pipe for the pump was constructed with one-inch diameter

coupled PVC pipe. A sounding pipe for water level measurement was installed to the top of the pump. The sounding pipe was constructed with one-inch diameter flush thread PVC pipe and 0.01-inch slot screen. A water tight well seal with ports for the drop pipe, electrical cable from the pump, and sounding pipe was installed at the top of each well. Surface completions were either 12-inch diameter traffic rated flush mounted vaults or above grade monuments. Each surface completion was surrounded by a three-foot square concrete pad. Each of the flush mounted vaults were removed and converted to above grade monuments following decommissioning of the UPCO facility in 2009. A stamped steep plate with the monitor well identification and ADWR registration number is attached to the top of each monument. As-built well construction diagrams are provided in Appendix G.

2.3.1.11. Well Survey

A state registered land surveyor established horizontal and vertical control at each of the UPCO facility monitor wells and private wells located at 18, 218 and 520 East Yearling Road. The vertical coordinate of the sounding port, top of casing, and ground surface was surveyed in the Arizona State Plane Coordinate System (NGVD 29) with units of international feet above mean sea level. The measuring point elevation of the PVC sounding port contained in the well seal was measured to the nearest 0.01 foot. The measuring point was marked on the north side of the port. The horizontal coordinate of the well was surveyed in the Arizona State Plane Coordinate System, Central Zone, North American Datum 1983 (NAD 83) with units of international feet. Survey information is provided in Table 1.

2.3.2. Groundwater Monitoring

The groundwater quality at the site was assessed through sampling on-site and off-site monitor wells, the UPCO production well (PW-1), the facility's former potable water system point of entry (POE), and private residential wells located along Yearling Road. The groundwater quality assessment included analyzing groundwater samples for COPCs and general chemistry typing. Sampling locations, sampling frequency and analytical methods for historic and current groundwater monitoring efforts are outlined in the Groundwater Monitoring Plan (Malcolm Pirnie, 2004a), and the Updated Groundwater Monitoring Plan (Malcolm Pirnie, 2008c). Groundwater monitoring locations are presented in Figure 26.

2.3.2.1. On-Site Wells

Groundwater samples were collected at each well (monitor wells MW-1 through MW-19) using permanent submersible pump assemblies and a dedicated decontaminated galvanized sample tee's with brass fittings. The sample tee for each site wide well is

equipped with a dedicated discharge line for well purging and a dedicated sampling port. The first two samples collected from MW-18 utilized a bailer and a temporary submersible pump, respectively, before a permanent pump was installed in April 2011. A more detailed discussion on groundwater sampling methodology can be found in the Updated Groundwater Monitoring Plan (Malcolm Pirnie, 2008c).

2.3.2.2. Private Domestic Wells

Private residential wells have been sampled on a semi-annual basis from November 2004 to the present. The private wells are located along Yearling Road, north of the former UPCO facility, as shown on Figure 26. Private wells that have been sampled as part of this RI investigation included the following addresses:

- 8 W. Yearling;
- 16 E. Yearling;
- 18 E. Yearling;
- 104 E. Yearling;
- 106 W. Yearling;
- 122 W. Yearling;
- 204 E. Yearling;
- 218 E. Yearling;
- 412 E. Yearling;
- 424 E. Yearling
- 520 E. Yearling;
- 604-616 E. Yearling;
- 25825 N. 1st Place; and
- 25903 N. 2nd Street.

Private wells were sampled using existing dedicated submersible pumps, when available. Groundwater samples were collected from the closest available port to the well head prior to filtration or treatment systems (i.e. reverse osmosis, carbon filters, water softeners).

Approximately five gallons of water were flushed through the sampling port prior to collecting samples from the private wells. Field parameters measurements including pH, temperature and specific conductance were collected during private well sampling but the data was not used to establish parameter stabilization. It was assumed that if an owner granted access to their well, that the well was being used on a regular basis for domestic purposes and that the water in the line was representative of potable water that the owner was using.

Groundwater samples from private wells for laboratory analysis were collected and handled in accordance with the procedures described for the UPCO facility wells and in the QAPP (H+A, 2004b).

2.3.2.3. Quality Assurance

Sample bottles were preserved at approximately 4 degrees Celsius (^{o}C) under chain of custody protocol before transferring the samples to the laboratory. A detailed description

of sample storage and preservation techniques, and laboratory protocol is included in the QAPP (H+A, 2004b) and QAPP Addendum (Malcolm Pirnie, 2009).

Duplicate samples, matrix spike, and matrix spike duplicate samples were collected at a frequency of 10 percent for QA/QC purposes, as described in the QAPP (H+A, 2004b). Appendix F provides documentation of the quality assurance procedures.

2.3.3. Groundwater Elevations

Groundwater elevations have been monitored at and near the former UPCO facility to evaluate potential gradients. These measurements have been collected at UPCO site wide monitor wells and private wells located near the north property boundary at 18 East Yearling, 218 East Yearling and 520 East Yearling Road using electronic water level equipment and dedicated pressure transducers. Figure 26 shows the location of the UPCO facility monitor wells and private residences were groundwater elevations have been monitored.

2.3.3.1. Manual Groundwater Measurements

Groundwater level measurements were collected from January 2005 through December 2007 in accordance with the Groundwater Monitoring Plan (Malcolm Pirnie, 2004d), and from January 2008 through May 2011 in accordance with the Updated Groundwater Monitoring Plan (Malcolm Pirnie, 2008c). Groundwater elevations were not measured between February 2010 and May 2010 or between July 2010 and January 2011 while a post-lease access agreement with the Arizona State Land Department for site access was under negotiation.

Differences between the 2004 and 2008 groundwater monitoring plans include additional groundwater measurements from:

- the addition of wells MW-9, MW-10, MW-11 and MW-12, described in Phase III well installation report (Malcolm Pirnie, 2006b);
- addition of wells MW-13, MW-14 and MW-15; and
- availability to obtain depth to water measurements from private residences at 18 East Yearling, 218 East Yearling and 520 East Yearling.

Measurements were collected to the nearest 0.01 foot. Groundwater elevation was calculated based on the depth to water from a marked surveyed measuring point. The electronic water level probe was decontaminated prior to and between well measurements using an Alconox® solution followed by a distilled water rinse.

2.3.3.2. Transducers

Groundwater elevation data has also been collected since November 2006 with data logging pressure transducers at select on-site wells, off-site wells and private residence wells. Transducer data was retrieved approximately every month, reduced for groundwater elevation, and plotted over time.

Transducer installation consisted of:

- setting the transducer sensor to a depth within the pressure rating of the transducer;
- using the static water level as a reference point prior to starting the test; and
- logging the transducer data as depth to water.

Water level changes from collected transducer data is plotted over time and is provided in Figures 27, 28, and 29. Location and duration of transducer installation is provided in Table 3.

Hydrographs for each monitor well are provided on Figure 30. Monthly groundwater elevation maps for 2005 through 2010 are provided in the 2005 through 2010 Annual Groundwater Reports (Malcolm Pirnie, 2006c, 2007b, 2008e, 2009c. 2010, 2011), respectively. Groundwater elevation maps for 2011 are provided in the First Quarter 2011 monitoring report (Malcolm Pirnie, 2011). Groundwater elevation maps for Second Quarter 2011 are provided on Figures 31 through 34.

2.3.4. Aquifer Test

In September 2008, a short duration aquifer testing was conducted at monitor well MW-14 to estimate hydraulic parameters. As part of the aquifer testing, a single well pumping test followed by a recovery test of the same duration was performed in the test well (MW-14) while water levels were monitored in site monitor wells (MW-3, MW-4, MW-12, MW-13, and MW-15), production well PW-1, and three private wells located along E. Yearling Road (18 E. Yearling, 218 E. Yearling, and 520 E. Yearling). The locations of the wells are shown on Figure 26. Table 4 lists the location and completion details for the test well and observation wells.

Prior to conducting the aquifer test, three half-hour step drawdown tests were conducted to assess the optimum pumping rate for the constant rate test. The step drawdown tests were conducted at pumping rates of 2, 4 and 5 gpm. These rates were selected based on drawdown observed during well development activities. Results from the step drawdown test are presented in Appendix L. Specific capacity during the tests ranged from 0.01 to

0.03 gallon per minute per feet (gpm/ft). Analysis of the step drawdown results indicated a maximum sustainable rate of approximately 1.5 gpm for the proposed 10-hour duration without drawing water below the well screened interval.

Two days following the completion of the step drawdown tests, the aquifer and recovery tests were conducted by pumping from well MW-14 using the installed dedicated submersible pump at flow rate of 1.5 gpm. During the aquifer tests, electronic data logging transducers were used to collect automatic water level data from the pumping and observation wells. Water levels in the site monitor wells were also manually measured during the tests using an electronic water level probe. The water level measurement frequency was conducted in accordance with the Addendum to the Supplemental Groundwater Investigation Work Plan-Proposed Aquifer Test at Monitor Well MW-14, submitted to ADEQ. The water level measurement data were used to assess drawdown in the wells during the tests. The aquifer test findings are discussed in Section 4.2. The manual water level measurement for the test and observations wells, drawdown data, and the automated water level measurements for the test well and observation wells are provided in Appendix L.

2.3.5. Surface Drainage Analysis

An analysis of the surface drainage pattern for the area around the site was completed using the following methodology:

- a study area was chosen that included the UPCO facility monitor wells (MW-1 through MW-19) at or surrounding the UPCO Facility;
- the surface drainage network within the study area was traced using the USGS 1:24,000 scale topographic maps and digital aerial photography;
- the drainage network was divided into 100 foot sections (reaches);
- the orientation for each 100 foot section was measured from north; and
- the orientation information for the stream reaches was plotted on a rose diagram to determine the primary drainage orientation.

The findings of the surface drainage analysis are presented in Section 4.3. The surface drainage network and orientation are presented in Figure 35.

2.3.6. Surface Geophysics

In March 2008, a Subsurface Imaging Technical Memorandum and Work Plan was prepared to attempt to identify the nature and location of the geologic structure presumed to be in the vicinity of the wash on the western side of the site. Due to safety concerns

while the facility was in operation, the survey was postponed. After UPCO's operations were removed from the site, the benefit of conducting the surface geophysics survey was re-evaluated. The data collected from well installation activities, the soil and soil gas investigation, groundwater monitoring, and aquifer testing has provided enough information to develop a site conceptual model that can be used to proceed with the corrective measures study. UPCO determined that, while information obtained from a surface geophysics survey could add value, it was not considered necessary to complete the remedial investigation. If during the course of the corrective measures study the nature and location of the geologic structure is needed to evaluate remedial strategies, then the surface geophysics work plan will be re-visited with ADEQ.

2.4. GPL Determination Sampling

ADEQ has established SRLs for perchlorate of 55 mg/kg for residential land use and 720 mg/kg for non-residential land use (AAC, 2007). The SRL for a residential land use scenario is based on child exposure via ingestion of soil in a residential setting. The SRL for non-residential sites is based upon adult exposure via ingestion of soil in an occupational setting. The SRL does not address the potential for perchlorate to leach into groundwater from impacted soil and be exposed to receptors via ingestion of groundwater.

ADEQ has developed a model for deriving groundwater protection levels (GPLs) for inorganic contaminants in soil; however, the target application of this model is for use with metals by using an empirical relationship between the total concentration in soil, and a concentration in soil leachate, coupled with a basic mixing cell to calculate the concentration in the groundwater. Since the ADEQ GPL model was developed for metal compounds, it is not applicable to water soluble chemicals such as perchlorate. Therefore, a method for the development of a site-specific GPL for perchlorate was proposed by ADEQ in 2006 (ADEQ, 2006) and a subsequent proposal of an alternative method was presented by UPCO in 2008 (Malcolm Pirnie, 2008g).

UPCO proposed using the batch test leaching method (BTLM) model for perchlorate GPL development since it is similar to the approach outlined in ADEQ's 2006 GPL approach in that it is essentially composed of three parameters: a maximum allowable concentration in soil to protect groundwater, a source zone dilution factor, and an equilibrium assumption using a soil-water partition coefficient. The primary difference between the two methods is in the calculation of the soil-water partition coefficient (Kd). The method proposed by ADEQ in 2006 used a Kd equation intended for organic compounds and estimated input parameter values for perchlorate that were inappropriate for an inorganic compound. With the BTLM model, the calculation of Kd includes a

comparison of the mass of contaminant that remains sorbed to the soil, after a synthetic precipitation leaching procedure (SPLP) test, to the mass of contaminant leached into solution.

Since the Kd for perchlorate may vary due to soil type and perchlorate concentration, sampling locations were selected to be representative of the soil found at different operating areas, varying depths, and the range of perchlorate concentrations that have been observed in the site soil. In September 2008, 15 soil samples were collected from soil cores that were generated during previous soil investigation activities (see Table 5). The samples were analyzed for total perchlorate concentration. The samples were selected to represent the range of perchlorate concentrations observed in site soil during previous investigations (<1 mg/kg to 100 mg/kg). An attempt was made to obtain at least one data point to represent each of the following perchlorate concentration intervals: <1 mg/kg, 1 to 25 mg/kg, 25 to 50 mg/kg, 50 to 75 mg/kg, 75 to 100 mg/kg, and >100 mg/kg as well as at least one data point for each operational area where perchlorate was detected (Waterbore Area, C-Complex and F-Complex). Based on the results of these initial analyses, the 10 samples that represented the greatest range of perchlorate concentrations were submitted for SPLP perchlorate analyses to develop the site-specific Kd curve for GPL determination.

Soil samples were collected by opening the plastic sonic core wrapping (or the appropriate core box) at the desired depth interval and removing enough soil to fill a 16-ounce sample jar using a trowel. The soil was placed in a stainless steel mixing bowl, broken into fragments no larger than one centimeter, and thoroughly homogenized. Soil samples collected from different operational areas were not mixed together. The well-mixed soil was then transferred into a certified-clean 16-ounce glass jar provided by the laboratory. Sample jars were labeled and placed on ice until they were submitted to the laboratory for analysis. The mixing bowl (and trowel, if disposable scoops were not used) were decontaminated with a detergent solution and thoroughly rinsed with distilled water after the collection of each sample.

Section 5.4.1.1 and Appendix M provide a summary of the results of the total perchlorate and SPLP perchlorate analyses as well as the development of the site-specific GPL for perchlorate in soil at the UPCO facility.

2.5. Investigative Derived Waste

Investigation derived waste (IDW) materials generated from the soil, soil gas, and groundwater investigation phases of the RI have included soil cuttings from soil borings;

excavated soil; development and purge water generated during well installation, sampling and aquifer testing; and residual liquid from decontamination activities.

Solid IDW was managed in roll-off bins during investigation activities. When the bins were filled to capacity, composite soil samples were collected and analyzed for TCLP metals and perchlorate. The wastes were transported off-site by Romic Environmental (Romic) or MP Environmental for disposal. Soil bins removed from the facility as part of these investigations were disposed at either the Waste Management Butterfield Landfill in Mobile, Arizona or the Waste Management Northwest Regional Landfill in Phoenix, Arizona.

Monitor well development water, purge water from sampling activities, and residual decontamination liquid was transferred into poly tanks for temporary storage. When the tanks were filled to capacity, water samples are collected from the tanks and analyzed for metals and perchlorate. Water containing perchlorate at concentrations below 100 µg/L was transported off-site by Romic or MP Environmental to the Liquid Environmental Solutions (LES) facility in Phoenix, AZ for treatment/disposal. IDW water containing perchlorate at concentrations above 100 µg/L were transported off site by MP Environmental to the Veolia facility in Azusa, CA for treatment/disposal.

Waste summary tables and disposal documentation are provided in Appendix N.

3. Nature and Extent of Contamination

3.1. Soil Results

Soil samples collected during the RI investigations were submitted to an Arizona state-certified laboratory and analyzed for one or more of the following constituents:

- perchlorate by EPA Method 314;
- total RCRA metals, aluminum, boron, cobalt, copper, and iron by EPA Method 6010B (mercury by Method 7471);
- nitrate by EPA Method 300;
- cyanide by EPA Method 335;
- SVOCs by EPA Method 8270;
- dioxins by EPA Method 1613 and/or 8290;
- high explosives by EPA Method 8330 and 8332; and
- pH by EPA Method 150.1.

The following sections summarize the results of the RI soil investigation analyses.

3.1.1. Fence Line Sampling

The COPCs identified for investigation in soil at the UPCO facility include perchlorate, RCRA metals, explosives, and dioxins. Fence line sampling was conducted to assess potential impacts to surface soil from historic burning operations. Table 6 and Figure 8 summarize the analytical results and locations for fence line sampling conducted at the site.

Perchlorate
Perchlorate was not detected at concentrations above the vertical characterization target of 0.04 mg/kg or the horizontal characterization target of 7.8 mg/kg. All perchlorate concentrations were <0.04 mg/kg.

Metals
The following metals (with their respective maximum concentrations) were not detected above their respective vertical and horizontal characterization targets: Arsenic (9.7

mg/kg), barium (140 mg/kg), cadmium (<0.5 mg/kg), chromium (48 mg/kg), lead (12 mg/kg), mercury (0.061 mg/kg), selenium (<5 mg/kg), and silver (<0.5 mg/kg).

Explosives
The explosives analyzed include 16 constituents. Explosive constituents were not detected above their respective vertical and horizontal characterization targets. 2,4,6-Trinitrotoluene (TNT) was detected at the highest concentration at 2.6 mg/kg.

Dioxins
The dioxins analyzed include 18 constituents. Dioxin constituents were not detected above their respective vertical and horizontal characterization targets. The highest constituent detected was OCDD at a concentration of 120 mg/kg.

3.1.2. B-Complex

Table 7 presents the analytical results for soil samples collected at B-Complex. The following summarizes the soil characterization in the B-Complex.

Perchlorate
Perchlorate concentrations ranged from <0.04 mg/kg to 0.39 mg/kg in the soil samples collected within the B-Complex. Perchlorate was not detected above the vertical characterization target of 0.04 mg/kg in soil borings at total depth and was not detected above the horizontal characterization target of 7.8 mg/kg.

Horizontal and vertical characterization of perchlorate in soil at the B-Complex is considered complete. Figure 9 summarizes the sample locations and analytical results for perchlorate at B-Complex.

Metals
Arsenic was detected above the vertical and horizontal characterization target of 10 mg/kg in two samples (BC-SB32-0 and BC-SB32-1) at concentrations ranging from 11 mg/kg to 12 mg/kg. Supplemental hand auger sampling was conducted to the southwest (BC-SB45-0 and BC-SB45-1) and to the northeast (BC-SB46-0 and BC-SB46-1) of BC-SB32, within the wash, to delineate the extent of elevated arsenic concentrations observed at BC-SB32. Arsenic was not detected above the characterization target of 10 mg/kg in the supplemental soil samples.

The following metals (with their respective maximum concentrations) were not detected above their respective vertical and horizontal characterization targets: barium (690 mg/kg), cadmium (1.1 mg/kg), chromium (33 mg/kg), lead (17 mg/kg), mercury (<0.1

mg/kg), selenium (<5.1 mg/kg), and silver (0.52 mg/kg). Horizontal and vertical characterization of metals in soil at the B-Complex is considered complete.

Nitrate
The highest concentration of nitrate was detected at 82 mg/kg and was not detected at concentrations above the vertical and horizontal characterization target of 100,000 mg/kg. Horizontal and vertical characterization of nitrate in soil at the B-Complex is considered complete.

Acetate
Only soil samples collected from boring BC-SB21 were analyzed for acetate due to its proximity to the Building B-1 leach field. Acetate was detected in soil sample leachate at concentrations ranging between 3.8 mg/L and 14.8 mg/L. An SRL has not been established for acetate; therefore, there were no vertical and horizontal characterization targets for soil. Horizontal and vertical characterization of acetate in soil at the B-Complex is considered complete.

3.1.3. C-Complex

Table 8 presents the results of inorganic analyses and Table 9 presents the analytical results for SVOCs in soil samples collected at C-Complex. The following summarizes soil characterization in the C-Complex.

Perchlorate
Perchlorate concentrations ranged from <0.04 mg/kg to 330 mg/kg in the C-Complex soil. The horizontal characterization target of 7.8 mg/kg was exceeded in four of the borings (CC-SB08, CC-SB10, CC-SB14, and CC-SB15). Supplemental soil samples were collected at CC-SB16, CC-SB17, CC-SB18, CC-SB19, CC-SB20, CC-SB21 and CC-SB25 to delineate the horizontal extent of the elevated perchlorate concentrations detected in the C-Complex. Perchlorate was not detected above the horizontal characterization target of 7.8 mg/kg in the supplemental soil samples.

The vertical characterization target of 0.04 mg/kg was exceeded in seven of the borings (CC-SB06, CC-SB08, CC-SB09, CC-SB10, CC-SB16, CC-SB20, and CC-SB21) at total depth. Bedrock was encountered in borings CC-SB06, CC-SB08, CC-SB09, and CC-SB10 superseding the vertical characterization target at those locations. The highest perchlorate concentration at the bottom of these four borings was 0.25 mg/kg. Additional deeper sampling for perchlorate was not conducted at borings CC-SB16, CC-SB20, and CC-SB21 because these locations were sampled for the purpose of horizontal characterization around borings CC-SB15 and CC-SB10, respectively. Borings CC-SB15

and CC-SB20 were drilled deeper than borings CC-SB16, CC-SB20, and CC-SB21 and vertical characterization was achieved at those potential source areas.

Horizontal and vertical characterization of perchlorate in soil at the C-Complex is considered complete. Figure 10 summarizes the sample locations and analytical results for perchlorate at C-Complex.

Metals

Arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver were not detected above their respective vertical and horizontal characterization targets. The following metals (with their respective maximum concentrations) were not detected above their respective vertical and horizontal characterization targets: arsenic (8.3 mg/kg), barium (1400 mg/kg), cadmium (1.5 mg/kg), chromium (37 mg/kg), lead (61 mg/kg), mercury (0.022 mg/kg), selenium (<10 mg/kg), and silver (52 mg/kg). Horizontal and vertical characterization of metals in soil at the C-Complex is considered complete.

Nitrate

The highest concentration of nitrate was detected at 140 mg/kg and was not detected at concentrations above the vertical and horizontal characterization target of 100,000 mg/kg. Horizontal and vertical characterization of nitrate in soil at the C-Complex is considered complete.

Cyanide

Cyanide was not detected at concentrations above the vertical and horizontal characterization target of 1,300 mg/kg. Horizontal and vertical characterization of cyanide in soil at the C-Complex is considered complete.

SVOC

SVOCs were not detected at concentrations above their respective vertical and horizontal characterization targets. 3,3-Dichlorobenzidine and pentachlorophenol were not detected; however, the laboratory detection limit resulting from sample recovery of the surface soil sample was greater than the SRLs of 1.2 mg/kg and 3.2 mg/kg, respectively. Horizontal and vertical characterization of SVOCs in soil at the C-Complex is considered complete.

Sodium Azide

Sodium azide was not detected at concentrations above the laboratory reporting limit of 0.155 mg/kg. Therefore, sodium azide was not detected at concentrations above the

vertical and horizontal characterization target of 310 mg/kg. Horizontal and vertical characterization of sodium azide in soil at the C-Complex is considered complete.

3.1.4. D-Complex

3.1.4.1. Old Burn Area

Table 10 shows the results for inorganic analyses and Table 11 shows the analytical results for explosives and dioxins in soil samples collected at the Old Burn Area in the D-Complex. The following summarizes soil characterization in the Old Burn Area.

Perchlorate

Perchlorate concentrations ranged from <0.04 mg/kg to 0.8 mg/kg in the soil samples collected in the vicinity of the Old Burn Area. Perchlorate was not detected at concentrations above the horizontal characterization target of 7.8 mg/kg. The vertical characterization target of 0.04 mg/kg was exceeded in one boring (OB-SB01) at total depth. The perchlorate concentration at the bottom of this boring was 0.061 mg/kg. Additional deeper sampling for perchlorate was not conducted at OB-SB01 because samples collected at the same depth interval from borings OB-SB02 and OB-SB04, immediately adjacent to OB-SB01, did not contain perchlorate above the vertical characterization target of 0.04 mg/kg.

Horizontal and vertical characterization of perchlorate in soil at the Old Burn Area is considered complete. Figure 11 summarizes the sample locations and analytical results for perchlorate at the Old Burn Area.

Metals

Arsenic was detected above the vertical and horizontal characterization target of 10 mg/kg in one sample (OB-SB14-1) at a concentration of 11 mg/kg. Supplemental samples were collected at OB-SB50, OB-SB51 and OB-SB52 to delineate the horizontal extent of the elevated arsenic at OB-SB14. Arsenic was not detected at concentrations above the characterization target of 10 mg/kg in the supplemental samples.

Lead was detected above the vertical and horizontal characterization target of 400 mg/kg in seven samples (OB-SB08-0, OB-SB20-0, OB-SB40-0, OB-SB40-1, OB-SB41-0, OB-SB45-0, and OB-SB46-0) at concentrations ranging from 420 mg/kg to 4,800 mg/kg. Vertical and horizontal characterization targets for lead were achieved with additional sampling at OB-SB47, OB-SB48 and OB-SB49. Figure 12 summarizes the sample locations and analytical results for lead at the Old Burn Area.

The following metals (with their respective maximum concentrations) were not detected above their respective vertical and horizontal characterization targets: aluminum (31,000 mg/kg), barium (240 mg/kg), cadmium (1.8 mg/kg), copper (130 mg/kg), chromium (45 mg/kg), mercury (0.068 mg/kg), selenium (<5 mg/kg), and silver (<0.5 mg/kg). Horizontal and vertical characterization of metals in soil at the Old Burn Area is considered complete.

Nitrate

The highest concentration of nitrate was detected at 78 mg/kg and was not detected at concentrations above the vertical and horizontal characterization target of 100,000 mg/kg. Horizontal and vertical characterization of nitrate in soil at the Old Burn Area is considered complete.

Explosives

The explosives analyzed include 16 constituents. Explosive constituents were not detected above their respective vertical and horizontal characterization targets. The highest constituent detected was 4-Nitrotoluene at a concentration of 9.1 mg/kg. Horizontal and vertical characterization of explosives in soil at the Old Burn Area is considered complete.

Dioxins

The dioxins analyzed include 18 constituents. Dioxin constituents were not detected above their respective vertical and horizontal characterization targets. OCDD was detected at the highest concentration of 32 mg/kg. Horizontal and vertical characterization of dioxins in soil at the Old Burn Area is considered complete.

3.1.4.2. Thermal Treatment Unit

Table 12 shows the analytical results for soil samples collected at the TTU in the D-Complex. The following summarizes soil characterization in the vicinity of the TTU.

Perchlorate

Perchlorate concentrations ranged from <0.04 mg/kg to 16 mg/kg in the samples collected at the TTU. Perchlorate was detected at concentrations above the horizontal characterization target of 7.8 mg/kg in two samples (TT-SB24-10 and TT-SB25-5) at concentrations of 16 mg/kg, and 11 mg/kg, respectively. Supplemental sampling was conducted at borings TT-SB27, TT-SB28, TT-SB29, and TT-SB30 to complete horizontal delineation of elevated perchlorate concentrations in the vicinity of the TTU. Perchlorate was not detected above the horizontal characterization limit of 7.8 mg/kg in the supplemental soil samples.

The vertical characterization target of 0.04 mg/kg was exceeded in two borings (TT-SB24 and TT-SB30) at total depth. The perchlorate concentrations at the bottom of these borings were 1.2 mg/kg and 0.21 mg/kg, respectively. Additional deeper sampling for perchlorate was not conducted at. boring TT-SB24 because vertical characterization was achieved at boring WB-SB08 (to 175 feet bgs), which was drilled adjacent to the TT-SB24 location during the investigation of the Waterbore Area (see next section). Boring TT-SB30 was not drilled deeper because this location was sampled for the purpose of horizontal characterization around boring TT-SB24B.

Horizontal and vertical characterization of perchlorate in soil at the TTU is considered complete. Figure 13 summarizes the sample locations and analytical results for perchlorate in soil at the TTU.

Metals

The following metals (with their respective maximum concentrations) were not detected above their respective vertical and horizontal characterization targets: aluminum (30,000 mg/kg), arsenic (9.7 mg/kg), barium (280 mg/kg), cadmium (0.86 mg/kg), copper (34 mg/kg), chromium (49 mg/kg), lead (22 mg/kg), mercury (0.038 mg/kg), selenium (<5 mg/kg), and silver (<0.5 mg/kg). Horizontal and vertical characterization of metals in soil at the TTU is considered complete.

Nitrate

The highest concentration of nitrate was detected at 100 mg/kg and was not detected at concentrations above the vertical and horizontal characterization target of 100,000 mg/kg. Horizontal and vertical characterization of nitrate in soil at the TTU is considered complete.

pH

The pH levels in soil ranged between 7.0 and 9.0 standard units (SU). There is currently no SRL established for pH; therefore, there were no vertical and horizontal characterization targets in soil.

3.1.4.3. Waterbore Area

Tables 13 and 14 show the analytical results for soil samples collected at the Waterbore Area in the D-Complex. The following summarizes soil characterization in the vicinity of the Waterbore Area.

Perchlorate

Perchlorate concentrations ranged from <0.04 mg/kg to 130 mg/kg in the soil samples collected at the Waterbore Area. The horizontal characterization target of 7.8 mg/kg was exceeded in borings WB-SB06, WB-SB07, and WB-SB11 at multiple depths (highest concentration of 130 mg/kg). Lateral delineation was accomplished around each boring except to the east of WB-SB11. Additional sampling was not conducted east of WB-SB11 due to drill rig access limitations to the east and southeast due to hill side sloping.

The vertical characterization target of 0.04 mg/kg was exceeded in five of the borings (WB-SB05, WB-SB06, WB-SB07, WB-SB10, and WB-SB11) at total depth. Bedrock was encountered at or near the bottom in each of these borings superseding the vertical characterization target at those locations. The highest perchlorate concentration at the bottom of these five borings was 32 mg/kg in the soil sample collected from soil boring WB-SB06 at a depth of 175 feet bgs.

Horizontal and vertical characterization of perchlorate in soil at the Waterbore Area is considered complete. Figure 14 summarizes the sample locations and analytical results for perchlorate at the Waterbore Area.

Metals

The following metals (with their respective maximum concentrations) were not detected above their respective vertical and horizontal characterization targets: arsenic (7.8 mg/kg), barium (180 mg/kg), cadmium (0.88 mg/kg), chromium (17 mg/kg), lead (57 mg/kg), mercury (<0.10 mg/kg), selenium (<5 mg/kg), and silver (<0.5 mg/kg). Horizontal and vertical characterization of metals in soil at the Waterbore Area is considered complete.

Nitrate

The highest concentration of nitrate was detected at 86 mg/kg and was not detected at concentrations above the vertical and horizontal characterization target of 100,000 mg/kg. Horizontal and vertical characterization of nitrate in soil at the Waterbore Area is considered complete.

3.1.5. E-Complex (Storage Magazine Area)

Table 15 shows the analytical results for soil samples collected at the SMA in the E-Complex. The following summarizes soil characterization within the SMA.

Perchlorate

Perchlorate concentrations ranged from <0.04 mg/kg to 6.2 mg/kg in the soil samples collected at the SMA. Perchlorate was not detected at concentrations above the horizontal

characterization target of 7.8 mg/kg. The vertical characterization target of 0.04 mg/kg was exceeded at 13 of the surface locations. Based on the relatively low, but distributed shallow concentrations of perchlorate, three locations were chosen for additional deeper sampling to 10 feet following preliminary data review with ADEQ (Malcolm Pirnie, 2004b). The highest concentration at the bottom of these supplemental borings was 0.64 mg/kg (SMA-SB05) at 20 feet bgs. Additional sampling was not conducted due to drill rig access limitations.

Horizontal and vertical characterization of perchlorate in soil at the SMA is considered complete. Figure 15 summarizes the sample locations and analytical results for perchlorate at SMA.

Metals

The following metals (with their respective maximum concentrations) were not detected above their respective vertical and horizontal characterization targets: barium (160 mg/kg), cadmium (<0.50 mg/kg), chromium (31 mg/kg), lead (100 mg/kg). Horizontal and vertical characterization of metals in soil at the SMA is considered complete.

3.1.6. F-Complex

Table 16 shows the analytical results for soil samples collected at F-Complex. The following summarizes soil characterization results for the F-Complex.

Perchlorate

Perchlorate concentrations ranged from <0.04 mg/kg to 6.5 mg/kg in the soil samples collected within the F-Complex. Perchlorate was not detected at concentrations above the horizontal characterization target of 7.8 mg/kg in the F-Complex soil samples.

The vertical characterization target of 0.04 mg/kg was exceeded in four of the borings (FC-SB03, FC-SB05, FC-SB08, and FC-SB11) at total depth. Borings FC-SB03, FC-SB05, and FC-SB11 were drilled using a smaller “mini” rig due to physical access limitations at those locations and could not be advanced deeper. The highest perchlorate concentration at the bottom of these three borings was 0.97 mg/kg. Perchlorate was detected at a concentration of 1.8 mg/kg at the bottom of boring FC-SB08. Access to this boring location was restricted following initial sample collection due to production schedules. The vertical characterization target was also exceeded at total depth at borings FC-SB-16, FC-SB17, FC-SB18, and FC-SB20; however, these samples were collected to delineate potential surface soil impacts associated with an incident at Building F-5. The highest perchlorate concentration at the bottom of these three borings was 6.5 mg/kg in the soil sample collected from soil boring FC-SB17 at a depth of one foot bgs. Additional

deeper sampling for perchlorate was not conducted at these borings because vertical characterization was achieved at adjacent soil boring FC-SB08 and FC-SB08, or the borings were located in a wash, and drill rig access was not possible (Borings FC-SB18 and FC-SB20).

Supplemental soil samples were collected at FC-SB24 and FC-SB25 to delineate the vertical extent of the perchlorate concentrations detected at the bottom of borings FC-SB03 and FC-SB05, respectively. Boring FC-SB11 could not be accessed by the sonic core rig. Perchlorate was not detected in boring FC-SB25 at depth and was detected in boring FC-SB24 at depth (60 feet bgs) at a concentration of 0.47 mg/kg. Further vertical delineation at FC-SB24 was not considered necessary, as discussed with ADEQ.

Horizontal and vertical characterization of perchlorate in soil at the F-Complex is considered complete. Figure 16 summarizes the sample locations and analytical results for perchlorate in soil at the F-Complex.

Metals

Arsenic was detected above the vertical and horizontal characterization target of 10 mg/kg in two samples (FC-SB02-20 and FC-SB06-20) at concentrations ranging from 11 mg/kg to 12 mg/kg. Additional sampling for arsenic was not conducted because, at 20 feet bgs, the observed concentrations are considered consistent with naturally occurring conditions. The following metals (with their respective maximum concentrations) were not detected above their respective vertical and horizontal characterization targets: barium (690 mg/kg), cadmium (0.59 mg/kg), chromium (50 mg/kg), lead (54 mg/kg), mercury (0.04 mg/kg), selenium (<5 mg/kg) and silver (16 mg/kg). Horizontal and vertical characterization of metals in soil at the F-Complex is considered complete.

Nitrate

The highest concentration of nitrate was detected at 43 mg/kg and was not detected at concentrations above the vertical and horizontal characterization target of 100,000 mg/kg. Horizontal and vertical characterization of nitrate in soil at the F-Complex is considered complete.

3.1.7. Open Burn Unit (New Burn Area)

Table 17 shows the analytical results for inorganics and Table 18 shows the analytical results for explosives and dioxins in soil samples collected at the New Burn Area. The following summarizes soil characterization.

Perchlorate

Perchlorate concentrations ranged from <0.04 mg/kg to 150 mg/kg in the soil samples collected at the New Burn Area. Perchlorate was detected at concentrations above the horizontal characterization target of 7.8 mg/kg at borings NB-SB01, NB-SB02, NB-SB03, NB-SB04, NB-SB06, NB-SB08, NB-SB10, NB-SB12, NB-SB39, NB-SB43 and NB-SB44. Additional supplemental sampling was not conducted based on the perchlorate concentrations of soil samples collected laterally around these borings (borings NB-SB04, NB-SB09, NB-SB10, NB-SB17, NB-SB18, NB-SB19, NB-SB20, NB-SB25, NB-SB27, NB-SB28, NB-SB29, NB-SB34, NB-SB36, NB-SB37, NB-SB42, NB-SB45, and CC-SB12, collected during the C-Complex investigation) confirming that the horizontal characterization target of 7.8 mg/kg was achieved.

The vertical characterization target of 0.04 mg/kg was exceeded in fourteen of the borings (NB-SB01, NB-SB03, NB-SB05, NB-SB06, NB-SB07, NB-SB11, NB-SB13, NB-SB16, NB-SB39, NB-SB40, NB-SB43, NB-SB44, NB-SB46, and NB-SB47) at total depth. Bedrock was encountered in borings NB-SB01, NB-SB03, NB-SB06, NB-SB16, and NB-SB40 superseding the vertical characterization target at those locations. The highest perchlorate concentration at the bottom of these five borings was 4 mg/kg. Additional deeper sampling for perchlorate was not conducted at borings NB-SB05, NB-SB07, NB-SB11, and NB-SB13 because depth representative samples for that immediate area were observed from adjacent borings NB-SB01, NB-SB04, NB-SB08, NB-SB10, NB-SB12 drilled at the same depth or deeper. Additional deeper sampling for perchlorate was not conducted at borings NB-SB39, NB-SB43, NB-SB44, NB-SB46, and NB-SB47 because these locations were drilled for the purpose of further horizontal characterization around the former burn pad and depth representative samples were obtained at the borings in the immediate vicinity of the burn pad (NB-SB01, NB-SB04, NB-SB08, NB-SB10, NB-SB12).

Figure 17 summarizes the sample locations and analytical results for perchlorate at the New Burn Area.

Metals

Arsenic was detected above the vertical and horizontal characterization target of 10 mg/kg in one sample (NB-SB01-0) at a concentration of 15 mg/kg. Additional sampling for arsenic was not conducted because the observed concentrations are considered consistent with naturally occurring conditions. Lead was detected above the vertical and horizontal characterization target of 400 mg/kg in one sample (NB-SS09-0) at a concentration of 650 mg/kg in the soil sample collected at the surface from soil boring NB-SB09. Vertical and horizontal characterization targets for lead were achieved with additional sampling. Figure 18 summarizes the sample locations and analytical results for

lead at the New Burn Area. Aluminum, barium, cadmium, copper, chromium, mercury, selenium, and silver were not detected above their respective vertical and horizontal characterization targets. The following metals (with their respective maximum concentrations) were not detected above their respective vertical and horizontal characterization targets: aluminum (39,000 mg/kg), barium (570 mg/kg), cadmium (7.9 mg/kg), copper (53 mg/kg), chromium (35 mg/kg), mercury (0.078 mg/kg), selenium (8.4 mg/kg) and silver (4.8 mg/kg).

Nitrate
The highest concentration of nitrate was detected at 27 mg/kg and was not detected at concentrations above the vertical and horizontal characterization target of 100,000 mg/kg.

Explosives
The explosives analyzed include 16 constituents. Explosive constituents were not detected above their respective vertical and horizontal characterization target. All concentrations of explosives were <2.0 mg/kg.

Dioxins
The dioxins analyzed include 18 constituents. Dioxin constituents were not detected above their respective vertical and horizontal characterization targets. The constituent with the highest detection was total HpCDF at a concentration of 60 mg/kg.

3.2. Soil Gas Results

Soil gas samples collected during the RI investigations were submitted to an Arizona-certified laboratory and analyzed for VOCs by EPA Method TO-15. Soil gas samples were only collected in areas where solvents and/or adhesives were historically managed. Therefore, some of the areas investigated for potential soil impacts were not investigated for soil gas impacts (e.g., the TTU area). The following sections summarize the results of the RI soil gas investigation analyses.

3.2.1. B-Complex

Of the 62 VOCs listed on the EPA TO-15 analyte list, 27 were detected in at least one of the soil gas samples collected at the B-Complex Area. The VOCs detected with the greatest frequency included 1,1-DCE, MEK, MIBK, acetone, and propene (propylene). The presence of propylene may be attributed to the use of polypropylene tubing for sample collection. Other VOCs detected with less frequency included 1,1-dichloroethane (1,1-DCA), 2,2,4-trimethylpentane, 2-hexanone, 2-propanol, dichlorodifluoromethane (F-12), benzene, and hexane. Table 19 summarizes the analytical results for soil vapor samples collected at the B-Complex. A subset of three VOC analytes (1,1-DCE, MEK,

and acetone) were selected to show area-wide distribution of VOCs in soil vapor on Figures 19 through 21. This subset of analytes was selected based on a cross reference of four main criteria that included: consistent detections in multiple areas, elevated concentrations (above 1,000 parts per billion per volume (ppbv) (0.26 micrograms per liter (µg/L))), common use at the facility, and constituents with established AWQSs.

Supplemental borings BC-SG36 through BC-SG44 were advanced and sampled to provide additional vertical delineation of VOCs detected in soil gas at depth in borings BC-SG24, BC-SG27, BC-SG22, BC-SG19, BC-SG34, BC-SG15, BC-SG33, BC-SG09, and BC-SG10, respectively. Significantly increasing VOC concentrations were detected at depth in soil gas samples collected at three supplemental locations in the B-Complex: BC-SG39, BC-SG41, and BC-SG44. Per the supplemental soil and soil gas investigation work plan, a significant increase in soil gas concentration at depth was defined as an increase in concentration of a COPC greater than 25% between the two deepest successive samples at a sampling location, provided that the concentrations are greater than 1,000 ppbv (0.26 µg/L).

Two locations (BC-SG39 and BC-SG44) had significantly increasing concentrations of acetone with depth: < 25 to 1,800 ppbv (0.081 to <0.30 µg/L) at 80 feet bgs and 470 to 3,000 ppbv (<0.060 to 0.28 µg/L) at 60 feet bgs, respectively. One location (BC-SG41) had significantly increasing concentrations of 1,1-DCE with depth: 740 to 6,900 ppbv (3.0 to 28 µg/L) at 80 feet bgs. A fourth boring (BC-SG42) had increasing 1,1-DCE concentrations with depth: 30 to 840 ppbv (0.12 to 3.4 µg/L) at 60 feet; however, this does not meet the "significantly increasing" criteria outlined in the work plan. Borings BC-SG36 and BC-SG38 had elevated concentrations of 1,1-DCE with depth: 960 ppbv (3.9 µg/L) at 80 feet bgs and 960 ppbv (3.9 µg/L) at 60 feet bgs, respectively. However 1,1-DCE concentrations appear to have stabilized and were decreasing at these locations.

Vertical delineation of VOCs in soil gas at BC-SG41 was accomplished after the nested soil vapor monitoring well, SVMW-1, was installed (see next section). Horizontal and vertical delineation of VOCs in soil gas in the B-Complex is considered complete.

3.2.1.1. SVMW-1

After the installation of SVMW-1, soil gas samples were collected from each nested interval (30-40 feet bgs, 90-100 feet bgs, 140-150 feet bgs, and 190-200 feet bgs). The soil gas analyses indicate 1,1-DCE concentrations peak at 11,000 ppbv (44 µg/L) at 90-100 feet bgs before decreasing to 180 ppbv (0.73 µg/L) at 190-200 feet bgs, just above the water table. Peak concentrations of other VOCs in soil gas were observed at either the 90-100 foot bgs interval or the 140-150 foot bgs interval. VOC concentrations decreased

in the 190-200 foot bgs interval. Table 19 summarizes the soil gas sampling results for SVMW-1. There has been no significant vertical migration of VOCs at SVMW-1 observed during eight rounds of quarterly soil gas monitoring. See Section 3.3.3 for a summary of the grab sample collected from the groundwater beneath the B-Complex during SVMW-1 installation.

3.2.2. C-Complex

Of the 62 VOCs listed on the EPA TO-15 analyte list, 28 were detected in at least one of the soil gas samples collected at the C-Complex Area. The VOCs detected with greatest frequency included 1,1-DCE, MEK, 2-proponal, acetone, benzene, carbon disulfide, methylene chloride, propylene, and toluene. The presence of propylene may be attributed to the use of polypropylene tubing for sample collection. Other VOCs detected with less frequency included, 2-hexanone, dichlorodifluoromethane (F-12), ethylbenzene, hexane, m- & p-xylene, and o-xylene. Table 20 summarizes the analytical results for soil vapor samples collected at the C-Complex Area. A subset of three VOC analytes (1,1-DCE, MEK, and acetone) were selected to show area-wide distribution of VOCs in soil vapor on Figure 22. This subset of analytes was selected based on a cross reference of four main criteria that included: consistent detections in multiple areas, elevated concentrations (above 1,000 ppbv (0.26 µg/L)), common use at the facility, and constituents with established Arizona Water Quality Standards (AWQS).

Supplemental borings CC-SG22, CC-SG23, and CC-SG24 were advanced and sampled to provide additional vertical delineation of VOCs detected in soil gas at depth in borings CC-SG01, CC-SG05, and CC-SG06, respectively. The soil gas samples collected in C-Complex indicated that most VOC concentrations (notably MEK) decreased with depth. VOCs that increased with depth were detected at concentrations less than 1,000 ppbv and did not meet the “significantly increasing” criteria outlined in the work plan; therefore, further vertical delineation was not required. Acetone was detected at significantly increasing concentrations (as defined in the work plan) at the bottom of borings CC-SG23 and CC-SG24; however, these borings were drilled a few feet beneath the bedrock interface; therefore, further vertical delineation was not pursued at those locations. Horizontal and vertical delineation of VOCs in soil gas in the C-Complex is considered complete.

3.2.3. D-Complex

3.2.3.1. Old Burn Area

Seventeen VOCs were detected in at least one of the three soil gas samples collected at the Old Burn Area. The VOCs detected with greatest frequency included 1,3-butadiene, MEK, acetone, benzene, chloromethane, propylene, and toluene. The presence of

propylene may be attributed to the use of polypropylene tubing for sample collection. Other VOCs detected with less frequency included 1,1-DCE, 2,2,4-trimethylpentane, 2-proponal, heptane, and tetrahydrofuran. Table 21 summarizes the analytical results for soil vapor samples collected at the Old Burn Area. A subset of three VOC analytes (1,1-DCE, MEK, and acetone) were selected to show area-wide distribution of VOCs in soil vapor on Figure 23. This subset of analytes was selected based on a cross reference of four main criteria that included: consistent detections in multiple areas, elevated concentrations (above 1,000 ppbv (0.26 µg/L)), common use at the facility, and constituents with established AWQSs.

Supplemental boring OB-SG49 was advanced and sampled to provide additional vertical delineation of VOCs detected in soil gas at depth in borings OB-SG01 and OB-SG02. The soil gas sample collected at OB-SG49 indicated that VOC concentrations (notably MEK and toluene) decreased with depth (see Table 21). Horizontal and vertical delineation of VOCs in soil gas in the Old Burn Area is considered complete.

3.2.3.2. Waterbore Area

One boring (WB-SG13) was drilled at the Waterbore Area to assess potential VOC impacts to soil and soil gas related to historic evaporation pond operations. The previous Waterbore Area investigation did not include the collection of soil gas samples for VOC analysis. Six VOCs were detected in the soil gas samples including MEK, benzene, chloromethane, heptanes, propylene and toluene. The presence of propylene may be attributed to the use of polypropylene tubing for sample collection. The soil gas samples collected at WB-SG13 did not indicate VOC impacts at the Waterbore Area requiring further investigation (see Table 22). Horizontal and vertical delineation of VOCs in soil gas in the Waterbore Area is considered complete.

3.2.4. F-Complex

Twenty eight VOCs were detected in at least one of the 34 soil gas samples collected at the F-Complex Area. The VOCs detected with greatest frequency included MEK, 2-hexanone, 2-propanol, acetone, benzene, carbon disulfide, hexane, propylene, and toluene. The presence of propylene may be attributed to the use of polypropylene tubing for sample collection. Other VOCs detected with less frequency included 4-methyl 2-pentanone. Table 23 summarizes the analytical results for soil vapor samples collected at the F-Complex Area. A subset of three VOC analytes (1,1-DCE, MEK, and acetone) were selected to show area-wide distribution of VOCs in soil vapor on Figure 24. This subset of analytes was selected based on a cross reference of four main criteria that

included: consistent detections in multiple areas, elevated concentrations (above 1,000 ppbv), common use at the facility, and constituents with established AWQSs.

Supplemental borings FC-SG21, FC-SG22, FC-SG23, and FC-SG26 were advanced and sampled to provide additional vertical delineation of VOCs detected in soil gas at depth in borings FC-SG09, FC-SG08, FC-SG02, and FC-SG01, respectively. The soil gas samples collected in F-Complex indicated that VOC concentrations (notably MEK and acetone) decreased with depth (see Table 23). Horizontal and vertical delineation of VOCs in soil gas in the F-Complex is considered complete.

3.2.5. Open Burn Unit (New Burn Area)

Seventeen VOCs were detected in at least one of the soil vapor samples collected at the New Burn Area. The VOCs detected with greatest frequency included 1,1-DCE, 2,2,4-trimethylpentane, MEK, acetone, benzene, carbon disulfide, hexane, propylene, and toluene. The presence of propylene may be attributed to the use of polypropylene tubing for sample collection. Other VOCs detected with less frequency included, 2-proponal, cyclohexane, and methylene chloride. Table 24 summarizes the analytical results for soil vapor samples collected at the New Burn Area. A subset of three VOC analytes (1,1-DCE, MEK, and acetone) were selected to show area-wide distribution of VOCs in soil vapor on Figure 25. This subset of analytes was selected based on a cross reference of four main criteria that included: consistent detections in multiple areas, elevated concentrations (above 1,000 ppbv (0.26 µg/L)), common use at the facility, and constituents with established AWQSs.

VOCs were not detected above 1,000 ppbv at any depth interval and concentrations of 1,1-DCE, MEK, and acetone were not detected above 150 ppbv at total depth (30 feet bgs); therefore, further vertical delineation sampling was not conducted during the supplemental investigation. Horizontal and vertical delineation of VOCs in soil gas in the New Burn Area is considered complete.

3.3. Groundwater Quality

3.3.1. Site Wells

Groundwater samples have been collected from 19 monitor wells and production well PW-1, on a quarterly basis since August 2004, with the exclusion of the Third and Fourth Quarters of 2010 due to site access negotiations between UPCO and the Arizona State Land Department. Zonal grab samples from groundwater have also been collected during

drilling of MW-12, MW-13, MW-14, MW-18, and SVMW-1. Analytical data are summarized in the following paragraphs.

The COPCs identified in groundwater included perchlorate, VOCs, RCRA metals, and nitrate. Groundwater sampling activities were intended to provide sufficient data to vertically and horizontally characterize groundwater that may contain COPCs above the applicable groundwater screening levels. Following consultation with ADEQ, a site characterization target for vertical and horizontal characterization of perchlorate in groundwater was identified as the EPA Method 314 laboratory reporting limit of 2 µg/L. The vertical and horizontal characterization targets for VOCs, metals and nitrate were the AWQSs for these constituents. The following discusses characterization of the COPCs.

Perchlorate

Table 25 summarizes the perchlorate analysis results for groundwater samples collected from site wells. Perchlorate has been detected at concentrations above the characterization target in six of the UPCO monitor wells (MW-1, MW-2, MW-5, MW-6, MW-13, and MW-19). These wells are located centrally to the UPCO facility. In the shallow monitor wells, perchlorate was detected with the highest concentration at MW-19 at 55,000 µg/L. Perchlorate was detected in lower concentrations at MW-5 and MW-6, ranging from 6.4 to 25 µg/L at MW-5 and 15 to 20 µg/L at MW-6.

Perchlorate concentrations in samples collected from the completed deeper well at MW-13 have ranged between 6 and 330 µg/L and have exhibited lower concentrations with additional development and purging. The deepest zonal sample collected from the open borehole, prior to well construction, had a perchlorate concentration of 3.6 µg/L. This suggests that the elevated perchlorate concentrations initially detected in MW-13 were temporarily related to well installation activities and not representative of the overall aquifer water quality at that location. Perchlorate was detected at 120,000 µg/L in shallow zonal sample collected during drilling for MW-13. Zonal sampling results are discussed in Section 3.3.3.

Intermittent detections above the characterization target have been observed at PW-1. Perchlorate was detected at concentrations ranging from <2 to 4.8 µg/L in PW-1. Perchlorate was detected at concentrations ranging from <2 to 5 µg/L at the POE. In April 2008, the location for POE sampling was changed to a sink in the Building A-1 lunch room. The POE was changed due to the installation of an arsenic treatment system at this sink. RI related sampling at the POE then ceased.

A historic trend graph of perchlorate detections for each monitor well is provided on Figure 36. A perchlorate concentration map for the second quarter 2011 groundwater sampling event is provided on Figure 37. Quarterly perchlorate concentration maps for 2005 through 2010are provided in the 2005 through 2010 Annual Groundwater Reports (Malcolm Pirnie, 2006c, 2007b, 2008e, 2009a, 2010a, 2011a).

VOC

VOCs were generally not detected at concentrations above their respective vertical and horizontal characterization targets in groundwater samples collected. Nine VOCs were detected above the laboratory reporting limit including 1,1-DCA, 1,1-DCE, 1,4-dioxane, dibromochloromethane, bromodichloromethane, bromoform, chloroform, toluene, and trihalomethanes. 1,1-DCE had been periodically detected above the characterization target in PW-1 prior to initiating RI activities. During the remedial investigation, detections of 1,1-DCE were observed at PW-1 and the initial POE location, with concentrations ranging from 2.0 to 6.0 µg/L. Three detections of 1,1-DCA were observed at PW-1 and the initial POE with concentrations ranging from 0.51 to 0.62 µg/L. Detections of 1,4-dioxane were observed at MW-1, MW-2, PW-1, and both POE locations, with concentrations ranging from 1 to 3.7 µg/L. Dibromochloromethane has been detected four times at the initial POE and MW-5 at concentrations ranging from 0.99 to 2.3 µg/L. Bromodichloromethane was detected once at the initial POE location at a concentration of 1.1 µg/L. Detections of bromoform were observed at the initial POE location with concentrations ranging from 1.4 to 5.2 µg/L, and five detections of chloroform were observed at MW-8, PW-1 and the initial POE at concentrations ranging from 1.1 to 14 µg/L. Toluene was detected once at MW-13 and MW-15 in the first samples collected after well installation. Trihalomethanes were only detected in samples collected at the initial POE location, most likely a byproduct of chlorination. Only 1,4-dioxane had been detected in samples collected from the second POE location.

Tables 26 through 41 summarize the VOC analytical results for groundwater samples collected from site wells.

Metals

Arsenic was detected at concentrations above the vertical and horizontal characterization target of 10 µg/L at five wells, MW-1, MW-5, MW-7, MW-8, MW-10, MW-18 and MW-19. Lead, barium, cadmium, chromium, mercury, selenium, and silver have not been detected above their respective vertical and horizontal characterization targets. Tables 42 through 57 summarize the inorganic analyses of groundwater samples collected from the site wells.

Nitrate

Nitrate has not been detected at concentrations above the vertical and horizontal characterization target of 10 mg/L. The highest nitrate concentration of 7.8 mg/L was detected in a groundwater sample collected from MW-19.

3.3.2. Private Wells

Groundwater samples have been collected from residential private wells along Yearling Road, north of the facility, and analyzed for perchlorate since November 2004. Fifteen residents have participated in one or more of the groundwater monitoring events allowing UPCO to sample their well. Samples were originally analyzed for perchlorate by EPA Method 314. Perchlorate was not detected in the samples collected between November 2004 and May 2006 above the detection limit of 2 µg/L. Beginning in November 2006, samples collected from the private wells were analyzed for perchlorate by both EPA Method 314 and EPA Method 332. Since November 2006, perchlorate has been detected in two samples analyzed by EPA Method 314, 2.2 µg/L and 2.4 µg/L. Perchlorate has been detected at concentrations ranging from 0.00089 µg/L to 3.1 µg/L in samples analyzed by EPA Method 332. Table 58 summarizes the private well analytical data.

3.3.3. Zonal Sampling

Zonal sampling was conducted prior to well construction within the boreholes of the deeper monitor wells MW-12, MW-13, MW-14 and MW-18 that were advanced to approximately 400 to 500 ft bgs. Shallower zonal sampling was also conducted from the bottom of the soil vapor monitor well SVMW-1 borehole, prior to installing the soil vapor monitor well. The zonal samples were analyzed for perchlorate by EPA Method 314. The groundwater sample collected at SVMW-1 was also analyzed for VOCs by EPA Method 8260.

At MW-12, the sample collected from the interval 280 to 305 feet bgs contained perchlorate at a concentration of 67 µg/L. This concentration is lower than the perchlorate concentrations that have been detected in samples collected from adjacent monitor well MW-1; which is screened from 190 to 240 feet bgs. The samples collected from MW-1 have shown perchlorate concentrations between 47 µg/L to 130 µg/L. The sample collected at the deeper interval, 370 to 380 feet bgs, did not contain perchlorate concentrations above the laboratory detection limit of 2 µg/L for EPA Method 314

The zonal sample collected from 247 to 269 feet bgs at MW-13, near the surface of the water table directly beneath the former Waterbore Area ponds, contained perchlorate at a concentration of 120,000 µg/L. The zonal sample collected at the bottom of the borehole (480 to 502 feet bgs) contained perchlorate at a concentration of 3.6 µg/L prior to

reaming the borehole and completing well construction. As noted in Section 3.3.1, the perchlorate concentrations in groundwater samples collected from the completed well were initially elevated (330 µg/L); however, the concentrations have been decreasing with additional development and purging. This observed decrease in concentration with additional purging, along with the initial zonal sample collected at the bottom of the open borehole support the observation that the elevated perchlorate concentrations were temporarily related to well installation activities and not representative of the deeper aquifer water quality at MW-13.

The zonal samples collected at MW-14 from 285 to 305 feet bgs, 360 to 380 feet bgs, and 413.5 to 500 feet bgs, did not contain perchlorate at concentrations above the laboratory detection limit of 2 µg/L for EPA Method 314.

The shallow zonal sample collected at MW-18 from 175 to 195 feet bgs contained a perchlorate concentration of 2.8 µg/L. The zonal samples collected at MW-18 from 275 feet to 295 feet bgs and 369.5 feet to 389.5 feet bgs did not contain perchlorate at concentrations above the laboratory reporting limit of 2.0 µg/L. The perchlorate detection in the shallow zonal sample collected at MW-18 may have been influenced by water added during vadose zone drilling for cuttings management and dust control. The source of the water added during drilling of MW-18 was the production well (PW-1) which has historically contained low concentrations of perchlorate. A sample collected from the water stored in the driller's support truck contained perchlorate at a concentration of 3.2 µg/L, similar to the shallow zonal sample. Water from PW-1 was not added during the installation of the temporary wells between 275 feet to 295 feet bgs and 369.5 feet to 389.5 feet bgs. Perchlorate has not been detected in the completed well MW-18 above the Method 314 laboratory reporting limit of 2.0 µg/L.

The zonal sample collected from the boring at SVMW-1, between 218 to 238 feet bgs, contained perchlorate at a concentration of 7.8 µg/L. Acetone and MEK were detected in the groundwater sample at concentrations of 45 µg/L and 4.6 µg/L, respectively. Acetone was also detected in the trip blank sample that was concurrently submitted to the laboratory with the zonal sample.

Table 59 summarizes the zonal sampling analytical data for perchlorate. The VOC analysis for the zonal sample collected at SVMW-1 is included in Table 38.

3.3.4. General Water Chemistry

Samples and water quality parameter measurements were collected from site and private wells to analyze cation and anion balances. Piper and Stiff diagrams were generated for

the site wells to give a characterization of the general water chemistry at the site (Appendix H). The Stiff plots show that the dominant cations include co-equal amounts of sodium and potassium, and calcium except in a few wells. Likewise, the dominant anion in a majority of the site wells is bicarbonate. General water chemistry from the private wells show similar composition.

4. Physical Characteristics of Study Area

The following section provides a summary of the physical characteristics (geologic and hydrogeologic) observed during the installation of on-site monitor wells, collection of geophysical survey data, collection of soil samples, analysis of the surface drainage patterns, collection of depth to groundwater measurements, and aquifer testing. The physical descriptions are restricted to data results and observations collected during the remedial investigation activities. Interpretations are provided in the Conceptual Site Model.

4.1. Geologic Evaluation

4.1.1. Surface Geology – Geologic Mapping

The surface geology of the site was most recently mapped by Holloway and Leighty in 1998. The geology can be grouped into two categories, Tertiary/Quaternary sedimentary strata (Sedimentary Unit), and Precambrian basement rock of various lithologies (see Figure 6). A detailed description of the surface geologic units is provided in Section 1.5.1 and is therefore not repeated; however, the following additional observations were made during the remedial investigation activities:

- The surface deposits (upper two feet) of the Sedimentary Unit are generally poorly consolidated and poorly sorted, with particle sizes ranging from clay to boulder. Locally, desert pavement is observed in undisturbed areas of the site and caliche is found in the upper few feet of the soil horizon as observed at bank cuts of entrenched washes in the area.
- As mapped by Holloway and Leighty, 1998, surface bedrock surrounds the leased property on the north, east, and south boundaries in somewhat of a crescent shape. The recent mapping of the bedrock is consistent with site observations, with the exception of the bedrock outcrop mapped along the southern property boundary (see YXgd on Figure 6). Visual inspection of this area, as well as a road cut along Happy Valley Road, indicates that at least the upper five feet are comprised of the Sedimentary Unit and not Precambrian bedrock.

4.1.2. Subsurface Geology - Borehole Logs

Twenty borehole logs within the study area were collected or reviewed as part of the RI of the UPCO facility. The logs were collected from onsite monitoring wells MW-1

through MW-19, and soil vapor extraction well SVMW-1. The lithologic logs from various work phases referenced in Section 2.3 were collectively re-evaluated during preparation of this Final RI Report. The review was conducted to consider the current understanding of subsurface geology based on additional information and observation obtained throughout the RI process and ADEQ comments on previous submittals. Finalized borehole logs are provided in Appendix G. Similar to the surface geology, two major geologic units are observed in the borehole logs, a Sedimentary Unit and a Bedrock Unit.

4.1.2.1. Sedimentary Unit

The Sedimentary Unit is observed in each of the 20 boreholes, overlies the Bedrock Unit, and ranges in thickness from a few feet (i.e. MW-4) to greater than 300 feet (i.e. MW-6 and MW-10). The Sedimentary Unit is comprised predominantly of angular to sub-rounded gravel and sand, with lesser amounts of interbedded fine sand, silt, and clay. The gravel size component found throughout the study area is composed of metavolcanics (greenstone), basalt, granite, and granodiroite; with lesser amounts of tuff. The finer grained fraction consists of clay to coarse sand. The unit as a whole is moderately to well-cemented with calcium carbonate; however, unconsolidated non-cemented layers are observed within the core samples at MW-5, MW-6, MW-9, and MW-13; and near the surface. Comparison of borehole logs within the Sedimentary Unit shows that the local geology is fairly uniform (e.g., sand and gravel); however, distinct stratigraphic horizons, such as a clay layer, have not been correlated from one borehole to the next.

The observed characteristics of the Sedimentary Unit are consistent with the unconsolidated Quaternary deposits (Undifferentiated Quaternary on Figure 6) and cemented basin fill deposits (Tsy on Figure 6) as described by Holloway and Leighty, 1998.

4.1.2.2. Bedrock Unit

The Bedrock Unit is observed in 17 of the 20 boreholes, is covered by the Sedimentary Unit, and ranges in depth across the site. The well installed in one of the boreholes where bedrock was observed, MW-7, was not screened within the bedrock. Figure 43 provides a summary of the depth to bedrock as recorded in the borehole logs. The bedrock surface is irregular; however, depth to bedrock generally increases to the southwest. Geophysical data used to constrain the depth to bedrock is described further in Section 4.1.3. The unit consists of highly fractured and weathered metamorphic rock as well as fractured granitic rock (e.g. granite, grano-diorite, and diorite). Analysis of the fractures is discussed in Section 4.1.4.

The weathered metamorphic lithology is generally aphanitic or fine grained in crystalline texture; however, coarser grained intervals are observed to contain crystals of feldspar, calcite, and quartz. The drill cuttings from this lithology are gray-green and may weather to a rust brown to orange color. Thin veins of calcite are observed in the cuttings. This rock type is observed at borings MW-4 and MW-9. Based on the texture, mineralogic assemblage, and its proximity to the Union Hills, this bedrock is likely the subsurface equivalent of the Precambrian metavolcanic Greenstone mapped by Wilson et al., 1957, and Holloway and Leighty, 1998.

The granitic rock is phaneritic with visible feldspar, quartz, amphibole, and mica; and appears to be the dominant bedrock lithology observed in the subsurface beneath the Site. Intact core samples and drill cuttings are generally salt and pepper colored (i.e. white and black) with minor amounts of pink alkali-feldspar. The unit weathers to a rust brown or orange color, similar to the greenstone, and is found in borings MW-3, MW-5, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-18 and MW-19 and SVMW-1. At MW-3, a significant interval of the bedrock unit (200 to 240 feet bgs) appears to be significantly weathered to silt and clay. It is difficult to distinguish between highly weathered granite and highly weather greenstone. In such instances, the bedrock is noted as undifferentiated in the borehole logs. The granitic component of the Bedrock Unit is likely the subsurface equivalent of the Precambrian granites and granodiorites mapped by Holloway and Leighty, 1998; however, a differentiation between the slightly foliated younger granitic rocks, and the older foliated granitic sequence could not be made based on the drill cuttings.

4.1.2.3. Structure

As described previously, the surface contact between the Sedimentary Unit and the Bedrock unit is a nonconformity. Surface expressions of faulting, such as fault scarps, are not observed within the leased property boundary and may be covered by recent regolith development. A northeasterly trending structural fabric (foliation) has been mapped at the surface within Precambrian Greenstone and granitic bedrock.

Visual observation of the drill cuttings, especially well preserved core cuttings, indicate that the Bedrock Unit and well cemented sections of the Sedimentary Unit are fractured. The fractures are often filled with calcite, but are also observed to be devoid of any filling. Displacement along some of these fractures, within both the sedimentary unit and bedrock unit, is evidenced by slicken-sided surfaces at cores collected at MW-6, MW-5, MW-9, and MW-13. Extensive zones of fractures with displacement surfaces may represent significant faults within the study area. Other evidence for faulting in the subsurface includes the following:

- Joints with slickenside surfaces observed at monitor wells MW-6, MW-9, and MW-13.
- Truncated gravel clast observed at MW-6.
- Gravel sized clasts with their long axis oriented vertically which is uncharacteristic of an alluvial depositional environment.
- An extensive weathered clay layer observed between 75 to 85 feet bgs at MW-3 separating the overlying Sedimentary Unit and the Bedrock Unit.
- General location of the facility between a bedrock high and alluvial valley low, which are commonly separated by normal faults in the Basin and Range geologic provenance.

4.1.3. Borehole Geophysical Survey Results

Table 2 provides a description of the geophysical analyses performed on each of the monitoring well boreholes as part of the RI activities. Summary logs of the geophysical survey results for the monitor wells, as well as the private well at 18 E. Yearling, are provided in Appendix I. The significant observations made from the geophysical survey results are summarized below.

- The data from the optical and acoustic televiewer logs were used to evaluate the orientation (strike and dip) and intensity of fractures within the bedrock. Section 4.1.4 provides the result of fracture analysis.
- The data from the optical and acoustic televiewer logs were used to refine and/or support the observations made from the drill cuttings in the borehole logs. These refinements included:
    - A more thorough description of the sedimentary unit such as the angularity of rock clasts, presence of open pore space, presence and thickness of finer grained units, and an undisturbed view of the sedimentary structures which were discussed previously;
    - A visual confirmation of the depth to bedrock in boreholes where bedrock was encountered; and
    - A more thorough description of the bedrock unit such as the type of bedrock (greenstone vs. granitic).
- Neutron logs were used to help identify groundwater elevation as observed by a decrease in API units. This information was used to determine the placement of

the well screen. These groundwater elevations were later confirmed by taking measurements with a water level probe inside the monitor well casing.

- Natural gamma and neutron logs were used in conjunction with other geophysical data (i.e. optical and acoustic logs) to help constrain the depth to bedrock. The natural gamma logs often show a decreasing trend near the contact as observed at MW-3, MW-5, MW-9, and MW-12 (see Appendix H).
- A lack of a recognizable correlation between borehole geophysical logs within the Sedimentary Unit, including neutron, gamma, SP, and acoustical/OBI logs, suggests that bedding is discontinuous over a distance of several hundred feet. An exception to this may be a large spike in induction resistivity observed at MW-7 (25-60 feet bgs) and MW-8 (55- 70 feet bgs) along the southern portions of the property. However, this observation is not substantiated by correlations of other geophysical logs, such as neutron or gamma. As requested by ADEQ, it should be noted that correlations of certain geophysical logs within the vadose zone, such as the normal resistivity logs, cannot be made as these logs were only conducted in sections of the borehole containing fluid.

4.1.4. Geophysical Bedrock Fracture Analyses

Bedrock fractures orientations (strike and dip) for monitoring wells MW-4, MW-5, MW-8, MW-9, MW-11, MW-12, MW-13, MW-14, MW-16, MW-18 and 18 E. Yearling were evaluated using the optical and acoustical geophysical logs (see Appendix I). Rose diagrams (directional fracture plots) of the data are plotted on Figure 45 and 46. A discussion of the results and observations are provided below.

- Fracture orientations for individual wells are provided in Table 60 and summarized below.
    - The data from MW-4 show a weak preferred orientation of the fractures in an east-northeast to west-southwest direction within the greenstone unit. The fractures dip both in northerly and southerly direction and have an average dip angle of 55 degrees.
    - The data from MW-5 show a weak orientation of the fractures in a north-northwest to south-southeast direction within the granitic unit. The fractures along this orientation dip both easterly and westerly, with a higher percentage dipping to the east. The average dip angle of the fractures at MW-5 is 51 degrees.
    - The limited data set (n=17) from MW-8 shows a weak bimodal orientation of the fractures in a northwest to southeast and northeast to southwest

direction within the granitic unit. The fractures dip predominantly to the southeast or southwest with an average dip angle of 41 degrees.

- The data from MW-9 show a weak orientation of the fractures in a west-northwest to east-southeast direction within both the granitic and greenstone units. The fractures dip in a northerly and southerly direction, with a higher percentage dipping to the south in the granitic and to the north in the greenstone. The fractures have an average dip of 50 degrees for both units.
- The data from MW-11 show a weak orientation of the fractures in a northwest to southeast direction, with a preferred dip to the southwest in the greenstone unit. Data reported within the granitic unit show a general fracture orientation from west to east with a preferred dip direction to the south. The fractures are within the greenstone unit and have an average dip of 57 degrees and the granitic unit have an average dip of 54 degrees.
- The data from MW-12 show a weak orientation to the west-northwest to east-southeast, dipping to the north and south. The fractures are within the granitic unit and have an average dip of 50 degrees.
- The data from MW-13 show a preferred orientation north-northwest to south-southeast direction within the granitic unit. The fractures dip to both the east and west and have an average dip of 47 degrees.
- The data from MW-14 show a weak orientation to the northeast to southwest within the granitic unit. The fractures dip predominantly to the southeast with an average dip of 52 degrees. The reported data set within the greenstone unit shows a weak bimodal orientation of the fractures in a west to east and northwest to southeast direction. The fractures within the greenstone dip predominantly to the south an average dip angle of 64 degrees.
- The data from MW-16 show a weak orientation from the northeast to the southwest within the granitic unit. The fractures dip predominantly to the southeast and have an average dip of 62 degrees.
- The data from MW-18 show a weak orientation from the west-northwest to east-southeast within the granitic unit. The fractures dip to both the north and south and have an average dip of 46 degrees.
- The data from 18 E. Yearling show a weak orientation of the fractures in a northeast to southwest direction within the granitic unit. The fractures dip

both in northerly and southerly direction with a preferred dip to the southeast. The fractures have an average dip of 68 degrees.

- As illustrated on Figure 45 and 46, the fractures do not appear to have a site wide preferential orientation. Locally, the fractures do exhibit weakly preferred orientations and show the following characteristics:
    - MW-4, MW-16, and 18 E. Yearling, located in the northern third of the study area, show a preferred fracture orientation in a northeast-southwest direction. MW-4 is located within the greenstone; while 18 E. Yearling and MW-16 are within the granitic rock. MW-14 also shows a northeast-southwest orientation within the granitic unit; however, the fractures within the greenstone unit of this well show no preferred orientation.
    - MW-13 and MW-5 show preferred orientations in a roughly north south direction. These wells are located near each other along a lineament separating the Bedrock Unit and the Sedimentary Unit as seen on Figure 45 and 46. These are the only two locations to show a north-south trend in their dominant fracture orientation. The fracture data from the borings are collected within granitic bedrock.
    - The monitoring wells in the southern portions of the study area (MW-9, MW-18, MW-11, and MW-12) show weakly preferred orientations in a west-northwest to east-southeast direction. MW-8 is not included due to the sparse data set at this location.
- The fracture orientation does not appear to be dependent on the type of bedrock (greenstone vs. granitic). For example, MW-9 has fractures in both units which are oriented in the same direction. The dip direction for both units shows a north and south affinity; however, the greenstone unit appears to dip more consistently to the north, and the granitic units tend to dip more consistently to the south.

4.1.5. Rock Quality Designation (RQD)

RQD data was collected from borings MW-5, MW-9, and MW-13. Based on the classification system developed by Deere (1963) the quality of the rock can be grouped as follows:

RQD Range	Rock Quality
90 – 100%	Excellent
75 – 90 %	Good
50 – 75 %	Fair
25 – 50 %	Poor
0 – 25 %	Very Poor

The RQD results for each well are provided in Appendix J, and indicate the following:

- RQD data collected at MW-5 indicates the fracture intensity at this location is heterogeneous with depth from 185 to 267 feet below ground surface. Different competency zones range from less than a foot to ten feet in length. The entire length of the core is within the "poor" to "very poor" RQD range, with the exception of an interval near 200 feet below ground surface.
- RQD data collected at MW-9 indicates that fracture intensity of the bedrock at this location decreases with depth from 50 to 235 feet below ground surface. The zone from 48 to 100 feet bgs is less competent (i.e. more fractured) than the deeper bedrock section from 100 to 239 feet bgs. The majority of the rock core falls within the "poor" to "very poor" RQD range. However, competent zones within the "fare" and "good" range are observed near 120, 140, and 210 feet below ground surface.
- RQD data collected at MW-13 indicates that fracture intensity at this location is heterogeneous with depth from 197 to 492 feet below ground surface. Similar to the other boreholes, the majority of the rock core is within the "poor" to "very poor" RQD range; however, there are zones of "fair" and "good" RQD throughout the borehole.

In general, most of the RQD data from the three boreholes falls within the "poor" to "very poor" rock quality range. This is consistent with the interpretation of the bedrock as fractured to highly fractured.

4.2. Hydrogeologic Evaluation

4.2.1. Groundwater Elevation

Figures 31 through 34 present groundwater elevation maps for the second quarter of 2011. Quarterly groundwater elevation maps from second quarter 2007 to first quarter 2011 are presented in Appendix K. Historic depth to groundwater measurements and groundwater elevations for site and private wells are summarized in Table 61. Historic hydrographs and graphs of transducer data are presented in Figures 27 through 30.

Although, each site well does not have similar length of water level record, the highest recorded water elevations were observed in late 2004 to early 2005, and the lowest elevations were observed in 2011. Most of the monitoring wells showed a mainly declining water level trend since 2004.

The addition of pressure transducers in selected wells and access to private wells to the north of UPCO has enhanced the understanding of current groundwater gradients. A review of groundwater level data collected to date from transducers and manual measurements indicate that the groundwater elevation in the private wells are currently lower than at the nearest site wells, MW-3, MW-4, MW-14 and MW-15. These wells are completed in bedrock units and show an overall declining water level trend. More recently, some of the private well owners have also resorted to drilling deeper wells as water levels have continued to decline in the area. Hydrographs for the private wells show pumping level drawdowns ranging from 10 to 50 feet below static levels, especially during the on-cycles which may correlate with cumulative peak periods of use (Figure 29). However, this drawdown has not been observed in nearest site wells, showing at a minimum that the short term pumping related drawdown does not extend very far. Although, as noted above, wells MW-3, MW-4, MW-14 and MW-15 show steeper water level declines when compared to other onsite wells suggesting that the overall lowered water table to the north is propagating south toward the site.

4.2.1.1. Geologic Structure

Based on analysis of site geology and available hydrogeologic information, groundwater underlying the site occurs within two distinct zones, separated by one or possibly several associated subsurface geologic structures. Monitor wells completed in bedrock at the Site (MW-1, MW-2, MW-3, MW-4, MW-5, MW-8, MW-9, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, MW-18 and MW-19) exhibit groundwater elevations 30 to 40 feet lower than wells (MW-6, MW-7, MW-10, and MW-17) completed in the consolidated Sedimentary Unit west of the Site. The difference in groundwater elevation and depth to bedrock between the two zones is potentially an additional line of evidence for faulting along the western side of the Site. MW-6 is thought to be located near or within the influence of this subsurface geologic structure and has shown response in groundwater elevation due to significant precipitation events. A series of hydrogeologic cross sections are shown on Figure 39 through Figure 43. A base map showing the cross section lines is provided on Figure 38.

Numerous detailed studies in unconsolidated and consolidated sediments, as well as in fractured rock, show that faults may have significant impact on groundwater regime. For example, Mozley et al. (1996) discuss reduction in hydraulic conductivity associated with high-angle normal faults that cut poorly consolidated sediments. Such fault zones are commonly cemented by calcite, and their cemented thickness ranges from a few centimeters to several meters, as a function of the sediment grain size on either side of the fault. Cement is typically thickest where the host sediment is coarse grained and thinnest where it is fine grained.

4.2.2. Borehole Hydrophysical Survey Results

Analysis of the ambient flow tests in the borehole for MW-14 suggest interval specific volumetric flow rates ranging from less than 0.001 to 0.008 gpm, with the highest ambient flow rates were observed at intervals 287-302, 310-325, and 390-405 feet bgs. A summary of the results is provided in Table 62. Due to borehole diameter irregularities, the HPL testing tool could not be advanced below 412 feet bgs. However, results and data analysis of pumping tests conducted during the HPL testing suggest that minimal groundwater flow occurs below this depth.

K and T values were estimated from the HPL slug and pumping tests. The slug test results were analyzed by the Hvorlsev (1951) method while the ambient/pumping test data were analyzed using Theim (1906) method. Results from the slug tests estimated Ks ranging from 6-11.8 ft/day, and T ranged from 900-1900 ft^2/day for the borehole interval from 287-420 feet bgs. Results from the pumping tests estimated Ks ranging from 0.64 - 0.79 ft/day, and Ts ranged from 90-119 ft^2/day for the same interval. The results also estimate interval specific flow rates that ranged from 0.01 to 1.39 gpm.

The K values from the slug and pumping tests are within the range of published literature values for fractured rock although results from the pumping tests are two to three orders of magnitude different from the slug tests. Conversely, results of the aquifer test described in Section 4.2.3 estimated Ks to be much lower, ranging from 6.6×10^{-3} to 7.7×10^{-3} ft/day. The range of estimated Ks from the aquifer test is also within the literature values, but for unfractured rock. The results of both hydrophysical and aquifer testing methods conducted at MW-14 correlates with borehole geophysical data (fracture analysis) presented in Appendix I. The borehole geophysical data suggest that the interval from 260-420 feet bgs (hydrophysical testing interval), has a higher fracture frequency/density than the interval from 420-495 feet bgs (aquifer testing interval).

4.2.3. Aquifer Test Results

Before the aquifer test data analysis, site hydrogeological conditions and well response (*i.e.*, drawdown versus time) were evaluated to determine an appropriate analytical methodology. Well response curves for the observation wells were prepared from data collected during the pumping tests. The well response curves are presented in Appendix L.

As discussed in Kruseman and de Ridder (2000), the shape of the well response curves is diagnostic of aquifer type (*i.e.*, confined, leaky confined, or unconfined), well geometry (*i.e.*, borehole storage or partial penetration), and aquifer geometry (*i.e.*, barrier or

recharge boundaries). Data collected during drilling for the observation wells located near the test wells indicate that the aquifer is semi-consolidated to consolidated fractured aquifer.

The shapes of the response curves of the nearest observation well MW-15, as well as the other site and private wells monitored during the tests indicate the observation wells were not influenced by the pumping of well MW-14. Consequently, a determination of the type of aquifer (unconfined, confined, or leaky confined) near the test well cannot be made using diagnostic type curves.

Therefore, based on the above observations, analytical methods appropriate for analysis of single well tests were used to analyze the data. More emphasis was placed on analyzing the late-time data due to the apparent effects of borehole storage. Data from the single-well pumping test were analyzed by the Theis (Theis, 1935) recovery method (for recovery analysis), and the Cooper and Jacob (1946) method (for drawdown analysis), which are semilog, straight-line analysis methods.

The pumping test data analysis results for the pumping test are summarized in Appendix L. The Theis recovery and the Jacob time-drawdown method linear regression plots for the pumping well are also included in Appendix L.

4.2.3.1. Pumping Test Analysis Results

Of the three primary parameters used to assess an aquifer's ability to transmit groundwater, T, K, and storativity (S), only two parameters (T and K) can be somewhat reliably determined based on the aquifer responses observed during this test. As shown in Appendix L, T was estimated to range from 0.30 to 0.39 ft^2/day; and K was estimated to range from 6.6 x 10^{-3} to 7.7 x 10^{-3} ft/day, assuming an aquifer thickness of 50 feet (screened interval of pumping well).

There is general agreement in the aquifer parameter estimates from the pumping test conducted on well MW-14 and literature values for aquifers in unfractured to fractured igneous and metamorphic rocks (Driscoll, 1986). Additionally, the range of the hydraulic conductivity compares to the zone specific discharge and hydraulic conductivity values observed during the hydrophysical testing of well MW-14. In general, the pumping test results indicate that the aquifer has a low hydraulic conductivity (*i.e.*, K ranged from 6.6x10^{-3} to 7.7x10^{-3} ft/day) and low transmissivity (*i.e.*, T ranged from 3.3x 10^{-1} to 3.9x 10^{-1} ft^2/day).

4.2.4. Groundwater Flow

The static groundwater levels at some of the monitor wells are declining more rapidly than other wells which may exhibit more stable groundwater levels (refer to Appendix D for monitor well hydrographs). As a result, interpreted groundwater flow conditions may be varying over time. Previously presented groundwater flow interpretations in documents such as annual groundwater reports and the Interim RI Summary Report have been superseded as more information became available. As an example, the addition of pressure transducers in selected wells, access to private wells to the north of UPCO, and installation of additional monitor wells have enhanced the understanding of current conditions and trends. Hence, the iterative approach taken to develop the CSM presented in this report.

Historically, groundwater generally was expected to flow to the south - south west out of the CSM study area away from the mountain front. For that reason, MW-1, MW-2, and MW-5 were placed at locations on the site that were thought to be "downgradient" from the suspected primary perchlorate source area at the Waterbore Area. In addition, MW- 7 through MW-10 were placed with that understanding to monitor for potential off site migration. It is believed that up until the mid to late 1980s or early 1990s, groundwater flow was generally to the south-southwest. This opinion is based on the following observations:

- Groundwater levels identified during drilling of some private wells to the north of the site in the mid 1980s through mid 1990s appear to have been between approximately 50 and 100 feet higher than current conditions. This is based on a cursory review of drilling logs filed with ADWR and discussions with well owners and drillers in the area.
- The majority of perchlorate mass in groundwater appears to be at the Waterbore Area (MW-19) and extends to wells MW-1 and MW-2 which are south and west of the main operational complexes at the site.

Currently, groundwater in the central and southeast portion of the site still appears to follow a generally south and southwest flow pattern (Figure 31). The horizontal groundwater gradient in the vicinity of this group of wells (MW-1, MW-2, MW-5, MW-8, MW-9, MW-11, and MW-19) is relatively flat and flow directions may vary on a smaller scale when comparing groundwater elevations between individual wells. More recently, groundwater flow direction in the northern portion of the CSM study area has been observed to be more north-northwest between monitor wells, MW-3, MW-4, MW-14, and MW-15, and the private wells along Yearling. This is based on data obtained from the private wells and observed steeper rates of water level decline in wells MW-3,

MW-4, MW-14, and MW-15. This condition is likely the result of an induced gradient due to the combined effective pumping of the multiple private wells in the lower yielding bedrock unit to the north. Horizontal groundwater gradients are steeper between the central and northern portions of the site and appear to be increasing over time due to the higher rates of water level decline, observed in well MW-3, MW-4, MW-14 and MW-15. The general groundwater flow direction between monitor wells MW-6, MW-7 and MW-10 constructed in the Sedimentary Unit appears to be south to south easterly and between monitor wells MW-6 and MW-17 appears to be northerly based on current groundwater elevations (Figure 32).

Vertical groundwater gradients have been observed at shallow/deep bedrock monitor well sets, including MW-1/MW-12, MW-15/MW-14, MW-19/MW-13 and MW-3/MW-16. A downward vertical gradient has been observed between shallow and deep bedrock wells, MW-1 and MW-12, located in the south central portion of the site. Groundwater elevations observed in MW-1 have been 0.77 feet to 1.18 feet higher than in MW-12. An upward vertical gradient has been observed between shallow and deep bedrock wells, MW-15 and MW-14, located in the north central portion of the site. Groundwater elevations in MW-15 have been 0.02 feet to 0.94 feet lower than in MW-14. A downward vertical gradient has been observed between shallow and deep bedrock wells, MW-3 and MW-16, located in the northwest portion of the site. The groundwater elevation in MW-3 is approximately 11. 5 feet higher than at well MW-16, based on May 2011 data. A upward vertical gradient has been observed between shallow and deep bedrock wells, MW-19 and MW-13, located in the east central side of the site. The groundwater elevation in MW-19 is approximately 0.59 feet lower than at well MW-13, based on May 2011 data.

As stated in Section 4.3, pressure transducers were installed in selected site and private wells to better understand site hydrogeological conditions. A review of groundwater level data collected from the transducers indicate that the groundwater elevation in the private wells are generally lower today than at the nearest site wells, MW-14 and MW-15. Wells MW-14 and MW-15 are completed in bedrock and both show an overall declining water level trend. Based on anecdotal evidence, a similar general declining water level trend has been observed in the private wells over a period of the last 15 to 20 years. It is important to note that the number of residents living in this area increased significantly in the last ten years and this declining water level trend is likely the result of cumulative pumping from the low yield bedrock unit in which most of the wells were installed. At the time of construction of these private wells, the water level elevations were reported to be much higher in most cases. More recently, some of the private well owners have also resorted to drilling deeper wells as water levels have continued to decline. Hydrographs

for the private wells show steep pumping level drawdowns ranging from 10 to 50 plus feet below static levels, especially during the on-cycles which may correlate with cumulative peak periods of use. However, this steep drawdown has not been observed in nearest site wells, showing at a minimum that the short term pumping related drawdown does not extend very far. Although, as noted above, wells MW-14 and MW-15 show steeper water level declines when compared to other onsite wells suggesting that the overall lowered water table to the north is propagating south onto the site.

Most of the groundwater pumpage in the vicinity of the site has been from private residential wells and UPCO's former site production well, PW-1. Approximately 95 private residential wells are located to the north, west and southwest of the site. A list of these wells is provided in Table 63. There are no formal requirements for reporting pumpage from residential wells, however, flow monitoring of three private residential wells located north of the site (18 E, 218 E and 530 E Yearling Rd) between June, 2007 and January 2010 indicated that average pumping rates ranged from 277 gallons/day to 516 gallons/day. UPCO's production well, PW-1, was in operation since the facility was constructed in 1972 until decommissioned in 2010. The average pumping rate at PW-1, between June 2007 and December 2009 was 4,129 gallons per day.

Groundwater velocities are generally expected to be low in the central portion of the site where horizontal groundwater gradients are relatively low. However, groundwater velocities area expected to be higher and possibly increasing in the northern portion of the site where horizontal gradients are steeper and have been increasing over time.

4.3. Surface Drainage Analysis

Analysis of the surface drainage network was conducted as described in Section 2.3.5, the results of which are provided on Figure 35. The data indicate that the primary drainage orientation is in a northeast to southwest direction away from the Union Hills.

4.3.1. Recharge

The dominant recharge mechanism for the aquifer system beneath the site is considered to be mountain-front recharge. This is supported by the analysis of site surface drainage, which shows a pattern of focused flow along the washes. Traditionally, mountain front recharge considers only focused stream channel recharge at the mountain front, and assumes that the bedrock underlying the mountain block is essentially impermeable, suggesting negligible groundwater movement through the mountain block. Faults may play an important role in regulating flow paths in mountain blocks and are believed to act as both hydraulic conduits and barriers (Wilson and Guan, 2004). Faults that develop in brittle crystalline and lithified sedimentary rocks have a damaged zone and a core zone,

where the saturated permeability of the damaged zone is several orders of magnitude higher than the core zone.

As shown on Figure 30, MW-6 reacted most significantly to a period of heavy precipitation at the end of 2004 and beginning of 2005. The other monitoring wells at the site, regardless of where they are screened (in the sedimentary unit, bedrock or both), did not react as sharply to the increased precipitation. Prior to this recharge period, MW-6 had similar water elevation as MW-7 and MW-10. While wells MW-7 and MW-10 did appear to respond slightly to this longer duration precipitation event the difference is attributed to lower saturated permeabilities and their distances from the wash and inferred related structure. The water level at MW-6 stayed elevated for a period of time since 2005 and has since been slowly declining. None of the monitoring wells, including MW-6, MW-7, and MW-10 appear to have reacted in a similar manner to several subsequent rainfall events, some of which had higher intensity but shorter duration than the 2004-2005 rainfall.

5. Conceptual Site Model

5.1. Contaminants of Potential Concern

Analyses of samples collected from various media at each operational area within the UPCO facility have indicated that COPCs are present at concentrations above the characterization targets. The following sections summarize the COPCs identified in environmental media at the site.

5.1.1. Soil

Soil samples collected during the RI activities indicated that perchlorate and select metals (arsenic and lead) were detected at concentrations above the characterization targets. The elevated arsenic and lead concentrations detected in soil were limited to surface and near surface samples collected at the Old Burn Area, the New Burn Area, and one location along the wash behind the B-Complex. The highest arsenic concentration detected in soil was 15 mg/kg at the New Burn Area and the highest lead concentration detected in soil was 4,800 mg/kg at the Old Burn Area.

During the initial and supplemental soil investigations, perchlorate was detected above the characterization targets within each operational area investigated. The highest concentrations were detected in the Waterbore Area, C-Complex and the New Burn Area. The highest concentration detected in soil at the C-Complex was 330 mg/kg, in a surface soil sample (at boring CC-SB08). The highest perchlorate concentration detected in a subsurface soil sample at the C-Complex is 83 mg/kg at 20 feet bgs.

The highest perchlorate concentration detected in soil at the New Burn Area was 150 mg/kg. This was detected in surface soil at the former burn pad, which was subsequently removed. After the limited soil removal activities, performed as part of the RCRA closure of the OBU, the highest perchlorate concentration remaining in soil at the New Burn Area is 61 mg/kg, at 5 feet bgs.

The highest perchlorate concentration detected in soil at the Waterbore Area was 369 mg/kg, at 20 feet bgs during RFI activities (Appendix E3). At two borings drilled beneath the former evaporation ponds during RI activities, perchlorate was detected at elevated concentrations in each soil sample collected at WB-SB06, to a depth of 175 feet bgs, and in 7 of 13 samples collected at WB-SB07, to a depth of 70 feet bgs.

5.1.2. Soil Vapor

Soil gas sampling identified several VOCs that are present at low concentrations in the soil vapor beneath operational areas where solvent usage and/or management has occurred, namely B-Complex, C-Complex, F-Complex, and the Old Burn Area. Based on frequency of detection, magnitude of concentration, historic usage, and detection in groundwater samples, 1,1-DCE, acetone and MEK were identified as the COPCs in soil vapor that warranted evaluation.

5.1.3. Groundwater

Routine groundwater monitoring at the UPCO facility indicated two COPCs in groundwater that have historically been detected at concentrations above the characterization targets: perchlorate and 1,1-DCE.

During the most recent groundwater sampling event in April 2011, perchlorate was detected in groundwater collected at five monitor wells (MW-1, MW-2, MW-5, MW-6, and MW-19) at concentrations above the site-specific HBGL of 14 µg/L.

Only samples collected from production well PW-1 have contained concentrations of 1,1-DCE near or above the AWQS of 7 µg/L. The highest 1,1-DCE concentration detected at PW-1 was 7.5 µg/L in September 2004. 1,1 DCE has not been detected in PW-1 above the AWQS since 2004 and was detected at a concentration of 5 µg/L in the most recent sample collected during Second Quarter 2011.

5.2. Source Identification

5.2.1. Perchlorate

The remedial investigation activities conducted at the facility indicate that perchlorate has been released to the environment from past operations. The refurbishing of rocket motor tubes at the Waterbore Area is considered the source that has contributed the majority of the perchlorate mass observed in the soil and groundwater. This conclusion is based on the elevated concentrations of perchlorate detected in soil at the Waterbore Area, a historical hydraulic driver (infiltration of hundreds to thousands of gallons of wastewater, potentially containing perchlorate from historical waterbore operations) and the apparent direction of historical groundwater flow (southwest).

Perchlorate concentrations detected in monitor wells MW-1 and MW-2, downgradient of C-Complex and the New Burn Area, suggest former propellant production activities in C-Complex and former open burning of waste energetic materials in the New Burn Area

have also contributed some perchlorate mass to the groundwater beneath the site. These areas are considered smaller sources of perchlorate mass contribution to groundwater in comparison to the Waterbore Area operations. This is based on lower perchlorate concentrations detected in soil in these areas and lower hydraulic drivers (infiltration driven only by minor spills of mop water and/or precipitation).

While perchlorate was detected in four C-Complex borings at the bedrock interface, three of these samples were collected at 30 feet bgs and one sample was collected at 60 feet bgs. The highest perchlorate concentration detected in soil above the bedrock in C-Complex was 0.25 mg/kg. The deepest detection of perchlorate in soil at the C-Complex, from borings where bedrock was not encountered, was 40 feet bgs. Perchlorate was detected in five New Burn Area borings at the bedrock interface, at depths ranging from 7 feet bgs to 56 feet bgs. The highest perchlorate concentration detected in soil above the bedrock in the New Burn Area was 4 mg/kg. The deepest detection of perchlorate in soil at the New Burn Area, from borings where bedrock was not encountered, was 40 feet bgs.

An additional minor source of perchlorate detected in groundwater may possibly be attributed to recharge of impacted surface water from historic F-Complex, D-Complex, and/or Old Burn Area operations in the wash along the west side of the site. This potential source may explain the lower level perchlorate concentrations (15 to 20 µg/L) observed in groundwater at MW-6. The source areas for the primary COPC, perchlorate, are shown on Figure 48.

5.2.2. Metals

Lead detections in soil have been limited to the areas where historic open burning of lead-containing waste propellants occurred (Old Burn Area and New Burn Area). Impacts to soil are limited to surface and near surface soils in the vicinity where the former open burning activities were conducted. The lead detections were not observed to be widespread.

Arsenic was also detected in soil in the vicinity of the former waste treatment units in the Old Burn Area and the New Burn Area. Arsenic is naturally occurring in soils within the vicinity of the UPCO facility.

5.2.3. VOCs

The VOCs detected in soil gas samples collected at B-Complex, C-Complex, D-Complex and F-Complex appear to be the result of historic solvent and adhesive usage in these areas. Historic management of waste solvents at SWMU 5 in the B-Complex, appears to

have resulted in release of solvents to the soil which caused migration of VOCs into soil vapor.

Widespread VOC impacts to groundwater have not been observed in site monitoring wells including the grab sample collected during installation of SVMU-1 within the B-Complex. Limited VOCs have been detected in groundwater (see Section 3.3) with 1,1-DCE historically detected above the characterization target in 2004 at PW-1. The 1,1-DCE concentration in PW-1 is currently below the characterization target. The 1,1-DCE detected in PW-1 appears to be from historical solvent management activities in the B-Complex, most likely due to releases at SWMU 5.

5.3. Remedial Goals

The results of the RI activities have lead to the identification of COPCs in soil, soil gas, and groundwater, as discussed in the previous section. In order to determine if COPC concentrations in these media pose potential threats to human health or the environment, requiring further evaluation and potential remediation, remedial goals need to be established.

A remedial goal is a concentration of a COPC in a media (e.g., soil, groundwater) that is identified as a regulatory or site-specific calculated threshold for remedial evaluation. COPC concentrations identified above the remedial goals will be evaluated as part of the Corrective Measure Study (CMS) process.

The following sections discuss the remedial goals established for COPCs in soil, soil gas, and groundwater at the Site.

5.3.1. Metals in Soil

Arsenic and lead were the only two metals detected in soil that were identified as COPCs. Arizona Residential SRLs have been established for arsenic and lead concentrations in soil that are protective of direct contact with potential human receptors in a residential scenario. The residential SRL for arsenic is 10 mg/kg and the residential SRL for lead is 400 mg/kg. ADEQ has also developed minimum GPLs for arsenic and lead to be protective of migration to groundwater, and potential exposure to human receptors via drinking water ingestion. The minimum GPL for arsenic and lead is 290 mg/kg, which is less stringent for arsenic but more stringent than the SRL for lead. Therefore, the SRL of 10 mg/kg for arsenic and the minimum GPL of 290 mg/kg for lead have been identified as remedial goals in soil at the Site.

5.3.2. Perchlorate in Soil

Arizona has established a Residential SRL for the perchlorate concentration in soil that is protective of direct contact with potential human receptors in a residential scenario. The residential SRL for perchlorate is 55 mg/kg. Due to perchlorate's solubility and potential mobility for migration to groundwater, a site-specific GPL was developed for perchlorate to determine remedial goals for perchlorate in soil. The following sections discuss the development of a minimum GPL for perchlorate in soil.

5.3.2.1. Perchlorate GPL Development

A site-specific GPL for perchlorate was developed for the Site since the current ADEQ Inorganic GPL Model was not directly applicable. The site-specific GPL development for perchlorate at the Site followed a modified BTLM method (see Section 4.2) which included development of soil-water partition coefficients, determination of dilution factors, and graphical determination of the GPL.

Modified BTLM Approach

The modified BTLM approach (Equation 5-1) was used for the development of a GPL for perchlorate at the UPCO facility. The BTLM method is an equilibrium partitioning model.

Equation 5-1. Modified BTLM

$$C_s = C_w \times \left(K_d + \left(\theta_w / \rho_b \right) \right) \times DF_1 \times DF_2$$

where:

C_s = contaminant concentration in soil (mg/kg)
C_w = groundwater concentration (mg/l)
K_d = soil-water partition coefficient (l/kg)
θ_w = water filled porosity (volume water/volume soil) (%)
ρ_b = soil bulk density (kg/l)
DF_1= dilution factor in source zone (unitless)
DF_2 = dilution factor due to dispersion and vertical mixing (unitless)

The modified BTLM approach utilized site-specific soil leaching data to estimate the soil-water partitioning coefficient. Since the partition coefficient does not always follow a constant or linear relationship with regards to soil type or varying contaminant concentrations in soil, the use of a constant partition coefficient for perchlorate was not appropriate for the site. Site-specific data was used to develop a Kd model as a function of contaminant concentration and representative of the vadose zone soil type at the site.

The following sections discuss how the modified BLTM approach was used to develop a site-specific GPL for perchlorate.

Soil-Water Partition Coefficient (Kd) Determination

As discussed in Section 2.4, 15 soil samples collected from various investigation areas and at various depths below grade were submitted for total perchlorate analysis. Ten of the samples that represented the greatest range of perchlorate concentrations were selected for SPLP analysis. The total perchlorate concentrations for these samples were 0.82 mg/kg, 3 mg/kg, 5 mg/kg, 14 mg/kg, 29 mg/kg, 40 mg/kg, 63 mg/kg, 84 mg/kg, and 91 mg/kg, respectively. For the estimation of the soil-water partition coefficient, Kd, the mass of contaminant that remained sorbed to the soil, derived from total perchlorate and SPLP data, was compared to the mass of contaminant that leached into solution. The Kd values were then plotted and a regression analysis was performed (linear and non-linear) to determine a best-fit quantitative predictor equation with Kd as a function of contaminant concentration in soil (i.e., Kd = *f*(Cs)). Appendix M provides a summary of the Kd regression analysis.

Dilution Factor Determination

The modified BTLM approach utilizes two dilution factors. The first dilution factor, DF_1, accounts for dilution in the source zone and is a function of monitoring well screen length, effective porosity, groundwater velocity, infiltration rate through the contaminated vadose zone, and length of contaminant release parallel to the direction of groundwater flow. This dilution factor is the same as the dilution factor used in ADEQ's Inorganic GPL Model (see Equation 5-2).

Equation 5-2. Source Zone Dilution Factor

$$DF_1 = \left(\frac{z \times n \times v}{I \times L} \right)$$

where:

DF_1= dilution factor in source zone (unitless)
z = perforated length of monitoring well (m)
n = effective porosity (unit less)
v = fluid velocity in groundwater (cm/day)
I = infiltration rate through contaminated soil zone (cm/day)
L = length of contaminant release parallel to direction of groundwater flow (m)

The Inorganic GPL Model does not account for additional dilution that would occur if a compliance point was located some distance from the edge of the source. Therefore a

second dilution factor, DF_2, due to dispersion and vertical mixing between the source zone and the compliance point, was added to the modified BTLM approach. The compliance point dilution factor was estimated following the methodology presented in the *Graphical Approach For Determining Site-Specific Dilution-Attenuation Factors (DAF)* published by the American Petroleum Institute (API 1998).

The dilution factors were estimated based on a series of plume dimension assumptions, vadose zone characteristics, and aquifer characteristics. Some of these parameters were derived from site-specific data while default values were utilized for other parameters. Appendix M provides a summary of the parameter values used for the site-specific dilution factor calculations. Where default values were used in lieu of site-specific data, a rationale is provided.

GPL Determination

Re-arranging the modified BTLM equation, Equation 5-1, and replacing Kd with the predictor equation *f*(Cs) obtained from regression analysis, estimated perchlorate concentrations in groundwater were plotted as a function of perchlorate soil concentration (see Equation 5-3).

Equation 5-3. Estimated Groundwater Concentration as a Function of Contaminant Concentration in Soil

$$C_w = \frac{C_s}{\left(f(C_s) + \left(\theta_w / \rho_b \right) \right) \times DF_1 \times DF_2}$$

where:

C_w = estimated groundwater concentration (mg/l)

C_s = contaminant concentration in soil (mg/kg)

$f(C_s)$ = soil-water partition coefficient as a function of contaminant concentration in soil; predictor equation from regression analysis of site-specific Kd values (l/kg)

θ_w = water filled porosity (volume water/volume soil) (%)

ρ_b = soil bulk density (kg/l)

DF_1= dilution factor in source zone (unitless)

DF_2 = dilution factor at compliance point due to dispersion and vertical mixing (unitless)

The GPL was calculated by setting the target groundwater concentration at 14 µg/L and selecting the associated contaminant concentration in soil from the graph. Appendix K provides the graphical approach used to determine the site-specific GPL.

5.3.2.2. Perchlorate Remedial Goal in Soil

The site-specific GPL calculated for the UPCO facility using the BTLM approach for perchlorate in soil is 16 mg/kg. ADEQ has questioned the use of the two dilution factors for the site-specific GPL development. However, when ADEQ calculated a site-specific GPL using the default parameters for the source zone dilution factor (from ADEQ's Inorganic GPL Model), the result was similar to the GPL calculated by this study. ADEQ approved the use of a site-specific GPL of 16 mg/kg in a letter dated October 22, 2009. This concentration is more stringent than the Arizona residential SRL of 55 mg/kg. Therefore, the remedial goal for perchlorate in soil at the Site is the GPL of 16 mg/kg.

5.3.3. Perchlorate in Groundwater

At the time the Consent Order was executed, the ADHS HBGL of 14 µg/L for perchlorate in groundwater was specified as the perchlorate concentration in groundwater that would be protective of ingestion in a residential exposure scenario. Therefore, 14 µg/L has subsequently been established as the remedial goal for perchlorate in groundwater at the Site.

5.3.4. VOCs in Groundwater

The remedial goal established for 1,1-DCE in groundwater at the Site is the AWQS of 7 µg/L.

5.3.5. VOCs in Soil Gas

There are two potential migration pathways for the VOCs in soil gas that may pose an exposure risk to human receptors. One pathway involves vertical migration downward, dissolution in groundwater, and ingestion; while the other involves vertical migration upward, vapor intrusion into buildings (current or future) and inhalation. Based on the vertical profile of VOC concentrations in soil gas at the suspected source area in B-Complex (collected at SVMW-1), the majority of the VOC mass is approximately 100 feet bgs and has not impacted the groundwater which is located approximately 210 feet bgs. The collection of a grab sample from the groundwater during drilling/installation of SVMW-1 beneath where SWMU 5 had been located, confirmed that VOC migration to groundwater is not a pathway of concern at this time since the COPC with the highest concentrations in soil gas (1-1,DCE) was not detected in the grab groundwater sample.

Potential indoor air exposure risks due to VOCs in soil gas at the Site can be evaluated using the Johnson & Ettinger (J&E) Vapor Intrusion Model. The EPA has established an On-Line Screening Level Implementation of the Johnson and Ettinger Vapor Intrusion Model (EPA, 2009) that executes a Reverse Calculation of Target Media Concentrations to determine soil gas concentrations that are protective of indoor air quality. Using this

on-line tool, target concentrations for VOCs of concern in soil gas at the Site were calculated. As discussed in Section 3.2, the three VOCs of concern in soil gas, 1,1-DCE, acetone and MEK, were identified based on a combination of the following criteria: consistent detections is soil gas collected in multiple areas, elevated concentrations (above 1,000 ppbv), common use at the facility, and constituents with established AWQSs. Using the EPA's on-line screening tool, soil gas concentrations protective of indoor air were calculated to be 26,900 ppbv for 1,1-DCE, 65,440 ppbv for acetone, and 194,200 ppbv for MEK, assuming a depth to contamination of 10 feet bgs (see Appendix O) and using default parameters for building design. These concentrations have been established as the remedial goals for 1,1-DCE, acetone, and MEK in soil gas.

5.4. Source Delineation

5.4.1. Soil

5.4.1.1. Perchlorate

Perchlorate has been detected at concentrations above the remedial goal of 16 mg/kg in the Waterbore Area, C-Complex, and New Burn Area. The elevated perchlorate concentrations in soil at the Waterbore Area are limited to the soil beneath the former evaporation ponds where wastewater from the water wand operation was discharged. Perchlorate was detected above the remedial goal of 16 mg/kg in 18 subsurface soil samples collected from three borings in the vicinity of the former evaporations ponds (see Figures 14 and 49). In the boring drilled directly beneath the former ponds, perchlorate detections above 16 mg/kg extend vertically to 175 feet bgs, at bedrock.

Perchlorate detections above the remedial goal of 16 mg/kg in the C-Complex are limited to five samples collected from five different locations: two surface soil locations and three subsurface soil locations at depths ranging from 10 to 20 feet bgs. These elevated perchlorate concentrations include one subsurface sample, 20 feet bgs, to the north of Building C-1, one surface sample to the south of Building C-1, one subsurface soil location, 20 feet bgs, located between Buildings C-1 and C-2, one subsurface soil sample, 10 feet bgs, east of Building C-2, and one surface soil location outside of Building C-4 (see Figures 10 and 50).

