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REMEDIAL INVESTIGATION AND FEASIBILITY STUDY REPORT

FORMER QUALEX PHOTOFINISHING FACILITY
21249 72ND AVENUE SOUTH
KENT, WASHINGTON

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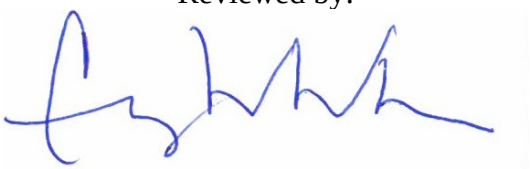

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ACRONYMS AND ABBREVIATIONS

ARARs	applicable, relevant, and appropriate requirements
bgs	below ground surface
Circle K property	property at 21208 68th Avenue South in Kent, Washington
COCs	constituents of concern
COPCs	constituents of potential concern
DO	dissolved oxygen
DRO	total petroleum hydrocarbons as diesel-range organics
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
Farallon	Farallon Consulting, L.L.C.
FS	Feasibility Study
Geologica	Geologica, Inc.
GRO	total petroleum hydrocarbons as gasoline-range organics
mg/kg	milligrams per kilogram
µg/l	micrograms per liter
MTCA	Washington State Model Toxics Control Act Cleanup Regulation
ORO	total petroleum hydrocarbons as oil-range organics
Property	former Qualex Photofinishing Facility at 21249 72nd Avenue South in Kent, Washington
redox	reduction-oxidation reaction
RI	Remedial Investigation
RI/FS Report	*Remedial Investigation and Feasibility Study Report, Former Qualex Photofinishing Facility, 21249 72nd Avenue South, Kent, Washington* dated May 5, 2017, prepared by Farallon (this report)
Site	the area on the property at 21249 72nd Avenue South in Kent, Washington (Property) where hazardous substances have come to be located as a result of the release of hazardous substances at the Property
Striker Property	Boeing Striker South property at 21249 72nd Avenue South in Kent, Washington
TEE	Terrestrial Ecological Evaluation

TPH	total petroleum hydrocarbons
USGS	U.S. Geologic Survey
VCP	Voluntary Cleanup Program
VOCs	volatile organic compounds
WAC	Washington Administrative Code

1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Remedial Investigation (RI) and Feasibility Study (FS) Report (RI/FS Report) on behalf of Prologis Inc. (Prologis) for the former Qualex Photofinishing Facility at 21249 72nd Avenue South in Kent, Washington (herein referred to as the Property) (Figure 1). The Site, as referred to herein, is defined as the area on the Property where hazardous substances have come to be located as a result of the release of hazardous substances at the Property. A Site plan is provided on Figure 2. This RI/FS Report was prepared in accordance with the Washington State Model Toxics Control Act Cleanup Regulation (MTCA), as established in Chapter 173-340 of the Washington Administrative Code (WAC 173-340). The Site is currently enrolled in the Washington State Department of Ecology (Ecology) Voluntary Cleanup Program (VCP) with Identification No. NW3088.

On behalf of Prologis, Farallon submitted the VCP application for the Site in a letter regarding Voluntary Cleanup Program Application and Request for No Further Action Determination, Former Qualex Photofinishing Facility, 21249 72nd Avenue South, Kent, Washington dated August 29, 2016, from Messrs. Mark Havighorst and Scott Allin of Farallon to VCP Coordinator, Washington State Department of Ecology (Farallon 2016b) (VCP application letter). The VCP application letter included a letter regarding Groundwater Monitoring Results, Former Qualex Photofinishing Facility, 21249 72nd Avenue South, Kent, Washington dated July 26, 2016, from Messrs. Mark Havighorst and Scott Allin of Farallon to Ms. Janet Frentzel of Prologis (Farallon 2016a) (Groundwater Monitoring Letter), and requested a No Further Action (NFA) determination for the Site.

In response to the VCP application letter, Ecology issued the letter regarding Request for Additional Information to Provide Opinion on the Investigation under VCP for the following Contaminated Site: Qualex Photofinishing dated March 2, 2017 from Ms. Sonia Fernández of Ecology to Ms. Janet Frentzel of Prologis (Ecology 2017a). The March 2, 2017 Ecology letter indicated that the Groundwater Monitoring Letter did not fulfill the requirements for RI reporting, and included an RI Checklist that described specific information that must be provided to request an opinion from Ecology for the Site. This RI/FS Report was prepared for submittal to Ecology to satisfy the requirements for RI/FS reporting under the VCP, and to provide specific information requested by Ecology in the RI Checklist.