The impacted surface soil at the New Burn Area, beneath the former burn pad, was removed during RCRA closure activities. The remaining elevated perchlorate concentrations observed in the New Burn Area were limited to 11 subsurface soil samples collected from eight locations beneath and adjacent to the former OBU burn pad, at depths ranging from 5 to 20 feet bgs (see Figures 17 and 51).

5.4.1.2. Metals

Elevated lead concentrations above the remedial goal of 290 mg/kg were detected in the Old Burn Area and the New Burn Area. The elevated lead concentration detected in the New Burn Area was limited to one surface soil sample located in the vicinity of the former OBU burn pad. The impacted soil in the New Burn Area was removed during RCRA closure activities; therefore, lead is not a contaminant of concern at the New Burn Area. The only area with elevated lead concentrations in soil is the Old Burn Area at nine surface to near surface (one foot bgs) locations in the vicinity of the former treatment unit (see Figures 12 and 52).

Arsenic was detected above the remedial goal of 10 mg/kg in soil at a few locations within the Old Burn Area, F-Complex, B-Complex and the New Burn Area. The elevated arsenic concentration detected in the New Burn Area was limited to one surface soil sample located beneath the former OBU burn pad. The impacted soil was removed during RCRA closure activities. The arsenic impacted soil in the B-Complex is limited to one surface location in the wash that borders the west and north side of the operational area. The arsenic impacted soil in the F-Complex is limited to one location, 20 feet bgs, off the southwest corner of Building F-1. The arsenic impact at the Old Burn Area is limited to one near surface location (one foot bgs) to the northwest of the former burn area.

5.4.2. Soil Gas

VOCs present in soil vapor appear to be limited primarily to the B-Complex, C-Complex and F-Complex, which are also the operational areas historically with the highest solvent usage. 1,1-DCE and acetone are the primary VOC impacts to the B-Complex soil vapor. VOCs were detected in soil gas samples collected throughout the B-Complex at various depths; however, the highest concentrations were detected beneath SWMU 5, which was a former solvent storage shed. VOC impacts to soil vapor extend to the water table at SWMU 5 based on soil gas sampling during the B-Complex site investigation and the installation of a nested soil vapor monitoring well. The highest 1,1-DCE and acetone concentrations were measured in a sample collected approximately 100 feet bgs. These concentrations are below the remedial goals for 1,1-DCE and acetone in soil vapor.

The VOC impacts in the C-Complex appear to be limited to acetone which was detected in soil vapor beneath Building C-2 and the former laboratory trailer, Building C-11. Vertical migration beneath Building C-2 appears to be limited to approximately 40 feet bgs. Vertical migration of VOCs in soil vapor beneath the former laboratory trailer appears to extend at least 80 feet bgs. VOC concentrations in soil vapor beneath the C-Complex were below the remedial goals.

The VOC impacts in the F-Complex appear to be limited to MEK and acetone which were detected in soil vapor beneath Building F-1 and F-10. Vertical migration beneath Building F-1 appears to extend at least 100 feet bgs. Vertical migration of VOCs in soil vapor beneath Building F-10 appears to extend at least 60 feet bgs. Further vertical delineation of VOC impacts at Buildings F-1 and F-10 were not completed due to access issues for the drill rig and the lack of an aquifer water quality standard for acetone. VOC concentrations in soil vapor beneath the F-Complex were below the remedial goals.

5.4.3. Groundwater

5.4.3.1. Perchlorate

During the remedial investigation activities conducted since 2004, perchlorate has been detected in groundwater at concentrations above the remedial goal of 14 µg/L in samples collected at monitor wells MW-1, MW-2, MW-5, MW-6, MW-13, and MW-19. The elevated perchlorate concentrations observed in MW-19 and MW-5 appear to be attributed to impacts from historical waterbore operations. The elevated concentrations initially detected at MW-13 were related to well installation activities since the zonal sample (3.6 µg/L) collected from the borehole, prior to well installation, did not contain perchlorate at concentrations above the remedial goal. Perchlorate concentrations in this well have dropped below the remedial goal of 14 ug/L during subsequent sampling events. Elevated perchlorate concentrations at MW-1 and MW-2 may be attributed to historical waterbore operations, propellant production in the C-Complex, waste propellant burning in the New Burn Area, and/or a combination of these sources. The elevated perchlorate concentrations in MW-6 are considered to be potentially attributed to historic release(s) at F-Complex via surface drainage and infiltration from a wash on the west side of the facility.

Figure 53 shows the inferred extent of perchlorate concentrations in groundwater above the remedial goal.

5.4.3.2. 1,1-DCE

Groundwater collected from the facility production well, PW-1, has historically contained low concentrations of 1,1-DCE, potentially attributed to historic solvent release in the B-Complex. The 1,1-DCE concentration has not exceeded the remedial goal of 7 µg/L since 2004.

5.5. Contaminant Fate and Transport

5.5.1. Soil

Perchlorate is a soluble salt that can migrate through the vadose zone to the groundwater via water infiltrating in soil pores and/or fractures in bedrock. During historic rocket motor tube refurbishing activities, the wastewater discharge from the waterbore operations provided the driving force for perchlorate migration from the soil to the groundwater. Once the waterbore operations were contained, the driving force for perchlorate mobilization in vadose zone soil was limited to rainfall infiltration. Natural decay and/or degradation of perchlorate in soil are not considered to be significant fate and transport mechanisms and perchlorate concentrations in the soil are considered stable in the absence of water.

Arsenic and lead are metals with fairly low solubility and moderate mobility in soil. In addition, biological decay and/or degradation of arsenic or lead in soil are not considered to be significant fate and transport mechanisms.

5.5.2. Soil Gas

VOCs can adsorb onto soil particles, partition into water within the soil pore space, or migrate through soil pores as soil vapor. VOCs that migrate vertically downward may reach the water table and dissolve into the groundwater. Alternatively, impacted water in soil pores may infiltrate vertically and mix with groundwater. Vertical migration of VOCs to the groundwater appears to have occurred to some degree beneath the B-Complex based on historic groundwater monitoring data collected from the production well PW-1 and the grab sample collected from the boring completed as soil vapor monitoring well SVMW-1. VOCs may also migrate vertically upward and be released to ambient air or may migrate into on-site buildings via vapor intrusion mechanisms. Sampling of SVMW-1 indicates that the bulk of the VOC mass appears to be located approximately 90 to 100 feet bgs. Quarterly monitoring of SVMW-1 suggest little vertical migration of VOCs is currently occurring in the soil vapor beneath the B-Complex.

5.5.3. Surface Water

Surface water impacts would be associated with seasonal precipitation contacting surface soil with COPCs. The COPCs could potentially be transported as a dissolved constituent in water or attached to sediment traveling with the water.

5.5.4. Groundwater

Perchlorate is a soluble salt that can migrate through the vadose zone to the groundwater via water infiltrating in soil pores and/or fractures in bedrock. COPCs in contact with groundwater could be dissolved and transported with groundwater movement in fractures or pore spaces. Natural groundwater flow rates in fractured bedrock at the site are considered low in the absence of induced gradients.

Natural decay and/or degradation of perchlorate in groundwater are not considered to be significant fate and transport mechanisms. The current monitoring network indicates a relatively flat groundwater table at the wells where perchlorate is detected and low fluctuations in perchlorate concentrations at these wells, suggesting a currently stable plume with low mobility.

5.6. Future Land and Water Use

5.6.1. On-Site Land Use

The UPCO facility is located on property owned by the Arizona State Land Department (ASLD). The land is currently zoned as S-1. The September 2008 City of Phoenix General Plan shows the future planned use for the property as a commerce / business park. Since UPCO's operations have been removed from the Site, ASLD may lease or sell the property to another commercial operation, sell the property for residential property development, or take no action and leave it as a vacant land. ASLD's specific plans for future use of the Site are not known at this time but could involve either residential or commercial uses.

5.6.2. Off-Site Land Use

The properties to the north of the Site have been developed for residential use. It is anticipated that the area to the north of the Site will remain residential use properties. The properties immediately west, south, and east of the Site are owned by ASLD. The property to the east is part of the Sonoran Desert Preserve and the Phoenix General Plan shows that the area is planned to be a park/open space. The property to the south is planned as commerce/business park. ASLD's plans for future use of the properties to the west, south, and east of the Site are not known at this time but future use of the land west and south of the former UPCO facility could include either residential or commercial development. At this time it appears unlikely that the hills to the east of the site would be developed.

5.6.3. On-Site Water Use

The UPCO facility utilized the groundwater beneath the site as the potable water and process water source for operations. There is no water service currently available from the City of Phoenix. If ASLD leases or sells the property for commercial use in the near future, it is likely that groundwater will be utilized for potable and/or process water purposes, unless the water demand proves to be unsustainable for the aquifer beneath the site. It is possible that a future commercial operation or residential development may receive water from the City of Phoenix, if the City's service is extended west along Happy Valley Road.

5.6.4. Off-Site Water Use

Currently the residences to the north of the Site utilize groundwater as a potable water source. It is possible that land to the west and south of the facility could also be converted to residential development, or commercial development, in the future. It is anticipated that the current usage of the groundwater north of the site as well as any future developments west and south of the site, will continue until the groundwater supply is depleted to a point it is no longer sustainable or economic, or the City of Phoenix extends water services to these areas. Water levels collected at the site, and at residences north of the site, indicate that the groundwater supply is being depleted within the residential development at a potentially unsustainable rate (multiple residences have had to drill deeper wells or have their potable water delivered). It is assumed that additional future development north, west or south of the site would accelerate the depletion of the groundwater supply in the vicinity of the site.

5.7. Risk Assessment Framework

The discussion below and Figure 54 represents the conceptual understanding of on-site sources of chemical contaminants, the means by which these chemicals could be transported within and among environmental media (e.g., soil, groundwater, and air), and the potential exposure pathways and routes by which there may be contact with human receptors.

Exposure pathways are considered potentially complete where each of the following is present:

- A source and mechanism of chemical release to the environment;
- Retention or transport media for the released chemical;
- A point of potential contact with an impacted medium; and
- An exposure route at the contact point.

The extent to which a potential pathway is actually complete and/or the associated potential exposure risk will be evaluated.

5.7.1. Fate and Transport Mechanisms

As discussed in Section 5.5, the concentration and distribution of chemicals at the Site may be affected by one or more fate and transport mechanisms. The primary release and transport mechanisms of chemicals in soil are leaching to groundwater, surface water runoff of chemicals attached to soil particles, dust generation, and volatilization. Secondary media of potential consideration are groundwater, surface water, and sediment. The primary release and transport mechanisms of chemicals in groundwater and surface water are off-site migration of dissolved chemicals and volatilization. The release and transport mechanisms of chemicals in sediment (when the washes are dry) are the same as for soil. An additional medium of consideration is air, both ambient air due to potential release of dust from soil and/or volatile chemicals from soil or groundwater, and indoor air from potential vapor intrusion of volatile chemicals released from soil or groundwater. Therefore, soil, groundwater, surface water, sediment, and air are considered potential exposure pathways.

5.7.2. Potential Human Receptors

Four categories of current and future potentially exposed human receptor populations are identified in the vicinity of the Site, including:

- Current off-site residents - Adults and children currently living off site in the vicinity of the Site.
- Future on-site workers – adults who will work on and around the grounds or in future on-site buildings.
- Future on-site residents – Adults and children who will live on site in the future.
- Future off-site residents – Adults and children who will live off site in the vicinity of the Site.

The potential exposure pathways and routes of exposure for each human receptor population are presented in Figure 54. Depending on the type of human receptor population, potential exposure routes include ingestion, dermal contact, and inhalation.

5.7.3. Exposure Pathways

5.7.3.1. Soil Exposure Pathway

Soil is a potentially complete exposure pathway for current off-site residents, future on-site industrial workers, future on-site residents, and future off-site residents. Potential exposure routes are:

- ingestion of, and dermal contact with, chemicals in soil, and
- inhalation of chemicals released from soil to outdoor air (on dust or as chemical vapors).

5.7.3.2. Groundwater Exposure Pathway

Groundwater is a potentially complete exposure pathway for each of the receptor populations. Ingestion and dermal contact with the groundwater are potential exposure routes for each receptor. Inhalation of volatile chemicals released from impacted groundwater to indoor air (vapor intrusion) and outdoor air is a potential exposure route for future on-site workers and future on-site residents.

5.7.3.3. Surface Water/Sediment Exposure Pathways

A series of washes traverse the Site which are dry most of the year. However, some surface water flow intermittently occurs during storm events. During periods when the washes at the Site are dry, sediment is essentially soil and, as such, presents a potentially complete exposure pathway for current on-site workers and future on-site residents. Ingestion of, and dermal contact with, sediment/soil are potential exposure routes.

During or immediately after a storm event, flowing or ponded surface water may present potentially complete exposure pathways for future on-site workers and future on-site residents due to the potential for chemical leaching from soil to surface water. Dermal contact is the potential exposure route in these cases.

5.7.3.4. Air Exposure Pathway

As discussed in the previous sections, the potential release of dust and volatile chemicals from soil to outdoor air, the potential release of volatile chemicals from groundwater to outdoor air, and the potential release of volatile chemicals from soil or groundwater causing vapor intrusion to indoor air, present potentially complete exposure pathways for some of the potential receptor populations. Inhalation is the potential exposure route in these cases.

5.7.4. Human Health Risk Assessment

Soil remediation standards noted in A.A.C. R18-7-203(A)(3) and subsequently referenced A.A.C. R18-7-206 (A) indicate site specific remediation standards can be developed for sites by completing a human health risk assessment which uses reasonable maximum exposures for future use scenarios. The site specific risk assessment would follow the deterministic risk assessment guidance provided by EPA (1989) which is the basis of the guidance drafted by the ADHS (2003).

6. Summary and Conclusions

6.1. Summary

UPCO has conducted a comprehensive series of soil, soil gas and groundwater investigations to assess the nature, magnitude, and extent of potential releases associated with historical operations at the Site. Contaminants were detected in soil, soil gas and groundwater at concentrations above characterization targets, requiring further evaluation and establishment of remedial goals.

Three COPCs have been identified in soil at concentrations above the remedial goals: perchlorate, lead and arsenic. The highest concentrations of perchlorate in soil at the former UPCO facility, and the deepest vertical extent of elevated perchlorate concentrations in soil (to 175 feet bgs), were observed in the Waterbore Area. There were also some elevated perchlorate concentrations in soil detected in the C-Complex and the New Burn Area, at depths ranging from 0 to 20 feet bgs. Lead concentrations in soil appear to be attributed to historic burning of waste propellants in the former open burning areas: Old Burn Area and New Burn Area. The elevated lead detected in surface soil at the New Burn Area was removed during the OBU closure activities. Observed arsenic concentrations in soil are considered consistent with naturally occurring conditions.

VOCs were detected in soil gas samples collected in B-Complex, C-Complex, F-Complex, and Old Burn Area. The suspected source of the VOC detections is historic solvent and adhesive use in these areas. 1,1-DCE, acetone and MEK have been identified as the COPCs in soil vapor based on frequency of detection, magnitude of concentration, historic usage, and detection in groundwater samples. The largest VOC impacts to soil vapor were observed in the B-Complex. The VOC concentrations detected in B-Complex do not appear to be impacting groundwater above characterization targets, based on groundwater monitoring data obtained at wells in the vicinity of the B-Complex (MW-1, MW-2, MW-6, MW-7, MW-10, MW-12, and PW-1) as well as the grab groundwater sample collected beneath the suspected source area in B-Complex, SWMU 5. Screening level J&E modeling also suggests that vapor intrusion is not of concern.

Perchlorate and 1,1-DCE are the two COPCs identified in groundwater. Historic groundwater sampling detected 1,1-DCE in the production well, PW-1, at a concentrations above the remedial goal of 7 µg/L in 2004. 1,1-DCE has not been detected

above the laboratory reporting limit in the other site monitoring wells. The concentration of 1,1-DCE in PW-1 has declined below the remedial goal since 2004.

6.2. Conclusions

Perchlorate is currently detected in five site monitor wells, MW-1, MW-2, MW-5, MW-6 and MW-19, at concentrations above the remedial goal. Detections of perchlorate in monitor wells MW-5 and MW-19 appear to be attributed to historic waterbore operations. The detections in MW-1 and MW-2 are thought to be attributed either to historic waterbore operations, propellant production in the C-Complex and/or burning of waste propellant at the New Burn Area.

As discussed in Section 5.2, the Waterbore Area is suspected to have contributed the most perchlorate mass to the groundwater beneath the site. Perchlorate mass contributions to groundwater from the C-Complex and New Burn Area are considered to be smaller in comparison to the Waterbore Area since the elevated perchlorate concentrations in soil at these areas are lower and the hydraulic driver to transport perchlorate to the groundwater is limited to infiltration from precipitation.

The perchlorate detections in MW-6, which is installed in Sedimentary Unit to the west of an apparent subsurface geologic structure, may be attributed to recharge of impacted surface water (from historic F-Complex operations) in the wash along the west side of the Site.

The results of the investigations suggest that the characterization of soil, soil gas, and groundwater at the Site are complete. Soil with COPC concentrations above the remedial goals will be evaluated during the Corrective Measures Study to determine the appropriate actions needed to address potential risks to human health. VOC concentrations in soil gas are below the remedial goals for the Site.

The concentrations of 1,1-DCE in PW-1 have declined below the remedial goal since 2004.

Perchlorate concentrations detected in groundwater during the remedial investigation period (2004 to 2011) have remained relatively stable and current perchlorate detections are limited to four shallow bedrock wells and one shallow sedimentary unit well. The current monitoring network is designed to monitor potential perchlorate migration in each direction as described in the following paragraphs.

Elevated perchlorate concentrations in the shallow bedrock wells MW-1, MW-2, MW-5, and MW-19 are delineated by MW-3, MW-15, and MW-4 to the north, the grab sample collected during drilling at SVMW-1 and the inferred subsurface geologic structure to the west, MW-11 to the east, and MW-8, MW-9, and MW-18 to the south. Potential vertical migration of perchlorate impacts in monitor wells MW-1 and MW-2 are currently delineated by MW-12 and PW-1.

Potential vertical migration of perchlorate impacts at the Waterbore Area are delineated by MW-13 at the Waterbore Area, MW-12 to the south, MW-14 and MW-16 to the north, and PW-1 to the west. The elevated perchlorate concentration initially observed at MW-13 was attributed to well installation activities. This is supported by the zonal sample collected at the bottom of the borehole, prior to well installation, and the current perchlorate concentration of 7 ug/L, which are both below the remedial goal of 14 µg/L.

Elevated perchlorate concentrations in the shallow Sedimentary Unit at MW-6 are delineated by the inferred subsurface geologic structure to the east and monitor wells MW-7, MW-10, and MW-17 to the south, southwest, and northwest, respectively.

7. References

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Tables

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Table 1
UPCO Monitor Well Information
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Well ID	Installation Date	Latitude	Longitude	ADWR Number	Total Casing Depth (feet bgs)	Screened Interval (feet bgs)	Measuring Point Elevation (feet amsl)	Approximate Depth to Bedrock (feet bgs)
MW-1	12/2003	112º04'13.76"W	33º42'47.61"N	55-201495	240	190-240	1557.22	100
MW-2	12/2003	112º04'13.03"W	33º42'53.39"N	55-201494	250	200-250	1567.62	95
MW-3	08/2004	112º04'20.91"W	33º43'03.49"N	55-204197	271	221-271	1583.59	85
MW-4	08/2004	112º04'01.27"W	33º43'06.49"N	55-204196	300	245-295	1620.34	10
MW-5	08/2004	112º04'04.97"W	33º42'58.13"N	55-204195	285	230-280	1590.45	185
MW-6	08/2004	112º04'25.09"W	33º42'50.47"N	55-204194	210	155-205	1548.22	Not Encountered
MW-7	10/2004	112º04'26.79"W	33º42'42.34"N	55-205001	210	155-205	1541.35	215
MW-8	10/2004	112º04'11.43"W	33º42'38.66"N	55-205002	235	180-230	1542.18	220
MW-9	01/2005	112º04'00.37"W	33º42'38.46"N	55-901548	255	200-250	1565.60	48
MW-10	01/2005	112º04'36.07"W	33º42'47.49"N	55-901549	205	150-200	1536.11	Not Encountered
MW-11	12/2005	112º04'02.46"W	33º42'54.85"N	55-903736	315	260-310	1603.35	55
MW-12	12/2005	112º04'13.93"W	33º42'88.09"N	55-903737	480	450-480	1557.46	114
MW-13	08/2008	112º04'02.97"W	33º42'59.55"N	55-217221	490	440-490	1595.77	195
MW-14	08/2008	112º04'13.66"W	33º43'10.34"N	55-217222	500	445-495	1602.48	31
MW-15	06/2008	112º04'13.82"W	33º43'9.86"N	55-217223	325	270-320	1600.48	31
MW-16	04/2011	112°04'20.93"W	33°43'04.05"N	55-913047	500	445-495	1585.36	77
MW-17	09/2009	112°04'27.02"W	33°42'54.33"N	55-913046	260	205-255	1560.72	Not Encountered
MW-18	04/2011	112°04'21.74"W	33°42'37.32"N	55-911047	230	175-225	1533.53	265
MW-19	04/2011	112°04'03.14"W	33°42'59.39"N	55-913045	260	205-255	1599.51	195

Note:
bgs = below ground surface
amsl = above mean sea level
ADWR = Az. Dept. of Water Resources

Table 2
Geophysical Log Methods
Final Remedial Investigation Report

Monitor Well	Natural Gamma Ray	Neutron	Caliper	Density	Inductive Resistivities	Electric Log Resistivities	Spontaneous Potential	Acoustic Televiewer	Optical Televiewer	Sonic
MW-3	x	x	x	x	x				x	
MW-4	x	x	x	x				x	x	
MW-5	x	x	x	x	x	x	x		x	
MW-6	x	x	x	x		x	x	x		
MW-7	x	x	x	x	x	x	x		x	
MW-8	x	x	x	x	x	x	x		x	
MW-9	x	x	x	x	x	x	x	x	x	
MW-10	x	x	x	x		x	x			
MW-11	x	x	x	x	x	x	x	x	x	
MW-12	x	x	x	x		x	x	x	x	
MW-13	x	x	x	x		x	x	x	x	x
MW-14	x	x	x	x		x	x	x	x	x
MW-16	x		x					x	x	x
MW-17	x	x	x		x	x	x	x	x	x
MW-18	x	x	x		x				x	
18 E. Yearling	x	x	x	x	x	x	x	x	x	x

Note: Geophysical logging was not performed at monitor well MW-15 since it is adjacent to monitor well MW-14, or MW-19 since it was adjacent to MW-13.

Table 3
Transducer Monitoring Network
Final Remedial Investigation Report

Well ID	ADWR Well Registraiton ID	Total Well Depth (feet bgs)	Screened Interval (feet bgs)	Measuring Point Elevation (feet amsl)	Approximate Depth of Transducer Below Measuring Point (feet)	Approximate Depth of Submergence of Transducer Below Static Water Level (feet)	Date Transducer Installed	Date Transducer Removed
Site Monitoring Wells								
MW-1	55-201495	240	190-240	1557.22	231	23	11/13/2006	4/29/2008
MW-2	55-201494	250	200-250	1567.62	NA	NA	NA	NA
MW-3	55-204197	271	221-271	1583.59	246	11	11/16/2006	7/31/2009
MW-4	55-204196	300	245-295	1620.34	280	7	11/15/2006	7/31/2009
MW-5	55-204195	285	230-280	1590.45	NA	NA	NA	NA
MW-6	55-204194	210	155-205	1548.22	178	14	11/16/2006	4/30/2008
MW-7	55-205001	210	155-205	1541.35	182	22	3/21/2007	3/13/2008
MW-8	55-205002	235	180-230	1542.18	220	27	3/21/2007	4/29/2008
MW-9	55-901548	255	200-250	1565.60	235	19	11/16/2006	4/30/2008
MW-10	55-901549	205	150-200	1536.11	175	24	3/21/2007	4/29/2008
MW-11	55-903736	315	260-310	1603.35	NA	NA	NA	NA
MW-12	55-903737	480	450-480	1557.46	218	9	11/13/2006	4/29/2008
MW-13	55-217221	490	440-490	1595.77	NA	NA	NA	NA
MW-14	55-217222	500	445-495	1602.48	285	25	9/26/2008	10/8/2009
MW-15	55-217223	325	270-320	1600.48	285	25	9/26/2008	10/8/2009
PW-1	55-500290	500	420-480	1554.55	273	62*	3/30/2007	4/30/2008

Table 3
Transducer Monitoring Network
Final Remedial Investigation Report

Well ID	ADWR Well Registraiton ID	Total Well Depth (feet bgs)	Screened Interval (feet bgs)	Measuring Point Elevation (feet amsl)	Approximate Depth of Transducer Below Measuring Point (feet)	Approximate Depth of Submergence of Transducer Below Static Water Level (feet)	Date Transducer Installed	Date Transducer Removed
Privatte Wells								
16 E YEARLING	55-578534	738	705-735	NA	NA	NA	NA	NA
18 E YEARLING	55-212662	520	420-500	1596.79	400	65	8/2/2007	8/12/2009
25825 N 1ST PLACE	55-557685	495	275-295; 355-375; 395-415	NA	NA	NA	NA	NA
520 E YEARLING	NA	NA	NA	1635.71	358	64	3/30/2007	7/31/2009
616 E YEARLING	NA	NA	NA	NA	NA	NA	NA	NA
604 E YEARLING	NA	NA	NA	NA	NA	NA	NA	NA
218 E YEARLING	55-550038	415	450-480	1617.01	355	37	3/30/2007	10/8/2009
25903 N. 2ND ST	NA	NA	NA	NA	NA	NA	NA	NA
412 E YEARLING	NA	NA	NA	NA	NA	NA	NA	NA
424 E YEARLING	NA	NA	NA	NA	NA	NA	NA	NA
8 W YEARLING	55-205738	260	NA	NA	NA	NA	NA	NA
122 W YEARLING	NA	NA	NA	NA	NA	NA	NA	NA
104 E YEARLING	NA	NA	NA	NA	NA	NA	NA	NA
204 E YEARLING	NA	NA	NA	NA	NA	NA	NA	NA
106 W YEARLING	55-583418	440	360-440	NA	NA	NA	NA	NA

Notes:
amsl = above mean sea level
bgs = below ground surface
NA = not available, transducer not installed
* Does not represent true static

Table 4
MW-14 Aquifer Test Monitoring Network
Final Remedial Investigatoin Report

Well ID	ADWR Number	Total Casing Depth (feet bgs)	Screened Interval (feet bgs)	Measuring Point Elevation (feet amsl)	Approximate Distance from MW-14 (feet)
Pumping Well					
MW-14	55-217222	500	445-495	1602.48	0
Shallow Observation Wells					
MW-15	55-217223	325	270-320	1600.48	50
MW-3	55-204197	271	221-271	1583.59	850
MW-4	55-204196	300	245-295	1620.34	950
Deep Observation Wells					
218 E. Yearling	55-550038	440	450-480	1557.46	500
520 E. Yearling	NA	> 350	NA	1635.71	1,200
MW-13	55-217221	490	440-490	1595.77	1,200
PW-1	55-500290	500	420 - 480	1554.55	1,900
18 E. Yearling	55-212662	500	420 - 500	1596.79	2,100
MW-12	55-903737	300	450-480	1557.46	2,100

Notes:
ADWR = Az. Dept. of Water Resources
amsl – above mean sea level
bgs = below ground surface
NA = not available

Table 5
GPL Development Sampling Locations
Final Remedial Investigation Report

Location	Depth (feet)	Perchlorate (mg/kg)	Represented Range
FC-2	25	<0.04 @ 20', 1.2 @ 30'	<1
FC-3	30	0.97	
WB-1	20	2.8	1 - 25
CC-20	10	7.8	
CC-10	10	23	25 - 50
WB-6	40	34	
WB-11	70	40	
WB-6	20	53	50 - 75
WB-6	99	61	
CC-14	20	83	75 - 100
WB-6	80	85	
WB-7	20	92	
WB-6	10	130	>100
MW-13	10 - 20	193 - 369*	
MW-13	20 - 30	255 - 369*	

*MW-13 was drilled in the vicinity of former borings D, D1, and D5 drilled and sampled by SA&B during a previous investigation. Perchlorate range in soil samples collected by SA&B for the proposed depths are presented in the table.

The 15 samples were analyzed for total perchlorate (EPA Method 314). The 10 samples that represent the greatest range of concentrations were chosen for SPLP analyses.

Notes:
mg/kg = milligram per kilogram

Table 6
Fence Line Soil Sample Analytical Results
Final Remedial Investigation Report

		Sample ID										
Parameter	**Residential SRL**	**PF-SS01-0**	**PF-SS02-0**	**PF-SS03-0**	**PF-SS04-0**	**PF-SS05-0**	**PF-SS06-0**	**PF-SS07-0**	**PF-SS08-0**	**PF-SS09-0**	**SMA-SSBG-0**	**SMA-SSBG-1**
Sample Depth (feet bgs)		0	0	0	0	0	0	0	0	0	0	1
Perchlorate (mg/kg)												
Perchlorate	55	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Metals (mg/kg)												
Aluminum	76,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	18000	20000
Arsenic	10	5.4	5.5	7.8	7.3	5.4	6.8	5.7	7.4	9.7	NA	NA
Barium	15,000	110	89	120	120	110	140	90	100	130	110	110
Boron	16,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	<50	<50
Cadmium	39	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	120,000	26	30	32	31	35	25	12	16	10	30	48
Cobalt	900	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.4	8.6
Copper	3,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	21	18
Iron	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	24000	24000
Lead	400	10	8	10	11	8.1	6.7	8	7.3	<4	12	7.1
Mercury	23	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	0.024	0.061	<0.02	NA	NA
Selenium	390	<5	<5	<5	<5	<5	<5	<5	<5	<5	NA	NA
Silver	390	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA
Nitrate & Nitrite (mg/kg)												
Nitrate-N	100,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.0	<1.0
Nitrite-N	6,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	<1.0
Explosives (mg/kg)												
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	3,100	NA	<2	NA	<2	NA	<2	NA	<2	NA	NA	NA
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	5	NA	<2	NA	<2	NA	<2	NA	<2	NA	NA	NA
1,3,5-Trinitrobenzene	1800	NA	<2	NA	<2	NA	<2	NA	<2	NA	NA	NA
1,3-Dinitrobenzene	6.1	NA	<2	NA	<2	NA	<2	NA	<2	NA	NA	NA
Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	NE	NA	<2	NA	<2	NA	<2	NA	<2	NA	NA	NA
Nitrobenzene	20	NA	<2	NA	<2	NA	<2	NA	<2	NA	NA	NA
2,4,6-Trinitrotoluene (TNT)	18	NA	<2	NA	<2	NA	<2	NA	2.6 J	NA	NA	NA
4-Amino-2,6-dinitrotoluene	12	NA	<2	NA	<2	NA	<2	NA	<2	NA	NA	NA
2-Amino-4,6-dinitrotoluene	12	NA	<2	NA	<2	NA	<2	NA	<2	NA	NA	NA
2,6-Dinitrotoluene	61	NA	<2	NA	<2	NA	<2	NA	<2	NA	NA	NA
2,4-Dinitrotoluene	120	NA	<2	NA	<2	NA	<2	NA	<2	NA	NA	NA
2-Nitrotoluene	0.93	NA	<2	NA	<2	NA	<2	NA	<2	NA	NA	NA
3-Nitrotoluene	730	NA	<2	NA	<2	NA	<2	NA	<2	NA	NA	NA
4-Nitrotoluene	13	NA	<2	NA	<2	NA	<2	NA	<2	NA	NA	NA

Table 6
Fence Line Soil Sample Analytical Results
Final Remedial Investigation Report

		Sample ID										
Parameter	**Residential SRL**	**PF-SS01-0**	**PF-SS02-0**	**PF-SS03-0**	**PF-SS04-0**	**PF-SS05-0**	**PF-SS06-0**	**PF-SS07-0**	**PF-SS08-0**	**PF-SS09-0**	**SMA-SSBG-0**	**SMA-SSBG-1**
Sample Depth (feet bgs)		0	0	0	0	0	0	0	0	0	0	1
Dioxins (ng/kg)												
2,3,7,8-TCDF	NE	NA	<0.32	NA	<0.19	NA	<0.17	NA	<0.21	NA	NA	NA
2,3,7,8-TCDD	4.5	NA	<0.39	NA	<0.28	NA	<0.22	NA	<0.22	NA	NA	NA
1,2,3,7,8-PeCDF	NE	NA	<0.6	NA	<0.36	NA	<0.3	NA	<0.29	NA	NA	NA
2,3,4,7,8-PeCDF	NE	NA	<0.7	NA	<0.43	NA	<0.35	NA	<0.34	NA	NA	NA
1,2,3,7,8-PeCDD	NE	NA	<0.93	NA	<0.59	NA	<0.53	NA	<0.52	NA	NA	NA
1,2,3,4,7,8-HxCDF	NE	NA	<0.55	NA	<0.36	NA	<0.34	NA	<0.37	NA	NA	NA
1,2,3,6,7,8-HxCDF	NE	NA	<0.51	NA	<0.35	NA	<0.34	NA	<0.35	NA	NA	NA
2,3,4,6,7,8-HxCDF	NE	NA	<0.43	NA	<0.29	NA	<0.28	NA	<0.3	NA	NA	NA
1,2,3,7,8,9-HxCDF	NE	NA	<0.52	NA	<0.32	NA	<0.31	NA	<0.35	NA	NA	NA
1,2,3,4,7,8-HxCDD	NE	NA	<0.68	NA	<0.41	NA	<0.37	NA	<0.45	NA	NA	NA
1,2,3,6,7,8-HxCDD	NE	NA	<0.61	NA	<0.4	NA	<0.35	NA	<0.72	NA	NA	NA
1,2,3,7,8,9-HxCDD	NE	NA	<0.61	NA	<0.39	NA	<0.35	NA	<0.42	NA	NA	NA
1,2,3,4,6,7,8-HpCDF	NE	NA	<1	NA	<0.6	NA	<0.55	NA	<1.3	NA	NA	NA
1,2,3,4,7,8,9-HpCDF	NE	NA	<0.71	NA	<0.47	NA	<0.43	NA	<0.5	NA	NA	NA
1,2,3,4,6,7,8-HpCDD	NE	NA	13 J	NA	3.8 J	NA	5.2	NA	14	NA	NA	NA
OCDD	NE	NA	100 J	NA	32	NA	46	NA	120	NA	NA	NA
OCDF	NE	NA	<2.4	NA	<1.6	NA	<1.2	NA	<2.7	NA	NA	NA

Notes:
< = Analyte not reported above the listed laboratory detection limit
bgs = below ground surface
J = The analyte was positively identified; however, the result should be considered an estimated value.
mg/kg = milligrams per kilogram
NA = not analyzed
NE = not established
ng/kg = nanograms per kilogram
SRL = Arizona residential Soil Remediation Level

Table 7
B-Complex Soil Sample Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate (mg/kg)	Acetate (mg/L)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	NE	10	15,000	39	120,000	400	23	390	390
Soil Boring BC-SB01												
BC-SS01-0	0	<0.04	NA	NA	8.9	92	<0.5	27	9.9	<0.02	<5	<0.5
BC-SB01-1	1	<0.04	NA	NA	7.4	100	<0.5	19	10	<0.02	<5	<0.5
BC-SB01-3	3	<0.04	NA	NA	9	110	<0.5	20	7.9	<0.02	<5	1.4
Soil Boring BC-SB02												
BC-SB02-0	0	<0.04	NA	NA	8.9	100	<0.5	22	9	<0.02	<5	3.3
BC-SB02-1	1	<0.04	NA	NA	7.6	110	<0.5	31	10	<0.02	<5	4.3
Soil Boring BC-SB03												
BC-SB03-0	0	<0.04	NA	NA	7.5	94	<0.5	19	10	<0.02	<5	3.2
BC-SB03-1	1	<0.04	NA	NA	8.4	110	<0.5	22	9.7	<0.02	<5	3.2
Soil Boring BC-SB04												
BC-SB04-0	0	<0.04	<1	NA	5.9	130	<0.5	30	8.8	<0.02	<5	<0.5
BC-SB04-10	10	<0.04	<1	NA	7	100	<0.5	21	8.1	<0.02	<5	<0.5
Soil Boring BC-SB05												
BC-SB05-0	0	<0.04	18	NA	6.5	120	<0.5	31	9.7	<0.02	<5	<0.5
BC-SB05-10	10	<0.04	<1	NA	5.3	96	<0.5	17	<5	<0.02	<5	<0.5
Soil Boring BC-SB06												
BC-SB06-0	0	<0.04	12	NA	6.1	96	<0.5	13	6.2	<0.02	<5	<0.5
BC-SB06-10	10	<0.04	2.7	NA	6.3	110	<0.5	9.6	5.2	<0.02	<5	<0.5
Soil Boring BC-SB07												
BC-SB07-0	0	0.056	82	NA	5.5	160	<0.5	28	12	0.025 J	<5	<0.5
BC-SB07-10	10	<0.04	2.6	NA	5.7	81	<0.5	19	<5	<0.02	<5	0.62
BC-SB07-20	20	<0.04	2.8	NA	6.8	97	<0.5	16	5.1	<0.02	<5	<0.5
BC-SB07-30	30	<0.04	4.1	NA	6.2	220 J	<0.5	20	5.4	<0.1	<5	<0.5
BC-SB07-40	40	<0.04	2	NA	5.3	160	<0.5	21	5.3	<0.02	<5	1.6
BC-SB07-50	50	<0.04	3.1	NA	5.2	170	<0.5	17	5.6	<0.02	<5	0.59
Soil Boring BC-SB08												
BC-SB08-0	0	<0.04	1.9	NA	7.4	130	<0.5	25	12	<0.02	<5	<0.5
BC-SB08-10	10	<0.04	<1	NA	7	130	<0.5	13	6.2	<0.02	<5	<0.5
Soil Boring BC-SB09												
BC-SB09-0	0	<0.04	9.9 J	NA	5.8	91	<0.5	19	7.7	<0.02	<5	<0.5
BC-SB09-10	10	<0.04	1.3	NA	6.3	78	<0.5	13	6	<0.02	<5	<0.5
BC-SB09-20	20	<0.04	6	NA	7.5	68	<0.5	14	5.8	<0.02	<5	<0.5
BC-SB09-30	30	<0.04	3.1	NA	<5	120	<0.5	13	5.3	<0.02	<5	<0.5
BC-SB09-40	40	<0.04	4.8	NA	5.9	71	<0.5	15	6.5	<0.02	<5	<0.5
BC-SB09-50	50	<0.04	3.4	NA	6.1	160	<0.5	11	5.6	<0.02	<5	<0.5

Table 7
B-Complex Soil Sample Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate (mg/kg)	Acetate (mg/L)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	NE	10	15,000	39	120,000	400	23	390	390
Soil Boring BC-SB10												
BC-SB10-0	0	<0.04	<1	NA	6.6	160	<0.5	23	8.2	<0.02	<5	0.57
BC-SB10-10	10	<0.04	1.3	NA	6.5	81	<0.5	14	5.2	<0.02	<5	<0.5
Soil Boring BC-SB11												
BC-SB11-0	0	<0.04	<1	NA	7.4	110	<0.5	20	7.9	<0.02	<5	<0.5
BC-SB11-10	10	<0.04	<1	NA	8.2	86	<0.5	13	<5	<0.02	<5	<0.5
Soil Boring BC-SB12												
BC-SB12-0	0	<0.04	1.7	NA	6.9	110	<0.5	18	9.8	<0.02	<5	<0.5
BC-SB12-10	10	<0.04	<1	NA	10	120	<0.5	17	6.3	<0.02	<5	<0.5
Soil Boring BC-SB13												
BC-SB13-0	0	0.24	7.6	NA	5.6	130	<0.5	16	6.8	<0.02	<5	<0.5
BC-SB13-10	10	<0.04	<1	NA	7.1	110	<0.5	14	5.5	<0.02	<5	<0.5
Soil Boring BC-SB14												
BC-SB14-0	0	0.089	4.3	NA	5.4	110	<0.5	20	7.7	<0.02	<5	<0.5
BC-SB14-10	10	<0.04	<1	NA	8.1	220	<0.5	16	5.6	<0.02	<5	<0.5
Soil Boring BC-SB15												
BC-SB15-0	0	<0.04	8.3	NA	6.7	110	<0.5	11	6.7	<0.02	<5	<0.5
BC-SB15-10	10	<0.04	1.4	NA	9.3	110	<0.5	13	5.5	<0.02	<5	<0.5
BC-SB15-20	20	<0.04	<1	NA	7.7	91	<0.5	12	6.9	<0.02	<5	<0.5
BC-SB15-30	30	<0.04	<1	NA	8	110	<0.5	14	<5	<0.02	<5	<0.5
Soil Boring BC-SB16												
BC-SB16-0	0	<0.04	2.6	NA	8.5	140	<0.5	20	11	<0.02	<5	<0.5
BC-SB16-10	10	<0.04	<1	NA	8.5	330	<0.5	22	8.6	<0.02	<5	<0.5
BC-SB16-20	20	<0.04	<1	NA	7.5	83	<0.5	16	6.4	<0.02	<5	<0.5
BC-SB16-30	30	<0.04	<1	NA	8.2	200	<0.5	15	12	<0.02	<5	<0.5
Soil Boring BC-SB17												
BC-SB17-0	0	0.25	11	NA	6.8	110	<0.5	17	9.1	<0.02	<5	<0.5
BC-SB17-10	10	<0.04	2.1	NA	8.1	85	<0.5	11	<5	<0.02	<5	<0.5
BC-SB17-20	20	<0.04	<1	NA	8.9	92	<0.5	14	6.8	<0.02	<5	<0.5
BC-SB17-30	30	<0.04	<1	NA	6.8	98	<0.5	11	6.3	<0.02	<5	<0.5
Soil Boring BC-SB18												
BC-SB18-0	0	0.39	38	NA	7.5	110	<0.5	18	9.7	<0.02	<5	<0.5
BC-SB18-10	10	<0.04	1.1	NA	7.4	87	<0.5	9.4	6.8	<0.02	<5	<0.5
BC-SB18-20	20	<0.04	<1	NA	7.9	76	<0.5	11	7.3	<0.02	<5	<0.5
BC-SB18-30	30	<0.04	<1	NA	8.6	110	<0.5	16	<5	<0.02	<5	<0.5

Table 7
B-Complex Soil Sample Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate (mg/kg)	Acetate (mg/L)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	NE	10	15,000	39	120,000	400	23	390	390
Soil Boring BC-SB19												
BC-SB19-0	0	<0.04	6.7	NA	7.9	130	<0.5	22	8.1	<0.02	<5	<0.5
BC-SB19-10	10	<0.04	<1	NA	9.1	140	<0.5	33	<5	<0.02	<5	<0.5
BC-SB19-20	20	<0.04	<1	NA	8.4	88	<0.5	10	<5	<0.02	<5	<0.5
BC-SB19-30	30	<0.04	<1	NA	6.9	120	<0.5	18	<5	<0.02	<5	<0.5
Soil Boring BC-SB20												
BC-SB20-0	0	<0.04	1.2	NA	7.8	120	0.66	23	9.7	<0.02	<5	18
BC-SB20-10	10	<0.04	<1	NA	7.6	120	<0.5	17	7.9	<0.02	<5	<0.5
BC-SB20-20	20	<0.04	<1	NA	8	100	<0.5	13	7.6	<0.02	<5	6.3
BC-SB20-30	30	<0.04	1.1	NA	7.8	89	<0.5	10	5.9	<0.02	<5	2.5
Soil Boring BC-SB21												
BC-SB21-0	0	<0.04	1.2	10.6	7.3	110	<0.5	16	5.7	<0.02	<5	<0.5
BC-SB21-10	10	<0.04	<1	6.3	9.4	130	<0.5	21	11	<0.02	<5	0.51
BC-SB21-20	20	<0.04	<1	5	9.8	98	<0.5	18	<5	<0.02	<5	<0.5
BC-SB21-30	30	<0.04	<1	3.8	8.3	85	<0.5	17	<5	<0.02	<5	<0.5
BC-SB21-40	40	<0.04	12	4.2	6.3	120	<0.5	13	<5	<0.02	<5	<0.5
BC-SB21-50	50	<0.04	12	14.8	9.9	690	<0.5	24	11	<0.02	<5	<0.5
Soil Boring BC-SB22												
BC-SB22-0	0	0.15	9.2	NA	6.9	99	<0.5	19	14	<0.02	<5	<0.5
BC-SB22-10	10	<0.04	1.1	NA	6.6	100	<0.5	9.9	6	<0.02	<5	<0.5
Soil Boring BC-SB23												
BC-SB23-0	0	0.071	12	NA	7.9	110	<0.5	25	10	<0.02	<5	<0.5
BC-SB23-10	10	<0.04	1.2	NA	6.9	130	<0.5	16	<5	<0.02	<5	<0.5
Soil Boring BC-SB24												
BC-SB24-0	0	0.09	<1	NA	5.9	130	<0.5	15	9.4	<0.02	<5	<0.5
BC-SB24-10	10	<0.04	<1	NA	6.3	74	<0.5	17	5.8	<0.02	<5	<0.5
BC-SB24-20	20	<0.04	2.3	NA	5.2	64	<0.5	9.9	5.4	<0.02	5.1	<0.5
BC-SB24-30	30	<0.04	1.3	NA	<5	99	<0.5	13	6.2	<0.02	<5	<0.5
BC-SB24-40	40	<0.04	4	NA	6.8	370	<0.5	17	7.4	<0.02	<5	<0.5
BC-SB24-50	50	<0.04	<1	NA	9.1	330	<0.5	26	9	<0.02	<5	0.52 J
Soil Boring BC-SB25												
BC-SB25-0	0	<0.04	NA	NA	<5	120	<0.5	15	5.5	<0.02	<5	<0.5
BC-SB25-10	10	<0.04	NA	NA	6.1	140	<0.5	20	5.9	<0.02	<5	<0.5
Soil Boring BC-SB26												
BC-SB26-0	0	<0.04	NA	NA	8.2	110	1.1	22	9.5	<0.02	<5	1
BC-SB26-10	10	<0.04	NA	NA	8	150	<0.5	20	5.8	<0.02	<5	<0.5

Table 7
B-Complex Soil Sample Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate (mg/kg)	Acetate (mg/L)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	NE	10	15,000	39	120,000	400	23	390	390
Soil Boring BC-SB27												
BC-SB27-0	0	0.043	NA	NA	8.6	110	<0.5	21	11	<0.02	<5	<0.5
BC-SB27-10	10	<0.04	NA	NA	6.6	110	<0.5	14	5.8	<0.02	<5	<0.5
Soil Boring BC-SB28												
BC-SB28-0	0	<0.04	NA	NA	8.6	180	<0.5	21	9.3	<0.02	<5	<0.5
BC-SB28-10	10	<0.04	NA	NA	7.9	180	<0.5	17	<5	0.52	<5	<0.5
Soil Boring BC-SB29												
BC-SB29-0	0	<0.04	3.1	NA	6.5	87	<0.5	26	14	<0.02	<5	<0.5
BC-SB29-10	10	<0.04	<1	NA	6.2	130	<0.5	15	5.4	<0.02	<5	<0.5
Soil Boring BC-SB30												
BC-SB30-0	0	0.16	47	NA	<5	120	<0.5	19	7.6	<0.1	<5	<0.5
BC-SB30-10	10	<0.04	<1	NA	5.5	90	<0.5	18	<5	<0.1	<5	<0.5
BC-SB30-20	20	<0.04	5.5	NA	5.2	110	<0.5	14	<5	<0.1	<5	<0.5
BC-SB30-30	30	<0.04	7.4	NA	<5	530	<0.5	16	<5	<0.02	<5	<0.5
BC-SB30-40	40	<0.04	4.8	NA	6.1	200	<0.5	26	6.5	<0.02	<5	<0.5
BC-SB30-50	50	<0.04	4.5	NA	6.7	170	<0.5	20	6.4	<0.02	<5	<0.5
Soil Boring BC-SB31												
BC-SB31-0	0	<0.04	<1	NA	5	110	<0.5	30	<5	<0.02	<5	<0.5
BC-SB31-10	10	<0.04	<1	NA	<5	78	<0.5	15	<5	<0.02	<5	<0.5
BC-SB31-20	20	<0.04	<1	NA	5.7	81	<0.5	15	<5	<0.02	<5	<0.5
BC-SB31-30	30	<0.04	<1	NA	6.6	110	<0.5	20	<5	<0.02	<5	<0.5
BC-SB31-40	40	<0.04	<1	NA	<5	91	<0.5	9.7	<5	<0.1	<5	<0.5
BC-SB31-50	50	<0.04	<1	NA	<5	150	<0.5	12	<5	<0.02	<5	0.67
Soil Boring BC-SB32												
BC-SB32-0	0	<0.04	<1	NA	12	120	<0.5	32	14	<0.02	<5	<0.5
BC-SB32-1	1	<0.04	<1	NA	11	130	<0.5	27	17	<0.02	<5	<0.5
Soil Boring BC-SB33												
BC-SB33-0	0	<0.04	7.2	NA	6.3	130	<0.5	23	8.8	<0.02	<5	<0.5
BC-SB33-10	10	<0.04	<1	NA	5.2	120	<0.5	13	5	<0.02	<5	<0.5
Soil Boring BC-SB34												
BC-SB34-0	0	<0.04	21	NA	5.7	100	<0.5	21	7.3	<0.02	<5	<0.5
BC-SB34-10	10	<0.04	<1	NA	5.8	140	<0.5	18	5.8	<0.02	<5	<0.5
Soil Boring BC-SB45												
BC-SB45-0	0	NA	NA	NA	6.2	NA	NA	NA	NA	NA	NA	NA
BC-SB45-1	1	NA	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	NA

Table 7
B-Complex Soil Sample Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate (mg/kg)	Acetate (mg/L)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	NE	10	15,000	39	120,000	400	23	390	390
Soil Boring BC-SB46												
BC-SB46-0	0	NA	NA	NA	7.2	NA	NA	NA	NA	NA	NA	NA
BC-SB46-1	1	NA	NA	NA	5.9	NA	NA	NA	NA	NA	NA	NA
Soil Boring BC-SB47												
BC-SB47-0	0	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BC-SB47-1	1	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BC-SB47-2	2	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring BC-SB48												
BC-SB48-0	0	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BC-SB48-1	1	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BC-SB48-2	2	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring BC-SB49												
BC-SB49-0	0	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BC-SB49-1	1	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
bgs = below ground surface
mg/kg = milligrams per kilogram
mg/L = milligrams per
NA = not analyzed
NE = not established
J = The analyte was positively identified; however, the result should be considered an estimated value.
< = Analyte not reported above listed laboratory detection limit

Table 8
C-Complex Soil Sample Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	10	15,000	39	120,000	400	23	390	390
Soil Boring CC-SB01											
CC-SB01-0	0	0.52	9.6	5.6	120	<0.5	25	15	<0.02	<5	<0.5
CC-SB01-10	10	<0.04	2	6.4	96	<0.5	12	<5	<0.02	<5	<0.5
CC-SB01-20	20	<0.04	3.4	<5	320	<0.5	16	5.3	<0.02	<5	<0.5
CC-SB01-30	30	0.057	1.2	6.8	250	<0.5	26	7.2	<0.02	<5	<0.5
CC-SB01-40	40	<0.04	<1	5.8	240	<0.5	20	6.5	<0.02	<5	<0.5
CC-SB01-50	50	<0.04	<1	6.5	240	<0.5	15	6.7	<0.02	<5	<0.5
CC-SB01-60	60	<0.04	<1	6.1	240	<0.5	17	6.9	<0.02	<5	<0.5
CC-SB01-70	70	<0.04	<1	6.2	260	<0.5	17	7.1	<0.02	<5	<0.5
CC-SB01-80	80	<0.04	<1	5.9	260	<0.5	17	6.8	<0.02	<5	11
CC-SB01-90	90	<0.04	<1	5.5	210	<0.5	15	7.5	<0.02	<5	<0.5
CC-SB01-100	100	<0.04	<1	<5	210	0.84	20	5.9	<0.04	<10	52
Soil Boring CC-SB02											
CC-SB02-0	0	0.14	43	6	120	1.5	32	16	<0.02	<10	<0.5
CC-SB02-10	10	<0.04	<1.1	<5	90 J	<0.5	8.9	<5	<0.02	<5	<0.5
CC-SB02-20	20	0.052	<1.1	<5	360	0.58	20	8.1	<0.02	<5	<0.5
CC-SB02-30	30	<0.04	<1.1	<5	220	<0.5	16	8.3	<0.02	<5	<0.5
CC-SB02-40	40	<0.04	<1.1	5.2	260	0.5	17	8.4	<0.02	<5	3.6
CC-SB02-50	50	<0.04	<1.1	5.2	230	0.57	15	7	<0.02	<5	<0.5
Soil Boring CC-SB03											
CC-SB03-0	0	0.042	<1	7.2	120	1.2	22	24	<0.02	<5	<0.5
CC-SB03-10	10	0.062	1.7	<5	71 J	<0.5	7.3	<5	<0.02	<5	<0.5
CC-SB03-20	20	0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB03-30	30	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring CC-SB04											
CC-SB04-0	0	<0.04	<1	<5	110	1.2	16	16	<0.02	<5	<0.5
CC-SB04-10	10	<0.04	<1	<5	680	<0.5	19	<5	<0.02	<5	<0.5
CC-SB04-16	16	<0.04	<1	6	770	<0.5	17	8.2	<0.02	<5	0.53
Soil Boring CC-SB05											
CC-SB05-0	0	<0.04	<1	7.2	130	1.3	22	21	<0.02	<10	<0.5
CC-SB05-10	10	0.16	<1	6.3	130	0.72	23	<5	<0.02	<10	<0.5
CC-SB05-20	20	<0.04	1.4	<5	680	<0.5	28	6.2	<0.02	<5	<0.5
CC-SB05-30	30	<0.04	1.4	5.9	300	<0.5	31	7.3	<0.02	<5	<0.5
CC-SB05-36	36	<0.04	1.2	<5	190 J	<0.5	15	6.1	<0.02	<5	<0.5

Table 8
C-Complex Soil Sample Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	10	15,000	39	120,000	400	23	390	390
Soil Boring CC-SB06											
CC-SB06-0	0	<0.04	<1	<5	120	0.76	21	17	<0.02	<10	<0.5
CC-SB06-10	10	0.16	30	<5	140	<0.5	8.5	<5	<0.02	<5	<0.5
CC-SB06-20	20	0.34	2.7	6.5	1100	<0.5	23	12	<0.02	<5	<0.5
CC-SB06-30	30	0.16	<1	<5	280	0.5	15	5.6	<0.02	<5	3.4
Soil Boring CC-SB07											
CC-SB07-0	0	<0.04	<1	7	150	0.95	21	12	0.02	<5	<0.5
CC-SB07-10	10	0.045	<1	7	130	<0.5	7.4	6	<0.02	<5	0.71
CC-SB07-20	20	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB07-25	25	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring CC-SB08											
CC-SB08-0	0	330	140	8.3	110	<0.5	24	8.8	0.022	<5	<0.5
CC-SB08-10	10	5.3	<1.1	<5	82	0.96	13	<5	<0.02	<5	<0.5
CC-SB08-20	20	7.6	1.4	6.2	100	0.66	15	<5	<0.02	<5	<0.5
CC-SB08-30	30	0.19	<1.1	7.3	200	0.52	7.7	5.8	<0.02	<5	1.7
Soil Boring CC-SB09											
CC-SB09-0	0	0.26	1.1	7.7	140	0.52	20	7.3	0.02	<5	<0.5
CC-SB09-10	10	0.16	<1.1	<5	110	0.55	9.2	<5	<0.02	<5	<0.5
CC-SB09-20	20	3.6	1.5	<5	120	0.87	13	<5	<0.02	<5	<0.5
CC-SB09-30	30	0.25	<1	<5	1400	<0.5	11	6.7	<0.02	<5	0.74
Soil Boring CC-SB10											
CC-SB10-10	10	23	6.9	<5	110	<0.5	17	<5	<0.02	<5	<0.5
CC-SB10-20	20	0.5	1.2	<5	890	0.56	16	5.3	<0.02	<5	<0.5
CC-SB10-30	30	0.34	<1.1	<5	240	0.67	15	8.3	<0.02	<5	<0.5
CC-SB10-40	40	0.12	<1.1	5.1	280	0.66	17	9.3	<0.02	<5	<0.5
CC-SB10-50	50	0.074	<1.1	7	260	0.72	16	9.2	<0.02	<5	<0.5
CC-SB10-59	59	0.23	2.6	5.5	120	<0.5	12	8.2	<0.02	<5	0.88 J
Soil Boring CC-SB11											
CC-SB11-10	10	0.078	1.5	<5	94	<0.5	16	<5	<0.02	<5	<0.5
CC-SB11-20	20	<0.04	<1	5.3	790	<0.5	20	5.9	<0.02	<5	<0.5
CC-SB11-30	30	<0.04	<1	5.3	240	<0.5	18	6.3	<0.02	<5	2.9
CC-SB11-40	40	<0.04	<1	<5	280	<0.5	18	7.7	<0.02	<5	0.83
CC-SB11-50	50	<0.04	<1	6.7	280	0.51	17	8.1	<0.02	<5	<0.5

Table 8
C-Complex Soil Sample Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	10	15,000	39	120,000	400	23	390	390
Soil Boring CC-SB12											
CC-SB12-0	0	0.11	4.5	5.3	120	0.7	20	15	<0.02	<5	<0.5
CC-SB12-10	10	0.17	<1	5.5	110	0.62	14	<5	<0.02	<5	<0.5
CC-SB12-20	20	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB12-30	30	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring CC-SB13											
CC-SB13-0	0	<0.04	1.7	5.5	93	<0.5	15	7.5	<0.02	<5	<0.5
CC-SB13-10	10	<0.04	<1	<5	110	0.56	15	<5	<0.02	<5	<0.5
Soil Boring CC-SB14											
CC-SB14-0	0	0.74	3.8	5.9	110	1.1	37	61	<0.02	<5	<0.5
CC-SB14-10	10	1.5 J	1.2	<5	100	<0.5	14	<5	<0.02	<5	<0.5
CC-SB14-20	20	83	10	6.4	770	<0.5	22	6	<0.02	<5	<0.5
CC-SB14-30	30	1.3	1.6	5.6	210	<0.5	22	6.6	<0.02	<5	0.69
CC-SB14-40	40	0.074	<1	<5	250	<0.5	21	6.2	<0.02	<5	<0.5
CC-SB14-50	50	<0.04	<1	6	240	0.51	21	7.9	<0.02	<5	0.89
Soil Boring CC-SB15											
CC-SB15-0	0	0.053	1.5	5.6	100	<0.5	19	33	<0.02	<5	<0.5
CC-SB15-10	10	15	4.6	<5	190	<0.5	13	<5	<0.02	<5	<0.5
CC-SB15-20	20	26	3.6	5.6	670	<0.5	23	7.7	<0.02	<5	<0.5
CC-SB15-30	30	0.38	<1	5.3	200	<0.5	19	5.5	<0.02	<5	<0.5
CC-SB15-40	40	<0.04	<1	5.4	250	<0.5	21	6.4	<0.02	<5	<0.5
CC-SB15-50	50	<0.04	<1	6.1	250	0.5	20	7.3	<0.02	<5	<0.5
Soil Boring CC-SB16											
CC-SB16-0	0	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB16-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB16-20	20	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB16-30	30	0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring CC-SB17											
CC-SB17-0	0	4.7	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB17-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB17-20	20	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB17-30	30	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring CC-SB18											
CC-SB18-0	0	43	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB18-10	10	0.067	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB18-20	20	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB18-30	30	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 8
C-Complex Soil Sample Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	10	15,000	39	120,000	400	23	390	390
Soil Boring CC-SB19											
CC-SB19-0	0	3.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB19-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB19-20	20	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB19-30	30	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring CC-SB20											
CC-SB20-0	0	0.44	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB20-10	10	7.8 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB20-20	20	3	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring CC-SB21											
CC-SB21-0	0	0.058	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB21-10	10	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB21-20	20	0.63	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring CC-SB25											
CC-SB25-0	0	0.031	NA	NA	NA	NA	NA	NA	NA	NA	NA
CC-SB25-1	1	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
bgs = below ground surface
mg/kg = milligrams per kilogram
NA = not analyzed
NE = not established
< = Analyte not reported above listed laboratory detection limit
J = The analyte was positively identified; however, the result should be considered an estimated value.

Table 9
C-Complex Soil Sample Analytical Results for Semivolatile Organic Compounds
Final Remedial Investigation Report

	Residential SRL	CC-SB01-0 12/10/2004	CC-SB01-10 12/8/2004	CC-SB01-20 12/8/2004	CC-SB01-30 12/9/2004	CC-SB01-40 12/9/2004	CC-SB01-50 12/9/2004	CC-SB01-60 12/9/2004	CC-SB01-70 12/9/2004	CC-SB01-80 12/9/2004	CC-SB01-90 12/10/2004	CC-SB01-100 12/10/2004	CC-SB06-0 12/13/2004	CC-SB06-10 12/13/2004	CC-SB06-20 12/13/2004	CC-SB06-30 12/13/2004
Sample Depth (feet bgs)		0	10	20	30	40	50	60	70	80	90	100	0	10	20	30
Semivolatile Organics (mg/kg)																
1,2,4-Trichlorobenzene	62	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
1,2-Dichlorobenzene	600	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
1,2-Diphenylhydrazine/Azobenzene	0.68	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
1,3-Dichlorobenzene	530	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
1,4-Dichlorobenzene	3.5	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
2,4,6-Trichlorophenol	6.1	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
2,4-Dichlorophenol	180	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
2,4-Dimethylphenol	1,200	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
2,4-Dinitrophenol	120	<3300	<660	<660	<660	<660	<660	<660	<660	<660	<660	<660	<660	<660	<660	<660
2,4-Dinitrotoluene	120	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
2,6-Dinitrotoluene	61	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
2-Chloronaphthalene	110	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
2-Chlorophenol	63	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
2-Methylnaphthalene	NE	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
2-Methylphenol	3,100	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
2-Nitrophenol	NE	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
3,3-Dichlorobenzidine	1.2	<4200	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830
4,6-Dinitro-2-methylphenol	NE	<2100 UJ	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420
4-Bromophenyl phenyl ether	NE	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
4-Chloro-3-methylphenol	NE	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
4-Chloroaniline	240	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
4-Chlorophenyl phenyl ether	NE	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
4-Methylphenol	310	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
4-Nitrophenol	NE	<4200	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830
Acenaphthene	3,700	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Acenaphthylene	NE	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Anthracene	22,000	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Benzo(a)anthracene	0.69	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Benzo(a)pyrene	0.069	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Benzo(b,k)fluoranthene	0.69	<1500	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300
Benzo(g,h,i)perylene	NE	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Benzoic acid	240,000	<4200	<830	<830	<830	<830	<830	<830 R	<830	<830	<830	<830	<830	<830	<830	<830
Benzyl alcohol	18,000	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Bis(2-chloroethoxy)methane	NE	<1700 UJ	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Bis(2-chloroethyl)ether	0.23	<840	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170
Bis(2-chloroisopropyl)ether	790	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330

Table 9
C-Complex Soil Sample Analytical Results for Semivolatile Organic Compounds
Final Remedial Investigation Report

	Residential SRL	CC-SB01-0 12/10/2004	CC-SB01-10 12/8/2004	CC-SB01-20 12/8/2004	CC-SB01-30 12/9/2004	CC-SB01-40 12/9/2004	CC-SB01-50 12/9/2004	CC-SB01-60 12/9/2004	CC-SB01-70 12/9/2004	CC-SB01-80 12/9/2004	CC-SB01-90 12/10/2004	CC-SB01-100 12/10/2004	CC-SB06-0 12/13/2004	CC-SB06-10 12/13/2004	CC-SB06-20 12/13/2004	CC-SB06-30 12/13/2004
Sample Depth (feet bgs)		0	10	20	30	40	50	60	70	80	90	100	0	10	20	30
Semivolatile Organics (mg/kg)																
Bis(2-ethylhexyl)phthalate	39	<1700	<330	<330	<330	600 J	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Butyl benzyl phthalate	12,000	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Chrysene	68	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Dibenz(a,h)anthracene	0.069	<2100	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420	<420
Dibenzofuran	140	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Diethyl phthalate	49,000	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Dimethyl phthalate	610,000	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Di-n-butyl phthalate	61,000	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Di-n-octyl phthalate	2,400	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Fluoranthene	2,300	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Fluorene	2,700	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Hexachlorobenzene	0.34	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Hexachlorobutadiene	7	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Hexachlorocyclopentadiene	370	<4200 UJ	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830
Hexachloroethane	39	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Indeno(1,2,3-cd)pyrene	0.69	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Isophorone	580	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Naphthalene	56	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Nitrobenzene	20	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
N-Nitroso-di-n-propylamine	0.078	<1200	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250
N-Nitrosodiphenylamine	110	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Pentachlorophenol	3.2	<4200	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830	<830
Phenanthrene	NE	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Phenol	18,000	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330
Pyrene	2,300	<1700	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330	<330

Notes:
SRL = Arizona residential Soil Remediation Level
mg/kg = milligrams per kilogram
NE = not established
bgs = below ground surface
< = Analyte not reported above listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value.
UJ = Estimated laboratory detection limit.
R = Quality Controls indicates that this data is not usuable.

Table 10
Old Burn Area Soil Sample Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Aluminum (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	76,000	10	15,000	39	120,000	3,100	400	23	390	390
Soil Boring OB-SB01													
OB-SB01-0	0	<0.04	<1	25000	7.2	140	<0.5	20	26	6.2	<0.02	<5	<0.5
OB-SB01-10	10	0.061	<1	30000	7.9	240	<0.5	23	11	<5	<0.02	<5	<0.5
Soil Boring OB-SB02													
OB-SB02-0	0	<0.04	<1	19000	9.6	110	<0.5	21	27	100	<0.02	<5	<0.5
OB-SB02-8	8	<0.04	<1	21000	<5	150	0.73	20	27	<5	<0.02	<5	<0.5
Soil Boring OB-SB03													
OB-SB03-0	0	<0.04	<1	18000	5.4	110	<0.5	18	22	14	<0.02	<5	<0.5
OB-SB03-1	1	<0.04	<1	18000	<5	130	<0.5	14	24	11	<0.02	<5	<0.5
Soil Boring OB-SB04													
OB-SB04-0	0	0.1	<1	22000	5.4	120	<0.5	20	29	48	<0.02	<5	<0.5
OB-SB04-1	1	0.052	3.6	28000	6.4	140	<0.5	20	31	<5	<0.02	<5	<0.5
OB-SB04-5	5	0.16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OB-SB04-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring OB-SB05													
OB-SB05-0	0	<0.04	<1	19000	6.7	110	<0.5	17	22	35 J	<0.02	<5	<0.5
OB-SB05-1	1	<0.04	<1	21000	5.6	140	<0.5	16	29	<5	<0.02	<5	<0.5
Soil Boring OB-SB06													
OB-SB06-0	0	0.052	<1	21000	5.3	150	<0.5	17	31	57	<0.02	<5	<0.5
OB-SB06-1	1	<0.04	<1	24000	5.4	160	<0.5	20	26	<5	<0.02	<5	<0.5
Soil Boring OB-SB07													
OB-SB07-0	0	<0.04	<1	18000	5.5	110	<0.5	15	31	76	<0.02	<5	<0.5
OB-SB07-1	1	<0.04	<1	20000	5.5	120	<0.5	15	34	21	<0.02	<5	<0.5
Soil Boring OB-SB08													
OB-SB08-0	0	<0.04	<1	21000	5.9	110	<0.5	16	33	450	<0.02	<5	<0.5
OB-SB08-1	1	<0.04	<1	21000	<5	120	<0.5	18	33	130	<0.02	<5	<0.5
Soil Boring OB-SB09													
OB-SB09-0	0	<0.04	<1	20000	5.9	100	0.97	17	130 J	100 J	<0.02	<5	<0.5
OB-SB09-1	1	<0.04	<1	22000	6.4	120	<0.5	17	35	13	<0.02	<5	<0.5
OB-SB09-2	2	<0.04	<1	21000	<5	82	<0.5	16	30	18	<0.02	<5	<0.5
Soil Boring OB-SB10													
OB-SB10-0	0	<0.04	<1	16000	8.6	120	<0.5	15	26	150	<0.02	<5	<0.5
OB-SB10-1	1	<0.04	<1	19000	5.8	110	0.98	15	31	30	<0.02	<5	<0.5
OB-SB10-2	2	<0.04	<1	18000	7	110	<0.5	14	32	44	<0.02	<5	<0.5
Soil Boring OB-SB11													
OB-SB11-0	0	<0.04	1.6	18000	6.8	110	0.96	16	47	98	<0.02	<5	<0.5
OB-SB11-1	1	<0.04	<1	19000	6.6	110	<0.5	14	32	13	<0.02	<5	<0.5
OB-SB11-2	2	<0.04	<1	21000	6	110	<0.5	16	33	11	<0.02	<5	<0.5
Soil Boring OB-SB12													
OB-SB12-0	0	<0.04	1.6	20000	5.4	110	1.8	21	26	230	<0.02	<5	<0.5
OB-SB12-1	1	<0.04	<1	30000	<5	150	<0.5	32	15	7	<0.02	<5	<0.5
Soil Boring OB-SB13													
OB-SB13-0	0	<0.04	<1	24000	<5	120	<0.5	22	29	<5	<0.02	<5	<0.5
OB-SB13-1	1	<0.04	<1	24000	<5	130	<0.5	24	22	<5	<0.02	<5	<0.5
Soil Boring OB-SB14													
OB-SB14-0	0	<0.04	<1	20000	6.2	120	<0.5	17	23	<5	<0.02	<5	<0.5
OB-SB14-1	1	<0.04	<1	12000	11	95	<0.5	9.5	9.7	<5	<0.02	<5	<0.5
Soil Boring OB-SB15													
OB-SB15-0	0	<0.04	<1	24000	<5	98	<0.5	20	28	11	<0.02	<5	<0.5
OB-SB15-1	1	<0.04	<1	19000	6.9	79	<0.5	16	27	10	<0.02	<5	<0.5
Soil Boring OB-SB16													
OB-SB16-0	0	<0.04	<1	31000	5.7	140	0.51	23	36	7.8	<0.02	<5	<0.5
OB-SB16-1	1	<0.04	<1	27000	5.5	150	<0.5	18	28	<5	<0.02	<5	<0.5
Soil Boring OB-SB17													
OB-SB17-0	0	<0.04	1.7	20000	6.1	110	<0.5	23	30	68	<0.02	<5	<0.5
OB-SB17-1	1	<0.04	<1	21000	6.1	110	<0.5	16	31	11	<0.02	<5	<0.5
Soil Boring OB-SB18													
OB-SB18-0	0	<0.04	1.1	19000	6.1	150	0.53	17	31	310	<0.02	<5	<0.5
OB-SB18-1	1	<0.04	<1	20000	5.5	120	<0.5	15	31	6.1	<0.02	<5	<0.5

Table 10
Old Burn Area Soil Sample Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Aluminum (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	76,000	10	15,000	39	120,000	3,100	400	23	390	390
Soil Boring OB-SB19													
OB-SB19-0	0	<0.04	<1	19000	<5	150	<0.5	18	39	<5	<0.02	<5	<0.5
OB-SB19-1	1	<0.04	<1	23000	6.2	160	<0.5	22	58	<5	<0.02	<5	<0.5
Soil Boring OB-SB20													
OB-SB20-0	0	<0.04	<1	22000	5.4	120	<0.5	23	37	630	<0.02	<5	<0.5
OB-SB20-1	1	<0.04	<1	24000	<5	140	<0.5	18	31	5.2	0.023	<5	<0.5
Soil Boring OB-SB21													
OB-SB21-0	0	<0.04	<1	23000	<5	110	<0.5	19	27	15	<0.02	<5	<0.5
OB-SB21-1	1	<0.04	<1	20000	<5	110	<0.5	16	25	5.2	0.028	<5	<0.5
Soil Boring OB-SB22													
OB-SB22-0	0	<0.04	<1	22000	5.2	120	<0.5	14	31	<5	<0.02	<5	<0.5
OB-SB22-1	1	<0.04	<1	22000	6	110	<0.5	17	29	<5	<0.02	<5	<0.5
Soil Boring OB-SB23													
OB-SB23-0	0	<0.2	48	23000	5.8	120	<0.5	21	41	18	<0.02	<5	<0.5
OB-SB23-1	1	<0.04	5	24000	6	140	<0.5	20	30	<5	<0.02	<5	<0.5
Soil Boring OB-SB24													
OB-SB24-0	0	<0.04	<1	23000	<5	120	<0.5	20	28	<5	<0.02	<5	<0.5
OB-SB24-1	1	0.8	76	24000	<5	120	<0.5	18	28	<5	<0.02	<5	<0.5
OB-SB24-5	5	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OB-SB24-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring OB-SB25													
OB-SB25-0	0	<0.04	<1	25000 J	5.3 J	120	<0.5	22	32 J	5.5 J	0.025	<5	<0.5
OB-SB25-1	1	0.061	<1	19000	<5	110	<0.5	14	22	<5	<0.02	<5	<0.5
OB-SB25-5	5	0.046	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OB-SB25-10	10	0.052	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OB-SB25-20	20	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OB-SB25-30	30	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring OB-SB26													
OB-SB26-0	0	0.072	1.6	20000	6.3	120	<0.5	21	29	28	0.022 J	<5	<0.5
OB-SB26-1	1	<0.04	10	22000	5	140	<0.5	19	29	<5	<0.02	<5	<0.5
Soil Boring OB-SB27													
OB-SB27-0	0	<0.04	<1	20000	<5	95	0.55	18	25	19	<0.02	<5	<0.5
OB-SB27-1	1	<0.04	<1	22000	<5	120	<0.5	16	44	<5	<0.02	<5	<0.5
Soil Boring OB-SB28													
OB-SB28-0	0	<0.04	1.1	28000	5.4	140	0.62	24	30	6.8	<0.02	<5	<0.5
OB-SB28-1	1	0.065	78	25000	5.4	140	0.52	17	28	<5	<0.02	<5	<0.5
OB-SB28-5	5	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OB-SB28-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring OB-SB29													
OB-SB29-0	0	<0.04	5.8	23000	5.7	120	<0.5	22	29	14	<0.02	<5	<0.5
OB-SB29-1	1	0.44	73	25000	5.1	130	0.51	16	29	<5	0.068	<5	<0.5
OB-SB29-5	5	0.13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OB-SB29-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring OB-SB30													
OB-SB30-0	0	<0.04	1.5	19000	<5	130	<0.5	33	23	8.2	<0.02	<5	<0.5
OB-SB30-1	1	<0.04	6.2	26000	<5	140	<0.5	35	33	5.9	0.022	<5	<0.5
Soil Boring OB-SB31													
OB-SB31-0	0	<0.04	<1	23000	6.1	83	<0.5	35	81	<5	<0.02	<5	<0.5
OB-SB31-1	1	<0.04	2.8	24000	<5	120	<0.5	45	30	11	<0.02	<5	<0.5
Soil Boring OB-SB32													
OB-SB32-0	0	<0.04	1.7	21000	6	110	<0.5	17	89	100	<0.02	<5	<0.5
OB-SB32-1	1	<0.04	<1	24000	6.8	99	<0.5	17	58 J	110 J	<0.02	<5	<0.5
Soil Boring OB-SB33													
OB-SB33-0	0	<0.04	<1	23000	6	100	<0.5	17	34	140	<0.02	<5	<0.5
OB-SB33-1	1	<0.04	1.2	21000	5.6	100	<0.5	16	42	46	<0.02	<5	<0.5

Table 10
Old Burn Area Soil Sample Analytical Results for Inorganics
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Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Aluminum (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	76,000	10	15,000	39	120,000	3,100	400	23	390	390
Soil Boring OB-SB34													
OB-SB34-0	0	<0.04	2.8	15000	5.4	110	<0.5	13	25	<5	<0.02	<5	<0.5
OB-SB34-1	1	0.052	<1	23000	7.2	130	<0.5	18	35	<5	<0.02	<5	<0.5
OB-SB34-5	5	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OB-SB34-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring OB-SB35													
OB-SB35-0	0	<0.04	<1	19000	6.5	99	<0.5	16	31	17	<0.02	<5	<0.5
OB-SB35-1	1	<0.04	<1	21000	5	110 J	<0.5	18	30	320 J	<0.02	<5	<0.5
Soil Boring OB-SB36													
OB-SB36-0	0	NA	NA	NA	NA	NA	NA	NA	NA	15	NA	NA	NA
Soil Boring OB-SB37													
OB-SB37-0	0	NA	NA	NA	NA	NA	NA	NA	NA	20	NA	NA	NA
Soil Boring OB-SB38													
OB-SB38-0	0	NA	NA	NA	NA	NA	NA	NA	NA	36	NA	NA	NA
Soil Boring OB-SB39													
OB-SB39-0	0	NA	NA	NA	NA	NA	NA	NA	NA	11	NA	NA	NA
Soil Boring OB-SB40													
OB-SB40-0	0	NA	NA	NA	NA	NA	NA	NA	NA	2800	NA	NA	NA
OB-SB40-1	1	NA	NA	NA	NA	NA	NA	NA	NA	4500	NA	NA	NA
OB-SB40-2	2	NA	NA	NA	NA	NA	NA	NA	NA	230 J	NA	NA	NA
Soil Boring OB-SB41													
OB-SB41-0	0	NA	NA	NA	NA	NA	NA	NA	NA	460	NA	NA	NA
OB-SB41-1	1	NA	NA	NA	NA	NA	NA	NA	NA	28 J	NA	NA	NA
Soil Boring OB-SB42													
OB-SB42-0	0	NA	NA	NA	NA	NA	NA	NA	NA	140 J	NA	NA	NA
Soil Boring OB-SB43													
OB-SB43-0	0	NA	NA	NA	NA	NA	NA	NA	NA	340	NA	NA	NA
Soil Boring OB-SB44													
OB-SB44-0	0	NA	NA	NA	NA	NA	NA	NA	NA	170	NA	NA	NA
Soil Boring OB-SB45													
OB-SB45-0	0	NA	NA	NA	NA	NA	NA	NA	NA	4800	NA	NA	NA
OB-SB45-1	1	NA	NA	NA	NA	NA	NA	NA	NA	200 J	NA	NA	NA
OB-SB45-2	2	NA	NA	NA	NA	NA	NA	NA	NA	66 J	NA	NA	NA
Soil Boring OB-SB46													
OB-SB46-0	0	NA	NA	NA	NA	NA	NA	NA	NA	420	NA	NA	NA
OB-SB46-1	1	NA	NA	NA	NA	NA	NA	NA	NA	16 J	NA	NA	NA
Soil Boring OB-SB47													
OB-SB47-0	0	NA	NA	NA	NA	NA	NA	NA	NA	18 J	NA	NA	NA
Soil Boring OB-SB48													
OB-SB48-0	0	NA	NA	NA	NA	NA	NA	NA	NA	180 J	NA	NA	NA
Soil Boring OB-SB50													
OB-SB50-0	0	NA	NA	NA	7.9 J	NA	NA	NA	NA	NA	NA	NA	NA
OB-SB50-1	1	NA	NA	NA	5.0 J	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring OB-SB51													
OB-SB51-0	0	NA	NA	NA	7.0 J	NA	NA	NA	NA	NA	NA	NA	NA
OB-SB51-1	1	NA	NA	NA	6.5 J	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring OB-SB52													
OB-SB52-0	0	NA	NA	NA	6.3 J	NA	NA	NA	NA	NA	NA	NA	NA
OB-SB52-1	1	NA	NA	NA	5.5 J	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
bgs = below ground surface
mg/kg = milligrams per kilogram
NA = not analyzed
< = Analyte not reported above the listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value.

Table 11
Old Burn Area Soil Analytical Results - Explosives and Dioxins
Final Remedial Investigation Report

Analyte	Residential SRL	OB-SB01-0 2/8/2005	OB-SB02-0 2/8/2005	OB-SB07-0 2/10/2005	OB-SB08-0 2/10/2005	OB-SB09-0 2/10/2005	OB-SB10-0 2/10/2005	OB-SB11-0 2/10/2005	OB-SB35-0 2/10/2005
Explosives (mg/kg)									
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	3,100	<2	<2	<2	<2	<2	<2	<2	<2
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	5	<2	<2	<2	<2	<2	<2	<2	<2
Pentaerythritol Tetranitrate (PETN)	NE	<1.8	<1.8	<1.8	<1.8	<1.8	<1.9	<1.9	<1.9
1,3,5-Trinitrobenzene	1800	<2	<2	<2	<2	<2	<2	<2	<2
1,3-Dintrobenzene	6.1	<2	<2	<2	<2	<2	<2	<2	<2
Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	NE	<2	<2	<2	<2	<2	<2	<2	<2
Nitrobenzene	20	<2	<2	<2	<2	<2	<2	<2	<2
2,4,6-Trinitrotoluene (TNT)	18	<2	<2	<2	<2	<2	<2	<2	<2
4-Amino-2,6-dinitrotoluene	12	<2	<2	<2	<2	<2	3.3	<2	<2
2-Amino-4,6-dinitrotoluene	12	<2	<2	<2	<2	<2	<2	<2	<2
2,6-Dinitrotoluene	61	<2	<2	<2	<2	<2	<2	<2	<2
2,4-Dinitrotoluene	120	<2	<2	<2	<2	<2	<2	<2	<2
2-Nitrotoluene	0.93	<2	<2	<2	<2	<2	<2	<2	<2
3-Nitrotoluene	730	<2	<2	<2	<2	<2	<2	<2	<2
4-Nitrotoluene	13	<2	<2	<2	<2	<2	<2	9.1 J	<2
Nitroglycerin	39	<1.8	<1.8	<1.8	<1.8	<1.8	<1.9	<1.9	<1.9

Table 11
Old Burn Area Soil Analytical Results - Explosives and Dioxins
Final Remedial Investigation Report

Analyte	Residential SRL	OB-SB01-0 2/8/2005	OB-SB02-0 2/8/2005	OB-SB07-0 2/10/2005	OB-SB08-0 2/10/2005	OB-SB09-0 2/10/2005	OB-SB10-0 2/10/2005	OB-SB11-0 2/10/2005	OB-SB35-0 2/10/2005
Dioxins (ng/kg)									
2,3,7,8-TCDF	NE	<0.99	<0.97	<0.98	<0.97	<0.97	<0.99	<0.98	<0.97
2,3,7,8-TCDD	4.5	<0.99	<0.97	<0.98	<0.97	<0.97	<0.99	<0.98	<0.97
1,2,3,7,8-PeCDF	NE	<4.9	<4.8	<4.9	<4.9	<4.9	<5	<4.9	<4.9
2,3,4,7,8-PeCDF	NE	<4.9	<4.8	<4.9	<4.9	<4.9	<5	<4.9	<4.9
1,2,3,7,8-PeCDD	NE	<4.9	<4.8	<4.9	<4.9	<4.9	<5	<4.9	<4.9
1,2,3,4,7,8-HxCDF	NE	<4.9	<4.8	<4.9	<4.9	<4.9	<5	<4.9	<4.9
1,2,3,6,7,8-HxCDF	NE	<4.9	<4.8	<4.9	<4.9	<4.9	<5	<4.9	<4.9
2,3,4,6,7,8-HxCDF	NE	<4.9	<4.8	<4.9	<4.9	<4.9	<5	<4.9	<4.9
1,2,3,7,8,9-HxCDF	NE	<4.9	<4.8	<4.9	<4.9	<4.9	<5	<4.9	<4.9
1,2,3,4,7,8-HxCDD	NE	<4.9	<4.8	<4.9	<4.9	<4.9	<5	<4.9	<4.9
1,2,3,6,7,8-HxCDD	NE	<4.9	<4.8	<4.9	<4.9	<4.9	<5	<4.9	<4.9
1,2,3,7,8,9-HxCDD	NE	<4.9	<4.8	<4.9	<4.9	<4.9	<5	<4.9	<4.9
1,2,3,4,6,7,8-HpCDF	NE	<4.9	<4.8	<4.9	<4.9	<4.9	<5	<4.9	<4.9
1,2,3,4,7,8,9-HpCDF	NE	<4.9	<4.8	<4.9	<4.9	<4.9	<5	<4.9	<4.9
1,2,3,4,6,7,8-HpCDD	NE	<4.9	<4.8	<4.9	<4.9	<4.9	<5	<4.9	<4.9
OCDF	NE	<9.9	<9.7	<9.8	<9.7	<9.7	<9.9	<9.8	<9.7
OCDD	NE	<9.9	<9.7	18	19	16 J	17	32	16

Notes:
SRL = Arizona residential Soil Remediation Level
mg/kg = milligrams per kilogram
bgs = below ground surface
NE = not established
ng/kg = nanograms per kilogram
< = Analyte not reported above the listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value.

Table 12
TTU Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Aluminum (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	76,000	10	15,000	39	120,000	3,100	400	23	390	390
Soil Boring TT-SB01													
TT-SB01-0	0	0.053	<1	24000	<5	140	<0.5	19	24	12	0.021	<5	<0.5
TT-SB01-1	1	0.14	<1	30000	5.5	260	<0.5	39	32	5.9	0.036	<5	<0.5
TT-SB01-5	5	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB01-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring TT-SB02													
TT-SB02-0	0	0.18	<1	23000	<5	99	<0.5	16	25	5.9	0.026	<5	<0.5
TT-SB02-1	1	0.28	1.1	21000	<5	100	<0.5	20	28	11	0.029	<5	<0.5
TT-SB02-5	5	0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB02-10	10	0.18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB02-20	20	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB02-30	30	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring TT-SB03													
TT-SB03-0	0	<0.04	<1	26000	<5	130	<0.5	21	29	8	0.023	<5	<0.5
TT-SB03-1	1	<0.04	<1	26000	5.7	140	<0.5	20	32	<5	<0.02	<5	<0.5
Soil Boring TT-SB04													
TT-SB04-0	0	0.044	<1	21000	<5	100	<0.5	18	24	5.3	<0.02	<5	<0.5
TT-SB04-1	1	0.071	<1	19000	<5	110	<0.5	15	24	<5	<0.02	<5	<0.5
TT-SB04-5	5	1.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB04-10	10	0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB04-20	20	0.18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB04-30	30	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring TT-SB05													
TT-SB05-0	0	<0.04	<1	17000	<5	110	0.53	16	23	8.4	<0.02	<5	<0.5
TT-SB05-1	1	<0.04	<1	18000	<5	110	<0.5	16	23	8.5	<0.02	<5	<0.5
Soil Boring TT-SB06													
TT-SB06-0	0	<0.04	<1	21000	5	120	<0.5	18	28	9.2	<0.02	<5	<0.5
TT-SB06-1	1	<0.04	<1	18000	<5	120	0.58	18	20	5.1	0.02	<5	<0.5
Soil Boring TT-SB07													
TT-SB07-0	0	<0.04	<1	19000	5.6	110	0.56	18	31	7.9	<0.02	<5	<0.5
TT-SB07-1	1	<0.04	<1	22000	5.5	110	0.52	17	25	<5	<0.02	<5	<0.5
Soil Boring TT-SB08													
TT-SB08-0	0	<0.04	<1	20000	<5	130	0.79	16	26	12	<0.02	<5	<0.5
TT-SB08-1	1	<0.04	<1	17000	<5	120	<0.5	13	15	<5	<0.02	<5	<0.5
Soil Boring TT-SB09													
TT-SB09-0	0	0.05	<1	15000	5	94	<0.5	13	18	6.4	<0.02	<5	<0.5
TT-SB09-1	1	0.49	<1	18000	<5	98	<0.5	15	16	<5	0.038	<5	<0.5
TT-SB09-5	5	2.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB09-10	10	0.92	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB09-20	20	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB09-30	30	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 12
TTU Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Aluminum (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	76,000	10	15,000	39	120,000	3,100	400	23	390	390
Soil Boring TT-SB10													
TT-SB10-0	0	0.099	2	21000	5.9	110	0.86	22	25	22	<0.02	<5	<0.5
TT-SB10-1	1	0.31	1.9	22000	<5	110	<0.5	18	28	<5	0.022	<5	<0.5
TT-SB10-5	5	4.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB10-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring TT-SB11													
TT-SB11-0	0	<0.04	<1	18000	<5	120	<0.5	16	22	8.2	<0.02	<5	<0.5
TT-SB11-1	1	<0.04	<1	15000	<5	100	<0.5	12	18	<5	<0.02	<5	<0.5
Soil Boring TT-SB12													
TT-SB12-0	0	<0.04	<1	21000	5.2	110	<0.5	20	30	5.3	<0.02	<5	<0.5
TT-SB12-1	1	<0.04	<1	15000	5.3	110	<0.5	12	20	<5	0.02	<5	<0.5
Soil Boring TT-SB13													
TT-SB13-0	0	0.045	<1	25000	5.4	100	<0.5	20	24	5.3	0.025	<5	<0.5
TT-SB13-1	1	4.9	100	18000	<5	99	<0.5	17	25	12	<0.02	<5	<0.5
TT-SB13-5	5	0.57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB13-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring TT-SB14													
TT-SB14-0	0	<0.04	<1	22000	5.2	120	<0.5	15	31	9.9	0.027	<5	<0.5
TT-SB14-1	1	<0.04	<1	24000	6	110	<0.5	20	27	<5	<0.02	<5	<0.5
Soil Boring TT-SB15													
TT-SB15-0	0	<0.04	<1	23000	5.9	100	0.54	21	26	6.4	<0.02	<5	<0.5
TT-SB15-1	1	0.079	<1	18000	<5	130	<0.5	15	24	<5	<0.02	<5	<0.5
TT-SB15-5	5	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB15-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring TT-SB16													
TT-SB16-0	0	0.055	<1	21000	<5	100	0.76	26	24	7.3	0.03	<5	<0.5
TT-SB16-1	1	2.4 J	1.5	22000	5.4	130	<0.5	19	24	<5	<0.02	<5	<0.5
TT-SB16-5	5	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB16-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring TT-SB17													
TT-SB17-0	0	<0.04	<1	23000	<5	110	0.62	19	25	<5	<0.02	<5	<0.5
TT-SB17-1	1	0.37	<1	23000	6.2	120	0.69	23	25	<5	<0.02	<5	<0.5
TT-SB17-5	5	0.65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB17-10	10	0.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB17-20	20	0.63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB17-30	30	0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB17-40	40	0.077	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB17-50	50	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring TT-SB18													
TT-SB18-0	0	<0.04	<1	22000	<5	95	<0.5	22	27	8.3	<0.02	<5	<0.5
TT-SB18-1	1	<0.04	<1	21000	<5	100	<0.5	19	24	7.7	<0.02	<5	<0.5

Table 12
TTU Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Aluminum (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	76,000	10	15,000	39	120,000	3,100	400	23	390	390
Soil Boring TT-SB19													
TT-SB19-0	0	<0.04	<1	18000	<5	100	<0.5	18	23	<5	<0.02	<5	<0.5
TT-SB19-1	1	<0.04	<1	17000	<5	120	<0.5	15	28	<5	<0.02	<5	<0.5
Soil Boring TT-SB20													
TT-SB20-0	0	<0.04	<1	19000	<5	100	<0.5	16	21	<5	<0.02	<5	<0.5
TT-SB20-1	1	<0.04	<1	17000	<5	130	<0.5	16	18	<5	<0.02	<5	<0.5
Soil Boring TT-SB21													
TT-SB21-0	0	<0.04	<1	22000	<5	110	<0.5	17	26	<5	<0.02	<5	<0.5
TT-SB21-1	1	<0.04	<1	16000	<5	120	<0.5	12	24	<5	<0.02	<5	<0.5
Soil Boring TT-SB22													
TT-SB22-0	0	<0.04	<1	19000	9.7	110	0.52	14	21	<5	<0.02	<5	<0.5
TT-SB22-1	1	<0.04	<1	16000	<5	110	<0.5	11	18	<5	<0.02	<5	<0.5
Soil Boring TT-SB23													
TT-SB23-0	0	<0.04	<1	17000	<5	93	<0.5	14	21	<5	<0.02	<5	<0.5
TT-SB23-1	1	<0.04	<1	18000	7.1	130	<0.5	14	30	<5	0.025	<5	<0.5
Soil Boring TT-SB24													
TT-SB24-0	0	<0.04	<1	16000	<5	280	<0.5	14	23	<5	0.02	<5	<0.5
TT-SB24-1	1	0.14	<1	15000	<5	220	0.58	15	24	<5	<0.02	<5	<0.5
TT-SB24-5	5	0.55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB24-10	10	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB24-20	20	0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB24-30	30	0.73 J	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB24-40	40	0.63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB24-50	50	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring TT-SB25													
TT-SB25-0	0	1.4	1.3	25000	<5	130	<0.5	21	29	5.3	0.028	<5	<0.5
TT-SB25-1	1	0.82	<1	27000	7.9	140	<0.5	22	34	<5	<0.02	<5	<0.5
TT-SB25-5	5	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB25-10	10	1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB25-20	20	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB25-30	30	0.057	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB25-40	40	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB25-50	50	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring TT-SB26													
TT-SB26-0	0	<0.04	<1	25000	<5	130	<0.5	49 J	27	12	0.021	<5	<0.5
TT-SB26-1	1	<0.04	1	26000	5.9	170	<0.5	41	27	5.3	<0.02	<5	<0.5
Soil Boring TT-SB27													
TT-SB27-0	0	0.24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB27-5	5	4.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB27-10	10	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 12
TTU Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Aluminum (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	76,000	10	15,000	39	120,000	3,100	400	23	390	390
Soil Boring TT-SB28													
TT-SB28-0	0	0.089	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB28-5	5	0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB28-10	10	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring TT-SB29													
TT-SB29-0	0	0.051	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB29-5	5	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB29-10	10	<0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring TT-SB30													
TT-SB30-0	0	0.020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB30-10	10	0.041	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TT-SB30-20	20	0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
bgs = below ground surface
mg/kg = milligrams per kilogram
NA = not analyzed
< = Analyte not reported above the listed laboratory detection limit
J = The analyte was positively identified; however, the result should be considered an estimated value.

Table 13
Waterbore Area Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Lead (mg/kg)	Nitrate-N (mg/kg)
Residential Soil Remediation Level		55	400	100,000
Soil Boring WB-SB01				
WB-SB01-10	10	1.9	<5	2.9
WB-SB01-20	20	2.8	<5	1.6
WB-SB01-30	30	0.28	<5	<1
WB-SB01-40	40	0.14	<5	<1
WB-SB01-50	50	0.15	<5	<1
WB-SB01-60	60	0.093	<5	<1
WB-SB01-70	70	<0.04	6.4	<1
WB-SB01-80	80	<0.04	8.9	<1
WB-SB01-90	90	<0.04	8.8	<1
WB-SB01-100	100	<0.04	8.8	<1
WB-SB01-125	125	<0.04	7.1	<1
WB-SB01-150	150	<0.04	6.7	<1
WB-SB01-165	165	<0.04	5.6	<1
Soil Boring WB-SB02				
WB-SB02-10	10	0.9 J	<5	2.8
WB-SB02-20	20	<0.04 UJ	<5	<1
WB-SB02-30	30	<0.04 UJ	<5	<1
WB-SB02-40	40	<0.04 UJ	<5	<1
WB-SB02-50	50	<0.04 UJ	<5	<1
WB-SB02-60	60	<0.04 UJ	<5	<1
WB-SB02-70	70	<0.04	5.1	<1
WB-SB02-80	80	<0.04	<5	<1
WB-SB02-90	90	<0.04	<5	<1
WB-SB02-100	100	<0.04	<5	<1
WB-SB02-125	125	<0.04	<5	<1
WB-SB02-150	150	<0.04	<5	<1
WB-SB02-175	175	<0.04	<5	<1
Soil Boring WB-SB03				
WB-SB03-10	10	0.77	<5	<1
WB-SB03-20	20	0.089	<5	<1
WB-SB03-30	30	0.084	<5	<1
WB-SB03-40	40	<0.04	<5	<1
WB-SB03-50	50	<0.04	<5	<1
WB-SB03-60	60	<0.04	<5	<1
WB-SB03-70	70	<0.04	<5	<1
WB-SB03-80	80	<0.04	<5	<1
WB-SB03-90	90	<0.04	<5	<1
WB-SB03-100	100	<0.04	<5	<1
WB-SB03-125	125	<0.04	<5	<1
WB-SB03-150	150	<0.04	<5	<1
WB-SB03-175	175	<0.04	<5	<1
WB-SB03-200	200	<0.04	5.8	<1
WB-SB03-216	216	0.14	<5	<1

Table 13
Waterbore Area Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Lead (mg/kg)	Nitrate-N (mg/kg)
Residential Soil Remediation Level		55	400	100,000
Soil Boring WB-SB04				
WB-SB04-10	10	0.077	6.9	<1
WB-SB04-20	20	<0.04	6.9	<1
WB-SB04-30	30	<0.04	7.6	<1
WB-SB04-40	40	<0.04	6.2	<1
WB-SB04-50	50	<0.04	7.3	<1
WB-SB04-60	60	<0.04	7	<1
WB-SB04-70	70	<0.04	8.2	<1
WB-SB04-80	80	<0.04	7.9	<1
WB-SB04-90	90	<0.04	6.9	<1
WB-SB04-100	100	<0.04	8.5	<1
WB-SB04-125	125	<0.04	8.1	<1
WB-SB04-150	150	<0.04	9.1	<1
WB-SB04-175	175	<0.04	6.5	<1
Soil Boring WB-SB05				
WB-SB05-10	10	2.9	8.6	1.9
WB-SB05-20	20	0.35	9.9	<1
WB-SB05-30	30	0.094	9.1	<1
WB-SB05-40	40	0.16	11	<1
WB-SB05-50	50	<0.04	9	<1
WB-SB05-60	60	0.3	7.6	<1
WB-SB05-70	70	<0.04	11 J	<1
WB-SB05-80	80	0.068	6.6	<1
WB-SB05-90	90	0.64	8.3	<1
WB-SB05-100	100	0.041	<5	<1
Soil Boring WB-SB06				
WB-SB06-10	10	130	<5	18
WB-SB06-20	20	53	<5	86
WB-SB06-30	30	21	<5	3.9
WB-SB06-40	40	34	<5	4.3
WB-SB06-50	50	51	<5	8.4
WB-SB06-60	60	84	<5	15
WB-SB06-70	70	98	<5	17
WB-SB06-80	80	85	<5	9
WB-SB06-90	90	93	<5	8.5
WB-SB06-99	100	61	<5	4.3
WB-SB06-125	125	35	<5	3.5
WB-SB06-150	150	8.9	<5	1.1
WB-SB06-175	175	32	<5	2.6

Table 13
Waterbore Area Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Lead (mg/kg)	Nitrate-N (mg/kg)
Residential Soil Remediation Level		55	400	100,000
Soil Boring WB-SB07				
WB-SB07-10	10	4.8	<5	1.5
WB-SB07-20	20	92	<5	7
WB-SB07-30	30	41	5.1	1.9
WB-SB07-40	40	39	<5	5
WB-SB07-50	50	7.1	<5	1.2
WB-SB07-60	60	24	<5	2.6
WB-SB07-70	70	13	<5	1.1
WB-SB07-80	80	2.2	<5	<1
WB-SB07-90	90	0.065	<5	<1
WB-SB07-100	100	2	<5	<1
WB-SB07-125	125	0.52	<5	<1
WB-SB07-150	150	1.5 J	<5	<1
WB-SB07-175	175	0.7	<5	<1
Soil Boring WB-SB08				
WB-SB08-10	10	<0.04	7	<1
WB-SB08-20	20	0.67	9.1	<1
WB-SB08-30	30	0.053	7.7	<1
WB-SB08-40	40	<0.04	7.3	<1
WB-SB08-50	50	<0.04	8.4	<1
WB-SB08-60	60	<0.04	7.7	<1
WB-SB08-70	70	<0.04	8.3	<1
WB-SB08-80	80	0.047	8.8	<1
WB-SB08-90	90	<0.04	7.7	<1
WB-SB08-100	100	<0.04	7.9	<1
WB-SB08-125	125	<0.04	8.9	<1
WB-SB08-150	150	<0.04	7.5	<1
WB-SB08-175	175	<0.04	8.1	<1
Soil Boring WB-SB09				
WB-SB09-10	10	<0.04	<5	<1
WB-SB09-20	20	0.049	<5	<1
WB-SB09-30	30	<0.04	<5	<1
WB-SB09-40	40	0.3	<5	<1
WB-SB09-50	50	0.36	6.5	<1
WB-SB09-60	60	<0.04	<5	<1
WB-SB09-70	70	<0.04	<5	<1
WB-SB09-80	80	<0.04	<5	<1
WB-SB09-90	90	<0.04	7.7	<1
WB-SB09-100	100	<0.04	6.1	<1

Table 13
Waterbore Area Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Lead (mg/kg)	Nitrate-N (mg/kg)
Residential Soil Remediation Level		55	400	100,000
Soil Boring WB-SB10				
WB-SB10-10	10	<0.04	7.4	<1
WB-SB10-20	20	0.068	8	<1
WB-SB10-30	30	0.87	7.3	<1
WB-SB10-40	40	1.8	8.3	<1
WB-SB10-50	50	1.3	7.3	<1
WB-SB10-60	60	0.45	7.8	<1
WB-SB10-70	70	2	<5	<1
WB-SB10-80	80	2	<5	<1
WB-SB10-90	90	2.1	5.6	<1
WB-SB10-100	100	4.2	<5	<1
Soil Boring WB-SB11				
WB-SB11-10	10	0.081	5.3	<1
WB-SB11-20	20	0.061	8.2	<1
WB-SB11-30	30	0.34	8.3	<1
WB-SB11-40	40	4.3	8.3	1.8
WB-SB11-50	50	9.4	<5	<1
WB-SB11-60	60	15	8.8	1.1
WB-SB11-70	70	40	8.5	3.2
WB-SB11-80	80	32	<5	3.3
WB-SB11-90	90	13	6.9	<1
WB-SB11-100	100	0.64	7.9	<1
Soil Boring WB-SB12				
WB-SB12-10	10	<0.04	7.6	<1
WB-SB12-20	20	0.42	7.1	<1
WB-SB12-30	30	0.67	8.2	<1
WB-SB12-40	40	0.78	7	<1
WB-SB12-50	50	<0.04	7.7	<1
WB-SB12-60	60	<0.04	10	<1
WB-SB12-70	70	<0.04	7.7	<1
WB-SB12-80	80	<0.04	8.9	<1
WB-SB12-90	90	<0.04	9.9	<1
WB-SB12-100	100	<0.04	7	<1
WB-SB12-125	125	<0.04	8.2	<1
WB-SB12-150	150	<0.04	7.6	<1
WB-SB12-175	175	<0.04	11	<1

Table 13
Waterbore Area Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Lead (mg/kg)	Nitrate-N (mg/kg)
Residential Soil Remediation Level		55	400	100,000
Soil Boring WB-SB13				
WB-SB13-0	0	NA	20	NA
WB-SB13-01	1	NA	57 J	NA
WB-SB13-10	10	NA	<5.0 UJ	NA
WB-SB13-20	20	NA	<5.0 UJ	NA
Soil Boring WB-SB14				
WB-SB14-0	0	NA	21	NA
WB-SB14-1	1	NA	<5.0	NA
WB-SB14-2	2	NA	<5.0	NA
Soil Boring WB-SB15				
WB-SB15-0	0	NA	31	NA
WB-SB15-1	1	NA	22	NA

Notes:
bgs = below ground surface
NA = not analyzed
mg/kg = milligrams per kilogram
< = Analyte not reported above the listed laboratory detection limit
J = The analyte was positively identified; however, the result should be considered an estimated value.
UJ = Estimated laboratory detection limit.

Table 14
Waterbore Area Supplemental Soil Analytical Results for Metals
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		10	15,000	39	120,000	400	23	390	390
Soil Boring WB-SB13									
WB-SB13-0	0	<5.0	130	<0.50	17	20	<0.020	<5.0	<0.50
WB-SB13-1	1	5.8	110	<0.50	13	57 J	<0.10	<5.0	<0.50
WB-SB13-10	10	5.7	170	<0.50	10	<5.0 UJ	<0.10	<5.0	<0.50
WB-SB13-20	20	7.8	180	<0.50	15	<5.0 UJ	<0.10	<5.0	<0.50
Soil Boring WB-SB14									
WB-SB14-0	0	<5.0	96	0.88	15	21	<0.020	<5.0	<0.50
WB-SB14-1	1	<5.0	110	<0.50	15	<5.0	<0.020	<5.0	<0.50
WB-SB14-2	2	<5.0	110	<0.50	14	<5.0	<0.020	<5.0	<0.50
Soil Boring WB-SB15									
WB-SB15-0	0	<5.0	100	<0.50	14	31	<0.020	<5.0	<0.50
WB-SB15-1	1	<5.0	120	<0.50	17	22	<0.020	<5.0	<0.50

Notes:
bgs = below ground surface
mg/kg = milligrams per kilogram
< = Analyte not reported above the listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value.
UJ = Estimated laboratory detection limit.

Table 15
SMA Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Barium (mg/kg)	Boron (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Lead (mg/kg)
Residential Soil Remediation Level		55	15,000	16,000	39	120,000	900	400
Soil Boring SMA-SB01								
SMA-SB01-0	0	<0.04	160	<50	<0.5	16	11	16
SMA-SB01-0.5	1	0.042	140	<50	<0.5	13	12	11
Soil Boring SMA-SB02								
SMA-SB02-0	0	<0.04	100	<50	<0.5	12	8.6	15
SMA-SB02-0.5	1	<0.04	91	<50	<0.5	12	5	7.7
Soil Boring SMA-SB03								
SMA-SB03-0	0	0.041	87	<50	<0.5	11	5.6	9.8
SMA-SB03-1	1	<0.04	97	<50	<0.5	13	6.9	11
Soil Boring SMA-SB04								
SMA-SB04-0	0	0.23	57	<50	<0.5	5.3	<5	6.1
SMA-SB04-1	1	<0.04	120	<50	<0.5	15	7.1	11
Soil Boring SMA-SB05								
SMA-SB05-0	0	2.5	150	<50	<0.5	24	15	29
SMA-SB05-1	1	0.37	130	<50	<0.5	19	11	13
SMA-SB05-5	5	6.2	100	<50	<0.5	6.5	6.1	6.3
SMA-SB05-10	10	1.6	86	<50	<0.5	6.2	<5	5.3
SMA-SB05-20	20	0.64	NA	NA	NA	NA	NA	NA
Soil Boring SMA-SB06								
SMA-SB06-0	0	5.1 J	130	<50	<0.5	17	10	100 J
SMA-SB06-1	1	0.52	120	<50	<0.5	15	8.5	35
SMA-SB06-5	5	0.036	100	<50	<0.5	<1	5	17
SMA-SB06-10	10	0.032	110	<50	<0.5	17	5	5.1
Soil Boring SMA-SB07								
SMA-SB07-0	0	0.49	110	<50	<0.5	16	6.4	15
SMA-SB07-1	1	0.23	110	<50	<0.5	17	7.6	12
Soil Boring SMA-SB08								
SMA-SB08-0	0	2.1 J	110	<50	<0.5	19	6.9	21
SMA-SB08-0.5	1	1.3	110	<50	<0.5	18	7.7	14
Soil Boring SMA-SB09								
SMA-SB09-0	0	0.47	120	<50	<0.5	22	7.9	15
SMA-SB09-1	1	0.67 J	130	<50	<0.5	22	8.8	15

Table 15
SMA Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Barium (mg/kg)	Boron (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Lead (mg/kg)
Residential Soil Remediation Level		55	15,000	16,000	39	120,000	900	400
Soil Boring SMA-SB10								
SMA-SB10-0	0	0.92 J	110	<50	<0.5	16	8.6	29 J
SMA-SB10-1	1	1.0 J	100	<50	<0.5	18	7.6	15
Soil Boring SMA-SB11								
SMA-SB11-0	0	0.16 J	120	<50	<0.5	15	6.9	17
SMA-SB11-1	1	0.040 J	120	<50	<0.5	20	7.7	16
Soil Boring SMA-SB12								
SMA-SB12-0	0	<0.04 UJ	83	<50	<0.5	8.8	6.0	12
SMA-SB12-1	1	<0.04 UJ	92	<50	<0.5	8	5.4	13
Soil Boring SMA-SB13								
SMA-SB13-0	0	0.088 J	58	<50	<0.5	5.6	<5.0	9.2
SMA-SB13-1	1	<0.04 UJ	110	<50	<0.5	17	8.1	15
Soil Boring SMA-SB14								
SMA-SB14-0	0	<0.04 UJ	120	<50	<0.5	21	7.1	12
SMA-SB14-1	1	<0.04 UJ	110	<50	<0.5	20	6.6	9.4
Soil Boring SMA-SB15								
SMA-SB15-0	0	<0.04	110	<50	<0.5	22	7.6	15
SMA-SB15-1	1	<0.04	110	<50	<0.5	23	8.4	9
Soil Boring SMA-SB16								
SMA-SB16-0	0	0.76	100	<50	<0.5	9	7.3	11
SMA-SB16-1	1	0.18	110	<50	<0.5	22	7.5	9.7
Soil Boring SMA-SB17								
SMA-SB17-0	0	0.24	120	<50	<0.5	27	8.8	10
SMA-SB17-1	1	2.9	120	<50	<0.5	25	9.3	11
SMA-SB17-5	5	0.071	NA	NA	NA	NA	NA	NA
SMA-SB17-10	10	0.05	NA	NA	NA	NA	NA	NA
Soil Boring SMA-SB18								
SMA-SB18-0	0	0.086	110	<50	<0.5	15	6.4	14
SMA-SB18-1	1	<0.04	92	<50	<0.5	23	5.7	10
Soil Boring SMA-SB19								
SMA-SB19-0	0	<0.04	90	<50	<0.5	11	<5	10
SMA-SB19-1	1	0.044	95	<50	<0.5	14	6.2	11

Table 15
SMA Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Barium (mg/kg)	Boron (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Lead (mg/kg)
Residential Soil Remediation Level		55	15,000	16,000	39	120,000	900	400
Soil Boring SMA-SB20								
SMA-SB20-0	0	0.07	89	<50	<0.5	15	5.7	12
SMA-SB20-1	1	0.095	110	<50	<0.5	18	8.2	11
Soil Boring SMA-SB21								
SMA-SB21-0	0	0.098	85	<50	<0.5	15	6.2	10
SMA-SB21-1	1	<0.04	86	<50	<0.5	17	5.7	9.5
Soil Boring SMA-SB22								
SMA-SB22-0	0	0.25	130	<50	<0.5	20	9.1	13
SMA-SB22-1	1	0.066	140	<50	<0.5	29	11	12
Soil Boring SMA-SB23								
SMA-SB23-0	0	0.21	100	<50	<0.5	20	8.4	15
SMA-SB23-1	1	0.12	87	<50	<0.5	16	21	11
Soil Boring SMA-SB24								
SMA-SB24-0	0	<0.04	150	<50	<0.5	31	8.9	16
SMA-SB24-1	1	<0.04	120	<50	<0.5	19	9.2	13
Soil Boring SMA-SB25								
SMA-SB25-0	0	<0.04	87	<50	<0.5	16	6.9	9.4
SMA-SB25-1	1	<0.04	84	<50	<0.5	17	5.3	9.5
Soil Boring SMA-SB26								
SMA-SB26-0	0	<0.04	110	<50	<0.5	20	9.5	11
SMA-SB26-1	1	<0.04	87	<50	<0.5	17	7.6	9.6
Soil Boring SMA-SB27								
SMA-SB27-5	5	<0.04	76	<50	<0.5	3	<5	<5
SMA-SB27-10	10	<0.04	79	<50	<0.5	12	<5	<5

Notes:
bgs = below ground surface
NA = not analyzed
mg/kg = milligrams per kilogram
< = Analyte not reported above the listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value.
UJ = Estimated laboratory detection limit.
SMA = Storage Magazine Area

Table 16
F-Complex Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	10	15,000	39	120,000	400	23	390	390
Soil Boring FC-SB01											
FC-SB01-0	0	0.047	<1	8.3	140	<0.5	8.5	12	<0.02	<5	<0.5
FC-SB01-10	10	0.86	<1	8	170 J	<0.5	24	12	<0.02	<5	<0.5
FC-SB01-20	20	0.71	<1	6.1	160	<0.5	25	9.8	<0.02	<5	<0.5
FC-SB01-30	30	<0.04	<1	5.2	200	<0.5	17	11	<0.02	<5	<0.5
Soil Boring FC-SB02											
FC-SB02-0	0	6.3	43	<5	340	<0.5	20	6.9	0.031	<5	<0.5
FC-SB02-10	10	<0.04	<1	7.9	340	<0.5	28	8.5	<0.02	<5	<0.5
FC-SB02-20	20	<0.04	<1	12	250	<0.5	30	6.2	<0.02	<5	1.1
FC-SB02-30	30	1.2	4.8	10	130	<0.5	50	6.5	<0.02	<5	3.1
FC-SB02-40	40	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
FC-SB02-50	50	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring FC-SB03											
FC-SB03-0	0	2	4.5	6	210	<0.5	16	47	0.037	<5	<0.5
FC-SB03-10	10	0.092	<1	6.9	100	<0.5	23	8.4	<0.02	<5	1.7
FC-SB03-20	20	0.074	<1	6.5	180	<0.5	31	10	<0.02	<5	0.64
FC-SB03-30	30	0.97	<1	6.5	180	<0.5	31	8.5	<0.02	<5	<0.5
Soil Boring FC-SB04											
FC-SB04-0	0	<0.04	<1 UJ	5.3	380	<0.5	20	6	<0.02	<5	<0.5
FC-SB04-10	10	<0.04	<1 UJ	5.6	200	<0.5	27	7.4	<0.02	<5	<0.5
FC-SB04-20	20	<0.04	<1	7.1	180	<0.5	24	6.4	<0.02	<5	<0.5
FC-SB04-30	30	<0.04	<1	7.3	190	<0.5	28	7	<0.02	<5	<0.5
Soil Boring FC-SB05											
FC-SB05-0	0	0.049	<1	5.9	420	<0.5	22	6.4	<0.02	<5	<0.5
FC-SB05-10	10	<0.04	<1	5.7	190	<0.5	25	6.9	<0.02	<5	<0.5
FC-SB05-20	20	<0.04	<1	6.7	160	<0.5	27	6.8	<0.02	<5	<0.5
FC-SB05-30	30	0.12	<1	7	140	<0.5	26	9.4	<0.02	<5	<0.5

Table 16
F-Complex Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	10	15,000	39	120,000	400	23	390	390
Soil Boring FC-SB06											
FC-SB06-0	0	0.05	8	6.3	310	<0.5	18	8.1	0.023	<5	<0.5
FC-SB06-10	10	<0.04	<1	6.1	210	<0.5	27	9.8	<0.02	<5	<0.5
FC-SB06-20	20	<0.04	<1	11	130	<0.5	17	10	<0.02	<5	<0.5
FC-SB06-30	30	<0.04	<1	5.9	160	<0.5	28	9	<0.02	<5	<0.5
FC-SB06-40	40	<0.04	<1	6.8	210	<0.5	23	12	0.044 J	<5	<0.5
FC-SB06-50	50	<0.04	<1	10	170	<0.5	22	7.5	<0.02	<5	<0.5
Soil Boring FC-SB07											
FC-SB07-0	0	<0.04	<1	5.3	140 J	<0.5	15	5.6 J	<0.02 J	<5	<0.5
FC-SB07-10	10	<0.04	<1	6.1	350	<0.5	22	6.6	<0.02	<5	<0.5
Soil Boring FC-SB08											
FC-SB08-0	0	0.13	<1	9.9	310	<0.5	11	14	<0.02	<5	<0.5
FC-SB08-10	10	0.12	<1	6.9	200	<0.5	40	9.2	<0.02	<5	0.52
FC-SB08-20	20	0.04	<1	5.9	190	<0.5	27	11	<0.02	<5	<0.5
FC-SB08-30	30	0.056	<1	7.5	180	<0.5	34	11	<0.02	<5	1.9
FC-SB08-40	40	0.53	NA	NA	NA	NA	NA	NA	NA	NA	NA
FC-SB08-50	50	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring FC-SB09											
FC-SB09-0	0	0.19	<1	<5	300	<0.5	18	10	0.024	<5	<0.5
FC-SB09-10	10	<0.04	<1	8.1	200	<0.5	26	9.7	<0.02	<5	<0.5
FC-SB09-20	20	<0.04	<1	5.4	140	<0.5	18	8.5	<0.02	<5	16
FC-SB09-30	30	<0.04	<1	6.9	200	<0.5	21	11	<0.02	<5	1
Soil Boring FC-SB10											
FC-SB10-0	0	<0.04	<1 UJ	6	210	<0.5	21	9.3	<0.02	<5	<0.5
FC-SB10-10	10	<0.04	<1	<5	220	<0.5	17	5.2	<0.02	<5	<0.5

Table 16
F-Complex Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	10	15,000	39	120,000	400	23	390	390
Soil Boring FC-SB11											
FC-SB11-0	0	<0.04	1.3	6.8	240	<0.5	23	12	0.021	<5	<0.5
FC-SB11-10	10	0.12	1.1	6.5	210	<0.5	22	9.8	<0.02	<5	<0.5
FC-SB11-20	20	0.19	<1	7	190	<0.5	19	11	0.02	<5	<0.5
FC-SB11-30	30	0.23	<1	5	150	<0.5	17	8.7	<0.02	<5	<0.5
Soil Boring FC-SB12											
FC-SB12-0	0	0.11	<1	6.5	250	0.59	19	9.8	<0.02	<5	<0.5
FC-SB12-10	10	0.047	1.1 J	8.1	150	<0.5	14	11	0.031	<5	<0.5
FC-SB12-20	20	<0.04	<1 UJ	<5	200	<0.5	14	6.6	<0.02	<5	<0.5
FC-SB12-30	30	<0.04	2.9 J	5.1	300	<0.5	19	9.7	<0.02	<5	<0.5
Soil Boring FC-SB13											
FC-SB13-0	0	0.16	<1	5.2	71	<0.5	6.5	6.7	<0.02	<5	<0.5
FC-SB13-5.5	5.5	<0.04	<1	<5	87	<0.5	14	<5	<0.02	<5	0.52
Soil Boring FC-SB14											
FC-SB14-15.5	15.5	<0.04	4.9	6.8	120	<0.5	17	11	<0.02	<5	<0.5
Soil Boring FC-SB15											
FC-SB15-0	0	0.092 J	<1	<5	150	<0.5	14	54	<0.02	<5	<0.5
FC-SB15-1	1	<0.04	<1	<5	78	<0.5	13	25	<0.02	<5	<0.5
Soil Boring FC-SB16											
FC-SB16-0	0	5.3	2.8	<5	500	<0.5	18	5	<0.02	<5	<0.5
FC-SB16-1	1	5.3	1.4	<5	690	<0.5	19	<5	<0.02	<5	<0.5
Soil Boring FC-SB17											
FC-SB17-0	0	2.8	<1	<5	250	<0.5	8.5	<5	0.025	<5	<0.5
FC-SB17-1	1	6.5	<1	<5	270	<0.5	14	<5	0.021	<5	<0.5
Soil Boring FC-SB18											
FC-SB18-0	0	0.63	2.9	<5	240	<0.5	12	6.7	0.028	<5	<0.5
FC-SB18-1	1	0.13	3	<5	220	<0.5	13	<5	0.02	<5	<0.5

Table 16
F-Complex Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	10	15,000	39	120,000	400	23	390	390
Soil Boring FC-SB19											
FC-SB19-0	0	0.24	6.4	<5	270	<0.5	13	6.6	0.021	<5	<0.5
FC-SB19-1	1	<0.04	3.3	<5	160	<0.5	11	5.4	<0.02	<5	<0.5
Soil Boring FC-SB20											
FC-SB20-0	0	0.38	6.1	<5	240	<0.5	15	<5	<0.02	<5	<0.5
FC-SB20-1	1	0.3	4.2	<5	200	<0.5	15	5.2	0.04 J	<5	<0.5
Soil Boring FC-SB24											
FC-SB24-40	40	0.74	NA	NA	NA	NA	NA	NA	NA	NA	NA
FC-SB24-50	50	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
FC-SB24-60	60	0.47	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring FC-SB25											
FC-SB25-40	40	0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA
FC-SB25-50	50	0.42	NA	NA	NA	NA	NA	NA	NA	NA	NA
FC-SB25-60	60	<0.040	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
bgs = below ground surface
NA = not analyzed
mg/kg = milligrams per kilogram
< = Analyte not reported above the listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value.
UJ = Estimated laboratory detection limit.

Table 16
F-Complex Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	10	15,000	39	120,000	400	23	390	390
Soil Boring FC-SB01											
FC-SB01-0	0	0.047	<1	8.3	140	<0.5	8.5	12	<0.02	<5	<0.5
FC-SB01-10	10	0.86	<1	8	170 J	<0.5	24	12	<0.02	<5	<0.5
FC-SB01-20	20	0.71	<1	6.1	160	<0.5	25	9.8	<0.02	<5	<0.5
FC-SB01-30	30	<0.04	<1	5.2	200	<0.5	17	11	<0.02	<5	<0.5
Soil Boring FC-SB02											
FC-SB02-0	0	6.3	43	<5	340	<0.5	20	6.9	0.031	<5	<0.5
FC-SB02-10	10	<0.04	<1	7.9	340	<0.5	28	8.5	<0.02	<5	<0.5
FC-SB02-20	20	<0.04	<1	12	250	<0.5	30	6.2	<0.02	<5	1.1
FC-SB02-30	30	1.2	4.8	10	130	<0.5	50	6.5	<0.02	<5	3.1
FC-SB02-40	40	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
FC-SB02-50	50	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring FC-SB03											
FC-SB03-0	0	2	4.5	6	210	<0.5	16	47	0.037	<5	<0.5
FC-SB03-10	10	0.092	<1	6.9	100	<0.5	23	8.4	<0.02	<5	1.7
FC-SB03-20	20	0.074	<1	6.5	180	<0.5	31	10	<0.02	<5	0.64
FC-SB03-30	30	0.97	<1	6.5	180	<0.5	31	8.5	<0.02	<5	<0.5
Soil Boring FC-SB04											
FC-SB04-0	0	<0.04	<1 UJ	5.3	380	<0.5	20	6	<0.02	<5	<0.5
FC-SB04-10	10	<0.04	<1 UJ	5.6	200	<0.5	27	7.4	<0.02	<5	<0.5
FC-SB04-20	20	<0.04	<1	7.1	180	<0.5	24	6.4	<0.02	<5	<0.5
FC-SB04-30	30	<0.04	<1	7.3	190	<0.5	28	7	<0.02	<5	<0.5
Soil Boring FC-SB05											
FC-SB05-0	0	0.049	<1	5.9	420	<0.5	22	6.4	<0.02	<5	<0.5
FC-SB05-10	10	<0.04	<1	5.7	190	<0.5	25	6.9	<0.02	<5	<0.5
FC-SB05-20	20	<0.04	<1	6.7	160	<0.5	27	6.8	<0.02	<5	<0.5
FC-SB05-30	30	0.12	<1	7	140	<0.5	26	9.4	<0.02	<5	<0.5

Table 16
F-Complex Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	10	15,000	39	120,000	400	23	390	390
Soil Boring FC-SB06											
FC-SB06-0	0	0.05	8	6.3	310	<0.5	18	8.1	0.023	<5	<0.5
FC-SB06-10	10	<0.04	<1	6.1	210	<0.5	27	9.8	<0.02	<5	<0.5
FC-SB06-20	20	<0.04	<1	11	130	<0.5	17	10	<0.02	<5	<0.5
FC-SB06-30	30	<0.04	<1	5.9	160	<0.5	28	9	<0.02	<5	<0.5
FC-SB06-40	40	<0.04	<1	6.8	210	<0.5	23	12	0.044 J	<5	<0.5
FC-SB06-50	50	<0.04	<1	10	170	<0.5	22	7.5	<0.02	<5	<0.5
Soil Boring FC-SB07											
FC-SB07-0	0	<0.04	<1	5.3	140 J	<0.5	15	5.6 J	<0.02 J	<5	<0.5
FC-SB07-10	10	<0.04	<1	6.1	350	<0.5	22	6.6	<0.02	<5	<0.5
Soil Boring FC-SB08											
FC-SB08-0	0	0.13	<1	9.9	310	<0.5	11	14	<0.02	<5	<0.5
FC-SB08-10	10	0.12	<1	6.9	200	<0.5	40	9.2	<0.02	<5	0.52
FC-SB08-20	20	0.04	<1	5.9	190	<0.5	27	11	<0.02	<5	<0.5
FC-SB08-30	30	0.056	<1	7.5	180	<0.5	34	11	<0.02	<5	1.9
FC-SB08-40	40	0.53	NA	NA	NA	NA	NA	NA	NA	NA	NA
FC-SB08-50	50	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring FC-SB09											
FC-SB09-0	0	0.19	<1	<5	300	<0.5	18	10	0.024	<5	<0.5
FC-SB09-10	10	<0.04	<1	8.1	200	<0.5	26	9.7	<0.02	<5	<0.5
FC-SB09-20	20	<0.04	<1	5.4	140	<0.5	18	8.5	<0.02	<5	16
FC-SB09-30	30	<0.04	<1	6.9	200	<0.5	21	11	<0.02	<5	1
Soil Boring FC-SB10											
FC-SB10-0	0	<0.04	<1 UJ	6	210	<0.5	21	9.3	<0.02	<5	<0.5
FC-SB10-10	10	<0.04	<1	<5	220	<0.5	17	5.2	<0.02	<5	<0.5

Table 16
F-Complex Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	10	15,000	39	120,000	400	23	390	390
Soil Boring FC-SB11											
FC-SB11-0	0	<0.04	1.3	6.8	240	<0.5	23	12	0.021	<5	<0.5
FC-SB11-10	10	0.12	1.1	6.5	210	<0.5	22	9.8	<0.02	<5	<0.5
FC-SB11-20	20	0.19	<1	7	190	<0.5	19	11	0.02	<5	<0.5
FC-SB11-30	30	0.23	<1	5	150	<0.5	17	8.7	<0.02	<5	<0.5
Soil Boring FC-SB12											
FC-SB12-0	0	0.11	<1	6.5	250	0.59	19	9.8	<0.02	<5	<0.5
FC-SB12-10	10	0.047	1.1 J	8.1	150	<0.5	14	11	0.031	<5	<0.5
FC-SB12-20	20	<0.04	<1 UJ	<5	200	<0.5	14	6.6	<0.02	<5	<0.5
FC-SB12-30	30	<0.04	2.9 J	5.1	300	<0.5	19	9.7	<0.02	<5	<0.5
Soil Boring FC-SB13											
FC-SB13-0	0	0.16	<1	5.2	71	<0.5	6.5	6.7	<0.02	<5	<0.5
FC-SB13-5.5	5.5	<0.04	<1	<5	87	<0.5	14	<5	<0.02	<5	0.52
Soil Boring FC-SB14											
FC-SB14-15.5	15.5	<0.04	4.9	6.8	120	<0.5	17	11	<0.02	<5	<0.5
Soil Boring FC-SB15											
FC-SB15-0	0	0.092 J	<1	<5	150	<0.5	14	54	<0.02	<5	<0.5
FC-SB15-1	1	<0.04	<1	<5	78	<0.5	13	25	<0.02	<5	<0.5
Soil Boring FC-SB16											
FC-SB16-0	0	5.3	2.8	<5	500	<0.5	18	5	<0.02	<5	<0.5
FC-SB16-1	1	5.3	1.4	<5	690	<0.5	19	<5	<0.02	<5	<0.5
Soil Boring FC-SB17											
FC-SB17-0	0	2.8	<1	<5	250	<0.5	8.5	<5	0.025	<5	<0.5
FC-SB17-1	1	6.5	<1	<5	270	<0.5	14	<5	0.021	<5	<0.5
Soil Boring FC-SB18											
FC-SB18-0	0	0.63	2.9	<5	240	<0.5	12	6.7	0.028	<5	<0.5
FC-SB18-1	1	0.13	3	<5	220	<0.5	13	<5	0.02	<5	<0.5

Table 16
F-Complex Soil Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	10	15,000	39	120,000	400	23	390	390
Soil Boring FC-SB19											
FC-SB19-0	0	0.24	6.4	<5	270	<0.5	13	6.6	0.021	<5	<0.5
FC-SB19-1	1	<0.04	3.3	<5	160	<0.5	11	5.4	<0.02	<5	<0.5
Soil Boring FC-SB20											
FC-SB20-0	0	0.38	6.1	<5	240	<0.5	15	<5	<0.02	<5	<0.5
FC-SB20-1	1	0.3	4.2	<5	200	<0.5	15	5.2	0.04 J	<5	<0.5
Soil Boring FC-SB24											
FC-SB24-40	40	0.74	NA	NA	NA	NA	NA	NA	NA	NA	NA
FC-SB24-50	50	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
FC-SB24-60	60	0.47	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring FC-SB25											
FC-SB25-40	40	0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA
FC-SB25-50	50	0.42	NA	NA	NA	NA	NA	NA	NA	NA	NA
FC-SB25-60	60	<0.040	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
bgs = below ground surface
NA = not analyzed
mg/kg = milligrams per kilogram
< = Analyte not reported above the listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value.
UJ = Estimated laboratory detection limit.

Table 17
New Burn Area (OBU) Soil Sample Analytical Results for Inorganics
Final Remedial Investigation Report

Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Aluminum (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	76,000	10	15,000	39	120,000	3,100	400	23	390	390
Soil Boring NB-SB01													
NB-SB01-0	0	15	13 J	12000	15	69	<0.5	22	40	15	<0.02 UJ	<5	<0.5
NB-SB01-10	10	1.8	<1	20000	7.8	390	<0.5	25	53	8.4	<0.02	<5	<0.5
NB-SB01-20	20	3.8	<1	15000	<5	140	<0.5	9.7	12	<5	<0.02 UJ	<5	4.1
NB-SB01-30	30	7.9	1.4 J	20000	6.9	200	<0.5	20	32	8.1	<0.02 UJ	<5	<0.5
NB-SB01-40	40	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB01-50	50	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB01-56	56	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB02													
NB-SB02-0	0	150 J	27 J	17000	9.2	120	3.9	35 J	35	40 J	<0.02 UJ	<5	<0.5
NB-SB02-10	10	19	1.2	19000	<5	470	<0.5	17	25	11	<0.02	<5	<0.5
NB-SB02-20	20	15	2.3	21000	<5	200	<0.5	13	16	8.6	<0.02	<5	3.1
NB-SB02-30	30	6.8	2.1	39000	<5	240	<0.5	30	12	15	<0.02	<5	4.8 J
NB-SB02-40	40	0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB02-50	50	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB03													
NB-SB03-0	0	27	5.6 J	20000	<5	200	<0.5	15	28	6.9	<0.02	<5	<0.5
NB-SB03-10	10	3.5	1.6	21000	5.4	380	<0.5	22	44	9.4	<0.02	<5	<0.5
NB-SB03-20	20	2.9	<1	18000	7.7	120	<0.5	21	34	9.6	<0.02	<5	<0.5
NB-SB03-30	30	12	<1	34000	<5	310	<0.5	18	16	13	<0.02	<5	<0.5
NB-SB03-40	40	6.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB03-45	45	0.74	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB04													
NB-SB04-0	0	0.15	<1	19000	6.5	120	2.4	21	28	110	<0.02	<5	<0.5
NB-SB04-1	1	14	9.6 J	10000	<5	120	<0.5	7.8	13	5.4	<0.02	<5	<0.5
NB-SB04-5	5	7.6	7.3 J	12000	5	130	<0.5	22	17	21	<0.02	5.7	<0.5
NB-SB04-10	10	0.35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB04-20	20	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB04-30	30	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB04-40	40	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB04-50	50	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB04-60	60	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB05													
NB-SB05-0	0	0.085 J	<1	21000	5.8	150	1.7	20	28	130 J	<0.02	<5	<0.5
NB-SB05-1	1	1.3	<1	18000	<5	130	<0.5	11	22	10	0.033	<5	<0.5
Soil Boring NB-SB06													
NB-SB06-0	0	2.4	<1	19000	5.9	120	1.2	19	26	82	0.075	<5	<0.5
NB-SB06-1	1	0.49	<1	18000	<5	95	<0.5	16	21	7.3	<0.02	<5	<0.5
NB-SB06-5	5	18 J	3.5 J	6100	<5	140 J	<0.5	8.2	7	7.4	0.078 J	8.4	<0.5
NB-SB06-10	10	5.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB06-20	20	2.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB06-30	30	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB06-40	40	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB06-50	50	0.57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB07													
NB-SB07-0	0	0.25	<1	19000	5.5	120	2.8	20	29	140	0.068	<5	<0.5
NB-SB07-1	1	6.9	<1	23000	6	200	1.2	21	29	280	0.053	<5	<0.5
Soil Boring NB-SB08													
NB-SB08-0	0	0.065	<1	16000	5.8	120	5.9	19	28	130	<0.02	<5	<0.5
NB-SB08-0A	0	9.8	2.8 J	13000	<5	110	<0.5	12	20	8	<0.02	<5	<0.5
NB-SB08-1A	1	26	8 J	12000	<5	110	<0.5	13	18	<5	<0.02	<5	<0.5
NB-SB08-5A	5	61	10 J	14000	<5	150	<0.5	16	21	<5	<0.02	6.2	<0.5
NB-SB08-10	10	32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB08-20	20	9.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB08-30	30	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB08-40	40	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 17
New Burn Area (OBU) Soil Sample Analytical Results for Inorganics
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Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Aluminum (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	76,000	10	15,000	39	120,000	3,100	400	23	390	390
Soil Boring NB-SB09													
NB-SB09-0	0	0.11	<1	17000	6.2	120	3.9	20	28	650	0.057	<5	<0.5
NB-SB09-1	1	<0.04	<1	18000	5.2	130	1.8	16	26	270	0.035	<5	<0.5
Soil Boring NB-SB10													
NB-SB10-0	0	0.098	<1	19000	<5	160	1.7	17	43	58	0.076	<5	<0.5
NB-SB10-1	1	1.3	3.2 J	20000	<5	130	<0.5	12	36	<5	<0.02	<5	<0.5
NB-SB10-5	5	7	4 J	19000	5.3	130	<0.5	27	27	12	<0.02	<5	<0.5
NB-SB10-10	10	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB10-20	20	6.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB10-30	30	0.33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB10-40	40	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB11													
NB-SB11-0	0	0.91	<1	22000	6	140	2.4	24	30	93	0.069	<5	<0.5
NB-SB11-1	1	0.22	<1	22000	5.7	130	0.63	19	27	23	0.039	<5	<0.5
Soil Boring NB-SB12													
NB-SB12-0	0	3.2	1	21000	6.2	130	5.1	22	28	140	0.053	<5	<0.5
NB-SB12-1	1	0.18	1.3 J	13000	<5	98	<0.5	11	17	<5	<0.02	<5	<0.5
NB-SB12-5	5	41	17 J	18000	6.3	570	<0.5	25	31	6.4	<0.02	<5	<0.5
NB-SB12-10	10	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB12-20	20	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB12-30	30	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB13													
NB-SB13-0	0	0.081	<1	24000	6.7	140	7.9	23	31	100	0.045	<5	<0.5
NB-SB13-1	1	0.11 J	<1	18000	5	150	1.4 J	23	26	20	0.028	<5	<0.5
Soil Boring NB-SB14													
NB-SB14-0	0	<0.04	<1	27000	5.9	160	2.3	22	30	33	0.02	<5	<0.5
NB-SB14-1	1	<0.04	<1	21000	<5	130	0.54	18	22	12	0.029	<5	<0.5
Soil Boring NB-SB15													
NB-SB15-0	0	<0.04	<1	24000	5	160	1.3	21	34	20	0.027	<5	<0.5
NB-SB15-1	1	<0.04	<1	24000	<5	150	<0.5	21	26	7	0.023	<5	<0.5
Soil Boring NB-SB16													
NB-SB16-0	0	<0.04	<1	24000	<5	160	0.82	20	26	17	0.02	<5	<0.5
NB-SB16-1	1	0.05	<1	20000	<5	130	0.59	22	22	8.3	0.024	<5	<0.5
NB-SB16-5	5	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB16-10	10	0.046	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB16-13	13	0.14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB17													
NB-SB17-0	0	<0.04	<1	13000	5.8	120	<0.5	9.8	20	26	<0.02	<5	<0.5
NB-SB17-1	1	<0.04	<1	12000	6.3	89	<0.5	12	21	25	<0.02	<5	<0.5
Soil Boring NB-SB18													
NB-SB18-0	0	<0.04	<1	14000	5.7	110	<0.5	13	23	38	0.041	<5	<0.5
NB-SB18-1	1	<0.04	<1	13000	<5	110	<0.5	11	21	35	0.036	<5	<0.5
Soil Boring NB-SB19													
NB-SB19-0	0	<0.04	<1	15000	7.5	130	<0.5	22	26	37	0.024	<5	<0.5
NB-SB19-1	1	0.049	<1	16000	<5	120	0.5	16	26	15	0.041	<5	<0.5
NB-SB19-5	5	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB19-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB20													
NB-SB20-0	0	<0.04	<1	16000	7.2	130	0.53 J	21	18	45	<0.02	<5	<0.5
NB-SB20-1	1	<0.04	<1	18000	<5	110	<0.5	16	22	5.2	0.023	<5	<0.5
Soil Boring NB-SB21													
NB-SB21-0	0	<0.04	<1	19000	6	110	0.6	17	30	30	0.034	<5	<0.5
NB-SB21-1	1	<0.04	<1	14000	<5	110	<0.5	14	19	<5	0.033	<5	<0.5

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Residential Soil Remediation Level		55	100,000	76,000	10	15,000	39	120,000	3,100	400	23	390	390
Soil Boring NB-SB22													
NB-SB22-0	0	0.48	<1	23000	7.2	130	0.7	22	32	27	0.046	<5	<0.5
NB-SB22-1	1	0.37	<1	21000	6	97	<0.5	16	27	6.6	0.033	<5	<0.5
NB-SB22-5	5	0.071	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB22-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB23													
NB-SB23-0	0	0.09	<1	17000	5.8	130	<0.5	16	23	14	0.032	<5	<0.5
NB-SB23-1	1	<0.04	<1	10000	<5	150	<0.5	10	14	<5	<0.02	<5	<0.5
Soil Boring NB-SB24													
NB-SB24-0	0	0.07	<1	28000	7	140	<0.5	24	33	27	0.032	<5	<0.5
NB-SB24-1	1	<0.04	<1	20000	7.3	92	<0.5	17	29	12	0.038	<5	<0.5
Soil Boring NB-SB25													
NB-SB25-0	0	0.22	<1	18000	<5	99	0.6	17	26	12	0.021	<5	<0.5
NB-SB25-1	1	0.073	<1	17000	5.2	110	<0.5	17	21	6.1	<0.02	<5	<0.5
NB-SB25-5	5	0.16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB25-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB26													
NB-SB26-0	0	<0.04	<1	22000	5.8	130	0.91	19	31	21	0.025	<5	<0.5
NB-SB26-1	1	<0.04	<1	20000	5	140	0.58	17	27	12	<0.02	<5	<0.5
Soil Boring NB-SB27													
NB-SB27-0	0	0.087	<1	19000	5.3	120	1.1	18	26	42	0.078	<5	<0.5
NB-SB27-1	1	<0.04	<1	20000	5	110	0.65	18	25	26	0.03	<5	<0.5
Soil Boring NB-SB28													
NB-SB28-0	0	0.076 J	<1	25000	6.1	150	0.92	23	33	23	0.02	<5	<0.5
NB-SB28-1	1	<0.04	<1	21000	<5	120	0.53	17	31	7.1	<0.02	<5	<0.5
Soil Boring NB-SB29													
NB-SB29-0	0	<0.04	<1	29000	8.3	180	1.1	28	38	48	0.029 J	<5	<0.5
NB-SB29-1	1	<0.04	<1	23000	6.8	130	<0.5	19	35	13	0.033	<5	<0.5
Soil Boring NB-SB30													
NB-SB30-0	0	<0.04	<1	25000	7.4	140	<0.5	25	28	13	0.046	<5	<0.5
NB-SB30-1	1	<0.04	<1	22000	6.3	140	<0.5	23	26	10	0.041	<5	<0.5
Soil Boring NB-SB31													
NB-SB31-0	0	<0.04	<1	16000	5.9	120	<0.5	14	27	13	<0.02	<5	<0.5
NB-SB31-1	1	<0.04	<1	20000	7.6	120	<0.5	17	32	13	0.028	<5	<0.5
Soil Boring NB-SB32													
NB-SB32-0	0	0.086	<1	19000	7.1	140	0.69	19	30	27	0.026	<5	<0.5
NB-SB32-1	1	<0.04	<1	17000	6.1	130	0.51	16	26	16	0.023	<5	<0.5
Soil Boring NB-SB33													
NB-SB33-0	0	0.14	<1	20000	6.4	140	<0.5	20	31	16	0.026	<5	<0.5
NB-SB33-1	1	<0.04	<1	19000	6.6	120	<0.5	18	29	7.7	<0.02	<5	<0.5
Soil Boring NB-SB34													
NB-SB34-0	0	0.28	<1	21000	6.3	130	<0.5	22	29	19	<0.02	<5	<0.5
NB-SB34-1	1	0.2	<1	16000	<5	140	<0.5	14	25	6.7	0.02	5.8	<0.5
NB-SB34-5	5	0.067	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB34-10	10	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB35													
NB-SS35-0	0	0.048	<1	20000	8	120	<0.5	19	26	13	<0.02	<5	<0.5
NB-SB35-1	1	<0.04	<1	20000	5.4	110	<0.5	17	22	9.2	<0.02	<5	<0.5
Soil Boring NB-SB36													
NB-SB36-0	0	<0.04	<1	22000	6.3	130	1.3	18	29	17	<0.02	<5	<0.5
NB-SB36-1	1	<0.04	<1	22000	6.7	150	0.71	18	29	12	<0.02	<5	<0.5
Soil Boring NB-SB37													
NB-SB37-0	0	<0.04	<1	15000	5.8	110	0.63	13	24	50	<0.02	<5	<0.5
NB-SB37-1	1	<0.04	<1	12000	5.1	100	<0.5	10	20	32	<0.02	<5	<0.5
Soil Boring NB-SB38													
NB-SB38-0	0	NA	NA	NA	NA	NA	NA	NA	NA	46	NA	NA	NA

Table 17
New Burn Area (OBU) Soil Sample Analytical Results for Inorganics
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Sample ID	Sample Depth (feet bgs)	Perchlorate (mg/kg)	Nitrate-N (mg/kg)	Aluminum (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
Residential Soil Remediation Level		55	100,000	76,000	10	15,000	39	120,000	3,100	400	23	390	390
Soil Boring NB-SB039													
NB-SB39-0	0	0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB39-10	10	33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB40													
NB-SB40-0	0	0.61	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB40-7	7	1.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB41													
NB-SB41-0	0	0.068	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB41-10	10	0.82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB41-20	20	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB42													
NB-SB42-0	0	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB42-10	10	0.053	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB42-20	20	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB43													
NB-SB43-0	0	0.078	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB43-5	5	54	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB44													
NB-SB44-0	0	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB44-5	5	26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB45													
NB-SB45-0	0	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB45-5	5	<0.04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB46													
NB-SB46-0	0	0.041	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB46-10	10	0.58	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Soil Boring NB-SB47													
NB-SB47-0	0	0.043	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NB-SB47-10	10	0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
bgs = below ground surface
mg/kg = milligrams per kilogram
NA = not analyzed
< = Analyte not reported above the listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value.
UJ = Estimated laboratory detection limit.

Table 18
New Burn Area (OBU) Soil Sample Analytical Results - Explosives and Dioxins
Final Remedial Investigation Report

Analyte	Residential SRL	NB-SB01-0 4/16/2005	NB-SB02-0 4/17/2005	NB-SB03-0 4/17/2005	NB-SB04-0 4/5/2005	NB-SB06-0 4/5/2005	NB-SB08-0 4/5/2005	NB-SB08-0A 4/17/2005	NB-SB10-0 4/5/2005	NB-SB12-0 4/5/2005
Explosives (mg/kg)										
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX)	3,100	<2	<2	<2	<2	<2	<2	<2	<2	<2
Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)	5	<2	<2	<2	<2	<2	<2	<2	<2	<2
Pentaerythritol Tetranitrate (PETN)	NE	<1.5	<1.9	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2
1,3,5-Trinitrobenzene	1800	<2	<2	<2	<2	<2	<2	<2	<2	<2
1,3-Dinitrobenzene	6.1	<2	<2	<2	<2	<2	<2	<2	<2	<2
Methyl-2,4,6-trinitrophenylnitramine (Tetryl)	NE	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nitrobenzene	20	<2	<2	<2	<2	<2	<2	<2	<2	<2
2,4,6-Trinitrotoluene (TNT)	18	<2	<2	<2	<2	<2	<2	<2	<2	<2
4-Amino-2,6-dinitrotoluene	12	<2	<2	<2	<2	<2	<2	<2	<2	<2
2-Amino-4,6-dinitrotoluene	12	<2	<2	<2	<2	<2	<2	<2	<2	<2
2,6-Dinitrotoluene	61	<2	<2	<2	<2	<2	<2	<2	<2	<2
2,4-Dinitrotoluene	120	<2	<2	<2	<2	<2	<2	<2	<2	<2
2-Nitrotoluene	0.93	<2	<2	<2	<2	<2	<2	<2	<2	<2
3-Nitrotoluene	730	<2	<2	<2	<2	<2	<2	<2	<2	<2
4-Nitrotoluene	13	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nitroglycerin	39	<1.5	<1.9	<1.8	<1.8	<1.8	<1.8	<1.8	<1.8	<2

Table 18
New Burn Area (OBU) Soil Sample Analytical Results - Explosives and Dioxins
Final Remedial Investigation Report

Analyte	Residential SRL	NB-SB01-0 4/16/2005	NB-SB02-0 4/17/2005	NB-SB03-0 4/17/2005	NB-SB04-0 4/5/2005	NB-SB06-0 4/5/2005	NB-SB08-0 4/5/2005	NB-SB08-0A 4/17/2005	NB-SB10-0 4/5/2005	NB-SB12-0 4/5/2005
Dioxins (ng/kg)										
2,3,7,8-TCDF	NE	<0.31	<0.56	<0.37	<0.4	<0.24	1.5	<0.82	<0.31	1.2
Total TCDF	NE	NA	NA	NA	7.1	5.1	38	NA	5.1	26
2,3,7,8-TCDD	4.5	<0.36	<0.58	<0.42	<0.22	<0.17	<0.22	<0.91	<0.15	<0.25
Total TCDD	NE	NA	NA	NA	0.51	<0.25	3.2	NA	0.89	5.2
1,2,3,7,8-PeCDF	NE	<0.45	<0.7	<0.41	<1.1	<0.41	3.4 J	<1.2	<0.71	3.5 J
2,3,4,7,8-PeCDF	NE	<0.49	<0.77	<0.43	<1.3	<0.8	4.8 J	<1.3	<1.1	4.9 J
Total PeCDF	NE	NA	NA	NA	<2.3	<2.2	37	NA	<1.9	46
1,2,3,7,8-PeCDD	NE	<0.75	<0.98	<0.62	<0.45	<0.42	<0.58	<1.6	<0.4	<1.1
Total PeCDD	NE	NA	NA	NA	<0.66	<0.69	<1.9	NA	<0.72	10
1,2,3,4,7,8-HxCDF	NE	<0.74	<1	<0.66	<2.4	<1.4	7 J	<1.8	<1.6	12
1,2,3,6,7,8-HxCDF	NE	<0.7	<1	<0.66	<1.6	<1.4	5.2	<1.7	<1.3	6.6
2,3,4,6,7,8-HxCDF	NE	<0.62	<0.93	<0.59	<1.3	<0.88	4.2 J	<1.6	<0.91	5.5
1,2,3,7,8,9-HxCDF	NE	<0.53	<0.8	<0.52	<0.3	<0.4	<0.38	<1.4	<0.26	<0.56
Total HxCDF	NE	NA	NA	NA	3.2	<2.5	38	NA	<1.8	56
1,2,3,4,7,8-HxCDD	NE	<0.86	<1.3	<0.83	<0.46	<0.26	<0.47	<1.9	<0.25	<2
1,2,3,6,7,8-HxCDD	NE	<0.8	<1.1	<0.76	<0.51	<0.41	<0.89	<1.7	<0.47	<2.5
1,2,3,7,8,9-HxCDD	NE	<0.78	<1.1	<0.74	<0.45	<0.8	<0.91	<1.6	<0.59	3.5 J
Total HxCDD	NE	NA	NA	NA	<1.5	<1.2	7.1	NA	<1.4	26
1,2,3,4,6,7,8-HpCDF	NE	<0.34	<1.2	<0.29	6.9	4.1 J	18 J	<1.3	4.8 J	34
1,2,3,4,7,8,9-HpCDF	NE	<0.34	<0.52	<0.34	<1.4	<1	4.1 J	<0.86	<0.88	5.6
Total HpCDF	NE	NA	NA	NA	9.9	4.1	35	NA	4.8	60
1,2,3,4,6,7,8-HpCDD	NE	<0.9	<1.1	<0.46	3.9 J	3.8 J	8.6	<1	<2.3	17
Total HpCDD	NE	NA	NA	NA	7.3	6.8	16	NA	<2.3	35
OCDD	NE	7.3 J	12	<0.89	14	15	24	<3	9.9 J	48
OCDF	NE	<0.55	<0.94	<0.74	11	9 J	30	<2.1	7.5 J	43

Notes:
SRL = Arizona residential Soil Remediation Level
mg/kg = milligrams per kilogram
NA = not analyzed
J = The analyte was positively identified; however, the result should be considered an estimated value.
ng/kg = nanograms per kilogram
< = Analyte not reported above the listed laboratory detection limit.
NE = not established

Table 19a
B-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	BC-SG01-3 7/16/2005	BC-SG02-3 7/16/2005	BC-SG03-3 7/16/2005	BC-SG04-10 5/16/2005	BC-SG05-10 5/14/2005	BC-SG06-10 5/20/2005	BC-SG07-30 5/14/2005	BC-SG07-40 5/14/2005	BC-SG07-50 5/14/2005	BC-SG08-10 5/21/2005	BC-SG09-30 5/22/2005	BC-SG09-40 5/22/2005	BC-SG09-50 5/22/2005	BC-SG10-10 5/20/2005	BC-SG11-10 6/5/2005	BC-SG12-10 5/26/2005	BC-SG15-10 5/25/2005
Depth (feet bgs)	3	3	3	10	10	10	30	40	50	10	30	40	50	10	10	10	10
Volatile Organics Compounds (ppbv)																	
1,1,1-Trichloroethane	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
1,1,2,2-Tetrachloroethane	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
1,1,2-Trichloroethane	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
1,1-Dichloroethane	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
1,1-Dichloroethene	<2.5	<2.5	<1	<10	<10	<10	<10	18	70	13	220	140	2600	400	440	120	380
1,2,4-Trichlorobenzene	<5	<5	<2	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5	<20
1,2,4-Trimethylbenzene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
1,2-Dibromoethane	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
1,2-Dichlorobenzene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
1,2-Dichloroethane	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
1,2-Dichloropropane	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
1,3,5-Trimethylbenzene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
1,3-Butadiene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
1,3-Dichlorobenzene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
1,4-Dichlorobenzene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
2,2,4-Trimethylpentane	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	860	<2.5	<10
2-Butanone (MEK)	7.6	13	5.3	110	380	130	65	93	51	190	90	87	1500 J	160	<20	40	800
2-Hexanone	<5	9.9	<2	22	110	<20	<20	<20	<20	<20	<20	<20	280 J	<20	<20	14	290
2-Propanol	<5	<5	3	<20	<20	<20	32	<20	<20	<20	<20	<20	31 J	<20	<20	<5	<20
4-Ethyltoluene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
4-Methyl-2-pentanone (MIBK)	<5	<5	<2	24	<20	<20	110	74	51	280	<20	<20	<20	<20	25	20	65
Acetone	48	59	82	930	2400	1100	700	<100	700	9300	940	840	13000	1400	180	160	2200
Allyl chloride	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Benzene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Benzyl chloride	<10	<10	<4	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<10	<40
Bromodichloromethane	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Bromoethene(Vinyl Bromide)	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Bromoform	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Bromomethane	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Carbon disulfide	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	29	<10	<10	<10	<10	<10	<2.5	<10
Carbon tetrachloride	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Chlorobenzene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Chloroethane	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Chloroform	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Chloromethane	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
cis-1,2-Dichloroethene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
cis-1,3-Dichloropropene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Cyclohexane	270	180	12	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Dibromochloromethane	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Dichlorodifluoromethane(F-12)	<2.5	<2.5	1.2	<10	72	<10	59	230	470	48	230	140	800	180	35	4.6	<10
Dichlorotetrafluoroethane(F-114)	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Ethyl Acetate	<2.5	<2.5	3	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Ethylbenzene	4.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Heptane	19	8.8	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	15	<2.5	<10
Hexachlorobutadiene	<5	<5	<2	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5	<20
Hexane	<2.5	<2.5	<1	<10	<10	11	21	34	<10	88	22	16	<10	29	15	8.0	<10
m&p-Xylene	15	<5	<2	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5	<20
Methyl tert-butyl ether	<5	<5	<2	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5	<20
Methylene chloride	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10

Table 19a
B-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	BC-SG01-3 7/16/2005	BC-SG02-3 7/16/2005	BC-SG03-3 7/16/2005	BC-SG04-10 5/16/2005	BC-SG05-10 5/14/2005	BC-SG06-10 5/20/2005	BC-SG07-30 5/14/2005	BC-SG07-40 5/14/2005	BC-SG07-50 5/14/2005	BC-SG08-10 5/21/2005	BC-SG09-30 5/22/2005	BC-SG09-40 5/22/2005	BC-SG09-50 5/22/2005	BC-SG10-10 5/20/2005	BC-SG11-10 6/5/2005	BC-SG12-10 5/26/2005	BC-SG15-10 5/25/2005
Depth (feet bgs)	3	3	3	10	10	10	30	40	50	10	30	40	50	10	10	10	10
Volatile Organics Compounds (ppbv)																	
o-Xylene	5.3	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Propene (Propylene)	<2.5	3.1	<1	160	150	270	230	500	130	950	620	360	450 J	430	<10	160	230
Styrene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Tetrachloroethene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	4.8	<10
Tetrahydrofuran	<10	<10	<4	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<10	<40
Toluene	<2.5	<2.5	<1	<10	<10	<10	<10	36	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
trans-1,2-Dichloroethene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
trans-1,3-Dichloropropene	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Trichloroethene	4.4	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Trichlorofluoromethane(F-11)	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Trichlorotrifluoroethane(F-113)	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Vinyl acetate	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10
Vinyl chloride	<2.5	<2.5	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<10

Table 19a
B-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	BC-SG15-20 5/26/2005	BC-SG15-30 5/26/2005	BC-SG16-10 6/1/2005	BC-SG16-20 6/1/2005	BC-SG16-30 6/1/2005	BC-SG17-10 5/31/2005	BC-SG17-20 5/31/2005	BC-SG17-30 5/31/2005	BC-SG18-10 5/25/2005	BC-SG18-20 5/25/2005	BC-SG18-30 5/25/2005	BC-SG19-10 6/5/2005	BC-SG19-20 6/5/2005	BC-SG19-30 6/5/2005	BC-SG20-10 6/3/2005	BC-SG20-20 6/3/2005	BC-SG20-30 6/3/2005
Depth (feet bgs)	20	30	10	20	30	10	20	30	10	20	30	10	20	30	10	20	30
Volatile Organics Compounds (ppbv)																	
1,1,1-Trichloroethane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2-Trichloroethane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethane	<10	32	<10	<10	<10	<1	<10	13	<10	23	76	<10	<10	<10	<10	<10	45
1,1-Dichloroethene	1900	5500	20	31	87	27	500	5000	540	4800	12000	13	66	200	150	410	3900
1,2,4-Trichlorobenzene	<20	<20	<20	<20	<20	<2	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
1,2,4-Trimethylbenzene	<10	<10	<10	<10	15	1.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dibromoethane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dichloroethane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dichloropropane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,3,5-Trimethylbenzene	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,3-Butadiene	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,2,4-Trimethylpentane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	2300	3400	3000	<10	<10	<10
2-Butanone (MEK)	110	<20	<20	170	220	44	110	83	63	590	1700	<20	<20	31	1100	65	200
2-Hexanone	<20	<20	21	45	56	17	27	<20	<20	98	570	<20	<20	<20	<20	<20	45
2-Propanol	<20	<20	<20	<20	<20	3.7	<20	<20	<20	<20	40	<20	<20	<20	<20	<20	<20
4-Ethyltoluene	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (MIBK)	68	77	84	27	180	87	290	140	35	120	61	39	36	100	68	83	350
Acetone	<100	<100	540	900	2200	250	560	460	300	3900	5800	510	620	770	420	300	2100
Allyl chloride	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzene	12	12	<10	<10	17	2.3	<10	<10	<10	<10	<10	<10	<10	11	10	16	33
Benzyl chloride	<40	<40	<40	<40	<40	<4	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40
Bromodichloromethane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromoethene(Vinyl Bromide)	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromoform	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Carbon disulfide	<10	<10	<10	<10	<10	1.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Carbon tetrachloride	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chlorobenzene	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroethane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroform	<10	17	<10	<10	<10	<1	<10	<10	<10	<10	15	<10	<10	<10	<10	<10	<10
Chloromethane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
cis-1,2-Dichloroethene	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
cis-1,3-Dichloropropene	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cyclohexane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dichlorodifluoromethane(F-12)	<10	<10	<10	<10	<10	<1	<10	13	<10	<10	13	<10	<10	14	<10	<10	29
Dichlorotetrafluoroethane(F-114)	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethyl Acetate	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	<10	<10	<10	<10	<10	1.2	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Heptane	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	45	84	<10
Hexachlorobutadiene	<20	<20	<20	<20	<20	<2	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Hexane	55	120	<10	130	190	9.9	53	21	12	<10	50	<10	<10	69	<10	120	130
m&p-Xylene	<20	<20	<20	<20	<20	3.7	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Methyl tert-butyl ether	<20	<20	<20	<20	<20	<2	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Methylene chloride	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	14	<10	<10	<10	<10	<10	21

Table 19a
B-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	BC-SG15-20 5/26/2005	BC-SG15-30 5/26/2005	BC-SG16-10 6/1/2005	BC-SG16-20 6/1/2005	BC-SG16-30 6/1/2005	BC-SG17-10 5/31/2005	BC-SG17-20 5/31/2005	BC-SG17-30 5/31/2005	BC-SG18-10 5/25/2005	BC-SG18-20 5/25/2005	BC-SG18-30 5/25/2005	BC-SG19-10 6/5/2005	BC-SG19-20 6/5/2005	BC-SG19-30 6/5/2005	BC-SG20-10 6/3/2005	BC-SG20-20 6/3/2005	BC-SG20-30 6/3/2005
Depth (feet bgs)	20	30	10	20	30	10	20	30	10	20	30	10	20	30	10	20	30
Volatile Organics Compounds (ppbv)																	
o-Xylene	<10	<10	<10	<10	<10	1.4	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Propene (Propylene)	670	1800	170	510	2700	48	500	<10	150	630	<10	70	170	890	660	610	1800
Styrene	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Tetrachloroethene	<10	23	<10	37 J	10 J	<1	<10	<10	<10	12	28	<10	<10	<10	<10	<10	<10
Tetrahydrofuran	<40	<40	<40	<40	<40	<4	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40
Toluene	13	10	<10	<10	21	3.2	<10	<10	<10	<10	<10	<10	<10	<10	<10	13	17
trans-1,2-Dichloroethene	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
trans-1,3-Dichloropropene	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichloroethene	14	46	<10	32 J	<10 J	<1	<10	<10	<10	19	59	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane(F-11)	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichlorotrifluoroethane(F-113)	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl acetate	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl chloride	<10	<10	<10	<10	<10	<1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Table 19a
B-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	BC-SG21-30 6/4/2005	BC-SG21-40 6/4/2005	BC-SG21-50 6/4/2005	BC-SG22-10 5/23/2005	BC-SG23-10 6/8/2005	BC-SG24-30 5/19/2005	BC-SG24-40 5/19/2005	BC-SG24-50 5/23/2005	BC-SG25-10 6/6/2005	BC-SG26-10 6/6/2005	BC-SG27-10 6/4/2005	BC-SG28-10 6/6/2005	BC-SG29-10 5/20/2005	BC-SG30-30 5/13/2005	BC-SG30-40 5/13/2005	BC-SG30-50 5/13/2005	BC-SG31-30 5/11/2005
Depth (feet bgs)	30	40	50	10	10	30	40	50	10	10	10	10	10	30	40	50	30
Volatile Organics Compounds (ppbv)																	
1,1,1-Trichloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2-Trichloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethane	<10	11	16	<10	<10	<10	<10	10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	18	4800	5000	220	49	260	190	1500	23	<10	<10	<10	170	<10	11	24	<10
1,2,4-Trichlorobenzene	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
1,2,4-Trimethylbenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dibromoethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dichloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dichloropropane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,3,5-Trimethylbenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,3-Butadiene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	130
1,3-Dichlorobenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,2,4-Trimethylpentane	2700	2100 J	4100	<10	720	<10	<10	<10	1600	900	1300	1200	<10	<10	<10	<10	<10
2-Butanone (MEK)	250	1400 J	470	460	<20	1500	830	1100	<20	<20	440	88	100	560	140	410	41
2-Hexanone	<20	<20	<20	150	<20	130	120	240	<20	<20	<20	<20	<20	<20	<20	47	<20
2-Propanol	<20	<20	<20	<20	<20	94	69	40	<20	<20	<20	<20	<20	<20	<20	<20	<20
4-Ethyltoluene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (MIBK)	70	26	75	35	<20	24	290	160	<20	24	<20	95	<20	<20	<20	140	<20
Acetone	340	220 J	400	830	110 J	20000	15000	11000	410	520	<100	1000	1400	3600	870	950	<100
Allyl chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzene	<10	14	19	<10	<10	<10	29	21	<10	<10	<10	22	<10	19	<10	<10	12
Benzyl chloride	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40
Bromodichloromethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromoethene(Vinyl Bromide)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromoform	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Carbon disulfide	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	210
Carbon tetrachloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chlorobenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroform	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloromethane	<10	<10	<10	<10	<10	<10	11	<10	<10	<10	<10	<10	<10	<10	<10	<10	42
cis-1,2-Dichloroethene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
cis-1,3-Dichloropropene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cyclohexane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dichlorodifluoromethane(F-12)	<10	140	140	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	11
Dichlorotetrafluoroethane(F-114)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethyl Acetate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Heptane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	19	11	<10	<10
Hexachlorobutadiene	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Hexane	<10	<10	<10	<10	<10	88	180	220	<10	<10	<10	98	<10	73	23	82	29
m&p-Xylene	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Methyl tert-butyl ether	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Methylene chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Table 19a
B-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	BC-SG21-30 6/4/2005	BC-SG21-40 6/4/2005	BC-SG21-50 6/4/2005	BC-SG22-10 5/23/2005	BC-SG23-10 6/8/2005	BC-SG24-30 5/19/2005	BC-SG24-40 5/19/2005	BC-SG24-50 5/23/2005	BC-SG25-10 6/6/2005	BC-SG26-10 6/6/2005	BC-SG27-10 6/4/2005	BC-SG28-10 6/6/2005	BC-SG29-10 5/20/2005	BC-SG30-30 5/13/2005	BC-SG30-40 5/13/2005	BC-SG30-50 5/13/2005	BC-SG31-30 5/11/2005
Depth (feet bgs)	30	40	50	10	10	30	40	50	10	10	10	10	10	30	40	50	30
Volatile Organics Compounds (ppbv)																	
o-Xylene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Propene (Propylene)	370	<10	<10	200	69	2100	2500	1800	52	50	45	1400	110	1200	770	990	310
Styrene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Tetrachloroethene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Tetrahydrofuran	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40
Toluene	<10	<10	<10	<10	<10	<10	18	12	<10	<10	<10	15	<10	11	<10	<10	<10
trans-1,2-Dichloroethene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
trans-1,3-Dichloropropene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichloroethene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane(F-11)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichlorotrifluoroethane(F-113)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl acetate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Table 19a
B-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	BC-SG31-40 5/13/2005	BC-SG31-50 5/13/2005	BC-SG33-10 5/14/2005	BC-SG34-10 5/14/2005	BC-SG35-10 6/6/2005	BC-SG36-60 2/28/2008	BC-SG36-80 2/28/2008	BC-SG37-20 3/4/2008	BC-SG37-40 3/5/2008	BC-SG37-60 3/5/2008	BC-SG38-20 3/6/2008	BC-SG38-40 3/6/2008	BC-SG38-60 3/10/2008	BC-SG39-60 3/17/2008	BC-SG39-80 3/17/2008	BC-SG40-20 3/8/2008	BC-SG40-40 3/8/2008
Depth (feet bgs)	40	50	10	10	10	60	80	20	40	60	20	40	60	60	80	20	40
Volatile Organics Compounds (ppbv)																	
1,1,1-Trichloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
1,1,2-Trichloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
1,1-Dichloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	34	20	<2.5	<50	<10	<10
1,1-Dichloroethene	12	46	790	250	100	1000	960	<10	<10	370	15	2600	960	3.9	280	44	27
1,2,4-Trichlorobenzene	<20	<20	<20	<20	<20	<40	<40	<40	<40	<40	<40	<40	<40	<10	<200	<40	<40
1,2,4-Trimethylbenzene	<10	<10	<10	<10	<10	10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
1,2-Dibromoethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
1,2-Dichloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
1,2-Dichloropropane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
1,3,5-Trimethylbenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
1,3-Butadiene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
2,2,4-Trimethylpentane	<10	<10	<10	<10	2200	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
2-Butanone (MEK)	48	78	390 J	460	57	<20	73	59	69	90	110	68	<20	27	<100	<20	240
2-Hexanone	<20	<20	96	88	<20	<20	<20	<20	<20	<20	<20	29	<20	5.6	<100	<20	<20
2-Propanol	<20	<20	<20	<20	<20	<40	<40	<40	<40	<40	<40	<40	44	<10	<200	47	<40
4-Ethyltoluene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
4-Methyl-2-pentanone (MIBK)	<20	<20	70	21	26	<20	48	<20	<20	<20	69	23 J	<20	8.6	<100	<20	<20
Acetone	450	1700	1600 J	1500	1700	<100	<100	<100	<100	<100	<100	<100	<100	<25	1800	<100	<100
Allyl chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Benzene	<10	<10	<10	<10	<10	<10	<10	<10	11	16	18	13	<10	2.9	<50	<10	31
Benzyl chloride	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<10	<200	<40	<40
Bromodichloromethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Bromoethene(Vinyl Bromide)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Bromoform	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Bromomethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Carbon disulfide	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5.8	77	<10	10
Carbon tetrachloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Chlorobenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Chloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Chloroform	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Chloromethane	<10	<10	<10	<10	<10	<10	18	32	25	31	<10	<10	<10	<2.5	<50	<10	<10
cis-1,2-Dichloroethene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
cis-1,3-Dichloropropene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Cyclohexane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Dibromochloromethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Dichlorodifluoromethane(F-12)	73	130	52	11	<10	<10	10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Dichlorotetrafluoroethane(F-114)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Ethyl Acetate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Ethylbenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Heptane	<10	15	<10	<10	79	18	<10	52	100	270	<10	<10 UJ	18	<2.5	<50	<10	590
Hexachlorobutadiene	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5	<100	<20	<20
Hexane	16	23	<10	<10	95	56	130	120	250	240	150	80	49	27	170	45	410
m&p-Xylene	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5	<100	<20	<20
Methyl tert-butyl ether	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<5	<100	<20	<20
Methylene chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	25	23	<2.5	<50	<10	<10

Table 19a
B-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	BC-SG31-40 5/13/2005	BC-SG31-50 5/13/2005	BC-SG33-10 5/14/2005	BC-SG34-10 5/14/2005	BC-SG35-10 6/6/2005	BC-SG36-60 2/28/2008	BC-SG36-80 2/28/2008	BC-SG37-20 3/4/2008	BC-SG37-40 3/5/2008	BC-SG37-60 3/5/2008	BC-SG38-20 3/6/2008	BC-SG38-40 3/6/2008	BC-SG38-60 3/10/2008	BC-SG39-60 3/17/2008	BC-SG39-80 3/17/2008	BC-SG40-20 3/8/2008	BC-SG40-40 3/8/2008
Depth (feet bgs)	40	50	10	10	10	60	80	20	40	60	20	40	60	60	80	20	40
Volatile Organics Compounds (ppbv)																	
o-Xylene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Propene (Propylene)	380	350	210	180	190	800	1400	780	3400	2700	1500	1700	310	550	3000	190	11000
Styrene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Tetrachloroethene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Tetrahydrofuran	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<10	<200	<40	<40
Toluene	<10	<10	<10	<10	<10	13	<10	<10	<10	<10	11	<10	<10	16	<50	<10	23
trans-1,2-Dichloroethene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
trans-1,3-Dichloropropene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Trichloroethene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	20	<50	<10	<10
Trichlorofluoromethane(F-11)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Trichlorotrifluoroethane(F-113)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Vinyl acetate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10
Vinyl chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<50	<10	<10

Table 19a
B-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	BC-SG40-60 3/10/2008	BC-SG41-40 3/11/2008	BC-SG41-60 3/11/2008	BC-SG41-80 3/11/2008	BC-SG42-20 3/7/2008	BC-SG42-40 3/7/2008	BC-SG42-60 3/7/2008	BC-SG43-60 3/14/2008	BC-SG43-80 3/14/2008	BC-SG44-20 3/20/2008	BC-SG44-40 3/20/2008	BC-SG44-60 3/20/2008
Depth (feet bgs)	60	40	60	80	20	40	60	60	80	20	40	60
Volatile Organics Compounds (ppbv)												
1,1,1-Trichloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1,2-Trichloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethane	<10	<10	<10	11	<10	<10	<10	<10	<10	<10	<10	<10
1,1-Dichloroethene	16	280	740	6900	14	30	840	50	270	25	140	680
1,2,4-Trichlorobenzene	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40
1,2,4-Trimethylbenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dibromoethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dichloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,2-Dichloropropane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,3,5-Trimethylbenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,3-Butadiene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2,2,4-Trimethylpentane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Butanone (MEK)	<20	<20	39 J	<20	61	48	28	44 J	37 J	110	<20	92
2-Hexanone	<20	<20	<20	<20	<20	27	23	<20	<20	23	<20	23
2-Propanol	46	52	46	49	<40	<40	47	<40	<40	<40	<40	<40
4-Ethyltoluene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone (MIBK)	<20	<20	<20	<20	<20	22	<20	<20	<20	<20	<20	<20
Acetone	<100	<100	<100	<100	<100	<100	<100	<100	<100	3400	470	3000 J
Allyl chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzene	<10	57	160	<10	<10	<10	<10	180	96	<10	<10	42
Benzyl chloride	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40
Bromodichloromethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromoethene(Vinyl Bromide)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromoform	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromomethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Carbon disulfide	<10	<10	<10	<10	<10	<10	<10	<10	<10	420	58	43
Carbon tetrachloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chlorobenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloroform	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Chloromethane	<10	<10	<10	<10	<10	<10	49	<10	<10	<10	<10	<10
cis-1,2-Dichloroethene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
cis-1,3-Dichloropropene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cyclohexane	<10	<10	<10	<10	<10	<10	<10	17	12	13	<10	<10
Dibromochloromethane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dichlorodifluoromethane(F-12)	<10	<10	<10	<10	<10	<10	72	<10	120	<10	<10	35
Dichlorotetrafluoroethane(F-114)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethyl Acetate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	<10	<10	<10	<10	<10	<10	<10	<10	<10	12	<10	<10
Heptane	<10	58	97	<10	19	170	<10	160	83	91	21	50
Hexachlorobutadiene	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Hexane	30	84	130	<10	49	72	59	170	110	150	83	160
m&p-Xylene	<20	<20	<20	<20	<20	<20	<20	<20	<20	31	<20	<20
Methyl tert-butyl ether	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Methylene chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Table 19a
B-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	BC-SG40-60 3/10/2008	BC-SG41-40 3/11/2008	BC-SG41-60 3/11/2008	BC-SG41-80 3/11/2008	BC-SG42-20 3/7/2008	BC-SG42-40 3/7/2008	BC-SG42-60 3/7/2008	BC-SG43-60 3/14/2008	BC-SG43-80 3/14/2008	BC-SG44-20 3/20/2008	BC-SG44-40 3/20/2008	BC-SG44-60 3/20/2008
Depth (feet bgs)	60	40	60	80	20	40	60	60	80	20	40	60
Volatile Organics Compounds (ppbv)												
o-Xylene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Propene (Propylene)	400	560	1700	560	880	850	570	4300	3900	590	860	2700
Styrene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Tetrachloroethene	<10	<10	<10 UJ	<10	<10	<10	<10	<10	<10	<10	<10	<10
Tetrahydrofuran	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40
Toluene	<10	18	55	<10	<10	<10	<10	59 J	33 J	11	<10	26
trans-1,2-Dichloroethene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
trans-1,3-Dichloropropene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichloroethene	<10	<10	14	56	<10	<10	<10	<10	<10	<10	<10	<10
Trichlorofluoromethane(F-11)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Trichlorotrifluoroethane(F-113)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl acetate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Vinyl chloride	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

Notes:
bgs = below ground surface
ppbv = parts per billion by volume
< = Analyte not reported above the listed laboratory detection limit.
J = The analyte was posibitely identified; however, the result should be considered an estimated value.
UJ = Estimated laboratory detection limit.

Table 19b
B-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	BC-SG01-3 7/16/2005	BC-SG02-3 7/16/2005	BC-SG03-3 7/16/2005	BC-SG04-10 5/16/2005	BC-SG05-10 5/14/2005	BC-SG06-10 5/20/2005	BC-SG07-30 5/14/2005	BC-SG07-40 5/14/2005	BC-SG07-50 5/14/2005	BC-SG08-10 5/21/2005	BC-SG09-30 5/22/2005	BC-SG09-40 5/22/2005	BC-SG09-50 5/22/2005	BC-SG10-10 5/20/2005	BC-SG11-10 6/5/2005	BC-SG12-10 5/26/2005	BC-SG15-10 5/25/2005
Depth (feet bgs)	3	3	3	10	10	10	30	40	50	10	30	40	50	10	10	10	10
Volatile Organics Compounds (ug/L)																	
1,1,1-Trichloroethane	<0.014	<0.014	<0.006	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.014	<0.056
1,1,2,2-Tetrachloroethane	<0.017	<0.017	<0.007	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.017	<0.070
1,1,2-Trichloroethane	<0.014	<0.014	<0.006	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.014	<0.056
1,1-Dichloroethane	<0.010	<0.010	<0.004	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.010	<0.041
1,1-Dichloroethene	<0.010	<0.010	<0.004	<0.040	<0.040	<0.040	<0.040	0.073	0.283	0.053	0.889	0.566	11	1.6	1.8	0.485	1.5
1,2,4-Trichlorobenzene	<0.038	<0.038	<0.015	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.038	<0.151
1,2,4-Trimethylbenzene	<0.013	<0.013	<0.005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050
1,2-Dibromoethane	<0.020	<0.020	<0.008	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.020	<0.078
1,2-Dichlorobenzene	<0.015	<0.015	<0.006	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.015	<0.061
1,2-Dichloroethane	<0.010	<0.010	<0.004	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.010	<0.041
1,2-Dichloropropane	<0.012	<0.012	<0.005	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.012	<0.047
1,3,5-Trimethylbenzene	<0.013	<0.013	<0.005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050
1,3-Butadiene	<0.006	<0.006	<0.002	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.006	<0.023
1,3-Dichlorobenzene	<0.015	<0.015	<0.006	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.015	<0.061
1,4-Dichlorobenzene	<0.015	<0.015	<0.006	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.015	<0.061
2,2,4-Trimethylpentane	<0.012	<0.012	<0.005	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	4.1	<0.012	<0.048
2-Butanone (MEK)	0.023	0.039	0.016	0.330	1.1	0.391	0.195	0.279	0.153	0.571	0.270	0.261	4.5 J	0.481	<0.060	0.120	2.4
2-Hexanone	<0.021	0.041	<0.008	0.092	0.459	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	1.2 J	<0.083	<0.083	0.058	1.2
2-Propanol	<0.013	<0.013	0.008	<0.050	<0.050	<0.050	0.080	<0.050	<0.050	<0.050	<0.050	<0.050	0.078 J	<0.050	<0.050	<0.013	<0.050
4-Ethyltoluene	<0.013	<0.013	<0.005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050
4-Methyl-2-pentanone (MIBK)	<0.021	<0.021	<0.008	0.100	<0.083	<0.083	0.459	0.309	0.213	1.2	<0.083	<0.083	<0.083	<0.083	0.104	0.083	0.271
Acetone	0.116	0.143	0.198	2.3	5.8	2.7	1.7	<0.242	1.7	23	2.3	2.0	31	3.4	0.436	0.387	5.3
Allyl chloride	<0.008	<0.008	<0.003	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.008	<0.032
Benzene	<0.008	<0.008	<0.003	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.008	<0.032
Benzyl chloride	<0.053	<0.053	<0.021	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.053	<0.211
Bromodichloromethane	<0.017	<0.017	<0.007	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.017	<0.068
Bromoethene(Vinyl Bromide)	<0.011	<0.011	<0.004	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.011	<0.045
Bromoform	<0.026	<0.026	<0.011	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105
Bromomethane	<0.010	<0.010	<0.004	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.010	<0.040
Carbon disulfide	<0.008	<0.008	<0.003	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	0.092	<0.032	<0.032	<0.032	<0.032	<0.032	<0.008	<0.032
Carbon tetrachloride	<0.016	<0.016	<0.006	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.016	<0.064
Chlorobenzene	<0.012	<0.012	<0.005	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.012	<0.047
Chloroethane	<0.007	<0.007	<0.003	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.007	<0.027
Chloroform	<0.012	<0.012	<0.005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.012	<0.050
Chloromethane	<0.005	<0.005	<0.002	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.005	<0.021
cis-1,2-Dichloroethene	<0.010	<0.010	<0.004	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.010	<0.040
cis-1,3-Dichloropropene	<0.012	<0.012	<0.005	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.012	<0.046
Cyclohexane	0.947	0.631	0.042	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.009	<0.035
Dibromochloromethane	<0.022	<0.022	<0.009	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.022	<0.087
Dichlorodifluoromethane(F-12)	<0.013	<0.013	0.006	<0.050	0.343	<0.050	0.281	1.1	2.2	0.228	1.1	0.666	3.8	0.857	0.167	0.022	<0.050
Dichlorotetrafluoroethane(F-114)	<0.018	<0.018	<0.007	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.018	<0.071
Ethyl Acetate	<0.009	<0.009	0.011	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.009	<0.037
Ethylbenzene	0.020	<0.011	<0.004	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.011	<0.044
Heptane	0.079	0.037	<0.004	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	0.063	<0.010	<0.042
Hexachlorobutadiene	<0.054	<0.054	<0.022	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.054	<0.217
Hexane	<0.009	<0.009	<0.004	<0.036	<0.036	0.039	0.075	0.122	<0.036	0.316	0.079	0.057	<0.036	0.104	0.054	0.029	<0.036
m&p-Xylene	0.066	<0.022	<0.009	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.022	<0.088
Methyl tert-butyl ether	<0.018	<0.018	<0.007	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.018	<0.073
Methylene chloride	<0.009	<0.009	<0.004	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.009	<0.035
o-Xylene	0.023	<0.011	<0.004	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.011	<0.044

Table 19b
B-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	BC-SG01-3 7/16/2005	BC-SG02-3 7/16/2005	BC-SG03-3 7/16/2005	BC-SG04-10 5/16/2005	BC-SG05-10 5/14/2005	BC-SG06-10 5/20/2005	BC-SG07-30 5/14/2005	BC-SG07-40 5/14/2005	BC-SG07-50 5/14/2005	BC-SG08-10 5/21/2005	BC-SG09-30 5/22/2005	BC-SG09-40 5/22/2005	BC-SG09-50 5/22/2005	BC-SG10-10 5/20/2005	BC-SG11-10 6/5/2005	BC-SG12-10 5/26/2005	BC-SG15-10 5/25/2005
Depth (feet bgs)	3	3	3	10	10	10	30	40	50	10	30	40	50	10	10	10	10
Volatile Organics Compounds (ug/L)																	
Propene (Propylene)	<0.004	0.005	<0.002	0.281	0.263	0.473	0.403	0.877	0.228	1.7	1.1	0.631	0.789 J	0.754	<0.018	0.281	0.403
Styrene	<0.011	<0.011	<0.004	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.011	<0.043
Tetrachloroethene	<0.017	<0.017	<0.007	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	0.033	<0.069
Tetrahydrofuran	<0.030	<0.030	<0.012	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.030	<0.120
Toluene	<0.010	<0.010	<0.004	<0.038	<0.038	<0.038	<0.038	0.138	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.010	<0.038
trans-1,2-Dichloroethene	<0.010	<0.010	<0.004	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.010	<0.040
trans-1,3-Dichloropropene	<0.012	<0.012	<0.005	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.012	<0.046
Trichloroethene	0.024	<0.014	<0.005	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.014	<0.055
Trichlorofluoromethane(F-11)	<0.014	<0.014	<0.006	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.014	<0.057
Trichlorotrifluoroethane(F-113)	<0.020	<0.020	<0.008	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.020	<0.078
Vinyl acetate	<0.009	<0.009	<0.004	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.009	<0.036
Vinyl chloride	<0.007	<0.007	<0.003	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.007	<0.026

Table 19b
B-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	BC-SG15-20 5/26/2005	BC-SG15-30 5/26/2005	BC-SG16-10 6/1/2005	BC-SG16-20 6/1/2005	BC-SG16-30 6/1/2005	BC-SG17-10 5/31/2005	BC-SG17-20 5/31/2005	BC-SG17-30 5/31/2005	BC-SG18-10 5/25/2005	BC-SG18-20 5/25/2005	BC-SG18-30 5/25/2005	BC-SG19-10 6/5/2005	BC-SG19-20 6/5/2005	BC-SG19-30 6/5/2005	BC-SG20-10 6/3/2005	BC-SG20-20 6/3/2005	BC-SG20-30 6/3/2005
Depth (feet bgs)	20	30	10	20	30	10	20	30	10	20	30	10	20	30	10	20	30
Volatile Organics Compounds (ug/L)																	
1,1,1-Trichloroethane	<0.056	<0.056	<0.056	<0.056	<0.056	<0.006	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056
1,1,2,2-Tetrachloroethane	<0.070	<0.070	<0.070	<0.070	<0.070	<0.007	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070
1,1,2-Trichloroethane	<0.056	<0.056	<0.056	<0.056	<0.056	<0.006	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056
1,1-Dichloroethane	<0.041	0.132	<0.041	<0.041	<0.041	<0.004	<0.041	0.054	<0.041	0.095	0.313	<0.041	<0.041	<0.041	<0.041	<0.041	0.186
1,1-Dichloroethene	7.7	22	0.081	0.125	0.351	0.109	2.0	20	2.2	19	48	0.053	0.267	0.808	0.606	1.7	16
1,2,4-Trichlorobenzene	<0.151	<0.151	<0.151	<0.151	<0.151	<0.015	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151
1,2,4-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	0.075	0.005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dibromoethane	<0.078	<0.078	<0.078	<0.078	<0.078	<0.008	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078
1,2-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.006	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061
1,2-Dichloroethane	<0.041	<0.041	<0.041	<0.041	<0.041	<0.004	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
1,2-Dichloropropane	<0.047	<0.047	<0.047	<0.047	<0.047	<0.005	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
1,3,5-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Butadiene	<0.023	<0.023	<0.023	<0.023	<0.023	<0.002	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023
1,3-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.006	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061
1,4-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.006	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061
2,2,4-Trimethylpentane	<0.048	<0.048	<0.048	<0.048	<0.048	<0.005	<0.048	<0.048	<0.048	<0.048	<0.048	11	16	14	<0.048	<0.048	<0.048
2-Butanone (MEK)	0.330	<0.060	<0.060	0.511	0.661	0.132	0.330	0.249	0.189	1.8	5.1	<0.060	<0.060	0.093	3.3	0.195	0.601
2-Hexanone	<0.083	<0.083	0.088	0.188	0.234	0.071	0.113	<0.083	<0.083	0.409	2.379	<0.083	<0.083	<0.083	<0.083	<0.083	0.188
2-Propanol	<0.050	<0.050	<0.050	<0.050	<0.050	0.009	<0.050	<0.050	<0.050	<0.050	0.100	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
4-Ethyltoluene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.005	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
4-Methyl-2-pentanone (MIBK)	0.284	0.321	0.351	0.113	0.751	0.363	1.2	0.584	0.146	0.501	0.255	0.163	0.150	0.417	0.284	0.346	1.5
Acetone	<0.242	<0.242	1.3	2.2	5.3	0.605	1.4	1.1	0.726	9.4	14	1.2	1.5	1.9	1.0	0.726	5.1
Allyl chloride	<0.032	<0.032	<0.032	<0.032	<0.032	<0.003	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Benzene	0.039	0.039	<0.032	<0.032	0.055	0.007	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	0.036	0.033	0.052	0.107
Benzyl chloride	<0.211	<0.211	<0.211	<0.211	<0.211	<0.021	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211
Bromodichloromethane	<0.068	<0.068	<0.068	<0.068	<0.068	<0.007	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068
Bromoethene(Vinyl Bromide)	<0.045	<0.045	<0.045	<0.045	<0.045	<0.004	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
Bromoform	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105
Bromomethane	<0.040	<0.040	<0.040	<0.040	<0.040	<0.004	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Carbon disulfide	<0.032	<0.032	<0.032	<0.032	<0.032	0.003	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Carbon tetrachloride	<0.064	<0.064	<0.064	<0.064	<0.064	<0.006	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064
Chlorobenzene	<0.047	<0.047	<0.047	<0.047	<0.047	<0.005	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Chloroethane	<0.027	<0.027	<0.027	<0.027	<0.027	<0.003	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
Chloroform	<0.050	0.085	<0.050	<0.050	<0.050	<0.005	<0.050	<0.050	<0.050	<0.050	0.075	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chloromethane	<0.021	<0.021	<0.021	<0.021	<0.021	<0.002	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021
cis-1,2-Dichloroethene	<0.040	<0.040	<0.040	<0.040	<0.040	<0.004	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
cis-1,3-Dichloropropene	<0.046	<0.046	<0.046	<0.046	<0.046	<0.005	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Cyclohexane	<0.035	<0.035	<0.035	<0.035	<0.035	<0.004	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
Dibromochloromethane	<0.087	<0.087	<0.087	<0.087	<0.087	<0.009	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087
Dichlorodifluoromethane(F-12)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.005	<0.050	0.062	<0.050	<0.050	0.062	<0.050	<0.050	0.067	<0.050	<0.050	0.138
Dichlorotetrafluoroethane(F-114)	<0.071	<0.071	<0.071	<0.071	<0.071	<0.007	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071
Ethyl Acetate	<0.037	<0.037	<0.037	<0.037	<0.037	<0.004	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037
Ethylbenzene	<0.044	<0.044	<0.044	<0.044	<0.044	0.005	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044
Heptane	<0.042	<0.042	<0.042	<0.042	<0.042	<0.004	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	0.188	0.351	<0.042
Hexachlorobutadiene	<0.217	<0.217	<0.217	<0.217	<0.217	<0.022	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217
Hexane	0.197	0.431	<0.036	0.467	0.682	0.036	0.190	0.075	0.043	<0.036	0.180	<0.036	<0.036	0.248	<0.036	0.431	0.467
m&p-Xylene	<0.088	<0.088	<0.088	<0.088	<0.088	0.016	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088
Methyl tert-butyl ether	<0.073	<0.073	<0.073	<0.073	<0.073	<0.007	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073
Methylene chloride	<0.035	<0.035	<0.035	<0.035	<0.035	<0.004	<0.035	<0.035	<0.035	<0.035	0.050	<0.035	<0.035	<0.035	<0.035	<0.035	0.074
o-Xylene	<0.044	<0.044	<0.044	<0.044	<0.044	0.006	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044

Table 19b
B-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	BC-SG15-20 5/26/2005	BC-SG15-30 5/26/2005	BC-SG16-10 6/1/2005	BC-SG16-20 6/1/2005	BC-SG16-30 6/1/2005	BC-SG17-10 5/31/2005	BC-SG17-20 5/31/2005	BC-SG17-30 5/31/2005	BC-SG18-10 5/25/2005	BC-SG18-20 5/25/2005	BC-SG18-30 5/25/2005	BC-SG19-10 6/5/2005	BC-SG19-20 6/5/2005	BC-SG19-30 6/5/2005	BC-SG20-10 6/3/2005	BC-SG20-20 6/3/2005	BC-SG20-30 6/3/2005
Depth (feet bgs)	20	30	10	20	30	10	20	30	10	20	30	10	20	30	10	20	30
Volatile Organics Compounds (ug/L)																	
Propene (Propylene)	1.2	3.2	0.298	0.894	4.7	0.084	0.877	<0.018	0.263	1.1	<0.018	0.123	0.298	1.6	1.2	1.1	3.2
Styrene	<0.043	<0.043	<0.043	<0.043	<0.043	<0.004	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043
Tetrachloroethene	<0.069	0.159	<0.069	0.256 J	0.069 J	<0.007	<0.069	<0.069	<0.069	0.083	0.193	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069
Tetrahydrofuran	<0.120	<0.120	<0.120	<0.120	<0.120	<0.012	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120
Toluene	0.050	0.038	<0.038	<0.038	0.081	0.012	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	0.050	0.065
trans-1,2-Dichloroethene	<0.040	<0.040	<0.040	<0.040	<0.040	<0.004	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
trans-1,3-Dichloropropene	<0.046	<0.046	<0.046	<0.046	<0.046	<0.005	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Trichloroethene	0.077	0.252	<0.055	0.175 J	<0.055 UJ	<0.005	<0.055	<0.055	<0.055	0.104	0.323	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055
Trichlorofluoromethane(F-11)	<0.057	<0.057	<0.057	<0.057	<0.057	<0.006	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057
Trichlorotrifluoroethane(F-113)	<0.078	<0.078	<0.078	<0.078	<0.078	<0.008	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078
Vinyl acetate	<0.036	<0.036	<0.036	<0.036	<0.036	<0.004	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036
Vinyl chloride	<0.026	<0.026	<0.026	<0.026	<0.026	<0.003	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026

Table 19b
B-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	BC-SG21-30 6/4/2005	BC-SG21-40 6/4/2005	BC-SG21-50 6/4/2005	BC-SG22-10 5/23/2005	BC-SG23-10 6/8/2005	BC-SG24-30 5/19/2005	BC-SG24-40 5/19/2005	BC-SG24-50 5/23/2005	BC-SG25-10 6/6/2005	BC-SG26-10 6/6/2005	BC-SG27-10 6/4/2005	BC-SG28-10 6/6/2005	BC-SG29-10 5/20/2005	BC-SG30-30 5/13/2005	BC-SG30-40 5/13/2005	BC-SG30-50 5/13/2005	BC-SG31-30 5/11/2005
Depth (feet bgs)	30	40	50	10	10	30	40	50	10	10	10	10	10	30	40	50	30
Volatile Organics Compounds (ug/L)																	
1,1,1-Trichloroethane	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056
1,1,2,2-Tetrachloroethane	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070
1,1,2-Trichloroethane	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056
1,1-Dichloroethane	<0.041	0.045	0.066	<0.041	<0.041	<0.041	<0.041	0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
1,1-Dichloroethene	0.073	19	20	0.889	0.198	1.1	0.767	6.1	0.093	<0.040	<0.040	<0.040	0.687	<0.040	0.044	0.097	<0.040
1,2,4-Trichlorobenzene	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151
1,2,4-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dibromoethane	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078
1,2-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061
1,2-Dichloroethane	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
1,2-Dichloropropane	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
1,3,5-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Butadiene	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	0.293
1,3-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061
1,4-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061
2,2,4-Trimethylpentane	13	10 J	20	<0.048	3.4	<0.048	<0.048	<0.048	7.6	4.3	6.2	5.7	<0.048	<0.048	<0.048	<0.048	<0.048
2-Butanone (MEK)	0.751	4.2 J	1.4	1.4	<0.060	4.5	2.5	3.3	<0.060	<0.060	1.3	0.264	0.300	1.7	0.421	1.2	0.123
2-Hexanone	<0.083	<0.083	<0.083	0.626	<0.083	0.543	0.501	1.0	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	0.196	<0.083
2-Propanol	<0.050	<0.050	<0.050	<0.050	<0.050	0.235	0.173	0.100	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
4-Ethyltoluene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
4-Methyl-2-pentanone (MIBK)	0.292	0.109	0.313	0.146	<0.083	0.100	1.2	0.668	<0.083	0.100	<0.083	0.396	<0.083	<0.083	<0.083	0.584	<0.083
Acetone	0.823	0.532 J	0.968	2.0	0.266 J	48	36	27	0.992	1.3	<0.242	2.4	3.4	8.7	2.1	2.3	<0.242
Allyl chloride	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Benzene	<0.032	0.046	0.062	<0.032	<0.032	<0.032	0.094	0.068	<0.032	<0.032	<0.032	0.072	<0.032	0.062	<0.032	<0.032	0.039
Benzyl chloride	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211
Bromodichloromethane	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068
Bromoethene(Vinyl Bromide)	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
Bromoform	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105
Bromomethane	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Carbon disulfide	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	0.666
Carbon tetrachloride	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064
Chlorobenzene	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Chloroethane	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
Chloroform	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chloromethane	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	0.023	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	0.088
cis-1,2-Dichloroethene	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
cis-1,3-Dichloropropene	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Cyclohexane	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
Dibromochloromethane	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087
Dichlorodifluoromethane(F-12)	<0.050	0.666	0.666	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.052
Dichlorotetrafluoroethane(F-114)	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071
Ethyl Acetate	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037
Ethylbenzene	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044
Heptane	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	0.079	0.046	<0.042	<0.042
Hexachlorobutadiene	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217
Hexane	<0.036	<0.036	<0.036	<0.036	<0.036	0.316	0.646	0.790	<0.036	<0.036	<0.036	0.352	<0.036	0.262	0.083	0.294	0.104
m&p-Xylene	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088
Methyl tert-butyl ether	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073
Methylene chloride	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
o-Xylene	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044

Table 19b
B-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	BC-SG21-30 6/4/2005	BC-SG21-40 6/4/2005	BC-SG21-50 6/4/2005	BC-SG22-10 5/23/2005	BC-SG23-10 6/8/2005	BC-SG24-30 5/19/2005	BC-SG24-40 5/19/2005	BC-SG24-50 5/23/2005	BC-SG25-10 6/6/2005	BC-SG26-10 6/6/2005	BC-SG27-10 6/4/2005	BC-SG28-10 6/6/2005	BC-SG29-10 5/20/2005	BC-SG30-30 5/13/2005	BC-SG30-40 5/13/2005	BC-SG30-50 5/13/2005	BC-SG31-30 5/11/2005
Depth (feet bgs)	30	40	50	10	10	30	40	50	10	10	10	10	10	30	40	50	30
Volatile Organics Compounds (ug/L)																	
Propene (Propylene)	0.649	<0.018	<0.018	0.351	0.121	3.7	4.4	3.2	0.091	0.088	0.079	2.5	0.193	2.1	1.4	1.7	0.544
Styrene	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043
Tetrachloroethene	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069
Tetrahydrofuran	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120
Toluene	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	0.069	0.046	<0.038	<0.038	<0.038	0.058	<0.038	0.042	<0.038	<0.038	<0.038
trans-1,2-Dichloroethene	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
trans-1,3-Dichloropropene	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Trichloroethene	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055
Trichlorofluoromethane(F-11)	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057
Trichlorotrifluoroethane(F-113)	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078
Vinyl acetate	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036
Vinyl chloride	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026

Table 19b
B-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	BC-SG31-40 5/13/2005	BC-SG31-50 5/13/2005	BC-SG33-10 5/14/2005	BC-SG34-10 5/14/2005	BC-SG35-10 6/6/2005	BC-SG36-60 2/28/2008	BC-SG36-80 2/28/2008	BC-SG37-20 3/4/2008	BC-SG37-40 3/5/2008	BC-SG37-60 3/5/2008	BC-SG38-20 3/6/2008	BC-SG38-40 3/6/2008	BC-SG38-60 3/10/2008	BC-SG39-60 3/17/2008	BC-SG39-80 3/17/2008	BC-SG40-20 3/8/2008	BC-SG40-40 3/8/2008
Depth (feet bgs)	40	50	10	10	10	60	80	20	40	60	20	40	60	60	80	20	40
Volatile Organics Compounds (ug/L)																	
1,1,1-Trichloroethane	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.014	<0.278	<0.056	<0.056
1,1,2,2-Tetrachloroethane	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.017	<0.350	<0.070	<0.070
1,1,2-Trichloroethane	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.014	<0.278	<0.056	<0.056
1,1-Dichloroethane	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	0.140	0.082	<0.010	<0.206	<0.041	<0.041
1,1-Dichloroethene	0.048	0.186	3.2	1.0	0.404	4.0	3.9	<0.040	<0.040	1.5	0.061	11	3.9	0.016	1.1	0.178	0.109
1,2,4-Trichlorobenzene	<0.151	<0.151	<0.151	<0.151	<0.151	<0.302	<0.302	<0.302	<0.302	<0.302	<0.302	<0.302	<0.302	<0.076	<1.5	<0.302	<0.302
1,2,4-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.250	<0.050	<0.050
1,2-Dibromoethane	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.020	<0.391	<0.078	<0.078
1,2-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.015	<0.306	<0.061	<0.061
1,2-Dichloroethane	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.010	<0.206	<0.041	<0.041
1,2-Dichloropropane	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.012	<0.235	<0.047	<0.047
1,3,5-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.250	<0.050	<0.050
1,3-Butadiene	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.006	<0.113	<0.023	<0.023
1,3-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.015	<0.306	<0.061	<0.061
1,4-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.015	<0.306	<0.061	<0.061
2,2,4-Trimethylpentane	<0.048	<0.048	<0.048	<0.048	10	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.012	<0.238	<0.048	<0.048
2-Butanone (MEK)	0.144	0.234	1.2 J	1.4	0.171	<0.060	0.219	0.177	0.207	0.270	0.330	0.204	<0.060	0.081	<0.300	<0.060	0.721
2-Hexanone	<0.083	<0.083	0.401	0.367	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	0.121	<0.083	0.023	<0.417	<0.083	<0.083
2-Propanol	<0.050	<0.050	<0.050	<0.050	<0.050	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	0.110	<0.025	<0.501	0.118	<0.100
4-Ethyltoluene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.250	<0.050	<0.050
4-Methyl-2-pentanone (MIBK)	<0.083	<0.083	0.292	0.088	0.109	<0.083	0.200	<0.083	<0.083	<0.083	0.288	0.096 J	<0.083	0.036	<0.417	<0.083	<0.083
Acetone	1.1	4.1	3.9 J	3.6	4.1	<0.242	<0.242	<0.242	<0.242	<0.242	<0.242	<0.242	<0.242	<0.060	4.4	<0.242	<0.242
Allyl chloride	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.008	<0.159	<0.032	<0.032
Benzene	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	0.036	0.052	0.059	0.042	<0.032	0.009	<0.163	<0.032	0.101
Benzyl chloride	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.053	<1.1	<0.211	<0.211
Bromodichloromethane	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.017	<0.341	<0.068	<0.068
Bromoethene(Vinyl Bromide)	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.011	<0.223	<0.045	<0.045
Bromoform	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105
Bromomethane	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.010	<0.198	<0.040	<0.040
Carbon disulfide	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	0.018	0.244	<0.032	0.032
Carbon tetrachloride	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.016	<0.320	<0.064	<0.064
Chlorobenzene	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.012	<0.234	<0.047	<0.047
Chloroethane	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.007	<0.134	<0.027	<0.027
Chloroform	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.012	<0.249	<0.050	<0.050
Chloromethane	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	0.038	0.067	0.053	0.065	<0.021	<0.021	<0.021	<0.005	<0.105	<0.021	<0.021
cis-1,2-Dichloroethene	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.010	<0.202	<0.040	<0.040
cis-1,3-Dichloropropene	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.012	<0.231	<0.046	<0.046
Cyclohexane	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.009	<0.175	<0.035	<0.035
Dibromochloromethane	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.022	<0.434	<0.087	<0.087
Dichlorodifluoromethane(F-12)	0.347	0.619	0.247	0.052	<0.050	<0.050	0.048	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.252	<0.050	<0.050
Dichlorotetrafluoroethane(F-114)	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.018	<0.356	<0.071	<0.071
Ethyl Acetate	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.009	<0.184	<0.037	<0.037
Ethylbenzene	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.011	<0.221	<0.044	<0.044
Heptane	<0.042	0.063	<0.042	<0.042	0.330	0.075	<0.042	0.217	0.418	1.1	<0.042	<0.042 UJ	0.075	<0.010	<0.209	<0.042	2.5
Hexachlorobutadiene	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.054	<1.087	<0.217	<0.217
Hexane	0.057	0.083	<0.036	<0.036	0.341	0.201	0.467	0.431	0.898	0.862	0.539	0.287	0.176	0.097	0.610	0.162	1.5
m&p-Xylene	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.022	<0.442	<0.088	<0.088
Methyl tert-butyl ether	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.018	<0.367	<0.073	<0.073
Methylene chloride	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	0.088	0.081	<0.009	<0.177	<0.035	<0.035
o-Xylene	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.011	<0.221	<0.044	<0.044

Table 19b
B-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	BC-SG31-40 5/13/2005	BC-SG31-50 5/13/2005	BC-SG33-10 5/14/2005	BC-SG34-10 5/14/2005	BC-SG35-10 6/6/2005	BC-SG36-60 2/28/2008	BC-SG36-80 2/28/2008	BC-SG37-20 3/4/2008	BC-SG37-40 3/5/2008	BC-SG37-60 3/5/2008	BC-SG38-20 3/6/2008	BC-SG38-40 3/6/2008	BC-SG38-60 3/10/2008	BC-SG39-60 3/17/2008	BC-SG39-80 3/17/2008	BC-SG40-20 3/8/2008	BC-SG40-40 3/8/2008
Depth (feet bgs)	40	50	10	10	10	60	80	20	40	60	20	40	60	60	80	20	40
Volatile Organics Compounds (ug/L)																	
Propene (Propylene)	0.666	0.614	0.368	0.316	0.333	1.4	2.5	1.4	6.0	4.7	2.6	3.0	0.544	0.964	5.3	0.333	19
Styrene	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.011	<0.217	<0.043	<0.043
Tetrachloroethene	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.017	<0.345	<0.069	<0.069
Tetrahydrofuran	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.030	<0.6	<0.120	<0.120
Toluene	<0.038	<0.038	<0.038	<0.038	<0.038	0.050	<0.038	<0.038	<0.038	<0.038	0.042	<0.038	<0.038	0.061	<0.192	<0.038	0.088
trans-1,2-Dichloroethene	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.010	<0.202	<0.040	<0.040
trans-1,3-Dichloropropene	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.012	<0.231	<0.046	<0.046
Trichloroethene	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	0.109	<0.274	<0.055	<0.055
Trichlorofluoromethane(F-11)	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.014	<0.286	<0.057	<0.057
Trichlorotrifluoroethane(F-113)	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.020	<0.390	<0.078	<0.078
Vinyl acetate	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.009	<0.179	<0.036	<0.036
Vinyl chloride	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.007	<0.130	<0.026	<0.026

Table 19b
B-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	BC-SG40-60 3/10/2008	BC-SG41-40 3/11/2008	BC-SG41-60 3/11/2008	BC-SG41-80 3/11/2008	BC-SG42-20 3/7/2008	BC-SG42-40 3/7/2008	BC-SG42-60 3/7/2008	BC-SG43-60 3/14/2008	BC-SG43-80 3/14/2008	BC-SG44-20 3/20/2008	BC-SG44-40 3/20/2008	BC-SG44-60 3/20/2008
Depth (feet bgs)	60	40	60	80	20	40	60	60	80	20	40	60
Volatile Organics Compounds (ug/L)												
1,1,1-Trichloroethane	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056
1,1,2,2-Tetrachloroethane	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070
1,1,2-Trichloroethane	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056
1,1-Dichloroethane	<0.041	<0.041	<0.041	0.045	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
1,1-Dichloroethene	0.065	1.1	3.0	28	0.057	0.121	3.4	0.202	1.1	0.101	0.566	2.7
1,2,4-Trichlorobenzene	<0.302	<0.302	<0.302	<0.302	<0.302	<0.302	<0.302	<0.302	<0.302	<0.302	<0.302	<0.302
1,2,4-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dibromoethane	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078
1,2-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061
1,2-Dichloroethane	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041
1,2-Dichloropropane	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
1,3,5-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Butadiene	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023	<0.023
1,3-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061
1,4-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061
2,2,4-Trimethylpentane	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048
2-Butanone (MEK)	<0.060	<0.060	0.117 J	<0.060	0.183	0.144	0.084	0.132 J	0.111 J	0.330	<0.060	0.276
2-Hexanone	<0.083	<0.083	<0.083	<0.083	<0.083	0.113	0.096	<0.083	<0.083	0.096	<0.083	0.096
2-Propanol	0.115	0.130	0.115	0.123	<0.100	<0.100	0.118	<0.100	<0.100	<0.100	<0.100	<0.100
4-Ethyltoluene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
4-Methyl-2-pentanone (MIBK)	<0.083	<0.083	<0.083	<0.083	<0.083	0.092	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083
Acetone	<0.242	<0.242	<0.242	<0.242	<0.242	<0.242	<0.242	<0.242	<0.242	8.2	1.1	7.3 J
Allyl chloride	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032
Benzene	<0.032	0.186	0.521	<0.032	<0.032	<0.032	<0.032	0.586	0.312	<0.032	<0.032	0.137
Benzyl chloride	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211
Bromodichloromethane	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068
Bromoethene(Vinyl Bromide)	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045
Bromoform	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105
Bromomethane	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Carbon disulfide	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	1.3	0.184	0.136
Carbon tetrachloride	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064
Chlorobenzene	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047
Chloroethane	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
Chloroform	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chloromethane	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	0.103	<0.021	<0.021	<0.021	<0.021	<0.021
cis-1,2-Dichloroethene	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
cis-1,3-Dichloropropene	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Cyclohexane	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	0.060	0.042	0.046	<0.035	<0.035
Dibromochloromethane	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087
Dichlorodifluoromethane(F-12)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.343	<0.050	0.571	<0.050	<0.050	0.167
Dichlorotetrafluoroethane(F-114)	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071
Ethyl Acetate	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037	<0.037
Ethylbenzene	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	0.053	<0.044	<0.044
Heptane	<0.042	0.242	0.405	<0.042	0.079	0.710	<0.042	0.668	0.347	0.380	0.088	0.209
Hexachlorobutadiene	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217
Hexane	0.108	0.302	0.467	<0.036	0.176	0.259	0.212	0.610	0.395	0.539	0.298	0.575
m&p-Xylene	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	0.137	<0.088	<0.088
Methyl tert-butyl ether	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073
Methylene chloride	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035
o-Xylene	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044

Table 19b
B-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	BC-SG40-60 3/10/2008	BC-SG41-40 3/11/2008	BC-SG41-60 3/11/2008	BC-SG41-80 3/11/2008	BC-SG42-20 3/7/2008	BC-SG42-40 3/7/2008	BC-SG42-60 3/7/2008	BC-SG43-60 3/14/2008	BC-SG43-80 3/14/2008	BC-SG44-20 3/20/2008	BC-SG44-40 3/20/2008	BC-SG44-60 3/20/2008
Depth (feet bgs)	60	40	60	80	20	40	60	60	80	20	40	60
Volatile Organics Compounds (ug/L)												
Propene (Propylene)	0.701	0.982	3.0	0.982	1.5	1.5	1.0	7.5	6.8	1.0	1.5	4.7
Styrene	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043
Tetrachloroethene	<0.069	<0.069	<0.069 UJ	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069
Tetrahydrofuran	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120
Toluene	<0.038	0.069	0.211	<0.038	<0.038	<0.038	<0.038	0.226 J	0.127 J	0.042	<0.038	0.100
trans-1,2-Dichloroethene	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
trans-1,3-Dichloropropene	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046
Trichloroethene	<0.055	<0.055	0.077	0.307	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055
Trichlorofluoromethane(F-11)	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057
Trichlorotrifluoroethane(F-113)	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078
Vinyl acetate	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036
Vinyl chloride	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026

Notes:
bgs = below ground surface
ppbv = parts per billion by volume

< = Analyte not reported above the listed laboratory detection limit.
J = The analyte was posibitely identified; however, the result should be considered an estimated value.
UJ = Estimated laboratory detection limit.

Table 20a
C-Complex Soil Gas Analytial Results (ppbv)
Final Remedial Investigation Report

Analyte	CC-SG01-30 12/9/2004	CC-SG01-40 12/9/2004	CC-SG01-50 12/9/2004	CC-SG03-10 12/15/2004	CC-SG04-10 12/10/2004	CC-SG05-10 12/15/2004	CC-SG05-20 12/15/2004
Depth (feet bgs)	30	40	50	10	10	10	20
Volatile Organics Compounds (ppbv)							
1,1,1-Trichloroethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,1,2,2-Tetrachloroethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,1,2-Trichloroethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,1-Dichloroethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,1-Dichloroethene	4.6	29	64	<2.5	<2.5	17	<2.5
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<5
1,2,4-Trimethylbenzene	<2.5	<2.5	<2.5	2.6	7.3	4.4	<2.5
1,2-Dibromoethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,2-Dichlorobenzene	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,2-Dichloroethane	4.8	14	11	<2.5	<2.5	<2.5	<2.5
1,2-Dichloropropane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,3,5-Trimethylbenzene	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,3-Butadiene	<2.5	<2.5	<2.5	<2.5	18	100	<2.5
1,3-Dichlorobenzene	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,4-Dichlorobenzene	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
2,2,4-Trimethylpentane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
2-Butanone (MEK)	9.8	41	130	56	40	130	56
2-Hexanone	<5	<5	19	6.4	11	<5	11
2-Propanol	<5	7.2	<5	22	6.9	20	<5
4-Ethyltoluene	<2.5	<2.5	<2.5	<2.5	4.2	6	<2.5
4-Methyl-2-pentanone	<5	<5	<5	<5	<5	<5	<5
Acetone	<25	<25	720	450	100	840	<25
Allyl chloride	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Benzene	<2.5	7.1	8.8	9.7	6.9	95	5
Benzyl chloride	<10	<10	<10	<10	<10	<10	<10
Bromodichloromethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Bromoethene(Vinyl Bromide)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Bromoform	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Bromomethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Carbon disulfide	<2.5	18	8.8	<2.5	99	51	4.3
Carbon tetrachloride	<2.5	<2.5	2.9	<2.5	<2.5	<2.5	<2.5
Chlorobenzene	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Chloroethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Chloroform	<2.5	3.1	4.5	<2.5	<2.5	<2.5	<2.5

Table 20a
C-Complex Soil Gas Analytial Results (ppbv)
Final Remedial Investigation Report

Analyte	CC-SG01-30 12/9/2004	CC-SG01-40 12/9/2004	CC-SG01-50 12/9/2004	CC-SG03-10 12/15/2004	CC-SG04-10 12/10/2004	CC-SG05-10 12/15/2004	CC-SG05-20 12/15/2004
Depth (feet bgs)	30	40	50	10	10	10	20
Volatile Organics Compounds (ppbv)							
Chloromethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
cis-1,2-Dichloroethene	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
cis-1,3-Dichloropropene	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Cyclohexane	<2.5	38 J	<2.5	<2.5	<2.5	<2.5	<2.5
Dibromochloromethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Dichlorodifluoromethane(F-12)	<2.5	2.6	6.6	<2.5	<2.5	6.8	<2.5
Dichlorotetrafluoroethane(F-114)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ethyl Acetate	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ethylbenzene	<2.5	<2.5	<2.5	<2.5	5	27	3.8
Heptane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	48
Hexachlorobutadiene	<5	<5	<5	<5	<5	<5	<5
Hexane	<2.5	25	39	<2.5	6.3	<2.5	18
m&p-Xylene	<5	<5	<5	<5	13	23	6.2
Methyl tert-butyl ether	<5	<5	<5	<5	<5	<5	<5
Methylene chloride	27	43	27	83	160	27	160
o-Xylene	<2.5	<2.5	<2.5	<2.5	5.8	17	3
Propene (Propylene)	62	430	620	54	28	110	96
Styrene	<2.5	<2.5 J	<2.5	<2.5	<2.5	15	<2.5
Tetrachloroethene	<2.5	<2.5	2.9	<2.5	<2.5	<2.5	<2.5
Tetrahydrofuran	<10	<10	<10	<10	<10	<10	<10
Toluene	<2.5	8.4	44	11	16	160	120
trans-1,2-Dichloroethene	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
trans-1,3-Dichloropropene	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Trichloroethene	<2.5	2.7	<2.5	<2.5	<2.5	<2.5	<2.5
Trichlorofluoromethane(F-11)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Trichlorotrifluoroethane(F-113)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Vinyl acetate	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Vinyl chloride	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5

Table 20a
C-Complex Soil Gas Analytial Results (ppbv)
Final Remedial Investigation Report

Analyte	CC-SG05-30 12/15/2004	CC-SG06-30 12/13/2004	CC-SG22-60 3/13/2008	CC-SG22-80 3/13/2008	CC-SG23-39 3/19/2008	CC-SG24-39 3/19/2008
Depth (feet bgs)	30	30	60	80	39	39
Volatile Organics Compounds (ppbv)						
1,1,1-Trichloroethane	<2.5	<2.5	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	<2.5	<2.5	<10	<10	<10	<10
1,1,2-Trichloroethane	<2.5	<2.5	<10	<10	<10	<10
1,1-Dichloroethane	<2.5	<2.5	<10	<10	<10	<10
1,1-Dichloroethene	2.9	33	26	44	<10	100
1,2,4-Trichlorobenzene	<5	<5	<40	<40	<40	<40
1,2,4-Trimethylbenzene	<2.5	<2.5	<10	<10	13	<10
1,2-Dibromoethane	<2.5	<2.5	<10	<10	<10	<10
1,2-Dichlorobenzene	<2.5	<2.5	<10	<10	<10	<10
1,2-Dichloroethane	<2.5	<2.5	<10	<10	<10	<10
1,2-Dichloropropane	<2.5	<2.5	<10	<10	<10	<10
1,3,5-Trimethylbenzene	<2.5	<2.5	<10	<10	<10	<10
1,3-Butadiene	<2.5	<2.5	<10	<10	<10	<10
1,3-Dichlorobenzene	<2.5	<2.5	<10	<10	<10	<10
1,4-Dichlorobenzene	<2.5	<2.5	<10	<10	<10	<10
2,2,4-Trimethylpentane	<2.5	<2.5	<10	<10	<10	<10
2-Butanone (MEK)	220	240	36 J	37 J	120	400
2-Hexanone	<5	21	<20	<20	<20	<20
2-Propanol	8.8	8	<40	<40	<40	91
4-Ethyltoluene	<2.5	<2.5	<10	<10	10	<10
4-Methyl-2-pentanone	7.6	<5	<20	<20	64	39
Acetone	<25	960	390 J	610	5700	8700
Allyl chloride	<2.5	<2.5	<10	<10	<10	<10
Benzene	16	4.8	34	21	590	110
Benzyl chloride	<10	<10	<40	<40	<40	<40
Bromodichloromethane	<2.5	<2.5	<10	<10	<10	<10
Bromoethene(Vinyl Bromide)	<2.5	<2.5	<10	<10	<10	<10
Bromoform	<2.5	<2.5	<10	<10	<10	<10
Bromomethane	<2.5	<2.5	<10	<10	<10	<10
Carbon disulfide	12	3.2	<10	<10	<10	230
Carbon tetrachloride	<2.5	<2.5	<10	<10	<10	<10
Chlorobenzene	<2.5	<2.5	<10	<10	<10	<10
Chloroethane	<2.5	<2.5	<10	<10	<10	<10
Chloroform	<2.5	<2.5	<10	<10	<10	<10

Table 20a
C-Complex Soil Gas Analytial Results (ppbv)
Final Remedial Investigation Report

Analyte	CC-SG05-30 12/15/2004	CC-SG06-30 12/13/2004	CC-SG22-60 3/13/2008	CC-SG22-80 3/13/2008	CC-SG23-39 3/19/2008	CC-SG24-39 3/19/2008
Depth (feet bgs)	30	30	60	80	39	39
Volatile Organics Compounds (ppbv)						
Chloromethane	5.3	<2.5	<10	<10	14	<10
cis-1,2-Dichloroethene	<2.5	<2.5	<10	<10	<10	<10
cis-1,3-Dichloropropene	<2.5	<2.5	<10	<10	<10	<10
Cyclohexane	<2.5	<2.5	<10	<10	93	23
Dibromochloromethane	<2.5	<2.5	<10	<10	<10	<10
Dichlorodifluoromethane(F-12)	<2.5	9.6	<10	18	<10	<10
Dichlorotetrafluoroethane(F-114)	<2.5	<2.5	<10	<10	<10	<10
Ethyl Acetate	<2.5	<2.5	<10	<10	<10	<10
Ethylbenzene	4.4	<2.5	<10	<10	130	27
Heptane	190	49	40	35	510	470
Hexachlorobutadiene	<5	<5	<20	<20	<20	<20
Hexane	90	<2.5	100	84	930	330
m&p-Xylene	11	<5	<20	<20	430	87
Methyl tert-butyl ether	<5	<5	<20	<20	<20	<20
Methylene chloride	460	35	<10	<10	<10	<10
o-Xylene	4.2	<2.5	<10	<10	94	18
Propene (Propylene)	690	210	2000	1700	27000	2000
Styrene	4.6	<2.5	<10	<10	28	<10
Tetrachloroethene	<2.5	<2.5	<10	<10	<10	<10
Tetrahydrofuran	<10	<10	<40	<40	<40	<40
Toluene	450	240	12 J	10 J	200	63
trans-1,2-Dichloroethene	<2.5	<2.5	<10	<10	<10	<10
trans-1,3-Dichloropropene	<2.5	<2.5	<10	<10	<10	<10
Trichloroethene	<2.5	<2.5	<10	<10	51	<10
Trichlorofluoromethane(F-11)	<2.5	<2.5	<10	<10	<10	<10
Trichlorotrifluoroethane(F-113)	<2.5	<2.5	<10	<10	<10	<10
Vinyl acetate	<2.5	<2.5	<10	<10	<10	<10
Vinyl chloride	<2.5	<2.5	<10	<10	<10	<10

Notes:
bgs = below ground surface
ppbv = parts per billion by volume
< = Analyte not reported above the listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value.