The results from the RI indicate that the source of petroleum hydrocarbon impacts to soil and groundwater at the Site was releases from a below-grade wastewater trap tank sump. The trap tank sump and soil with concentrations of constituents of potential concern (COPCs) exceeding relevant MTCA Method A or B cleanup levels was removed in 2006. Petroleum hydrocarbons have not been detected at concentrations exceeding MTCA cleanup levels in groundwater samples collected at the Site, with the exception of total petroleum hydrocarbons (TPH) as oil-range organics (ORO) in one groundwater sample collected in March 2003. Concentrations of COPCs, including arsenic, manganese, and selenium in groundwater, have been detected at concentrations exceeding MTCA cleanup levels.

An Ecology (2005a) Opinion Letter (2005 Opinion Letter) dated May 10, 2005 indicated that an NFA determination for the Site could not be issued until dissolved arsenic in groundwater caused by the TPH release and resulting changes in Site geochemistry due to natural attenuation of TPH were addressed. Through the RI process, Farallon determined that concentrations of dissolved arsenic in Site groundwater are within the range of regional background levels, which exceed the MTCA Method A cleanup level. In addition, Farallon determined that if natural attenuation of TPH is occurring at the Site, its effects on Site geochemistry are insignificant and have not resulted in elevated dissolved arsenic in Site groundwater at concentrations exceeding regional background levels. Because the regional background levels exceed the MTCA Method A cleanup level, it is unlikely that dissolved arsenic concentrations in Site groundwater will decrease to less than the MTCA Method A cleanup level. Based on these Site conditions and through the FS process, Farallon identified a preferred cleanup alternative for Site groundwater.

1.1 OBJECTIVE

The objective of an RI is to collect and evaluate sufficient information to support the development and evaluation of technically feasible cleanup alternatives in accordance with WAC 173-340-360 through 173-340-390. The RI conducted by Farallon and summarized in this RI/FS Report provided sufficient data for use in evaluating potentially feasible cleanup alternatives.

The purpose of an FS is to develop and evaluate cleanup alternatives in accordance with WAC 173-340-350(8). The results from the FS conducted by Farallon and summarized in this RI/FS Report enable identification of a preferred cleanup alternative for the Site. The preferred cleanup alternative will protect human health and the environment, and constitutes a final and permanent remedy with the objective of meeting MTCA requirements for an NFA determination.

1.2 REPORT ORGANIZATION

This RI/FS Report summarizes the results of the prior investigations, cleanup activities, and groundwater monitoring completed at the Site by others, and presents the results of groundwater monitoring activities conducted by Farallon. The report is organized into the following sections:

- **Section 2,** Background, presents relevant background information pertaining to the Property, including a description of its location and features, and a summary of current and historical uses of the Property and surrounding area.
- **Section 3,** Remedial Investigation, summarizes the subsurface investigations that together constitute the RI, presents the analytical results of soil and groundwater samples collected at the Property, describes the local geology and hydrogeology, defines the nature and extent of contamination at the Site, identifies the known or suspected sources of contamination at the Site, presents a conceptual site model for the Site, and presents cleanup standards for the Site.
- **Section 4,** Feasibility Study, identifies viable cleanup alternatives for the Site; discusses applicable, relevant, and appropriate requirements (ARARs) for the cleanup alternatives; evaluates the identified cleanup alternatives; and identifies a preferred cleanup alternative

that would provide the highest degree of permanence to the maximum extent practicable, and would constitute the final remedy for the Site.

- **Section 5,** Summary and Conclusions, summarizes general conclusions of the RI and the FS.
- **Section 6,** References, provides a list of the source materials used in preparing this RI/FS Report.
- **Section 7,** Limitations, provides the limitations associated with this RI/FS Report.

2.0 BACKGROUND

This section presents relevant background information pertaining to the Property, including a description of its location and features, and a summary of current and historical uses of the Property and surrounding area.

2.1 PROPERTY DESCRIPTION

The Property is located Kent, Washington (Figure 1). The Property is part of King County Parcel No. 1222049013 and has a total area of 734,866 square feet (King County Tax Assessor 2017). The Property is part of O'Donnell Business Park and currently is developed as a warehouse with a paved parking lot. The intersection of 72nd Avenue South and South 212th Street is east of the Property (Figure 2).