Table 20b
C-Complex Soil Gas Analytial Results (ug/L)
Final Remedial Investigation Report

Analyte	CC-SG01-30 12/9/2004	CC-SG01-40 12/9/2004	CC-SG01-50 12/9/2004	CC-SG03-10 12/15/2004	CC-SG04-10 12/10/2004	CC-SG05-10 12/15/2004	CC-SG05-20 12/15/2004
Depth (feet bgs)	30	40	50	10	10	10	20
Volatile Organics Compounds (ug/L)							
1,1,1-Trichloroethane	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014
1,1,2,2-Tetrachloroethane	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017
1,1,2-Trichloroethane	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014
1,1-Dichloroethane	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
1,1-Dichloroethene	0.019	0.117	0.259	<0.010	<0.010	0.069	<0.010
1,2,4-Trichlorobenzene	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038	<0.038
1,2,4-Trimethylbenzene	<0.013	<0.013	<0.013	0.013	0.037	0.022	<0.013
1,2-Dibromoethane	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
1,2-Dichlorobenzene	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
1,2-Dichloroethane	0.020	0.058	0.045	<0.010	<0.010	<0.010	<0.010
1,2-Dichloropropane	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012
1,3,5-Trimethylbenzene	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013
1,3-Butadiene	<0.006	<0.006	<0.006	<0.006	0.041	0.225	<0.006
1,3-Dichlorobenzene	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
1,4-Dichlorobenzene	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2,2,4-Trimethylpentane	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012
2-Butanone (MEK)	0.029	0.123	0.391	0.168	0.120	0.391	0.168
2-Hexanone	<0.021	<0.021	0.079	0.027	0.046	<0.021	0.046
2-Propanol	<0.013	0.018	<0.013	0.055	0.017	0.050	<0.013
4-Ethyltoluene	<0.013	<0.013	<0.013	<0.013	0.021	0.030	<0.013
4-Methyl-2-pentanone	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021	<0.021
Acetone	<0.060	<0.060	1.7	1.1	0.242	2.0	<0.060
Allyl chloride	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Benzene	<0.008	0.023	0.029	0.032	0.022	0.309	0.016
Benzyl chloride	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053	<0.053
Bromodichloromethane	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017
Bromoethene(Vinyl Bromide)	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011
Bromoform	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026
Bromomethane	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Carbon disulfide	<0.008	0.057	0.028	<0.008	0.314	0.162	0.014
Carbon tetrachloride	<0.016	<0.016	0.019	<0.016	<0.016	<0.016	<0.016
Chlorobenzene	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012
Chloroethane	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007
Chloroform	<0.012	0.015	0.022	<0.012	<0.012	<0.012	<0.012

Table 20b
C-Complex Soil Gas Analytial Results (ug/L)
Final Remedial Investigation Report

Analyte	CC-SG01-30 12/9/2004	CC-SG01-40 12/9/2004	CC-SG01-50 12/9/2004	CC-SG03-10 12/15/2004	CC-SG04-10 12/10/2004	CC-SG05-10 12/15/2004	CC-SG05-20 12/15/2004
Depth (feet bgs)	30	40	50	10	10	10	20
Volatile Organics Compounds (ug/L)							
Chloromethane	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,2-Dichloroethene	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
cis-1,3-Dichloropropene	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012
Cyclohexane	<0.009	0.133 J	<0.009	<0.009	<0.009	<0.009	<0.009
Dibromochloromethane	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022	<0.022
Dichlorodifluoromethane(F-12)	<0.013	0.013	0.033	<0.013	<0.013	0.034	<0.013
Dichlorotetrafluoroethane(F-114)	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018
Ethyl Acetate	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
Ethylbenzene	<0.011	<0.011	<0.011	<0.011	0.022	0.119	0.017
Heptane	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.200
Hexachlorobutadiene	<0.054	<0.054	<0.054	<0.054	<0.054	<0.054	<0.054
Hexane	<0.009	0.090	0.140	<0.009	0.023	<0.009	0.065
m&p-Xylene	<0.022	<0.022	<0.022	<0.022	0.058	0.102	0.027
Methyl tert-butyl ether	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018
Methylene chloride	0.096	0.152	0.096	0.294	0.566	0.096	0.566
o-Xylene	<0.011	<0.011	<0.011	<0.011	0.026	0.075	0.013
Propene (Propylene)	0.109	0.754	1.1	0.095	0.049	0.193	0.168
Styrene	<0.011	<0.11 UJ	<0.011	<0.011	<0.011	0.065	<0.011
Tetrachloroethene	<0.017	<0.017	0.020	<0.017	<0.017	<0.017	<0.017
Tetrahydrofuran	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Toluene	<0.010	0.032	0.169	0.042	0.061	0.614	0.461
trans-1,2-Dichloroethene	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
trans-1,3-Dichloropropene	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012
Trichloroethene	<0.014	0.015	<0.014	<0.014	<0.014	<0.014	<0.014
Trichlorofluoromethane(F-11)	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014	<0.014
Trichlorotrifluoroethane(F-113)	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Vinyl acetate	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009	<0.009
Vinyl chloride	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007

Table 20b
C-Complex Soil Gas Analytial Results (ug/L)
Final Remedial Investigation Report

Analyte	CC-SG05-30 12/15/2004	CC-SG06-30 12/13/2004	CC-SG22-60 3/13/2008	CC-SG22-80 3/13/2008	CC-SG23-39 3/19/2008	CC-SG24-39 3/19/2008
Depth (feet bgs)	30	30	60	80	39	39
Volatile Organics Compounds (ug/L)						
1,1,1-Trichloroethane	<0.014	<0.014	<0.056	<0.056	<0.056	<0.056
1,1,2,2-Tetrachloroethane	<0.017	<0.017	<0.070	<0.070	<0.070	<0.070
1,1,2-Trichloroethane	<0.014	<0.014	<0.056	<0.056	<0.056	<0.056
1,1-Dichloroethane	<0.010	<0.010	<0.041	<0.041	<0.041	<0.041
1,1-Dichloroethene	0.012	0.133	0.105	0.178	<0.040	<0.040
1,2,4-Trichlorobenzene	<0.038	<0.038	<0.302	<0.302	<0.302	<0.302
1,2,4-Trimethylbenzene	<0.013	<0.013	<0.050	<0.050	0.065	<0.050
1,2-Dibromoethane	<0.020	<0.020	<0.078	<0.078	<0.078	<0.078
1,2-Dichlorobenzene	<0.015	<0.015	<0.061	<0.061	<0.061	<0.061
1,2-Dichloroethane	<0.010	<0.010	<0.041	<0.041	<0.041	<0.041
1,2-Dichloropropane	<0.012	<0.012	<0.047	<0.047	<0.047	<0.047
1,3,5-Trimethylbenzene	<0.013	<0.013	<0.050	<0.050	<0.050	<0.050
1,3-Butadiene	<0.006	<0.006	<0.023	<0.023	<0.023	<0.023
1,3-Dichlorobenzene	<0.015	<0.015	<0.061	<0.061	<0.061	<0.061
1,4-Dichlorobenzene	<0.015	<0.015	<0.061	<0.061	<0.061	<0.061
2,2,4-Trimethylpentane	<0.012	<0.012	<0.048	<0.048	<0.048	<0.048
2-Butanone (MEK)	0.661	0.721	0.108 J	0.111 J	0.361	1.2
2-Hexanone	<0.021	0.088	<0.083	<0.083	<0.083	<0.083
2-Propanol	0.022	0.020	<0.100	<0.100	<0.100	0.228
4-Ethyltoluene	<0.013	<0.013	<0.050	<0.050	0.050	<0.050
4-Methyl-2-pentanone	0.032	<0.021	<0.083	<0.083	0.267	0.163
Acetone	<0.060	2.3	0.944 J	1.5	14	21
Allyl chloride	<0.008	<0.008	<0.032	<0.032	<0.032	<0.032
Benzene	0.052	0.016	0.111	0.068	1.9	0.358
Benzyl chloride	<0.053	<0.053	<0.211	<0.211	<0.211	<0.211
Bromodichloromethane	<0.017	<0.017	<0.068	<0.068	<0.068	<0.068
Bromoethene(Vinyl Bromide)	<0.011	<0.011	<0.045	<0.045	<0.045	<0.045
Bromoform	<0.026	<0.026	<0.105	<0.105	<0.105	<0.105
Bromomethane	<0.010	<0.010	<0.040	<0.040	<0.040	<0.040
Carbon disulfide	0.038	0.010	<0.032	<0.032	<0.032	0.730
Carbon tetrachloride	<0.016	<0.016	<0.064	<0.064	<0.064	<0.064
Chlorobenzene	<0.012	<0.012	<0.047	<0.047	<0.047	<0.047
Chloroethane	<0.007	<0.007	<0.027	<0.027	<0.027	<0.027
Chloroform	<0.012	<0.012	<0.050	<0.050	<0.050	<0.050

Table 20b
C-Complex Soil Gas Analytial Results (ug/L)
Final Remedial Investigation Report

Analyte	CC-SG05-30 12/15/2004	CC-SG06-30 12/13/2004	CC-SG22-60 3/13/2008	CC-SG22-80 3/13/2008	CC-SG23-39 3/19/2008	CC-SG24-39 3/19/2008
Depth (feet bgs)	30	30	60	80	39	39
Volatile Organics Compounds (ug/L)						
Chloromethane	0.011	<0.005	<0.021	<0.021	0.029	<0.021
cis-1,2-Dichloroethene	<0.010	<0.010	<0.040	<0.040	<0.040	<0.040
cis-1,3-Dichloropropene	<0.012	<0.012	<0.046	<0.046	<0.046	<0.046
Cyclohexane	<0.009	<0.009	<0.035	<0.035	0.326	0.081
Dibromochloromethane	<0.022	<0.022	<0.087	<0.087	<0.087	<0.087
Dichlorodifluoromethane(F-12)	<0.013	0.048	<0.050	0.091	<0.050	<0.050
Dichlorotetrafluoroethane(F-114)	<0.018	<0.018	<0.071	<0.071	<0.071	<0.071
Ethyl Acetate	<0.009	<0.009	<0.037	<0.037	<0.037	<0.037
Ethylbenzene	0.019	<0.011	<0.044	<0.044	0.575	0.119
Heptane	0.793	0.205	0.167	0.146	2.1	2.0
Hexachlorobutadiene	<0.054	<0.054	<0.217	<0.217	<0.217	<0.217
Hexane	0.323	<0.009	0.359	0.302	3.3	1.2
m&p-Xylene	0.049	<0.022	<0.088	<0.088	1.9	0.385
Methyl tert-butyl ether	<0.018	<0.018	<0.073	<0.073	<0.073	<0.073
Methylene chloride	1.6	0.124	<0.035	<0.035	<0.035	<0.035
o-Xylene	0.019	<0.011	<0.044	<0.044	0.416	0.080
Propene (Propylene)	1.2	0.368	3.5	3.0	47	3.5
Styrene	0.020	<0.011	<0.043	<0.043	0.122	<0.043
Tetrachloroethene	<0.017	<0.017	<0.069	<0.069	<0.069	<0.069
Tetrahydrofuran	<0.030	<0.030	<0.120	<0.120	<0.120	<0.120
Toluene	1.7	0.921	0.046 J	0.038 J	0.768	0.242
trans-1,2-Dichloroethene	<0.010	<0.010	<0.040	<0.040	<0.040	<0.040
trans-1,3-Dichloropropene	<0.012	<0.012	<0.046	<0.046	<0.046	<0.046
Trichloroethene	<0.014	<0.014	<0.055	<0.055	0.279	<0.055
Trichlorofluoromethane(F-11)	<0.014	<0.014	<0.057	<0.057	<0.057	<0.057
Trichlorotrifluoroethane(F-113)	<0.020	<0.020	<0.078	<0.078	<0.078	<0.078
Vinyl acetate	<0.009	<0.009	<0.036	<0.036	<0.036	<0.036
Vinyl chloride	<0.007	<0.007	<0.026	<0.026	<0.026	<0.026

Notes:
bgs = below ground surface
ug/L = micrograms per liter
< = Analyte not reported above the listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value.
UJ = Estimated laboratory detection limit.

Table 21a
Old Burn Area Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	OB-SG01-10 2/8/2005	OB-SG02-10 2/8/2005	OB-SG49-10 3/11/2008	OB-SG49-20 3/12/2008
Depth (feet bgs)	10	10	10	20
Volatile Organics Compounds (ppbv)				
1,1,1-Trichloroethane	<10	<10	<2.5	<10
1,1,2,2-Tetrachloroethane	<10	<10	<2.5	<10
1,1,2-Trichloroethane	<10	<10	<2.5	<10
1,1-Dichloroethane	<10	<10	<2.5	<10
1,1-Dichloroethene	14	<10	3.3	<10
1,2,4-Trichlorobenzene	<20	<20	<10	<40
1,2,4-Trimethylbenzene	<10	<10	<2.5	<10
1,2-Dibromoethane	<10	<10	<2.5	<10
1,2-Dichlorobenzene	<10	<10	<2.5	<10
1,2-Dichloroethane	<10	<10	<2.5	<10
1,2-Dichloropropane	<10	<10	<2.5	<10
1,3,5-Trimethylbenzene	<10	<10	<2.5	<10
1,3-Butadiene	26	72 J	<2.5	<10
1,3-Dichlorobenzene	<10	<10	<2.5	<10
1,4-Dichlorobenzene	<10	<10	<2.5	<10
2,2,4-Trimethylpentane	<10	13	<2.5	<10
2-Butanone (MEK)	41	2900	38	42
2-Hexanone	<20	<20	8	<20
2-Propanol	<20	30 J	24	<40
4-Ethyltoluene	<10	<10	<2.5	<10
4-Methyl-2-pentanone	<20	<20	7.5	<20
Acetone	430	640 J	<25	<100
Allyl chloride	<10	<10	<2.5	<10
Benzene	50	91 J	2.9	37
Benzyl chloride	<40	<40	<10	<40
Bromodichloromethane	<10	<10	<2.5	<10
Bromoethene(Vinyl Bromide)	<10	<10	<2.5	<10
Bromoform	<10	<10	<2.5	<10
Bromomethane	<10	<10	<2.5	<10
Carbon disulfide	<10	<10	<2.5	<10
Carbon tetrachloride	<10	<10	<2.5	<10
Chlorobenzene	<10	<10	<2.5	<10
Chloroethane	<10	<10	<2.5	<10
Chloroform	<10	<10	<2.5	<10
Chloromethane	12	10	3.4	11
cis-1,2-Dichloroethene	<10	<10	<2.5	<10
cis-1,3-Dichloropropene	<10	<10	<2.5	<10
Cyclohexane	<10	<10	<2.5	<10
Dibromochloromethane	<10	<10	<2.5	<10
Dichlorodifluoromethane(F-12)	<10	<10	<2.5	<10
Dichlorotetrafluoroethane(F-114)	<10	<10	<2.5	<10
Ethyl Acetate	<10	<10	<2.5	<10
Ethylbenzene	<10	<10	<2.5	<10
Heptane	<10	510 J	<2.5	140
Hexachlorobutadiene	<50	<50	<5	<20
Hexane	<10	<10	6	140
m&p-Xylene	<20	<20	5.2	<20

Table 21a
Old Burn Area Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	OB-SG01-10 2/8/2005	OB-SG02-10 2/8/2005	OB-SG49-10 3/11/2008	OB-SG49-20 3/12/2008
Depth (feet bgs)	10	10	10	20
Volatile Organics Compounds (ppbv)				
Methyl tert-butyl ether	<20	<20	<5	<20
Methylene chloride	<10	<10	<2.5	<10
o-Xylene	<10	<10	3.2	<10
Propene (Propylene)	140	280 J	160	1100
Styrene	<10	<10	<2.5	<10
Tetrachloroethene	<10	<10	<2.5	<10
Tetrahydrofuran	<40	210 J	<10	<40
Toluene	13	7800 J	4.9	17
trans-1,2-Dichloroethene	<10	<10	<2.5	<10
trans-1,3-Dichloropropene	<10	<10	<2.5	<10
Trichloroethene	<10	<10	<2.5	<10
Trichlorofluoromethane(F-11)	<10	<10	<2.5	<10
Trichlorotrifluoroethane(F-113)	<10	<10	<2.5	<10
Vinyl acetate	<10	<10	<2.5	<10
Vinyl chloride	<10	<10	<2.5	<10

Notes:
bgs = below ground surface
ppbv = parts per billion by volume
J = The analyte was positively identified; however, the result should be considered an estimated valuebe considered an estimated value
< = Analyte not reported above listed laboratory detection limit.

Table 21b
Old Burn Area Soil Gas Analytical Results (µg/L)
Final Remedial Investigation Report

Parameter	OB-SG01-10 2/8/2005	OB-SG02-10 2/8/2005	OB-SG49-10 3/11/2008	OB-SG49-20 3/12/2008
Depth (feet bgs)	10	10	10	20
Volatile Organics Compounds (ug/L)				
1,1,1-Trichloroethane	<0.056	<0.056	<0.014	<0.056
1,1,2,2-Tetrachloroethane	<0.070	<0.070	<0.017	<0.070
1,1,2-Trichloroethane	<0.056	<0.056	<0.014	<0.056
1,1-Dichloroethane	<0.041	<0.041	<0.010	<0.041
1,1-Dichloroethene	0.057	<0.040	0.013	<0.040
1,2,4-Trichlorobenzene	<0.151	<0.151	<0.076	<0.302
1,2,4-Trimethylbenzene	<0.050	<0.050	<0.013	<0.050
1,2-Dibromoethane	<0.078	<0.078	<0.020	<0.078
1,2-Dichlorobenzene	<0.061	<0.061	<0.015	<0.061
1,2-Dichloroethane	<0.041	<0.041	<0.010	<0.041
1,2-Dichloropropane	<0.047	<0.047	<0.012	<0.047
1,3,5-Trimethylbenzene	<0.050	<0.050	<0.013	<0.050
1,3-Butadiene	0.059	0.162 J	<0.006	<0.023
1,3-Dichlorobenzene	<0.061	<0.061	<0.015	<0.061
1,4-Dichlorobenzene	<0.061	<0.061	<0.015	<0.061
2,2,4-Trimethylpentane	<0.048	0.062	<0.012	<0.048
2-Butanone (MEK)	0.123	8.7	0.114	0.126
2-Hexanone	<0.083	<0.083	0.033	<0.083
2-Propanol	<0.050	0.075 J	0.060	<0.100
4-Ethyltoluene	<0.050	<0.050	<0.013	<0.050
4-Methyl-2-pentanone	<0.083	<0.083	0.031	<0.083
Acetone	1.0	1.6 J	<0.060	<0.242
Allyl chloride	<0.032	<0.032	<0.008	<0.032
Benzene	0.163	0.296 J	0.009	0.120
Benzyl chloride	<0.211	<0.211	<0.053	<0.211
Bromodichloromethane	<0.068	<0.068	<0.017	<0.068
Bromoethene(Vinyl Bromide)	<0.045	<0.045	<0.011	<0.045
Bromoform	<0.105	<0.105	<0.026	<0.105
Bromomethane	<0.040	<0.040	<0.010	<0.040
Carbon disulfide	<0.032	<0.032	<0.008	<0.032
Carbon tetrachloride	<0.064	<0.064	<0.016	<0.064
Chlorobenzene	<0.047	<0.047	<0.012	<0.047
Chloroethane	<0.027	<0.027	<0.007	<0.027
Chloroform	<0.050	<0.050	<0.012	<0.050
Chloromethane	0.025	0.021	0.007	0.023
cis-1,2-Dichloroethene	<0.040	<0.040	<0.010	<0.040
cis-1,3-Dichloropropene	<0.046	<0.046	<0.012	<0.046
Cyclohexane	<0.035	<0.035	<0.009	<0.035
Dibromochloromethane	<0.087	<0.087	<0.022	<0.087
Dichlorodifluoromethane(F-12)	<0.050	<0.050	<0.013	<0.050
Dichlorotetrafluoroethane(F-114)	<0.071	<0.071	<0.018	<0.071
Ethyl Acetate	<0.037	<0.037	<0.009	<0.037
Ethylbenzene	<0.044	<0.044	<0.011	<0.044
Heptane	<0.042	2.1 J	<0.010	0.585
Hexachlorobutadiene	<0.543	<0.543	<0.054	<0.217
Hexane	<0.036	<0.036	0.022	0.503
m&p-Xylene	<0.088	<0.088	0.023	<0.088

Table 21b
Old Burn Area Soil Gas Analytical Results (µg/L)
Final Remedial Investigation Report

Parameter	OB-SG01-10 2/8/2005	OB-SG02-10 2/8/2005	OB-SG49-10 3/11/2008	OB-SG49-20 3/12/2008
Depth (feet bgs)	10	10	10	20
Volatile Organics Compounds (ug/L)				
Methyl tert-butyl ether	<0.073	<0.073	<0.018	<0.073
Methylene chloride	<0.035	<0.035	<0.009	<0.035
o-Xylene	<0.044	<0.044	0.014	<0.044
Propene (Propylene)	0.245	0.491 J	0.281	1.9
Styrene	<0.043	<0.043	<0.011	<0.043
Tetrachloroethene	<0.069	<0.069	<0.017	<0.069
Tetrahydrofuran	<0.120	0.631 J	<0.030	<0.120
Toluene	0.050	30 J	0.019	0.065
trans-1,2-Dichloroethene	<0.040	<0.040	<0.010	<0.040
trans-1,3-Dichloropropene	<0.046	<0.046	<0.012	<0.046
Trichloroethene	<0.055	<0.055	<0.014	<0.055
Trichlorofluoromethane(F-11)	<0.057	<0.057	<0.014	<0.057
Trichlorotrifluoroethane(F-113)	<0.078	<0.078	<0.020	<0.078
Vinyl acetate	<0.036	<0.036	<0.009	<0.036
Vinyl chloride	<0.026	<0.026	<0.007	<0.026

Notes:
bgs = below ground surface
µg/L = micrograms per liter
J = The analyte was positively identified; however, the result should be considered an estimated valuebe considered an estimated value
< = Analyte not reported above listed laboratory detection limit.

Table 22a
Waterbore Area Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	WB-SG13-20 2/26/2008	WB-SG13-40 2/26/2008
Depth (feet bgs)	20	40
Volatile Organic Compounds (ppbv)		
1,1,1-Trichloroethane	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10
1,1,2-Trichloroethane	<10	<10
1,1-Dichloroethane	<10	<10
1,1-Dichloroethene	<10	<10
1,2,4-Trichlorobenzene	<40	<40
1,2,4-Trimethylbenzene	<10	<10
1,2-Dibromoethane	<10	<10
1,2-Dichlorobenzene	<10	<10
1,2-Dichloroethane	<10	<10
1,2-Dichloropropane	<10	<10
1,3,5-Trimethylbenzene	<10	<10
1,3-Butadiene	<10	<10
1,3-Dichlorobenzene	<10	<10
1,4-Dichlorobenzene	<10	<10
2,2,4-Trimethylpentane	<10	<10
2-Butanone (MEK)	50	29
2-Hexanone	<20	<20
2-Propanol	<40	<40
4-Ethyltoluene	<10	<10
4-Methyl-2-pentanone	100	<20
Acetone	<100	<100
Allyl chloride	<10	<10
Benzene	<10	11
Benzyl chloride	<40	<40
Bromodichloromethane	<10	<10
Bromoethene(Vinyl Bromide)	<10	<10
Bromoform	<10	<10
Bromomethane	<10	<10
Carbon disulfide	<10	<10
Carbon tetrachloride	<10	<10
Chlorobenzene	<10	<10
Chloroethane	<10	<10
Chloroform	<10	<10
Chloromethane	<10	12
cis-1,2-Dichloroethene	<10	<10
cis-1,3-Dichloropropene	<10	<10
Cyclohexane	<10	<10
Dibromochloromethane	<10	<10
Dichlorodifluoromethane(F-12)	<10	<10
Dichlorotetrafluoroethane(F-114)	<10	<10
Ethyl Acetate	<10	<10

Table 22a
Waterbore Area Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	WB-SG13-20 2/26/2008	WB-SG13-40 2/26/2008
Depth (feet bgs)	20	40
Volatile Organic Compounds (ppbv)		
Ethylbenzene	<10	<10
Heptane	15	<10
Hexachlorobutadiene	<20	<20
Hexane	<10	100
m&p-Xylene	<20	<20
Methyl tert-butyl ether	<20	<20
Methylene chloride	<10	<10
o-Xylene	<10	<10
Propene (Propylene)	280	990
Styrene	<10	<10
Tetrachloroethene	<10	<10
Tetrahydrofuran	<40	<40
Toluene	10	15
trans-1,2-Dichloroethene	<10	<10
trans-1,3-Dichloropropene	<10	<10
Trichloroethene	<10	<10
Trichlorofluoromethane(F-11)	<10	<10
Trichlorotrifluoroethane(F-113)	<10	<10
Vinyl acetate	<10	<10
Vinyl chloride	<10	<10

Notes:
bgs = below ground surface
ppbv = parts per billion by volume
< = Analyte not reported above listed laboratory detection limit.

Table 22b
Waterbore Area Soil Gas Analytical Results (µg/L)
Final Remedial Investigation Report

Parameter	WB-SG13-20 2/26/2008	WB-SG13-40 2/26/2008
Depth (feet bgs)	20	40
Volatile Organic Compounds (ug/L)		
1,1,1-Trichloroethane	<0.056	<0.056
1,1,2,2-Tetrachloroethane	<0.070	<0.070
1,1,2-Trichloroethane	<0.056	<0.056
1,1-Dichloroethane	<0.041	<0.041
1,1-Dichloroethene	<0.040	<0.040
1,2,4-Trichlorobenzene	<0.302	<0.302
1,2,4-Trimethylbenzene	<0.050	<0.050
1,2-Dibromoethane	<0.078	<0.078
1,2-Dichlorobenzene	<0.061	<0.061
1,2-Dichloroethane	<0.041	<0.041
1,2-Dichloropropane	<0.047	<0.047
1,3,5-Trimethylbenzene	<0.050	<0.050
1,3-Butadiene	<0.023	<0.023
1,3-Dichlorobenzene	<0.061	<0.061
1,4-Dichlorobenzene	<0.061	<0.061
2,2,4-Trimethylpentane	<0.048	<0.048
2-Butanone (MEK)	0.150	0.087
2-Hexanone	<0.083	<0.083
2-Propanol	<0.100	<0.100
4-Ethyltoluene	<0.050	<0.050
4-Methyl-2-pentanone	0.417	<0.167
Acetone	<0.242	<0.242
Allyl chloride	<0.032	<0.032
Benzene	<0.033	0.036
Benzyl chloride	<0.211	<0.211
Bromodichloromethane	<0.068	<0.068
Bromoethene(Vinyl Bromide)	<0.045	<0.045
Bromoform	<0.105	<0.105
Bromomethane	<0.040	<0.040
Carbon disulfide	<0.032	<0.032
Carbon tetrachloride	<0.064	<0.064
Chlorobenzene	<0.047	<0.047
Chloroethane	<0.027	<0.027
Chloroform	<0.050	<0.050
Chloromethane	<0.021	0.025
cis-1,2-Dichloroethene	<0.040	<0.040
cis-1,3-Dichloropropene	<0.046	<0.046
Cyclohexane	<0.035	<0.035
Dibromochloromethane	<0.087	<0.087
Dichlorodifluoromethane(F-12)	<0.050	<0.050
Dichlorotetrafluoroethane(F-114)	<0.071	<0.071
Ethyl Acetate	<0.037	<0.037

Table 22b
Waterbore Area Soil Gas Analytical Results (µg/L)
Final Remedial Investigation Report

Parameter	WB-SG13-20 2/26/2008	WB-SG13-40 2/26/2008
Depth (feet bgs)	20	40
Volatile Organic Compounds (ug/L)		
Ethylbenzene	<0.044	<0.044
Heptane	0.063	<0.042
Hexachlorobutadiene	<0.217	<0.217
Hexane	<0.036	0.359
m&p-Xylene	<0.088	<0.088
Methyl tert-butyl ether	<0.073	<0.073
Methylene chloride	<0.035	<0.035
o-Xylene	<0.044	<0.044
Propene (Propylene)	0.491	1.7
Styrene	<0.043	<0.043
Tetrachloroethene	<0.069	<0.069
Tetrahydrofuran	<0.120	<0.120
Toluene	0.038	0.058
trans-1,2-Dichloroethene	<0.040	<0.040
trans-1,3-Dichloropropene	<0.046	<0.046
Trichloroethene	<0.055	<0.055
Trichlorofluoromethane(F-11)	<0.057	<0.057
Trichlorotrifluoroethane(F-113)	<0.078	<0.078
Vinyl acetate	<0.036	<0.036
Vinyl chloride	<0.026	<0.026

Notes:
bgs = below ground surface
µg/L = micrograms per liter
< = Analyte not reported above listed laboratory detection limit.

Table 23a
F-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	FC-SG01-10 4/18/2005	FC-SG01-20 4/19/2005	FC-SG01-30 4/19/2005	FC-SG02-10 4/15/2005	FC-SG02-20 4/15/2005	FC-SG02-30 4/16/2005	FC-SG03-10 4/5/2005	FC-SG03-20 4/7/2005	FC-SG03-30 4/8/2005	FC-SG06-30 4/21/2005	FC-SG06-40 4/26/2005	FC-SG06-50 4/26/2005
Depth (feet bgs)	10	20	30	10	20	30	10	20	30	30	40	50
Volatile Organic Compounds (ppbv)												
1,1,1-Trichloroethane	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
1,1,2-Trichloroethane	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
1,1-Dichloroethane	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
1,1-Dichloroethene	2.6	<10	<10	<10	<10	15	<2.5	15	99	<10	<10	<10
1,2,4-Trichlorobenzene	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20
1,2,4-Trimethylbenzene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
1,2-Dibromoethane	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
1,2-Dichlorobenzene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
1,2-Dichloroethane	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
1,2-Dichloropropane	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
1,3,5-Trimethylbenzene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
1,3-Butadiene	<2.5	<10	35	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
1,3-Dichlorobenzene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
1,4-Dichlorobenzene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
2,2,4-Trimethylpentane	<2.5	34	<10	<10	<10	<10	<2.5	<10	<10	11	<10	<10
2-Butanone (MEK)	46	230	8100	<20	160	440	<5	37	56	150	710	940
2-Hexanone	9.9	33	840	<20	<20	61	<5	<20	<20	20	130	91
2-Propanol	6.4	23	410	<20	<20	130	<5	<20	<20	<20	95	80
4-Ethyltoluene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
4-Methyl-2-pentanone	<5	<20	24	<20	<20	<20	<5	190	300	<20	<20	<20
Acetone	190	940	39000	140	870	3700	<25	<100	<100	780	12000	20000
Allyl chloride	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Benzene	8	14	10	14	<10	66	6	19	12	<10	<10	<10
Benzyl chloride	<10	<40	<40	<40	<40	<40	<10	<40	<40	<40	<40	<40
Bromodichloromethane	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Bromoethene(Vinyl Bromide)	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Bromoform	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Bromomethane	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Carbon disulfide	4.6	21	<10	<10	<10	400	16	75	34	<10	<10	<10
Carbon tetrachloride	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Chlorobenzene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Chloroethane	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Chloroform	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Chloromethane	<2.5	<10	<10	<10	<10	<10	3.5	<10	<10	<10	<10	<10
cis-1,2-Dichloroethene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
cis-1,3-Dichloropropene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Cyclohexane	2.8	<10	<10	<10	<10	21	<2.5	<10	<10	<10	<10	<10
Dibromochloromethane	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Dichlorodifluoromethane(F-12)	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Dichlorotetrafluoroethane(F-114)	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Ethyl Acetate	<2.5	<10	28	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Ethylbenzene	<2.5	<10	<10	<10	<10	<10	<2.5	14	<10	<10	<10	<10
Heptane	<2.5	<10	<10	<10	<10	300	6.2	<10	<10	<10	<10	<10
Hexachlorobutadiene	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20
Hexane	15	90	80	18	62	260	18	81	36	28	100	110
m&p-Xylene	<5	<20	<20	<20	<20	<20	<5	41	<20	<20	<20	<20
Methyl tert-butyl ether	<5	<20	<20	<20	<20	<20	<5	<20	<20	<20	<20	<20
Methylene chloride	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10

Table 23a
F-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	FC-SG01-10 4/18/2005	FC-SG01-20 4/19/2005	FC-SG01-30 4/19/2005	FC-SG02-10 4/15/2005	FC-SG02-20 4/15/2005	FC-SG02-30 4/16/2005	FC-SG03-10 4/5/2005	FC-SG03-20 4/7/2005	FC-SG03-30 4/8/2005	FC-SG06-30 4/21/2005	FC-SG06-40 4/26/2005	FC-SG06-50 4/26/2005
Depth (feet bgs)	10	20	30	10	20	30	10	20	30	30	40	50
Volatile Organic Compounds (ppbv)												
o-Xylene	<2.5	<10	<10	<10	<10	<10	<2.5	23	13	<10	<10	<10
Propene (Propylene)	250	2600	6300	400	320	1600	220	1500	760	310	890	420
Styrene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Tetrachloroethene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Tetrahydrofuran	<10	<40	<40	<40	<40	<40	<10	<40	<40	<40	<40	<40
Toluene	5.6	10	<10	<10	11	38	6.2	150	36	<10	<10	<10
trans-1,2-Dichloroethene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
trans-1,3-Dichloropropene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Trichloroethene	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Trichlorofluoromethane(F-11)	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Trichlorotrifluoroethane(F-113)	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Vinyl acetate	<2.5	<10	22	<10	<10	<10	<2.5	<10	<10	<10	<10	<10
Vinyl chloride	<2.5	<10	<10	<10	<10	<10	<2.5	<10	<10	<10	<10	<10

Table 23a
F-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	FC-SG08-10 4/20/2005	FC-SG08-20 4/20/2005	FC-SG08-30 4/20/2005	FC-SG09-10 4/19/2005	FC-SG09-20 4/19/2005	FC-SG09-30 4/19/2005	FC-SG11-10 4/19/2005	FC-SG11-20 4/21/2005	FC-SG11-30 4/22/2005	FC-SG12-10 4/12/2005	FC-SG12-20 4/13/2005	FC-SG12-30 4/14/2005	FC-SG13-10 4/22/2005
Depth (feet bgs)	10	20	30	10	20	30	10	20	30	10	20	30	10
Volatile Organic Compounds (ppbv)													
1,1,1-Trichloroethane	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
1,1,2-Trichloroethane	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
1,1-Dichloroethane	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
1,1-Dichloroethene	<10	<10	<10	<10	<10	<10	12	68	300	<10	<2.5	<0.5	<0.5
1,2,4-Trichlorobenzene	<20	<20	<20	<20	<20	<20	<20	<5	<20	<20	<5	<1	<1
1,2,4-Trimethylbenzene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	1.2	0.83
1,2-Dibromoethane	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
1,2-Dichlorobenzene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	1.8
1,2-Dichloroethane	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
1,2-Dichloropropane	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
1,3,5-Trimethylbenzene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
1,3-Butadiene	<10	<10	21	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
1,3-Dichlorobenzene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
1,4-Dichlorobenzene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	1
2,2,4-Trimethylpentane	34	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
2-Butanone (MEK)	400	890	470	82	2900	810	73	49	65	88	30	13	17
2-Hexanone	82	140	84	44	420	120	26	8.4	<20	<20	<5	<1	2.7
2-Propanol	20	50	39	<20	64	40	26	10	<20	780	79	17	1.3
4-Ethyltoluene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
4-Methyl-2-pentanone	<20	<20	<20	<20	<20	<20	320	120	130	<20	<5	2.4 J	1
Acetone	2000	7400	3600	<100	7800	4600	660	<25	<100	660	340	15	<5
Allyl chloride	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Benzene	<10	22	21	23	22	12	<10	5.2	26	<10	<2.5	3.9 J	3.9
Benzyl chloride	<40	<40	<40	<40	<40	<40	<40	<10	<40	<40	<10	<2	<2
Bromodichloromethane	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Bromoethene(Vinyl Bromide)	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Bromoform	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Bromomethane	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Carbon disulfide	<10	11	<10	110	210	<10	11	8.6	17	<10	<2.5	0.67	0.75
Carbon tetrachloride	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Chlorobenzene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	0.76
Chloroethane	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Chloroform	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Chloromethane	<10	<10	<10	<10	15	<10	<10	<2.5	<10	<10	<2.5	0.7	0.69
cis-1,2-Dichloroethene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
cis-1,3-Dichloropropene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Cyclohexane	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	1.3 J	<0.5
Dibromochloromethane	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Dichlorodifluoromethane(F-12)	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Dichlorotetrafluoroethane(F-114)	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Ethyl Acetate	<10	<10	<10	<10	11	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Ethylbenzene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Heptane	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Hexachlorobutadiene	<20	<20	<20	<20	<20	<20	<20	<5	<20	<20	<5	<1	<1
Hexane	<10	92	110	24	170	<10	34	36	160	20	22	29 J	48
m&p-Xylene	<20	<20	<20	<20	<20	<20	<20	<5	<20	<20	<5	<1	<1
Methyl tert-butyl ether	<20	<20	<20	<20	<20	<20	<20	<5	<20	<20	<5	<1	<1
Methylene chloride	<10	<10	<10	<10	<10	16	<10	<2.5	<10	<10	<2.5	<0.5	5.9

Table 23a
F-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	FC-SG08-10 4/20/2005	FC-SG08-20 4/20/2005	FC-SG08-30 4/20/2005	FC-SG09-10 4/19/2005	FC-SG09-20 4/19/2005	FC-SG09-30 4/19/2005	FC-SG11-10 4/19/2005	FC-SG11-20 4/21/2005	FC-SG11-30 4/22/2005	FC-SG12-10 4/12/2005	FC-SG12-20 4/13/2005	FC-SG12-30 4/14/2005	FC-SG13-10 4/22/2005
Depth (feet bgs)	10	20	30	10	20	30	10	20	30	10	20	30	10
Volatile Organic Compounds (ppbv)													
o-Xylene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	0.58	<0.5
Propene (Propylene)	170	1900	840	200	3300	670	440	320	3700	45	31	12 J	7.1
Styrene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Tetrachloroethene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	2.2
Tetrahydrofuran	<40	<40	<40	<40	<40	<40	<40	<10	<40	<40	<10	<2	<2
Toluene	<10	19	19	15	15	<10	<10	11	27	<10	<2.5	1.2	1.3
trans-1,2-Dichloroethene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
trans-1,3-Dichloropropene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Trichloroethene	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Trichlorofluoromethane(F-11)	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Trichlorotrifluoroethane(F-113)	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Vinyl acetate	<10	<10	<10	<10	18	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5
Vinyl chloride	<10	<10	<10	<10	<10	<10	<10	<2.5	<10	<10	<2.5	<0.5	<0.5

Table 23a
F-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	FC-SG21-40 3/17/2008	FC-SG21-60 3/18/2008	FC-SG22-40 3/12/2008	FC-SG22-60 3/12/2008	FC-SG23-39 2/21/2008	FC-SG26-40 2/19/2008	FC-SG26-60 2/19/2008	FC-SG26-80 2/19/2008	FC-SG26-100 3/20/2008
Depth (feet bgs)	40	60	40	60	39	40	60	80	100
Volatile Organic Compounds (ppbv)									
1,1,1-Trichloroethane	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
1,1,2,2-Tetrachloroethane	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
1,1,2-Trichloroethane	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
1,1-Dichloroethane	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
1,1-Dichloroethene	<50	<50	<10	<10	<2.5	28	<10	<10	<10
1,2,4-Trichlorobenzene	<200	<200	<40	<40	<10	<40	<40	<40	<40
1,2,4-Trimethylbenzene	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
1,2-Dibromoethane	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
1,2-Dichlorobenzene	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
1,2-Dichloroethane	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
1,2-Dichloropropane	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
1,3,5-Trimethylbenzene	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
1,3-Butadiene	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
1,3-Dichlorobenzene	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
1,4-Dichlorobenzene	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
2,2,4-Trimethylpentane	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
2-Butanone (MEK)	<100	<100	33	31	<5	49	<20	<20	190
2-Hexanone	<100	<100	<20	<20	<5	<20	32	<20	28
2-Propanol	<200	<200	<40	<40	<10	<40	<40	<40	<40
4-Ethyltoluene	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
4-Methyl-2-pentanone	<100	<100	<20	<20	12	110	450	98	39
Acetone	2900	2000	<100	<100	<25	<100	<100	<100	6200
Allyl chloride	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Benzene	83	<50	37	69	36	<10	31	30	290
Benzyl chloride	<200	<200	<40	<40	<10	<40	<40	<40	<40
Bromodichloromethane	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Bromoethene(Vinyl Bromide)	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Bromoform	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Bromomethane	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Carbon disulfide	<50	140	<10	<10	5.9	<10	<10	<10	<10
Carbon tetrachloride	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Chlorobenzene	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Chloroethane	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Chloroform	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Chloromethane	<50	<50	<10	14	18	<10	<10	<10	<10
cis-1,2-Dichloroethene	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
cis-1,3-Dichloropropene	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Cyclohexane	<50	<50	<10	<10	<2.5	<10	<10	<10	59
Dibromochloromethane	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Dichlorodifluoromethane(F-12)	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Dichlorotetrafluoroethane(F-114)	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Ethyl Acetate	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Ethylbenzene	<50	<50	<10	<10	4	<10	<10	<10	<10
Heptane	240	85	67	95	<2.5	<10	<10	<10	380
Hexachlorobutadiene	<100	<100	<20	<20	<5	<20	<20	<20	<20
Hexane	510	370	130	190	240	40	210	660	570
m&p-Xylene	<100	<100	<20	<20	6.4	<20	<20	<20	34
Methyl tert-butyl ether	<100	<100	<20	<20	<5	<20	<20	<20	<20
Methylene chloride	<50	<50	<10	<10	<2.5	<10	<10	<10	<10

Table 23a
F-Complex Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	FC-SG21-40 3/17/2008	FC-SG21-60 3/18/2008	FC-SG22-40 3/12/2008	FC-SG22-60 3/12/2008	FC-SG23-39 2/21/2008	FC-SG26-40 2/19/2008	FC-SG26-60 2/19/2008	FC-SG26-80 2/19/2008	FC-SG26-100 3/20/2008
Depth (feet bgs)	40	60	40	60	39	40	60	80	100
Volatile Organic Compounds (ppbv)									
o-Xylene	<50	<50	<10	<10	3.1	<10	<10	<10	<10
Propene (Propylene)	10000	8600	3000	4300	4100	540	4700	6100	9000
Styrene	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Tetrachloroethene	<50	<50	26	<10	<2.5	<10	<10	<10	<10
Tetrahydrofuran	<200	<200	<40	<40	<10	<40	<40	<40	<40
Toluene	<50	<50	16	22	220	11 J	27 J	36 J	92
trans-1,2-Dichloroethene	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
trans-1,3-Dichloropropene	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Trichloroethene	<50	300	<10	<10	<2.5	<10	13	<10	<10
Trichlorofluoromethane(F-11)	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Trichlorotrifluoroethane(F-113)	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Vinyl acetate	<50	<50	<10	<10	<2.5	<10	<10	<10	<10
Vinyl chloride	<50	<50	<10	<10	<2.5	<10	<10	<10	<10

Notes:
bgs = below ground surface
ppbv = parts per billion by volume
< = Analyte not reported above listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value

Table 23b
F-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	FC-SG01-10 4/18/2005	FC-SG01-20 4/19/2005	FC-SG01-30 4/19/2005	FC-SG02-10 4/15/2005	FC-SG02-20 4/15/2005	FC-SG02-30 4/16/2005	FC-SG03-10 4/5/2005	FC-SG03-20 4/7/2005	FC-SG03-30 4/8/2005	FC-SG06-30 4/21/2005	FC-SG06-40 4/26/2005
Depth (feet bgs)	10	20	30	10	20	30	10	20	30	30	40
Volatile Organic Compounds (ug/L)											
1,1,1-Trichloroethane	<0.014	<0.056	<0.056	<0.056	<0.056	<0.056	<0.014	<0.056	<0.056	<0.056	<0.056
1,1,2,2-Tetrachloroethane	<0.017	<0.070	<0.070	<0.070	<0.070	<0.070	<0.017	<0.070	<0.070	<0.070	<0.070
1,1,2-Trichloroethane	<0.014	<0.056	<0.056	<0.056	<0.056	<0.056	<0.014	<0.056	<0.056	<0.056	<0.056
1,1-Dichloroethane	<0.010	<0.041	<0.041	<0.041	<0.041	<0.041	<0.010	<0.041	<0.041	<0.041	<0.041
1,1-Dichloroethene	0.011	<0.040	<0.040	<0.040	<0.040	0.061	<0.010	0.061	0.400	<0.040	<0.040
1,2,4-Trichlorobenzene	<0.038	<0.151	<0.151	<0.151	<0.151	<0.151	<0.038	<0.151	<0.151	<0.151	<0.151
1,2,4-Trimethylbenzene	<0.013	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050	<0.050	<0.050	<0.050
1,2-Dibromoethane	<0.020	<0.078	<0.078	<0.078	<0.078	<0.078	<0.020	<0.078	<0.078	<0.078	<0.078
1,2-Dichlorobenzene	<0.015	<0.061	<0.061	<0.061	<0.061	<0.061	<0.015	<0.061	<0.061	<0.061	<0.061
1,2-Dichloroethane	<0.010	<0.041	<0.041	<0.041	<0.041	<0.041	<0.010	<0.041	<0.041	<0.041	<0.041
1,2-Dichloropropane	<0.012	<0.047	<0.047	<0.047	<0.047	<0.047	<0.012	<0.047	<0.047	<0.047	<0.047
1,3,5-Trimethylbenzene	<0.013	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050	<0.050	<0.050	<0.050
1,3-Butadiene	<0.006	<0.023	0.079	<0.023	<0.023	<0.023	<0.006	<0.023	<0.023	<0.023	<0.023
1,3-Dichlorobenzene	<0.015	<0.061	<0.061	<0.061	<0.061	<0.061	<0.015	<0.061	<0.061	<0.061	<0.061
1,4-Dichlorobenzene	<0.015	<0.061	<0.061	<0.061	<0.061	<0.061	<0.015	<0.061	<0.061	<0.061	<0.061
2,2,4-Trimethylpentane	<0.012	0.162	<0.048	<0.048	<0.048	<0.048	<0.012	<0.048	<0.048	0.052	<0.048
2-Butanone (MEK)	0.138	0.691	24	<0.060	0.481	1.3	<0.015	0.111	0.168	0.451	2.1
2-Hexanone	0.041	0.138	3.5	<0.083	<0.083	0.255	<0.021	<0.083	<0.083	0.083	0.543
2-Propanol	0.016	0.058	1.0	<0.050	<0.050	0.326	<0.013	<0.050	<0.050	<0.050	0.238
4-Ethyltoluene	<0.013	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050	<0.050	<0.050	<0.050
4-Methyl-2-pentanone	<0.021	<0.083	0.100	<0.083	<0.083	<0.083	<0.021	0.793	1.3	<0.083	<0.083
Acetone	0.460	2.3	94	0.339	2.1	9.0	<0.060	<0.242	<0.242	1.9	29
Allyl chloride	<0.008	<0.032	<0.032	<0.032	<0.032	<0.032	<0.008	<0.032	<0.032	<0.032	<0.032
Benzene	0.026	0.046	0.033	0.046	<0.033	0.215	0.020	0.062	0.039	<0.033	<0.033
Benzyl chloride	<0.053	<0.211	<0.211	<0.211	<0.211	<0.211	<0.053	<0.211	<0.211	<0.211	<0.211
Bromodichloromethane	<0.017	<0.068	<0.068	<0.068	<0.068	<0.068	<0.017	<0.068	<0.068	<0.068	<0.068
Bromoethene(Vinyl Bromide)	<0.011	<0.045	<0.045	<0.045	<0.045	<0.045	<0.011	<0.045	<0.045	<0.045	<0.045
Bromoform	<0.026	<0.105	<0.105	<0.105	<0.105	<0.105	<0.026	<0.105	<0.105	<0.105	<0.105
Bromomethane	<0.010	<0.040	<0.040	<0.040	<0.040	<0.040	<0.010	<0.040	<0.040	<0.040	<0.040
Carbon disulfide	0.015	0.067	<0.032	<0.032	<0.032	1.3	0.051	0.238	0.108	<0.032	<0.032
Carbon tetrachloride	<0.016	<0.064	<0.064	<0.064	<0.064	<0.064	<0.016	<0.064	<0.064	<0.064	<0.064
Chlorobenzene	<0.012	<0.047	<0.047	<0.047	<0.047	<0.047	<0.012	<0.047	<0.047	<0.047	<0.047
Chloroethane	<0.007	<0.027	<0.027	<0.027	<0.027	<0.027	<0.007	<0.027	<0.027	<0.027	<0.027
Chloroform	<0.012	<0.050	<0.050	<0.050	<0.050	<0.050	<0.012	<0.050	<0.050	<0.050	<0.050
Chloromethane	<0.005	<0.021	<0.021	<0.021	<0.021	<0.021	0.007	<0.021	<0.021	<0.021	<0.021
cis-1,2-Dichloroethene	<0.010	<0.040	<0.040	<0.040	<0.040	<0.040	<0.010	<0.040	<0.040	<0.040	<0.040
cis-1,3-Dichloropropene	<0.012	<0.046	<0.046	<0.046	<0.046	<0.046	<0.012	<0.046	<0.046	<0.046	<0.046
Cyclohexane	0.010	<0.035	<0.035	<0.035	<0.035	0.074	<0.009	<0.035	<0.035	<0.035	<0.035
Dibromochloromethane	<0.022	<0.087	<0.087	<0.087	<0.087	<0.087	<0.022	<0.087	<0.087	<0.087	<0.087
Dichlorodifluoromethane(F-12)	<0.013	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050	<0.050	<0.050	<0.050
Dichlorotetrafluoroethane(F-114)	<0.018	<0.071	<0.071	<0.071	<0.071	<0.071	<0.018	<0.071	<0.071	<0.071	<0.071
Ethyl Acetate	<0.009	<0.037	0.103	<0.037	<0.037	<0.037	<0.009	<0.037	<0.037	<0.037	<0.037
Ethylbenzene	<0.011	<0.044	<0.044	<0.044	<0.044	<0.044	<0.011	0.062	<0.044	<0.044	<0.044
Heptane	<0.010	<0.042	<0.042	<0.042	<0.042	1.3	0.026	<0.042	<0.042	<0.042	<0.042
Hexachlorobutadiene	<0.054	<0.217	<0.217	<0.217	<0.217	<0.217	<0.054	<0.217	<0.217	<0.217	<0.217
Hexane	0.054	0.323	0.287	0.065	0.223	0.934	0.065	0.291	0.129	0.101	0.359
m&p-Xylene	<0.022	<0.088	<0.088	<0.088	<0.088	<0.088	<0.022	0.181	<0.088	<0.088	<0.088
Methyl tert-butyl ether	<0.018	<0.073	<0.073	<0.073	<0.073	<0.073	<0.018	<0.073	<0.073	<0.073	<0.073
Methylene chloride	<0.009	<0.035	<0.035	<0.035	<0.035	<0.035	<0.009	<0.035	<0.035	<0.035	<0.035

Table 23b
F-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	FC-SG01-10 4/18/2005	FC-SG01-20 4/19/2005	FC-SG01-30 4/19/2005	FC-SG02-10 4/15/2005	FC-SG02-20 4/15/2005	FC-SG02-30 4/16/2005	FC-SG03-10 4/5/2005	FC-SG03-20 4/7/2005	FC-SG03-30 4/8/2005	FC-SG06-30 4/21/2005	FC-SG06-40 4/26/2005
Depth (feet bgs)	10	20	30	10	20	30	10	20	30	30	40
Volatile Organic Compounds (ug/L)											
o-Xylene	<0.011	<0.044	<0.044	<0.044	<0.044	<0.044	<0.011	0.102	0.058	<0.044	<0.044
Propene (Propylene)	0.438	4.6	11	0.701	0.561	2.8	0.386	2.6	1.3	0.544	1.6
Styrene	<0.011	<0.043	<0.043	<0.043	<0.043	<0.043	<0.011	<0.043	<0.043	<0.043	<0.043
Tetrachloroethene	<0.017	<0.069	<0.069	<0.069	<0.069	<0.069	<0.017	<0.069	<0.069	<0.069	<0.069
Tetrahydrofuran	<0.030	<0.120	<0.120	<0.120	<0.120	<0.120	<0.030	<0.120	<0.120	<0.120	<0.120
Toluene	0.021	0.038	<0.038	<0.038	0.042	0.146	0.024	0.576	0.138	<0.038	<0.038
trans-1,2-Dichloroethene	<0.010	<0.040	<0.040	<0.040	<0.040	<0.040	<0.010	<0.040	<0.040	<0.040	<0.040
trans-1,3-Dichloropropene	<0.012	<0.046	<0.046	<0.046	<0.046	<0.046	<0.012	<0.046	<0.046	<0.046	<0.046
Trichloroethene	<0.014	<0.055	<0.055	<0.055	<0.055	<0.055	<0.014	<0.055	<0.055	<0.055	<0.055
Trichlorofluoromethane(F-11)	<0.014	<0.057	<0.057	<0.057	<0.057	<0.057	<0.014	<0.057	<0.057	<0.057	<0.057
Trichlorotrifluoroethane(F-113)	<0.020	<0.078	<0.078	<0.078	<0.078	<0.078	<0.020	<0.078	<0.078	<0.078	<0.078
Vinyl acetate	<0.009	<0.036	0.079	<0.036	<0.036	<0.036	<0.009	<0.036	<0.036	<0.036	<0.036
Vinyl chloride	<0.007	<0.026	<0.026	<0.026	<0.026	<0.026	<0.007	<0.026	<0.026	<0.026	<0.026

Table 23b
F-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	FC-SG06-50 4/26/2005	FC-SG08-10 4/20/2005	FC-SG08-20 4/20/2005	FC-SG08-30 4/20/2005	FC-SG09-10 4/19/2005	FC-SG09-20 4/19/2005	FC-SG09-30 4/19/2005	FC-SG11-10 4/19/2005	FC-SG11-20 4/21/2005	FC-SG11-30 4/22/2005	FC-SG12-10 4/12/2005	FC-SG12-20 4/13/2005	FC-SG12-30 4/14/2005	FC-SG13-10 4/22/2005
Depth (feet bgs)	50	10	20	30	10	20	30	10	20	30	10	20	30	10
Volatile Organic Compounds (ug/L)														
1,1,1-Trichloroethane	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.014	<0.056	<0.056	<0.014	<0.003	<0.003
1,1,2,2-Tetrachloroethane	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.070	<0.017	<0.070	<0.070	<0.017	<0.003	<0.003
1,1,2-Trichloroethane	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	<0.014	<0.056	<0.056	<0.014	<0.003	<0.003
1,1-Dichloroethane	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.010	<0.041	<0.041	<0.010	<0.002	<0.002
1,1-Dichloroethene	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.048	0.275	1.2	<0.040	<0.010	<0.002	<0.002
1,2,4-Trichlorobenzene	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.151	<0.038	<0.151	<0.151	<0.038	<0.008	<0.008
1,2,4-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050	<0.050	<0.013	0.006	0.004
1,2-Dibromoethane	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.020	<0.078	<0.078	<0.020	<0.004	<0.004
1,2-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.015	<0.061	<0.061	<0.015	<0.003	0.011
1,2-Dichloroethane	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.010	<0.041	<0.041	<0.010	<0.002	<0.002
1,2-Dichloropropane	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.012	<0.047	<0.047	<0.012	<0.002	<0.002
1,3,5-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050	<0.050	<0.013	<0.003	<0.003
1,3-Butadiene	<0.023	<0.023	<0.023	0.047	<0.023	<0.023	<0.023	<0.023	<0.006	<0.023	<0.023	<0.006	<0.001	<0.001
1,3-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.015	<0.061	<0.061	<0.015	<0.003	<0.003
1,4-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.061	<0.015	<0.061	<0.061	<0.015	<0.003	0.006
2,2,4-Trimethylpentane	<0.048	0.162	<0.048	<0.048	<0.048	<0.048	<0.048	<0.048	<0.012	<0.048	<0.048	<0.012	<0.002	<0.002
2-Butanone (MEK)	2.8	1.2	2.7	1.4	0.246	8.7	2.4	0.219	0.147	0.195	0.264	0.090	0.039	0.051
2-Hexanone	0.380	0.342	0.584	0.351	0.184	1.8	0.501	0.109	0.035	<0.083	<0.083	<0.021	<0.004	0.011
2-Propanol	0.200	0.050	0.125	0.098	<0.050	0.160	0.100	0.065	0.025	<0.050	2.0	0.198	0.043	0.003
4-Ethyltoluene	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050	<0.050	<0.013	<0.003	<0.003
4-Methyl-2-pentanone	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	<0.083	1.3	0.501	0.543	<0.083	<0.021	2.4 J	0.004
Acetone	48	4.8	18	8.7	<0.242	19	11	1.6	<0.060	<0.242	1.6	0.823	0.036	<0.012
Allyl chloride	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.008	<0.032	<0.032	<0.008	<0.002	<0.002
Benzene	<0.033	<0.033	0.072	0.068	0.075	0.072	0.039	<0.033	0.017	0.085	<0.033	<0.008	3.9 J	0.013
Benzyl chloride	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.211	<0.053	<0.211	<0.211	<0.053	<0.011	<0.011
Bromodichloromethane	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.068	<0.017	<0.068	<0.068	<0.017	<0.003	<0.003
Bromoethene(Vinyl Bromide)	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.045	<0.011	<0.045	<0.045	<0.011	<0.002	<0.002
Bromoform	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.105	<0.026	<0.105	<0.105	<0.026	<0.005	<0.005
Bromomethane	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.010	<0.040	<0.040	<0.010	<0.002	<0.002
Carbon disulfide	<0.032	<0.032	0.035	<0.032	0.349	0.666	<0.032	0.035	0.027	0.054	<0.032	<0.008	0.002	0.002
Carbon tetrachloride	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.064	<0.016	<0.064	<0.064	<0.016	<0.003	<0.003
Chlorobenzene	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.047	<0.012	<0.047	<0.047	<0.012	<0.002	0.004
Chloroethane	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.007	<0.027	<0.027	<0.007	<0.001	<0.001
Chloroform	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.012	<0.050	<0.050	<0.012	<0.002	<0.002
Chloromethane	<0.021	<0.021	<0.021	<0.021	<0.021	0.032	<0.021	<0.021	<0.005	<0.021	<0.021	<0.005	0.001	0.001
cis-1,2-Dichloroethene	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.010	<0.040	<0.040	<0.010	<0.002	<0.002
cis-1,3-Dichloropropene	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.012	<0.046	<0.046	<0.012	<0.002	<0.002
Cyclohexane	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	<0.009	<0.035	<0.035	<0.009	0.005	<0.002
Dibromochloromethane	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.087	<0.022	<0.087	<0.087	<0.022	<0.004	<0.004
Dichlorodifluoromethane(F-12)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050	<0.050	<0.013	<0.003	<0.003
Dichlorotetrafluoroethane(F-114)	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	<0.018	<0.071	<0.071	<0.018	<0.004	<0.004
Ethyl Acetate	<0.037	<0.037	<0.037	<0.037	<0.037	0.040	<0.037	<0.037	<0.009	<0.037	<0.037	<0.009	<0.002	<0.002
Ethylbenzene	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.011	<0.044	<0.044	<0.011	<0.002	<0.002
Heptane	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.010	<0.042	<0.042	<0.010	<0.002	<0.002
Hexachlorobutadiene	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.217	<0.054	<0.217	<0.217	<0.054	<0.011	<0.011
Hexane	0.395	<10	0.330	0.395	0.086	0.610	<10	0.122	0.129	0.575	0.072	0.079	0.104 J	0.172
m&p-Xylene	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.022	<0.088	<0.088	<0.022	<0.004	<0.004
Methyl tert-butyl ether	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.073	<0.018	<0.073	<0.073	<0.018	<0.004	<0.004
Methylene chloride	<0.035	<0.035	<0.035	<0.035	<0.035	<0.035	0.057	<0.035	<0.009	<0.035	<0.035	<0.009	<0.002	0.021

Table 23b
F-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	FC-SG06-50 4/26/2005	FC-SG08-10 4/20/2005	FC-SG08-20 4/20/2005	FC-SG08-30 4/20/2005	FC-SG09-10 4/19/2005	FC-SG09-20 4/19/2005	FC-SG09-30 4/19/2005	FC-SG11-10 4/19/2005	FC-SG11-20 4/21/2005	FC-SG11-30 4/22/2005	FC-SG12-10 4/12/2005	FC-SG12-20 4/13/2005	FC-SG12-30 4/14/2005	FC-SG13-10 4/22/2005
Depth (feet bgs)	50	10	20	30	10	20	30	10	20	30	10	20	30	10
Volatile Organic Compounds (ug/L)														
o-Xylene	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.044	<0.011	<0.044	<0.044	<0.011	0.003	<0.002
Propene (Propylene)	0.736	0.298	3.3	1.5	0.351	5.8	1.2	0.771	0.561	6.5	0.079	0.054	0.021 J	0.012
Styrene	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.043	<0.011	<0.043	<0.043	<0.011	<0.002	<0.002
Tetrachloroethene	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.069	<0.017	<0.069	<0.069	<0.017	<0.003	0.015
Tetrahydrofuran	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.120	<0.030	<0.120	<0.120	<0.030	<0.006	<0.006
Toluene	<0.038	<0.038	0.073	0.073	0.058	0.058	<0.038	<0.038	0.042	0.104	<0.038	<0.010	0.005	0.005
trans-1,2-Dichloroethene	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.010	<0.040	<0.040	<0.010	<0.002	<0.002
trans-1,3-Dichloropropene	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.046	<0.012	<0.046	<0.046	<0.012	<0.002	<0.002
Trichloroethene	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.055	<0.014	<0.055	<0.055	<0.014	<0.003	<0.003
Trichlorofluoromethane(F-11)	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.057	<0.014	<0.057	<0.057	<0.014	<0.003	<0.003
Trichlorotrifluoroethane(F-113)	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.078	<0.020	<0.078	<0.078	<0.020	<0.004	<0.004
Vinyl acetate	<0.036	<0.036	<0.036	<0.036	<0.036	0.065	<0.036	<0.036	<0.009	<0.036	<0.036	<0.009	<0.002	<0.002
Vinyl chloride	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.007	<0.026	<0.026	<0.007	<0.001	<0.001

Table 23b
F-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	FC-SG21-40 3/17/2008	FC-SG21-60 3/18/2008	FC-SG22-40 3/12/2008	FC-SG22-60 3/12/2008	FC-SG23-39 2/21/2008	FC-SG26-40 2/19/2008	FC-SG26-60 2/19/2008	FC-SG26-80 2/19/2008	FC-SG26-100 3/20/2008
Depth (feet bgs)	40	60	40	60	39	40	60	80	100
Volatile Organic Compounds (ug/L)									
1,1,1-Trichloroethane	<0.278	<0.278	<0.056	<0.056	<0.014	<0.056	<0.056	<0.056	<0.056
1,1,2,2-Tetrachloroethane	<0.350	<0.350	<0.070	<0.070	<0.017	<0.070	<0.070	<0.070	<0.070
1,1,2-Trichloroethane	<0.278	<0.278	<0.056	<0.056	<0.014	<0.056	<0.056	<0.056	<0.056
1,1-Dichloroethane	<0.206	<0.206	<0.041	<0.041	<0.010	<0.041	<0.041	<0.041	<0.041
1,1-Dichloroethene	<0.202	<0.202	<0.040	<0.040	<0.010	0.113	<0.040	<0.040	<0.040
1,2,4-Trichlorobenzene	<1.5	<1.5	<0.302	<0.302	<0.076	<0.302	<0.302	<0.302	<0.302
1,2,4-Trimethylbenzene	<0.250	<0.250	<0.050	<0.050	<0.013	<0.050	<0.050	<0.050	<0.050
1,2-Dibromoethane	<0.391	<0.391	<0.078	<0.078	<0.020	<0.078	<0.078	<0.078	<0.078
1,2-Dichlorobenzene	<0.306	<0.306	<0.061	<0.061	<0.015	<0.061	<0.061	<0.061	<0.061
1,2-Dichloroethane	<0.206	<0.206	<0.041	<0.041	<0.010	<0.041	<0.041	<0.041	<0.041
1,2-Dichloropropane	<0.235	<0.235	<0.047	<0.047	<0.012	<0.047	<0.047	<0.047	<0.047
1,3,5-Trimethylbenzene	<0.250	<0.250	<0.050	<0.050	<0.013	<0.050	<0.050	<0.050	<0.050
1,3-Butadiene	<0.113	<0.113	<0.023	<0.023	<0.006	<0.023	<0.023	<0.023	<0.023
1,3-Dichlorobenzene	<0.306	<0.306	<0.061	<0.061	<0.015	<0.061	<0.061	<0.061	<0.061
1,4-Dichlorobenzene	<0.306	<0.306	<0.061	<0.061	<0.015	<0.061	<0.061	<0.061	<0.061
2,2,4-Trimethylpentane	<0.238	<0.238	<0.048	<0.048	<0.012	<0.048	<0.048	<0.048	<0.048
2-Butanone (MEK)	<0.300	<0.300	0.099	0.093	<0.015	0.147	<0.060	<0.060	0.571
2-Hexanone	<0.417	<0.417	<0.083	<0.083	<0.021	<0.083	0.134	<0.083	0.117
2-Propanol	<0.501	<0.501	<0.100	<0.125	<0.025	<0.125	<0.125	<0.125	<0.125
4-Ethyltoluene	<0.250	<0.250	<0.050	<0.050	<0.013	<0.050	<0.050	<0.050	<0.050
4-Methyl-2-pentanone	<0.417	<0.417	<0.083	<0.083	0.050	0.459	1.9	0.409	0.163
Acetone	7.0	4.8	<0.242	<0.242	<0.060	<0.242	<0.242	<0.242	0.484
Allyl chloride	<0.159	<0.159	<0.032	<0.032	<0.008	<0.032	<0.032	<0.032	<0.032
Benzene	0.270	<0.163	0.120	0.225	0.117	<0.033	0.101	0.098	0.944
Benzyl chloride	<1.1	<1.1	<0.211	<0.211	<0.053	<0.211	<0.211	<0.211	<0.211
Bromodichloromethane	<0.341	<0.341	<0.068	<0.068	<0.017	<0.068	<0.068	<0.068	<0.068
Bromoethene(Vinyl Bromide)	<0.223	<0.223	<0.045	<0.045	<0.011	<0.045	<0.045	<0.045	<0.045
Bromoform	<0.527	<0.527	<0.105	<0.105	<0.026	<0.105	<0.105	<0.105	<0.105
Bromomethane	<0.198	<0.198	<0.040	<0.040	<0.010	<0.040	<0.040	<0.040	<0.040
Carbon disulfide	<0.159	0.444	<0.032	<0.032	0.019	<0.032	<0.032	<0.032	<0.032
Carbon tetrachloride	<0.320	<0.320	<0.064	<0.064	<0.016	<0.064	<0.064	<0.064	<0.064
Chlorobenzene	<0.234	<0.234	<0.047	<0.047	<0.012	<0.047	<0.047	<0.047	<0.047
Chloroethane	<0.134	<0.134	<0.027	<0.027	<0.007	<0.027	<0.027	<0.027	<0.027
Chloroform	<0.249	<0.249	<0.050	<0.050	<0.012	<0.050	<0.050	<0.050	<0.050
Chloromethane	<0.105	<0.105	<0.021	0.029	0.038	<0.021	<0.021	<0.021	<0.021
cis-1,2-Dichloroethene	<0.202	<0.202	<0.040	<0.040	<0.010	<0.040	<0.040	<0.040	<0.040
cis-1,3-Dichloropropene	<0.231	<0.231	<0.046	<0.046	<0.012	<0.046	<0.046	<0.046	<0.046
Cyclohexane	<0.175	<0.175	<0.035	<0.035	<0.009	<0.035	<0.035	<0.035	0.207
Dibromochloromethane	<0.434	<0.434	<0.087	<0.087	<0.022	<0.087	<0.087	<0.087	<0.087
Dichlorodifluoromethane(F-12)	<0.252	<0.252	<0.050	<0.050	<0.013	<0.050	<0.050	<0.050	<0.050
Dichlorotetrafluoroethane(F-114)	<0.356	<0.356	<0.071	<0.071	<0.018	<0.071	<0.071	<0.071	<0.071
Ethyl Acetate	<0.184	<0.184	<0.037	<0.037	<0.009	<0.037	<0.037	<0.037	<0.037
Ethylbenzene	<0.221	<0.221	<0.044	<0.044	0.018	<0.044	<0.044	<0.044	<0.044
Heptane	1.0	0.355	0.280	0.397	<0.010	<0.042	<0.042	<0.042	1.6
Hexachlorobutadiene	<1.087	<1.087	<0.217	<0.217	<0.054	<0.217	<0.217	<0.217	<0.217
Hexane	1.8	1.3	0.467	0.682	0.862	0.144	0.754	2.4	2.0
m&p-Xylene	<0.442	<0.442	<0.088	<0.088	0.028	<0.088	<0.088	<0.088	0.150
Methyl tert-butyl ether	<0.367	<0.367	<0.073	<0.073	<0.018	<0.073	<0.073	<0.073	<0.073
Methylene chloride	<0.177	<0.177	<0.035	<0.035	<0.009	<0.035	<0.035	<0.035	<0.035

Table 23b
F-Complex Soil Gas Analytical Results (ug/L)
Final Remedial Investigation Report

Parameter	FC-SG21-40 3/17/2008	FC-SG21-60 3/18/2008	FC-SG22-40 3/12/2008	FC-SG22-60 3/12/2008	FC-SG23-39 2/21/2008	FC-SG26-40 2/19/2008	FC-SG26-60 2/19/2008	FC-SG26-80 2/19/2008	FC-SG26-100 3/20/2008
Depth (feet bgs)	40	60	40	60	39	40	60	80	100
Volatile Organic Compounds (ug/L)									
o-Xylene	<0.221	<0.221	<0.044	<0.044	0.014	<0.044	<0.044	<0.044	<0.044
Propene (Propylene)	18	15	5.3	7.5	7.2	0.947	8.2	11	16
Styrene	<0.217	<0.217	<0.043	<0.043	<0.011	<0.043	<0.043	<0.043	<0.043
Tetrachloroethene	<0.345	<0.345	0.180	<0.069	<0.017	<0.069	<0.069	<0.069	<0.069
Tetrahydrofuran	<0.6	<0.6	<0.120	<0.120	<0.030	<0.120	<0.120	<0.120	<0.120
Toluene	<0.192	<0.192	0.061	0.084	0.845	0.042 J	0.104 J	0.138 J	0.353
trans-1,2-Dichloroethene	<0.202	<0.202	<0.040	<0.040	<0.010	<0.040	<0.040	<0.040	<0.040
trans-1,3-Dichloropropene	<0.231	<0.231	<0.046	<0.046	<0.012	<0.046	<0.046	<0.046	<0.046
Trichloroethene	<0.274	1.6	<0.055	<0.055	<0.014	<0.055	0.071	<0.055	<0.055
Trichlorofluoromethane(F-11)	<0.286	<0.286	<0.057	<0.057	<0.014	<0.057	<0.057	<0.057	<0.057
Trichlorotrifluoroethane(F-113)	<0.390	<0.390	<0.078	<0.078	<0.020	<0.078	<0.078	<0.078	<0.078
Vinyl acetate	<0.179	<0.179	<0.036	<0.036	<0.009	<0.036	<0.036	<0.036	<0.036
Vinyl chloride	<0.130	<0.130	<0.026	<0.026	<0.007	<0.026	<0.026	<0.026	<0.026

Notes:
bgs = below ground surface
ug/L = microgram per liter
< = Analyte not reported above listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value

Table 24a
New Burn Area (OBU) Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	NB-SG01-10 4/16/2005	NB-SG01-20 4/16/2005	NB-SG01-30 4/16/2005	NB-SG02-10 4/17/2005	NB-SG02-20 4/18/2005	NB-SG02-30 4/18/2005	NB-SG03-10 4/18/2005	NB-SG03-20 4/18/2005	NB-SG03-30 4/18/2005
Depth (feet bgs)	10	20	30	10	20	30	10	20	30
Volatile Organic Compounds (ppbv)									
1,1,1-Trichloroethane	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
1,1,2,2-Tetrachloroethane	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
1,1,2-Trichloroethane	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
1,1-Dichloroethane	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
1,1-Dichloroethene	12	23	39	<10	6.8	13	2.8	<10	<10
1,2,4-Trichlorobenzene	<20	<20	<20	<20	<5	<20	<2	<20	<20
1,2,4-Trimethylbenzene	<10	<10	<10	<10	<2.5	<10	1	<10	<10
1,2-Dibromoethane	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
1,2-Dichloroethane	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
1,2-Dichloropropane	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
1,3,5-Trimethylbenzene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
1,3-Butadiene	430	360	<10	12 J	<2.5	<10	<1	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
2,2,4-Trimethylpentane	15	19	17	21	27	44	14	<10	<10
2-Butanone (MEK)	180	82	150	130	19	36	26	38	39
2-Hexanone	66	<20	<20	58	<5	<20	8	<20	<20
2-Propanol	54	<20	<20	69	14	<20	6.5	<20	<20
4-Ethyltoluene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
4-Methyl-2-pentanone	<20	<20	<20	<20	<5	<20	2.5	<20	<20
Acetone	<100	<100	<100	<100	<25	<100	200	<100	<100
Allyl chloride	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Benzene	51	91	24	17	8.2	15	2.7	<10	19
Benzyl chloride	<40	<40	<40	<40	<10	<40	<4	<40	<40
Bromodichloromethane	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Bromoethene(Vinyl Bromide)	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Bromoform	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Bromomethane	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Carbon disulfide	210	120	28	39	14	<10	1	<10	<10
Carbon tetrachloride	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Chlorobenzene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Chloroethane	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Chloroform	<10	<10	<10	<10	2.8	<10	1.2	<10	<10

Table 24a
New Burn Area (OBU) Soil Gas Analytical Results (ppbv)
Final Remedial Investigation Report

Parameter	NB-SG01-10 4/16/2005	NB-SG01-20 4/16/2005	NB-SG01-30 4/16/2005	NB-SG02-10 4/17/2005	NB-SG02-20 4/18/2005	NB-SG02-30 4/18/2005	NB-SG03-10 4/18/2005	NB-SG03-20 4/18/2005	NB-SG03-30 4/18/2005
Depth (feet bgs)	10	20	30	10	20	30	10	20	30
Volatile Organic Compounds (ppbv)									
Chloromethane	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
cis-1,2-Dichloroethene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
cis-1,3-Dichloropropene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Cyclohexane	13	11	11	<10	6.6	12	<1	<10	<10
Dibromochloromethane	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Dichlorodifluoromethane(F-12)	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Dichlorotetrafluoroethane(F-114)	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Ethyl Acetate	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Ethylbenzene	<10	14	<10	<10	<2.5	<10	<1	<10	<10
Heptane	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Hexachlorobutadiene	<20	<20	<20	<20	<5	<20	<2	<20	<20
Hexane	58	34	54	39	15	24	7.7	20	55
m&p-Xylene	<20	<20	<20	<20	<5	<20	<2	<20	<20
Methyl tert-butyl ether	<20	<20	<20	<20	<5	<20	<2	<20	<20
Methylene chloride	<10	<10	<10	22	16	21	4.5	<10	<10
o-Xylene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Propene (Propylene)	380	480	800	200	160	370	38	340	2200
Styrene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Tetrachloroethene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Tetrahydrofuran	<40	<40	<40	<40	<10	<40	<4	<40	<40
Toluene	29	47	16	17	4.8	<10	2.6	<10	13
trans-1,2-Dichloroethene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
trans-1,3-Dichloropropene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Trichloroethene	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Trichlorofluoromethane(F-11)	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Trichlorotrifluoroethane(F-113)	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Vinyl acetate	<10	<10	<10	<10	<2.5	<10	<1	<10	<10
Vinyl chloride	<10	<10	<10	<10	<2.5	<10	<1	<10	<10

Notes:
bgs = below ground surface
ppbv = parts per billion by volume
J = The analyte was positively identified; however, the result should be considered an estimated value.
< = Analyte not reported above listed laboratory detection limit.

Table 24b
New Burn Area (OBU) Soil Gas Analytical Results (µg/L)
Final Remedial Investigation Report

Parameter	NB-SG01-10 4/16/2005	NB-SG01-20 4/16/2005	NB-SG01-30 4/16/2005	NB-SG02-10 4/17/2005	NB-SG02-20 4/18/2005	NB-SG02-30 4/18/2005	NB-SG03-10 4/18/2005	NB-SG03-20 4/18/2005	NB-SG03-30 4/18/2005
Depth (feet bgs)	10	20	30	10	20	30	10	20	30
Volatile Organic Compounds (ug/L)									
1,1,1-Trichloroethane	<0.056	<0.056	<0.056	<0.056	<0.014	<0.056	<0.006	<0.056	<0.056
1,1,2,2-Tetrachloroethane	<0.070	<0.070	<0.070	<0.070	<0.017	<0.070	<0.007	<0.070	<0.070
1,1,2-Trichloroethane	<0.056	<0.056	<0.056	<0.056	<0.014	<0.056	<0.006	<0.056	<0.056
1,1-Dichloroethane	<0.041	<0.041	<0.041	<0.041	<0.010	<0.041	<0.004	<0.041	<0.041
1,1-Dichloroethene	0.048	0.093	0.158	<0.040	0.027	0.053	0.011	<0.040	<0.040
1,2,4-Trichlorobenzene	<0.151	<0.151	<0.151	<0.151	<0.038	<0.151	<0.015	<0.151	<0.151
1,2,4-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050	0.005	<0.050	<0.050
1,2-Dibromoethane	<0.078	<0.078	<0.078	<0.078	<0.020	<0.078	<0.008	<0.078	<0.078
1,2-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.015	<0.061	<0.006	<0.061	<0.061
1,2-Dichloroethane	<0.041	<0.041	<0.041	<0.041	<0.010	<0.041	<0.004	<0.041	<0.041
1,2-Dichloropropane	<0.047	<0.047	<0.047	<0.047	<0.012	<0.047	<0.005	<0.047	<0.047
1,3,5-Trimethylbenzene	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050	<0.005	<0.050	<0.050
1,3-Butadiene	0.969	0.811	<0.023	0.027 J	<0.006	<0.023	<0.002	<0.023	<0.023
1,3-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.015	<0.061	<0.006	<0.061	<0.061
1,4-Dichlorobenzene	<0.061	<0.061	<0.061	<0.061	<0.015	<0.061	<0.006	<0.061	<0.061
2,2,4-Trimethylpentane	0.071	0.090	0.081	0.100	0.129	0.209	0.067	<0.048	<0.048
2-Butanone (MEK)	0.541	0.246	0.451	0.391	0.057	0.108	0.078	0.114	0.117
2-Hexanone	0.275	<0.083	<0.083	0.242	<0.021	<0.083	0.033	<0.083	<0.083
2-Propanol	0.135	<0.050	<0.050	0.173	0.035	<0.050	0.016	<0.050	<0.050
4-Ethyltoluene	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050	<0.005	<0.050	<0.050
4-Methyl-2-pentanone	<0.083	<0.083	<0.083	<0.083	<0.021	<0.083	0.010	<0.083	<0.083
Acetone	<0.242	<0.242	<0.242	<0.242	<0.060	<0.242	0.484	<0.242	<0.242
Allyl chloride	<0.032	<0.032	<0.032	<0.032	<0.008	<0.032	<0.003	<0.032	<0.032
Benzene	0.166	0.296	0.078	0.055	0.027	0.049	0.009	<0.033	0.062
Benzyl chloride	<0.211	<0.211	<0.211	<0.211	<0.053	<0.211	<0.021	<0.211	<0.211
Bromodichloromethane	<0.068	<0.068	<0.068	<0.068	<0.017	<0.068	<0.007	<0.068	<0.068
Bromoethene(Vinyl Bromide)	<0.045	<0.045	<0.045	<0.045	<0.011	<0.045	<0.004	<0.045	<0.045
Bromoform	<0.105	<0.105	<0.105	<0.105	<0.026	<0.105	<0.011	<0.105	<0.105
Bromomethane	<0.040	<0.040	<0.040	<0.040	<0.010	<0.040	<0.004	<0.040	<0.040
Carbon disulfide	0.666	0.381	0.089	0.124	0.044	<0.032	0.003	<0.032	<0.032
Carbon tetrachloride	<0.064	<0.064	<0.064	<0.064	<0.016	<0.064	<0.006	<0.064	<0.064
Chlorobenzene	<0.047	<0.047	<0.047	<0.047	<0.012	<0.047	<0.005	<0.047	<0.047
Chloroethane	<0.027	<0.027	<0.027	<0.027	<0.007	<0.027	<0.003	<0.027	<0.027
Chloroform	<0.050	<0.050	<0.050	<0.050	0.014	<0.050	0.006	<0.050	<0.050

Table 24b
New Burn Area (OBU) Soil Gas Analytical Results (µg/L)
Final Remedial Investigation Report

Parameter	NB-SG01-10 4/16/2005	NB-SG01-20 4/16/2005	NB-SG01-30 4/16/2005	NB-SG02-10 4/17/2005	NB-SG02-20 4/18/2005	NB-SG02-30 4/18/2005	NB-SG03-10 4/18/2005	NB-SG03-20 4/18/2005	NB-SG03-30 4/18/2005
Depth (feet bgs)	10	20	30	10	20	30	10	20	30
Volatile Organic Compounds (ug/L)									
Chloromethane	<0.021	<0.021	<0.021	<0.021	<0.005	<0.021	<0.002	<0.021	<0.021
cis-1,2-Dichloroethene	<0.040	<0.040	<0.040	<0.040	<0.010	<0.040	<0.004	<0.040	<0.040
cis-1,3-Dichloropropene	<0.046	<0.046	<0.046	<0.046	<0.012	<0.046	<0.005	<0.046	<0.046
Cyclohexane	0.046	0.039	0.039	<0.035	0.023	0.042	<0.004	<0.035	<0.035
Dibromochloromethane	<0.087	<0.087	<0.087	<0.087	<0.022	<0.087	<0.009	<0.087	<0.087
Dichlorodifluoromethane(F-12)	<0.050	<0.050	<0.050	<0.050	<0.013	<0.050	<0.005	<0.050	<0.050
Dichlorotetrafluoroethane(F-114)	<0.071	<0.071	<0.071	<0.071	<0.018	<0.071	<0.007	<0.071	<0.071
Ethyl Acetate	<0.037	<0.037	<0.037	<0.037	<0.009	<0.037	<0.004	<0.037	<0.037
Ethylbenzene	<0.044	0.062	<0.044	<0.044	<0.011	<0.044	<0.004	<0.044	<0.044
Heptane	<0.042	<0.042	<0.042	<0.042	<0.010	<0.042	<0.004	<0.042	<0.042
Hexachlorobutadiene	<0.217	<0.217	<0.217	<0.217	<0.054	<0.217	<0.022	<0.217	<0.217
Hexane	0.208	0.122	0.194	0.140	0.054	0.086	0.028	0.072	0.197
m&p-Xylene	<0.088	<0.088	<0.088	<0.088	<0.022	<0.088	<0.009	<0.088	<0.088
Methyl tert-butyl ether	<0.073	<0.073	<0.073	<0.073	<0.018	<0.073	<0.007	<0.073	<0.073
Methylene chloride	<0.035	<0.035	<0.035	0.078	0.057	0.074	0.016	<0.035	<0.035
o-Xylene	<0.044	<0.044	<0.044	<0.044	<0.011	<0.044	<0.004	<0.044	<0.044
Propene (Propylene)	0.666	0.842	1.4	0.351	0.281	0.649	0.067	0.596	3.9
Styrene	<0.043	<0.043	<0.043	<0.043	<0.011	<0.043	<0.004	<0.043	<0.043
Tetrachloroethene	<0.069	<0.069	<0.069	<0.069	<0.017	<0.069	<0.007	<0.069	<0.069
Tetrahydrofuran	<0.120	<0.120	<0.120	<0.120	<0.030	<0.120	<0.012	<0.120	<0.120
Toluene	0.111	0.180	0.061	0.065	0.018	<0.038	0.010	<0.038	0.050
trans-1,2-Dichloroethene	<0.040	<0.040	<0.040	<0.040	<0.010	<0.040	<0.004	<0.040	<0.040
trans-1,3-Dichloropropene	<0.046	<0.046	<0.046	<0.046	<0.012	<0.046	<0.005	<0.046	<0.046
Trichloroethene	<0.055	<0.055	<0.055	<0.055	<0.014	<0.055	<0.005	<0.055	<0.055
Trichlorofluoromethane(F-11)	<0.057	<0.057	<0.057	<0.057	<0.014	<0.057	<0.006	<0.057	<0.057
Trichlorotrifluoroethane(F-113)	<0.078	<0.078	<0.078	<0.078	<0.020	<0.078	<0.008	<0.078	<0.078
Vinyl acetate	<0.036	<0.036	<0.036	<0.036	<0.009	<0.036	<0.004	<0.036	<0.036
Vinyl chloride	<0.026	<0.026	<0.026	<0.026	<0.007	<0.026	<0.003	<0.026	<0.026

Notes:
bgs = below ground surface
µg/L = microgram per liter
J = The analyte was positively identified; however, the result should be considered an estimated value.
< = Analyte not reported above listed laboratory detection limit.

Table 25
Groundwater Sample Analytical Results - Perchlorate
Final Remedial Investigation Report

		Perchlorate (ug/L)	
Sample ID	**Date**	**EPA 314.0**	**EPA 332.0**
Monitor Well MW-1			
MW-1	2/13/04	130	NA
MW-1	3/19/04	120	NA
MW-1	4/16/04	88	NA
MW-1	9/7/04	94	NA
MW-1	11/4/04	89	NA
MW-1	12/9/04	89	NA
MW-1	1/17/05	77	NA
MW-1	4/25/05	65	NA
MW-1	7/18/05	58	NA
MW-1	10/24/05	47	NA
MW-1	3/21/06	49	NA
MW-1	5/22/06	52	NA
MW-1	8/28/06	61	NA
MW-1	11/13/06	64	NA
MW-1	2/13/07	76	NA
MW-1	4/9/07	71	NA
MW-1	7/31/07	71	NA
MW-1	10/16/07	70	75
MW-1	1/15/08	74	NA
MW-1	3/31/08	76	NA
MW-1	10/17/08	73	NA
MW-1	1/23/09	76	NA
MW-1	4/15/09	76	NA
MW-1	8/14/09	83	NA
MW-1	11/2/09	70	NA
MW-1	1/25/10	69	NA
MW-1	6/14/10	78	NA
MW-1	3/2/11	67	NA
MW-1	4/26/11	70	NA

Table 25
Groundwater Sample Analytical Results - Perchlorate
Final Remedial Investigation Report

		Perchlorate (ug/L)	
Sample ID	**Date**	**EPA 314.0**	**EPA 332.0**
Monitor Well MW-2			
MW-2	2/13/04	47	NA
MW-2	3/19/04	39	NA
MW-2	4/16/04	40	NA
MW-2	9/7/04	50	NA
MW-2	11/5/04	54	NA
MW-2	12/9/04	56	NA
MW-2	1/17/05	55	NA
MW-2	4/25/05	64	NA
MW-2	7/18/05	61	NA
MW-2	10/24/05	71	NA
MW-2	3/22/06	69	NA
MW-2	5/23/06	75	NA
MW-2	8/28/06	77	NA
MW-2	11/13/06	78	NA
MW-2	2/13/07	87	NA
MW-2	4/9/07	83	NA
MW-2	7/31/07	84	NA
MW-2	1/19/08	84	NA
MW-2	3/31/08	86	NA
MW-2	7/30/08	88	NA
MW-2	10/17/08	78	NA
MW-2	1/23/09	92	NA
MW-2	4/15/09	88	NA
MW-2	8/14/09	96	NA
MW-2	11/2/09	83	NA
MW-2	1/25/10	90	NA
MW-2	6/14/10	94	NA
MW-2	3/2/11	87	NA
MW-2	4/26/11	87	NA

Table 25
Groundwater Sample Analytical Results - Perchlorate
Final Remedial Investigation Report

		Perchlorate (ug/L)	
Sample ID	**Date**	**EPA 314.0**	**EPA 332.0**
Monitor Well MW-3			
MW-3	9/8/04	<2.0	NA
MW-3	11/5/04	<2.0	NA
MW-3	12/9/04	<2.0	NA
MW-3	1/18/05	<2.0	NA
MW-3	4/26/05	<2.0	NA
MW-3	7/20/05	<2.0	NA
MW-3	10/26/05	<2.0	NA
MW-3	3/21/06	<2.0	NA
MW-3	8/30/06	<2.0	NA
MW-3	11/15/06	NA	0.59
MW-3	2/15/07	<2.0	0.54
MW-3	8/2/07	<2.0	NA
MW-3	8/2/07	NA	1.0
MW-3	1/18/08	<2.0	0.46
MW-3	7/30/08	<2.0	0.69
MW-3	1/14/09	<2.0	0.73
MW-3	8/18/09	<2.0	0.64 J
MW-3	1/20/10	<2.0	0.47 J
MW-3	2/25/11	<2.0	0.53
Monitor Well MW-4			
MW-4	9/8/04	<2.0	NA
MW-4	11/5/04	<2.0	NA
MW-4	12/9/04	<2.0	NA
MW-4	1/18/05	<2.0	NA
MW-4	4/26/05	<2.0	NA
MW-4	7/18/05	<2.0	NA
MW-4	10/26/05	<2.0	NA
MW-4	3/23/06	<2.0	NA
MW-4	8/30/06	<2.0	NA
MW-4	11/15/06	NA	0.61
MW-4	2/15/07	<2.0	0.62
MW-4	8/2/07	<2.0	NA
MW-4	8/2/07	NA	0.97
MW-4	1/19/08	<2.0	0.53
MW-4	7/30/08	<2.0	0.74
MW-4	1/14/09	<2.0	0.72
MW-4	8/18/09	<2.0	0.71 J
MW-4	1/20/10	<2.0	0.49 J
MW-4	2/25/11	<2.0	0.61

Table 25
Groundwater Sample Analytical Results - Perchlorate
Final Remedial Investigation Report

		Perchlorate (ug/L)	
Sample ID	**Date**	**EPA 314.0**	**EPA 332.0**
Monitor Well MW-5			
MW-5	9/8/04	6.4	NA
MW-5	11/4/04	7.7	NA
MW-5	12/8/04	9.6	NA
MW-5	1/18/05	9	NA
MW-5	4/26/05	11	NA
MW-5	7/18/05	12	NA
MW-5	10/25/05	15	NA
MW-5	3/22/06	16	NA
MW-5	5/23/06	17	NA
MW-5	8/30/06	18	NA
MW-5	11/14/06	18	NA
MW-5	2/13/07	21	NA
MW-5	4/10/07	19	NA
MW-5	7/31/07	19	NA
MW-5	10/17/07	22	NA
MW-5	1/16/08	25	NA
MW-5	3/31/08	23	NA
MW-5	7/30/08	24	NA
MW-5	10/17/08	22	NA
MW-5	1/16/09	24	NA
MW-5	4/15/09	23	NA
MW-5	8/17/09	27	NA
MW-5	10/28/09	26	NA
MW-5	1/25/10	32	NA
MW-5	6/14/10	27	NA
MW-5	3/2/11	20	NA
MW-5	4/26/11	23	NA

Table 25
Groundwater Sample Analytical Results - Perchlorate
Final Remedial Investigation Report

		Perchlorate (ug/L)	
Sample ID	**Date**	**EPA 314.0**	**EPA 332.0**
Monitor Well MW-6			
MW-6	9/8/04	18	NA
MW-6	11/5/04	19	NA
MW-6	12/9/04	18	NA
MW-6	1/18/05	15	NA
MW-6	4/27/05	18	NA
MW-6	7/20/05	20	NA
MW-6	10/26/05	18	NA
MW-6	3/23/06	16	NA
MW-6	5/23/06	17	NA
MW-6	8/30/06	17	NA
MW-6	11/15/06	16	NA
MW-6	2/15/07	18	NA
MW-6	4/10/07	17	NA
MW-6	8/2/07	17	NA
MW-6	10/17/07	15	NA
MW-6	1/17/08	18	NA
MW-6	3/31/08	17	NA
MW-6	7/30/08	17	NA
MW-6	10/17/08	15	NA
MW-6	1/14/09	18	NA
MW-6	4/15/09	17	NA
MW-6	8/18/09	19	NA
MW-6	10/30/09	15	NA
MW-6	1/20/10	16	NA
MW-6	6/15/10	19	NA
MW-6	2/25/11	17	NA
MW-6	4/27/11	18	NA
Monitor Well MW-7			
MW-7	11/5/04	<2.0	NA
MW-7	12/8/04	<2.0	NA
MW-7	1/18/05	<2.0	NA
MW-7	4/26/05	<2.0	NA
MW-7	7/20/05	<2.0	NA
MW-7	10/25/05	<2.0	NA
MW-7	3/22/06	<2.0	NA
MW-7	8/30/06	<2.0	NA
MW-7	11/15/06	NA	0.60
MW-7	2/14/07	<2.0	0.60
MW-7	8/1/07	<2.0	NA
MW-7	8/1/07	NA	0.58 J
MW-7	1/17/08	<2.0	0.49
MW-7	8/1/08	<2.0	0.73
MW-7	1/15/09	<2.0	0.62
MW-7	8/18/09	<2.0	0.70 J
MW-7	1/22/10	<2.0	0.51 J
MW-7	2/25/11	<2.0	0.65

Table 25
Groundwater Sample Analytical Results - Perchlorate
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		Perchlorate (ug/L)	
Sample ID	**Date**	**EPA 314.0**	**EPA 332.0**
Monitor Well MW-8			
MW-8	11/5/04	<2.0	NA
MW-8	12/9/04	<2.0	NA
MW-8	1/19/05	<2.0	NA
MW-8	4/27/05	<2.0	NA
MW-8	7/20/05	<2.0	NA
MW-8	10/26/05	<2.0	NA
MW-8	3/22/06	<2.0	NA
MW-8	8/30/06	<2.0	NA
MW-8	11/15/06	NA	0.99
MW-8	2/15/07	<2.0	1.0
MW-8	8/2/07	<2.0	NA
MW-8	8/2/07	NA	1.4
MW-8	1/18/08	<2.0	0.92
MW-8	7/31/08	<2.0	0.88
MW-8	1/14/09	<2.0	1.1
MW-8	8/18/09	<2.0	1.0 J
MW-8	1/20/10	<2.0	0.93 J
MW-8	3/1/11	<2.0	1.1
Monitor Well MW-9			
MW-9	2/10/05	<2.0	NA
MW-9	4/25/05	<2.0	NA
MW-9	7/20/05	<2.0	NA
MW-9	10/26/05	<2.0	NA
MW-9	3/23/06	<2.0	NA
MW-9	8/31/06	<2.0	NA
MW-9	11/15/06	NA	0.77
MW-9	2/14/07	<2.0	0.81
MW-9	8/1/07	<2.0	NA
MW-9	8/1/07	NA	0.80 J
MW-9	1/18/08	<2.0	0.68
MW-9	8/1/08	<2.0	0.86
MW-9	1/14/09	<2.0	0.84
MW-9	8/18/09	<2.0	0.78 J
MW-9	1/20/10	<2.0	0.64 J
MW-9	3/1/11	<2.0	0.75

Table 25
Groundwater Sample Analytical Results - Perchlorate
Final Remedial Investigation Report

		Perchlorate (ug/L)	
Sample ID	**Date**	**EPA 314.0**	**EPA 332.0**
Monitor Well MW-10			
MW-10	2/10/05	<2.0	NA
MW-10	4/27/05	<2.0	NA
MW-10	7/20/05	<2.0	NA
MW-10	10/26/05	<2.0	NA
MW-10	3/23/06	<2.0	NA
MW-10	8/30/06	<2.0	NA
MW-10	11/15/06	NA	0.78
MW-10	2/15/07	<2.0	0.81
MW-10	8/2/07	<2.0	NA
MW-10	8/2/07	NA	1.3
MW-10	1/18/08	<2.0	0.75
MW-10	7/31/08	<2.0	0.87
MW-10	1/14/09	<2.0	0.96
MW-10	8/18/09	<2.0	0.93 J
MW-10	1/20/10	<2.0	1.2 J
MW-10	2/25/11	<2.0	1.0
Monitor Well MW-11			
MW-11	3/21/06	<2.0	NA
MW-11	5/22/06	2.1	NA
MW-11	8/29/06	2.0	NA
MW-11	11/14/06	<2.0	2.2
MW-11	2/13/07	<2.0	2.2
MW-11	4/10/07	<2.0	2.1
MW-11	7/31/07	2.3	NA
MW-11	7/31/07	NA	1.9 J
MW-11	10/17/07	2.4	NA
MW-11	1/16/08	<2.0	2.6
MW-11	8/1/08	2.6	2.2
MW-11	1/15/09	2.0	2.0
MW-11	8/18/09	2.3	2.1 J
MW-11	1/21/10	2.0	2.1 J
MW-11	2/28/11	<2.0	2.2
Monitor Well MW-12			
MW-12	3/21/06	<2.0	NA
MW-12	5/22/06	<2.0	NA
MW-12	8/28/06	<2.0	NA
MW-12	11/13/06	<2.0	0.76
MW-12	2/13/07	<2.0	0.68
MW-12	7/31/07	<2.0	1.0 J
MW-12	1/15/08	<2.0	0.66
MW-12	7/31/08	<2.0	1.2
MW-12	1/23/09	<2.0	1.2
MW-12	8/14/09	<2.0	0.78 J
MW-12	1/21/10	<2.0	1.1 J
MW-12	3/1/11	<2.0	0.79

Table 25
Groundwater Sample Analytical Results - Perchlorate
Final Remedial Investigation Report

		Perchlorate (ug/L)	
Sample ID	**Date**	**EPA 314.0**	**EPA 332.0**
Monitor Well MW-13			
MW-13	8/8/08	330	250
MW-13	10/17/08	220	210
MW-13	1/16/09	190	NA
MW-13	4/16/09	81	NA
MW-13	8/13/09	40	NA
MW-13	10/29/09	30	NA
MW-13	1/22/10	22	NA
MW-13	6/15/10	12	NA
MW-13	3/2/11	6.4	NA
MW-13	4/27/11	7.0	NA
Monitor Well MW-14			
MW-14	8/19/08	2.5	2.6
MW-14	10/17/08	<2.0	1.1
MW-14	1/16/09	<2.0	1.1
MW-14	8/13/09	<2.0	1.1 J
MW-14	1/20/10	<2.0	0.98 J
MW-14	3/1/11	<2.0	0.90
Monitor Well MW-15			
MW-15	8/8/08	<2.0	0.88
MW-15	10/16/08	<2.0	0.82
MW-15	1/15/09	<2.0	0.82
MW-15	1/15/09	<2.0	0.82
MW-15	8/13/09	<2.0	0.83 J
MW-15	1/22/10	<2.0	0.86 J
MW-15	3/1/11	<2.0	0.79
Monitor Well MW-16			
MW-16	4/28/11	<2.0	0.65
Monitor Well MW-17			
MW-17	4/28/11	<2.0	0.73
Monitor Well MW-18			
MW-18	10/30/09	<2.0	1.5
MW-18	1/27/10	<2.0	<2.0 UJ
MW-18	3/30/11	<2.0	<0.50 UJ
Monitor Well MW-19			
MW-19	4/28/11	55000	NA

Table 25
Groundwater Sample Analytical Results - Perchlorate
Final Remedial Investigation Report

		Perchlorate (ug/L)	
Sample ID	**Date**	**EPA 314.0**	**EPA 332.0**
Production Well PW-1			
PW-1	4/16/04	1.4	NA
PW-1	11/4/04	<2.0	NA
PW-1	12/9/04	<2.0	NA
PW-1	1/17/05	<2.0	NA
PW-1	4/25/05	2.1	NA
PW-1	7/18/05	<2.0	NA
PW-1	10/25/05	<2.0	NA
PW-1	3/23/06	<2.0	NA
PW-1	5/23/06	2.3	NA
PW-1	8/31/06	<2.0	NA
PW-1	11/16/06	<2.0	1.8
PW-1	2/15/07	2.0	NA
PW-1	4/10/07	<2.0	NA
PW-1	8/1/07	2.3	NA
PW-1	10/17/07	<2.0	NA
PW-1	1/18/08	<2.0	NA
PW-1	4/2/08	<2.0	NA
PW-1	8/1/08	2.1	NA
PW-1	10/20/08	2.2	NA
PW-1	1/12/09	4.8	NA
PW-1	4/15/09	2.6	NA
PW-1	7/6/09	2.4	NA
PW-1	10/30/09	<2.0	NA
PW-1	3/30/11	3.8	NA
Point-of Entry			
POE	4/25/05	<2.0	NA
POE	7/18/05	2.4	NA
POE	10/25/05	2.4	NA
POE	3/23/06	2.3	NA
POE	5/23/06	2.1	NA
POE	8/31/06	<2.0	NA
POE	11/16/06	2.1	NA
POE	2/15/07	<2.0	NA
POE	4/10/07	<2.0	NA
POE	8/1/07	3	NA
POE	10/17/07	<2.0	NA
POE	1/18/08	2.5	NA
POE	4/2/08	2.4	NA
POE	8/1/08	2.5	NA
POE	10/20/08	2.0	NA
POE	1/12/09	<2.0	NA
POE	1/12/09	<2.0	NA

Notes:
ug/L = micrograms per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value.
UJ = Estimated laboratory detection limit.
EPA = U.S. Environmental Protection Agency

Table 26
MW-1
Groundwater Sample Analytical Results - Voltaile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	9/7/2004	11/4/2004	12/9/2004	1/17/2005	2/21/2005	3/21/2005	4/25/2005	5/19/2005	6/27/2005	7/18/2005	9/23/2005	10/24/2005	3/21/2006	5/22/2006	8/28/2006	11/13/2006	2/13/2007	4/9/2007	7/31/2007	10/16/2007	1/15/2008	10/17/2008	1/23/2009	8/14/2009	1/25/2010	3/2/2011
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<2.0	<1.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<2.5	<2.5	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichloropropane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dioxane	NA	NA	NA	1.4	NA	NA	1.3	NA	NA	1.4	NA	1.3	1.5	1.5	<1.0	1.3	1.1	<1.0	1.3	1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0
2,2-Dichloropropane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	< 10	<10	<2.5	<2.5	<2.5	<2.5	<2.5
2-Chlorotoluene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	< 10	<10	<2.5	<2.5	<2.5	<2.5	<2.5
4-Chlorotoluene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	< 10	<10	<2.5	<2.5	<2.5	<2.5	<2.5
Acetone	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	< 20	<20	<10	<10	<10	<10	<10
Benzene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Bromobenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Bromochloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Bromoform	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	2.1	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<4	<4	<4	<4	<4.0	<4.0	<4.0	<4.0	<4.0	< 4.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon tetrachloride	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<4	<4	<4	<4	<4.0	<4.0	<4.0	<4.0	<4.0	< 4.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Chloromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<4	<4	<4	<4	<4.0	<4.0	<4.0	<4.0	<4.0	< 4.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Dibromochloromethane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Dibromomethane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<4	<4	<4	<4	<4.0	<4.0	<4.0	<4.0	<4.0	< 4.0	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2	<2	<2	<2	<2	<2	<2	<2	<5	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<2.5	<2.5	<2.5	<2.5	<2.5
Isopropylbenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50
Naphthalene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<2.5	<2.5	<2.5	<2.5	<2.5
n-Butylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
n-Propylbenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
p-Isopropyltoluene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
sec-Butylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Styrene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
tert-Butylbenzene	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<4	<4	<4	<4	<4.0	<4.0	<4.0	<4.0	<4.0	< 4.0	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50
Vinyl Acetate	<25	<25	<25	<25	<25	<25	<25	<25	<5	<25	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0	<5.0	<0.50	<0.50	<0.50	<0.50	<1.0
Vinyl chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes, Total	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<3	<3	<3	<3	<3.0	<3.0	<3.0	<3.0	<3.0	< 3.0	<3.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.

Table 27
MW-2
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	9/7/2004	11/5/2004	12/9/2004	1/17/2005	4/25/2005	7/18/2005	10/24/2005	3/22/2006	5/23/2006	8/28/2006	11/13/2006	2/13/2007	4/9/2007 0:00	7/31/2007	10/16/2007	1/19/2008	7/30/2008	1/23/2009
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	NA	<0.50
1,1,1-Trichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<0.50	<0.50
1,1,2-Trichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
1,1-Dichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<0.50	<0.50
1,1-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
1,2,3-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<10	<10	<10	<10	<10	<10	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<5	<5	<5	<5	<5	<5	<1	<1	<1	<2.0	<1.0	<2.0	<2.0	<2.0	< 2.0	<2.0	NA	<2.5
1,2-Dibromoethane (EDB)	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
1,2-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
1,2-Dichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
1,2-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
1,3,5-Trimethylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
1,3-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
1,3-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
1,4-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
1,4-Dioxane	NA	NA	NA	2.1	2	2.4	1.8	2.2	2.1	2.1	2.5	2.7	2.6	3	2.7	2.7	2.6 J	2.4
2,2-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	< 10	<10	<2.5	<2.5
2-Chlorotoluene	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	< 10	<10	<2.5	<2.5
4-Chlorotoluene	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	< 10	<10	<2.5	<2.5
Acetone	<20	<20	<20	<20	<20	<20	<21 UJ	<20	<20	<20	<20	<20	<20	<20	< 20	<20	<10	<10
Benzene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Bromobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Bromochloromethane	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Bromodichloromethane	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Bromoform	<5	<5	<5	<5	<5	<5	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<1.0	<1.0
Bromomethane	<5	<5	<5	<5	<5	<5	<4	<4	<4	<4.0	<4.0	<4.0	<4.0	<4.0	< 4.0	<4.0	<1.0	<1.0
Carbon Disulfide	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0	<5.0	NA	<0.50
Carbon tetrachloride	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Chlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Chloroethane	<5	<5	<5	<5	<5	<5	<4	<4	<4	<4.0	<4.0	<4.0	<4.0	<4.0	< 4.0	<4.0	<1.0	<1.0
Chloroform	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Chloromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4	<4.0	<4.0	<4.0	<4.0	<4.0	< 4.0	<4.0	<1.0	<1.0
cis-1,2-Dichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
cis-1,3-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Dibromochloromethane	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Dibromomethane	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	NA	<0.50
Dichlorodifluoromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4	<4.0	<4.0	<4.0	<4.0	<4.0	< 4.0	<4.0	<0.50	<0.50
Ethylbenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<0.50	<0.50

Table 27
MW-2
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	9/7/2004	11/5/2004	12/9/2004	1/17/2005	4/25/2005	7/18/2005	10/24/2005	3/22/2006	5/23/2006	8/28/2006	11/13/2006	2/13/2007	4/9/2007 0:00	7/31/2007	10/16/2007	1/19/2008	7/30/2008	1/23/2009
Hexachlorobutadiene	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	NA	<1.0
Iodomethane	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	NA	<2.5
Isopropylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	NA	<0.50
m,p-Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0	NA
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0	<5.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0	<5.0	<0.50	<0.50
Naphthalene	<5	<5	<5	<5	<5	<5	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	NA	<2.5
n-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
n-Propylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
o-Xylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.50	NA
p-Isopropyltoluene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
sec-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Styrene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
tert-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Tetrachloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Toluene	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	< 2.0	<2.0	<0.50	<0.50
trans-1,2-Dichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
trans-1,3-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Trichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4	<4.0	<4.0	<4.0	<4.0	<4.0	< 4.0	<4.0	<0.50	<0.50
Vinyl acetate	<25	<25	<25	<25	<25	<25	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0	<5.0	<0.50	<0.50
Vinyl chloride	<5	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	<1.0	<0.50	<0.50
Xylenes, Total	<10	<10	<10	<10	<10	<10	<3	<3	<3	<3.0	<3.0	<3.0	<3.0	<3.0	< 3.0	<3.0	NA	<1.0

Notes:
ug/L = micrograms per liter
NA = not analyzed
UJ = Estimated laboratory detection limit.
< = Analyte was not reported above the listed laboratory detection limit.
J = Analyte was positively identified; however, the result should be considered an estimated value.

Table 28
MW-3
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	9/8/2004	11/5/2004	12/9/2004	1/18/2005	4/26/2005	7/20/2005	10/26/2005	3/21/2006	8/30/2006	2/15/2007	8/2/2007	1/18/2008	1/14/2009	1/20/2010	2/25/2011
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<10	<10	<10	<10	<10	<10	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<5	<5	<5	<5	<5	<5	<1	<1	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dioxane	NA	NA	NA	<1	<1	<1	<1	<1	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0
2,2-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
2-Chlorotoluene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
4-Chlorotoluene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
Acetone	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<10	<10	<10
Benzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromochloromethane	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromodichloromethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromoform	<5	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0
Bromomethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Carbon Disulfide	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Carbon tetrachloride	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloroethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Chloroform	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromochloromethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromomethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50

Table 28
MW-3
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	9/8/2004	11/5/2004	12/9/2004	1/18/2005	4/26/2005	7/20/2005	10/26/2005	3/21/2006	8/30/2006	2/15/2007	8/2/2007	1/18/2008	1/14/2009	1/20/2010	2/25/2011
Dichlorodifluoromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Ethylbenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
Hexachlorobutadiene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
Isopropylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Naphthalene	<5	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
n-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
n-Propylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
p-Isopropyltoluene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
sec-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Styrene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
tert-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Tetrachloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Toluene	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	5.4	<0.50
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Vinyl acetate	<25	<25	<25	<25	<25	<25	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<1.0
Vinyl chloride	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Xylenes, Total	<10	<10	<10	<10	<10	<10	<3	<3	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.

Table 29
MW-4
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	9/8/2004	11/5/2004	12/9/2004	1/18/2005	4/26/2005	7/18/2005	10/26/2005	3/23/2006	8/30/2006	2/15/2007	8/2/2007	1/19/2008	1/14/2009	1/20/2010	2/25/2011
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<10	<10	<10	<10	<10	<10	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<5	<5	<5	<5	<5	<5	<1	<1	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dioxane	NA	NA	NA	<1	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0
2,2-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
2-Chlorotoluene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
4-Chlorotoluene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
Acetone	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<10	<10	<10
Benzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromochloromethane	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromodichloromethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromoform	<5	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0
Bromomethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Carbon Disulfide	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Carbon tetrachloride	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloroethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Chloroform	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromochloromethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromomethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50

Table 29
MW-4
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	9/8/2004	11/5/2004	12/9/2004	1/18/2005	4/26/2005	7/18/2005	10/26/2005	3/23/2006	8/30/2006	2/15/2007	8/2/2007	1/19/2008	1/14/2009	1/20/2010	2/25/2011
Dichlorodifluoromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Ethylbenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
Hexachlorobutadiene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
Isopropylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Naphthalene	<5	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
n-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
n-Propylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
p-Isopropyltoluene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
sec-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Styrene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
tert-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Tetrachloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Toluene	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Vinyl acetate	<25	<25	<25	<25	<25	<25	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<1.0
Vinyl chloride	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Xylenes, Total	<10	<10	<10	<10	<10	<10	<3	<3	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.

Table 30
MW-5
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	9/8/2004	11/4/2004	12/8/2004	1/18/2005	4/26/2005	7/18/2005	10/25/2005	3/22/2006	8/30/2006	2/13/2007	7/31/2007	1/16/2008	1/16/2009	1/25/2010	3/2/2011
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<10	<10	<10	<10	<10	<10	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<5	<5	<5	<5	<5	<5	<1	<1	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dioxane	NA	NA	NA	<1	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0
2,2-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
2-Chlorotoluene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
4-Chlorotoluene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
Acetone	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<10	<10	<10
Benzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromochloromethane	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromodichloromethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromoform	<5	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0
Bromomethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Carbon Disulfide	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Carbon tetrachloride	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloroethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Chloroform	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromochloromethane	<2	<2	<2	<2	<2	<2	1.1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromomethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Ethylbenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50

Table 30
MW-5
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	9/8/2004	11/4/2004	12/8/2004	1/18/2005	4/26/2005	7/18/2005	10/25/2005	3/22/2006	8/30/2006	2/13/2007	7/31/2007	1/16/2008	1/16/2009	1/25/2010	3/2/2011
Hexachlorobutadiene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
Isopropylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Naphthalene	<5	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
n-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
n-Propylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
p-Isopropyltoluene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
sec-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Styrene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
tert-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Tetrachloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Toluene	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Vinyl acetate	<25	<25	<25	<25	<25	<25	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<1.0
Vinyl chloride	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Xylenes, Total	<10	<10	<10	<10	<10	<10	<3	<3	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.

Table 31
MW-6
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remediation Investigation Report

Parameter	9/8/2004	11/5/2004	12/9/2004	1/18/2005	4/27/2005	7/20/2005	10/26/2005	3/23/2006	8/30/2006	2/15/2007	8/2/2007	1/17/2008	1/14/2009	1/20/2010	2/25/2011
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<10	<10	<10	<10	<10	<10	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<5	<5	<5	<5	<5	<5	<1	<1	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloroethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dioxane	NA	NA	NA	<1	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0
2,2-Dichloropropane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
2-Chlorotoluene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
4-Chlorotoluene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
Acetone	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<10	<10	<10
Benzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromobenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromochloromethane	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromodichloromethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromoform	<5	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0
Bromomethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Carbon Disulfide	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Carbon tetrachloride	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chlorobenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloroethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Chloroform	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromochloromethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromomethane	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Ethylbenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50

Table 31
MW-6
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remediation Investigation Report

Parameter	9/8/2004	11/5/2004	12/9/2004	1/18/2005	4/27/2005	7/20/2005	10/26/2005	3/23/2006	8/30/2006	2/15/2007	8/2/2007	1/17/2008	1/14/2009	1/20/2010	2/25/2011
Hexachlorobutadiene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
Isopropylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Naphthalene	<5	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
n-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
n-Propylbenzene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
p-Isopropyltoluene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
sec-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Styrene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
tert-Butylbenzene	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Tetrachloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Toluene	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichloroethene	<2	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichlorofluoromethane	<5	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Vinyl acetate	<25	<25	<25	<25	<25	<25	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<1.0
Vinyl chloride	<5	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Xylenes, Total	<10	<10	<10	<10	<10	<10	<3	<3	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.

Table 32
MW-7
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	11/5/2004	12/8/2004	1/18/2005	4/26/2005	7/20/2005	10/25/2005	3/22/2006	8/30/2006	2/14/2007	8/1/2007	1/17/2008	1/15/2009	1/22/2010	2/25/2011
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethene	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1-Dichloropropene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<10	<10	<10	<10	<10	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<5	<5	<5	<5	<5	<1	<1	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloroethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloropropane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichloropropane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dioxane	NA	NA	<1	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0
2,2-Dichloropropane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
2-Chlorotoluene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
4-Chlorotoluene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
Acetone	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<10	<10	<10
Benzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromobenzene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromochloromethane	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromodichloromethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromoform	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0
Bromomethane	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Carbon Disulfide	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Carbon tetrachloride	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chlorobenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloroethane	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Chloroform	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloromethane	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromochloromethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromomethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50

Table 32
MW-7
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	11/5/2004	12/8/2004	1/18/2005	4/26/2005	7/20/2005	10/25/2005	3/22/2006	8/30/2006	2/14/2007	8/1/2007	1/17/2008	1/15/2009	1/22/2010	2/25/2011
Ethylbenzene	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
Hexachlorobutadiene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
Isopropylbenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Naphthalene	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
n-Butylbenzene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
n-Propylbenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
p-Isopropyltoluene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
sec-Butylbenzene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Styrene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
tert-Butylbenzene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Tetrachloroethene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Toluene	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichloroethene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichlorofluoromethane	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Vinyl acetate	<25	<25	<25	<25	<25	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<1.0
Vinyl chloride	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Xylenes, Total	<10	<10	<10	<10	<10	<3	<3	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.

Table 33
MW-8
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	11/5/2004	12/9/2004	1/19/2005	4/27/2005	7/20/2005	10/26/2005	3/22/2006	8/30/2006	2/15/2007	8/2/2007	1/18/2008	1/14/2009	1/20/2010	3/1/2011
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethene	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1-Dichloropropene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<10	<10	<10	<10	<10	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<5	<5	<5	<5	<5	<1	<1	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloroethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloropropane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichloropropane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dioxane	NA	NA	<1	<1	<1	<1	<1	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0
2,2-Dichloropropane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
2-Chlorotoluene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
4-Chlorotoluene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
Acetone	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<10	<10	<10
Benzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromobenzene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromochloromethane	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromodichloromethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromoform	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0
Bromomethane	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Carbon Disulfide	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Carbon tetrachloride	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chlorobenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloroethane	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Chloroform	<2	9.6	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloromethane	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromochloromethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromomethane	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50

Table 33
MW-8
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	11/5/2004	12/9/2004	1/19/2005	4/27/2005	7/20/2005	10/26/2005	3/22/2006	8/30/2006	2/15/2007	8/2/2007	1/18/2008	1/14/2009	1/20/2010	3/1/2011
Ethylbenzene	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
Hexachlorobutadiene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
Isopropylbenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Naphthalene	<5	<5	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
n-Butylbenzene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
n-Propylbenzene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
p-Isopropyltoluene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
sec-Butylbenzene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Styrene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
tert-Butylbenzene	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Tetrachloroethene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Toluene	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichloroethene	<2	<2	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichlorofluoromethane	<5	<5	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Vinyl acetate	<25	<25	<25	<25	<25	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<1.0
Vinyl chloride	<5	<5	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Xylenes, Total	<10	<10	<10	<10	<10	<3	<3	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.

Table 34
MW-9
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	2/10/2005	4/25/2005	7/20/2005	10/26/2005	3/23/2006	8/31/2006	2/14/2007	8/1/2007	1/18/2008	1/14/2009	1/20/2010	3/1/2011
1,1,1,2-Tetrachloroethane	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethene	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1-Dichloropropene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<10	<10	<10	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<5	<5	<5	<1	<1	<1.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloroethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloropropane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichloropropane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dioxane	<1	<1	<1	<1	<1	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0
2,2-Dichloropropane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
2-Chlorotoluene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
4-Chlorotoluene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
Acetone	<20	<20	<20	<20	<20	<20	<20	<20	<20	<10	<10	<10
Benzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromobenzene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromochloromethane	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromodichloromethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromoform	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0
Bromomethane	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Carbon Disulfide	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Carbon tetrachloride	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chlorobenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloroethane	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Chloroform	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloromethane	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50

Table 34
MW-9
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	2/10/2005	4/25/2005	7/20/2005	10/26/2005	3/23/2006	8/31/2006	2/14/2007	8/1/2007	1/18/2008	1/14/2009	1/20/2010	3/1/2011
cis-1,3-Dichloropropene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromochloromethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromomethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Ethylbenzene	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
Hexachlorobutadiene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
Isopropylbenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Methylene chloride	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Naphthalene	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
n-Butylbenzene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
n-Propylbenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
p-Isopropyltoluene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
sec-Butylbenzene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Styrene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
tert-Butylbenzene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Tetrachloroethene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Toluene	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichloroethene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichlorofluoromethane	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Vinyl acetate	<25	<25	<25	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<1.0
Vinyl chloride	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Xylenes, Total	<10	<10	<10	<3	<3	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
< = Analyte was not reported above the listed laboratory detection limit.

Table 35
MW-10
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	2/10/2005	4/27/2005	7/20/2005	10/26/2005	3/23/2006	8/30/2006	2/15/2007	8/2/2007	1/18/2008	1/14/2009	1/20/2010	2/25/2011
1,1,1,2-Tetrachloroethane	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethene	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1-Dichloropropene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<10	<10	<10	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<5	<5	<5	<1	<1	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloroethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloropropane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichloropropane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dioxane	<1	<1	<1	<1	<1	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0
2,2-Dichloropropane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
2-Chlorotoluene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
4-Chlorotoluene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
Acetone	<20	<20	<20	<20	<20	<20	<20	<20	<20	<10	<10	<10
Benzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromobenzene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromochloromethane	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromodichloromethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromoform	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0
Bromomethane	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Carbon Disulfide	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Carbon tetrachloride	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chlorobenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloroethane	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Chloroform	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloromethane	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromochloromethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromomethane	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50

Table 35
MW-10
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	2/10/2005	4/27/2005	7/20/2005	10/26/2005	3/23/2006	8/30/2006	2/15/2007	8/2/2007	1/18/2008	1/14/2009	1/20/2010	2/25/2011
Ethylbenzene	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
Hexachlorobutadiene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
Isopropylbenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Methylene chloride	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Naphthalene	<5	<5	<5	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
n-Butylbenzene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
n-Propylbenzene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
p-Isopropyltoluene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
sec-Butylbenzene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Styrene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
tert-Butylbenzene	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Tetrachloroethene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Toluene	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichloroethene	<2	<2	<2	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichlorofluoromethane	<5	<5	<5	<4	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Vinyl acetate	<25	<25	<25	<5	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<1.0
Vinyl chloride	<5	<5	<5	<1	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Xylenes, Total	<10	<10	<10	<3	<3	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.

Table 36
MW-11
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	3/21/2006	8/29/2006	2/13/2007	7/31/2007	1/16/2008	1/15/2009	1/21/2010	2/28/2011
1,1,1,2-Tetrachloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethene	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<1	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloropropane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichloropropane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dioxane	<1	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0
2,2-Dichloropropane	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
2-Chlorotoluene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
2-Hexanone	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
4-Chlorotoluene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
Acetone	<20	<20	<20	<20	<20	<10	<10	<10
Benzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromochloromethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromodichloromethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromoform	<2	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0
Bromomethane	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Carbon Disulfide	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Carbon tetrachloride	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50

Table 36
MW-11
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	3/21/2006	8/29/2006	2/13/2007	7/31/2007	1/16/2008	1/15/2009	1/21/2010	2/28/2011
Chlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloroethane	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Chloroform	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloromethane	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromochloromethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromomethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Ethylbenzene	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
Hexachlorobutadiene	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
Isopropylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Methylene chloride	<5	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Naphthalene	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
n-Butylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
n-Propylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
p-Isopropyltoluene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
sec-Butylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Styrene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
tert-Butylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Tetrachloroethene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Toluene	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichloroethene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichlorofluoromethane	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Vinyl acetate	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<1.0
Vinyl chloride	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Xylenes, Total	<3	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
< = Analyte was not reported above the listed laboratory detection limit.

Table 37
MW-12
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	3/21/2006	8/28/2006	2/13/2007	7/31/2007	1/15/2008	1/23/2009	1/21/2010	3/1/2011
1,1,1,2-Tetrachloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethene	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<1	<1.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloropropane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichloropropane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dioxane	<1	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0
2,2-Dichloropropane	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
2-Chlorotoluene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
2-Hexanone	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
4-Chlorotoluene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
Acetone	<20	<20	<20	<20	<20	<10	<10	<10
Benzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromochloromethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromodichloromethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromoform	<2	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0
Bromomethane	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Carbon Disulfide	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Carbon tetrachloride	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50

Table 37
MW-12
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	3/21/2006	8/28/2006	2/13/2007	7/31/2007	1/15/2008	1/23/2009	1/21/2010	3/1/2011
Chlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloroethane	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Chloroform	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloromethane	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromochloromethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromomethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Ethylbenzene	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
Hexachlorobutadiene	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
Isopropylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Methylene chloride	<5	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Naphthalene	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
n-Butylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
n-Propylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
p-Isopropyltoluene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
sec-Butylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Styrene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
tert-Butylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Tetrachloroethene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Toluene	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichloroethene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichlorofluoromethane	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Vinyl acetate	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<1.0
Vinyl chloride	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Xylenes, Total	<3	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
< = Analyte was not reported above the listed laboratory detection limit.

Table 37
MW-12
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	3/21/2006	8/28/2006	2/13/2007	7/31/2007	1/15/2008	1/23/2009	1/21/2010	3/1/2011
1,1,1,2-Tetrachloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,1-Dichloroethene	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
1,1-Dichloropropene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<1	<1.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloroethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,2-Dichloropropane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,3-Dichloropropane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
1,4-Dioxane	<1	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0
2,2-Dichloropropane	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
2-Chlorotoluene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
2-Hexanone	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
4-Chlorotoluene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<2.5	<2.5	<2.5
Acetone	<20	<20	<20	<20	<20	<10	<10	<10
Benzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromochloromethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromodichloromethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Bromoform	<2	<2.0	<2.0	<2.0	<2.0	<1.0	<1.0	<1.0
Bromomethane	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Carbon Disulfide	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Carbon tetrachloride	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50

Table 37
MW-12
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	3/21/2006	8/28/2006	2/13/2007	7/31/2007	1/15/2008	1/23/2009	1/21/2010	3/1/2011
Chlorobenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloroethane	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
Chloroform	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Chloromethane	<4	<4.0	<4.0	<4.0	<4.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromochloromethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dibromomethane	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Ethylbenzene	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
Hexachlorobutadiene	<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Iodomethane	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
Isopropylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Methylene chloride	<5	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
Naphthalene	<2	<2.0	<2.0	<2.0	<2.0	<2.5	<2.5	<2.5
n-Butylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
n-Propylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
p-Isopropyltoluene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
sec-Butylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Styrene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
tert-Butylbenzene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Tetrachloroethene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Toluene	<2	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichloroethene	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Trichlorofluoromethane	<4	<4.0	<4.0	<4.0	<4.0	<0.50	<0.50	<0.50
Vinyl acetate	<5	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<1.0
Vinyl chloride	<1	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50
Xylenes, Total	<3	<3.0	<3.0	<3.0	<3.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
< = Analyte was not reported above the listed laboratory detection limit.

Table 38
MW-13, MW-14, MW-15, and Temporary Well Point at SVMW-1
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	MW-13 8/8/2008	MW-13 1/16/2009	MW-13 1/22/2010	MW-13 3/2/2011	MW-14 8/19/2008	MW-14 1/16/2009	MW-14 1/20/2010	MW-14 3/1/2011	MW-15 8/8/2008	MW-15 1/15/2009	MW-15 1/22/2010	MW-15 3/1/2011	SVMW-1-218-238 8/8/2008
1,1,1,2-Tetrachloroethane	NA	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethane	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	NA	<2.5	<2.5	<2.5	<2.0	<2.5	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichloropropane	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dioxane	<1.0	<2.0	<1.0	<1.0	1.3	<2.0	<1.0	<1.0	2.7	<2.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	4.6
2-Chlorotoluene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
2-Hexanone	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
4-Chlorotoluene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<2.5	<2.5	<2.5	<2.5	<10	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Acetone	<10	<10	<10	<10	<20	<10	<10	<10	<10	<10	<10	<10	45
Benzene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromobenzene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromochloromethane	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromoform	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	2.2	<1.0	<1.0	<1.0	<1.0
Bromomethane	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon disulfide	NA	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Carbon tetrachloride	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroethane	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	0.67	<0.50	<0.50	<0.50	<0.50
Chloromethane	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dibromochloromethane	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dibromomethane	NA	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<0.50	<0.50	<0.50	<0.50	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Table 38
MW-13, MW-14, MW-15, and Temporary Well Point at SVMW-1
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	MW-13 8/8/2008	MW-13 1/16/2009	MW-13 1/22/2010	MW-13 3/2/2011	MW-14 8/19/2008	MW-14 1/16/2009	MW-14 1/20/2010	MW-14 3/1/2011	MW-15 8/8/2008	MW-15 1/15/2009	MW-15 1/22/2010	MW-15 3/1/2011	SVMW-1-218-238 8/8/2008
Ethylbenzene	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0
Iodomethane	NA	<2.5	<2.5	<2.5	<2.0	<2.5	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5
Isopropylbenzene	NA	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	NA	<0.50	<0.50	<0.50	<0.50
m,p-Xylenes	<1.0	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Naphthalene	NA	<2.5	<2.5	<2.5	<2.0	<2.5	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5
n-Butylbenzene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
n-Propylbenzene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
o-Xylene	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	NA	NA	NA	NA
p-Isopropyltoluene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
sec-Butylbenzene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Styrene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
tert-Butylbenzene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	0.58	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	<0.50	0.77	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	<0.50	<0.50	<0.50	<0.50	<4.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Vinyl Acetate	<0.50	<0.50	<0.50	<1.0	<5.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<1.0	<0.50
Vinyl chloride	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes, Total	NA	<1.0	<1.0	<1.0	<3.0	<1.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.

Table 39
MW-16, MW-17, MW-18, and MW-19
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	MW-16 4/28/2011	MW-17 4/28/2011	MW-18 10/30/2009	MW-18 1/27/2010	MW-18 3/30/2011	MW-19 4/28/2011
1,1,1,2-Tetrachloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloropropene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dibromo-3-chloropropane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
1,2-Dibromoethane (EDB)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3,5-Trimethylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichloropropane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dioxane	<2.0	<2.0	<1.0	<1.0	<2.0	<2.0
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-Butanone (MEK)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
2-Chlorotoluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
2-Hexanone	<5.0	<5.0	<2.5	<2.5	<2.5	<5.0
4-Chlorotoluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
4-Methyl-2-pentanone (MIBK)	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Acetone	<10	<10	<10	<10	<10	<10
Benzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromochloromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromoform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon disulfide	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon tetrachloride	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dibromochloromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dibromomethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Hexachlorobutadiene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Table 39
MW-16, MW-17, MW-18, and MW-19
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	MW-16 4/28/2011	MW-17 4/28/2011	MW-18 10/30/2009	MW-18 1/27/2010	MW-18 3/30/2011	MW-19 4/28/2011
Iodomethane	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Isopropylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl-tert-butyl Ether (MTBE)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Naphthalene	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
n-Butylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
n-Propylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
p-Isopropyltoluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
sec-Butylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Styrene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
tert-Butylbenzene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Vinyl Acetate	<1.0	<1.0	<0.50	<0.50	<1.0	<1.0
Vinyl chloride	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Xylenes, Total	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Notes:
ug/L = micrograms per liter
< = Analyte was not reported above the listed laboratory detection limit.

Table 40
PW-1
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	11/4/2004	12/9/2004	1/17/2005	4/25/2005	7/18/2005	10/25/2005	3/23/2006	5/23/2006	8/31/2006	11/16/2006	2/15/2007	4/10/2007	8/1/2007
1,1,1,2-Tetrachloroethane	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,1,1-Trichloroethane	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,1,2,2-Tetrachloroethane	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0 UJ	<2.0	<2.0 UJ
1,1,2-Trichloroethane	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,1-Dichloroethane	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,1-Dichloroethene	5	5.1	5.7	<5	<5	2.3	2	3.5	3.5	3.6	<2.0 UJ	3.0	<2.0 UJ
1,1-Dichloropropene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,2,3-Trichlorobenzene	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,2,3-Trichloropropane	<10	<10	<10	<10	<10	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,2,4-Trichlorobenzene	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,2,4-Trimethylbenzene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,2-Dibromo-3-chloropropane	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<2.0 UJ	<2.0	<2.0 UJ
1,2-Dibromoethane (EDB)	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,2-Dichlorobenzene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,2-Dichloroethane	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,2-Dichloropropane	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,3,5-Trimethylbenzene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,3-Dichlorobenzene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,3-Dichloropropane	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,4-Dichlorobenzene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
1,4-Dioxane	NA	NA	2.6	2	2.3	2	1.4	2	2.8	2.5	1.2 J	1.7 J	2.7
2,2-Dichloropropane	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
2-Butanone (MEK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 UJ	<10	<10 UJ
2-Chlorotoluene	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
2-Hexanone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 UJ	<10	<10 UJ
4-Chlorotoluene	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
4-Methyl-2-pentanone (MIBK)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 UJ	<10	<10 UJ
Acetone	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20 UJ	<20	<20 UJ
Benzene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Bromobenzene	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Bromochloromethane	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Bromodichloromethane	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Bromoform	<5	<5	<5	<5	<5	<2	<2	<2	<2.0	<2.0	<2.0 UJ	<2.0	5.6 J
Bromomethane	<5	<5	<5	<5	<5	<4	<4	<4	<4.0	<4.0	<4.0 UJ	<4.0	<4.0 UJ
Carbon Disulfide	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0 UJ	<5.0	<5.0 UJ
Carbon tetrachloride	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Chlorobenzene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Chloroethane	<5	<5	<5	<5	<5	<4	<4	<4	<4.0	<4.0	<4.0 UJ	<4.0	<4.0 UJ
Chloroform	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Chloromethane	<5	<5	<5	<5	<5	<4	<4	<4	<4.0	<4.0	<4.0 UJ	<4.0	<4.0 UJ
cis-1,2-Dichloroethene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
cis-1,3-Dichloropropene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Dibromochloromethane	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Dibromomethane	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Dichlorodifluoromethane	<5	<5	<5	<5	<5	<4	<4	<4	<4.0	<4.0	<4.0 UJ	<4.0	<4.0 UJ
Ethylbenzene	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0 UJ	<2.0	<2.0 UJ
Hexachlorobutadiene	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ

Table 40
PW-1
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
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Parameter	11/4/2004	12/9/2004	1/17/2005	4/25/2005	7/18/2005	10/25/2005	3/23/2006	5/23/2006	8/31/2006	11/16/2006	2/15/2007	4/10/2007	8/1/2007
Iodomethane	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0 UJ	<2.0	<2.0 UJ
Isopropylbenzene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
m,p-Xylenes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Methylene chloride	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0 UJ	<5.0	<5.0 UJ
Methyl-tert-butyl Ether (MTBE)	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	<5.0	<5.0 UJ	<5.0	<5.0 UJ
Naphthalene	<5	<5	<5	<5	<5	<2	<2	<2	<2.0	<2.0	<2.0 UJ	<2.0	<2.0 UJ
n-Butylbenzene	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
n-Propylbenzene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
o-Xylene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
sec-Butylbenzene	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Styrene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
tert-Butylbenzene	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Tetrachloroethene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Toluene	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0 UJ	<2.0	<2.0 UJ
trans-1,2-Dichloroethene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
trans-1,3-Dichloropropene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Trichloroethene	<2	<2	<2	<2	<2	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Trichlorofluoromethane	<5	<5	<5	<5	<5	<4	<4	<4	<4.0	<4.0	<4.0 UJ	<4.0	<4.0 UJ
Vinyl acetate	<25	<25	<25	<25	<25	<5	<5	<5	<5.0	<5.0	<5.0 UJ	<5.0	<5.0 UJ
Vinyl chloride	<5	<5	<5	<5	<5	<1	<1	<1	<1.0	<1.0	<1.0 UJ	<1.0	<1.0 UJ
Xylenes, Total	<10	<10	<10	<10	<10	<3	<3	<3	<3.0	<3.0	<3.0 UJ	<3.0	<3.0 UJ

Table 40
PW-1
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	10/17/2007	1/18/2008	4/2/2008	8/1/2008	10/20/2008	1/12/2009	4/15/2009	7/6/2009	10/30/2009	3/30/2011
1,1,1,2-Tetrachloroethane	<1.0	<1.0	N/A	N/A	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,1,1-Trichloroethane	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,1,2,2-Tetrachloroethane	<2.0	<2.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,1,2-Trichloroethane	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,1-Dichloroethane	<1.0	<1.0	<0.50	<0.50 UJ	0.52	<0.50	<0.50	0.62	<0.50 UJ	0.61
1,1-Dichloroethene	<2.0	4.3	3.5	<0.50 UJ	<0.50	<0.50	3.6	6.0	<0.50 UJ	5.0
1,1-Dichloropropene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,2,3-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
1,2,3-Trichloropropane	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
1,2,4-Trichlorobenzene	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
1,2,4-Trimethylbenzene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,2-Dibromo-3-chloropropane	<2.0	<2.0	NA	NA	<2.5	<2.5	<2.5	<2.5	<2.5 UJ	<2.5
1,2-Dibromoethane (EDB)	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,2-Dichlorobenzene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,2-Dichloroethane	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,2-Dichloropropane	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,3,5-Trimethylbenzene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,3-Dichlorobenzene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,3-Dichloropropane	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,4-Dichlorobenzene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
1,4-Dioxane	2.2	2.2	3.0	1.8	1.8	<2.0	2.5	2.9	2.4 J	2.9
2,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
2-Butanone (MEK)	<10	<10	<2.5	<2.5 UJ	<2.5	<2.5	<2.5	<2.5	<2.5 UJ	<2.5
2-Chlorotoluene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
2-Hexanone	<10	<10	<2.5	<2.5 UJ	<2.5	<2.5	<2.5	<2.5	<2.5 UJ	<2.5
4-Chlorotoluene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
4-Methyl-2-pentanone (MIBK)	<10	<10	<2.5	<2.5 UJ	<2.5	<2.5	<2.5	<2.5	<2.5 UJ	<2.5
Acetone	<20	<20	<10	<10 UJ	<10	<10	<10	<10	<10	<10
Benzene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Bromobenzene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Bromochloromethane	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Bromodichloromethane	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Bromoform	2.5	<2.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	1.2	1.3 J	<1.0
Bromomethane	<4.0	<4.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
Carbon Disulfide	<5.0	<5.0	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Carbon tetrachloride	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Chlorobenzene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Chloroethane	<4.0	<4.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
Chloroform	<1.0	<1.0	<0.50	14 J	1.6	<0.50	<0.50	0.71	<0.50 UJ	<0.50
Chloromethane	<4.0	<4.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
cis-1,2-Dichloroethene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
cis-1,3-Dichloropropene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Dibromochloromethane	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Dibromomethane	<1.0	<1.0	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Dichlorodifluoromethane	<4.0	<4.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Ethylbenzene	<2.0	<2.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Hexachlorobutadiene	<1.0	<1.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0

Table 40
PW-1
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	10/17/2007	1/18/2008	4/2/2008	8/1/2008	10/20/2008	1/12/2009	4/15/2009	7/6/2009	10/30/2009	3/30/2011
Iodomethane	<2.0	<2.0	NA	NA	<2.5	<2.5	<2.5	<2.5	<2.5 UJ	<2.5
Isopropylbenzene	<1.0	<1.0	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
m,p-Xylenes	NA	NA	<1.0	<1.0 UJ	NA	NA	NA	NA	NA	NA
Methylene chloride	<5.0	<5.0	<1.0	<1.0 UJ	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0
Methyl-tert-butyl Ether (MTBE)	<5.0	<5.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Naphthalene	<2.0	<2.0	NA	NA	<2.5	<2.5	<2.5	<2.5	<2.5 UJ	<2.5
n-Butylbenzene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
n-Propylbenzene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
o-Xylene	NA	NA	<0.50	<0.50 UJ	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50		<0.50 UJ	<0.50
sec-Butylbenzene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Styrene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
tert-Butylbenzene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Tetrachloroethene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Toluene	<2.0	<2.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
trans-1,2-Dichloroethene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
trans-1,3-Dichloropropene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Trichloroethene	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Trichlorofluoromethane	<4.0	<4.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Vinyl acetate	<5.0	<5.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<1.0
Vinyl chloride	<1.0	<1.0	<0.50	<0.50 UJ	<0.50	<0.50	<0.50	<0.50	<0.50 UJ	<0.50
Xylenes, Total	<3.0	<3.0	NA	NA	<1.0	<1.0	<1.0	<1.0	<1.0 UJ	<1.0

Notes:
ug/L = micrograms per liter
NA = not analyzed
UJ = Estimated laboratory detection limit.
< = Analyte was not reported above the listed laboratory detection limit.
J = Analyte was positively identified; however, the result should be considered an estimated value.

Table 41
POE
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	4/25/2005	7/18/2005	7/20/2005	10/25/2005	3/23/2006	5/23/2006	8/31/2006	9/1/2006	11/16/2006
1,1,1,2-Tetrachloroethane	<0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,1-Trichloroethane	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
1,1,2,2-Tetrachloroethane	<0.5	N/A	<0.5	N/A	N/A	<0.5	N/A	N/A	N/A
1,1,2-Trichloroethane	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
1,1-Dichloroethane	0.6	N/A	0.51	N/A	N/A	<0.5	N/A	N/A	N/A
1,1-Dichloroethene	<0.5 R	N/A	4.7	3.1	3.0	3.2	N/A	2.9	2.1
1,1-Dichloropropene	<0.5 R	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,3-Trichlorobenzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,3-Trichloropropane	<0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4-Trichlorobenzene	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
1,2,4-Trimethylbenzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dibromo-3-chloropropane	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dibromoethane (EDB)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
1,2-Dichloroethane	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
1,2-Dichloropropane	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
1,3,5-Trimethylbenzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichlorobenzene	<0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichloropropane	<0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichloropropene, Total	<0.5 R	N/A	<0.5	N/A	N/A	<0.5	N/A	N/A	N/A
1,4-Dichlorobenzene	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
1,4-Dioxane	N/A	2.7	N/A	2.2	2.6	2.1	3.0	N/A	2.7
2,2-Dichloropropane	<0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Chlorotoluene	<0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4-Chlorotoluene	<0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
Bromobenzene	<0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromochloromethane	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromodichloromethane	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	1.1
Bromoform	2.4	N/A	1.6	1.7	1.4	1.8	N/A	2.3	5.2
Bromomethane	<0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Carbon tetrachloride	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
Chlorobenzene	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
Chloroethane	<0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloroform	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	1.1
Chloromethane	<0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
cis-1,2-Dichloroethene	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
cis-1,3-Dichloropropene	N/A	N/A	<0.5	N/A	N/A	<0.5	N/A	N/A	N/A
Dibromochloromethane	<0.5	N/A	<0.5	1.1	<0.5	<0.5	N/A	<0.5	2.3
Dibromomethane	<0.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dichlorodifluoromethane	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethylbenzene	<0.5 R	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
Hexachlorobutadiene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Isopropylbenzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
m,p-Xylenes	<0.5 R	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
Methylene chloride	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
Methyl-tert-butyl Ether (MTBE)	N/A	N/A	<3	N/A	N/A	<3	N/A	N/A	N/A
Naphthalene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n-Butylbenzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 41
POE
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
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Parameter	4/25/2005	7/18/2005	7/20/2005	10/25/2005	3/23/2006	5/23/2006	8/31/2006	9/1/2006	11/16/2006
n-Propylbenzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
o-Xylene	<0.5 R	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
p-Isopropyltoluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
sec-Butylbenzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Styrene	<0.5 R	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
tert-Butylbenzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloroethene	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
Toluene	<0.5 R	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
trans-1,2-Dichloroethene	<0.5 UJ	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
trans-1,3-Dichloropropene	N/A	N/A	<0.5	N/A	N/A	<0.5	N/A	N/A	N/A
Trichloroethene	<0.5	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
Trichlorofluoromethane	N/A	N/A	<5	N/A	N/A	N/A	N/A	N/A	N/A
Trichlorofluoromethane (Freon 11)	N/A	N/A	N/A	N/A	N/A	<5	N/A	N/A	N/A
Trichlorotrifluoroethane (Freon 113)	N/A	N/A	<10	N/A	N/A	<10	N/A	N/A	N/A
Trihalomethanes, Total	2.4	N/A	1.6	2.8	1.4	1.8	N/A	2.3	9.7
Vinyl chloride	<0.5 R	N/A	<0.5	<0.5	<0.5	<0.5	N/A	<0.5	<0.5
Xylenes, Total	1.5 R	N/A	1.5	1.5	<1.5	<1	N/A	<1.5	<1.5

Table 41
POE
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	2/15/2007	4/10/2007	8/1/2007	10/17/2007	1/18/2008	4/2/2008	8/1/2008	10/20/2008	1/12/2009
1,1,1,2-Tetrachloroethane	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
1,1,2,2-Tetrachloroethane	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
1,1-Dichloroethane	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
1,1-Dichloroethene	3.2	2.9	3.3	3.5	2.5	<0.5	<0.5	<0.5	<0.50
1,1-Dichloropropene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
1,2,3-Trichlorobenzene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
1,2,3-Trichloropropane	N/A	N/A	N/A	N/A	N/A	<2.0	<2.0	<2	<2.0
1,2,4-Trichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
1,2,4-Trimethylbenzene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
1,2-Dibromo-3-chloropropane	N/A	N/A	N/A	N/A	N/A	<2.0	<2.0	<2	<2.0
1,2-Dibromoethane (EDB)	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
1,2-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
1,3,5-Trimethylbenzene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
1,3-Dichlorobenzene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
1,3-Dichloropropane	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
1,3-Dichloropropene, Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
1,4-Dichlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
1,4-Dioxane	1.5	1.6	2.2	2.4	2.3	3.7	2.5	2.4	<2.0
2,2-Dichloropropane	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
2-Chlorotoluene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
4-Chlorotoluene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
Benzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
Bromobenzene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
Bromochloromethane	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
Bromoform	1.9	2.9	3.6	4.2	2.2	<0.5	<0.5	<0.5	<0.50
Bromomethane	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
Chloroethane	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
Chloroform	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
Chloromethane	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
cis-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
cis-1,3-Dichloropropene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
Dibromochloromethane	<0.5	<0.5	<0.5	<0.5	0.99	<0.5	<0.5	<0.5	<0.50
Dibromomethane	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
Dichlorodifluoromethane	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
Ethylbenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
Hexachlorobutadiene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
Isopropylbenzene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
m,p-Xylenes	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1	<1.0
Methylene chloride	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
Methyl-tert-butyl Ether (MTBE)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
Naphthalene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
n-Butylbenzene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50

Table 41
POE
Groundwater Sample Analytical Results - Volatile Organic Compounds (ug/L)
Final Remedial Investigation Report

Parameter	2/15/2007	4/10/2007	8/1/2007	10/17/2007	1/18/2008	4/2/2008	8/1/2008	10/20/2008	1/12/2009
n-Propylbenzene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
o-Xylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
p-Isopropyltoluene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
sec-Butylbenzene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
Styrene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
tert-Butylbenzene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
Tetrachloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
Toluene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
trans-1,2-Dichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
trans-1,3-Dichloropropene	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
Trichloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
Trichlorofluoromethane	N/A	N/A	N/A	N/A	N/A	<0.5	<0.5	<0.5	<0.50
Trichlorofluoromethane (Freon 11)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
Trichlorotrifluoroethane (Freon 113)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	NA	NA
Trihalomethanes, Total	1.9	2.9	3.6	4.2	3.2	N/A	N/A	NA	NA
Vinyl chloride	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylenes, Total	<1.5	<1.5	<1.5	<1.5	<1.5	N/A	N/A	NA	NA

Notes:
ug/L = micrograms per liter
N/A = not analyzed
UJ = Estimated laboratory detection limit.
< = Analyte was not reported above the listed laboratory detection limit.
J = Analyte was positively identified; however, the result should be considered an estimated value.
R = Quality Control indicates that this data is not usable.

Table 42
MW-1
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameter	4/16/2004	9/7/2004	11/4/2004	12/9/2004	1/17/2005	2/21/2005	3/21/2005	4/25/2005	5/19/2005	5/20/2005
Metals (mg/L)										
Antimony	NA	NA	NA	NA	NA	<0.004	<0.004	<0.004	<0.004	NA
Arsenic	NA	<0.05	<0.05	<0.05	<0.05	0.01	0.01	0.012	0.011	NA
Barium	0.066	0.064	0.062	0.062	0.059	0.066	0.069	0.068	0.066	NA
Beryllium	NA	NA	NA	NA	NA	<0.004	<0.004	<0.004	<0.004	NA
Cadmium	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NA
Calcium	NA	65	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.013	<0.01	<0.01	<0.01	<0.01	<0.004	<0.004	0.0051	0.0078	NA
Lead	NA	<0.05	<0.05	<0.05	<0.05	<0.002	<0.002	0.0043	<0.002	NA
Magnesium	NA	14	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	NA
Nickel	NA	NA	NA	NA	NA	<0.05	<0.05	<0.05	<0.05	NA
Potassium	NA	5.2	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	<0.05	<0.05	<0.05	<0.05	0.016	<0.004	<0.004	<0.004 UJ	NA
Silver	NA	<0.005	<0.005	<0.005	<0.005	NA	NA	<0.005	NA	NA
Sodium	NA	22	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	NA	NA	NA	NA	NA	<0.002	<0.002	<0.002	<0.002	NA
Water Chemistry (mg/L)										
Alkalinity as CaCO3	NA	130	NA	NA	NA	NA	NA	NA	NA	NA
Amenable Cyanide	NA	NA	NA	NA	NA	<0.02	<0.02	<0.02	<0.02	NA
Asbestos	NA	NA	NA	NA	NA	<2	<2	<2	<2	NA
Cation/Anion Balance	NA	0.2	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	NA	64	59	49	NA	NA	NA	NA	NA	NA
Fluoride	NA	0.44	NA	NA	NA	0.5	0.46	0.42	0.44	NA
Nitrate/Nitrite-N	NA	NA	NA	NA	NA	1.5	1.4	1.4	1.4	NA
Nitrate-N	NA	1.9 R	NA	1.9	1.7	1.5	1.4	1.4	1.4	NA
Nitrite-N	NA	NA	NA	NA	NA	<0.1	<0.1	<0.1	<0.1	NA
Specific Conductance	NA	580	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	NA	42	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	NA	380	350	360	NA	NA	NA	NA	NA	NA
Turbidity	NA	NA	NA	NA	NA	<0.02	<0.02	<1	NA	<0.02

Table 42
MW-1
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameter	6/27/2005	7/18/2005	9/23/2005	10/24/2005	3/21/2006	2/13/2007	1/15/2008	1/23/2009	1/25/2010	3/2/2011
Metals (mg/L)										
Antimony	<0.004	<0.004	<0.004	NA	NA	NA	NA	NA	NA	NA
Arsenic	0.011	0.011	0.012	0.01	<0.05	<0.050	<0.050	0.010	0.010	0.011
Barium	0.068	0.069	0.062	0.064	0.066	0.051	0.047	0.045	0.044	0.042
Beryllium	<0.004	<0.004	<0.004	NA	NA	NA	NA	NA	NA	NA
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0010	<0.0010	<0.0010
Calcium	NA	NA	68	NA	NA	NA	NA	NA	NA	NA
Chromium	0.0051	<0.004	<0.004	<0.004	<0.01	<0.010	<0.010	0.0028	0.0023	0.0025
Lead	NA	0.0031	0.0026	<0.002	<0.05	<0.050	<0.050	0.0011	0.0015	0.0029
Magnesium	NA	NA	15	NA	NA	NA	NA	NA	NA	NA
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Nickel	<0.05	<0.05	<0.05	NA	NA	NA	NA	NA	NA	NA
Potassium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	<0.004	<0.004	<0.004	<0.004	<0.05	<0.050	<0.050	<0.0020	<0.0020	<0.0020
Silver	NA	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0010	<0.0010	<0.0010
Sodium	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	<0.002	<0.002	<0.002	NA	NA	NA	NA	NA	NA	NA
Water Chemistry (mg/L)										
Alkalinity as CaCO3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amenable Cyanide	<0.02	<0.025	<0.02	NA	NA	NA	NA	NA	NA	NA
Asbestos	<0.2	<0.2	<0.2	NA	NA	NA	NA	NA	NA	NA
Cation/Anion Balance	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	0.44	0.47	0.58	NA	NA	NA	NA	NA	NA	NA
Nitrate/Nitrite-N	1.5	1.4	1.6	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	1.5	1.5	1.6	1.4	1.3	NA	NA	NA	NA	NA
Nitrite-N	<0.1	<0.1	<0.1	NA	NA	NA	NA	NA	NA	NA
Specific Conductance	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Turbidity	0.4	0.5	<1	NA	NA	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
UJ = Estimated laboratory detection limit.
R = Quality Control indicates that this data is not usable.

Table 43
MW-2
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameter	4/16/2004	9/7/2004	11/5/2004	12/9/2004	1/17/2005	4/25/2005	7/18/2005	10/24/2005	3/22/2006	2/13/2007	1/19/2008	1/23/2009	1/25/2010	3/2/2011
Metals (mg/L)														
Arsenic	NA	<0.05	<0.05	<0.05	<0.05	<0.05	0.0084	0.0083	<0.05	<0.050	0.0076	0.0084	0.0082	0.0086
Barium	0.13	0.096	0.099	0.11	0.094	0.088	0.091	0.084	0.085	0.073	0.081	0.074	0.074	0.070
Cadmium	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.001	<0.0010	<0.0010	<0.0010
Calcium	NA	32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	<0.01	0.018	0.011	0.011	0.014	0.012	0.014	0.013	<0.01	0.015	0.014	0.015	0.015	0.014
Lead	NA	<0.05	<0.05	<0.05	<0.05	<0.05	0.0026	<0.002	<0.05	<0.050	0.0015	0.0010	0.0013	0.010
Magnesium	NA	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	NA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	NA	<0.05	<0.05	<0.05	<0.05	<0.05	<0.004	<0.004	<0.05	<0.050	<0.002	<0.0020	<0.0020	<0.0020
Silver	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.001	<0.0010	<0.0010	<0.0010
Sodium	NA	35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Chemistry (mg/L)														
Alkalinity as CaCO3	NA	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cation/Anion Balance	NA	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	NA	20	19	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	NA	0.62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	NA	3 R	NA	3	3.1	3.2	3.1	3.5	3.5	NA	NA	NA	NA	NA
Specific Conductance	NA	420	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	NA	6.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	NA	270	260	270	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit. limit
R = result was rejected

Table 44
MW-3
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameters	9/8/2004	11/5/2004	12/9/2004	1/18/2005	4/26/2005	7/20/2005	10/26/2005	3/21/2006	2/15/2007	1/18/2008	1/14/2009	1/20/2010	2/25/2011
Metals (mg/L)													
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	0.0067	0.0061	<0.05	<0.050	0.0053	0.0060	0.0053	0.0057
Barium	0.039	0.049	0.05	0.038	0.033	0.029	0.027	0.027	0.020	0.021	0.020	0.022	0.017
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.001	<0.0010	<0.0010	<0.0010
Calcium	31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.004	<0.01	<0.010	<0.002	<0.0010	0.0020	<0.0010
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.002	<0.002	<0.05	<0.050	0.0016	0.0020	0.0019	0.0020
Magnesium	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.004	<0.004	<0.05	<0.050	<0.002	<0.0020	<0.0020	<0.0020
Silver	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.001	<0.0010	<0.0010	<0.0010
Sodium	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Chemistry (mg/L)													
Alkalinity as CaCO3	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cation/Anion Balance (%)	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	14	10	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	0.29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	1.4 R	NA	1.2	1.2	1.3	1.2	1.3	1.1	NA	NA	NA	NA	NA
Specific Conductance (umhos/cm)	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	260	220	240	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
R = Quality Control indicates that this data is not usable.
umhos/cm = micro mhos per centimeter

Table 45
MW-4
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameters	9/8/2004	11/5/2004	12/9/2004	1/18/2005	4/26/2005	7/18/2005	10/26/2005	3/23/2006	2/15/2007	1/19/2008	1/14/2009	1/20/2010	2/25/2011
Metals (mg/L)													
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.003	<0.003	<0.05	<0.050	0.0023	0.0026	0.0026	0.0031
Barium	0.077	0.08	0.081	0.072	0.072	0.076	0.074	0.076	0.072	0.08	0.092	0.078	0.071
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.001	<0.0010	<0.0010	<0.0010
Calcium	37	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.004	<0.01	<0.010	<0.002	<0.0010	<0.0010	<0.0010
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	0.0029	<0.002	<0.05	<0.050	0.0037	0.0042	0.0014	0.0026
Magnesium	9.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	3.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.004	<0.004	<0.05	<0.050	<0.002	<0.0020	<0.0020	<0.0020
Silver	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.001	<0.0010 UJ	<0.0010	<0.0010
Sodium	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Chemistry (mg/L)													
Alkalinity as CaCO3	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cation/Anion Balance (%)	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	23	23	24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	1.3 R	NA	1.3	1.4	1.4	1.4	1.3	1.3	NA	NA	NA	NA	NA
Specific Conductance (umhos/cm)	440	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	290	280	290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
UJ = Estimated laboratory detection limit.
R = Quality control indicates that this data is not usable.
umhos/cm = micro mhos per centimeter

Table 46
MW-5
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameter	9/8/2004	11/4/2004	12/8/2004	1/18/2005	4/26/2005	7/18/2005	10/25/2005	3/22/2006	2/13/2007	1/16/2008	1/16/2009	1/25/2010	3/2/2011
Metals (mg/L)													
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	0.011	0.01	<0.05	<0.050	<0.050	0.010	0.010	0.010
Barium	0.053	0.056	0.057	0.054	0.054	0.057	0.053	0.052	0.050	0.051	0.056	0.053	0.052
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0010	<0.0010	<0.0010
Calcium	25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.027	0.022	0.022	0.024	0.025	0.024	0.024	<0.01	0.027	0.022	0.029	0.031	0.030
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.002	<0.002	<0.05	<0.050	<0.050	<0.0010	0.0017	0.0033
Magnesium	8.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.004	<0.004	<0.05	<0.050	<0.050	<0.0020	<0.0020	<0.0020
Silver	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0010 UJ	<0.0010	<0.0010
Sodium	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Inorganics (mg/L)													
Alkalinity as CaCO3	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cation/Anion Balance (%)	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	13	13	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	0.73	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	1.6 R	NA	1.5	1.5	1.6	1.5	1.7	1.7	NA	NA	NA	NA	NA
Specific Conductance (umhos/cm)	380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	5.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	240	230	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
UJ = Estimated laboratory detection limit.
R = Quality control indicates that this data is not usable.
umhos/cm = micro mhos per centimeter

Table 47
MW-6
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameters	9/8/2004	11/5/2004	12/9/2004	1/18/2005	4/27/2005	7/20/2005	10/26/2005	3/23/2006	2/15/2007	1/17/2008	1/18/2009	1/20/2010	2/25/2011
Metals (mg/L)													
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	0.0071	0.0076	<0.05	<0.050	<0.050	0.0077	0.0068	0.0084
Barium	0.024	0.046	0.032	0.023	0.021	0.02	0.018	0.026	0.014	0.011	0.016	0.016	0.015
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0010	<0.0010	<0.0010
Calcium	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.004	0.022	<0.010	<0.010	<0.0010	0.0032	0.0015
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	0.002	<0.002	<0.05	<0.050	<0.050	0.0024	0.0013	0.018
Magnesium	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	3.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.004	<0.004	<0.05	<0.050	<0.050	0.0024	<0.0020	<0.0020
Silver	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0010 UJ	<0.0010	<0.0010
Sodium	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Chemistry (mg/L)													
Alkalinity as CaCO3	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cation/Anion Balance (%)	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	13	12	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	1.3 R	NA	1.3	1.4	1.5	1.4	1.6	1.6	NA	NA	NA	NA	NA
Specific Conductance (umhos/cm)	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	260	240	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
UJ = Estimated laboratory detection limit.
R = Quality control indicates that this data is not usable.
umhos/cm = micro mhos per centimeter

Table 48
MW-7
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameters	11/5/2004	12/8/2004	1/18/2005	4/26/2005	7/20/2005	10/25/2005	3/22/2006	2/14/2007	1/17/2008	1/15/2009	1/22/2010	2/25/2011
Metals (mg/L)												
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	0.028	<0.05	<0.050	<0.050	0.026	0.026	0.026
Barium	0.01	<0.01	<0.01	<0.01	0.062	<0.01	<0.01	<0.010	<0.010	0.0067	0.0065	0.0060
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0010	<0.0010	<0.0010
Calcium	23	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.004	<0.01	<0.010	<0.010	0.0029	0.0030	0.0027
Lead	<0.05	<0.05	<0.05	<0.05	<0.05	<0.002	<0.05	<0.050	<0.050	0.0010	<0.0010	0.0011
Magnesium	9.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	4.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.004	<0.05	<0.050	<0.050	<0.0020	<0.0020	<0.0020
Silver	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0010	<0.0010	<0.0010
Sodium	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Chemistry (mg/L)												
Alkalinity as CaCO3	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cation/Anion Balance (%)	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	3.3	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	0.87	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	0.96 J	0.96	0.88	1	1.8	1	0.97	NA	NA	NA	NA	NA
Specific Conductance (umhos/cm)	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	220	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
J = Analyte was positively identified; however, the result should be considered an estimated value.
R = Quality control indicates that this data is not usable.
umhos/cm = micro mhos per centimeter

Table 49
MW-8
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameters	11/5/2004	12/9/2004	1/19/2005	4/27/2005	7/20/2005	10/26/2005	3/22/2006	2/15/2007	1/18/2008	7/31/2008	1/14/2009	8/18/2009	1/20/2010	3/1/2011
Metals (mg/L)														
Arsenic	<0.05	0.066	0.07	0.064	0.056	0.051	<0.05	0.052	0.047	<0.10	0.049	0.048	0.048	0.048
Barium	<0.01	0.017	0.023	0.033	0.019	<0.01	<0.01	0.017	0.0035	<0.010	0.018	0.0026	0.0022	0.012
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	17	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	0.014	0.021	0.023	0.024	0.02	0.022	<0.01	0.022	0.024	0.019	0.023	0.024	0.024	0.023
Lead	<0.05	<0.05	<0.05	<0.05	<0.002	<0.002	<0.05	<0.050	0.0018	<0.015	0.0023	<0.0010	0.0029	0.0046
Magnesium	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	<0.05	<0.05	<0.05	<0.05	<0.004	<0.004	<0.05	<0.050	<0.002	<0.10	<0.0020	<0.0020	<0.0020	<0.0020
Silver	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.001	<0.010	<0.0010 UJ	<0.0010	<0.0010	<0.0010 UJ
Sodium	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Chemistry (mg/L)														
Alkalinity as CaCO3	97	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cation/Anion Balance (%)	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	18	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	3.4 J	0.11	3.8	4.1	3.9	4.2	4	NA	NA	NA	NA	NA	NA	NA
Specific Conductance (umhos/cm)	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	240	190	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
J = Analyte was positively identified; however, the result should be considered an estimated value.
UJ = Estimated laboratory detection limit.
umhos/cm = micro mhos per centimeter

Table 50
MW-9
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameters	2/10/2005	4/25/2005	7/20/2005	10/26/2005	3/23/2006	2/14/2007	1/18/2008	1/14/2009	1/20/2010	3/1/2011
Metals (mg/L)										
Arsenic	<0.05	<0.05	<0.05	0.0077	<0.05	<0.050	0.0072	0.0084	0.0079	0.0084
Barium	0.057	0.058	<0.01	0.058	0.059	0.054	0.059	0.061	0.061	0.062
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.001	<0.0010	<0.0010	<0.0010
Calcium	NA	43	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	<0.01	<0.01	<0.01	<0.004	<0.01	<0.010	<0.002	<0.0010	<0.0010	<0.0010
Lead	<0.05	<0.05	<0.05	<0.002	<0.05	<0.050	0.002	0.0014	<0.0010	<0.0010
Magnesium	NA	9.7	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	NA	6.3	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	<0.05	<0.05	<0.05	<0.004	<0.05	<0.050	<0.002	<0.0020	<0.0020	<0.0020
Silver	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.001	<0.0010 UJ	<0.0010	<0.0010 UJ
Sodium	NA	29	NA	NA	NA	NA	NA	NA	NA	NA
Water Chemistry (mg/L)										
Alkalinity as CaCO3	NA	170	NA	NA	NA	NA	NA	NA	NA	NA
Cation/Anion Balance (%)	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	NA	23	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	NA	0.33	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	2.3	2.2	0.95	2	1.7	NA	NA	NA	NA	NA
Specific Conductance (umhos/cm)	NA	460	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	NA	9	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	NA	280	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
UJ = Estimated laboratory detection limit.
umhos/cm = micro mhos per centimeter

Table 51
MW-10
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameters	2/10/2005	4/27/2005	7/20/2005	10/26/2005	3/23/2006	2/15/2007	1/18/2008	1/14/2009	1/20/2010	2/25/2011
Metals (mg/L)										
Arsenic	<0.05	<0.05	0.018	0.018	<0.05	<0.050	0.018	0.018	0.018	0.018
Barium	0.045	0.043	0.024	0.021	0.02	0.010	0.0094	0.0085	0.0086	0.0073
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.001	<0.0010	<0.0010	<0.0010
Calcium	NA	36	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	<0.01	<0.01	<0.01	<0.004	<0.01	<0.010	0.0021	0.0021	0.0027	0.0025
Lead	<0.05	<0.05	0.0022	<0.002	<0.05	<0.050	0.0015	0.0016	0.0012	0.0014
Magnesium	NA	12	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	NA	2.5	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	<0.05	<0.05	<0.004	<0.004	<0.05	<0.050	<0.002	<0.0020	<0.0020	<0.0020
Silver	<0.005	<0.005	<0.005	<0.005	0.0091	<0.0050	<0.001	<0.0010 UJ	<0.0010	<0.0010
Sodium	NA	36	NA	NA	NA	NA	NA	NA	NA	NA
Water Chemistry (mg/L)										
Alkalinity as CaCO3	NA	190	NA	NA	NA	NA	NA	NA	NA	NA
Cation/Anion Balance	NA	3.1	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	NA	4.8	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	NA	0.62	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	1.2	1.2	1.2	1.1	1	NA	NA	NA	NA	NA
Specific Conductance	NA	410	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	NA	4.3	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	NA	240	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
UJ = Estimated laboratory detection limit.
umhos/cm = micro mhos per centimeter

Table 52
MW-11
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameters	3/21/2006	2/13/2007	1/16/2008	1/15/2009	1/21/2010	2/28/2011
Metals (mg/L)						
Arsenic	<0.050	<0.050	<0.050	0.0076	0.0072	0.0079
Barium	0.14	0.13	0.13	0.14	0.14	0.13
Cadmium	<0.005	<0.0050	<0.0050	<0.0010	<0.0010	<0.0010
Calcium	56	NA	NA	NA	NA	NA
Chromium	<0.010	<0.010	<0.010	0.0035	0.0051	0.0083
Lead	<0.050	<0.050	<0.050	<0.0010	<0.0010	<0.0010
Magnesium	16	NA	NA	NA	NA	NA
Mercury	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	5.6	NA	NA	NA	NA	NA
Selenium	<0.050	<0.050	<0.050	0.0042	0.0027	0.0044
Silver	<0.0050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0010
Sodium	44	NA	NA	NA	NA	NA
Water Chemistry (mg/L)						
Bicarbonate Alkalinity as CaCO3	160 J	NA	NA	NA	NA	NA
Carbonate Alkalinity as CaCO3	<5 J	NA	NA	NA	NA	NA
Chloride	60	NA	NA	NA	NA	NA
Fluoride	0.48	NA	NA	NA	NA	NA
Nitrate-N	7.3	NA	NA	NA	NA	NA
Sulfate	21	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
J = Analyte was positively identified; however, the result should be considered an estimated value.

Table 53
MW-12
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameters	3/21/2006	2/13/2007	1/15/2008	1/23/2009	1/21/2010	3/1/2011
Metals (mg/L)						
Arsenic	<0.050	<0.050	<0.050	0.0072	0.0074	0.0074
Barium	0.033	0.026	0.026	0.026	0.027	0.028
Cadmium	<0.0050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0010
Calcium	39	NA	NA	NA	NA	NA
Chromium	<0.010	<0.010	<0.010	0.0069	0.0071	0.0068
Lead	<0.050	<0.050	<0.050	<0.0010	<0.0010	0.0027
Magnesium	10	NA	NA	NA	NA	NA
Mercury	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	4.1	NA	NA	NA	NA	NA
Selenium	<0.050	<0.050	<0.050	<0.0020	<0.0020	<0.0020
Silver	<0.0050	<0.0050	<0.0050	<0.0010	<0.0010	<0.0010 UJ
Sodium	<50	NA	NA	NA	NA	NA
Water Chemistry (mg/L)						
Bicarbonate Alkalinity as CaCO3	180 J	NA	NA	NA	NA	NA
Carbonate Alkalinity as CaCO3	<5 J	NA	NA	NA	NA	NA
Chloride	16	NA	NA	NA	NA	NA
Fluoride	0.39	NA	NA	NA	NA	NA
Nitrate-N	1.8	NA	NA	NA	NA	NA
Sulfate	10	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
J = Analyte was positively identified; however, the result should be considered an estimated value.
UJ = Estimated laboratory detection limit.

Table 54
MW-13, MW-14 and MW-15
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

	MW-13	MW-13	MW-13	MW-14	MW-14	MW-14	MW-15	MW-15	MW-15	MW-15
Parameter	**8/8/2008**	**1/22/2010**	**3/2/2011**	**8/19/2008**	**1/20/2010**	**3/1/2011**	**8/8/2008**	**1/15/2009**	**1/22/2010**	**3/1/2011**
Metals (mg/L)										
Arsenic	<0.10	0.0046	0.0048	<0.10	0.0014	0.0019	<0.10	0.0029	0.0030	0.0030
Barium	0.071	0.064	0.055	0.16	0.28	0.29	0.23	0.25	0.25	0.23
Cadmium	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	NA	NA	NA	NA	NA	NA	NA	45	NA	NA
Chromium	<0.010	0.0015	<0.0010	0.012	0.0021	<0.0010	<0.010	<0.0010	<0.0010	<0.0010
Lead	<0.015	<0.0010	0.0028	<0.015	0.0016	0.011	<0.015	0.0016	<0.0010	0.0037
Magnesium	NA	NA	NA	NA	NA	NA	NA	11	NA	NA
Mercury	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	NA	NA	NA	NA	NA	NA	NA	2.3	NA	NA
Selenium	<0.10	<0.0020	<0.0020	<0.10	0.0023	<0.0020	<0.10	<0.0020	<0.0020	<0.0020
Silver	<0.010	<0.0010	<0.0010	<0.010	<0.0010	<0.0010 UJ	<0.010	<0.0010	<0.0010	<0.0010 UJ
Sodium	NA	NA	NA	NA	NA	NA	NA	42	NA	NA
Water Chemistry (mg/L)										
Alkalinity as CaCO3	NA	NA	NA	NA	NA	NA	NA	240	NA	NA
Bicarbonate Alkalinity as CaCO3	NA	NA	NA	NA	NA	NA	NA	240	NA	NA
Carbonate Alkalinity as CaCO3	NA	NA	NA	NA	NA	NA	NA	<6.0	NA	NA
Chloride	NA	NA	NA	NA	NA	NA	NA	16	NA	NA
Hydroxide Alkalinity as CaCO3	NA	NA	NA	NA	NA	NA	NA	<6.0	NA	NA
Nitrate-N	NA	NA	NA	NA	NA	NA	NA	1.7	NA	NA
Nitrite-N	NA	NA	NA	NA	NA	NA	NA	<0.20	NA	NA
Sulfate	NA	NA	NA	NA	NA	NA	NA	8.5	NA	NA
Total Dissolved Solids	NA	NA	NA	NA	NA	NA	NA	270	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
UJ = Estimated laboratory detection limit.

Table 55
MW-16, MW-17, MW-18 and MW-19
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

	MW-16	MW-17	MW-18	MW-18	MW-18	MW-19
Parameter	**4/28/2011**	**4/28/2011**	**10/30/2009**	**1/27/2010**	**3/30/2011**	**4/28/2011**
Metals (mg/L)						
Arsenic	0.0025	0.0071	0.062	0.051	0.040	0.014
Barium	0.11	0.15	0.022	0.015	0.015	0.046
Cadmium	<0.0010	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	41	35	25 J	NA	NA	30
Chromium	<0.0010	0.031	0.022	0.013	0.0031	0.024
Lead	<0.0010	0.013	<0.0010	<0.0010	<0.0010	0.0019
Magnesium	9.5	15	12 J	NA	NA	12
Mercury	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	2.9	6.8	3.8	NA	NA	7.5
Selenium	<0.0020	0.0020	<0.0020	<0.0020	<0.0020	0.0028
Silver	<0.0010	<0.0050	<0.0010	<0.0010	<0.0010	<0.0010
Sodium	50	35	61	NA	NA	39
Water Chemistry (mg/L)						
Alkalinity as CaCO3	210	160	170	NA	NA	120
Alkalinity, Phenolphthalein	<6.0	<6.0	NA	NA	NA	<6.0
Bicarbonate Alkalinity as CaCO3	210	160	140	NA	NA	120
Carbonate Alkalinity as CaCO3	<6.0	<6.0	33	NA	NA	<6.0
Chloride	16	6.7	9.9	NA	NA	22
Hydroxide Alkalinity as CaCO3	<6.0	<6.0	<6.0	NA	NA	<6.0
Nitrate-N	2.0	1.1	NA	NA	NA	7.8
Sulfate	9.5	9.0	15	NA	NA	12
Total Dissolved Solids	320	260	NA	NA	NA	350

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
UJ = Estimated laboratory detection limit.

Table 56
PW-1
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameters	4/16/2004	11/4/2004	12/9/2004	1/17/2005	4/25/2005	7/18/2005	10/25/2005	3/23/2006	5/23/2006	8/31/2006	11/16/2006
Metals (mg/L)											
Arsenic	NA	<0.05	<0.05	<0.05	<0.05	0.01	0.0098	<0.05	<0.05	<0.050	<0.050
Barium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.010
Cadmium	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050
Calcium	NA	NA	NA	NA	NA	22	NA	NA	NA	22	21
Chromium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.004	<0.004	<0.01	<0.01	<0.010	<0.010
Lead	NA	<0.05	<0.05	<0.05	<0.05	<0.002	<0.002	<0.05	<0.05	<0.050	<0.050
Magnesium	NA	NA	NA	NA	NA	9.6	NA	NA	NA	11	9.4
Mercury	NA	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020
Potassium	NA	NA	NA	NA	NA	3.4	NA	NA	NA	3.1	2.6
Selenium	NA	<0.05	<0.05	<0.05	<0.05	<0.004	<0.004	<0.05	<0.05	<0.050	<0.050
Silver	NA	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050
Sodium	NA	NA	NA	NA	NA	61	NA	NA	NA	63	69
Water Chemistry (mg/L)											
Alkalinity as CaCO3	NA	NA	NA	NA	NA	170	NA	NA	NA	NA	NA
Cation/Anion Balance (%)	NA	NA	NA	NA	NA	0.8	NA	NA	NA	NA	NA
Chloride	NA	19	20	NA	NA	20	NA	NA	NA	NA	NA
Fluoride	NA	NA	NA	NA	NA	0.37	NA	NA	NA	NA	NA
Nitrate-N	NA	NA	5.2	5	5	4.6	5	4.2	NA	NA	NA
Specific Conductance (umhos/cm)	NA	NA	NA	NA	NA	450	NA	NA	NA	NA	NA
Sulfate	NA	NA	NA	NA	NA	13	NA	NA	NA	NA	NA
Total Dissolved Solids	NA	270	290	NA	NA	290	NA	NA	NA	NA	NA

Table 56
PW-1
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameters	2/15/2007	4/10/2007	8/1/2007	10/17/2007	1/18/2008	4/2/2008	8/1/2008	10/20/2008	1/12/2009
Metals (mg/L)									
Arsenic	<0.050	<0.050	<0.050	<0.050	0.0092	<0.10	<0.10	<0.10	0.011
Barium	<0.010	<0.010	<0.010	<0.010	0.0043	<0.010	<0.010	<0.010	0.0047
Cadmium	<0.0050	<0.0050	<0.0050	<0.0050	<0.001	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	23	21	25	23	0.025	23	22	23	22
Chromium	<0.010	<0.010	<0.010	<0.010	0.0025	<0.010	<0.010	<0.010	0.0025
Lead	<0.050	<0.050	<0.050	<0.050	<0.001	<0.015	<0.015	<0.015	0.0011
Magnesium	9.9	8.9	10	10	0.011	10	9.9	11	10
Mercury	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	3.4	3.5	3.9	3.5	0.0036	3.5	3.9	3.9	3.5
Selenium	<0.050	<0.050	<0.050	<0.050	0.0032	<0.10	<0.10	<0.10	<0.0020
Silver	<0.0050	<0.0050	<0.0050	<0.0050	<0.001	<0.010	<0.010	<0.010	<0.0010
Sodium	59	60	71	53	57	60	65	58	59
Water Chemistry (mg/L)									
Alkalinity as CaCO3	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cation/Anion Balance (%)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	NA	NA	NA	NA	NA	NA	NA	NA	NA
Specific Conductance (umhos/cm)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
umhos/cm = micro mhos per centimeter

Table 57
POE
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameters	4/25/2005	7/18/2005	10/25/2005	3/23/2006	5/23/2006	8/31/2006	11/16/2006	2/15/2007	4/10/2007
Metals (mg/L)									
Arsenic	<0.05	0.0096	0.0094	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050
Barium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	0.024	<0.010	<0.010
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Calcium	NA	24	NA	NA	NA	23	27	23	23
Chromium	<0.01	<0.004	<0.004	<0.01	<0.01	<0.010	<0.010	<0.010	<0.010
Lead	<0.05	<0.002	<0.002	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050
Magnesium	NA	11	NA	NA	NA	10	12	10	10
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	NA	4.2	NA	NA	NA	3.2	4.0	3.5	3.4
Selenium	<0.05	<0.004	<0.004	<0.05	<0.05	<0.050	<0.050	<0.050	<0.050
Silver	<0.005	<0.005	<0.005	<0.005	<0.005	<0.0050	<0.0050	<0.0050	<0.0050
Sodium	NA	57	NA	NA	NA	70	57	58	59
Water Chemistry (mg/L)									
Alkalinity as CaCO3	NA	170	NA	NA	NA	NA	NA	NA	NA
Cation/Anion Balance (%)	NA	0.3	NA	NA	NA	NA	NA	NA	NA
Chloride	NA	22	NA	NA	NA	NA	NA	NA	NA
Fluoride	NA	0.36	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	5.2	4.8	5.1	5.1	NA	NA	NA	NA	NA
Specific Conductance (umhos/cm)	NA	460	NA	NA	NA	NA	NA	NA	NA
Sulfate	NA	15	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	NA	290	NA	NA	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
umhos/cm = micro mhos per centimeter

Table 57
POE
Groundwater Sample Analytical Results - Inorganics
Final Remedial Investigation Report

Parameters	8/1/2007	8/1/2007	10/17/2007	1/18/2008	4/2/2008	8/1/2008	10/20/2008	1/12/2009
Metals (mg/L)								
Arsenic	NA	<0.050	<0.050	9.2	<0.10	<0.10	<0.10	0.0015
Barium	NA	<0.010	<0.010	7.1	<0.010	<0.010	<0.010	<0.0010
Cadmium	NA	<0.0050	<0.0050	<1.0	<0.0010	<0.0010	<0.0010	<0.0010
Calcium	NA	23	24	26	24	24	23	22
Chromium	NA	<0.010	<0.010	2.6	<0.010	<0.010	<0.010	0.0027
Lead	NA	<0.050	<0.050	<1.0	<0.015	<0.015	<0.015	<0.0010
Magnesium	NA	10	11	11	11	11	11	10
Mercury	NA	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Potassium	3.8	NA	3.5	3.7	3.7	4.2	3.9	3.6
Selenium	NA	<0.050	<0.050	<2.0	<0.10	<0.10	<0.10	<0.0020
Silver	NA	<0.0050	<0.0050	<1.0	<0.010	<0.010	<0.010	<0.0010
Sodium	68	NA	53	59	61	59	58	60
Water Chemistry (mg/L)								
Alkalinity as CaCO3	NA	NA	NA	NA	NA	NA	NA	NA
Cation/Anion Balance (%)	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	NA	NA	NA	NA	NA	NA	NA	NA
Fluoride	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate-N	NA	NA	NA	NA	NA	NA	NA	NA
Specific Conductance (umhos/cm)	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	NA	NA	NA	NA	NA	NA	NA	NA
Total Dissolved Solids	NA	NA	NA	NA	NA	NA	NA	NA

Notes:
mg/L = milligrams per liter
NA = not analyzed
< = Analyte was not reported above the listed l
umhos/cm = micro mhos per centimeter

Table 58
Groundwater Sample Analytical Results - Private Wells
Final Remedial Investigation Report

		Perchlorate (ug/L)	
Sample ID	**Date**	**EPA 314.0**	**EPA 332.0**
8 West Yearling Road			
8 W.Yearling	12/28/07	< 2.0	1.2
8/20 W. Yearling	4/4/08	<2.0	0.78
8 W. Yearling	10/15/08	<2.0	1.1
8 W. Yearling	10/30/09	<2.0	1.1
8 W. Yearling	6/17/10	<2.0	0.62 J
8 W Yearling	2/24/11	<2.0	0.71
16 East Yearling Road			
16 E. Yearling	11/19/04	< 2.0	NA
16 E. Yearling	4/29/05	< 2.0	NA
16 E. Yearling	10/28/05	< 2.0	NA
16 E. Yearling	5/23/06	< 2.0	NA
16 E. Yearling	11/13/06	<2.0	0.68
16 E. Yearling	10/16/07	<2.0	0.64
16 E. Yearling - N	4/1/08	<2.0	2.6
16 E. Yearling - O	4/1/08	<2.0	2.9
16 E. Yearling	10/15/08	<2.0	0.77
16 E. Yearling	4/17/09	<2.0	0.63
16 E. Yearling	10/30/09	<2.0	1.0
16 E. Yearling	6/17/10	<2.0	0.58 J
16 E. Yearling	2/24/11	<2.0	1.8
18 East Yearling Road			
18 E.Yearling	10/27/05	< 2.0	NA
18 E.Yearling	5/23/06	< 2.0	NA
18 E.Yearling	11/14/06	<2.0	0.94
18 E.Yearling	4/4/07	<2.0	0.98
18 E.Yearling	10/16/07	<2.0	0.77
18 E.Yearling	4/1/08	<2.0	1.0
18 E.Yearling	10/15/08	<2.0	1.1
18 E. Yearling	4/16/09	<2.0	0.86
18 E. Yearling	10/30/09	<2.0	1.1
18 E. Yearling	6/17/10	<2.0	0.81 J
18 E. Yearling	2/23/11	<2.0	0.00099
104 East Yearling Road			
104 E. Yearling	11/15/06	<2.0	2.0
106 West Yearling Road			
106 W.Yearling	12/28/07	< 2.0	1.3

Table 58
Groundwater Sample Analytical Results - Private Wells
Final Remedial Investigation Report

		Perchlorate (ug/L)	
Sample ID	**Date**	**EPA 314.0**	**EPA 332.0**
106 W. Yearling	4/1/08	<2.0	1.1
106 W.Yearling	10/15/08	<2.0	0.75
106 W. Yearling	4/16/09	<2.0	0.65
122 West Yearling Road			
122 W.Yearling	12/28/07	< 2.0	1.4
122 W.Yearling	4/1/08	<2.0	1.2
122 W.Yearling	10/13/08	<2.0	0.72
122 W. Yearling	4/16/09	<2.0	0.67
122 W. Yearling	10/30/09	<2.0	1.2
122 W. Yearling	6/17/10	<2.0	0.65 J
122 W. Yearling	2/25/11	<2.0	0.68
204 East Yearling Road			
204 E.Yearling	10/27/05	< 2.0	NA
204 E. Yearling	4/16/09	<2.0	0.64
204 E. Yearling	10/30/09	<2.0	1.3
204 E. Yearling	6/17/10	<2.0	0.62 J
204 E. Yearling	2/23/11	<2.0	0.00089
218 East Yearling Road			
218 E.Yearling	11/19/04	< 2.0	NA
218 E.Yearling	10/28/05	< 2.0	NA
218 E.Yearling	5/23/06	< 2.0	NA
218 E.Yearling	11/14/06	<2.0	0.68
218 E.Yearling	4/4/07	<2.0	0.67
218 E.Yearling	10/16/07	<2.0	NA
218 E.Yearling	4/1/08	<2.0	1.3
218 E.Yearling	10/15/08	<2.0	0.80
218 E.Yearling	10/15/08	<2.0	0.73
218 E. Yearling	4/16/09	<2.0	0.68
218 E. Yearling	10/30/09	<2.0	1.2
218 E. Yearling	2/23/11	<2.0	0.0010
412 East Yearling Road			
412 E. Yearling	11/19/04	< 2.0	NA
412 E. Yearling	4/29/05	< 2.0	NA
412 E. Yearling	10/28/05	< 2.0	NA
412 E. Yearling	5/23/06	< 2.0	NA
412 E. Yearling	4/1/08	<2.0	2.1
412 E. Yearling	10/15/08	<2.0	1.5

Table 58
Groundwater Sample Analytical Results - Private Wells
Final Remedial Investigation Report

		Perchlorate (ug/L)	
Sample ID	**Date**	**EPA 314.0**	**EPA 332.0**
412 E. Yearling	4/16/09	<2.0	1.1
412 E. Yearling	10/30/09	<2.0	1.5
412 E. Yearling	6/17/10	<2.0	1.0 J
412 E. Yearling	2/25/11	<2.0	1.3
424 East Yearling Road			
424 E. Yearling	1/19/08	<2.0	1.2
424 E. Yearling	4/1/08	<2.0	2.2
424 E. Yearling	10/15/08	<2.0	1.6
424 E. Yearling	4/16/09	<2.0	1.2
424 E. Yearling	10/30/09	<2.0	1.8
424 E. Yearling	6/17/10	<2.0	1.1 J
424 E. Yearling	2/25/11	<2.0	1.7
520 East Yearling Road			
520 E. Yearling	11/17/04	< 2.0	NA
520 E. Yearling	4/28/05	< 2.0	NA
520 E. Yearling	5/23/06	< 2.0	NA
520 E. Yearling	11/14/06	<2.0	1.5
520 E. Yearling	4/4/07	2.4	1.3
520 E. Yearling	10/16/07	<2.0	1.4
520 E. Yearling	4/1/08	<2.0	2.2
520 E. Yearling	10/15/08	<2.0	1.3
520 E. Yearling	4/16/09	<2.0	1.3
520 E. Yearling	10/30/09	<2.0	1.9
520 E. Yearling	6/17/10	<2.0	1.2 J
520 E. Yearling	2/23/11	<2.0	0.0014
604 East Yearling Road			
604-616 E. Yearling	11/17/04	< 2.0	NA
604-616 E. Yearling	4/29/05	< 2.0	NA
604-616 E. Yearling	10/28/05	< 2.0	NA
604-616 E. Yearling	5/23/06	< 2.0	NA
604-616 E. Yearling	11/14/06	<2.0	1.1
604-616 E. Yearling	4/6/07	<2.0	1.2
604-616 E. Yearling	10/16/07	<2.0	1.0
604-616 E. Yearling	4/1/08	<2.0	1.5
604-616 E. Yearling	10/15/08	<2.0	1.1
616/604 E. Yearling	4/16/09	<2.0	0.98
616/604 E. Yearling	10/30/09	<2.0	1.6

Table 58
Groundwater Sample Analytical Results - Private Wells
Final Remedial Investigation Report

		Perchlorate (ug/L)	
Sample ID	**Date**	**EPA 314.0**	**EPA 332.0**
604 - 616 E. Yearling	6/17/10	<2.0	0.91 J
604-616 E. Yearling	2/25/11	<2.0	1.1
25825 North 1st Place			
25825 N. 1st	11/17/04	< 2.0	NA
25825 N. 1st-TAP	11/17/04	< 2.0	NA
25825 N. 1st	4/28/05	< 2.0	NA
25825 N. 1st - tap	4/28/05	< 2.0	NA
25825 N.1st Place	10/28/05	< 2.0	NA
25825 N. 1st	5/23/06	< 2.0	NA
25825 N. 1st	11/14/06	<2.0	1.0
25825 N. 1 Pl	4/4/07	<2.0	0.93
25825 N. 1st Place	10/16/07	<2.0	0.89
25825 N. 1st Place	4/1/08	<2.0	1.1
25825 N. 1st Place	10/15/08	<2.0	0.97
25825 N. 1st Place	4/16/09	<2.0	0.89
25825 N. 1st PL.	10/30/09	<2.0	1.2
25825 N. 1st Place	6/16/10	<2.0	0.89
25825 N 1st Place	2/24/11	<2.0	1.0
25903 North 2nd Street			
25903 N. 2nd	11/19/04	< 2.0	NA
25903 N. 2nd St	10/28/05	< 2.0	NA
25903 N. 2nd	5/23/06	< 2.0	NA
25903 N. 2nd	11/14/06	<2.0	0.78
25903 N. 2 St	4/4/07	<2.0	0.76
25903 N. 2nd St.	4/1/08	2.2	3.1
25903 N. 2nd St	10/15/08	<2.0	0.84
25903 N. 2nd St.	4/16/09	<2.0	0.88
25903 N. 2nd St.	10/30/09	<2.0	1.3
25903 N. 2nd St.	6/17/10	<2.0	0.65 J
25903 N 2nd St	2/24/11	<2.0	0.88

Notes:
ug/L = micrograms per liter
NA = not analyzed
< = Analyte was not reported above the listed laboratory detection limit.
J = The analyte was positively identified; however, the result should be considered an estimated value
UJ = Estimated laboratory detection limit.
EPA - U.S. Envionmental Protection Agency

Table 59
Groundwater Sample Analytical Results - Zonal Samples
Final Remedial Investigation Report

Perchlorate (ug/L)			
Sample ID	**Interval Sampled (feet bgs)**	**Date**	**EPA 314.0**
Boring MW-12			
Zone 1-GW	280 - 305	12/5/08	67
Zone 2-GW	370 - 380	12/8/08	<2.0
Boring MW-13			
MW-13-247-269	247 - 269	7/15/08	120,000
MW-13-480-502	480 - 502	6/18/08	3.6
Boring MW-14			
MW-14-285-305	285 - 305	6/17/08	<2.0
MW-14-360-380	360 - 380	8/7/08	<2.0
MW-14-413.5	413.5 - 500	6/16/08	<2.0
Boring SVMW-1			
SVMW-1-218-238	218 - 238	10/23/08	7.8

Table 60
Bedrock Fracture Orientation Summary
Final Remedial Investigation Report

Well	Number of Fracture Measurements	Length of Bedrock	Unit	Orientation	Average Dip Angle
MW-4	196	275	greenstone	east-northeast	55
MW-5	156	84	granitic	north-northwest	51
MW-8	17	42	granitic	n/a	41
MW-9	51	14	greenstone	west-northwest	49
MW-9	81	65	granitic	west-northwest	50
MW-11	67	153	granitic	west	54
MW-11	67	268	greenstone	northwest	57
MW-12	310	362	granitic	west-northwest	50
MW-13	580	297	granitic	northwest	47
MW-14	116	79	greenstone	n/a	64
MW-14	1308	390	granitic	northeast	52
MW-16	170	422	granitic	northeast	62
MW-18	40	131	granitic	west-northwest	46
18 E. Yearling	224	432	granitic	northeast	68

Notes:
n/a = a preferred fracture orientation is not observed in the plotted borehole orientation.

Table 61
Groundwater Elevation Summary
Final Remedial Investigation Report

Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
Monitor Well MW-1					
MW-1	01/06/2004	1000	1557.19	206.64	1350.55
MW-1	03/19/2004	1000	1557.27	206.70	1350.57
MW-1	04/16/2004	1000	1557.27	206.66	1350.61
MW-1	09/07/2004	0830	1557.22	207.79	1349.43
MW-1	10/22/2004	1235	1557.22	207.42	1349.80
MW-1	11/22/2004	1055	1557.22	207.71	1349.51
MW-1	12/07/2004	1000	1557.22	207.80	1349.42
MW-1	01/17/2005	0715	1557.22	207.62	1349.60
MW-1	02/14/2005	1032	1557.22	207.52	1349.70
MW-1	03/15/2005	1205	1557.22	207.36	1349.86
MW-1	04/25/2005	0725	1557.22	207.47	1349.75
MW-1	05/20/2005	0800	1557.22	207.69	1349.53
MW-1	06/27/2005	0730	1557.22	207.82	1349.40
MW-1	07/18/2005	0716	1557.22	208.13	1349.09
MW-1	08/22/2005	0700	1557.22	208.04	1349.18
MW-1	09/22/2005	0804	1557.22	208.03	1349.19
MW-1	10/24/2005	0934	1557.22	208.03	1349.19
MW-1	12/02/2005	1245	1557.22	207.97	1349.25
MW-1	12/22/2005	1509	1557.22	208.15	1349.07
MW-1	01/27/2006	1125	1557.22	208.09	1349.13
MW-1	02/20/2006	1053	1557.22	208.04	1349.18
MW-1	03/20/2006	1525	1557.22	207.98	1349.24
MW-1	05/22/2006	0842	1557.22	208.08	1349.14
MW-1	8/28/2006	1242	1557.22	208.04	1349.18
MW-1	11/13/2006	951	1557.22	208.04	1349.18
MW-1	2/12/2007	1215	1557.22	208.08	1349.14
MW-1	4/9/2007	1010	1557.22	208.03	1349.19
MW-1	7/30/2007	855	1557.22	207.84	1349.38
MW-1	07/30/2007	0815	1557.22	207.84	1349.38
MW-1	10/15/2007	1441	1557.22	208.16	1349.06
MW-1	01/14/2008	1153	1557.22	208.37	1348.85
MW-1	03/31/2008	1445	1557.22	208.24	1348.98
MW-1	04/29/2008	1420	1557.22	208.27	1348.95
MW-1	05/27/2008	1300	1557.22	208.37	1348.85
MW-1	06/27/2008	0755	1557.22	208.53	1348.69
MW-1	07/28/2008	1323	1557.22	208.50	1348.72
MW-1	08/29/2008	1628	1557.22	208.55	1348.67
MW-1	09/20/2008	1205	1557.22	208.44	1348.78
MW-1	10/14/2008	1440	1557.22	208.37	1348.85
MW-1	11/21/2008	1411	1557.22	208.36	1348.86
MW-1	12/15/2008	1143	1557.22	208.44	1348.78
MW-1	1/12/2009	0934	1557.22	208.41	1348.81
MW-1	2/16/2009	0915	1557.22	208.47	1348.75
MW-1	3/17/2009	1157	1557.22	208.42	1348.80
MW-1	4/13/2009	1131	1557.22	208.38	1348.84
MW-1	5/20/2009	0740	1557.22	208.71	1348.51
MW-1	6/15/2009	0739	1557.22	208.58	1348.64
MW-1	7/6/2009	0654	1557.22	208.58	1348.64
MW-1	8/13/2009	0619	1557.22	208.68	1348.54
MW-1	9/28/2009	0826	1560.43	211.92	1348.51
MW-1	10/27/2009	1539	1560.43	211.98	1348.45
MW-1	11/25/2009	1108	1560.43	212.29	1348.14
MW-1	12/18/2009	1142	1560.43	212.35	1348.08
MW-1	1/18/2010	1239	1560.43	212.47	1347.96
MW-1	6/8/2010	1225	1560.43	211.75	1348.68

Table 61
Groundwater Elevation Summary
Final Remedial Investigation Report

Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-1	6/22/2010	1310	1560.43	211.76	1348.67
MW-1	2/23/2011	1325	1560.43	211.71	1348.72
MW-1	3/22/2011	1125	1560.43	211.73	1348.70
MW-1	4/26/2011	0815	1560.43	211.77	1348.66
MW-1	5/27/2011	1047	1560.43	211.95	1348.48
Monitor Well MW-2					
MW-2	01/06/2004	1000	1567.51	216.90	1350.61
MW-2	03/19/2004	1000	1567.67	217.40	1350.27
MW-2	04/16/2004	1000	1567.67	217.06	1350.61
MW-2	09/07/2004	0815	1567.62	218.06	1349.56
MW-2	10/22/2004	1245	1567.62	217.62	1350.00
MW-2	11/22/2004	1110	1567.62	218.10	1349.52
MW-2	12/07/2004	1000	1567.62	218.15	1349.47
MW-2	01/17/2005	0730	1567.62	218.02	1349.60
MW-2	02/14/2005	1025	1567.62	217.93	1349.69
MW-2	03/15/2005	1210	1567.62	217.83	1349.79
MW-2	04/25/2005	0715	1567.62	217.88	1349.74
MW-2	05/20/2005	0749	1567.62	218.06	1349.56
MW-2	06/27/2005	0725	1567.62	218.20	1349.42
MW-2	07/18/2005	0710	1567.62	218.53	1349.09
MW-2	08/22/2005	0706	1567.62	218.43	1349.19
MW-2	09/22/2005	0755	1567.62	218.44	1349.18
MW-2	10/24/2005	0826	1567.62	218.44	1349.18
MW-2	12/02/2005	1235	1567.62	218.34	1349.28
MW-2	12/22/2005	1503	1567.62	218.48	1349.14
MW-2	01/27/2006	1118	1567.62	218.47	1349.15
MW-2	02/20/2006	1045	1567.62	218.43	1349.19
MW-2	03/20/2006	1505	1567.62	218.33	1349.29
MW-2	05/22/2006	0827	1567.62	218.43	1349.19
MW-2	8/28/2006	1224	1567.62	218.35	1349.27
MW-2	11/13/2006	1005	1567.62	218.38	1349.24
MW-2	2/12/2007	1229	1567.62	218.48	1349.14
MW-2	4/9/2007	1016	1567.62	218.41	1349.21
MW-2	7/30/2007	924	1567.62	218.19	1349.43
MW-2	07/30/2007	0924	1567.62	218.19	1349.43
MW-2	10/15/2007	1457	1567.62	218.45	1349.17
MW-2	01/14/2008	1206	1567.62	218.70	1348.92
MW-2	03/31/2008	1545	1567.62	218.55	1349.07
MW-2	04/29/2008	1527	1567.62	218.54	1349.08
MW-2	05/27/2008	1309	1567.62	218.69	1348.93
MW-2	06/27/2008	0812	1567.62	218.89	1348.73
MW-2	07/28/2008	1333	1567.62	218.81	1348.81
MW-2	08/29/2008	1618	1567.62	218.83	1348.79
MW-2	09/20/2008	1215	1567.62	218.75	1348.87
MW-2	10/14/2008	1449	1567.62	218.69	1348.93
MW-2	11/21/2008	1420	1567.62	218.69	1348.93
MW-2	12/15/2008	1150	1567.62	218.77	1348.85
MW-2	1/12/2009	941	1567.62	218.81	1348.81
MW-2	2/16/2009	0923	1567.62	218.85	1348.77
MW-2	3/17/2009	1203	1567.62	218.48	1349.14
MW-2	4/13/2009	1136	1567.62	218.73	1348.89
MW-2	5/20/2009	0746	1567.62	219.05	1348.57
MW-2	6/15/2009	0750	1567.62	218.95	1348.67
MW-2	7/6/2009	0701	1567.62	218.95	1348.67
MW-2	8/13/2009	0627	1567.62	219.03	1348.59
MW-2	9/28/2009	0840	1571.22	222.74	1348.48

Table 61
Groundwater Elevation Summary
Final Remedial Investigation Report

Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-2	10/27/2009	1543	1571.22	222.71	1348.51
MW-2	11/25/2009	1114	1571.22	223.06	1348.16
MW-2	12/18/2009	1243	1571.22	223.08	1348.14
MW-2	1/18/2010	1249	1571.22	223.25	1347.97
MW-2	6/8/2010	1237	1571.22	222.57	1348.65
MW-2	6/22/2010	1319	1571.22	222.57	1348.65
MW-2	2/23/2011	1330	1571.22	222.53	1348.69
MW-2	3/22/2011	1038	1571.22	222.60	1348.62
MW-2	4/26/2011	0820	1571.22	222.55	1348.67
MW-2	5/27/2011	1112	1571.22	222.56	1348.66
Monitor Well MW-3					
MW-3	09/07/2004	0745	1583.59	229.10	1354.50
MW-3	10/22/2004	1130	1583.59	227.92	1355.67
MW-3	11/22/2004	0940	1583.59	228.91	1354.68
MW-3	12/07/2004	1000	1583.59	229.03	1354.56
MW-3	01/17/2005	0745	1583.59	229.35	1354.24
MW-3	02/14/2005	1056	1583.59	229.73	1353.86
MW-3	03/15/2005	1150	1583.59	229.86	1353.73
MW-3	04/25/2005	0820	1583.59	229.94	1353.65
MW-3	05/20/2005	0826	1583.59	230.21	1353.38
MW-3	06/27/2005	0820	1583.59	230.30	1353.29
MW-3	07/18/2005	0736	1583.59	230.61	1352.98
MW-3	08/22/2005	0812	1583.59	230.63	1352.96
MW-3	09/22/2005	0825	1583.59	231.67	1351.92
MW-3	10/24/2005	0810	1583.59	230.94	1352.65
MW-3	11/30/2005	1240	1583.59	231.12	1352.47
MW-3	12/22/2005	1415	1583.59	231.15	1352.44
MW-3	01/27/2006	1048	1583.59	231.34	1352.25
MW-3	02/20/2006	0935	1583.59	231.47	1352.12
MW-3	03/21/2006	0735	1583.59	231.59	1352.00
MW-3	05/22/2006	0918	1583.59	231.91	1351.68
MW-3	8/28/2006	1004	1583.59	232.24	1351.35
MW-3	11/13/2006	1040	1583.59	232.82	1350.77
MW-3	2/12/2007	1235	1583.59	232.76	1350.83
MW-3	4/9/2007	1019	1583.59	233.11	1350.48
MW-3	7/30/2007	1149	1583.59	233.52	1350.07
MW-3	07/30/2007	1149	1583.59	233.52	1350.07
MW-3	10/15/2007	0942	1583.59	234.45	1349.14
MW-3	01/14/2008	1227	1583.59	234.93	1348.66
MW-3	03/31/2008	1331	1583.59	235.42	1348.17
MW-3	04/29/2008	1537	1583.59	235.21	1348.38
MW-3	05/27/2008	1406	1583.59	235.48	1348.11
MW-3	06/27/2008	1005	1583.59	235.66	1347.93
MW-3	07/28/2008	1456	1583.59	235.79	1347.80
MW-3	08/29/2008	1316	1583.59	236.07	1347.52
MW-3	09/20/2008	1120	1583.59	236.10	1347.49
MW-3	10/14/2008	1220	1583.59	236.30	1347.29
MW-3	11/21/2008	1130	1583.59	236.45	1347.14
MW-3	12/15/2008	1230	1583.59	236.59	1347.00
MW-3	1/12/2009	1108	1583.59	236.60	1346.99
MW-3	2/16/2009	1425	1583.59	236.86	1346.73
MW-3	3/17/2009	1224	1583.59	237.00	1346.59
MW-3	4/13/2009	1059	1583.59	237.07	1346.52
MW-3	5/20/2009	1117	1583.59	237.24	1346.35
MW-3	6/15/2009	1110	1583.59	237.31	1346.28
MW-3	7/6/2009	1419	1583.59	237.35	1346.24

Table 61
Groundwater Elevation Summary
Final Remedial Investigation Report

Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-3	8/12/2009	1125	1583.59	237.47	1346.12
MW-3	9/28/2009	1148	1583.59	237.81	1345.78
MW-3	10/27/2009	0853	1583.59	237.82	1345.77
MW-3	11/25/2009	1008	1583.59	238.13	1345.46
MW-3	12/18/2009	1028	1583.59	238.13	1345.46
MW-3	1/18/2010	1051	1583.59	238.35	1345.24
MW-3	6/8/2010	1111	1583.59	239.06	1344.53
MW-3	6/22/2010	1105	1583.59	239.16	1344.43
MW-3	2/23/2011	1148	1583.59	240.15	1343.44
MW-3	3/22/2011	0911	1583.59	240.46	1343.13
MW-3	4/25/2011	1500	1583.59	240.53	1343.06
MW-3	5/27/2011	0917	1583.59	240.77	1342.82
Monitor Well MW-4					
MW-4	09/07/2004	0730	1620.34	269.13	1351.21
MW-4	10/22/2004	1100	1620.34	268.92	1351.42
MW-4	11/22/2004	0910	1620.34	269.58	1350.76
MW-4	12/07/2004	1000	1620.34	269.83	1350.51
MW-4	01/17/2005	0800	1620.34	269.84	1350.50
MW-4	02/14/2005	1004	1620.34	270.04	1350.30
MW-4	03/15/2005	1230	1620.34	270.15	1350.19
MW-4	04/25/2005	0645	1620.34	270.12	1350.22
MW-4	05/20/2005	0716	1620.34	270.22	1350.12
MW-4	06/27/2005	0750	1620.34	270.26	1350.08
MW-4	07/18/2005	0645	1620.34	270.56	1349.78
MW-4	08/22/2005	0721	1620.34	270.40	1349.94
MW-4	09/22/2005	0717	1620.34	270.44	1349.90
MW-4	10/24/2005	0847	1620.34	270.78	1349.56
MW-4	11/30/2005	1254	1620.34	270.82	1349.52
MW-4	12/22/2005	1427	1620.34	270.80	1349.54
MW-4	01/27/2006	0950	1620.34	271.05	1349.29
MW-4	02/20/2006	0850	1620.34	271.22	1349.12
MW-4	03/20/2006	1555	1620.34	271.28	1349.06
MW-4	05/22/2006	0857	1620.34	271.43	1348.91
MW-4	8/28/2006	1115	1620.34	271.82	1348.52
MW-4	11/13/2006	926	1620.34	271.33	1349.01
MW-4	2/12/2007	1135	1620.34	271.51	1348.83
MW-4	4/9/2007	1048	1620.34	271.66	1348.68
MW-4	7/30/2007	940	1620.34	272.63	1347.71
MW-4	07/30/2007	0940	1620.34	272.63	1347.71
MW-4	10/15/2007	1324	1620.34	273.35	1346.99
MW-4	01/14/2008	1321	1620.34	273.81	1346.53
MW-4	03/31/2008	1316	1620.34	274.00	1346.34
MW-4	04/29/2008	1459	1620.34	273.76	1346.58
MW-4	05/27/2008	1350	1620.34	274.05	1346.29
MW-4	06/27/2008	0928	1620.34	274.18	1346.16
MW-4	07/28/2008	1603	1620.34	274.22	1346.12
MW-4	08/29/2008	1217	1620.34	274.40	1345.94
MW-4	09/20/2008	0749	1620.34	274.48	1345.86
MW-4	10/14/2008	1246	1620.34	274.68	1345.66
MW-4	11/21/2008	940	1620.34	274.70	1345.64
MW-4	12/15/2008	1214	1620.34	274.90	1345.44
MW-4	1/12/2009	1042	1620.34	274.93	1345.41
MW-4	2/16/2009	1457	1620.34	274.78	1345.56
MW-4	3/17/2009	1316	1620.34	275.07	1345.27
MW-4	4/13/2009	1227	1620.34	275.04	1345.30
MW-4	5/20/2009	1225	1620.34	275.19	1345.15

Table 61
Groundwater Elevation Summary
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Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-4	6/15/2009	1140	1620.34	275.23	1345.11
MW-4	7/6/2009	1130	1620.34	275.26	1345.08
MW-4	8/12/2009	1246	1620.34	275.39	1344.95
MW-4	9/28/2009	1036	1620.34	275.50	1344.84
MW-4	10/27/2009	0837	1620.34	275.50	1344.84
MW-4	11/25/2009	0749	1620.34	275.86	1344.48
MW-4	12/18/2009	1045	1620.34	275.82	1344.52
MW-4	1/18/2010	1023	1620.34	275.97	1344.37
MW-4	6/8/2010	1323	1620.34	276.21	1344.13
MW-4	6/22/2010	1237	1620.34	276.35	1343.99
MW-4	2/23/2011	1220	1620.34	276.84	1343.50
MW-4	3/22/2011	1015	1620.34	276.97	1343.37
MW-4	4/25/2011	1548	1620.34	276.92	1343.42
MW-4	5/27/2011	0943	1620.34	276.94	1343.40
Monitor Well MW-5					
MW-5	09/07/2004	0845	1590.45	240.17	1350.28
MW-5	10/22/2004	1255	1590.45	239.67	1350.78
MW-5	11/22/2004	1135	1590.45	240.40	1350.05
MW-5	12/07/2004	1000	1590.45	240.49	1349.96
MW-5	01/17/2005	0815	1590.45	240.47	1349.98
MW-5	02/14/2005	1040	1590.45	240.44	1350.01
MW-5	03/15/2005	1220	1590.45	240.36	1350.09
MW-5	04/25/2005	0700	1590.45	240.38	1350.07
MW-5	05/20/2005	0735	1590.45	240.48	1349.97
MW-5	06/27/2005	0800	1590.45	240.58	1349.87
MW-5	07/18/2005	0700	1590.45	240.90	1349.55
MW-5	08/22/2005	0734	1590.45	240.81	1349.64
MW-5	09/22/2005	0730	1590.45	240.81	1349.64
MW-5	10/24/2005	0856	1590.45	240.85	1349.60
MW-5	11/30/2005	1304	1590.45	240.81	1349.64
MW-5	12/22/2005	1455	1590.45	240.90	1349.55
MW-5	01/27/2006	1111	1590.45	240.99	1349.46
MW-5	02/20/2006	1035	1590.45	240.94	1349.51
MW-5	03/20/2006	1540	1590.45	240.92	1349.53
MW-5	05/22/2006	0848	1590.45	241.07	1349.38
MW-5	8/28/2006	1141	1590.45	240.97	1349.48
MW-5	11/13/2006	935	1590.45	241.04	1349.41
MW-5	2/12/2007	1151	1590.45	241.09	1349.36
MW-5	4/9/2007	1042	1590.45	241.10	1349.35
MW-5	7/30/2007	1002	1590.45	240.81	1349.64
MW-5	07/30/2007	1002	1590.45	240.81	1349.64
MW-5	10/15/2007	1427	1590.45	241.12	1349.33
MW-5	01/14/2008	1458	1590.45	241.28	1349.17
MW-5	03/31/2008	1048	1590.45	241.31	1349.14
MW-5	04/29/2008	1342	1590.45	241.28	1349.17
MW-5	05/27/2008	1532	1590.45	241.33	1349.12
MW-5	06/27/2008	0835	1590.45	241.48	1348.97
MW-5	07/28/2008	1646	1590.45	241.44	1349.01
MW-5	08/29/2008	1207	1590.45	241.45	1349.00
MW-5	09/20/2008	0755	1590.45	241.48	1348.97
MW-5	10/14/2008	1351	1590.45	241.43	1349.02
MW-5	11/21/2008	1328	1590.45	241.45	1349.00
MW-5	12/15/2008	1309	1590.45	241.43	1349.02
MW-5	1/12/2009	1253	1590.45	241.42	1349.03
MW-5	2/16/2009	1540	1590.45	241.45	1349.00
MW-5	3/17/2009	1407	1590.45	241.43	1349.02

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Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-5	4/13/2009	1320	1590.45	241.43	1349.02
MW-5	5/20/2009	1315	1590.45	241.53	1348.92
MW-5	6/15/2009	1235	1590.45	241.57	1348.88
MW-5	7/6/2009	1454	1590.45	241.54	1348.91
MW-5	8/12/2009	1334	1590.45	241.58	1348.87
MW-5	9/28/2009	0913	1594.08	245.32	1348.76
MW-5	10/27/2009	1105	1594.08	245.38	1348.70
MW-5	11/25/2009	1054	1594.08	245.54	1348.54
MW-5	12/18/2009	1135	1594.08	245.59	1348.49
MW-5	1/19/2010	0743	1594.08	245.76	1348.32
MW-5	6/8/2010	1255	1594.08	245.39	1348.69
MW-5	6/22/2010	1329	1594.08	245.38	1348.70
MW-5	2/23/2011	1305	1594.08	245.38	1348.70
MW-5	3/22/2011	1055	1594.08	245.37	1348.71
MW-5	4/26/2011	0805	1594.08	245.43	1348.65
MW-5	5/27/2011	1019	1594.08	245.39	1348.69
Monitor Well MW-6					
MW-6	09/07/2004	0800	1548.22	162.22	1386.00
MW-6	10/22/2004	1224	1548.22	161.27	1386.95
MW-6	11/22/2004	1045	1548.22	161.77	1386.45
MW-6	12/07/2004	1000	1548.22	161.99	1386.23
MW-6	01/17/2005	0830	1548.22	162.32	1385.90
MW-6	02/14/2005	1121	1548.22	162.50	1385.72
MW-6	03/15/2005	1200	1548.22	160.38	1387.84
MW-6	04/25/2005	0735	1548.22	149.74	1398.48
MW-6	05/20/2005	0810	1548.22	148.31	1399.91
MW-6	06/27/2005	0810	1548.22	148.82	1399.40
MW-6	07/18/2005	0725	1548.22	149.61	1398.61
MW-6	08/22/2005	0749	1548.22	150.88	1397.34
MW-6	09/22/2005	0814	1548.22	151.89	1396.33
MW-6	10/24/2005	0903	1548.22	153.11	1395.11
MW-6	11/30/2005	1348	1548.22	154.16	1394.06
MW-6	12/22/2005	1447	1548.22	154.68	1393.54
MW-6	01/27/2006	1101	1548.22	155.56	1392.66
MW-6	02/20/2006	1110	1548.22	156.10	1392.12
MW-6	03/20/2006	1625	1548.22	156.61	1391.61
MW-6	05/22/2006	1011	1548.22	157.80	1390.42
MW-6	8/28/2006	1216	1548.22	159.64	1388.58
MW-6	11/13/2006	1022	1548.22	161.11	1387.11
MW-6	2/12/2007	1300	1548.22	161.95	1386.27
MW-6	4/9/2007	1053	1548.22	161.63	1386.59
MW-6	7/30/2007	1016	1548.22	162.92	1385.30
MW-6	07/30/2007	1016	1548.22	162.92	1385.30
MW-6	10/15/2007	1413	1548.22	163.95	1384.27
MW-6	01/14/2008	1520	1548.22	164.94	1383.28
MW-6	03/31/2008	0910	1548.22	165.42	1382.80
MW-6	04/29/2008	1520	1548.22	164.28	1383.94
MW-6	05/27/2008	1540	1548.22	163.05	1385.17
MW-6	06/27/2008	0850	1548.22	162.08	1386.14
MW-6	07/28/2008	1636	1548.22	161.50	1386.72
MW-6	08/29/2008	1037	1548.22	161.30	1386.92
MW-6	09/20/2008	0905	1548.22	161.33	1386.89
MW-6	10/14/2008	1402	1548.22	161.48	1386.74
MW-6	11/21/2008	1320	1548.22	161.71	1386.51
MW-6	12/15/2008	1253	1548.22	161.89	1386.33
MW-6	1/12/2009	1236	1548.22	162.28	1385.94

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Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-6	2/16/2009	1528	1548.22	162.43	1385.79
MW-6	3/17/2009	1357	1548.22	162.81	1385.41
MW-6	4/13/2009	1305	1548.22	162.83	1385.39
MW-6	5/20/2009	1305	1548.22	162.78	1385.44
MW-6	6/15/2009	1222	1548.22	162.57	1385.65
MW-6	7/6/2009	1440	1548.22	162.50	1385.72
MW-6	8/12/2009	1324	1548.22	162.64	1385.58
MW-6	9/28/2009	0925	1551.65	166.25	1385.40
MW-6	10/27/2009	1129	1551.65	166.33	1385.32
MW-6	11/25/2009	1102	1551.65	167.02	1384.63
MW-6	12/18/2009	1120	1551.65	167.10	1384.55
MW-6	1/18/2010	1156	1551.65	167.37	1384.28
MW-6	6/8/2010	1146	1551.65	162.94	1388.71
MW-6	6/22/2010	1216	1551.65	162.17	1389.48
MW-6	2/23/2011	1255	1551.65	162.70	1388.95
MW-6	3/22/2011	0952	1551.65	163.03	1388.62
MW-6	4/26/2011	0811	1551.65	162.62	1389.03
MW-6	5/27/2011	1035	1551.65	162.82	1388.83
Monitor Well MW-7					
MW-7	10/22/2004	1200	1541.35	157.21	1384.14
MW-7	11/22/2004	0950	1541.35	154.14	1387.21
MW-7	12/07/2004	1000	1541.35	154.55	1386.80
MW-7	01/17/2005	0845	1541.35	155.02	1386.33
MW-7	02/14/2005	1111	1541.35	155.20	1386.15
MW-7	03/15/2005	1130	1541.35	155.48	1385.87
MW-7	04/25/2005	0840	1541.35	155.56	1385.79
MW-7	05/20/2005	0852	1541.35	155.56	1385.79
MW-7	06/27/2005	0845	1541.35	155.60	1385.75
MW-7	07/18/2005	0757	1541.35	155.94	1385.41
MW-7	08/22/2005	0838	1541.35	156.09	1385.26
MW-7	09/22/2005	0845	1541.35	156.37	1384.98
MW-7	10/24/2005	0837	1541.35	157.01	1384.34
MW-7	11/30/2005	1225	1541.35	157.41	1383.94
MW-7	12/22/2005	1347	1541.35	157.73	1383.62
MW-7	01/27/2006	1034	1541.35	158.25	1383.10
MW-7	02/20/2006	0955	1541.35	158.58	1382.77
MW-7	03/20/2006	1645	1541.35	158.83	1382.52
MW-7	05/22/2006	0948	1541.35	159.39	1381.96
MW-7	8/28/2006	1027	1541.35	159.54	1381.81
MW-7	11/13/2006	1030	1541.35	159.48	1381.87
MW-7	2/12/2007	1250	1541.35	159.37	1381.98
MW-7	4/9/2007	1055	1541.35	159.30	1382.05
MW-7	7/30/2007	1121	1541.35	159.48	1381.87
MW-7	07/30/2007	1121	1541.35	159.48	1381.87
MW-7	10/15/2007	0909	1541.35	160.12	1381.23
MW-7	01/14/2008	0903	1541.35	160.61	1380.74
MW-7	03/31/2008	1351	1541.35	160.53	1380.82
MW-7	04/29/2008	1254	1541.35	160.46	1380.89
MW-7	05/27/2008	1445	1541.35	160.63	1380.72
MW-7	06/27/2008	1050	1541.35	160.83	1380.52
MW-7	07/28/2008	1402	1541.35	160.92	1380.43
MW-7	08/29/2008	1300	1541.35	160.85	1380.50
MW-7	09/20/2008	1145	1541.35	160.98	1380.37
MW-7	10/14/2008	1057	1541.35	161.21	1380.14
MW-7	11/21/2008	1025	1541.35	161.22	1380.13
MW-7	12/15/2008	823	1541.35	161.19	1380.16

Table 61
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Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-7	1/12/2009	750	1541.35	161.39	1379.96
MW-7	2/16/2009	0956	1541.35	161.17	1380.18
MW-7	3/17/2009	0839	1541.35	161.42	1379.93
MW-7	4/13/2009	0843	1541.35	161.39	1379.96
MW-7	5/20/2009	0817	1541.35	161.49	1379.86
MW-7	6/15/2009	0826	1541.35	161.57	1379.78
MW-7	7/6/2009	0745	1541.35	161.58	1379.77
MW-7	8/12/2009	1137	1541.35	161.71	1379.64
MW-7	9/28/2009	0947	1541.35	161.71	1379.64
MW-7	10/27/2009	0749	1541.35	161.70	1379.65
MW-7	11/25/2009	0706	1541.35	162.06	1379.29
MW-7	12/18/2009	0828	1541.35	162.07	1379.28
MW-7	1/18/2010	0748	1541.35	162.03	1379.32
MW-7	6/8/2010	1343	1541.35	162.04	1379.31
MW-7	6/22/2010	1124	1541.35	162.16	1379.19
MW-7	2/23/2011	0850	1541.35	162.20	1379.15
MW-7	3/22/2011	0834	1541.35	162.36	1378.99
MW-7	4/25/2011	1327	1541.35	162.25	1379.10
MW-7	5/27/2011	0800	1541.35	162.24	1379.11
Monitor Well MW-8					
MW-8	10/22/2004	1212	1542.18	193.21	1348.97
MW-8	11/22/2004	1010	1542.18	192.27	1349.91
MW-8	12/07/2004	1000	1542.18	192.29	1349.89
MW-8	01/17/2005	0900	1542.18	192.27	1349.91
MW-8	02/14/2005	1130	1542.18	192.29	1349.89
MW-8	03/15/2005	1140	1542.18	192.27	1349.91
MW-8	04/25/2005	0850	1542.18	192.29	1349.89
MW-8	05/20/2005	0910	1542.18	192.50	1349.68
MW-8	06/27/2005	1015	1542.18	192.57	1349.61
MW-8	07/18/2005	0806	1542.18	192.88	1349.30
MW-8	08/22/2005	0850	1542.18	192.90	1349.28
MW-8	09/22/2005	0855	1542.18	192.84	1349.34
MW-8	10/24/2005	0828	1542.18	192.89	1349.29
MW-8	11/30/2005	1218	1542.18	192.84	1349.34
MW-8	12/22/2005	1354	1542.18	192.91	1349.27
MW-8	01/27/2006	1024	1542.18	193.98	1348.20
MW-8	02/20/2006	1000	1542.18	192.93	1349.25
MW-8	03/20/2006	1658	1542.18	192.83	1349.35
MW-8	05/22/2006	0955	1542.18	192.97	1349.21
MW-8	8/28/2006	1035	1542.18	192.95	1349.23
MW-8	11/13/2006	853	1542.18	192.98	1349.20
MW-8	2/12/2007	1125	1542.18	193.01	1349.17
MW-8	4/9/2007	1012	1542.18	192.79	1349.39
MW-8	7/30/2007	1104	1542.18	192.71	1349.47
MW-8	07/30/2007	1104	1542.18	192.71	1349.47
MW-8	10/15/2007	0839	1542.18	193.18	1349.00
MW-8	01/14/2008	0844	1542.18	193.32	1348.86
MW-8	03/31/2008	1400	1542.18	193.17	1349.01
MW-8	04/29/2008	1706	1542.18	193.08	1349.10
MW-8	05/27/2008	1457	1542.18	193.25	1348.93
MW-8	06/27/2008	1029	1542.18	193.39	1348.79
MW-8	07/28/2008	1415	1542.18	193.36	1348.82
MW-8	08/29/2008	1252	1542.18	193.37	1348.81
MW-8	09/20/2008	1250	1542.18	193.35	1348.83
MW-8	10/14/2008	1110	1542.18	193.37	1348.81
MW-8	11/21/2008	955	1542.18	193.38	1348.80

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Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-8	12/15/2008	811	1542.18	193.35	1348.83
MW-8	1/12/2009	739	1542.18	193.34	1348.84
MW-8	2/16/2009	0943	1542.18	193.37	1348.81
MW-8	3/17/2009	0827	1542.18	193.38	1348.80
MW-8	4/13/2009	0834	1542.18	193.33	1348.85
MW-8	5/20/2009	0805	1542.18	193.55	1348.63
MW-8	6/15/2009	0815	1542.18	193.51	1348.67
MW-8	7/6/2009	0733	1542.18	193.49	1348.69
MW-8	8/12/2009	1148	1542.18	193.52	1348.66
MW-8	9/28/2009	1000	1542.18	193.70	1348.48
MW-8	10/27/2009	0825	1542.18	193.80	1348.38
MW-8	11/25/2009	0714	1542.18	193.99	1348.19
MW-8	12/18/2009	0839	1542.18	194.08	1348.10
MW-8	1/18/2010	0817	1542.18	194.20	1347.98
MW-8	6/8/2010	1415	1542.18	193.56	1348.62
MW-8	6/22/2010	1203	1542.18	193.62	1348.56
MW-8	2/23/2011	0825	1542.18	193.59	1348.59
MW-8	3/22/2011	0817	1542.18	193.66	1348.52
MW-8	4/25/2011	1313	1542.18	193.60	1348.58
MW-8	5/27/2011	0745	1542.18	193.65	1348.53
Monitor Well MW-9					
MW-9	02/14/2005	1139	1565.60	215.29	1350.31
MW-9	03/15/2005	1110	1565.60	215.36	1350.24
MW-9	04/25/2005	0955	1565.60	215.34	1350.26
MW-9	05/20/2005	0926	1565.60	215.36	1350.24
MW-9	06/27/2005	1030	1565.60	215.41	1350.19
MW-9	07/18/2005	0819	1565.60	215.68	1349.92
MW-9	08/22/2005	0902	1565.60	215.57	1350.03
MW-9	09/22/2005	0908	1565.60	215.59	1350.01
MW-9	10/24/2005	0818	1565.60	215.72	1349.88
MW-9	11/30/2005	1207	1565.60	215.70	1349.90
MW-9	12/22/2005	1403	1565.60	215.64	1349.96
MW-9	01/27/2006	1014	1565.60	215.83	1349.77
MW-9	02/20/2006	1015	1565.60	215.84	1349.76
MW-9	03/20/2006	1710	1565.60	215.82	1349.78
MW-9	05/22/2006	1002	1565.60	216.03	1349.57
MW-9	8/28/2006	1047	1565.60	215.95	1349.65
MW-9	11/13/2006	843	1565.60	216.07	1349.53
MW-9	2/12/2007	1258	1565.60	216.12	1349.48
MW-9	4/9/2007	1051	1565.60	216.19	1349.41
MW-9	7/30/2007	1051	1565.60	215.83	1349.77
MW-9	07/30/2007	1051	1565.60	215.83	1349.77
MW-9	10/15/2007	0820	1565.60	216.16	1349.44
MW-9	01/14/2008	0822	1565.60	216.30	1349.30
MW-9	03/31/2008	1413	1565.60	216.26	1349.34
MW-9	04/29/2008	1716	1565.60	216.15	1349.45
MW-9	05/27/2008	1509	1565.60	216.24	1349.36
MW-9	06/27/2008	1039	1565.60	216.37	1349.23
MW-9	07/28/2008	1429	1565.60	216.34	1349.26
MW-9	08/29/2008	1247	1565.60	216.38	1349.22
MW-9	09/20/2008	1303	1565.60	216.42	1349.18
MW-9	10/14/2008	1120	1565.60	216.46	1349.14
MW-9	11/21/2008	1013	1565.60	216.51	1349.09
MW-9	12/15/2008	800	1565.60	216.52	1349.08
MW-9	1/12/2009	730	1565.60	216.53	1349.07
MW-9	2/16/2009	0933	1565.60	216.52	1349.08

Table 61
Groundwater Elevation Summary
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Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-9	3/17/2009	0819	1565.60	216.56	1349.04
MW-9	4/13/2009	0827	1565.60	216.54	1349.06
MW-9	5/20/2009	0758	1565.60	216.58	1349.02
MW-9	6/15/2009	0806	1565.60	216.60	1349.00
MW-9	7/6/2009	0724	1565.60	216.61	1348.99
MW-9	8/12/2009	0929	1565.60	216.62	1348.98
MW-9	9/28/2009	1010	1565.60	216.68	1348.92
MW-9	10/27/2009	0825	1565.60	216.62	1348.98
MW-9	11/25/2009	0727	1565.60	216.80	1348.80
MW-9	12/18/2009	0900	1565.60	216.85	1348.75
MW-9	1/18/2010	0825	1565.60	216.94	1348.66
MW-9	6/8/2010	1445	1565.60	216.85	1348.75
MW-9	6/22/2010	1151	1565.60	216.92	1348.68
MW-9	2/23/2011	0810	1565.60	216.90	1348.70
MW-9	3/22/2011	0826	1565.60	216.92	1348.68
MW-9	4/25/2011	1300	1565.60	216.86	1348.74
MW-9	5/27/2011	0720	1565.60	216.93	1348.67
Monitor Well MW-10					
MW-10	02/14/2005	1106	1536.11	149.92	1386.19
MW-10	03/15/2005	1120	1536.11	149.71	1386.40
MW-10	04/25/2005	0830	1536.11	149.56	1386.55
MW-10	05/20/2005	0842	1536.11	149.33	1386.78
MW-10	06/27/2005	0835	1536.11	149.04	1387.07
MW-10	07/18/2005	0748	1536.11	149.08	1387.03
MW-10	08/22/2005	0828	1536.11	149.02	1387.09
MW-10	09/22/2005	0836	1536.11	148.88	1387.23
MW-10	10/24/2005	0755	1536.11	149.20	1386.91
MW-10	11/30/2005	1232	1536.11	149.27	1386.84
MW-10	12/22/2005	1341	1536.11	149.33	1386.78
MW-10	01/27/2006	1039	1536.11	149.48	1386.63
MW-10	02/20/2006	0945	1536.11	149.56	1386.55
MW-10	03/20/2006	1635	1536.11	149.54	1386.57
MW-10	05/22/2006	0942	1536.11	149.66	1386.45
MW-10	8/28/2006	1015	1536.11	150.05	1386.06
MW-10	11/13/2006	1050	1536.11	150.45	1385.66
MW-10	2/12/2007	1307	1536.11	150.63	1385.48
MW-10	4/9/2007	1032	1536.11	150.75	1385.36
MW-10	7/30/2007	1134	1536.11	150.88	1385.23
MW-10	07/30/2007	1134	1536.11	150.88	1385.23
MW-10	10/15/2007	0924	1536.11	151.45	1384.66
MW-10	01/14/2008	0919	1536.11	151.93	1384.18
MW-10	03/31/2008	1342	1536.11	152.04	1384.07
MW-10	04/29/2008	1234	1536.11	151.98	1384.13
MW-10	05/27/2008	1438	1536.11	152.20	1383.91
MW-10	06/27/2008	0950	1536.11	152.37	1383.74
MW-10	07/28/2008	1440	1536.11	152.48	1383.63
MW-10	08/29/2008	1305	1536.11	152.41	1383.70
MW-10	09/20/2008	1130	1536.11	152.58	1383.53
MW-10	10/14/2008	1049	1536.11	152.83	1383.28
MW-10	11/21/2008	1034	1536.11	152.88	1383.23
MW-10	12/15/2008	831	1536.11	152.87	1383.24
MW-10	1/12/2009	805	1536.11	153.14	1382.97
MW-10	2/16/2009	1003	1536.11	152.95	1383.16
MW-10	3/17/2009	0847	1536.11	153.23	1382.88
MW-10	4/13/2009	0851	1536.11	153.24	1382.87
MW-10	5/20/2009	0824	1536.11	153.28	1382.83

Table 61
Groundwater Elevation Summary
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Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-10	6/15/2009	0835	1536.11	153.35	1382.76
MW-10	7/6/2009	0754	1536.11	153.42	1382.69
MW-10	8/12/2009	0940	1536.11	153.61	1382.50
MW-10	9/28/2009	1020	1536.11	153.62	1382.49
MW-10	10/27/2009	0816	1536.11	153.64	1382.47
MW-10	11/25/2009	0650	1536.11	153.98	1382.13
MW-10	12/18/2009	0908	1536.11	154.00	1382.11
MW-10	1/18/2010	0836	1536.11	154.02	1382.09
MW-10	6/8/2010	1135	1536.11	154.47	1381.64
MW-10	6/22/2010	1115	1536.11	154.54	1381.57
MW-10	2/23/2011	0900	1536.11	154.90	1381.21
MW-10	3/22/2011	0845	1536.11	154.95	1381.16
MW-10	4/25/2011	1337	1536.11	154.93	1381.18
MW-10	5/27/2011	0810	1536.11	154.93	1381.18
Monitor Well MW-11					
MW-11	12/22/2005	1517	1603.35	253.68	1349.67
MW-11	01/27/2006	0959	1603.35	253.76	1349.59
MW-11	02/20/2006	1030	1603.35	253.71	1349.64
MW-11	03/20/2006	1610	1603.35	253.71	1349.64
MW-11	05/22/2006	0906	1603.35	253.83	1349.52
MW-11	8/28/2006	1130	1603.35	253.78	1349.57
MW-11	11/13/2006	943	1603.35	253.80	1349.55
MW-11	2/12/2007	1209	1603.35	253.86	1349.49
MW-11	4/9/2007	1036	1603.35	253.87	1349.48
MW-11	7/30/2007	952	1603.35	253.51	1349.84
MW-11	07/30/2007	0952	1603.35	253.51	1349.84
MW-11	10/15/2007	1358	1603.35	253.90	1349.45
MW-11	01/14/2008	1421	1603.35	254.07	1349.28
MW-11	04/29/2008	1354	1603.35	254.13	1349.22
MW-11	05/27/2008	1521	1603.35	254.12	1349.23
MW-11	06/27/2008	0820	1603.35	254.20	1349.15
MW-11	07/28/2008	1617	1603.35	254.26	1349.09
MW-11	08/29/2008	1228	1603.35	254.28	1349.07
MW-11	09/20/2008	0830	1603.35	254.25	1349.10
MW-11	10/14/2008	1341	1603.35	254.23	1349.12
MW-11	11/21/2008	1300	1603.35	254.23	1349.12
MW-11	12/15/2008	1302	1603.35	254.20	1349.15
MW-11	1/12/2009	1218	1603.35	254.22	1349.13
MW-11	2/16/2009	1520	1603.35	254.20	1349.15
MW-11	3/17/2009	1328	1603.35	254.25	1349.10
MW-11	4/13/2009	1243	1603.35	254.24	1349.11
MW-11	5/20/2009	1240	1603.35	254.32	1349.03
MW-11	6/15/2009	1203	1603.35	254.35	1349.00
MW-11	7/6/2009	1212	1603.35	254.35	1349.00
MW-11	8/12/2009	1255	1603.35	254.38	1348.97
MW-11	9/28/2009	1101	1603.35	254.52	1348.83
MW-11	10/27/2009	1049	1603.35	254.61	1348.74
MW-11	11/25/2009	1027	1603.35	254.73	1348.62
MW-11	12/18/2009	1059	1603.35	254.80	1348.55
MW-11	1/18/2010	1125	1603.35	254.92	1348.43
MW-11	6/8/2010	1244	1606.14	257.63	1348.51
MW-11	6/22/2010	1248	1606.14	257.62	1348.52
MW-11	2/23/2011	1230	1606.14	257.60	1348.54
MW-11	3/22/2011	1025	1606.14	257.60	1348.54
MW-11	4/25/2011	1601	1606.14	257.58	1348.56
MW-11	5/27/2011	0952	1606.14	257.61	1348.53

Table 61
Groundwater Elevation Summary
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Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
Monitor Well MW-12					
MW-12	12/22/2005	1440	1557.46	209.16	1348.30
MW-12	01/27/2006	1057	1557.46	209.20	1348.26
MW-12	02/20/2006	1100	1557.46	209.11	1348.35
MW-12	03/20/2006	1515	1557.46	209.09	1348.37
MW-12	05/22/2006	0836	1557.46	209.17	1348.29
MW-12	8/28/2006	1235	1557.46	209.12	1348.34
MW-12	11/13/2006	956	1557.46	209.14	1348.32
MW-12	2/12/2007	1225	1557.46	209.23	1348.23
MW-12	4/9/2007	1110	1557.46	209.16	1348.30
MW-12	7/30/2007	905	1557.46	208.88	1348.58
MW-12	07/30/2007	0905	1557.46	208.85	1348.61
MW-12	10/15/2007	1345	1557.46	209.23	1348.23
MW-12	01/14/2008	1143	1557.46	209.46	1348.00
MW-12	03/31/2008	1428	1557.46	209.31	1348.15
MW-12	04/29/2008	1440	1557.46	209.31	1348.15
MW-12	05/27/2008	1255	1557.46	209.42	1348.04
MW-12	06/27/2008	0800	1557.46	209.63	1347.83
MW-12	07/28/2008	1344	1557.46	209.58	1347.88
MW-12	08/29/2008	1636	1557.46	209.58	1347.88
MW-12	09/20/2008	1200	1557.46	209.50	1347.96
MW-12	10/14/2008	1433	1557.46	209.40	1348.06
MW-12	11/21/2008	1400	1557.46	209.41	1348.05
MW-12	12/15/2008	1138	1557.46	209.50	1347.96
MW-12	1/12/2009	930	1557.46	209.46	1348.00
MW-12	2/16/2009	0909	1557.46	209.52	1347.94
MW-12	3/17/2009	1152	1557.46	209.48	1347.98
MW-12	4/13/2009	1128	1557.46	209.45	1348.01
MW-12	5/20/2009	0736	1557.46	209.79	1347.67
MW-12	6/15/2009	0737	1557.46	209.64	1347.82
MW-12	7/6/2009	0645	1557.46	209.66	1347.80
MW-12	8/13/2009	0615	1557.46	209.75	1347.71
MW-12	9/28/2009	0816	1560.91	213.59	1347.32
MW-12	10/27/2009	1532	1560.91	213.61	1347.30
MW-12	11/25/2009	1019	1560.91	213.94	1346.97
MW-12	12/18/2009	1106	1560.91	213.99	1346.92
MW-12	1/18/2010	1111	1560.91	214.11	1346.80
MW-12	6/8/2010	1215	1560.91	213.38	1347.53
MW-12	6/22/2010	1300	1560.91	213.38	1347.53
MW-12	2/23/2011	1240	1560.91	213.34	1347.57
MW-12	3/22/2011	1111	1560.91	213.39	1347.52
MW-12	4/25/2011	1613	1560.91	213.33	1347.58
MW-12	5/27/2011	1000	1560.91	212.37	1348.54
Monitor Well MW-13					
MW-13	08/29/2008	1138	1595.77	246.82	1348.95
MW-13	09/20/2008	0758	1595.77	246.75	1349.02
MW-13	10/14/2008	1506	1595.77	246.75	1349.02
MW-13	11/21/2008	1340	1595.77	246.78	1348.99
MW-13	12/15/2008	1315	1595.77	246.83	1348.94
MW-13	1/12/2009	1304	1595.77	246.79	1348.98
MW-13	2/16/2009	1547	1595.77	246.81	1348.96
MW-13	3/17/2009	1411	1595.77	246.80	1348.97
MW-13	4/13/2009	1329	1595.77	246.80	1348.97
MW-13	5/20/2009	1323	1595.77	246.90	1348.87
MW-13	6/15/2009	1243	1595.77	246.95	1348.82
MW-13	7/6/2009	1500	1595.77	246.89	1348.88

Table 61
Groundwater Elevation Summary
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Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-13	8/12/2009	1349	1595.77	246.98	1348.79
MW-13	9/28/2009	0900	1599.52	250.74	1348.78
MW-13	10/27/2009	1056	1599.52	250.71	1348.81
MW-13	11/25/2009	1047	1599.52	250.98	1348.54
MW-13	12/18/2009	1129	1599.52	251.00	1348.52
MW-13	1/18/2010	1226	1599.52	251.13	1348.39
MW-13	6/8/2010	1310	1599.52	250.83	1348.69
MW-13	6/22/2010	1345	1599.52	250.87	1348.65
MW-13	2/23/2011	1315	1599.52	250.82	1348.70
MW-13	3/22/2011	1145	1599.52	250.86	1348.66
MW-13	4/26/2011	0826	1599.52	250.82	1348.70
MW-13	5/27/2011	1121	1599.52	250.82	1348.70
Monitor Well MW-14					
MW-14	08/29/2008	1340	1602.48	263.25	1339.23
MW-14	09/20/2008	0732	1602.48	263.38	1339.10
MW-14	10/14/2008	1152	1602.48	263.69	1338.79
MW-14	11/21/2008	1153	1602.48	264.15	1338.33
MW-14	12/15/2008	1045	1602.48	264.02	1338.46
MW-14	1/12/2009	1125	1602.48	263.57	1338.91
MW-14	2/16/2009	1220	1602.48	263.66	1338.82
MW-14	3/17/2009	1240	1602.48	264.03	1338.45
MW-14	4/13/2009	1033	1602.48	264.08	1338.40
MW-14	5/20/2009	1011	1602.48	264.55	1337.93
MW-14	6/15/2009	1032	1602.48	264.65	1337.83
MW-14	7/6/2009	0932	1602.48	264.89	1337.59
MW-14	8/12/2009	1059	1602.48	265.10	1337.38
MW-14	9/28/2009	1240	1602.48	265.59	1336.89
MW-14	10/27/2009	0951	1602.48	265.78	1336.70
MW-14	11/25/2009	0958	1602.48	266.72	1335.76
MW-14	12/18/2009	0952	1602.48	265.98	1336.50
MW-14	1/18/2010	0953	1602.48	266.03	1336.45
MW-14	6/8/2010	1025	1602.48	266.04	1336.44
MW-14	6/22/2010	1048	1602.48	266.49	1335.99
MW-14	2/23/2011	1125	1602.48	266.62	1335.86
MW-14	3/22/2011	0927	1602.48	266.57	1335.91
MW-14	4/25/2011	1433	1602.48	266.85	1335.63
MW-14	5/27/2011	0900	1602.48	267.75	1334.73
Monitor Well MW-15					
MW-15	08/29/2008	1350	1600.48	261.95	1338.53
MW-15	09/20/2008	0729	1600.48	262.09	1338.39
MW-15	10/14/2008	1146	1600.48	262.18	1338.30
MW-15	11/21/2008	1200	1600.48	262.45	1338.03
MW-15	12/15/2008	1053	1600.48	262.58	1337.90
MW-15	1/12/2009	1137	1600.48	262.51	1337.97
MW-15	2/16/2009	1320	1600.48	262.53	1337.95
MW-15	3/17/2009	1251	1600.48	262.60	1337.88
MW-15	4/13/2009	1043	1600.48	262.72	1337.76
MW-15	5/20/2009	1021	1600.48	262.96	1337.52
MW-15	6/15/2009	1050	1600.48	263.03	1337.45
MW-15	7/6/2009	0949	1600.48	263.19	1337.29
MW-15	8/12/2009	1107	1600.48	263.36	1337.12
MW-15	9/28/2009	1259	1600.48	263.69	1336.79
MW-15	10/27/2009	0945	1600.48	263.80	1336.68
MW-15	11/25/2009	0952	1600.48	264.20	1336.28
MW-15	12/18/2009	0942	1600.48	264.28	1336.20
MW-15	1/18/2010	0942	1600.48	264.39	1336.09

Table 61
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Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
MW-15	6/8/2010	1015	1600.48	264.50	1335.98
MW-15	6/22/2010	1030	1600.48	264.68	1335.80
MW-15	2/23/2011	1135	1600.48	265.33	1335.15
MW-15	3/22/2011	0932	1600.48	265.45	1335.03
MW-15	4/25/2011	1440	1600.48	265.35	1335.13
MW-15	5/27/2011	0901	1600.48	265.84	1334.64
Monitor Well MW-16					
MW-16	4/25/2011	1452	1585.36	253.89	1331.47
MW-16	5/27/2011	0914	1585.36	254.05	1331.31
Monitor Well MW-17					
MW-17	4/25/2011	1346	1560.72	206.72	1354.00
MW-17	5/27/2011	0814	1560.72	206.78	1353.94

Table 61
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Well ID	Date	Time	Top of Casing Elevation (ft amsl)	Depth to Water (ft)	Groundwater Elevation (ft amsl)
Monitor Well MW-18					
MW-18	9/28/2009	0805	1533.53	181.20	1352.33
MW-18	10/7/2009	NA	1533.53	137.39	1396.14
MW-18	10/27/2009	0754	1533.53	132.18	1401.35
MW-18	11/25/2009	0701	1533.53	131.17	1402.36
MW-18	12/18/2009	0819	1533.53	130.11	1403.42
MW-18	1/18/2010	0758	1533.53	129.84	1403.69
MW-18	6/8/2010	1358	1533.53	129.81	1403.72
MW-18	6/22/2010	1133	1533.53	129.85	1403.68
MW-18	2/23/2011	0835	1533.53	130.17	1403.36
MW-18	3/22/2011	0810	1533.53	130.20	1403.33
MW-18	4/25/2011	1305	1533.53	130.99	1402.54
MW-18	5/27/2011	0737	1533.53	130.70	1402.83
Monitor Well MW-19					
MW-19	4/26/2011	0832	1599.51	250.80	1348.71
MW-19	5/27/2011	1127	1599.51	251.40	1348.11

Note:
amsl = above mean sea level
ft = feet

Table 62
UPCO Monitor Well 14 Hydrophysical Logging Summary Results
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Test Interval Depth (ft below datum)	Length of Interval (ft)	Interval Specific Horizontal Flow Rate, Velocity and Specific Discharge During Ambient Flow Conditions			Average Interval Specific Flow Rate During PDI Testing (gpm)	Average Interval Specific Hydraulic Conductivity (ft/day)	Average Interval Specific Transmissivity (ft^2/day)
		Ambient Horzontal Flow Rate (gpm)	In Wellbore Velocity (ft/day)	Specific Discharge* (ft/day)			
287.0 - 302.0	15.0	0.007-0.008	0.14-0.15	0.06	0.41	5.83E-01	8.74E+00
304.0 - 307.0	3.0	0.002	0.13-0.15	0.05-0.06	0.01	5.79E-02	1.74E-01
310.0 - 325.0	15.0	0.006	0.07-0.08	0.03	0.29	4.11E-01	6.17E+00
330.0 - 343.0	13.0	0.001-0.002	0.02	0.01	0.22	3.65E-01	4.74E+00
343.0 - 346.0	3.0	<0.001	<0.02	0.01	0.05	3.62E-01	1.09E+00
346.0 - 365.0	19.0	0.002	0.02	0.01	1.05	1.20E+00	2.28E+01
365.0 - 372.0	7.0	0.001	0.02	0.01	0.4	1.24E+00	8.66E+00
373.0 - 380.0	7.0	0.001	0.02-0.03	0.01	1.39	4.31E+00	3.02E+01
380.0 - 390.0	10.0	0.002	0.04	0.02	0.33	7.12E-01	7.12E+00
390.0 - 405.0	15.0	0.007-0.008	0.1	0.04	0.59	8.43E-01	1.26E+01
405.0 - 419.0	14.0	0.01	0.14-0.15	0.06	0.76	1.16E+00	1.63E+01
Well Average			**0.02-0.15**	**0.01-0.06**			
Total	**132.0**	**0.039-0.041**			**5.62**		**1.19E+02**

Note:
* = Darcy velocity
ft = feet
ft/day = feet per day
ft^2/day = square feet per day
gpm = gallons per minute

Table 63
Area Pumping Well Data
Final Remedial Investigation Report

Reg No.	Address	X (UTM - ft)	Y (UTM - ft)	Well Depth (ft)	Casing Depth (ft)	Casing Diameter (in)	Drill Date	Water Level
514515	102 E. Briles	1314233.83	12244392.04	440	440	4	6/16/1986	360
507289	104 E. Yearling	1314264.494	12243098.98	500	500	5	7/30/2001	282
520393	105 W. Jomax	1313277.018	12244756.55	173	25	8	11/18/1988	70
583418	106 W. Yearling	1313364.375	12243048.48	440	440	8	10/10/1990	255
578534	120 E. Quartz Rock Rd	1314384.535	12243764.68	738	735	5	6/5/2002	278
--	122 W. Yearling	1313013.805	12243031.12	--	--	--	--	--
--	1319 W. Briles	1309012.335	12244191.55	--	--	--	--	--
216530	16 E. Yearling	1313990.132	12243122.15	505	500	5	2/28/2008	258
212662	18 E. Yearling	1313950.319	12243055.83	500	20	6	5/14/2007	
--	20 W. Yearling	1313535.536	12243075.33	--	--	--	--	--
--	204 E. Yearling	1314904.202	12243067.64	--	--	--	--	--
--	206 E. Quartz Rock Rd	1314573.064	12243739.27	--	--	--	--	--
577135	218 E. Yearling	1314994.122	12242948.45	700	700	4	10/22/1999	250
598540	222 E. Quartz Rock Rd	1314749.035	12243722.62	420	420	5		194
--	23724 N. Central Ave	1313622.875	12236255.12	--	--	--	--	--
590514	23740 N. Central Ave	1313283.9	12236394.94	--	--	--	--	--
522493	24412 N. 9th Ave	1310638.756	12240444.75	440	442	8	10/7/1988	280
--	25640 N. 7th Ave	1311046.129	12242694.31	--	--	--	--	--
563108	25712 N. 9th Ave	1310429.368	12242847.14	710	--	--	6/20/1997	--
--	258 W. Yearling	1312648.307	12243203.66	--	--	--	--	--
201965	25812 N. 10th Ave	1310167.975	12243207.51	385	485	5	--	218
592488	25819 N. 5th Ave	1311956.756	12243252.63	400	400	5	--	160
557685	25825 N. 1st Place	1314543.81	12243103.11	495	--	--	--	--
539012	25832 N. 3rd St	1314953.44	12243307.92	605	600	8	5/12/1993	250
208607	25840 N. 5th Ave	1311718.68	12243355.22	570	565	4	10/18/2005	310
555757	25844 N. 3rd St	1314930.538	12243533.57	505	500	7	7/25/1996	295
523968	25851 N. Central Ave	1314095.798	12243307.22	504	504	8	3/23/1989	186
--	25903 N. 2nd St	1314571.248	12243323.83	--	--	--	--	--
568736	25911 N. Central Ave	1313984.845	12243505.36	400	400	8	5/30/1998	230
--	25913 N. 3rd Ave	1312631.426	12243364.03	--	--	--	--	--
--	26009 N. 7th Ave	1311355.586	12243829.59	--	--	--	--	--
548017	26015 N. 5th St	1316013.36	12243761.13	300	300	8	3/13/1995	107
212792	26016 N. Central Ave	1313673.06	12243775.2	410	400	4	10/14/2006	142
537512	26444 N. 3rd St	1315032.926	12245019.41	200	200	8	12/15/1992	100
212193	29 W. Briles	1313413.115	12244183.96	380	380	5	5/30/2006	260
599288	301 E. Jomax	1315334.338	12244633.87	510	510	5		108
544492	304 W. Yearling	1312329.667	12243247.02	495	495	8	7/22/1994	400
--	308 E. Yearling	1315240.171	12243072.7	--	--	--	--	--
--	412 E. Yearling	1315479.747	12242972.37	--	--	--	--	--
566251	415 E. Quartz Rock Rd	1315565.811	12243363.47	--	--	--	--	--
516285	515 E. Quartz Rock Rd	1316043.411	12243488.44	220	220	7	12/18/1986	80
516036	520 E. Yearling	1316038.731	12243086.2	500	500	7	11/19/1986	86
--	604 E. Yearling	1316194.054	12242929.19	--	--	--	--	--
--	616 E. Yearling	1316190.677	12242929.19	--	--	--	--	--
576155	8 E. Yearling	1313763.75	12243139.1	500	500	8	1/7/2000	300
--	812 W. Briles	1310725.52	12244458.65	--	--	--	--	--
589778	825 W. Happy Valley	1310711.493	12239993.5	400	400	5	2/2/2002	210
500290	PW-1 (UPCO facility)	1314132.542	12240776.7	500	500	7	7/1/1981	390
85448	--	1307114.783	12243589.46	505	505	5	1/1/1980	410
87453	--	1306979.116	12241769.26	480	480	6	1/1/1981	325
201601	--	1309103.509	12242545.73	--	--	--	--	--
204471	--	1309500.258	12241825.79	550	550	5	--	265
203130	--	1308381.007	12243634.68	695	695	5	--	175

Table 63
Area Pumping Well Data
Final Remedial Investigation Report

Reg No.	Address	X (UTM - ft)	Y (UTM - ft)	Well Depth (ft)	Casing Depth (ft)	Casing Diameter (in)	Drill Date	Water Level
205745	--	1311556.053	12243610.12	400	380	6	--	181
204824	--	1307555.7	12241848.4	550	550	5	--	389
205680	--	1310150.164	12244306.41	860	860	5	12/4/2004	760
208207	--	1310966.201	12244195.54	760	660	6	8/10/2005	200
207500	--	1310176.774	12243698.82	--	470	6	6/4/2005	--
208594	--	1310890.806	12243650.04	560	560	4	10/20/2005	194
208607	--	1308313.173	12241237.9	570	565	4	10/18/2005	310
209735	--	1308309.647	12242479.2	760	740	6	--	380
210283	--	1310231.63	12244799.87	--	--	--	--	--
209428	--	1308931.76	12243615.49	410	410	5		212
212180	--	1308923.674	12241769.26	500	480	6	6/20/2006	291
214289	--	1310815.412	12244856.35	498	480	5	9/16/2007	320
216422	--	1307035.644	12242447.59	--	--	--	--	--
504386	--	1310178.592	12241769.26	400	400	5	11/24/1982	300
504819	--	1307621.06	12241250	500	500	8	2/27/1983	250
504851	--	1308381.007	12241916.23	500	500	8	3/1/1983	340
506898	--	1309569.23	12243024.93	290	200	6	1/28/1984	180
507806	--	1307815.728	12240796.98	420	420	5	3/29/1984	260
510521	--	1307725.284	12242402.37	700	700	8	3/23/1985	325
510522	--	1308889.757	12241294.43	400	400	8	3/22/1985	220
512051	--	1306994.75	12243028.22	500	500	8	8/21/1985	450
510901	--	1307804.059	12243565.77	500	500	8	5/3/1985	385
516338	--	1308908.37	12244301.98	660	600	7	12/29/1986	185
518122	--	1308290.562	12240785.68	440	440	8	6/20/1987	400
523675	--	1308925.52	12243024.93	495	495	8	3/28/1989	229
532541	--	1309568.091	12241260.51	400	400	8	8/23/1991	300
536675	--	1308269.732	12244173.36	455	455	8	10/9/1992	200
538465	--	1311862.067	12245401.85	--	--	--	--	--
540738	--	1309551.442	12242501.38	425	425	5	10/18/1993	210
548418	--	1309551.442	12244851.92	695	695	8	3/6/1995	200
548831	--	1311458.484	12244882.96	340	340	8	4/18/1995	144
549472	--	1310886.371	12242386.07	455	455	8	8/9/1995	177
551311	--	1309575.46	12243615.49	515	515	8	8/22/1995	200
553108	--	1309471.612	12244355.2	695	695	8	12/22/1995	122
557406	--	1310216.689	12243077.92	655	655	8	10/30/1996	190
558969	--	1312185.04	12244796.59	340	340	8	7/15/1997	140
559704	--	1306357.31	12242492.82	500	500	7	9/29/1996	--
563108	--	1310206.36	12242431.1	710	--	--	6/20/1997	--
562781	--	1307646.145	12242978.96	580	480	8	5/30/1997	--
599124	--	1307631.095	12244022.58	610	610	5	11/28/2003	387
594427	--	1308966.024	12244780.96	520	520	5	--	320
597462	--	1308281.82	12243024.93	328	325	5	--	217
639754	--	1309899.28	12243914.04	700	700	8	6/9/1980	350

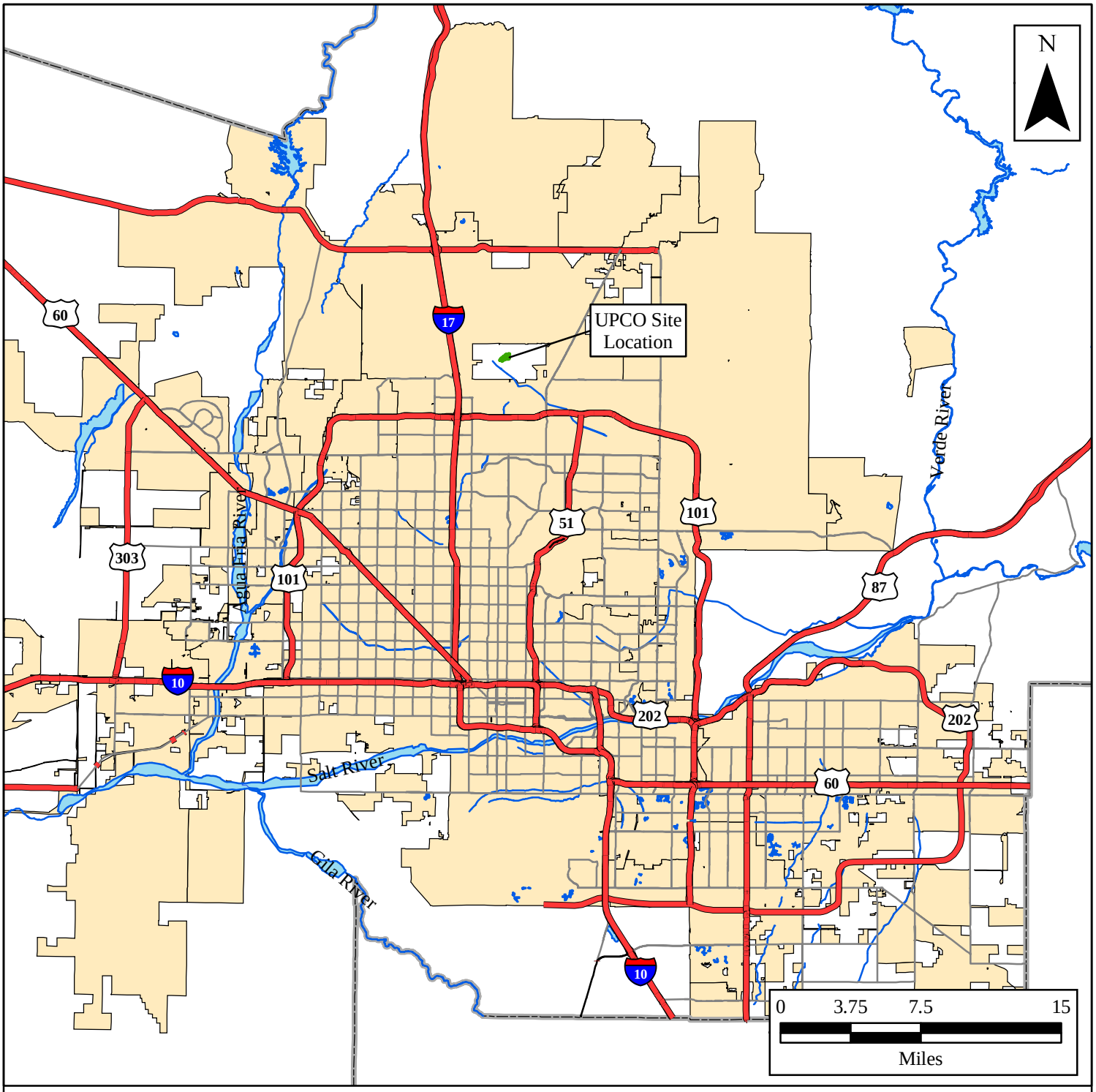
Notes
-- = Unknown
UTM-ft = Universal Transverse Mercator coordinates in feet
ft = feet
in = inches

Universal Propulsion Company
Final Remedial Investigation Summary Report

Figures

ARCADIS

3994003



Legend

- Site Location
- Primary Roads
- Highways, Freeways
- Rivers
- County Boundaries
- Lakes
- City Master Planning Area Boundaries

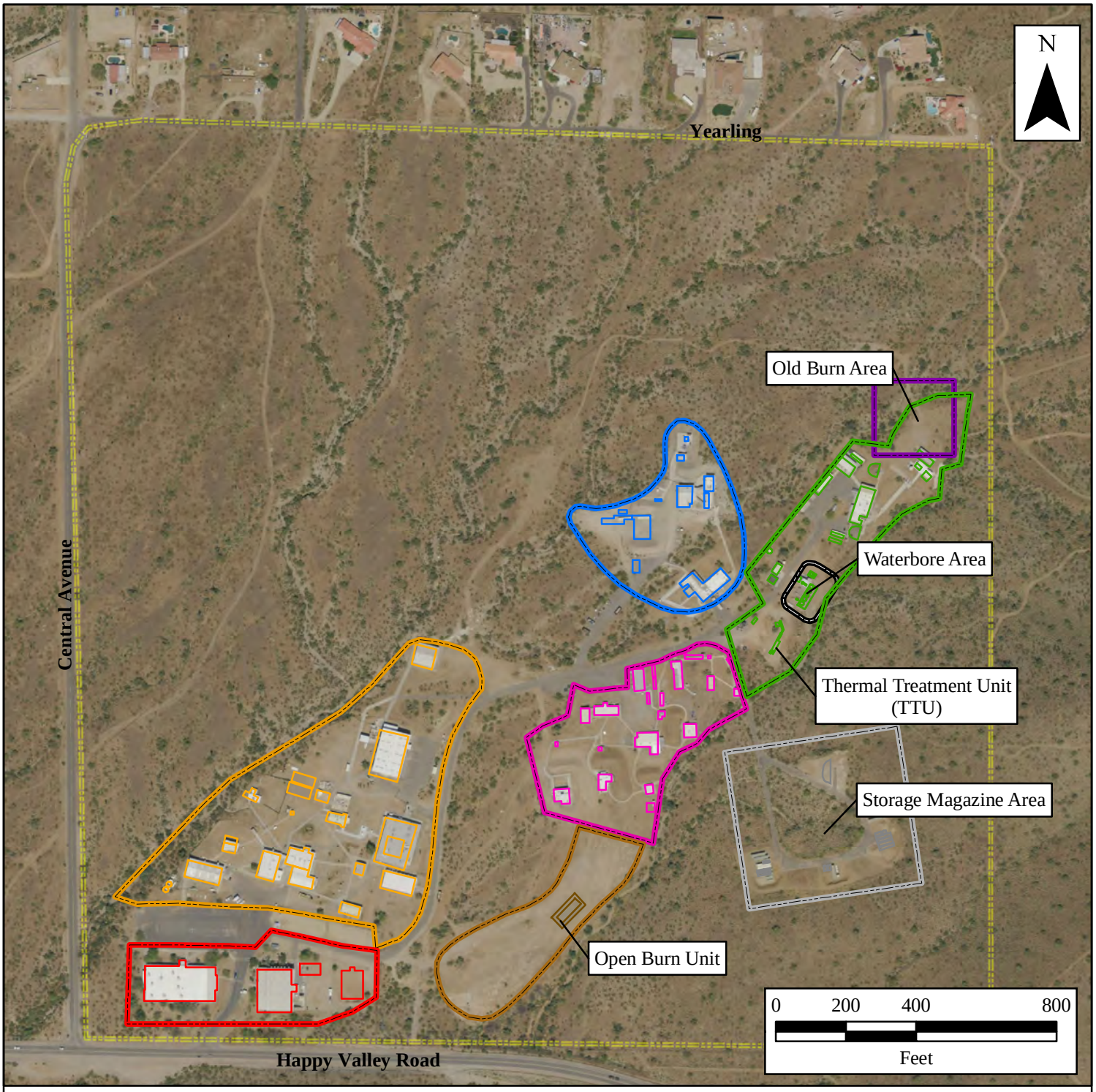
Source: City boundaries from Maricopa Association of Governments, 2005.
Other data from Teleatlas, Oct. 2003.

ARCADIS

Site Location Map
Final Remedial Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 1**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 01 Site location.mxd



Legend

- Lease Property Boundary
- A-Complex
- B-Complex
- C-Complex
- D-Complex
- E-Complex
- F-Complex
- New Burn Area

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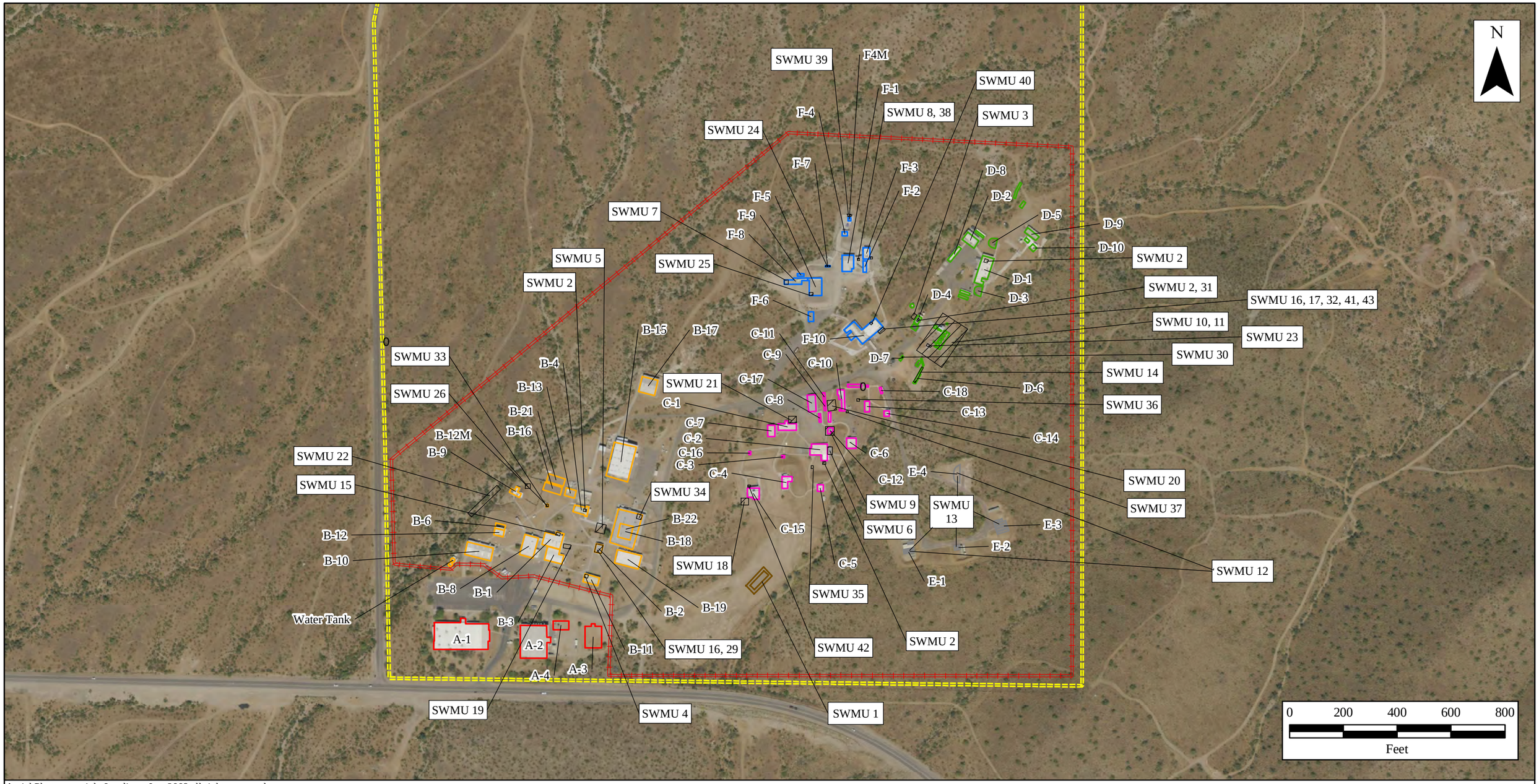
Facility Operational Areas
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 2**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 02 Site operational areas.mxd



Legend

- A-Complex
- B-Complex
- C-Complex
- D-Complex
- E-Complex
- F-Complex
- Open Burn Unit
- Lease Property Boundary
- Solid Waste Management Unit (SWMU)
- Inner Fence Line

Note: Satellite accumulation area SWMU's listed below

SWMU 27: B-1, B-3, B-4, B-8, B-10, B-11, B-12, B-15, B-22, C-1, C-2, C-4, C-6, C-10, C-15, D-1, F-2, F-3, F-4, F-10

SWMU 28: B-3, B-4, B-8, B-12, B-22, C-1, C-2, C-4, C-6, C-10, C-15, F-2, F-3, F-4, F-10

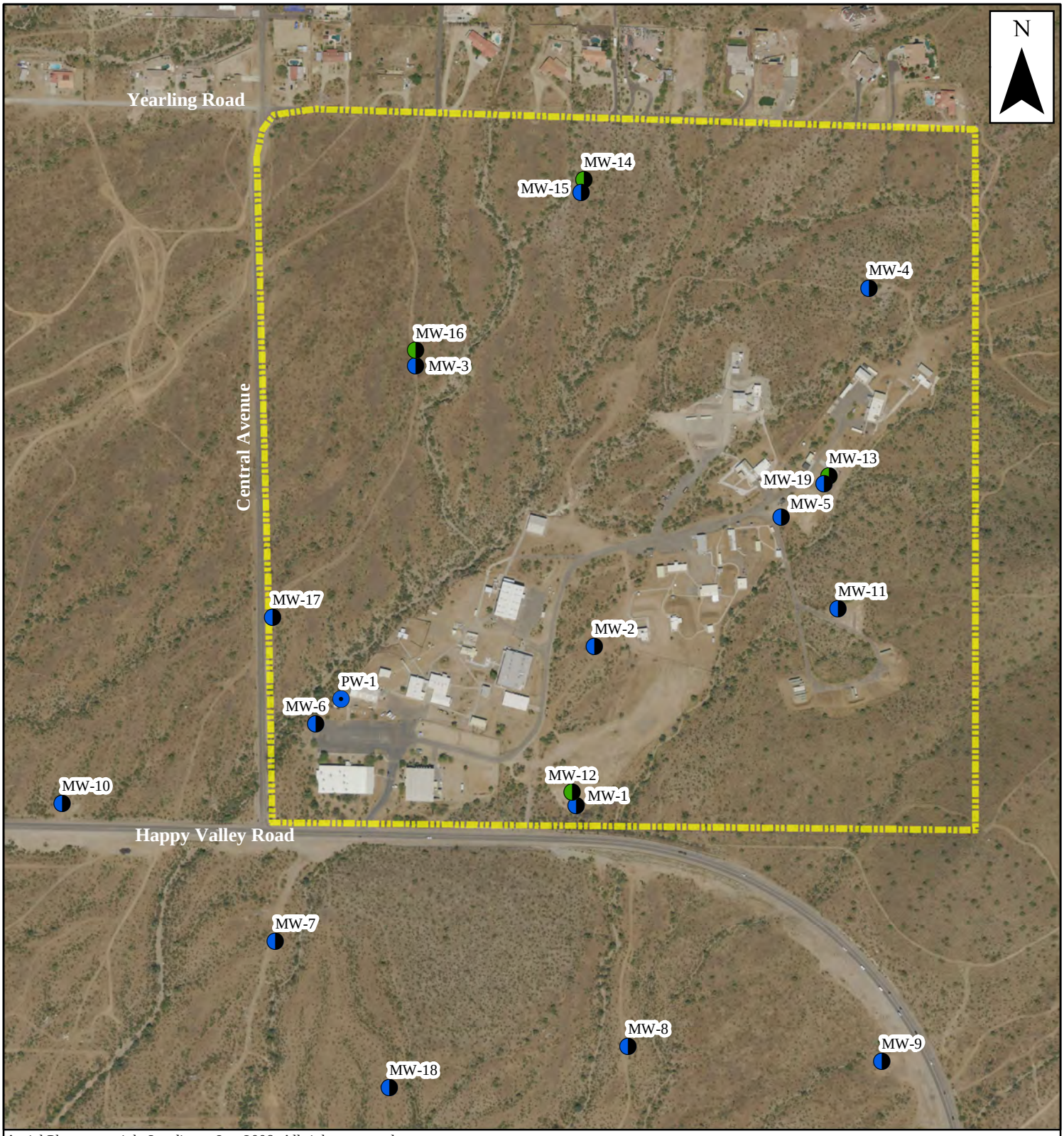
SWMU 32: B-1, B-3, B-4, B-8, B-10, B-12, B-15, B-22, C-1, C-2, C-4, C-6, C-10, C-15, D-1, F-1, F-2, F-3, F-4, F-10

ARCADIS

Facility Buildings and
Solid Waste Management Units
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 3**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 03 facility building and SWMU.mxd



Legend

- Deep Well
- Monitor Well
- Production Well
- Lease Property Boundary

0 250 500 750 1,000

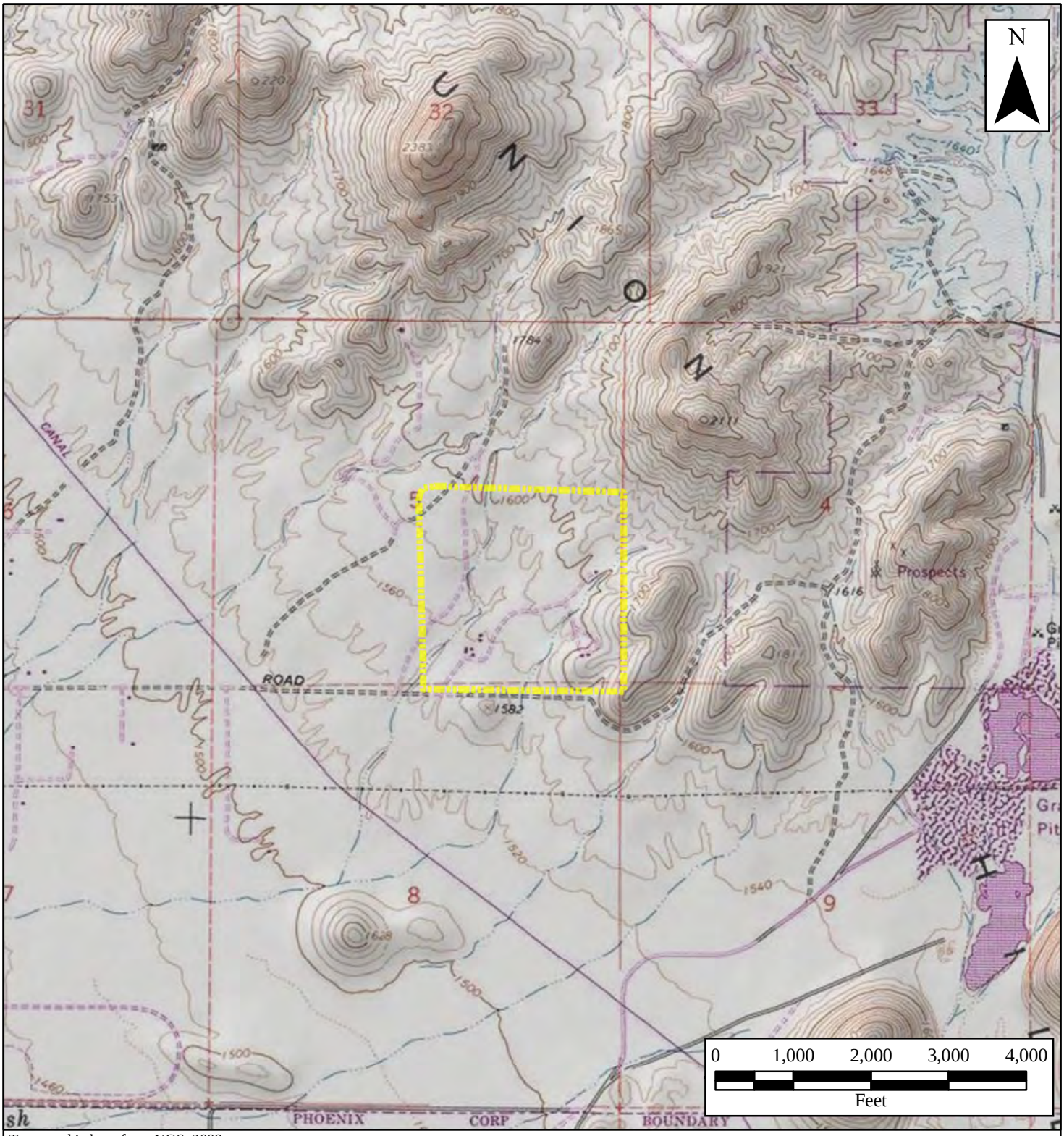
Feet

ARCADIS

Site Monitor Well Locations
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 4**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 4 Site Monitor Well Locations.mxd



Topographic base from NGS, 2008

Legend

Lease Property Boundary

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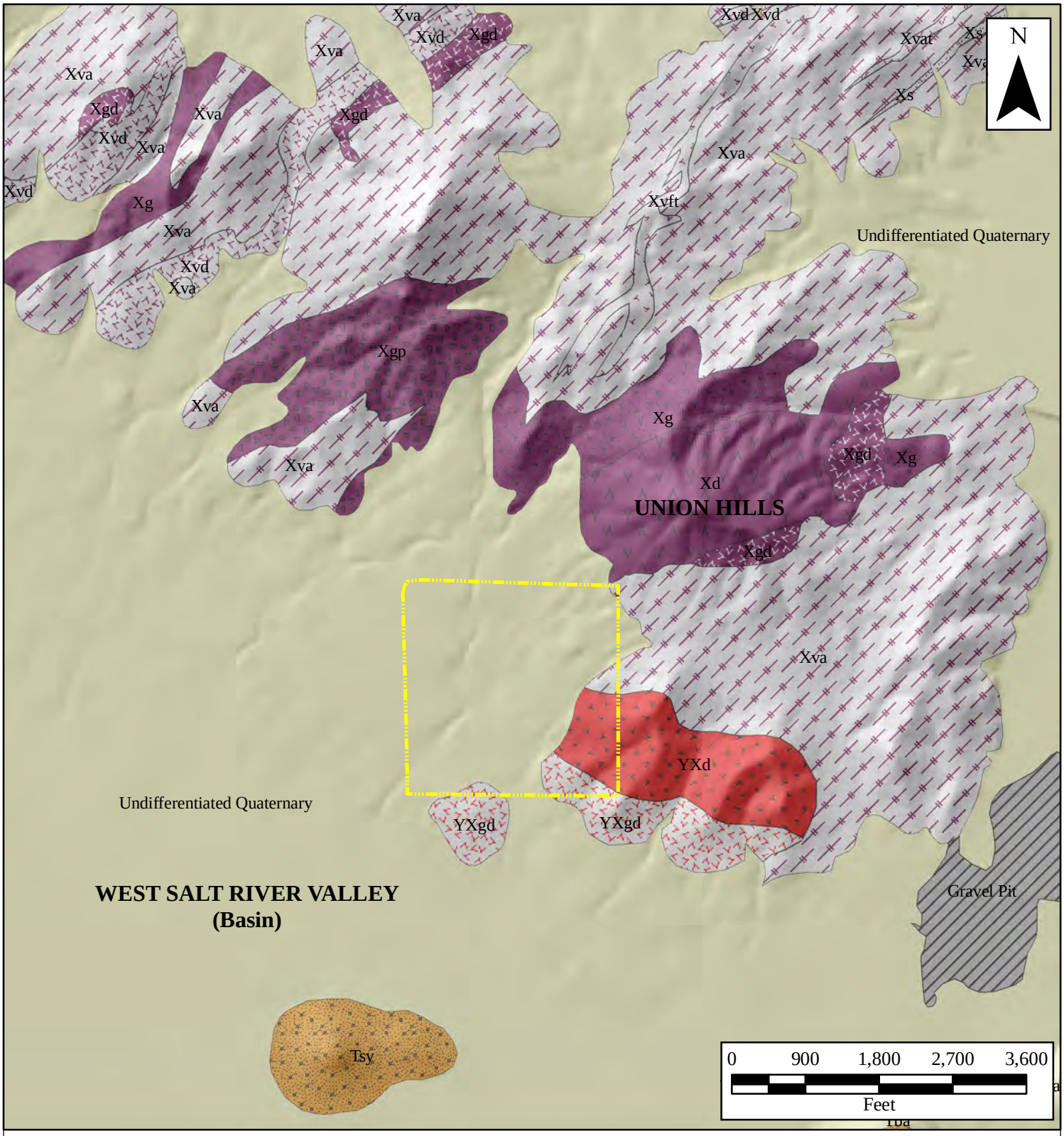
Site Topographic Map
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011	**Figure 5**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 05 Site topographic map.mxd



Note: Geology taken from Holloway and Leighty, 1995.

Legend

Basin Fill Deposits

- Q - Undifferentiated
- Tsy

Proterozoic Bedrock Units

Intrusive		Meta-volcanic	Meta-sedimentary
YXd	Xgp	Xva	Xs
YXg	Xgd	Xvft	
YXgd	Xd	Xvat	
	Xg	Xvd	
		Xvf	

- Gravel Pit
- Lease Property Boundary

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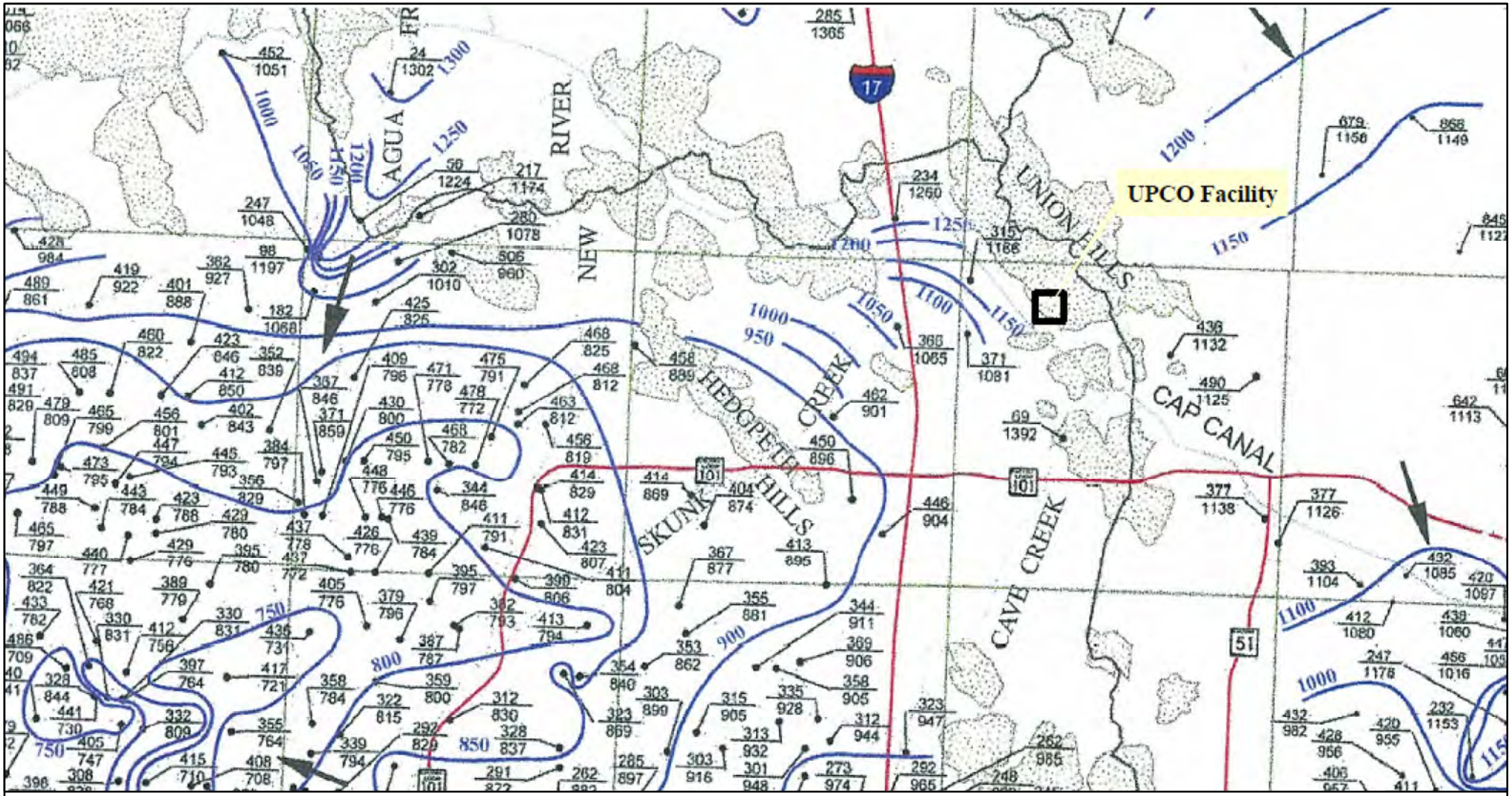
Geologic Map
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 6**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 06 Geologic map.mxd



Source: S.J Rascona, 2005.

Base Map from USGS, Phoenix, Arizona, 1954, revised 1969, 1:250,000.

Legend

- Bedrock
- Valley-fill deposits
- 234 / 1260 — Well location, depth to water in feet below ground surface, and water table elevation (November 2002 to February 2003)
- 950 — Water level elevation contour in feet above mean sea level. Contour interval is 50 feet

N

0 3 6

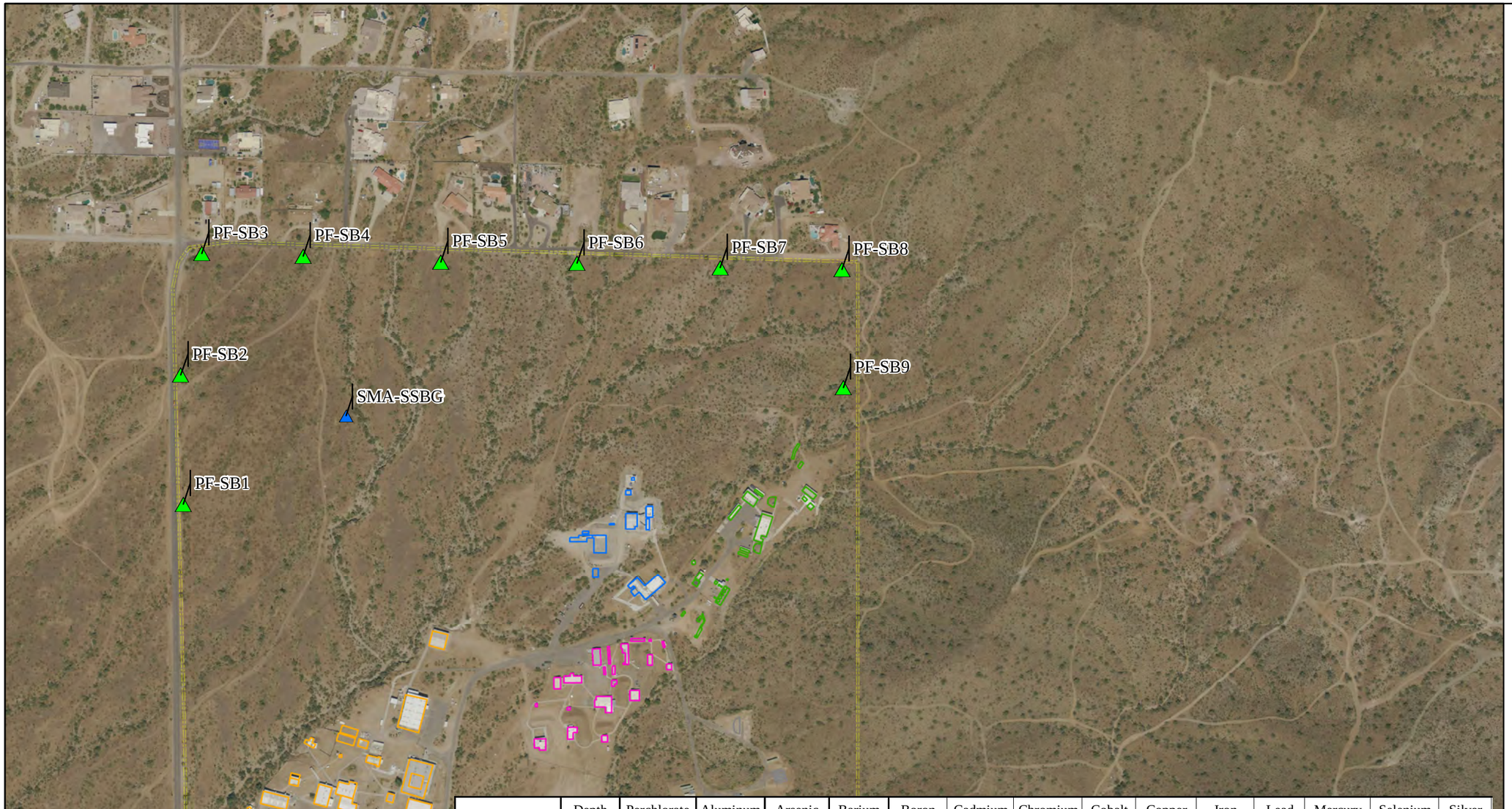
Approximate Miles

ARCADIS

Regional Groundwater Elevation
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 7**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 07 Regional groundwater elevation map.mxd



Location	Depth (feet)	Perchlorate (mg/kg)	Aluminum (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Boron (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Iron (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
PF-SB01	0	<0.04	NA	5.4	110	NA	<0.5	26	NA	NA	NA	10	<0.02	<5	<0.5
PF-SB02	0	<0.04	NA	5.5	89	NA	<0.5	30	NA	NA	NA	8	<0.02	<5	<0.5
PF-SB03	0	<0.04	NA	7.8	120	NA	<0.5	32	NA	NA	NA	10	<0.02	<5	<0.5
PF-SB04	0	<0.04	NA	7.3	120	NA	<0.5	31	NA	NA	NA	11	0.02	<5	<0.5
PF-SB05	0	<0.04	NA	5.4	110	NA	<0.5	35	NA	NA	NA	8.1	<0.02	<5	<0.5
PF-SB06	0	<0.04	NA	6.8	140	NA	<0.5	25	NA	NA	NA	6.7	<0.02	<5	<0.5
PF-SB07	0	<0.04	NA	5.7	90	NA	<0.5	12	NA	NA	NA	8	0.024	<5	<0.5
PF-SB08	0	<0.04	NA	7.4	100	NA	<0.5	16	NA	NA	NA	7.3	0.061	<5	<0.5
PF-SB09	0	<0.04	NA	9.7	130	NA	<0.5	10	NA	NA	NA	<4	<0.02	<5	<0.5
SMA-SSBG	0	<0.04	18000	NA	110	<50	<0.5	30	9.4	21	24000	12	NA	NA	NA
	1	<0.04	20000	NA	110	<50	<0.5	48	8.6	18	24000	7.1	NA	NA	NA

Legend

- Perimeter Fenceline Soil Data
- Background Soil Data
- Lease Property Boundary

Site Facilities

- A-Complex
- B-Complex
- C-Complex
- D-Complex
- E-Complex
- F-Complex

mg/kg = milligram per kilogram

ft = feet below ground surface

< = Analyte not reported above the listed laboratory detection limit

N

0 400 800

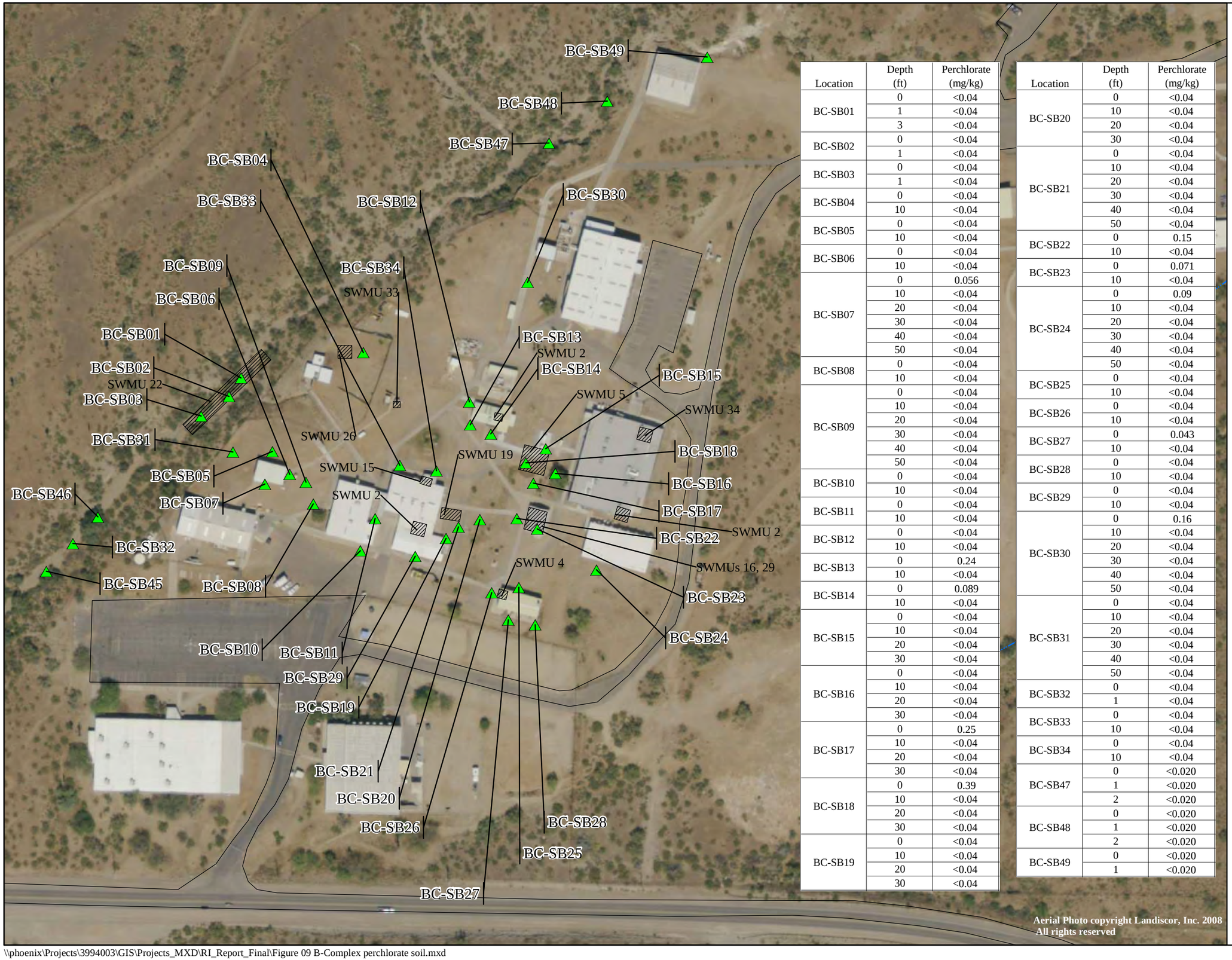
Feet

ARCADIS

Background and Perimeter Fenceline Soil Analytical Results
Perchlorate
Final Remedial Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 8**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 08 BG and fenceline perchlorate soil.mxd



Location	Depth (ft)	Perchlorate (mg/kg)
BC-SB01	0	<0.04
	1	<0.04
	3	<0.04
BC-SB02	0	<0.04
	1	<0.04
BC-SB03	0	<0.04
	1	<0.04
BC-SB04	0	<0.04
	10	<0.04
BC-SB05	0	<0.04
	10	<0.04
BC-SB06	0	<0.04
	10	<0.04
BC-SB07	0	0.056
	10	<0.04
	20	<0.04
	30	<0.04
	40	<0.04
	50	<0.04
BC-SB08	0	<0.04
	10	<0.04
BC-SB09	0	<0.04
	10	<0.04
	20	<0.04
	30	<0.04
	40	<0.04
	50	<0.04
BC-SB10	0	<0.04
	10	<0.04
BC-SB11	0	<0.04
	10	<0.04
BC-SB12	0	<0.04
	10	<0.04
BC-SB13	0	0.24
	10	<0.04
BC-SB14	0	0.089
	10	<0.04
BC-SB15	0	<0.04
	10	<0.04
	20	<0.04
	30	<0.04
BC-SB16	0	<0.04
	10	<0.04
	20	<0.04
	30	<0.04
BC-SB17	0	0.25
	10	<0.04
	20	<0.04
	30	<0.04
BC-SB18	0	0.39
	10	<0.04
	20	<0.04
	30	<0.04
BC-SB19	0	<0.04
	10	<0.04
	20	<0.04
	30	<0.04

Location	Depth (ft)	Perchlorate (mg/kg)
BC-SB20	0	<0.04
	10	<0.04
	20	<0.04
	30	<0.04
BC-SB21	0	<0.04
	10	<0.04
	20	<0.04
	30	<0.04
	40	<0.04
	50	<0.04
BC-SB22	0	0.15
	10	<0.04
BC-SB23	0	0.071
	10	<0.04
BC-SB24	0	0.09
	10	<0.04
	20	<0.04
	30	<0.04
	40	<0.04
	50	<0.04
BC-SB25	0	<0.04
	10	<0.04
BC-SB26	0	<0.04
	10	<0.04
BC-SB27	0	0.043
	10	<0.04
BC-SB28	0	<0.04
	10	<0.04
BC-SB29	0	<0.04
	10	<0.04
BC-SB30	0	0.16
	10	<0.04
	20	<0.04
	30	<0.04
	40	<0.04
	50	<0.04
BC-SB31	0	<0.04
	10	<0.04
	20	<0.04
	30	<0.04
	40	<0.04
	50	<0.04
BC-SB32	0	<0.04
	1	<0.04
BC-SB33	0	<0.04
	10	<0.04
BC-SB34	0	<0.04
	10	<0.04
BC-SB47	0	<0.020
	1	<0.020
	2	<0.020
BC-SB48	0	<0.020
	1	<0.020
	2	<0.020
BC-SB49	0	<0.020
	1	<0.020

Legend

- B-Complex Soil Data
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road
- SWMUs

mg/kg = milligram per kilogram

ft = feet below ground surface

< = Analyte not reported above the listed laboratory detection limit

SWMUs = Solid Waste Management Units

Note: Soil samples collected at BC-SB45 and BC-SB46 were not analyzed for perchlorate

N

0 125 250

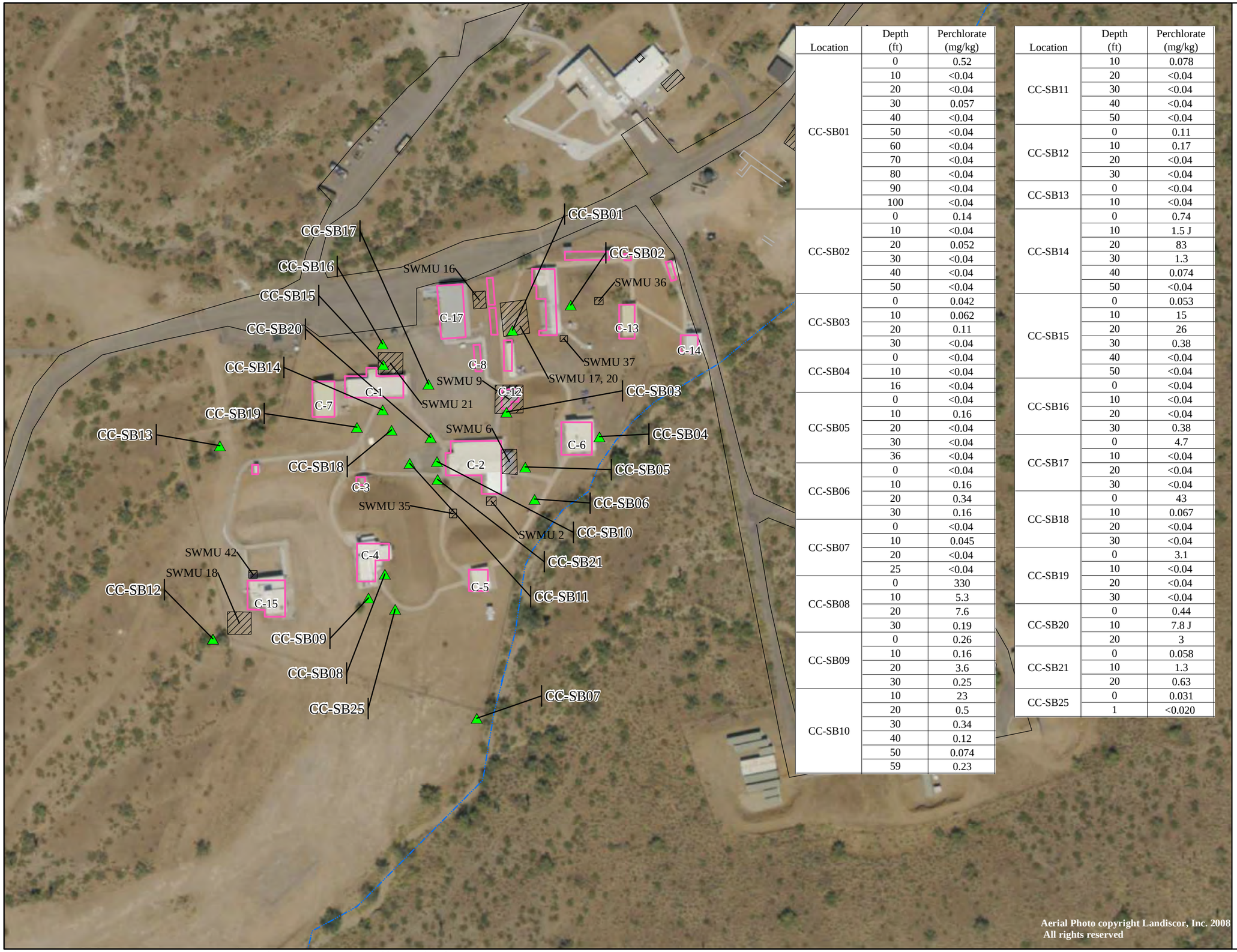
Feet

ARCADIS

B-Complex
Soil Analytical Results
Perchlorate
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 9**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 09 B-Complex perchlorate soil.mxd



Location	Depth (ft)	Perchlorate (mg/kg)
CC-SB01	0	0.52
	10	<0.04
	20	<0.04
	30	0.057
	40	<0.04
	50	<0.04
	60	<0.04
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
CC-SB02	0	0.14
	10	<0.04
	20	0.052
	30	<0.04
	40	<0.04
	50	<0.04
CC-SB03	0	0.042
	10	0.062
	20	0.11
	30	<0.04
CC-SB04	0	<0.04
	10	<0.04
	16	<0.04
CC-SB05	0	<0.04
	10	0.16
	20	<0.04
	30	<0.04
	36	<0.04
CC-SB06	0	<0.04
	10	0.16
	20	0.34
	30	0.16
CC-SB07	0	<0.04
	10	0.045
	20	<0.04
	25	<0.04
CC-SB08	0	330
	10	5.3
	20	7.6
	30	0.19
CC-SB09	0	0.26
	10	0.16
	20	3.6
	30	0.25
CC-SB10	10	23
	20	0.5
	30	0.34
	40	0.12
	50	0.074
	59	0.23

Location	Depth (ft)	Perchlorate (mg/kg)
CC-SB11	10	0.078
	20	<0.04
	30	<0.04
	40	<0.04
	50	<0.04
CC-SB12	0	0.11
	10	0.17
	20	<0.04
	30	<0.04
CC-SB13	0	<0.04
	10	<0.04
CC-SB14	0	0.74
	10	1.5 J
	20	83
	30	1.3
	40	0.074
	50	<0.04
CC-SB15	0	0.053
	10	15
	20	26
	30	0.38
	40	<0.04
	50	<0.04
CC-SB16	0	<0.04
	10	<0.04
	20	<0.04
	30	0.38
CC-SB17	0	4.7
	10	<0.04
	20	<0.04
	30	<0.04
CC-SB18	0	43
	10	0.067
	20	<0.04
	30	<0.04
CC-SB19	0	3.1
	10	<0.04
	20	<0.04
	30	<0.04
CC-SB20	0	0.44
	10	7.8 J
	20	3
CC-SB21	0	0.058
	10	1.3
	20	0.63
CC-SB25	0	0.031
	1	<0.020

Legend

- C-Complex Soil Data
- C-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road
- SWMUs

mg/kg = milligram per kilogram

< = Analyte not reported above the listed laboratory detection limit

J = Analyte was positively identified; however, the result should be considered an estimate

ft = feet below ground surface

SWMUs = Solid Waste Management Units

N

0 50 100 150 200

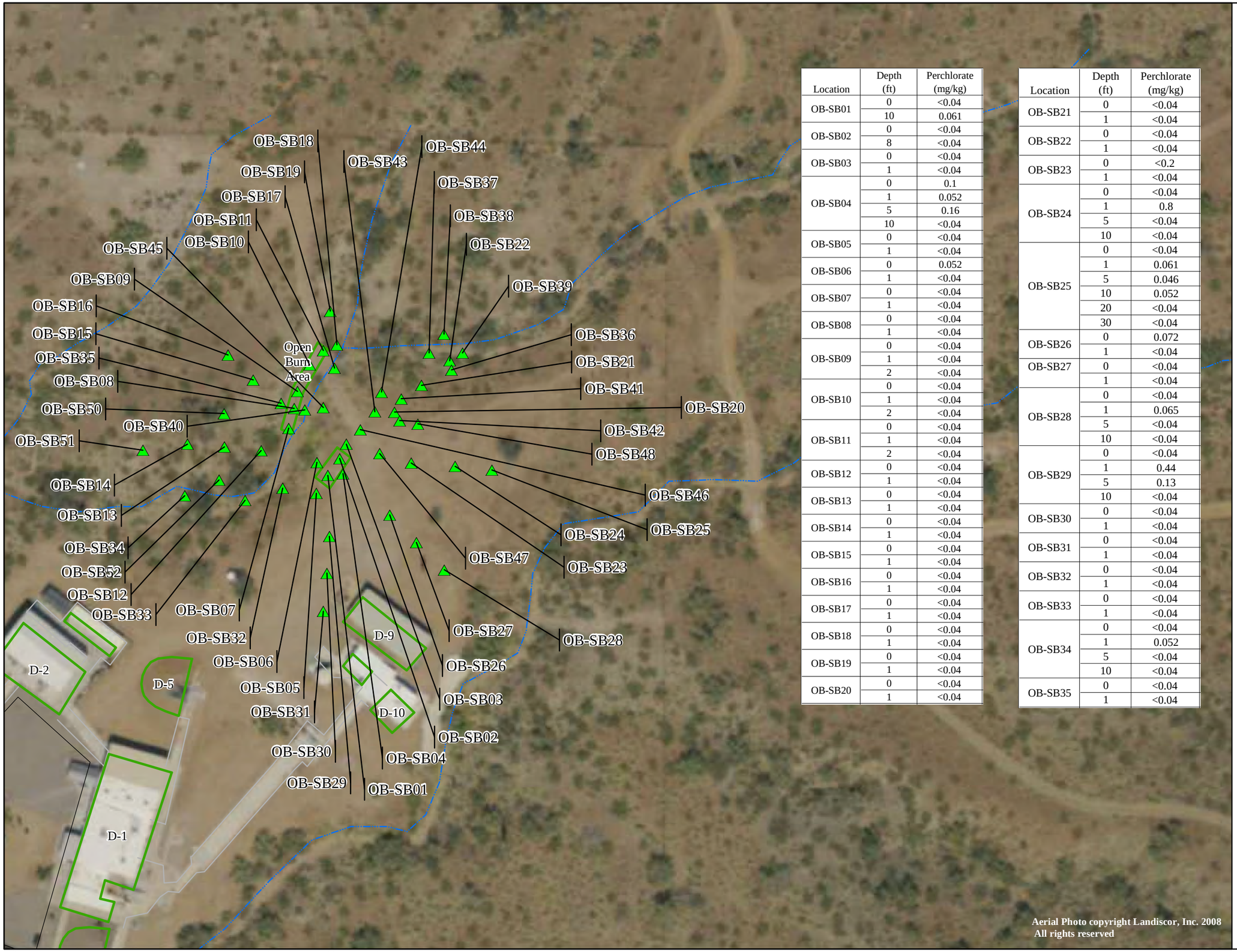
Feet

ARCADIS

C-Complex
Soil Analytical Results
Perchlorate
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 10**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 10 C-Complex perchlorate soil.mxd



Location	Depth (ft)	Perchlorate (mg/kg)
OB-SB01	0	<0.04
	10	0.061
OB-SB02	0	<0.04
	8	<0.04
OB-SB03	0	<0.04
	1	<0.04
OB-SB04	0	0.1
	1	0.052
	5	0.16
	10	<0.04
OB-SB05	0	<0.04
	1	<0.04
OB-SB06	0	0.052
	1	<0.04
OB-SB07	0	<0.04
	1	<0.04
OB-SB08	0	<0.04
	1	<0.04
OB-SB09	0	<0.04
	1	<0.04
	2	<0.04
OB-SB10	0	<0.04
	1	<0.04
	2	<0.04
OB-SB11	0	<0.04
	1	<0.04
	2	<0.04
OB-SB12	0	<0.04
	1	<0.04
OB-SB13	0	<0.04
	1	<0.04
OB-SB14	0	<0.04
	1	<0.04
OB-SB15	0	<0.04
	1	<0.04
OB-SB16	0	<0.04
	1	<0.04
OB-SB17	0	<0.04
	1	<0.04
OB-SB18	0	<0.04
	1	<0.04
OB-SB19	0	<0.04
	1	<0.04
OB-SB20	0	<0.04
	1	<0.04

Location	Depth (ft)	Perchlorate (mg/kg)
OB-SB21	0	<0.04
	1	<0.04
OB-SB22	0	<0.04
	1	<0.04
OB-SB23	0	<0.2
	1	<0.04
OB-SB24	0	<0.04
	1	0.8
	5	<0.04
	10	<0.04
OB-SB25	0	<0.04
	1	0.061
	5	0.046
	10	0.052
	20	<0.04
	30	<0.04
OB-SB26	0	0.072
	1	<0.04
OB-SB27	0	<0.04
	1	<0.04
OB-SB28	0	<0.04
	1	0.065
	5	<0.04
	10	<0.04
OB-SB29	0	<0.04
	1	0.44
	5	0.13
	10	<0.04
OB-SB30	0	<0.04
	1	<0.04
OB-SB31	0	<0.04
	1	<0.04
OB-SB32	0	<0.04
	1	<0.04
OB-SB33	0	<0.04
	1	<0.04
OB-SB34	0	<0.04
	1	0.052
	5	<0.04
	10	<0.04
OB-SB35	0	<0.04
	1	<0.04

Legend

- Old Burn Area Soil Data
- D-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road

mg/kg = milligram per kilogram

ft = feet below ground surface

< = Analyte not reported above the listed laboratory detection limit

Note: Soil borings OB-SB36 through OB-SB52 were not analyzed for perchlorate

N

0 60 120

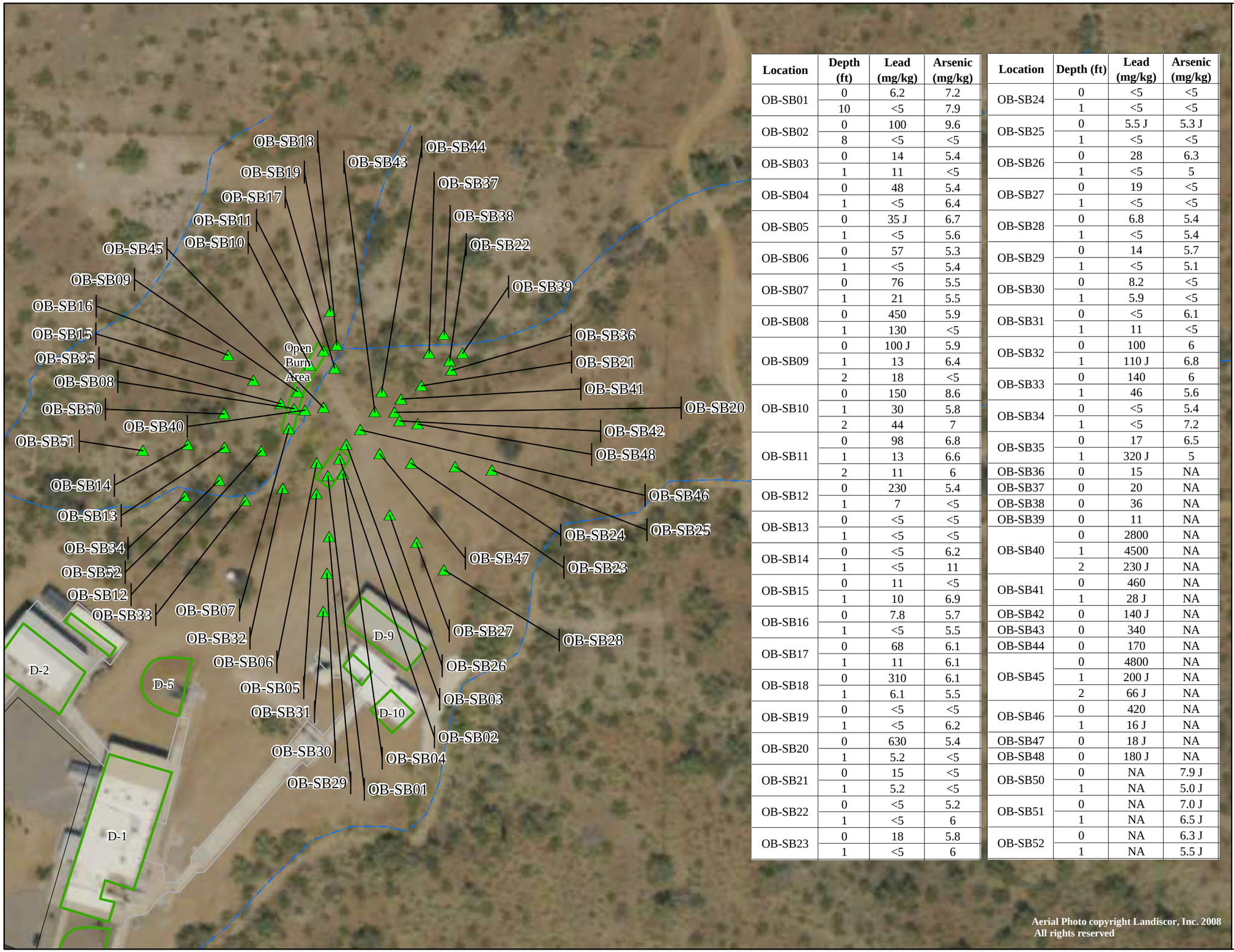
Feet

ARCADIS

Old Burn Area
Soil Analytical Results
Perchlorate
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 11**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 11 Old burn perchlorate soil.mxd



Location	Depth (ft)	Lead (mg/kg)	Arsenic (mg/kg)
OB-SB01	0	6.2	7.2
	10	<5	7.9
OB-SB02	0	100	9.6
	8	<5	<5
OB-SB03	0	14	5.4
	1	11	<5
OB-SB04	0	48	5.4
	1	<5	6.4
OB-SB05	0	35 J	6.7
	1	<5	5.6
OB-SB06	0	57	5.3
	1	<5	5.4
OB-SB07	0	76	5.5
	1	21	5.5
OB-SB08	0	450	5.9
	1	130	<5
OB-SB09	0	100 J	5.9
	1	13	6.4
	2	18	<5
OB-SB10	0	150	8.6
	1	30	5.8
	2	44	7
OB-SB11	0	98	6.8
	1	13	6.6
	2	11	6
OB-SB12	0	230	5.4
	1	7	<5
OB-SB13	0	<5	<5
	1	<5	<5
OB-SB14	0	<5	6.2
	1	<5	11
OB-SB15	0	11	<5
	1	10	6.9
OB-SB16	0	7.8	5.7
	1	<5	5.5
OB-SB17	0	68	6.1
	1	11	6.1
OB-SB18	0	310	6.1
	1	6.1	5.5
OB-SB19	0	<5	<5
	1	<5	6.2
OB-SB20	0	630	5.4
	1	5.2	<5
OB-SB21	0	15	<5
	1	5.2	<5
OB-SB22	0	<5	5.2
	1	<5	6
OB-SB23	0	18	5.8
	1	<5	6

Location	Depth (ft)	Lead (mg/kg)	Arsenic (mg/kg)
OB-SB24	0	<5	<5
	1	<5	<5
OB-SB25	0	5.5 J	5.3 J
	1	<5	<5
OB-SB26	0	28	6.3
	1	<5	5
OB-SB27	0	19	<5
	1	<5	<5
OB-SB28	0	6.8	5.4
	1	<5	5.4
OB-SB29	0	14	5.7
	1	<5	5.1
OB-SB30	0	8.2	<5
	1	5.9	<5
OB-SB31	0	<5	6.1
	1	11	<5
OB-SB32	0	100	6
	1	110 J	6.8
OB-SB33	0	140	6
	1	46	5.6
OB-SB34	0	<5	5.4
	1	<5	7.2
OB-SB35	0	17	6.5
	1	320 J	5
OB-SB36	0	15	NA
OB-SB37	0	20	NA
OB-SB38	0	36	NA
OB-SB39	0	11	NA
OB-SB40	0	2800	NA
	1	4500	NA
	2	230 J	NA
OB-SB41	0	460	NA
	1	28 J	NA
OB-SB42	0	140 J	NA
OB-SB43	0	340	NA
OB-SB44	0	170	NA
OB-SB45	0	4800	NA
	1	200 J	NA
	2	66 J	NA
OB-SB46	0	420	NA
	1	16 J	NA
OB-SB47	0	18 J	NA
OB-SB48	0	180 J	NA
OB-SB50	0	NA	7.9 J
	1	NA	5.0 J
OB-SB51	0	NA	7.0 J
	1	NA	6.5 J
OB-SB52	0	NA	6.3 J
	1	NA	5.5 J

Legend

- Old Burn Area Soil Data
- D-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road

mg/kg = milligram per kilogram

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

N

0 60 120

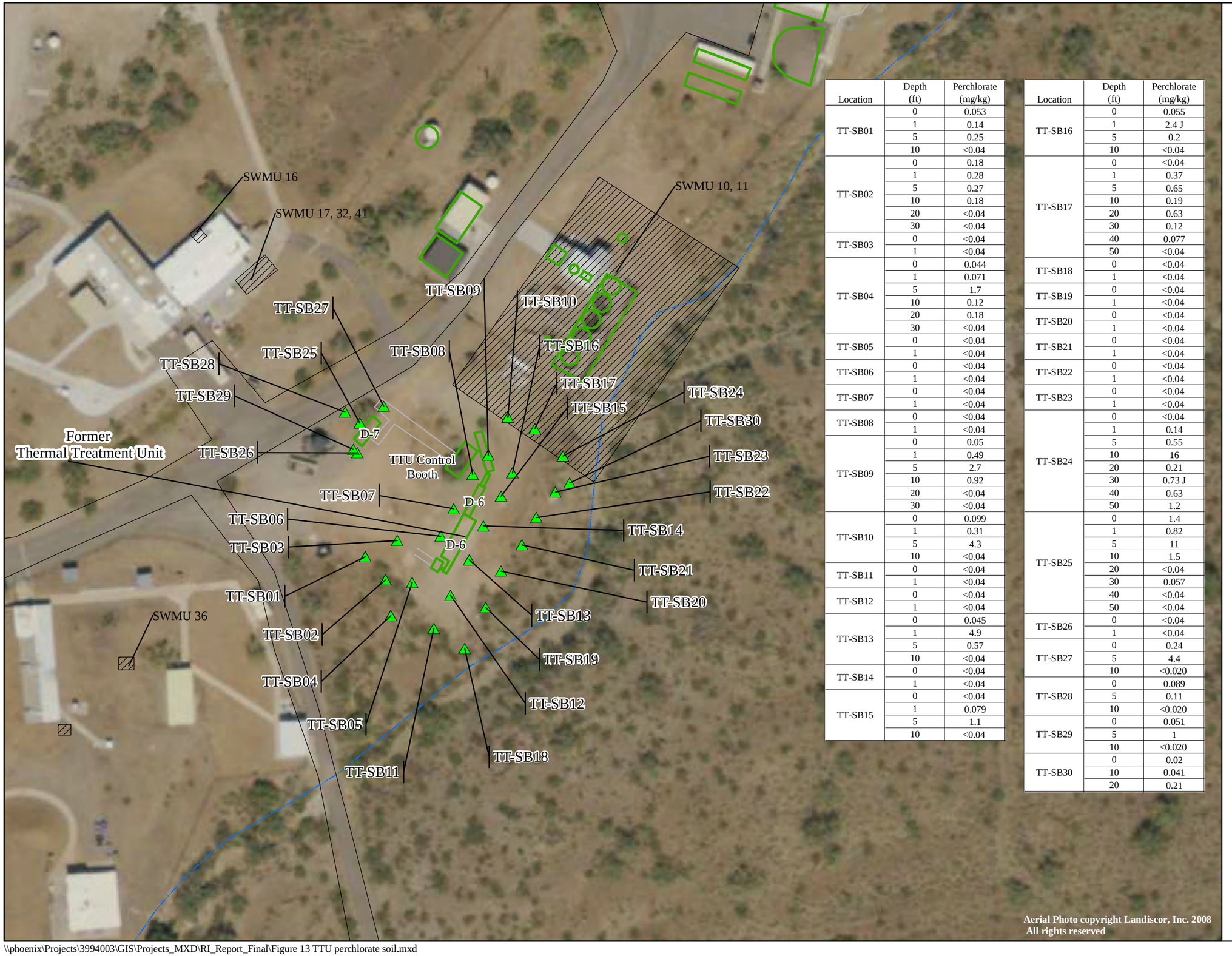
Feet

ARCADIS

Old Burn Area
Soil Analytical Results
Lead and Arsenic
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 12**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 12 Old burn lead and arsenic in soil.mxd



Location	Depth (ft)	Perchlorate (mg/kg)
TT-SB01	0	0.053
	1	0.14
	5	0.25
	10	<0.04
TT-SB02	0	0.18
	1	0.28
	5	0.27
	10	0.18
	20	<0.04
	30	<0.04
TT-SB03	0	<0.04
	1	<0.04
TT-SB04	0	0.044
	1	0.071
	5	1.7
	10	0.12
	20	0.18
	30	<0.04
TT-SB05	0	<0.04
	1	<0.04
TT-SB06	0	<0.04
	1	<0.04
TT-SB07	0	<0.04
	1	<0.04
TT-SB08	0	<0.04
	1	<0.04
TT-SB09	0	0.05
	1	0.49
	5	2.7
	10	0.92
	20	<0.04
	30	<0.04
TT-SB10	0	0.099
	1	0.31
	5	4.3
	10	<0.04
TT-SB11	0	<0.04
	1	<0.04
TT-SB12	0	<0.04
	1	<0.04
TT-SB13	0	0.045
	1	4.9
	5	0.57
	10	<0.04
TT-SB14	0	<0.04
	1	<0.04
TT-SB15	0	<0.04
	1	0.079
	5	1.1
	10	<0.04

Location	Depth (ft)	Perchlorate (mg/kg)
TT-SB16	0	0.055
	1	2.4 J
	5	0.2
	10	<0.04
TT-SB17	0	<0.04
	1	0.37
	5	0.65
	10	0.19
	20	0.63
	30	0.12
	40	0.077
	50	<0.04
TT-SB18	0	<0.04
	1	<0.04
TT-SB19	0	<0.04
	1	<0.04
TT-SB20	0	<0.04
	1	<0.04
TT-SB21	0	<0.04
	1	<0.04
TT-SB22	0	<0.04
	1	<0.04
TT-SB23	0	<0.04
	1	<0.04
TT-SB24	0	<0.04
	1	0.14
	5	0.55
	10	16
	20	0.21
	30	0.73 J
	40	0.63
	50	1.2
TT-SB25	0	1.4
	1	0.82
	5	11
	10	1.5
	20	<0.04
	30	0.057
	40	<0.04
	50	<0.04
TT-SB26	0	<0.04
	1	<0.04
TT-SB27	0	0.24
	5	4.4
	10	<0.020
TT-SB28	0	0.089
	5	0.11
	10	<0.020
TT-SB29	0	0.051
	5	1
	10	<0.020
TT-SB30	0	0.02
	10	0.041
	20	0.21

Legend

- TTU Soil Data
- D-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road
- SWMUs

mg/kg = milligram per kilogram

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

SWMUs = Solid Waste Management Units

N

0 60 120

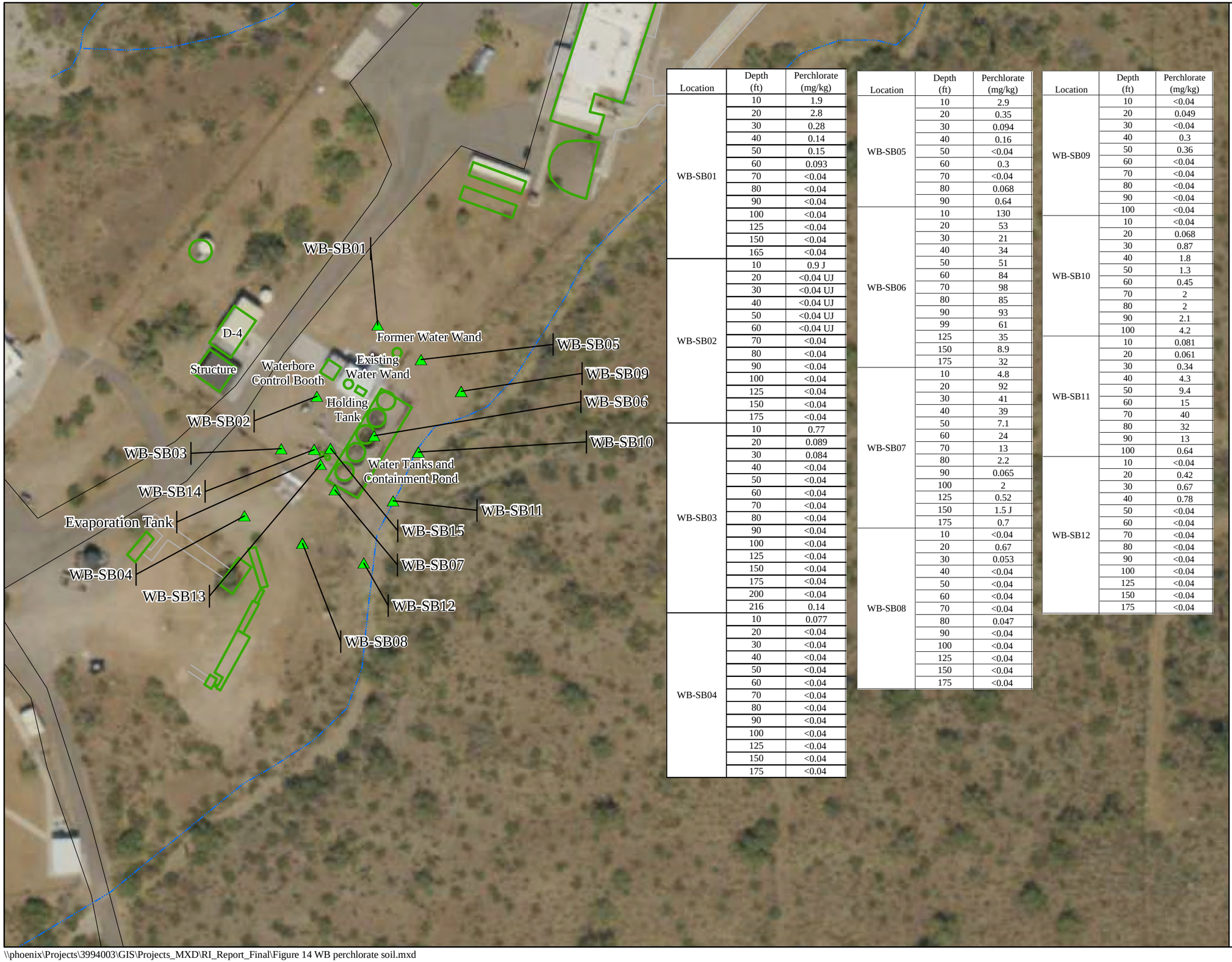
Feet

ARCADIS

Thermal Treatment Unit
Soil Analytical Results
Perchlorate
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 13**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 13 TTU perchlorate soil.mxd



Location	Depth (ft)	Perchlorate (mg/kg)
WB-SB01	10	1.9
	20	2.8
	30	0.28
	40	0.14
	50	0.15
	60	0.093
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
	125	<0.04
	150	<0.04
	165	<0.04
WB-SB02	10	0.9 J
	20	<0.04 UJ
	30	<0.04 UJ
	40	<0.04 UJ
	50	<0.04 UJ
	60	<0.04 UJ
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
	125	<0.04
	150	<0.04
	175	<0.04
WB-SB03	10	0.77
	20	0.089
	30	0.084
	40	<0.04
	50	<0.04
	60	<0.04
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
	125	<0.04
	150	<0.04
	175	<0.04
	200	<0.04
	216	0.14
WB-SB04	10	0.077
	20	<0.04
	30	<0.04
	40	<0.04
	50	<0.04
	60	<0.04
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
	125	<0.04
	150	<0.04
	175	<0.04

Location	Depth (ft)	Perchlorate (mg/kg)
WB-SB05	10	2.9
	20	0.35
	30	0.094
	40	0.16
	50	<0.04
	60	0.3
	70	<0.04
	80	0.068
	90	0.64
WB-SB06	10	130
	20	53
	30	21
	40	34
	50	51
	60	84
	70	98
	80	85
	90	93
	99	61
	125	35
	150	8.9
	175	32
WB-SB07	10	4.8
	20	92
	30	41
	40	39
	50	7.1
	60	24
	70	13
	80	2.2
	90	0.065
	100	2
	125	0.52
	150	1.5 J
	175	0.7
WB-SB08	10	<0.04
	20	0.67
	30	0.053
	40	<0.04
	50	<0.04
	60	<0.04
	70	<0.04
	80	0.047
	90	<0.04
	100	<0.04
	125	<0.04
	150	<0.04
	175	<0.04

Location	Depth (ft)	Perchlorate (mg/kg)
WB-SB09	10	<0.04
	20	0.049
	30	<0.04
	40	0.3
	50	0.36
	60	<0.04
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
WB-SB10	10	<0.04
	20	0.068
	30	0.87
	40	1.8
	50	1.3
	60	0.45
	70	2
	80	2
	90	2.1
	100	4.2
WB-SB11	10	0.081
	20	0.061
	30	0.34
	40	4.3
	50	9.4
	60	15
	70	40
	80	32
	90	13
	100	0.64
WB-SB12	10	<0.04
	20	0.42
	30	0.67
	40	0.78
	50	<0.04
	60	<0.04
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
	125	<0.04
	150	<0.04
	175	<0.04

Legend

- Waterbore Soil Data
- D-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road

mg/kg = milligram per kilogram

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

UJ = The listed laboratory detection limit is considered an estimate

Note: Soil Boring WB-SB13 through WB-SB15 were not analyzed for perchlorate

N

0 60 120

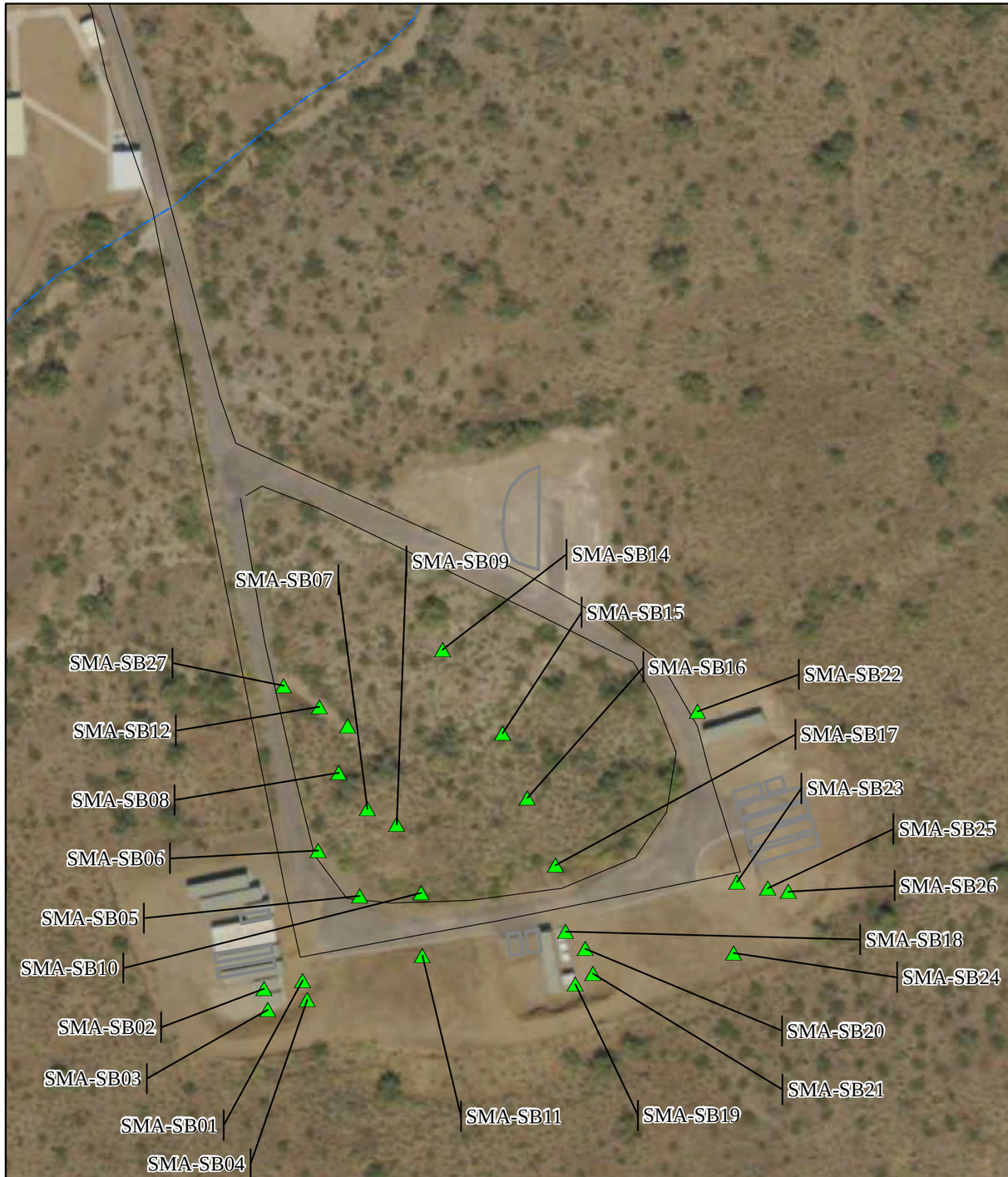
Feet

ARCADIS

Waterbore
Soil Analytical Results
Perchlorate
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 14**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 14 WB perchlorate soil.mxd



Location	Depth (ft)	Perchlorate (mg/kg)
SMA-SB01	0	<0.04
	0.5	0.042
SMA-SB02	0	<0.04
	0.5	<0.04
SMA-SB03	0	0.041
	1	<0.04
SMA-SB04	0	0.23
	1	<0.04
SMA-SB05	0	2.5
	1	0.37
	5	6.2
	10	1.6
	20	0.64
SMA-SB06	0	5.1 J
	1	0.52
	5	0.036
	10	0.032
SMA-SB07	0	0.49
	1	0.23
SMA-SB08	0	2.1 J
	0.5	1.3
SMA-SB09	0	0.47
	1	0.67 J
SMA-SB10	0	0.92 J
	1	1.0 J
SMA-SB11	0	0.16 J
	1	0.040 J
SMA-SB12	0	<0.04 UJ
	1	<0.04 UJ
SMA-SB13	0	0.088 J
	1	<0.04 UJ
SMA-SB14	0	<0.04 UJ
	1	<0.04 UJ
SMA-SB15	0	<0.04
	1	<0.04
SMA-SB16	0	0.76
	1	0.18
SMA-SB17	0	0.24
	1	2.9
	5	0.071
	10	0.05
SMA-SB18	0	0.086
	1	<0.04
SMA-SB19	0	<0.04
	1	0.044
SMA-SB20	0	0.07
	1	0.095
SMA-SB21	0	0.098
	1	<0.04
SMA-SB22	0	0.25
	1	0.066
SMA-SB23	0	0.21
	1	0.12
SMA-SB24	0	<0.04
	1	<0.04
SMA-SB25	0	<0.04
	1	<0.04
SMA-SB26	0	<0.04
	1	<0.04
SMA-SB27	5	<0.04
	10	<0.04

Legend

- SMA Soil Data
- SMA Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road

mg/kg = milligram per kilogram

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

UJ = The listed laboratory detection limit is considered an estimate

N

0 80 160

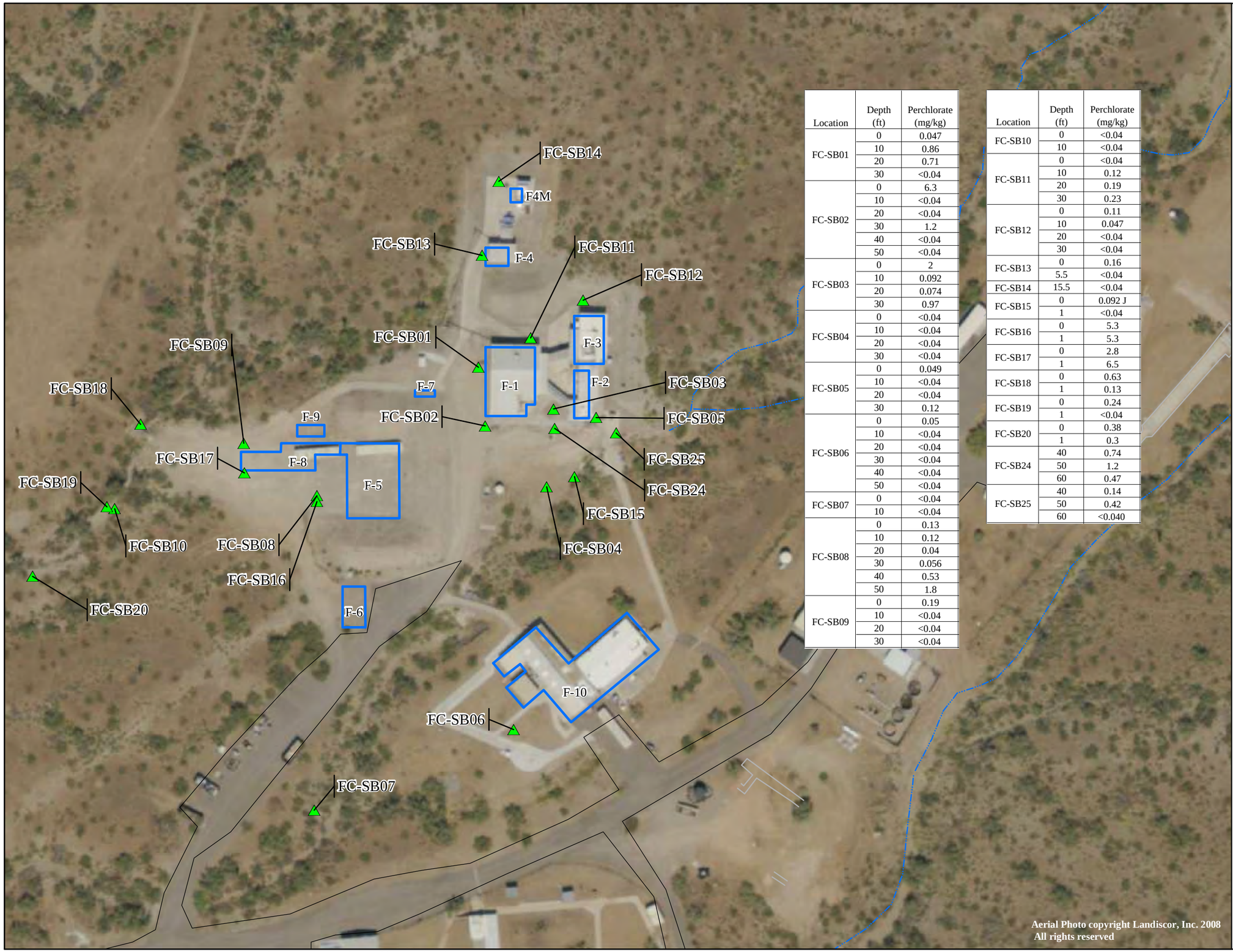
Feet

ARCADIS

Storage Magazine Area
Soil Analytical Results
Perchlorate
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 15**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 15 SMA perchlorate soil.mxd



Location	Depth (ft)	Perchlorate (mg/kg)
FC-SB01	0	0.047
	10	0.86
	20	0.71
	30	<0.04
FC-SB02	0	6.3
	10	<0.04
	20	<0.04
	30	1.2
	40	<0.04
	50	<0.04
FC-SB03	0	2
	10	0.092
	20	0.074
	30	0.97
FC-SB04	0	<0.04
	10	<0.04
	20	<0.04
	30	<0.04
FC-SB05	0	0.049
	10	<0.04
	20	<0.04
	30	0.12
FC-SB06	0	0.05
	10	<0.04
	20	<0.04
	30	<0.04
	40	<0.04
	50	<0.04
FC-SB07	0	<0.04
	10	<0.04
FC-SB08	0	0.13
	10	0.12
	20	0.04
	30	0.056
	40	0.53
	50	1.8
FC-SB09	0	0.19
	10	<0.04
	20	<0.04
	30	<0.04

Location	Depth (ft)	Perchlorate (mg/kg)
FC-SB10	0	<0.04
	10	<0.04
FC-SB11	0	<0.04
	10	0.12
	20	0.19
	30	0.23
FC-SB12	0	0.11
	10	0.047
	20	<0.04
	30	<0.04
FC-SB13	0	0.16
	5.5	<0.04
FC-SB14	15.5	<0.04
FC-SB15	0	0.092 J
	1	<0.04
FC-SB16	0	5.3
	1	5.3
FC-SB17	0	2.8
	1	6.5
FC-SB18	0	0.63
	1	0.13
FC-SB19	0	0.24
	1	<0.04
FC-SB20	0	0.38
	1	0.3
FC-SB24	40	0.74
	50	1.2
	60	0.47
FC-SB25	40	0.14
	50	0.42
	60	<0.040

Legend

- F-Complex Soil Data
- F-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road

mg/kg = milligram per kilogram

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

SWMUs =
Solid Waste Management Units

N

0 80 160

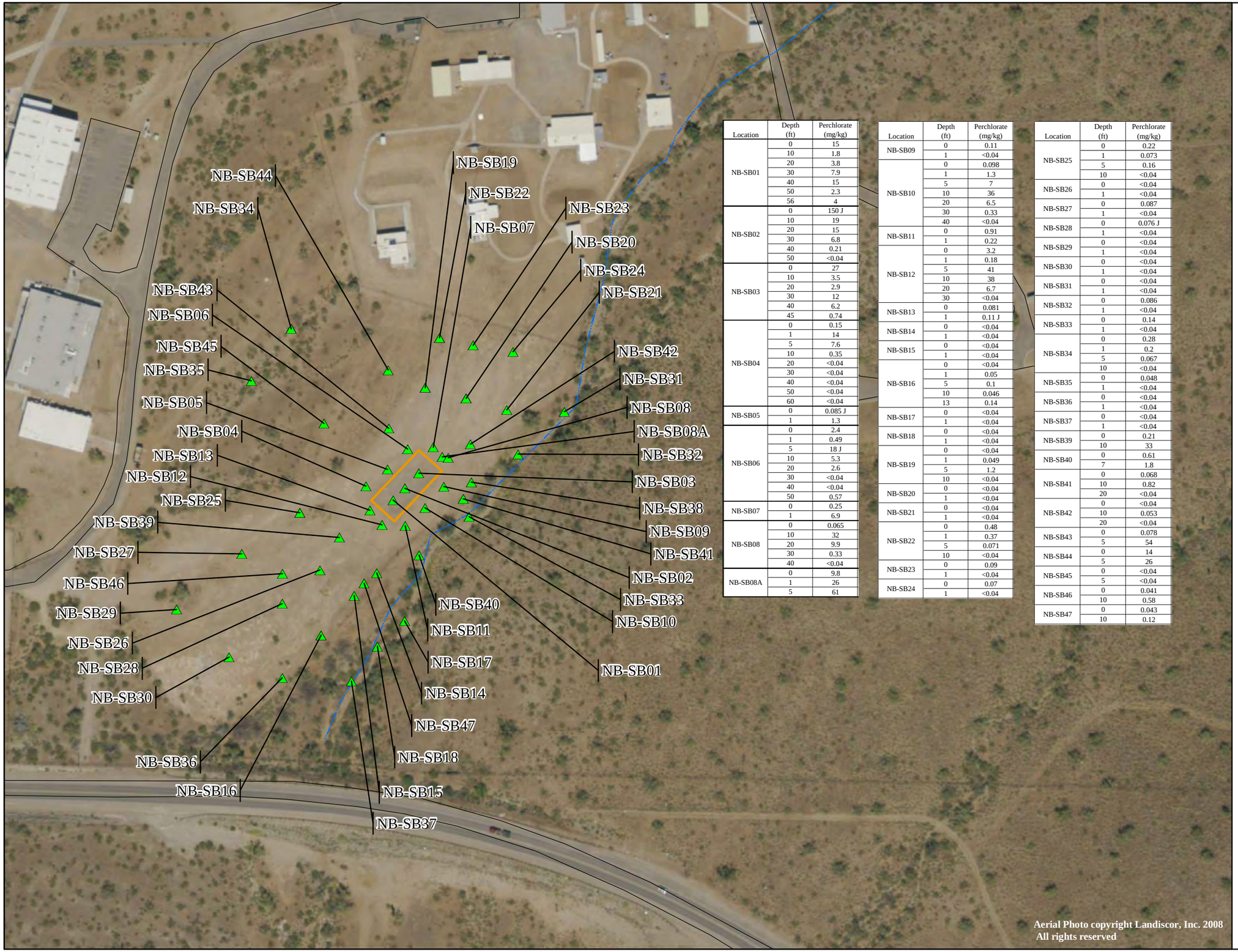
Feet

ARCADIS

F-Complex
Soil Analytical Results
Perchlorate
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 16**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 16 F-Complex perchlorate soil.mxd



Location	Depth (ft)	Perchlorate (mg/kg)
NB-SB01	0	15
	10	1.8
	20	3.8
	30	7.9
	40	15
	50	2.3
	56	4
NB-SB02	0	150 J
	10	19
	20	15
	30	6.8
	40	0.21
	50	<0.04
NB-SB03	0	27
	10	3.5
	20	2.9
	30	12
	40	6.2
	45	0.74
NB-SB04	0	0.15
	1	14
	5	7.6
	10	0.35
	20	<0.04
	30	<0.04
	40	<0.04
	50	<0.04
	60	<0.04
NB-SB05	0	0.085 J
	1	1.3
NB-SB06	0	2.4
	1	0.49
	5	18 J
	10	5.3
	20	2.6
	30	<0.04
	40	<0.04
	50	0.57
NB-SB07	0	0.25
	1	6.9
NB-SB08	0	0.065
	10	32
	20	9.9
	30	0.33
	40	<0.04
NB-SB08A	0	9.8
	1	26
	5	61

Location	Depth (ft)	Perchlorate (mg/kg)
NB-SB09	0	0.11
	1	<0.04
NB-SB10	0	0.098
	1	1.3
	5	7
	10	36
	20	6.5
	30	0.33
	40	<0.04
NB-SB11	0	0.91
	1	0.22
NB-SB12	0	3.2
	1	0.18
	5	41
	10	38
	20	6.7
	30	<0.04
NB-SB13	0	0.081
	1	0.11 J
NB-SB14	0	<0.04
	1	<0.04
NB-SB15	0	<0.04
	1	<0.04
NB-SB16	0	<0.04
	1	0.05
	5	0.1
	10	0.046
	13	0.14
NB-SB17	0	<0.04
	1	<0.04
NB-SB18	0	<0.04
	1	<0.04
NB-SB19	0	<0.04
	1	0.049
	5	1.2
	10	<0.04
NB-SB20	0	<0.04
	1	<0.04
NB-SB21	0	<0.04
	1	<0.04
NB-SB22	0	0.48
	1	0.37
	5	0.071
	10	<0.04
NB-SB23	0	0.09
	1	<0.04
NB-SB24	0	0.07
	1	<0.04

Location	Depth (ft)	Perchlorate (mg/kg)
NB-SB25	0	0.22
	1	0.073
	5	0.16
	10	<0.04
NB-SB26	0	<0.04
	1	<0.04
NB-SB27	0	0.087
	1	<0.04
NB-SB28	0	0.076 J
	1	<0.04
NB-SB29	0	<0.04
	1	<0.04
NB-SB30	0	<0.04
	1	<0.04
NB-SB31	0	<0.04
	1	<0.04
NB-SB32	0	0.086
	1	<0.04
NB-SB33	0	0.14
	1	<0.04
NB-SB34	0	0.28
	1	0.2
	5	0.067
	10	<0.04
NB-SB35	0	0.048
	1	<0.04
NB-SB36	0	<0.04
	1	<0.04
NB-SB37	0	<0.04
	1	<0.04
NB-SB39	0	0.21
	10	33
NB-SB40	0	0.61
	7	1.8
NB-SB41	0	0.068
	10	0.82
	20	<0.04
NB-SB42	0	<0.04
	10	0.053
	20	<0.04
NB-SB43	0	0.078
	5	54
NB-SB44	0	14
	5	26
NB-SB45	0	<0.04
	5	<0.04
NB-SB46	0	0.041
	10	0.58
NB-SB47	0	0.043
	10	0.12

Legend

- New Burn Soil Data
- Building
- Former Open Burn Unit
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road

mg/kg = milligram per kilogram

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

Note: Soil samples collected at NB-SB38 were not analyzed for perchlorate

N

0 50 100 150 200

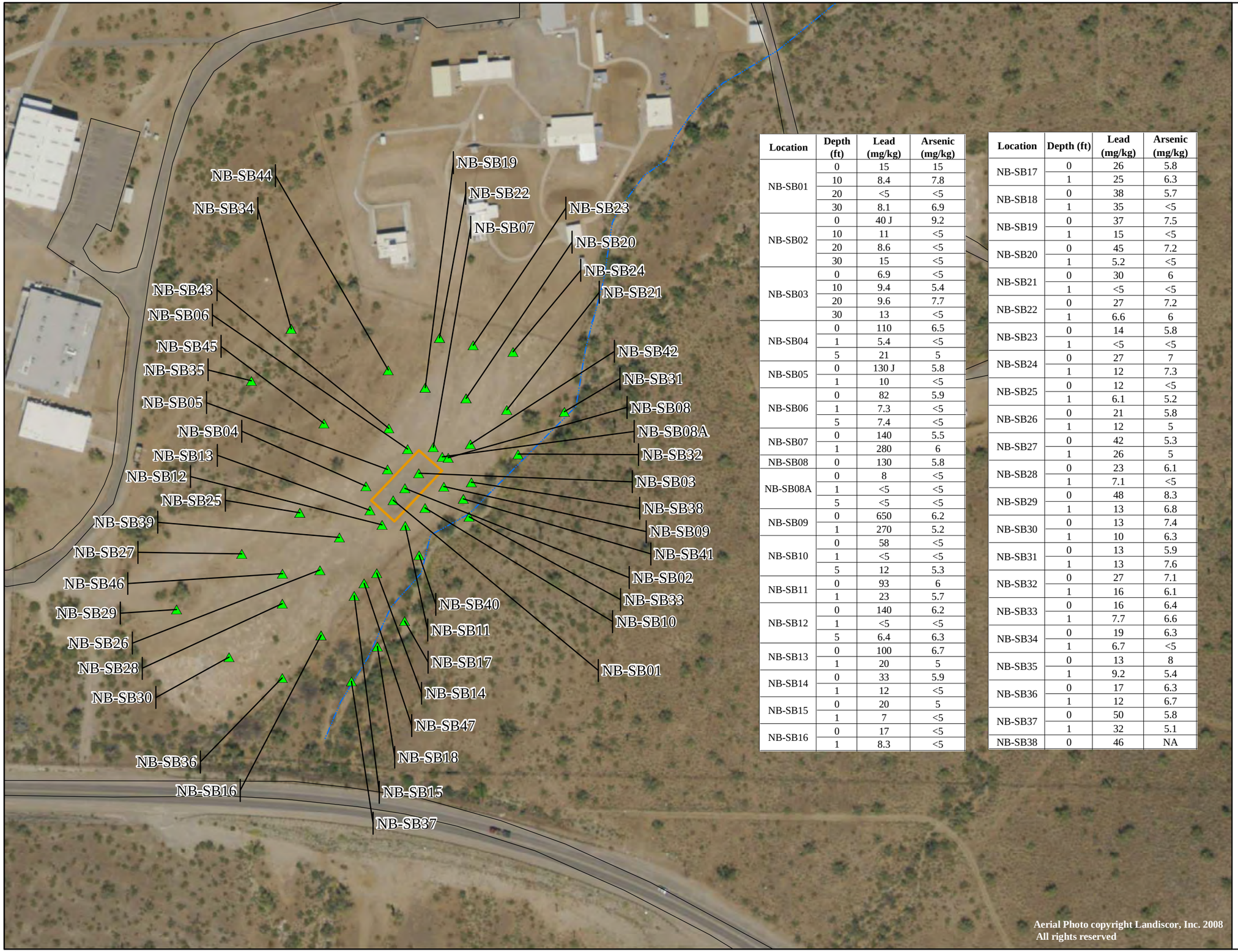
Feet

ARCADIS

New Burn Area
Soil Analytical Results
Perchlorate
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 17**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 17 New burn perchlorate soil.mxd



Location	Depth (ft)	Lead (mg/kg)	Arsenic (mg/kg)
NB-SB01	0	15	15
	10	8.4	7.8
	20	<5	<5
	30	8.1	6.9
NB-SB02	0	40 J	9.2
	10	11	<5
	20	8.6	<5
	30	15	<5
NB-SB03	0	6.9	<5
	10	9.4	5.4
	20	9.6	7.7
	30	13	<5
NB-SB04	0	110	6.5
	1	5.4	<5
	5	21	5
NB-SB05	0	130 J	5.8
	1	10	<5
NB-SB06	0	82	5.9
	1	7.3	<5
	5	7.4	<5
NB-SB07	0	140	5.5
	1	280	6
NB-SB08	0	130	5.8
NB-SB08A	0	8	<5
	1	<5	<5
	5	<5	<5
NB-SB09	0	650	6.2
	1	270	5.2
NB-SB10	0	58	<5
	1	<5	<5
	5	12	5.3
NB-SB11	0	93	6
	1	23	5.7
NB-SB12	0	140	6.2
	1	<5	<5
	5	6.4	6.3
NB-SB13	0	100	6.7
	1	20	5
NB-SB14	0	33	5.9
	1	12	<5
NB-SB15	0	20	5
	1	7	<5
NB-SB16	0	17	<5
	1	8.3	<5

Location	Depth (ft)	Lead (mg/kg)	Arsenic (mg/kg)
NB-SB17	0	26	5.8
	1	25	6.3
NB-SB18	0	38	5.7
	1	35	<5
NB-SB19	0	37	7.5
	1	15	<5
NB-SB20	0	45	7.2
	1	5.2	<5
NB-SB21	0	30	6
	1	<5	<5
NB-SB22	0	27	7.2
	1	6.6	6
NB-SB23	0	14	5.8
	1	<5	<5
NB-SB24	0	27	7
	1	12	7.3
NB-SB25	0	12	<5
	1	6.1	5.2
NB-SB26	0	21	5.8
	1	12	5
NB-SB27	0	42	5.3
	1	26	5
NB-SB28	0	23	6.1
	1	7.1	<5
NB-SB29	0	48	8.3
	1	13	6.8
NB-SB30	0	13	7.4
	1	10	6.3
NB-SB31	0	13	5.9
	1	13	7.6
NB-SB32	0	27	7.1
	1	16	6.1
NB-SB33	0	16	6.4
	1	7.7	6.6
NB-SB34	0	19	6.3
	1	6.7	<5
NB-SB35	0	13	8
	1	9.2	5.4
NB-SB36	0	17	6.3
	1	12	6.7
NB-SB37	0	50	5.8
	1	32	5.1
NB-SB38	0	46	NA

Legend

- New Burn Soil Data
- Building
- Former Open Burn Unit
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road

mg/kg = milligram per kilogram

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

Note: Soil samples collected from NB-SB39 through NB-SB47 were not analyzed for perchlorate

N

0 50 100 150 200

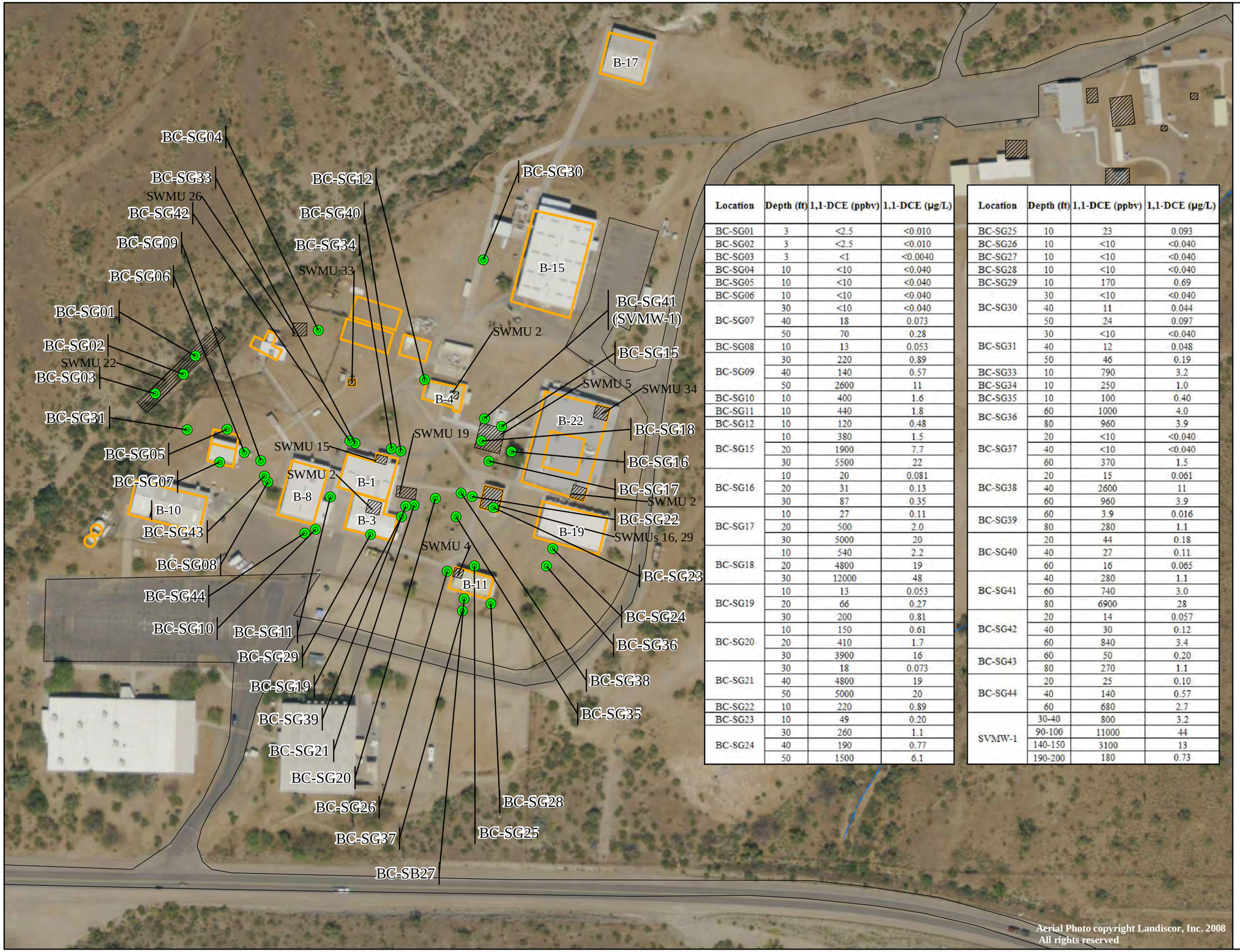
Feet

ARCADIS

New Burn Area
Soil Analytical Results
Lead and Arsenic
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 18**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 18 New burn lead and arsenic in soil.mxd



Location	Depth (ft)	1,1-DCE (ppbv)	1,1-DCE (µg/L)
BC-SG01	3	<2.5	<0.010
BC-SG02	3	<2.5	<0.010
BC-SG03	3	<1	<0.0040
BC-SG04	10	<10	<0.040
BC-SG05	10	<10	<0.040
BC-SG06	10	<10	<0.040
BC-SG07	30	<10	<0.040
	40	18	0.073
	50	70	0.28
BC-SG08	10	13	0.053
BC-SG09	30	220	0.89
	40	140	0.57
	50	2600	11
BC-SG10	10	400	1.6
BC-SG11	10	440	1.8
BC-SG12	10	120	0.48
BC-SG15	10	380	1.5
	20	1900	7.7
	30	5500	22
BC-SG16	10	20	0.081
	20	31	0.13
	30	87	0.35
BC-SG17	10	27	0.11
	20	500	2.0
	30	5000	20
BC-SG18	10	540	2.2
	20	4800	19
	30	12000	48
BC-SG19	10	13	0.053
	20	66	0.27
	30	200	0.81
BC-SG20	10	150	0.61
	20	410	1.7
	30	3900	16
BC-SG21	30	18	0.073
	40	4800	19
	50	5000	20
BC-SG22	10	220	0.89
BC-SG23	10	49	0.20
BC-SG24	30	260	1.1
	40	190	0.77
	50	1500	6.1

Location	Depth (ft)	1,1-DCE (ppbv)	1,1-DCE (µg/L)
BC-SG25	10	23	0.093
BC-SG26	10	<10	<0.040
BC-SG27	10	<10	<0.040
BC-SG28	10	<10	<0.040
BC-SG29	10	170	0.69
BC-SG30	30	<10	<0.040
	40	11	0.044
	50	24	0.097
BC-SG31	30	<10	<0.040
	40	12	0.048
	50	46	0.19
BC-SG33	10	790	3.2
BC-SG34	10	250	1.0
BC-SG35	10	100	0.40
BC-SG36	60	1000	4.0
	80	960	3.9
BC-SG37	20	<10	<0.040
	40	<10	<0.040
	60	370	1.5
BC-SG38	20	15	0.061
	40	2600	11
	60	960	3.9
BC-SG39	60	3.9	0.016
	80	280	1.1
BC-SG40	20	44	0.18
	40	27	0.11
	60	16	0.065
BC-SG41	40	280	1.1
	60	740	3.0
	80	6900	28
BC-SG42	20	14	0.057
	40	30	0.12
	60	840	3.4
BC-SG43	60	50	0.20
	80	270	1.1
BC-SG44	20	25	0.10
	40	140	0.57
	60	680	2.7
SVMW-1	30-40	800	3.2
	90-100	11000	44
	140-150	3100	13
	190-200	180	0.73

Legend

- B-Complex Soil Gas Data
- SWMUs
- B-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road

ppbv = parts per billion by volume

1,1 DCE = 1,1-Dichloroethene

ft = feet below ground surface

< = Analyte not reported above the listed laboratory detection limit

SWMUs = Solid Waste Management Units

Soil boring BC-SG41 completed as a nested soil vapor monitoring well (SVMW-1)

N

0 125 250

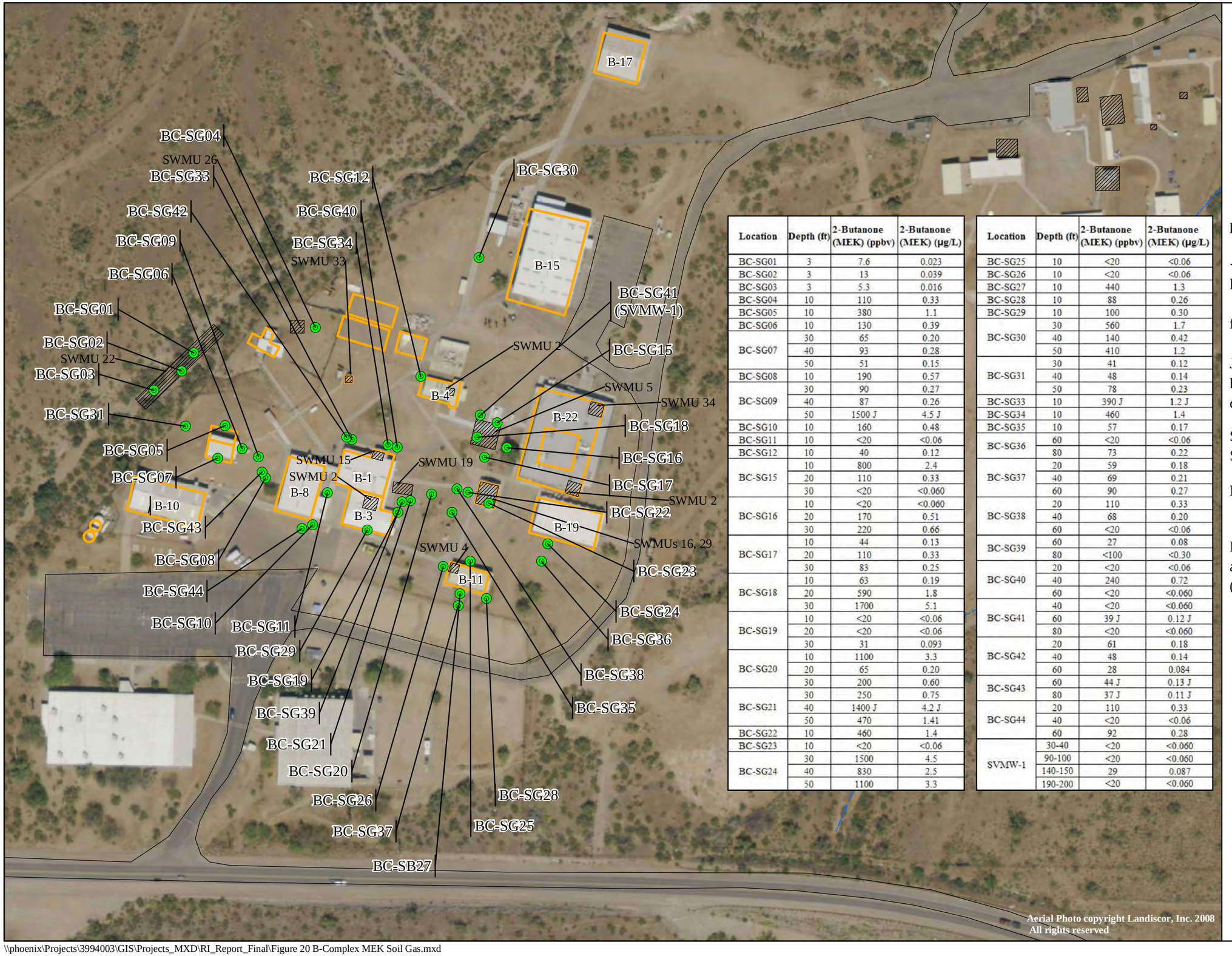
Feet

ARCADIS

B-Complex
Soil Gas Analytical Results
1,1 - DCE
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 19**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 19 B-Complex DCE Soil Gas.mxd



Location	Depth (ft)	2-Butanone (MEK) (ppbv)	2-Butanone (MEK) (µg/L)
BC-SG01	3	7.6	0.023
BC-SG02	3	13	0.039
BC-SG03	3	5.3	0.016
BC-SG04	10	110	0.33
BC-SG05	10	380	1.1
BC-SG06	10	130	0.39
BC-SG07	30	65	0.20
	40	93	0.28
	50	51	0.15
BC-SG08	10	190	0.57
BC-SG09	30	90	0.27
	40	87	0.26
	50	1500 J	4.5 J
BC-SG10	10	160	0.48
BC-SG11	10	<20	<0.06
BC-SG12	10	40	0.12
BC-SG15	10	800	2.4
	20	110	0.33
	30	<20	<0.060
BC-SG16	10	<20	<0.060
	20	170	0.51
	30	220	0.66
BC-SG17	10	44	0.13
	20	110	0.33
	30	83	0.25
BC-SG18	10	63	0.19
	20	590	1.8
	30	1700	5.1
BC-SG19	10	<20	<0.06
	20	<20	<0.06
	30	31	0.093
BC-SG20	10	1100	3.3
	20	65	0.20
	30	200	0.60
BC-SG21	30	250	0.75
	40	1400 J	4.2 J
	50	470	1.41
BC-SG22	10	460	1.4
BC-SG23	10	<20	<0.06
BC-SG24	30	1500	4.5
	40	830	2.5
	50	1100	3.3

Location	Depth (ft)	2-Butanone (MEK) (ppbv)	2-Butanone (MEK) (µg/L)
BC-SG25	10	<20	<0.06
BC-SG26	10	<20	<0.06
BC-SG27	10	440	1.3
BC-SG28	10	88	0.26
BC-SG29	10	100	0.30
BC-SG30	30	560	1.7
	40	140	0.42
	50	410	1.2
BC-SG31	30	41	0.12
	40	48	0.14
	50	78	0.23
BC-SG33	10	390 J	1.2 J
BC-SG34	10	460	1.4
BC-SG35	10	57	0.17
BC-SG36	60	<20	<0.06
	80	73	0.22
BC-SG37	20	59	0.18
	40	69	0.21
	60	90	0.27
BC-SG38	20	110	0.33
	40	68	0.20
	60	<20	<0.06
BC-SG39	60	27	0.08
	80	<100	<0.30
BC-SG40	20	<20	<0.06
	40	240	0.72
	60	<20	<0.060
BC-SG41	40	<20	<0.060
	60	39 J	0.12 J
	80	<20	<0.060
BC-SG42	20	61	0.18
	40	48	0.14
	60	28	0.084
BC-SG43	60	44 J	0.13 J
	80	37 J	0.11 J
BC-SG44	20	110	0.33
	40	<20	<0.06
	60	92	0.28
SVMW-1	30-40	<20	<0.060
	90-100	<20	<0.060
	140-150	29	0.087
	190-200	<20	<0.060

Legend

- B-Complex Soil Gas Data
- B-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road
- SWMUs

ppbv = parts per billion by volume

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

SWMUs = Solid Waste Management Units

MEK = Methyl Ethyl Ketone (2-Butanone)

Note: Soil boring BC-SG41 completed as a nested soil vapor monitoring well (SVMW-1)

N

0 125 250

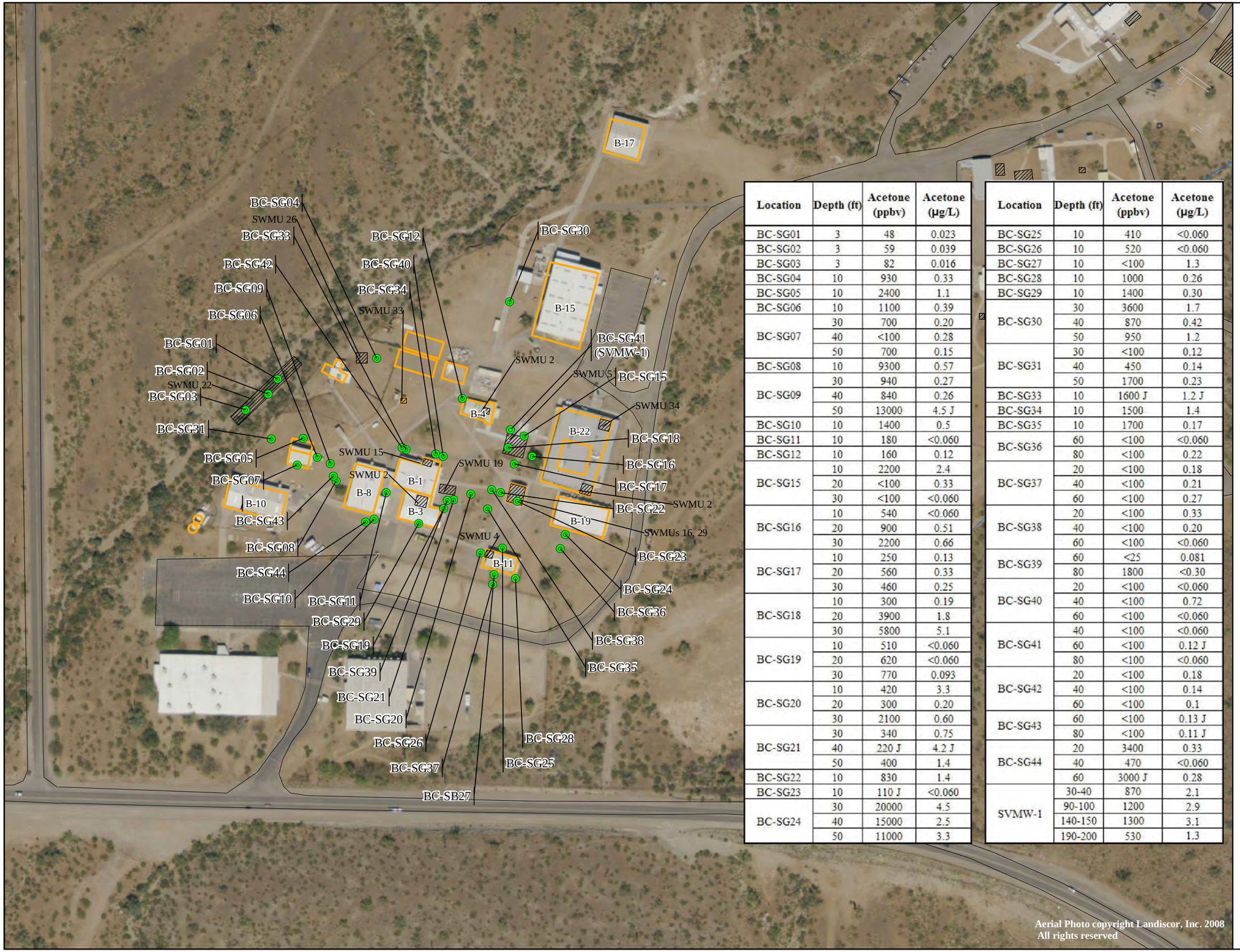
Feet

ARCADIS

B-Complex
Soil Gas Analytical Results
2-Butanone (MEK)
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 20**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 20 B-Complex MEK Soil Gas.mxd



Location	Depth (ft)	Acetone (ppbv)	Acetone (µg/L)
BC-SG01	3	48	0.023
BC-SG02	3	59	0.039
BC-SG03	3	82	0.016
BC-SG04	10	930	0.33
BC-SG05	10	2400	1.1
BC-SG06	10	1100	0.39
BC-SG07	30	700	0.20
	40	<100	0.28
	50	700	0.15
BC-SG08	10	9300	0.57
BC-SG09	30	940	0.27
	40	840	0.26
	50	13000	4.5 J
BC-SG10	10	1400	0.5
BC-SG11	10	180	<0.060
BC-SG12	10	160	0.12
BC-SG15	10	2200	2.4
	20	<100	0.33
	30	<100	<0.060
BC-SG16	10	540	<0.060
	20	900	0.51
	30	2200	0.66
BC-SG17	10	250	0.13
	20	560	0.33
	30	460	0.25
BC-SG18	10	300	0.19
	20	3900	1.8
	30	5800	5.1
BC-SG19	10	510	<0.060
	20	620	<0.060
	30	770	0.093
BC-SG20	10	420	3.3
	20	300	0.20
	30	2100	0.60
BC-SG21	30	340	0.75
	40	220 J	4.2 J
	50	400	1.4
BC-SG22	10	830	1.4
BC-SG23	10	110 J	<0.060
BC-SG24	30	20000	4.5
	40	15000	2.5
	50	11000	3.3

Location	Depth (ft)	Acetone (ppbv)	Acetone (µg/L)
BC-SG25	10	410	<0.060
BC-SG26	10	520	<0.060
BC-SG27	10	<100	1.3
BC-SG28	10	1000	0.26
BC-SG29	10	1400	0.30
BC-SG30	30	3600	1.7
	40	870	0.42
	50	950	1.2
BC-SG31	30	<100	0.12
	40	450	0.14
	50	1700	0.23
BC-SG33	10	1600 J	1.2 J
BC-SG34	10	1500	1.4
BC-SG35	10	1700	0.17
BC-SG36	60	<100	<0.060
	80	<100	0.22
BC-SG37	20	<100	0.18
	40	<100	0.21
	60	<100	0.27
BC-SG38	20	<100	0.33
	40	<100	0.20
	60	<100	<0.060
BC-SG39	60	<25	0.081
	80	1800	<0.30
BC-SG40	20	<100	<0.060
	40	<100	0.72
	60	<100	<0.060
BC-SG41	40	<100	<0.060
	60	<100	0.12 J
	80	<100	<0.060
BC-SG42	20	<100	0.18
	40	<100	0.14
	60	<100	0.1
BC-SG43	60	<100	0.13 J
	80	<100	0.11 J
BC-SG44	20	3400	0.33
	40	470	<0.060
	60	3000 J	0.28
SVMW-1	30-40	870	2.1
	90-100	1200	2.9
	140-150	1300	3.1
	190-200	530	1.3

Legend

- B-Complex Soil Gas Data
- B-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road
- SWMUs

ppbv = parts per billion by volume

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

SWMUs =
Solid Waste Management Units

Soil boring BC-SG41 completed as a nested soil vapor monitoring well (SVMW-1)

N

0 125 250

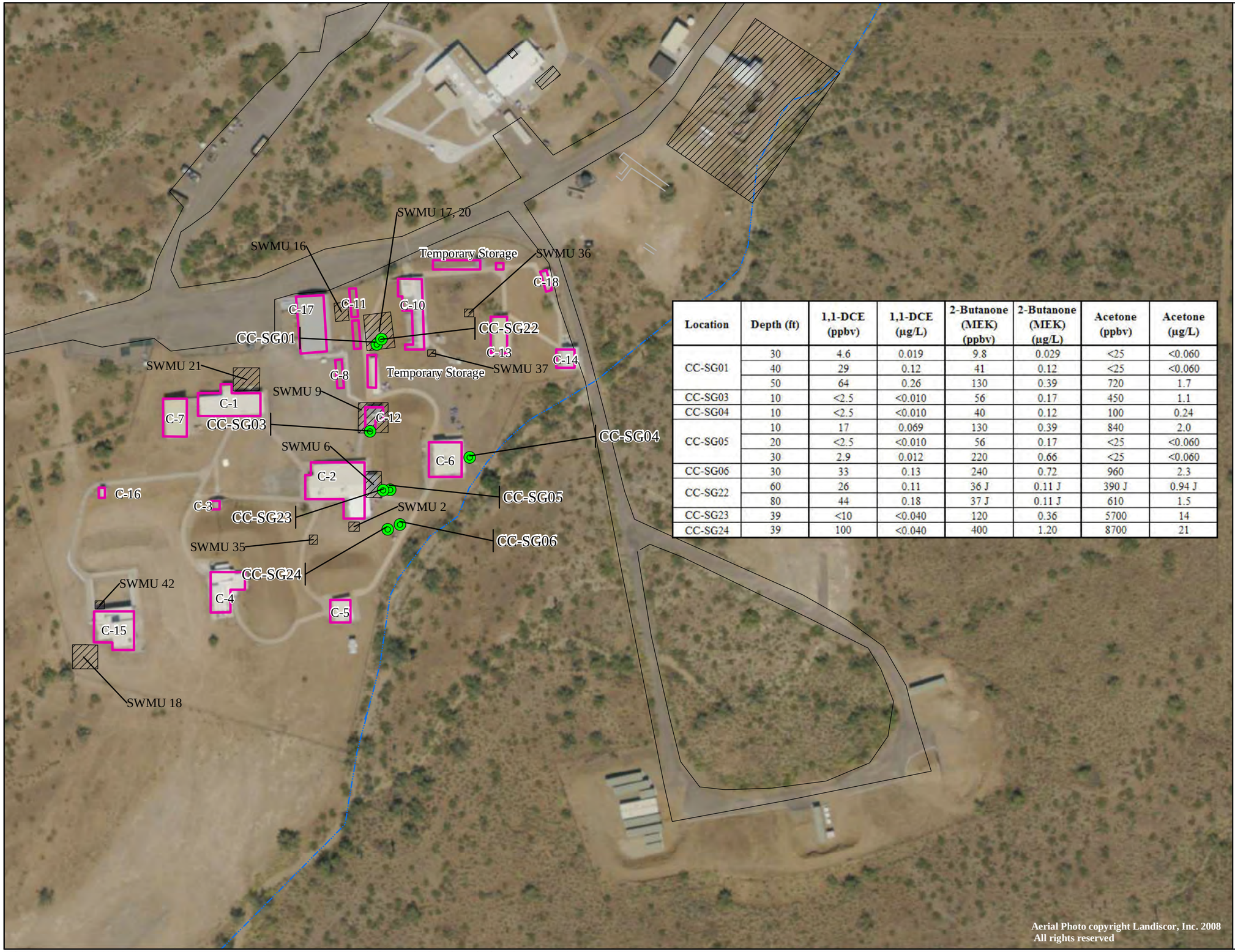
Feet

ARCADIS

B-Complex
Soil Gas Analytical Results
Acetone
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 21**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 21 B-Complex Acetone Soil Gas.mxd



Location	Depth (ft)	1,1-DCE (ppbv)	1,1-DCE (µg/L)	2-Butanone (MEK) (ppbv)	2-Butanone (MEK) (µg/L)	Acetone (ppbv)	Acetone (µg/L)
CC-SG01	30	4.6	0.019	9.8	0.029	<25	<0.060
	40	29	0.12	41	0.12	<25	<0.060
	50	64	0.26	130	0.39	720	1.7
CC-SG03	10	<2.5	<0.010	56	0.17	450	1.1
CC-SG04	10	<2.5	<0.010	40	0.12	100	0.24
CC-SG05	10	17	0.069	130	0.39	840	2.0
	20	<2.5	<0.010	56	0.17	<25	<0.060
	30	2.9	0.012	220	0.66	<25	<0.060
CC-SG06	30	33	0.13	240	0.72	960	2.3
CC-SG22	60	26	0.11	36 J	0.11 J	390 J	0.94 J
	80	44	0.18	37 J	0.11 J	610	1.5
CC-SG23	39	<10	<0.040	120	0.36	5700	14
CC-SG24	39	100	<0.040	400	1.20	8700	21

Legend

- C-Complex Soil Gas Data
- C Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road
- SWMUs

ppbv = parts per billion by volume

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

1,1-DCE=1,1-Dichloroethene

MEK = Methyl Ethyl Ketone (2-Butanone)

SWMUs = Solid Waste Management Units

N

0 100 200

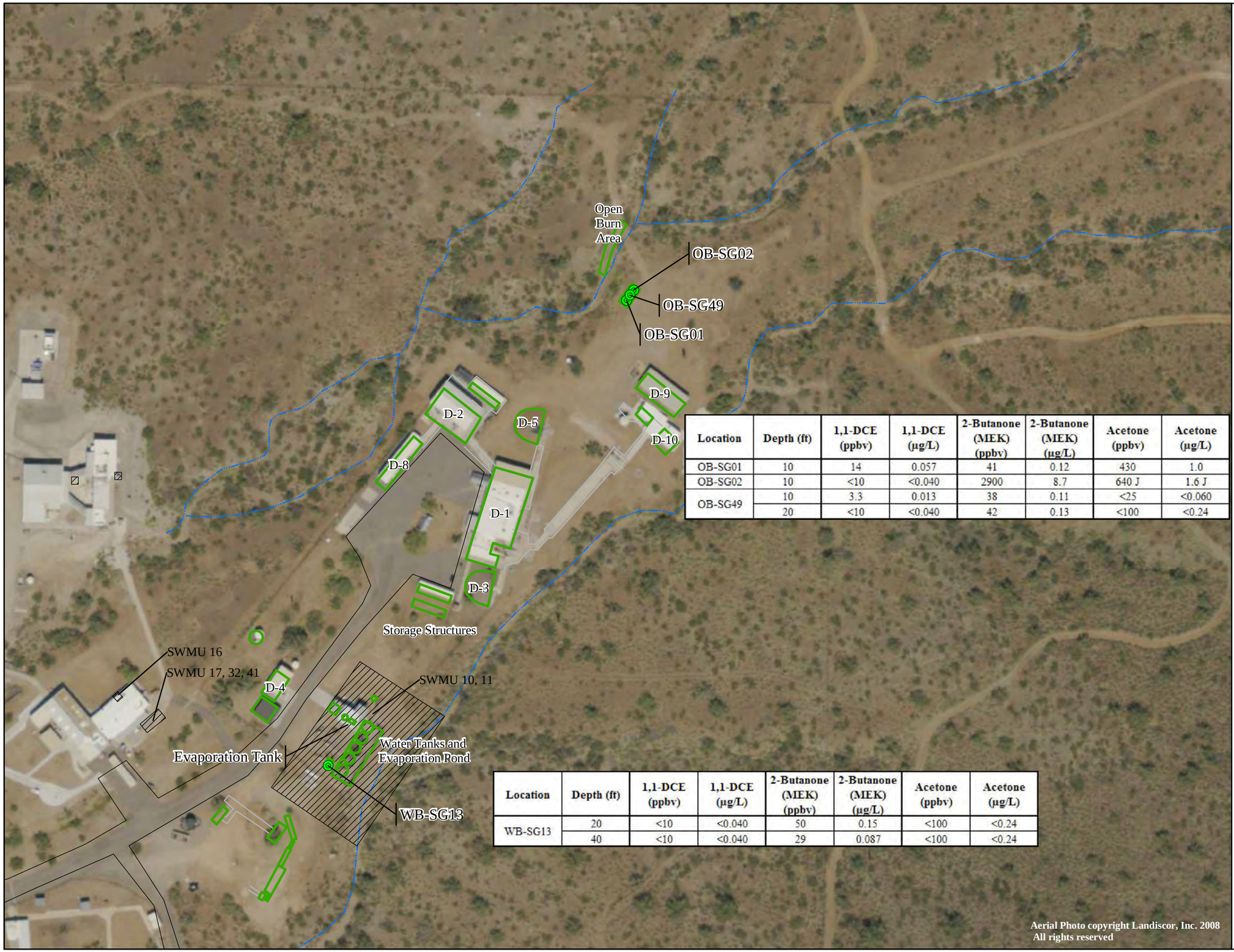
Feet

ARCADIS

C-Complex
Soil Gas Analytical Results
1,1 - DCE, MEK, and Acetone
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 22**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 22 C-Complex Soil Vapor Analytical Results for DCE,MEK, & Acetone .mxd



Location	Depth (ft)	1,1-DCE (ppbv)	1,1-DCE (µg/L)	2-Butanone (MEK) (ppbv)	2-Butanone (MEK) (µg/L)	Acetone (ppbv)	Acetone (µg/L)
OB-SG01	10	14	0.057	41	0.12	430	1.0
OB-SG02	10	<10	<0.040	2900	8.7	640 J	1.6 J
OB-SG49	10	3.3	0.013	38	0.11	<25	<0.060
	20	<10	<0.040	42	0.13	<100	<0.24

Location	Depth (ft)	1,1-DCE (ppbv)	1,1-DCE (µg/L)	2-Butanone (MEK) (ppbv)	2-Butanone (MEK) (µg/L)	Acetone (ppbv)	Acetone (µg/L)
WB-SG13	20	<10	<0.040	50	0.15	<100	<0.24
	40	<10	<0.040	29	0.087	<100	<0.24

Legend

- D-Complex Soil Gas Data
- D-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road
- SWMUs

ppbv = parts per billion by volume

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

1,1-DCE=1,1-Dichloroethene

MEK = Methyl Ethyl Ketone (2-Butanone)

SWMUs = Solid Waste Management Units

N

0 100 200

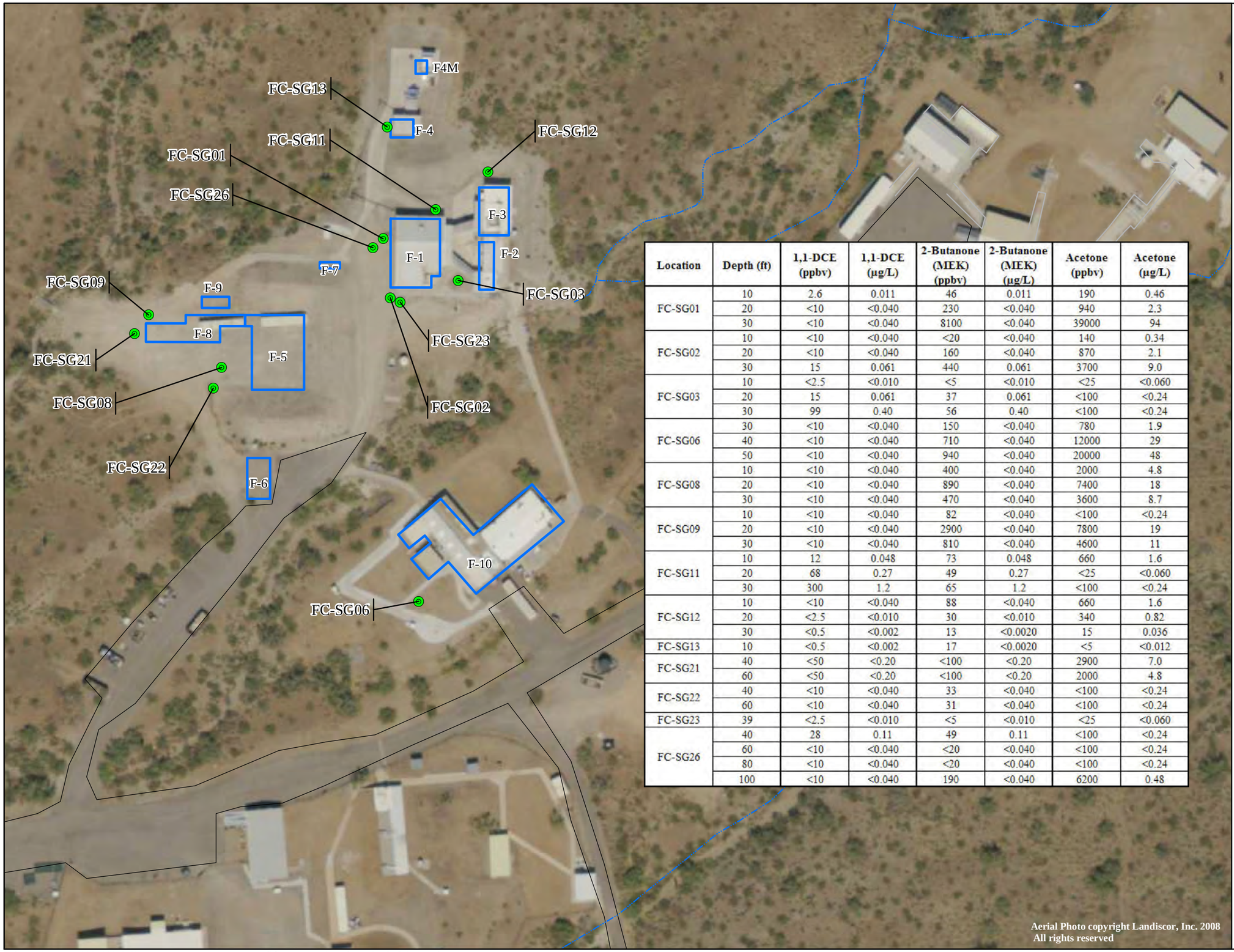
Feet

ARCADIS

D-Complex
Soil Gas Analytical Results
1,1-DCE, MEK, and Acetone
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 23**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 23 -D-Complex DCE Soil Gas.mxd



Location	Depth (ft)	1,1-DCE (ppbv)	1,1-DCE (µg/L)	2-Butanone (MEK) (ppbv)	2-Butanone (MEK) (µg/L)	Acetone (ppbv)	Acetone (µg/L)
FC-SG01	10	2.6	0.011	46	0.011	190	0.46
	20	<10	<0.040	230	<0.040	940	2.3
	30	<10	<0.040	8100	<0.040	39000	94
FC-SG02	10	<10	<0.040	<20	<0.040	140	0.34
	20	<10	<0.040	160	<0.040	870	2.1
	30	15	0.061	440	0.061	3700	9.0
FC-SG03	10	<2.5	<0.010	<5	<0.010	<25	<0.060
	20	15	0.061	37	0.061	<100	<0.24
	30	99	0.40	56	0.40	<100	<0.24
FC-SG06	30	<10	<0.040	150	<0.040	780	1.9
	40	<10	<0.040	710	<0.040	12000	29
	50	<10	<0.040	940	<0.040	20000	48
FC-SG08	10	<10	<0.040	400	<0.040	2000	4.8
	20	<10	<0.040	890	<0.040	7400	18
	30	<10	<0.040	470	<0.040	3600	8.7
FC-SG09	10	<10	<0.040	82	<0.040	<100	<0.24
	20	<10	<0.040	2900	<0.040	7800	19
	30	<10	<0.040	810	<0.040	4600	11
FC-SG11	10	12	0.048	73	0.048	660	1.6
	20	68	0.27	49	0.27	<25	<0.060
	30	300	1.2	65	1.2	<100	<0.24
FC-SG12	10	<10	<0.040	88	<0.040	660	1.6
	20	<2.5	<0.010	30	<0.010	340	0.82
	30	<0.5	<0.002	13	<0.0020	15	0.036
FC-SG13	10	<0.5	<0.002	17	<0.0020	<5	<0.012
FC-SG21	40	<50	<0.20	<100	<0.20	2900	7.0
	60	<50	<0.20	<100	<0.20	2000	4.8
FC-SG22	40	<10	<0.040	33	<0.040	<100	<0.24
	60	<10	<0.040	31	<0.040	<100	<0.24
FC-SG23	39	<2.5	<0.010	<5	<0.010	<25	<0.060
FC-SG26	40	28	0.11	49	0.11	<100	<0.24
	60	<10	<0.040	<20	<0.040	<100	<0.24
	80	<10	<0.040	<20	<0.040	<100	<0.24
	100	<10	<0.040	190	<0.040	6200	0.48

Legend

- F-Complex Soil Gas Data
- F-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road

ppbv = parts per billion by volume

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

1,1-DCE=1,1-Dichloroethene

MEK = Methyl Ethyl Ketone (2-Butanone)

SWMUs = Solid Waste Management Units

N

0 80 160

Feet

ARCADIS

F-Complex
Soil Gas Analytical Results
1,1-DCE, MEK, and Acetone
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 24**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\figure 24-F-Complex DCE Soil Gas.mxd

Location	Depth (ft)	1,1-DCE (ppbv)	1,1-DCE (µg/L)	2-Butanone (MEK) (ppbv)	2-Butanone (MEK) (µg/L)	Acetone (ppbv)	Acetone (µg/L)
NB-SG01	10	12	0.048	180	0.54	<100	<0.24
	20	23	0.093	82	0.25	<100	<0.24
	30	39	0.16	150	0.45	<100	<0.24
NB-SG02	10	<10	<0.040	130	0.39	<100	<0.24
	20	6.8	0.027	19	0.057	<25	<0.060
	30	13	0.053	36	0.11	<100	<0.24
NB-SG03	10	2.8	0.011	26	0.078	200	0.48
	20	<10	<0.040	38	0.11	<100	<0.24
	30	<10	<0.040	39	0.12	<100	<0.24

Legend

- New Burn Soil Gas Data
- Former Open Burn Unit
- Ephemeral Wash
- Paved Road

ppbv = parts per billion by volume

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

1,1-DCE=1,1-Dichloroethene

MEK = Methyl Ethyl Ketone (2-Butanone)

SWMUs = Solid Waste Management Units

N

0 50 100 150 200

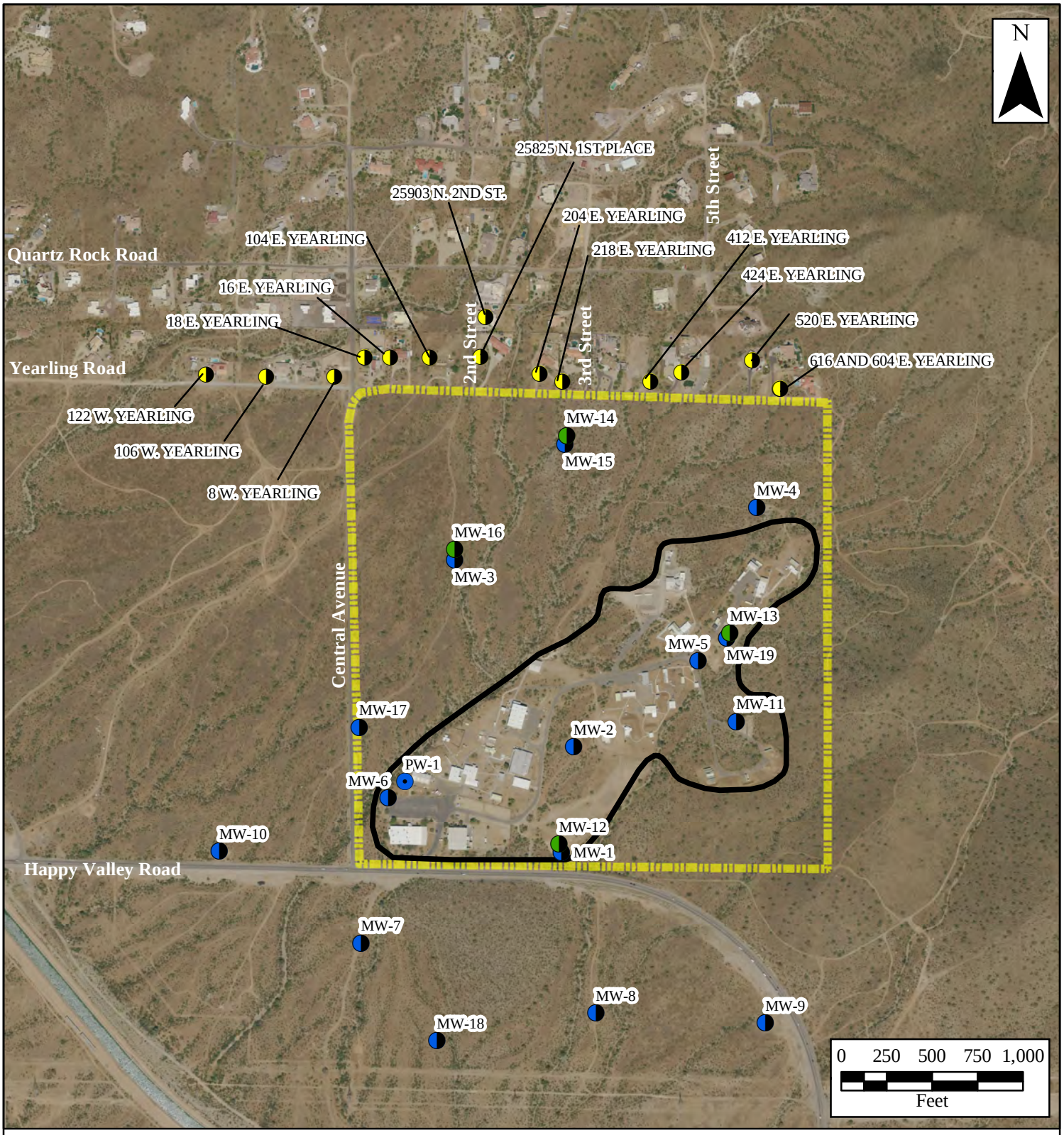
Feet

ARCADIS

New Burn Area
Soil Gas Analytical Results
1,1-DCE, MEK, and Acetone
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 25**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 25 New Burn DCE Soil Gas.mxd



Legend

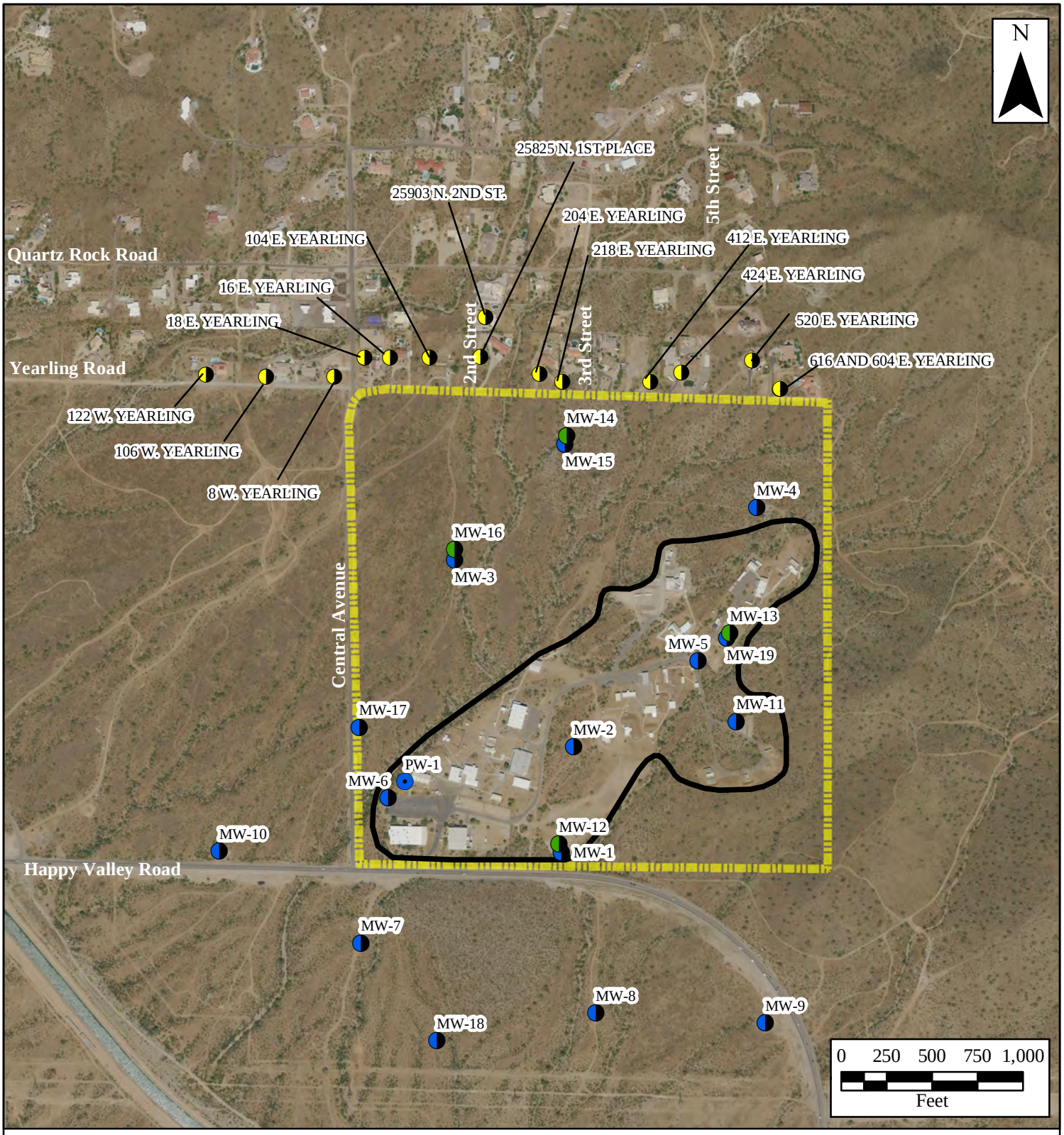
- Deep Well
- Monitor Well
- Production Well
- Private Wells
- Lease Property Boundary
- Operational Areas

ARCADIS

Groundwater Monitoring Network
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 26**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 26 Groundwater Monitoring Network.mxd



Legend

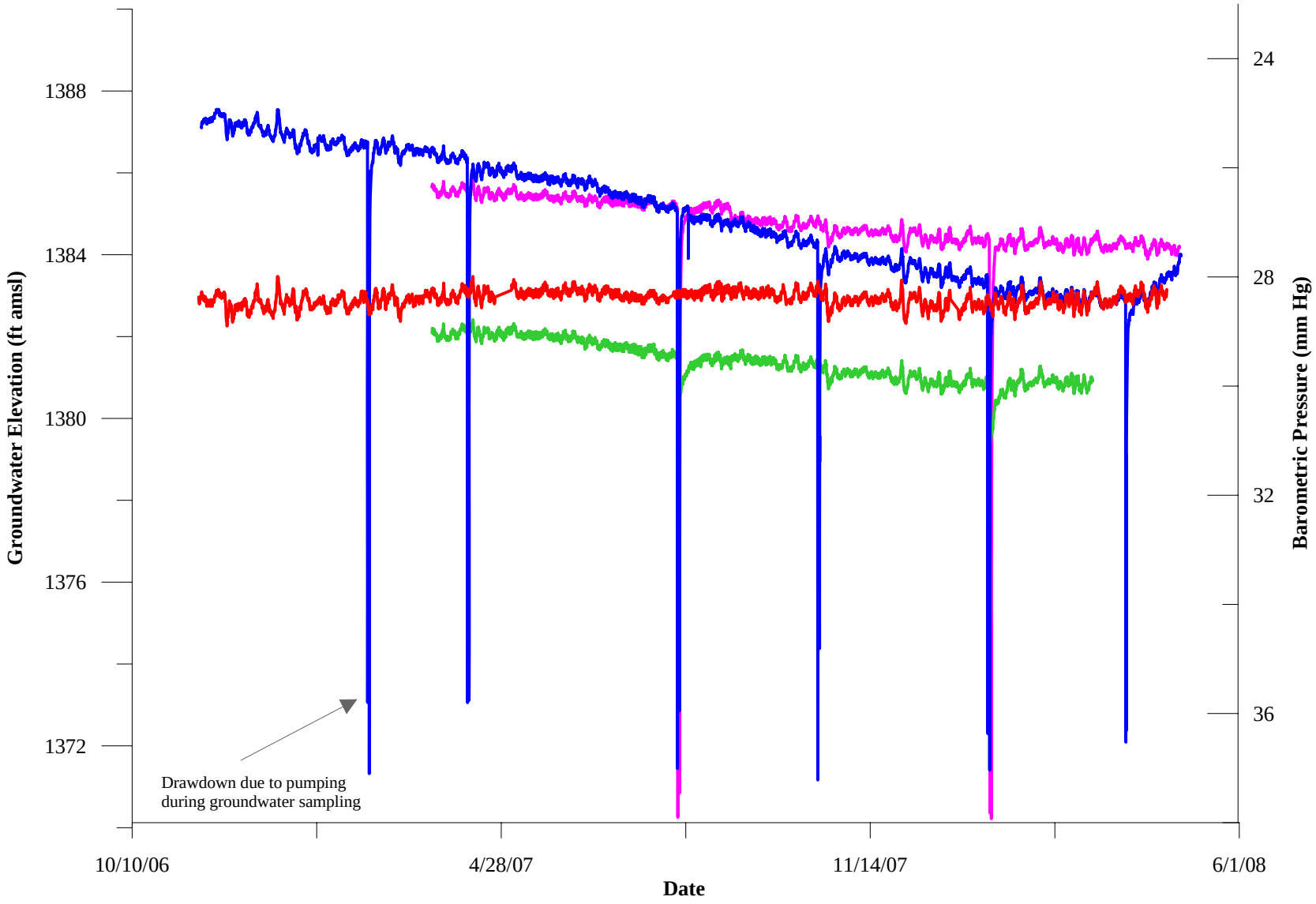
- Deep Well
- Monitor Well
- Production Well
- Private Wells
- Lease Property Boundary
- Operational Areas

ARCADIS

Groundwater Monitoring Network
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 26**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 26 Groundwater Monitoring Network.mxd



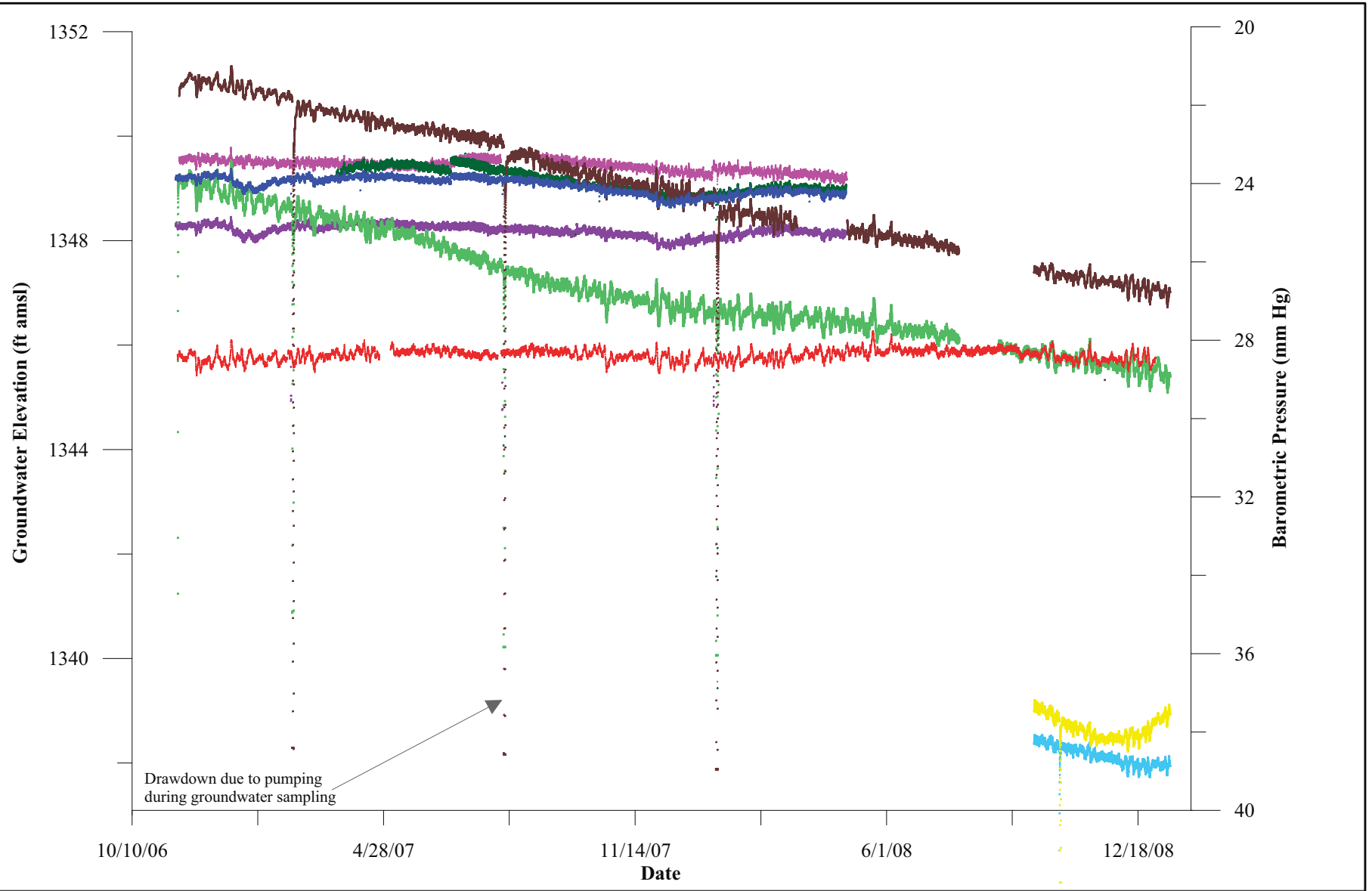
Legend

- Barometric Pressure
- MW-6
- MW-7
- MW-10

ARCADIS

Transducer Hydrograph
(Wells Screened in Alluvium)
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 27**



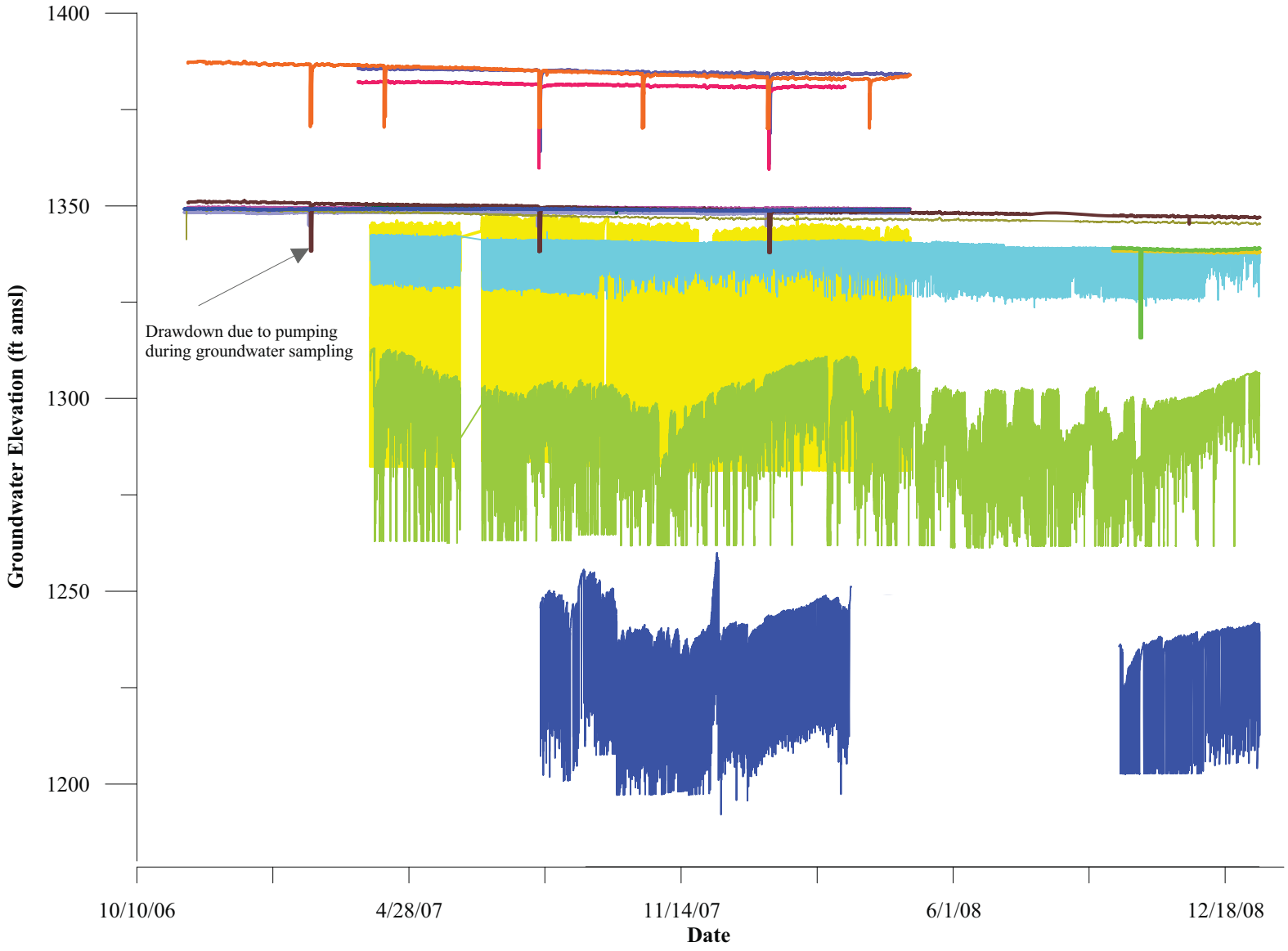
Legend

- MW-1
- MW-3
- MW-8
- MW-4
- Barometric Pressure
- MW-9
- MW-14
- MW-15
- MW-12

ARCADIS

Transducer Hydrograph
(Wells Screened in Bedrock)
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 28**



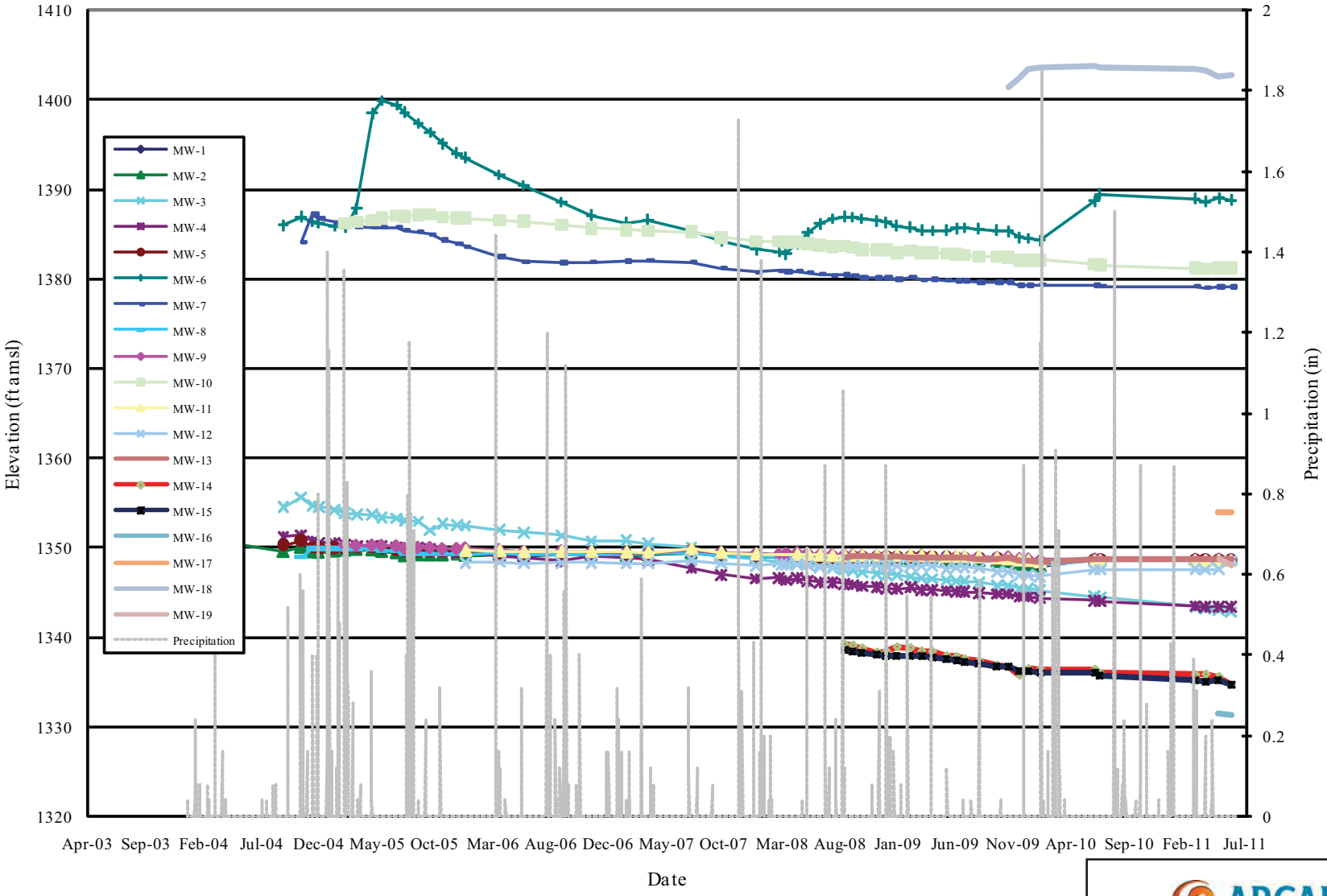
Legend

- PW-1
- MW-1
- MW-3
- MW-4
- MW-6
- MW-7
- MW-8
- MW-9
- MW-10
- MW-12
- MW-14
- MW-15
- 18 E. Yearling
- 218 E. Yearling
- 520 E. Yearling

ARCADIS

Transducer Hydrograph
(Site and Private Wells)
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

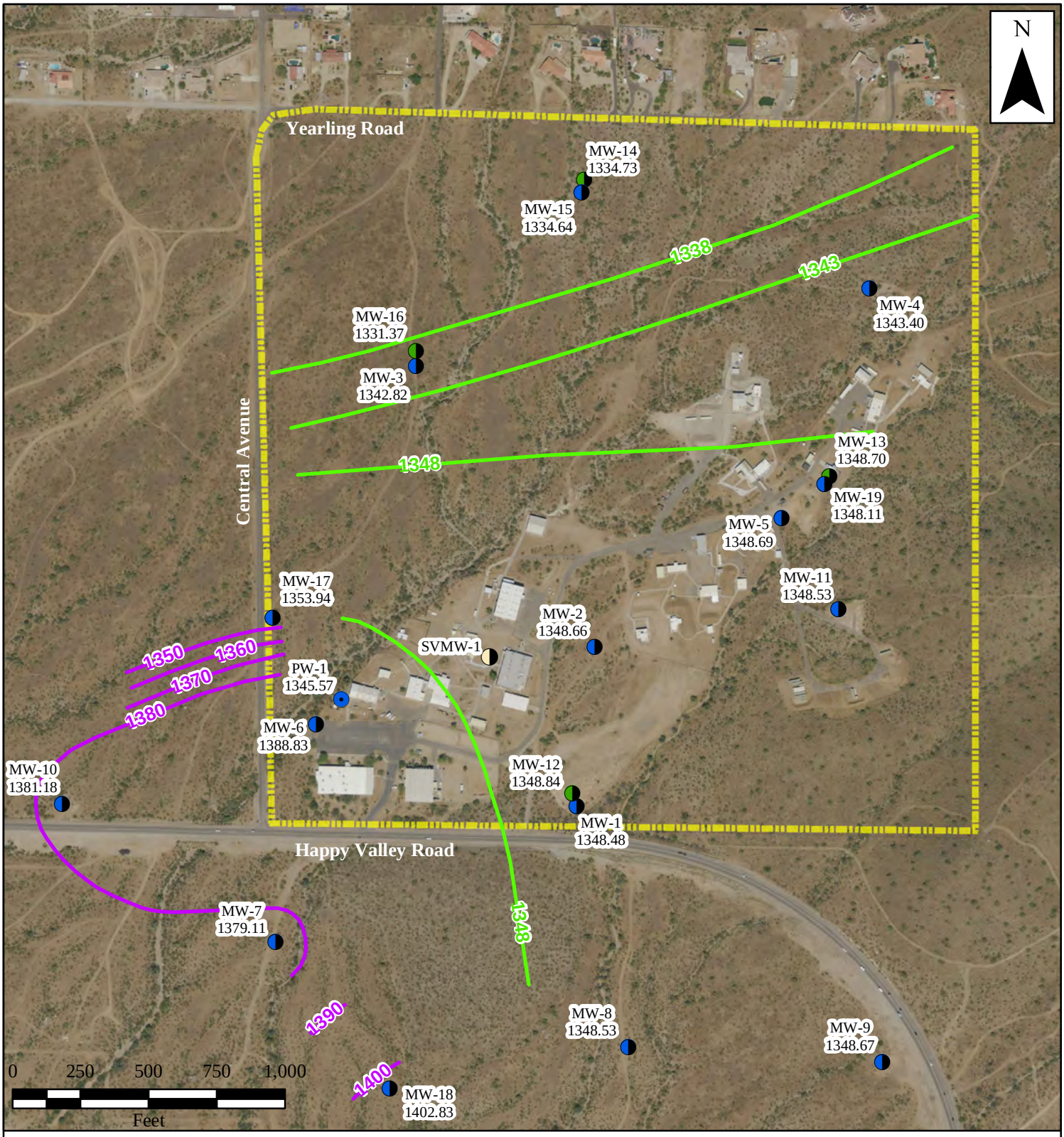
June 2011 | **Figure 29**



ARCADIS

Hydrograph of Site Wells
(Manual Measurements)
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 30**



Legend

- Deep Monitor Well
- Monitor Well
- Production Well
- Soil Vapor Monitor Well

MW-1 / 1349.38 — Well ID / Groundwater Elevation (ft amsl)

Lease Property Boundary

Sedimentary Unit Groundwater Elevations (10 foot contours)

Shallow Bedrock Unit Groundwater Elevation (5 foot contours)

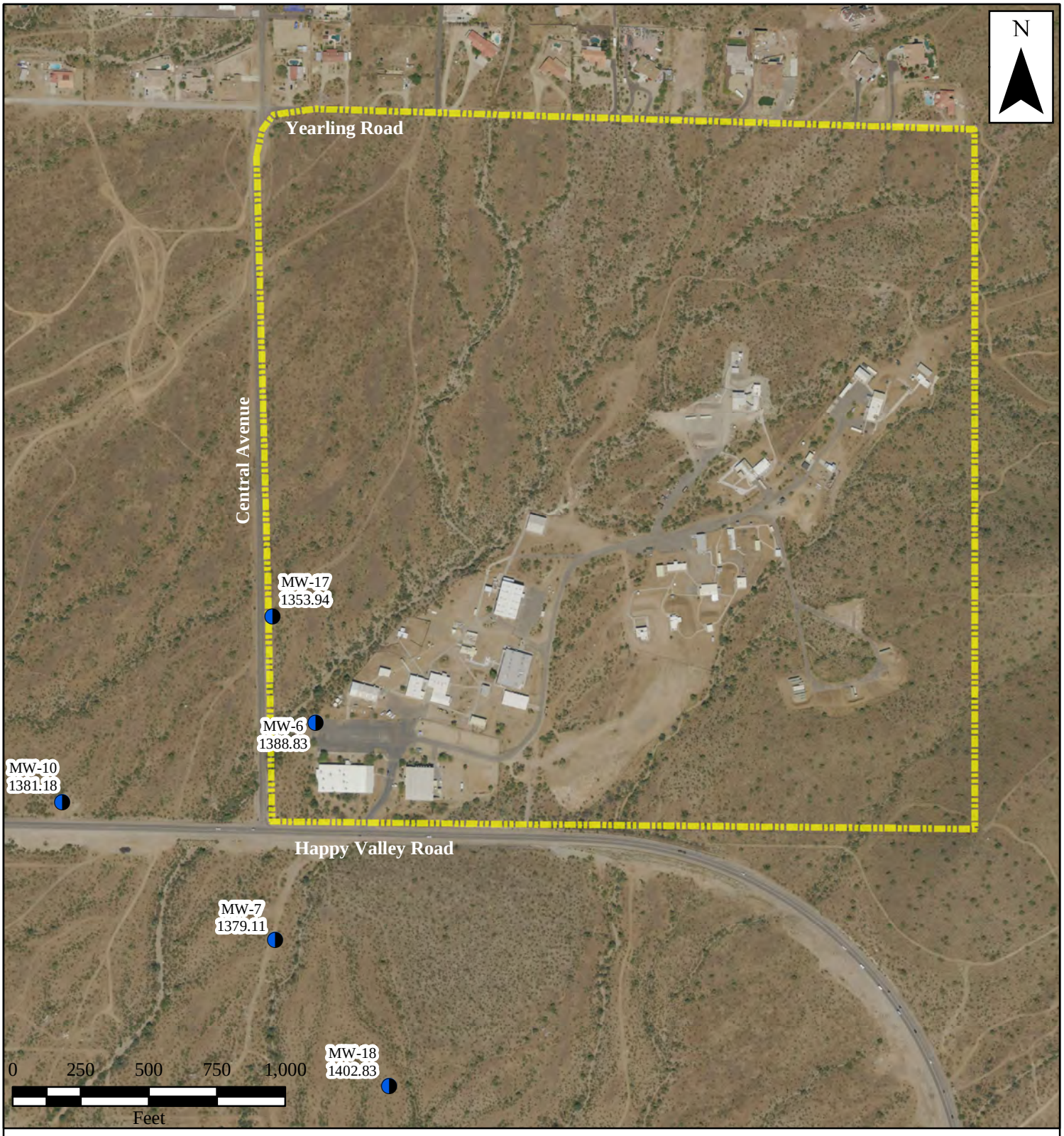
Notes:
The deep bedrock was not contoured due to not enough data points.

ARCADIS

Second Quarter
Groundwater Elevation
May 27, 2011
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 31**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 31 Groundwater Elevation May 2011



Legend

- Deep Monitor Well
- Monitor Well
- Production Well
- Soil Vapor Monitor Well

MW-1
1349.38
Well ID
Groundwater Elevation (ft amsl)

Lease Property Boundary

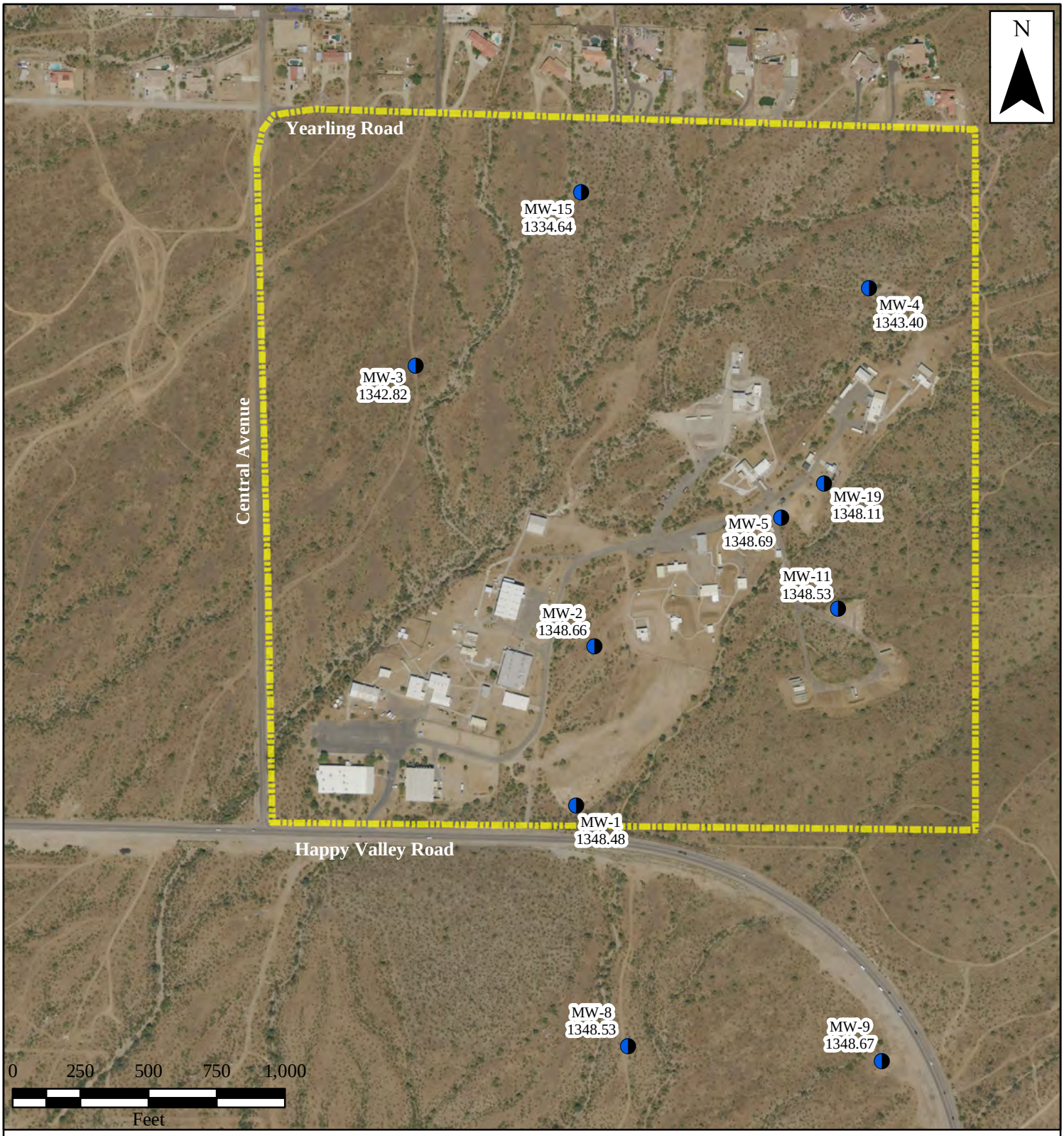
ARCADIS

Groundwater Elevation in Sedimentary Unit
May 27, 2011
Final Remedial Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 32**

Notes:

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 32 Groundwater Elevation Sedimentary Unit



Legend

- Deep Monitor Well
- Monitor Well
- Production Well
- Soil Vapor Monitor Well

MW-1 / 1349.38 — Well ID / Groundwater Elevation (ft amsl)

Lease Property Boundary

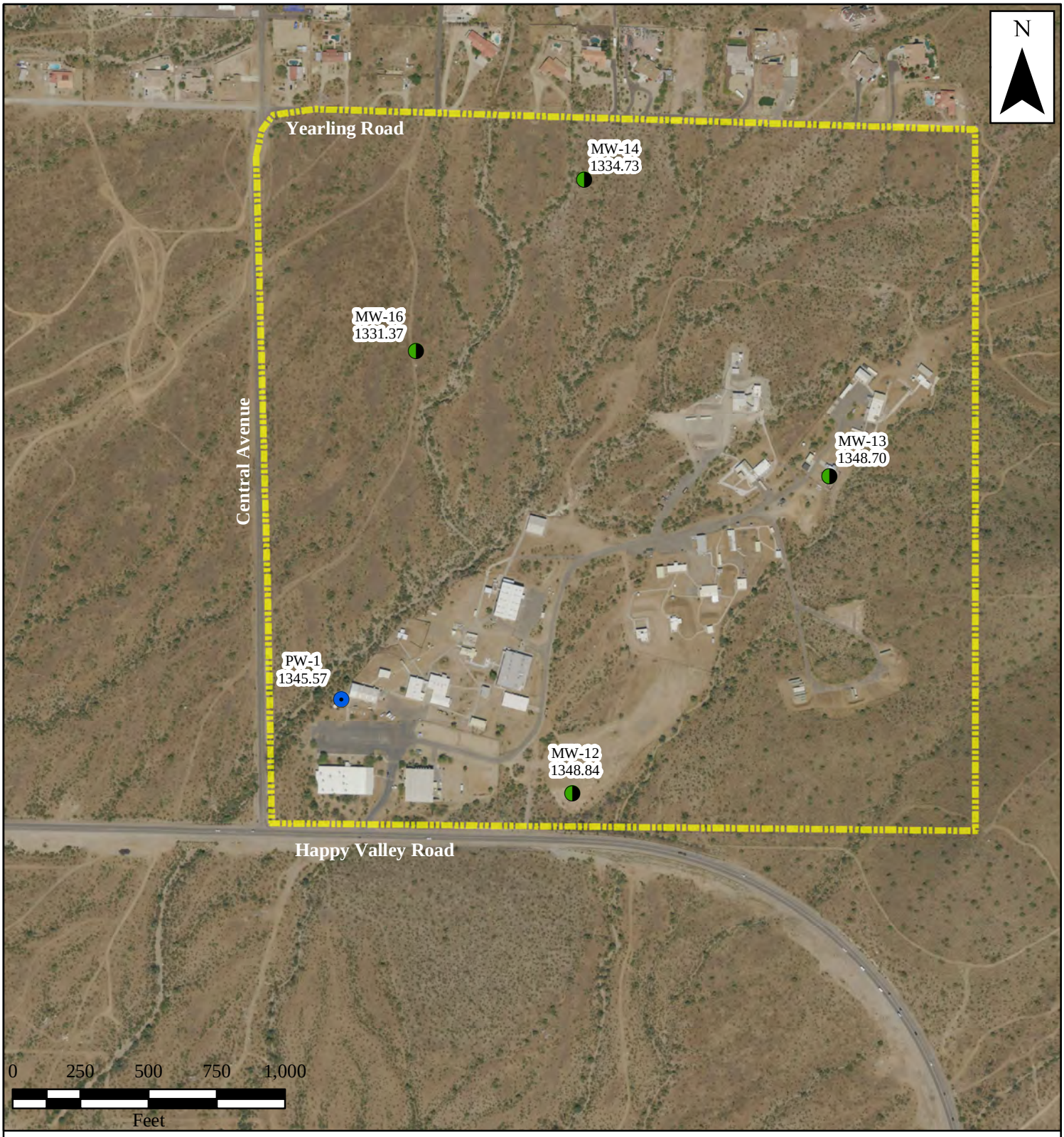
Notes:

ARCADIS

Groundwater Elevation
in Shallow Bedrock Unit
May 27, 2011
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 33**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 33 Groundwater Elevation Shallow Bedrock Unit



Legend

- Deep Monitor Well
- Monitor Well
- Production Well
- Soil Vapor Monitor Well

MW-1
1349.38
Well ID
Groundwater Elevation (ft amsl)

Lease Property Boundary

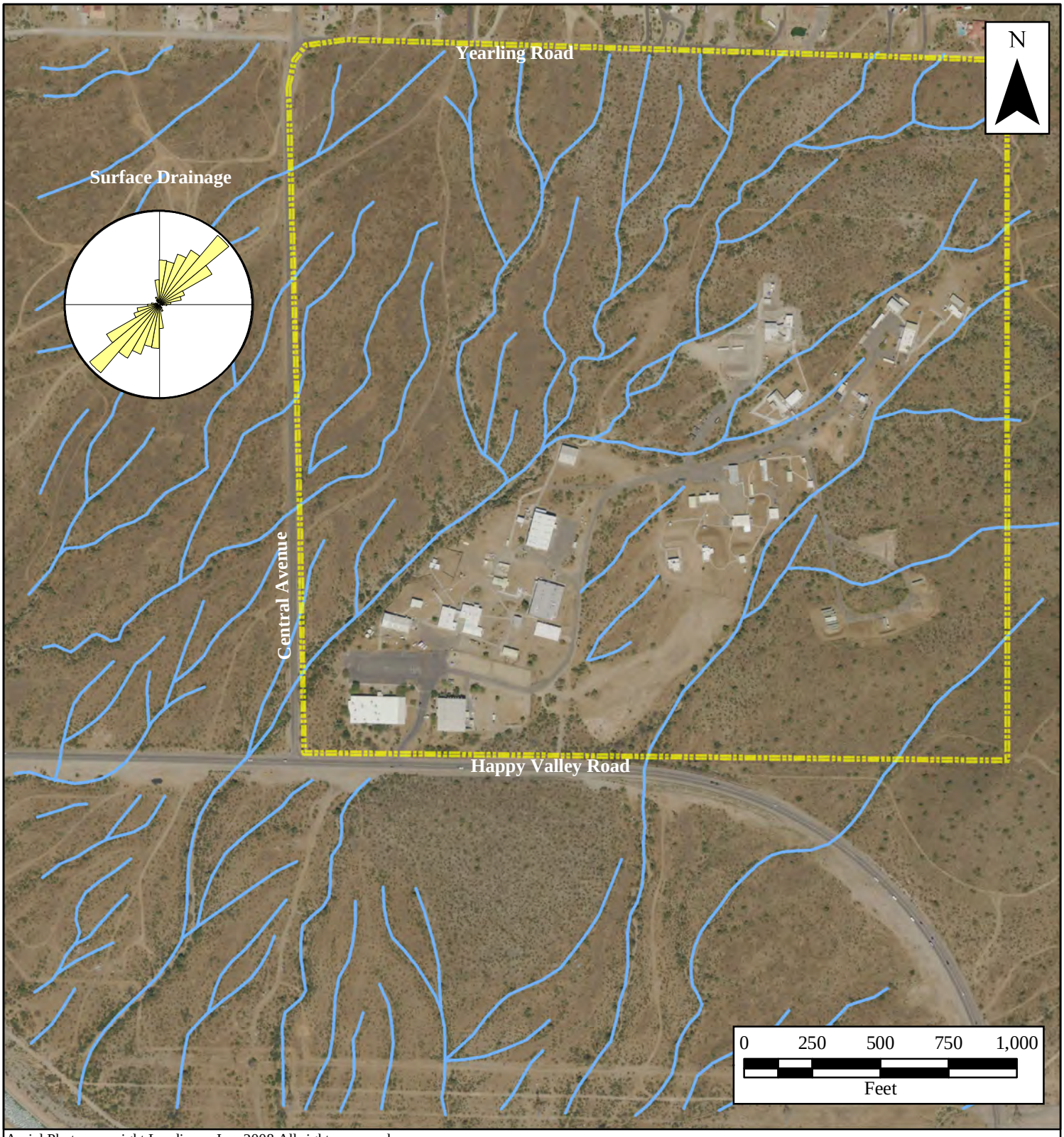
Notes:

ARCADIS

Groundwater Elevation
in Deep Bedrock Unit
May 27, 2011
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 34**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 34 Groundwater Elevation Deep Bedrock Unit

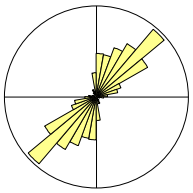


Legend

Lease Property Boundary

Drainage

Surface
Drainage Orientation

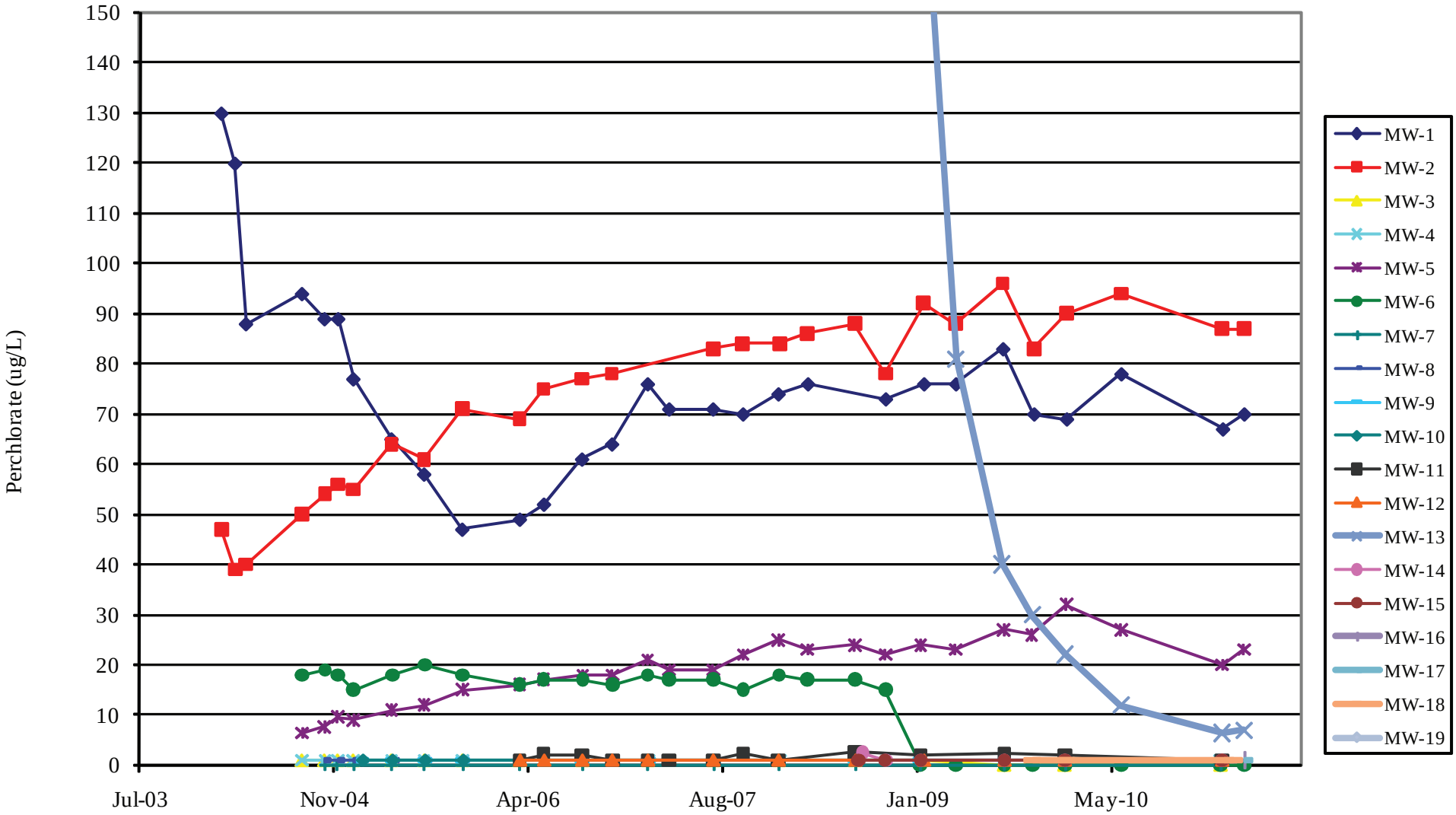


ARCADIS

Surface Drainage Network
& Orientation
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011	**Figure 35**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 35 Surface Drainage Network.mxd



Note:
Perchlorate concentration for MW-13
8/8/2008 = 330 ug/L;
10/17/2008 = 220 ug/L and
1/16/2009 = 190 ug/L

Perchlorate concentration for MW-19
4/28/2011 = 55,000 ug/L

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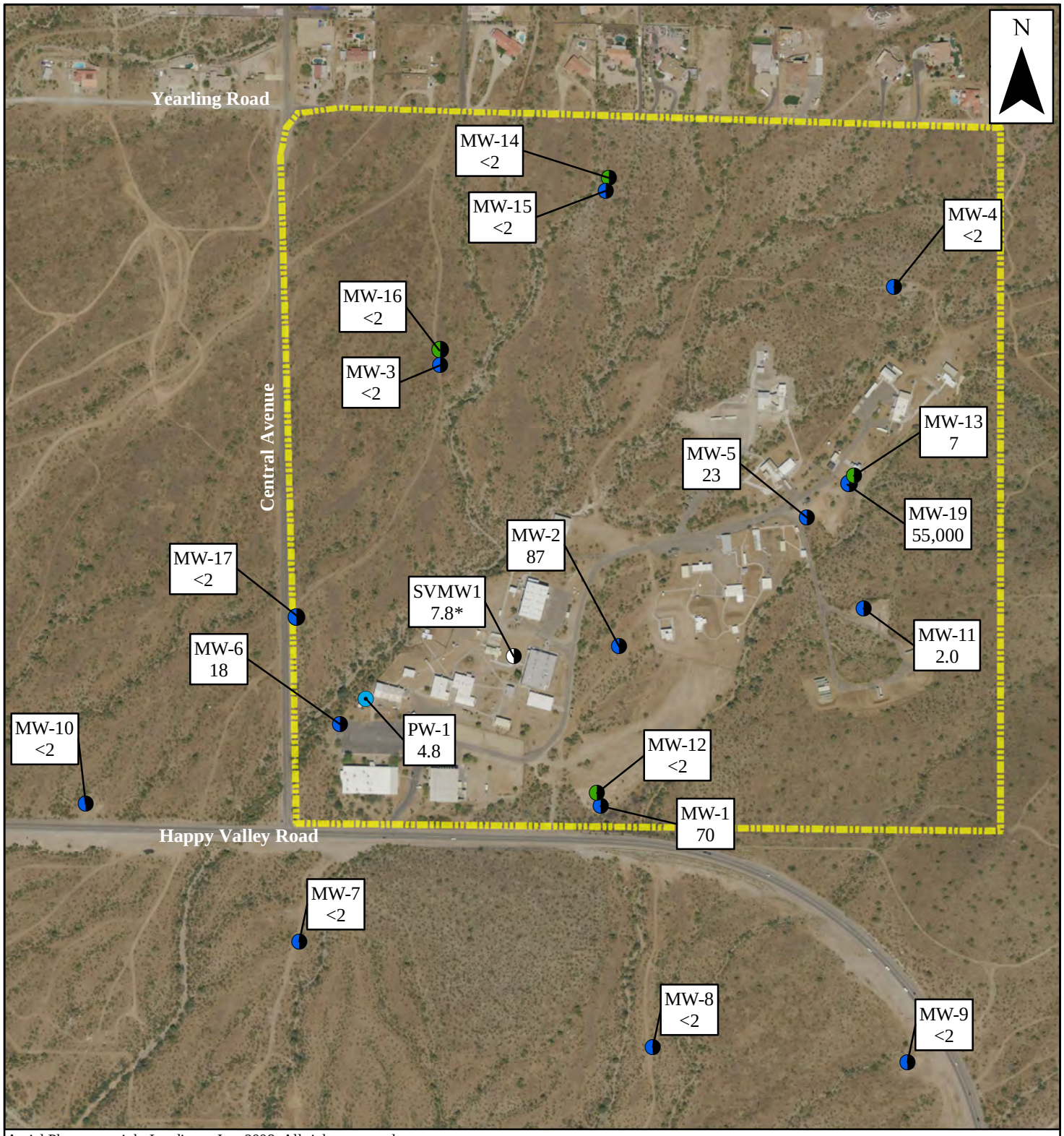
Perchlorate Concentration
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 36**



Legend

- Deep Well
- Monitor Well
- Production Well
- Soil Vapor Well
- Lease Property Boundary

MW-1 Well ID
70 Perchlorate Concentration (µg/L)
* Shallow Groundwater Grab Sample

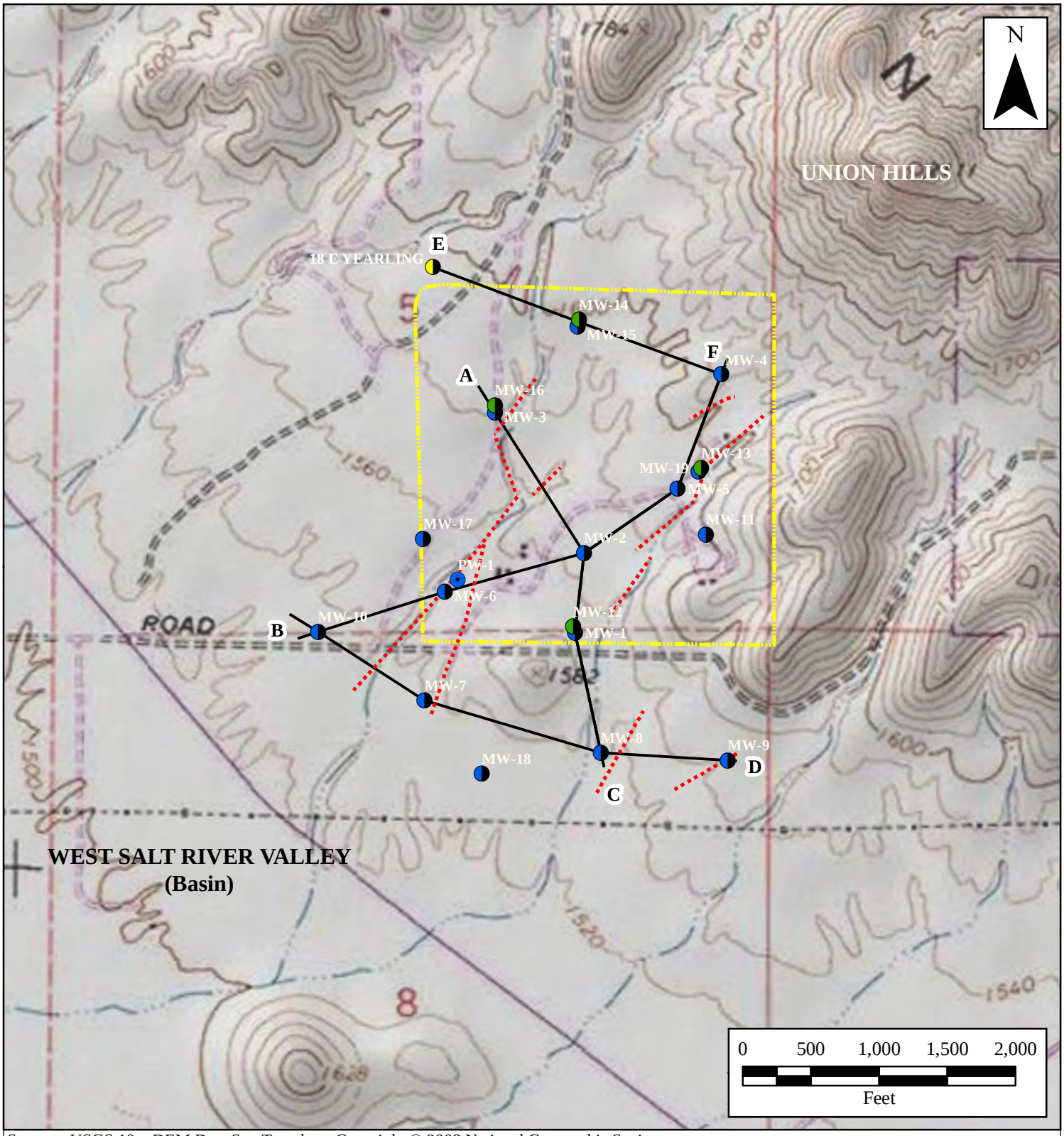
0 250 500
Feet

ARCADIS

Second Quarter (April) 2011
Perchlorate Concentration Map
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 37**

M:\3994003\GIS\Projects_MXD\Revised_RI_summary_report\Figure 52 Perchlorate Concentration Contour in GW.mxd



Sources: USGS 10m DEM Data Set; Topo base Copyright:© 2008 National Geographic Society

Legend

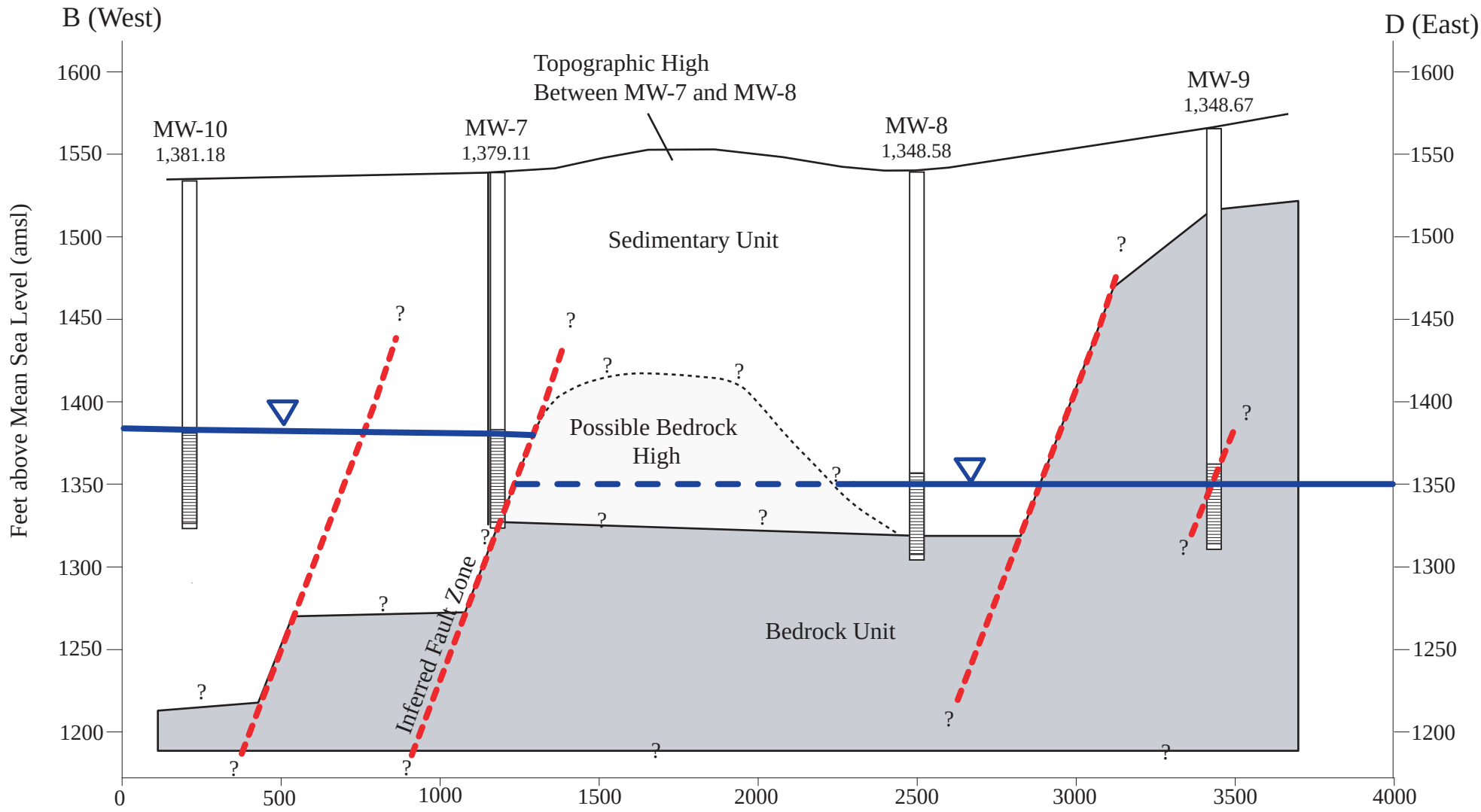
- Private Well
- Deep Monitor Well
- Monitor Well
- Production Well
- Inferred Faults
- Cross Section Lines
- Lease Property Boundary

ARCADIS

Cross Section Lines
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 38**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 38 Cross Section Lines.mxd



Legend

- Sedimentary Unit (semi-consolidated to consolidated)
- Bedrock Unit (Proterozoic Meta-volcanic, meta-sedimentary, and granitic units)
- Inferred Fault

MW-10 Monitoring Well ID
1,381.18 May 2011 Water Level (ft amsl)

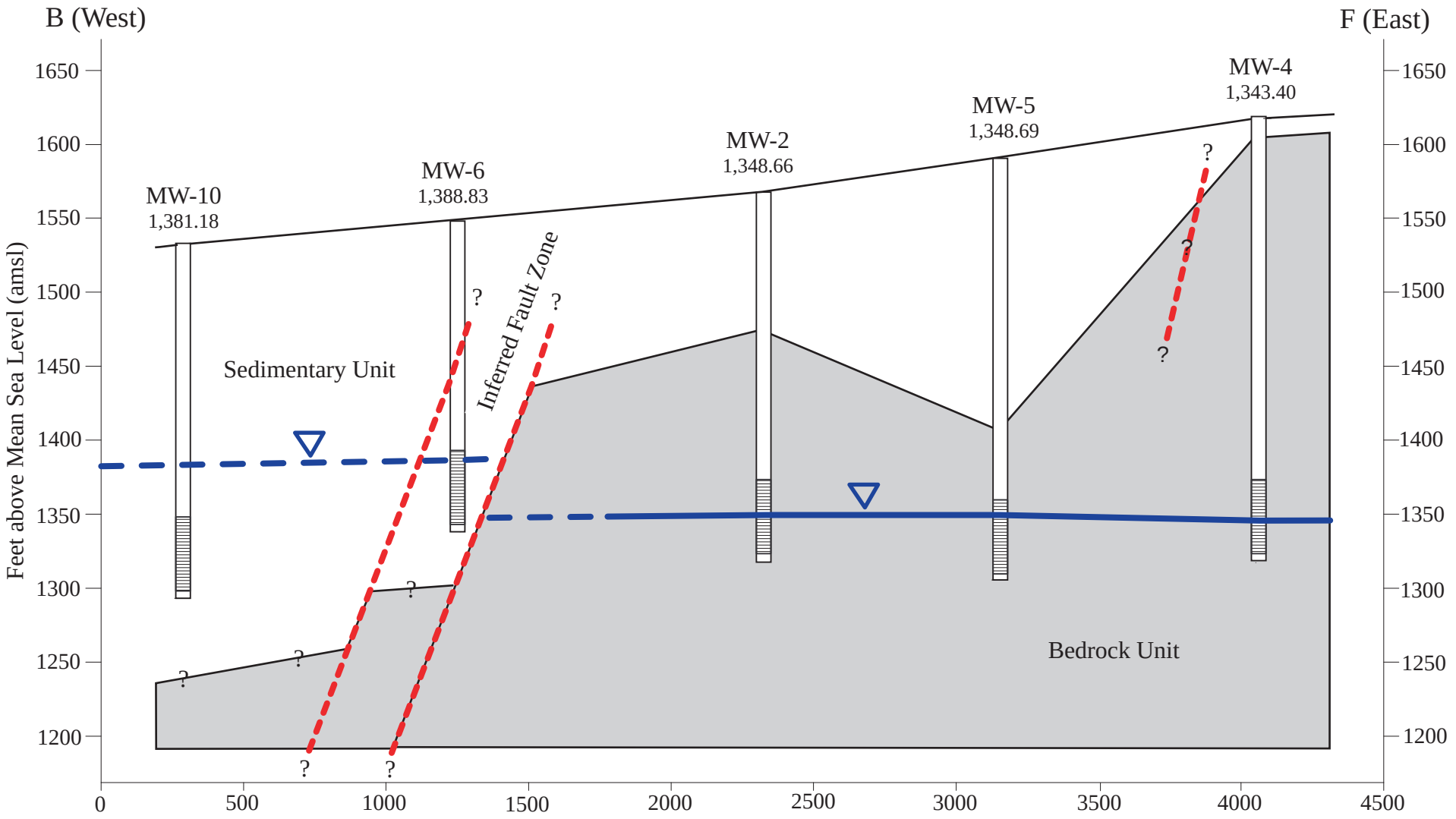
May 2011 Water Level (Dashed where Inferred)
Screened Interval

Note: horizontal and vertical scale are approximate

ARCADIS

Schematic Geologic Cross Section
B - D
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 39**



Legend

- Sedimentary Unit (semi-consolidated to consolidated)
- Bedrock Unit (Proterozoic Meta-volcanic, meta-sedimentary, and granitic units)
- Inferred Fault

MW-10 / 1,381.18 — Monitoring Well ID / May 2011 Water Level (ft amsl)

May 2011 Water Level (dashed where inferred)

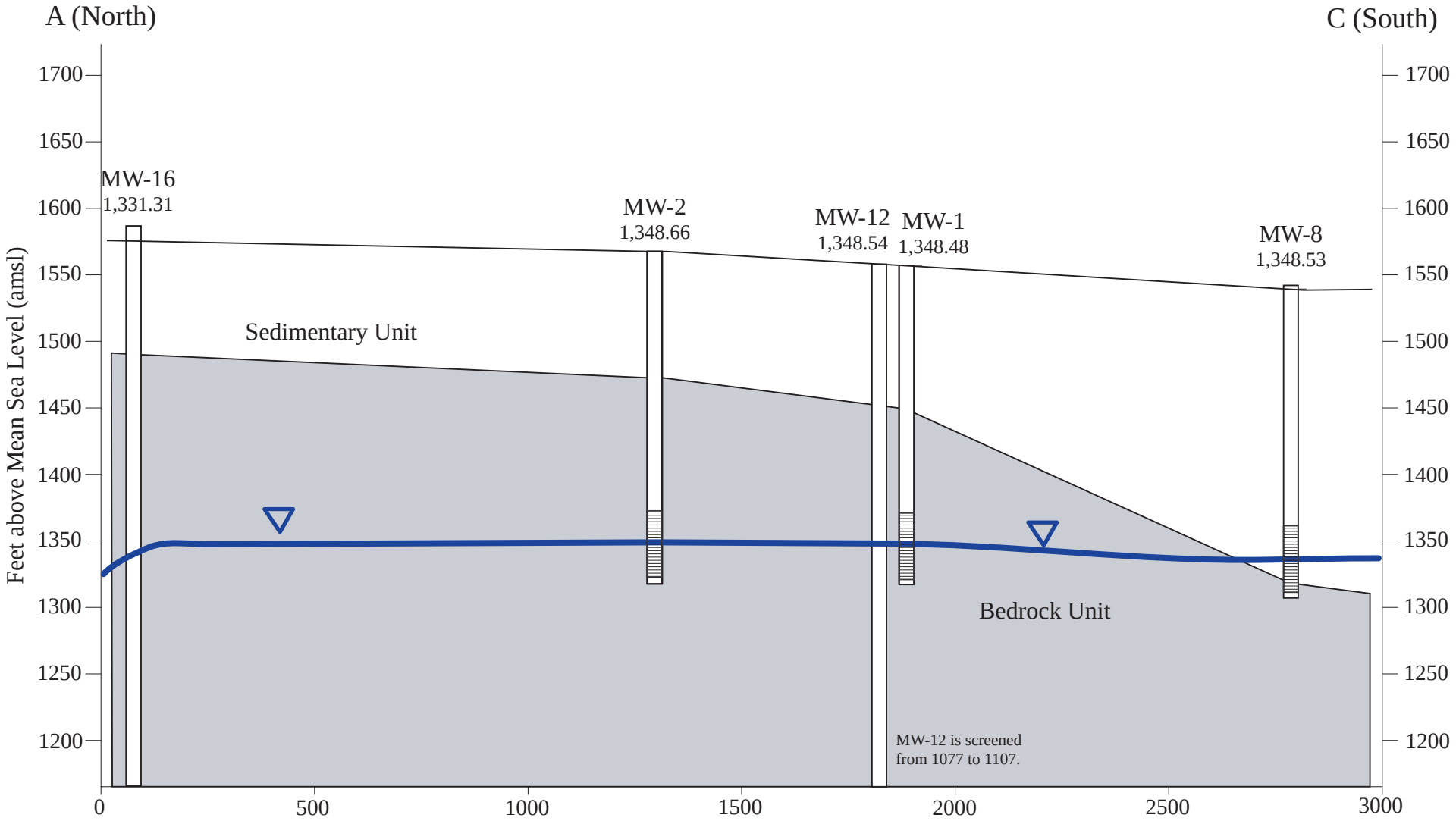
Screened Interval

Note: horizontal and vertical scale are approximate

ARCADIS

Schematic Geologic Cross Section
B - F
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 40**



Legend

- Sedimentary Unit (semi-consolidated to consolidated)
- Bedrock Unit (Proterozoic Meta-volcanic, meta-sedimentary, and granitic units)
- Inferred Fault

Note: horizontal and vertical scale are approximate

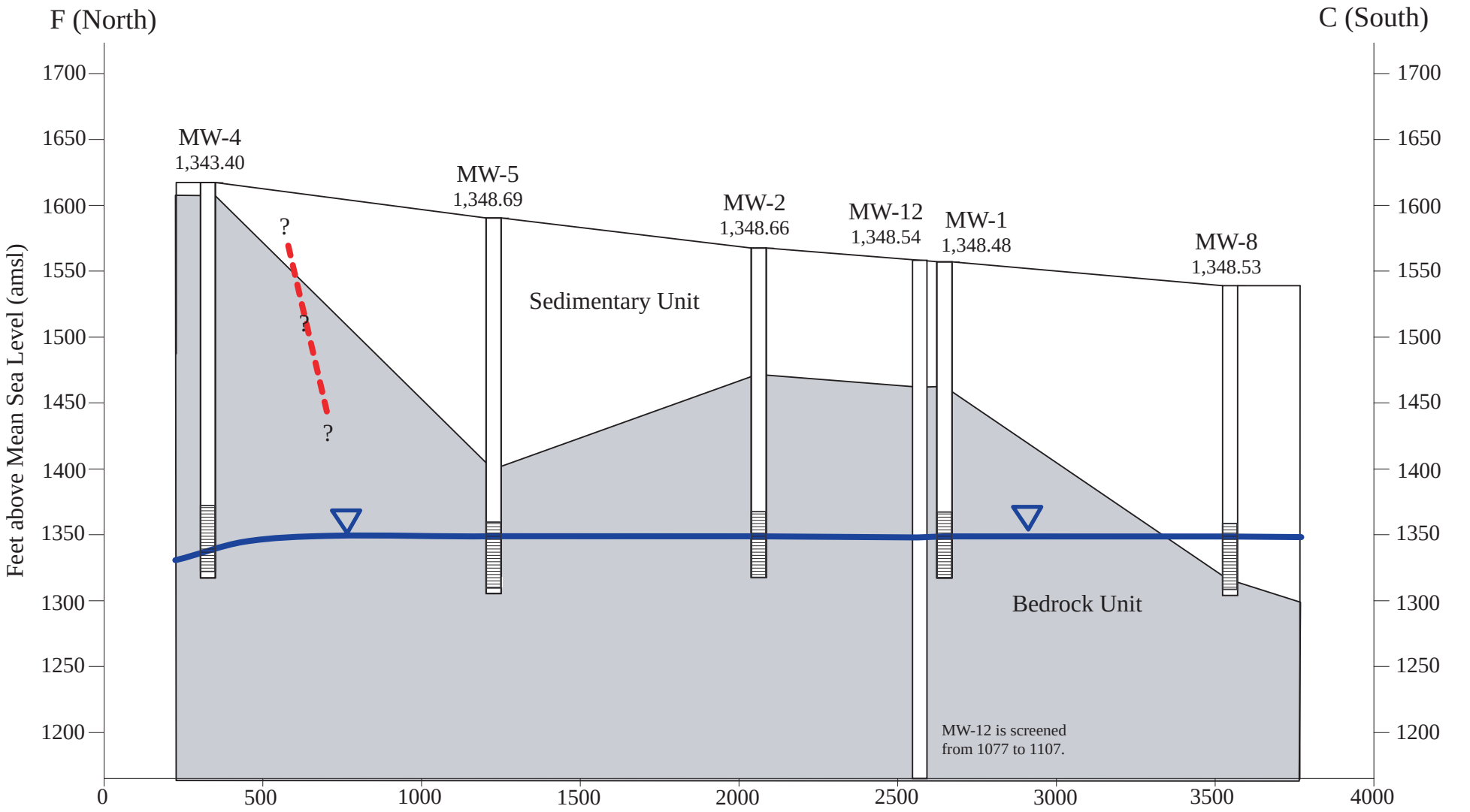
MW-16 Monitoring Well ID
1,331.31 May 2011 Water Level (ft amsl)

May 2011 Water Level
Screened Interval

ARCADIS

Schematic Geologic Cross Section
A - C
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 41**



Legend

- Sedimentary Unit (semi-consolidated to consolidated)
- Bedrock Unit (Proterozoic Meta-volcanic, meta-sedimentary, and granitic units)
- Inferred Fault

Note: horizontal and vertical scale are approximate

MW-4
1,343.40

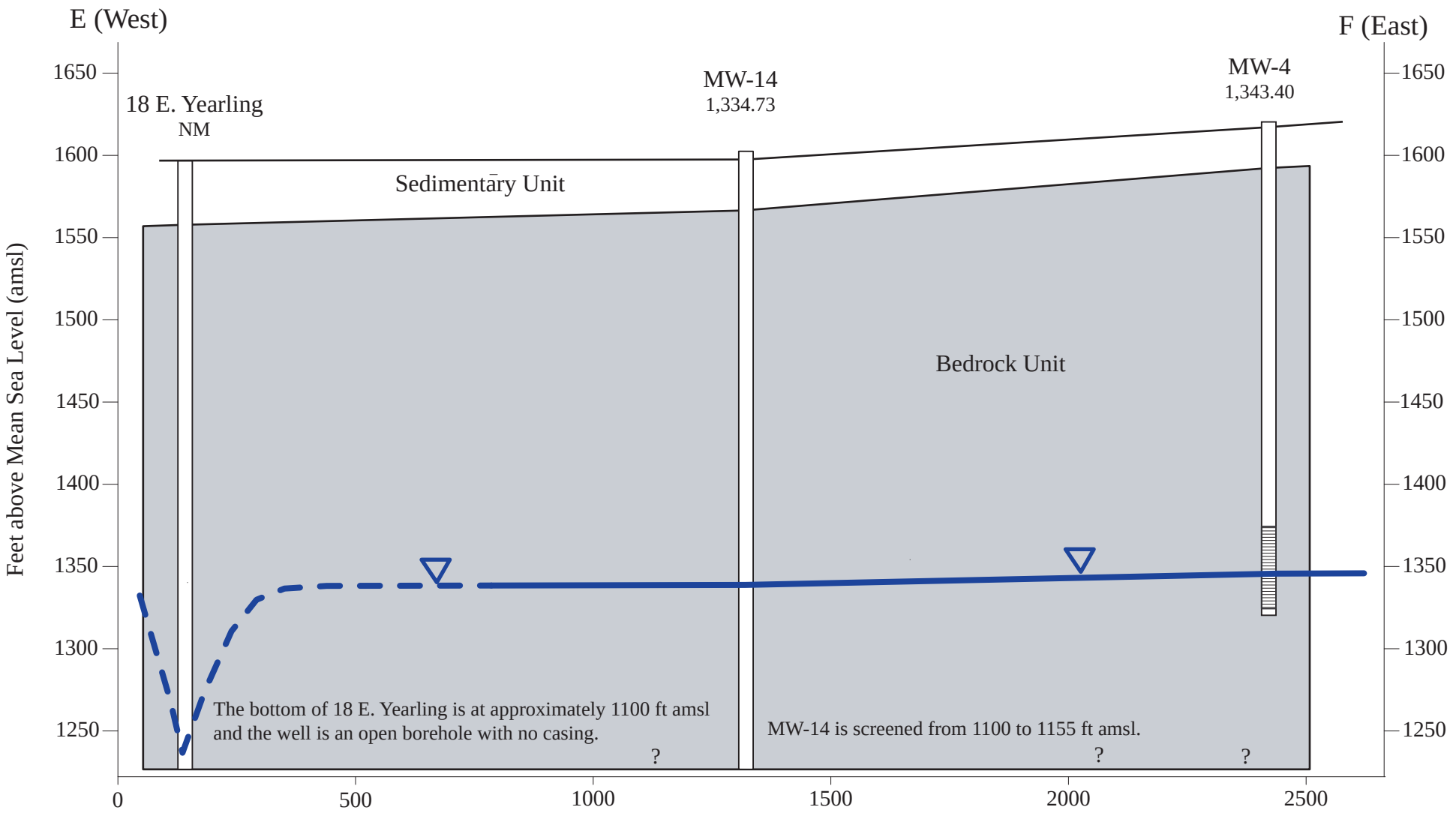
Monitoring Well ID
May 2011 Water Level (ft amsl)

May 2011 Water Level
Screened Interval

ARCADIS

Schematic Geologic Cross Section
F- C
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 42**



Legend

- Sedimentary Unit (semi-consolidated to consolidated)
- Bedrock Unit (Proterozoic Meta-volcanic, meta-sedimentary, and granitic units)
- Inferred Fault

MW-4 — Monitoring Well ID
1,334.73 — May 2011 Water Level (ft amsl)

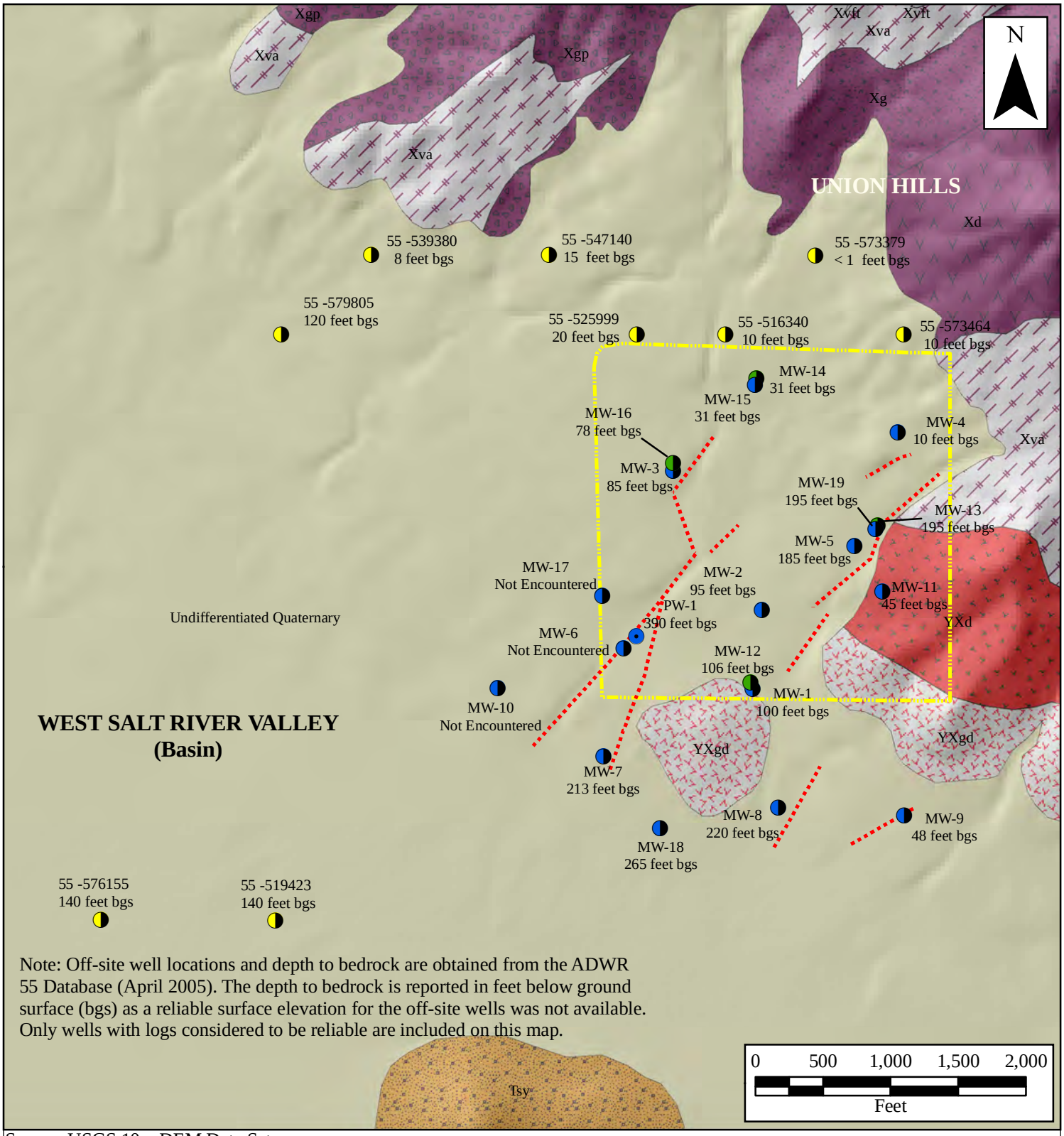
May 2011 Water Level (Dashed where inferred)
Screened Interval

NM - Water level not measured - well dry
Note: horizontal and vertical scale are approximate

ARCADIS

Schematic Geologic Cross Section
E-F
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 43**



Note: Off-site well locations and depth to bedrock are obtained from the ADWR 55 Database (April 2005). The depth to bedrock is reported in feet below ground surface (bgs) as a reliable surface elevation for the off-site wells was not available. Only wells with logs considered to be reliable are included on this map.

Source: USGS 10m DEM Data Set

Legend

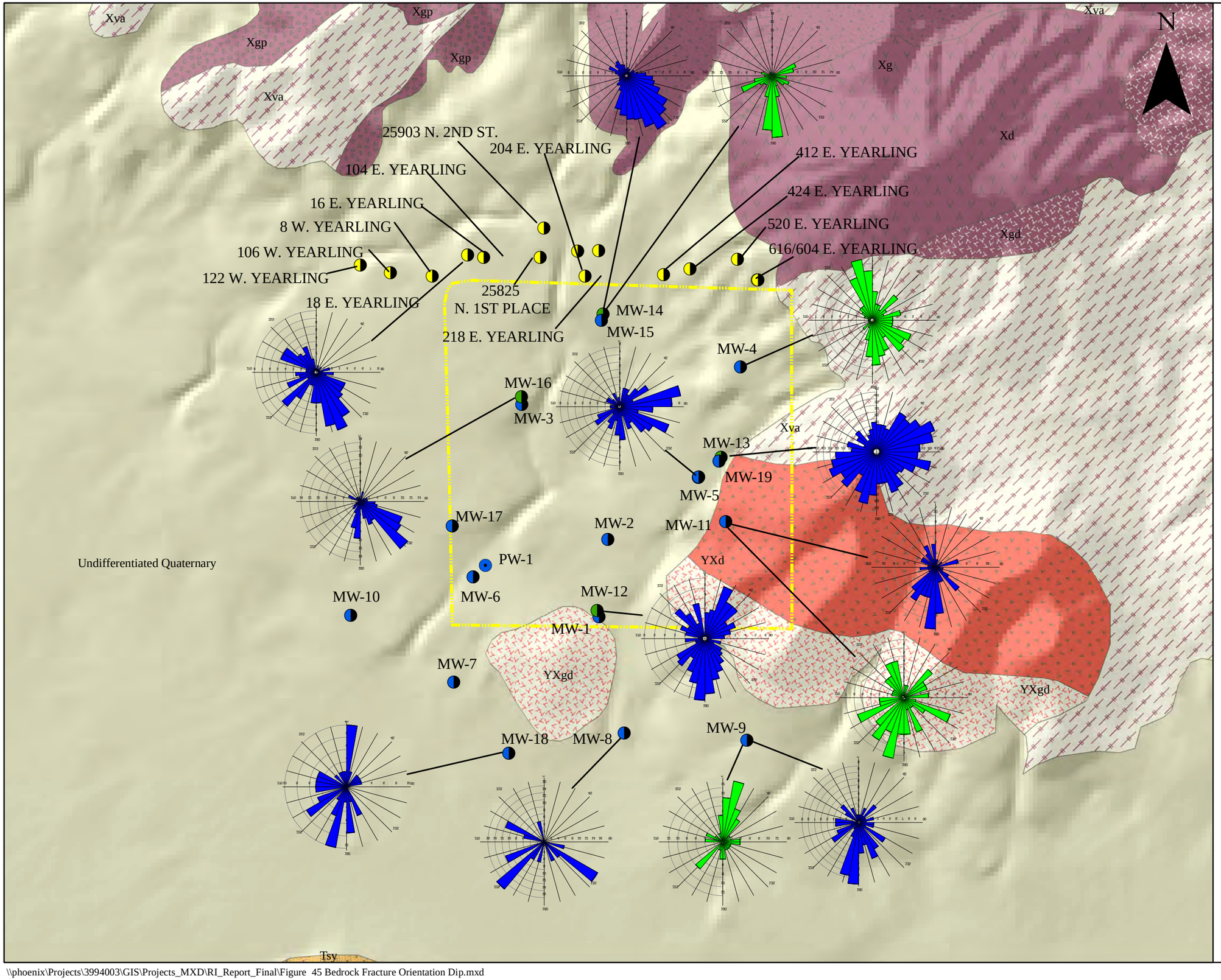
- Deep Monitor Well
- Monitor Well
- Production Well
- Private Wells
- Inferred Faults
- Lease Property Boundary

ARCADIS

Inferred Faults/Depth to Bedrock
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 44**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 44 Depth to Bedrock.mxd

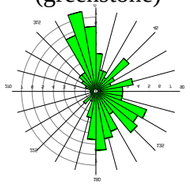


Legend

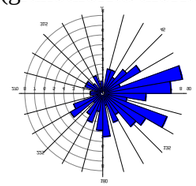
- Deep Monitor Well
- Monitor Well
- Production Well
- Private Domestic Wells
- Lease Property Boundary

Bedrock Fracture Orientation

Meta-volcanic (greenstone)



Granitic (granodiorite/diorite)



Note:
Borings at MW-3, MW-10, MW-6, MW-2, MW-7, and MW-1 do not have fracutre data. The original fracture orientation data is presented in Appendix J of the Draft Remedial Investigation Summary Report, July 2006.

0 350 700 1,050 1,400
Feet

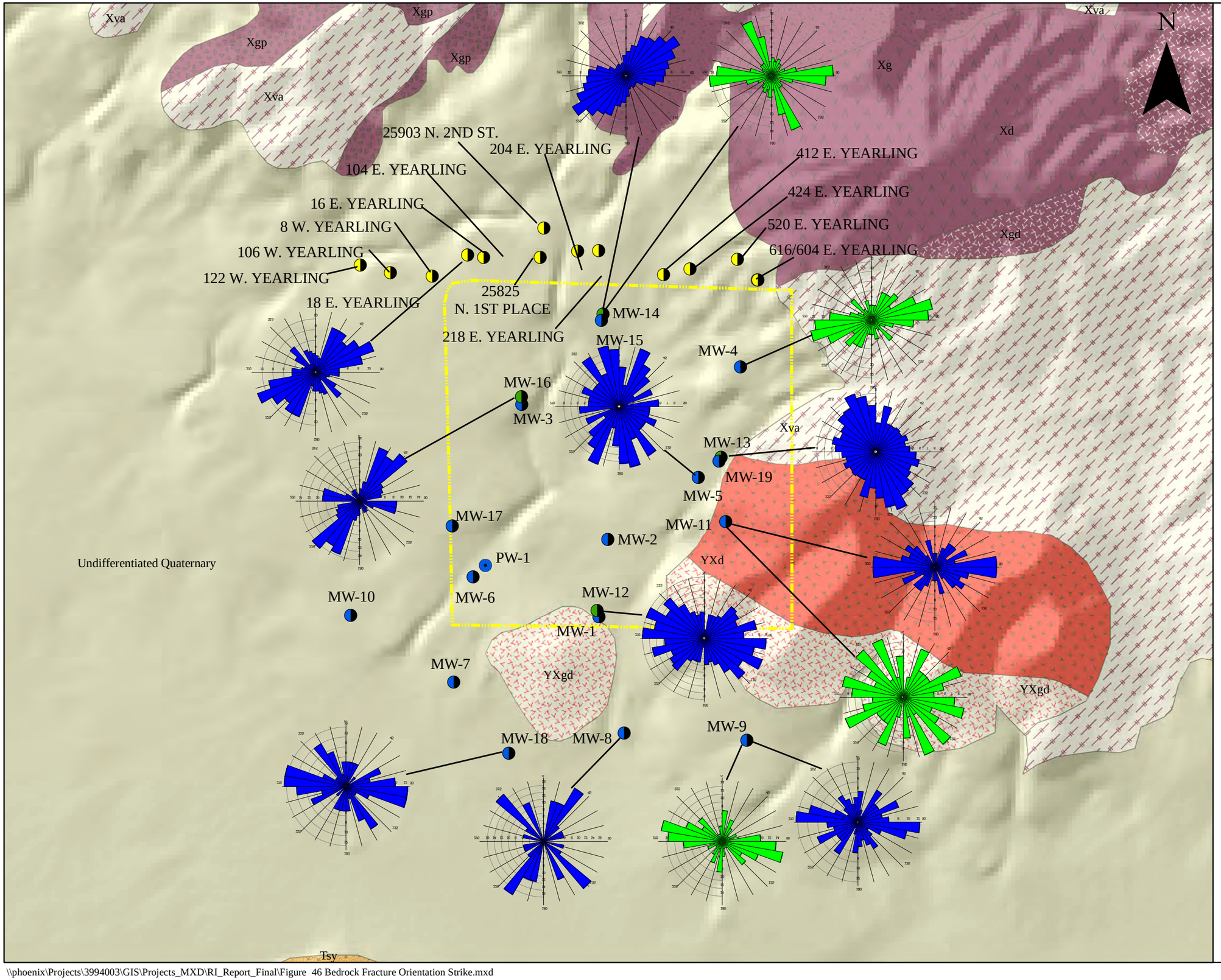
Source: USGS 7.5' Series Topographic Maps

ARCADIS

Bedrock Fracture Orientation
Dip Direction
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 45**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 45 Bedrock Fracture Orientation Dip.mxd



Legend

- Deep Monitor Well
- Monitor Well
- Production Well
- Private Domestic Wells
- Lease Property Boundary

Bedrock Fracture Orientation

Meta-volcanic (greenstone)

Granitic (granodiorite/diorite)

Note:
Borings at MW-3, MW-10, MW-6, MW-2, MW-7, and MW-1 do not have fracutre data. The original fracture orientation data is presented in Appendix J of the Draft Remedial Investigation Summary Report, July 2006.

0 350 700 1,050 1,400

Feet

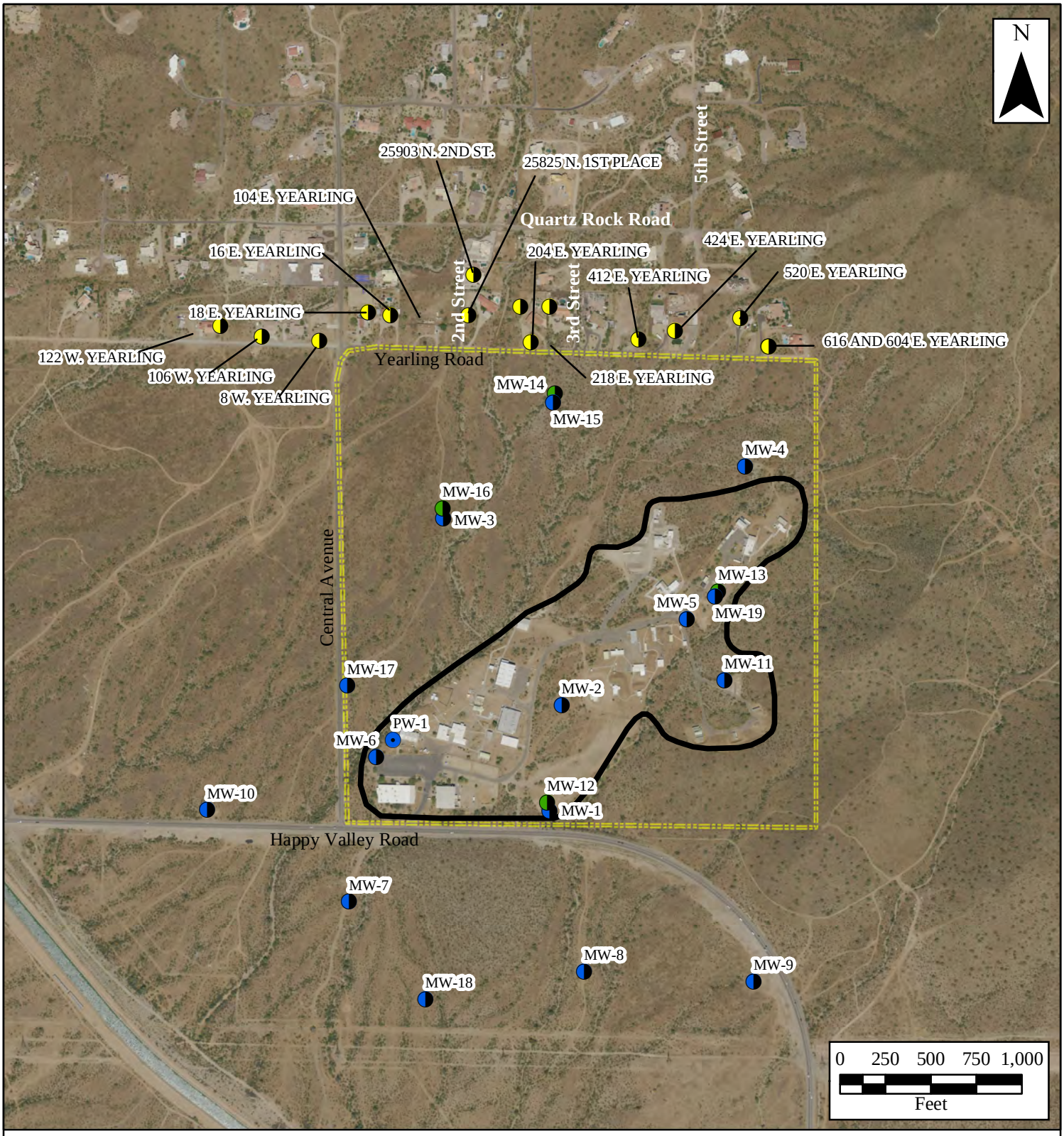
Source: USGS 7.5' Series Topographic Maps

ARCADIS

Bedrock Fracture Orientation
Strike
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 46**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 46 Bedrock Fracture Orientation Strike.mxd



Legend

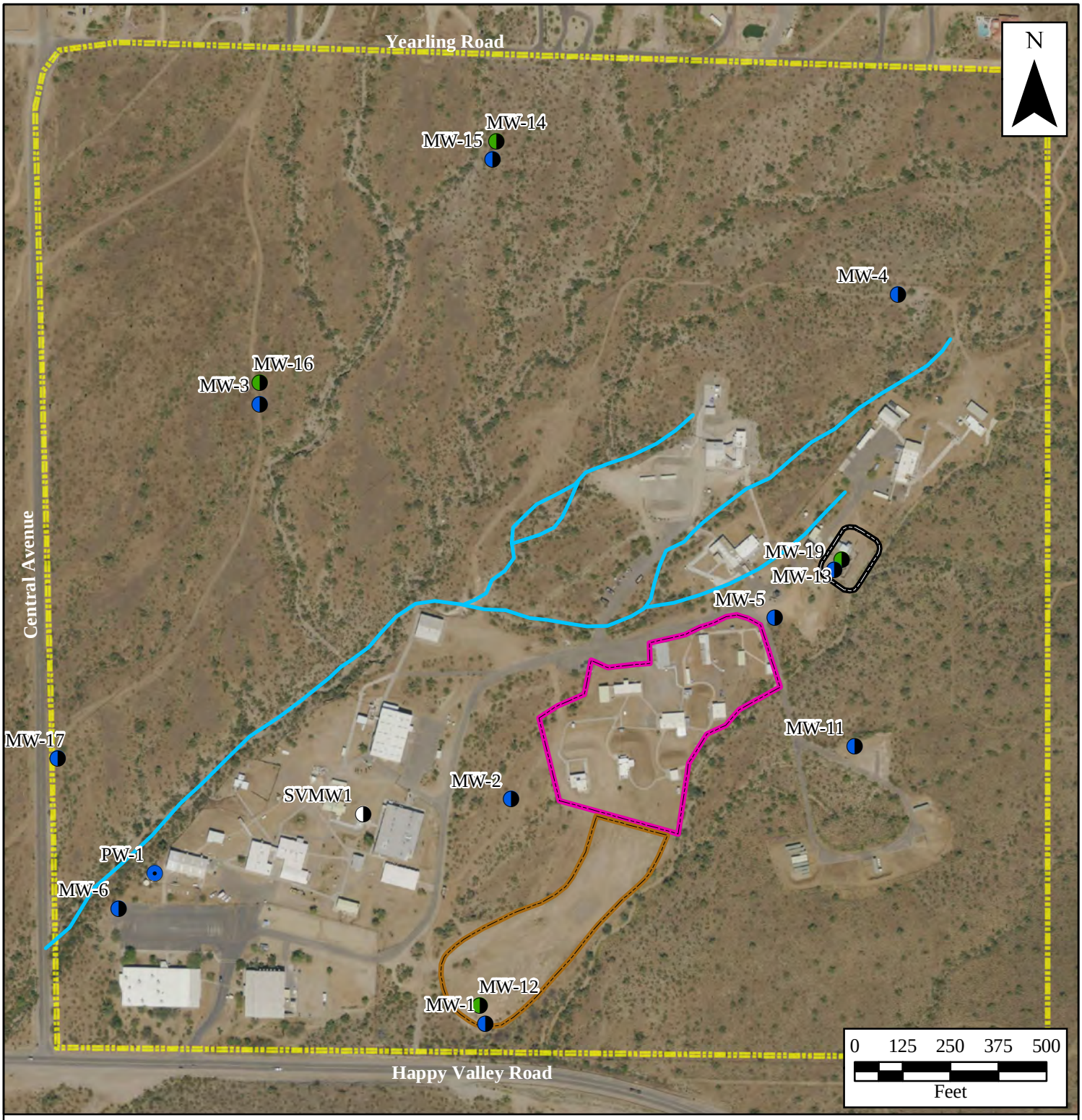
- Deep Monitor Well
- Monitor Well
- Production Well
- Private Domestic Wells
- Operational Areas
- Lease Property Boundary

ARCADIS

CSM Study Area
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 47**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 47 CSM study area.mxd



*NS = Not Sampled

Legend

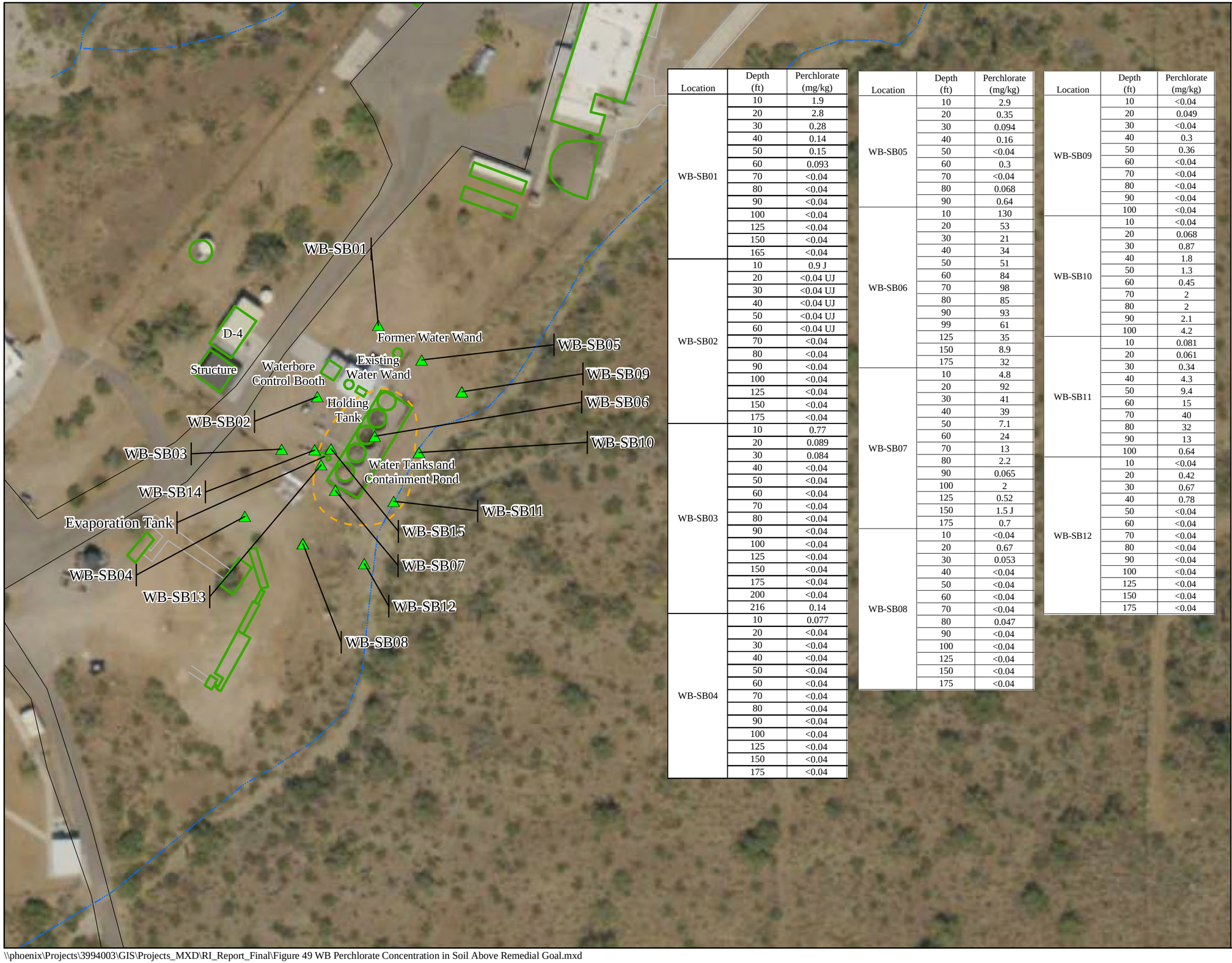
- Deep Monitor Well
- Monitor Well
- Production Well
- Soil Vapor Well
- C-Complex
- New Burn Area
- Waterbore Area
- Lease Property Boundary
- Dry Wash

ARCADIS

Potential Perchlorate Source Areas
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 48**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 48 potential perchlorate source areas.mxd



Location	Depth (ft)	Perchlorate (mg/kg)
WB-SB01	10	1.9
	20	2.8
	30	0.28
	40	0.14
	50	0.15
	60	0.093
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
	125	<0.04
	150	<0.04
	165	<0.04
WB-SB02	10	0.9 J
	20	<0.04 UJ
	30	<0.04 UJ
	40	<0.04 UJ
	50	<0.04 UJ
	60	<0.04 UJ
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
	125	<0.04
	150	<0.04
	175	<0.04
WB-SB03	10	0.77
	20	0.089
	30	0.084
	40	<0.04
	50	<0.04
	60	<0.04
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
	125	<0.04
	150	<0.04
	175	<0.04
	200	<0.04
	216	0.14
WB-SB04	10	0.077
	20	<0.04
	30	<0.04
	40	<0.04
	50	<0.04
	60	<0.04
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
	125	<0.04
	150	<0.04
	175	<0.04

Location	Depth (ft)	Perchlorate (mg/kg)
WB-SB05	10	2.9
	20	0.35
	30	0.094
	40	0.16
	50	<0.04
	60	0.3
	70	<0.04
	80	0.068
	90	0.64
WB-SB06	10	130
	20	53
	30	21
	40	34
	50	51
	60	84
	70	98
	80	85
	90	93
	99	61
	125	35
	150	8.9
	175	32
WB-SB07	10	4.8
	20	92
	30	41
	40	39
	50	7.1
	60	24
	70	13
	80	2.2
	90	0.065
	100	2
	125	0.52
	150	1.5 J
	175	0.7
WB-SB08	10	<0.04
	20	0.67
	30	0.053
	40	<0.04
	50	<0.04
	60	<0.04
	70	<0.04
	80	0.047
	90	<0.04
	100	<0.04
	125	<0.04
	150	<0.04
	175	<0.04

Location	Depth (ft)	Perchlorate (mg/kg)
WB-SB09	10	<0.04
	20	0.049
	30	<0.04
	40	0.3
	50	0.36
	60	<0.04
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
WB-SB10	10	<0.04
	20	0.068
	30	0.87
	40	1.8
	50	1.3
	60	0.45
	70	2
	80	2
	90	2.1
	100	4.2
WB-SB11	10	0.081
	20	0.061
	30	0.34
	40	4.3
	50	9.4
	60	15
	70	40
	80	32
	90	13
	100	0.64
WB-SB12	10	<0.04
	20	0.42
	30	0.67
	40	0.78
	50	<0.04
	60	<0.04
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
	125	<0.04
	150	<0.04
	175	<0.04

Legend

- Waterbore Soil Data
- D-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road
- Inferred Perchlorate Contour of 16 mg/kg GPL

mg/kg = milligram per kilogram

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

UJ = The listed laboratory detection limit is considered an estimate

Note: Soil Boring WB-SB13 through WB-SB15 were not analyzed for perchlorate

N

0 60 120

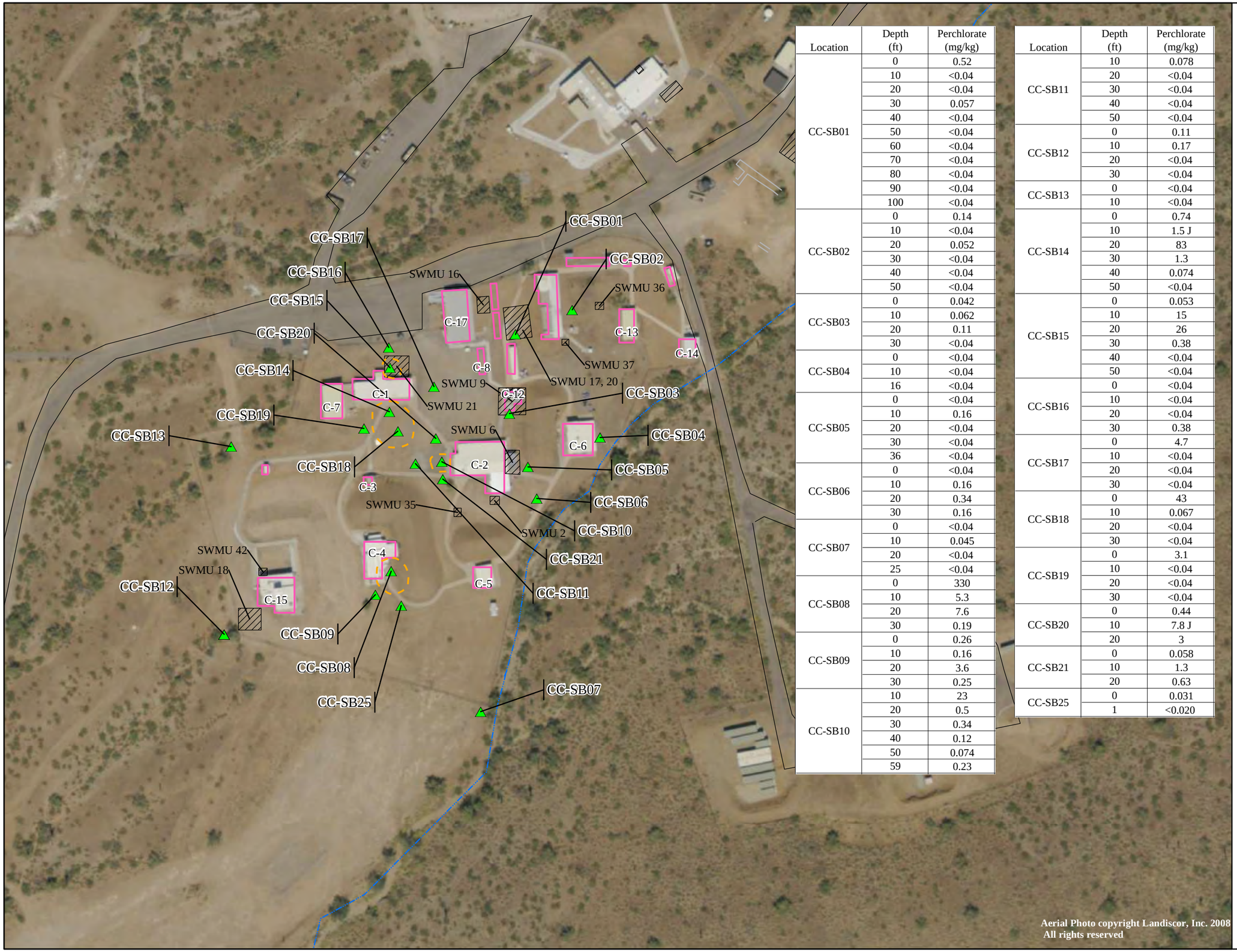
Feet

ARCADIS

Waterbore Area
Perchlorate Concentration in Soil
Above Remedial Goal
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 49**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 49 WB Perchlorate Concentration in Soil Above Remedial Goal.mxd



Location	Depth (ft)	Perchlorate (mg/kg)
CC-SB01	0	0.52
	10	<0.04
	20	<0.04
	30	0.057
	40	<0.04
	50	<0.04
	60	<0.04
	70	<0.04
	80	<0.04
	90	<0.04
	100	<0.04
CC-SB02	0	0.14
	10	<0.04
	20	0.052
	30	<0.04
	40	<0.04
	50	<0.04
CC-SB03	0	0.042
	10	0.062
	20	0.11
	30	<0.04
CC-SB04	0	<0.04
	10	<0.04
	16	<0.04
CC-SB05	0	<0.04
	10	0.16
	20	<0.04
	30	<0.04
	36	<0.04
CC-SB06	0	<0.04
	10	0.16
	20	0.34
	30	0.16
CC-SB07	0	<0.04
	10	0.045
	20	<0.04
	25	<0.04
CC-SB08	0	330
	10	5.3
	20	7.6
	30	0.19
CC-SB09	0	0.26
	10	0.16
	20	3.6
	30	0.25
CC-SB10	10	23
	20	0.5
	30	0.34
	40	0.12
	50	0.074
	59	0.23

Location	Depth (ft)	Perchlorate (mg/kg)
CC-SB11	10	0.078
	20	<0.04
	30	<0.04
	40	<0.04
	50	<0.04
CC-SB12	0	0.11
	10	0.17
	20	<0.04
	30	<0.04
CC-SB13	0	<0.04
	10	<0.04
CC-SB14	0	0.74
	10	1.5 J
	20	83
	30	1.3
	40	0.074
	50	<0.04
CC-SB15	0	0.053
	10	15
	20	26
	30	0.38
	40	<0.04
	50	<0.04
CC-SB16	0	<0.04
	10	<0.04
	20	<0.04
	30	0.38
CC-SB17	0	4.7
	10	<0.04
	20	<0.04
	30	<0.04
CC-SB18	0	43
	10	0.067
	20	<0.04
	30	<0.04
CC-SB19	0	3.1
	10	<0.04
	20	<0.04
	30	<0.04
CC-SB20	0	0.44
	10	7.8 J
	20	3
CC-SB21	0	0.058
	10	1.3
	20	0.63
CC-SB25	0	0.031
	1	<0.020

Legend

- C-Complex Soil Data
- C-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road
- SWMUs
- Inferred Perchlorate Contour of 16 mg/kg GPL

mg/kg = milligram per kilogram

< = Analyte not reported above the listed laboratory detection limit

J = Analyte was positively identified; however, the result should be considered an estimate

ft = feet below ground surface

SWMUs = Solid Waste Management Units

N

0 50 100 150 200

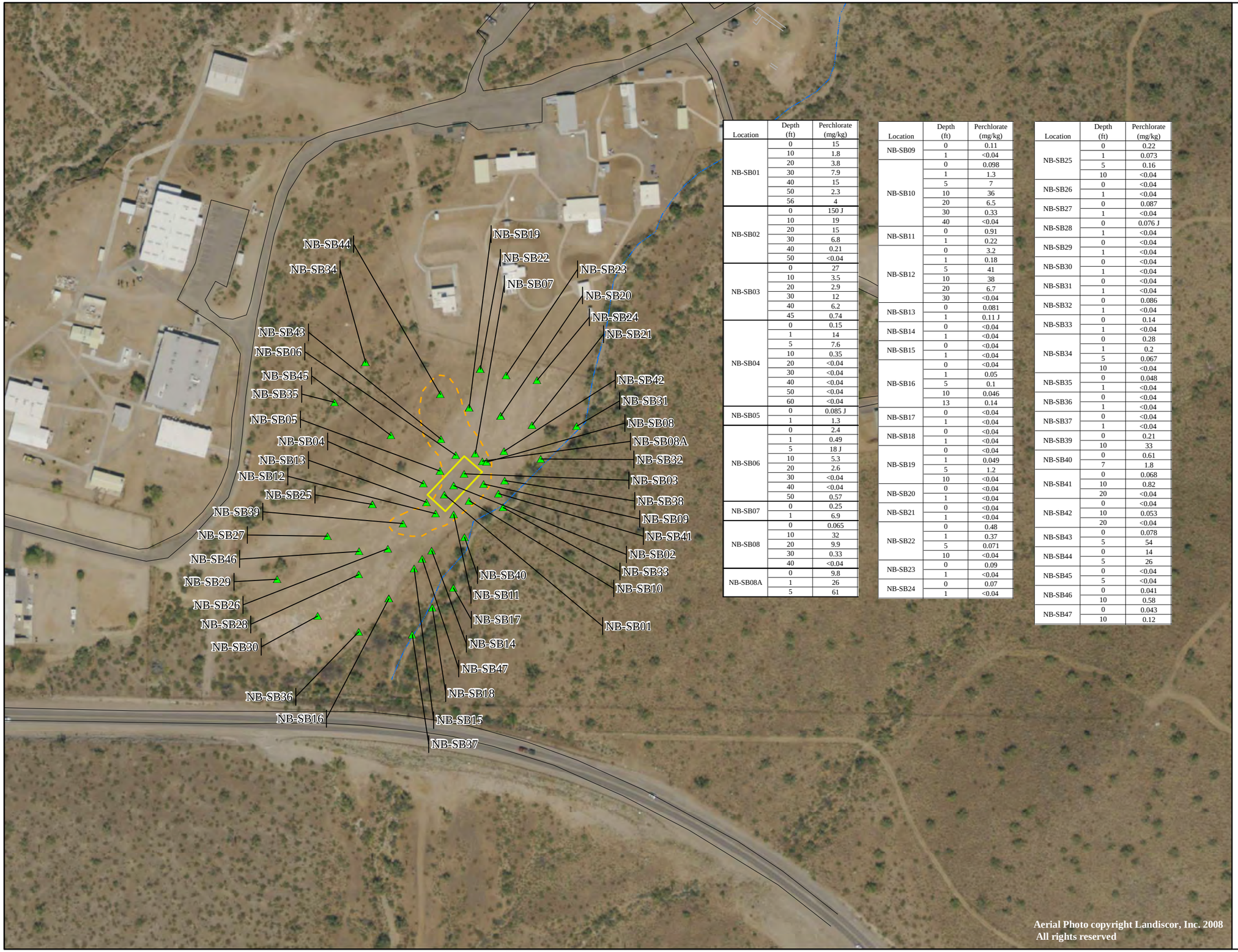
Feet

ARCADIS

C-Complex
Perchlorate Concentration in Soil
Above Remedial Goal
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 50**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 50 C-Complex Perchlorate Concentration in Soil Above Remedial Goal.mxd



Location	Depth (ft)	Perchlorate (mg/kg)
NB-SB01	0	15
	10	1.8
	20	3.8
	30	7.9
	40	15
	50	2.3
	56	4
NB-SB02	0	150 J
	10	19
	20	15
	30	6.8
	40	0.21
	50	<0.04
NB-SB03	0	27
	10	3.5
	20	2.9
	30	12
	40	6.2
	45	0.74
NB-SB04	0	0.15
	1	14
	5	7.6
	10	0.35
	20	<0.04
	30	<0.04
	40	<0.04
	50	<0.04
	60	<0.04
NB-SB05	0	0.085 J
	1	1.3
NB-SB06	0	2.4
	1	0.49
	5	18 J
	10	5.3
	20	2.6
	30	<0.04
	40	<0.04
	50	0.57
NB-SB07	0	0.25
	1	6.9
NB-SB08	0	0.065
	10	32
	20	9.9
	30	0.33
	40	<0.04
NB-SB08A	0	9.8
	1	26
	5	61

Location	Depth (ft)	Perchlorate (mg/kg)
NB-SB09	0	0.11
	1	<0.04
NB-SB10	0	0.098
	1	1.3
	5	7
	10	36
	20	6.5
	30	0.33
	40	<0.04
NB-SB11	0	0.91
	1	0.22
NB-SB12	0	3.2
	1	0.18
	5	41
	10	38
	20	6.7
	30	<0.04
NB-SB13	0	0.081
	1	0.11 J
NB-SB14	0	<0.04
	1	<0.04
NB-SB15	0	<0.04
	1	<0.04
NB-SB16	0	<0.04
	1	0.05
	5	0.1
	10	0.046
	13	0.14
NB-SB17	0	<0.04
	1	<0.04
NB-SB18	0	<0.04
	1	<0.04
NB-SB19	0	<0.04
	1	0.049
	5	1.2
	10	<0.04
NB-SB20	0	<0.04
	1	<0.04
NB-SB21	0	<0.04
	1	<0.04
NB-SB22	0	0.48
	1	0.37
	5	0.071
	10	<0.04
NB-SB23	0	0.09
	1	<0.04
NB-SB24	0	0.07
	1	<0.04

Location	Depth (ft)	Perchlorate (mg/kg)
NB-SB25	0	0.22
	1	0.073
	5	0.16
	10	<0.04
NB-SB26	0	<0.04
	1	<0.04
NB-SB27	0	0.087
	1	<0.04
NB-SB28	0	0.076 J
	1	<0.04
NB-SB29	0	<0.04
	1	<0.04
NB-SB30	0	<0.04
	1	<0.04
NB-SB31	0	<0.04
	1	<0.04
NB-SB32	0	0.086
	1	<0.04
NB-SB33	0	0.14
	1	<0.04
NB-SB34	0	0.28
	1	0.2
	5	0.067
	10	<0.04
NB-SB35	0	0.048
	1	<0.04
NB-SB36	0	<0.04
	1	<0.04
NB-SB37	0	<0.04
	1	<0.04
NB-SB39	0	0.21
	10	33
NB-SB40	0	0.61
	7	1.8
NB-SB41	0	0.068
	10	0.82
	20	<0.04
NB-SB42	0	<0.04
	10	0.053
	20	<0.04
NB-SB43	0	0.078
	5	54
NB-SB44	0	14
	5	26
NB-SB45	0	<0.04
	5	<0.04
NB-SB46	0	0.041
	10	0.58
NB-SB47	0	0.043
	10	0.12

Legend

- New Burn Soil Data
- Building
- Former Open Burn Unit
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road
- Inferred Perchlorate Contour of 16 mg/kg GPL

mg/kg = milligram per kilogram

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

Note: Soil samples collected at NB-SB38 were not analyzed for perchlorate

N

0 50 100 150 200

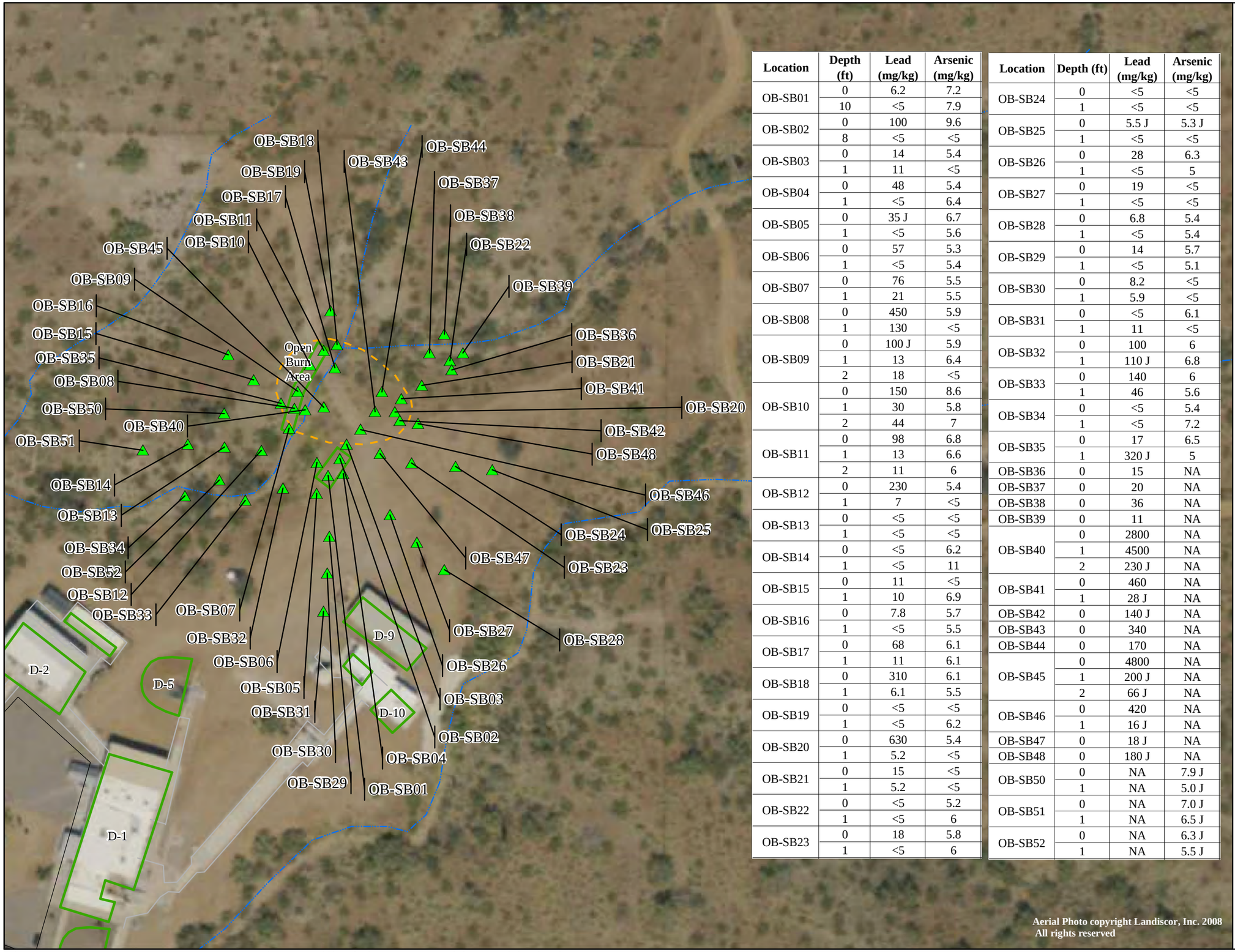
Feet

ARCADIS

New Burn Area
Perchlorate Concentration in Soil
Above Remedial Goal
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 51**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_FinalFigure 51 Perchlorate Concentration in Soil Above Remedial Goal.mxd



Location	Depth (ft)	Lead (mg/kg)	Arsenic (mg/kg)
OB-SB01	0	6.2	7.2
	10	<5	7.9
OB-SB02	0	100	9.6
	8	<5	<5
OB-SB03	0	14	5.4
	1	11	<5
OB-SB04	0	48	5.4
	1	<5	6.4
OB-SB05	0	35 J	6.7
	1	<5	5.6
OB-SB06	0	57	5.3
	1	<5	5.4
OB-SB07	0	76	5.5
	1	21	5.5
OB-SB08	0	450	5.9
	1	130	<5
OB-SB09	0	100 J	5.9
	1	13	6.4
	2	18	<5
OB-SB10	0	150	8.6
	1	30	5.8
	2	44	7
OB-SB11	0	98	6.8
	1	13	6.6
	2	11	6
OB-SB12	0	230	5.4
	1	7	<5
OB-SB13	0	<5	<5
	1	<5	<5
OB-SB14	0	<5	6.2
	1	<5	11
OB-SB15	0	11	<5
	1	10	6.9
OB-SB16	0	7.8	5.7
	1	<5	5.5
OB-SB17	0	68	6.1
	1	11	6.1
OB-SB18	0	310	6.1
	1	6.1	5.5
OB-SB19	0	<5	<5
	1	<5	6.2
OB-SB20	0	630	5.4
	1	5.2	<5
OB-SB21	0	15	<5
	1	5.2	<5
OB-SB22	0	<5	5.2
	1	<5	6
OB-SB23	0	18	5.8
	1	<5	6

Location	Depth (ft)	Lead (mg/kg)	Arsenic (mg/kg)
OB-SB24	0	<5	<5
	1	<5	<5
OB-SB25	0	5.5 J	5.3 J
	1	<5	<5
OB-SB26	0	28	6.3
	1	<5	5
OB-SB27	0	19	<5
	1	<5	<5
OB-SB28	0	6.8	5.4
	1	<5	5.4
OB-SB29	0	14	5.7
	1	<5	5.1
OB-SB30	0	8.2	<5
	1	5.9	<5
OB-SB31	0	<5	6.1
	1	11	<5
OB-SB32	0	100	6
	1	110 J	6.8
OB-SB33	0	140	6
	1	46	5.6
OB-SB34	0	<5	5.4
	1	<5	7.2
OB-SB35	0	17	6.5
	1	320 J	5
OB-SB36	0	15	NA
OB-SB37	0	20	NA
OB-SB38	0	36	NA
OB-SB39	0	11	NA
OB-SB40	0	2800	NA
	1	4500	NA
	2	230 J	NA
OB-SB41	0	460	NA
	1	28 J	NA
OB-SB42	0	140 J	NA
OB-SB43	0	340	NA
OB-SB44	0	170	NA
OB-SB45	0	4800	NA
	1	200 J	NA
	2	66 J	NA
OB-SB46	0	420	NA
	1	16 J	NA
OB-SB47	0	18 J	NA
OB-SB48	0	180 J	NA
OB-SB50	0	NA	7.9 J
	1	NA	5.0 J
OB-SB51	0	NA	7.0 J
	1	NA	6.5 J
OB-SB52	0	NA	6.3 J
	1	NA	5.5 J

Legend

- Old Burn Area Soil Data
- D-Complex Site Facilities
- Sidewalk or Paved Area
- Ephemeral Wash
- Paved Road
- Inferred Lead Contour of 290 mg/kg GPL

mg/kg = milligram per kilogram

< = Analyte not reported above the listed laboratory detection limit

ft = feet below ground surface

J = Analyte was positively identified; however, the result should be considered an estimate

N

0 60 120

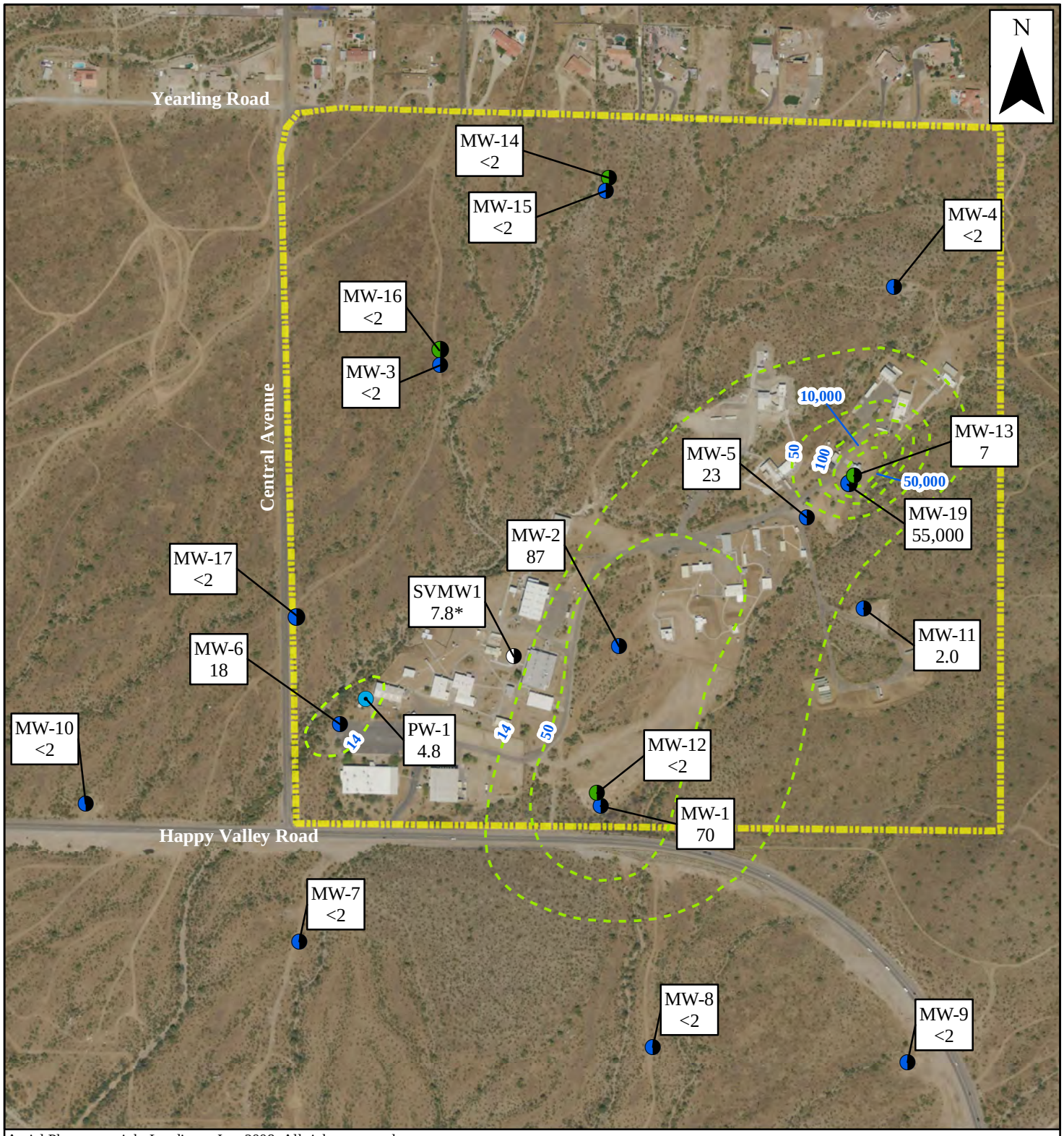
Feet

ARCADIS

Old Burn Area
Lead Concentration in Soil
Above Remedial Goal
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 52**

\\phoenix\Projects\3994003\GIS\Projects_MXD\RI_Report_Final\Figure 52 Old burn lead concentration in soil above remedial goal.mxd



Legend

- Deep Well
- Monitor Well
- Production Well
- Soil Vapor Well
- Lease Property Boundary
- Inferred Perchlorate Contours

MW-1 Well ID
70 Perchlorate Concentration (µg/L)
* Shallow Groundwater Grab Sample

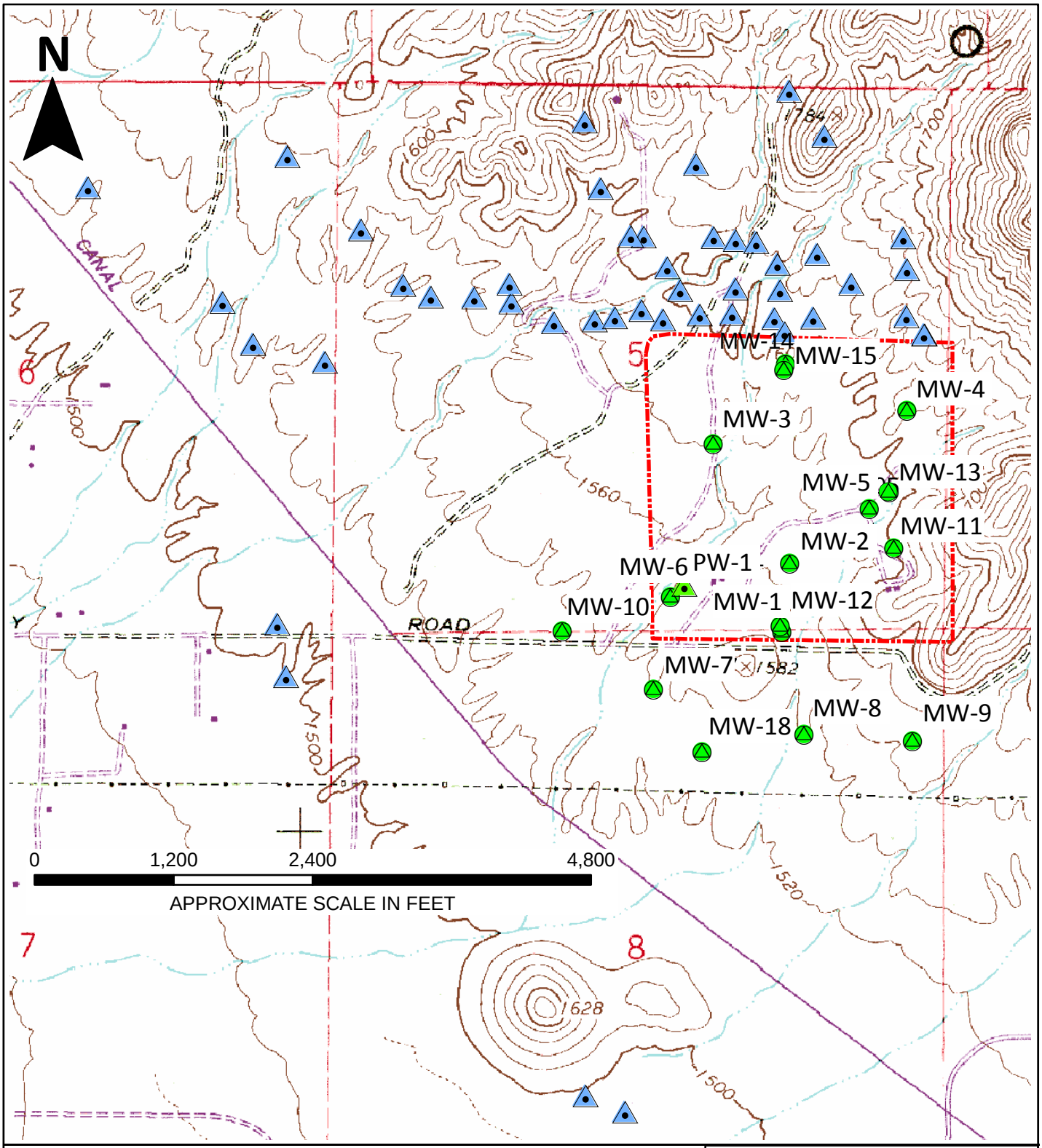
0 250 500
Feet

ARCADIS

Perchlorate Concentration in Groundwater Above Remediation Goal
Final Remedial Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 53**

M:\3994003\GIS\Projects_MXD\Revised_RI_summary_report\Figure 52 Perchlorate Concentration Contour in GW.mxd



LEGEND

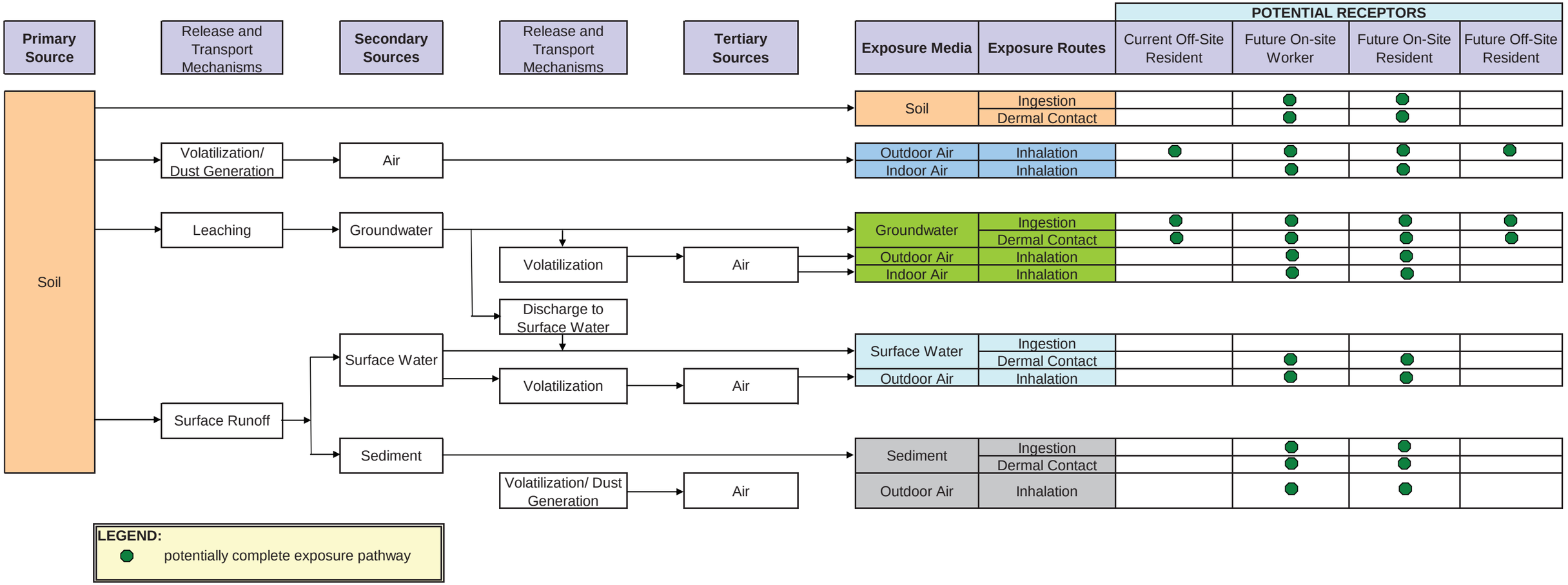
- SITE BOUNDARY
- MONITORING WELL
- SITE PUMPING WELL
- OFF-SITE PUMPING WELL (ADJACENT TO SITE)

ARCADIS

Groundwater Monitoring and Pumping Wells

Final Remedial Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 54**



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Risk Assessment Model
Final Remedial
Investigation Report
Universal Propulsion Company, Inc.

June 2011 | **Figure 55**