2.2 PROPERTY HISTORY

Prior to development, the Property reportedly was open marshland and/or was used for agricultural purposes. The Property was occupied by a photograph processing facility operated by Simillian Foto from 1990 to 1992, and by Qualex from 1992 to 1999. After approximately 4 to 6 months of vacancy, the Property was leased and occupied by Eastman Kodak Company, which operated a Kodak Processing Laboratory on the Property until October 2002. Photograph processing operations performed by the Kodak Processing Laboratory included photofinishing operations (i.e., the commercial development and printing of film).

Photofinishing operations performed at the Property reportedly used both silver- and non-silver–bearing chemicals. Arsenic and selenium reportedly were not used for photofinishing or other operations, and are not included in the list of metal constituents of environmental concern for industrial wastewaters associated with photoprocessing described in the U.S. Environmental Protection Agency (EPA) document *Preliminary Data Summary for the Photoprocessing Industry* (EPA 1997).

Photofinishing operations were performed in approximately 17,500 square feet of the 40,266-square-foot warehouse. Photofinishing chemicals were gravity fed to film and paper processors through aboveground piping and hand totes. Prior to 1999, non-silver–bearing wastewater from the processors collected in sumps that were gravity fed into underground piping that discharged to the sanitary sewer. Prior to 1999, silver-bearing wastewater from the processors collected in sumps that were gravity fed into underground piping that discharged to a silver reclamation system. Effluent from the silver reclamation system was pumped to a trap tank. Effluent from the trap tank discharged to the sanitary sewer. The approximate locations of the trap tank and sanitary sewer are shown on Figure 2. The process wastewater system was upgraded in 1999. The upgrades included abandoning the underground wastewater piping system and installing aboveground wastewater piping and four pumps in sumps that were double-lined with polyethylene and set in concrete vaults.

The Property is currently occupied by NETIG, LLC and used to store materials for the manufacturing of custom copper and optical fiber cabling systems.

2.3 ENVIRONMENTAL SETTING

This section provides a summary of the environmental setting of the Property. The information presented here has been obtained from national, state, and local records, including national census statistics.

2.3.1 Land Use and Demographics

According to King County Parcel Records, the Property is owned by Prologis Targeted US Logistics Fund LP, and the present use is for warehousing (King County Tax Assessor 2017). Land use in the vicinity of the Property is primarily a mix of commercial and industrial. The population of Kent is estimated at 126,952 (U.S. Department of Commerce 2010).

South 212th Street is north-adjacent to the Property, and 72nd Avenue South is east-adjacent to the Property. The south- and west-adjacent properties are currently occupied by warehouses.

2.3.2 Meteorology

Kent is a Seattle suburb. The climate of Kent is maritime, characterized by cool summers and mild winters influenced by ocean air. The average annual minimum temperature is 41.9 degrees Fahrenheit, and the average annual maximum temperature is 61.7 degrees Fahrenheit. The average annual precipitation in Kent is 38.36 inches, with over 3.86 inches of precipitation per month from November through March (Western Regional Climate Center 2017).

2.3.3 Topography

The Property is relatively flat, sloping slightly down toward the south. Low hills are present to the west and east of the Property. The ground surface elevation at the Property is approximately 185 feet above mean sea level (U.S. Geological Survey 1992).

2.3.4 Surface Water

The Property is approximately 1 mile east of the Green River. The nearest surface water body is an unnamed drainage ditch approximately 1,000 feet east of the Property. No wetlands are present on the Property. The Property is paved and precipitation that falls on the Property primarily is collected in catch basins at the Property.

2.3.5 Subsurface Utilities

The following utilities are known to be present in the vicinity of the Property:

- Puget Sound Energy provides electricity to the Property;
- The City of Kent provides potable water and sanitary and storm sewer services; and

- Stormwater collects in catch basins in the paved driveways and parking areas of the Property and discharges to the City of Kent municipal sewer system.

2.4 ENVIRONMENTAL CONDITIONS AT SURROUNDING PROPERTIES

Based on a review of a Phase I Environmental Site Assessment (URS 2005) performed for portions of the O'Donnell Business Park, of which the Property is part, the environmental conditions at 21208 68th Avenue South (Circle K property), west-adjacent to the Property, have the potential to impact the Property. The Circle K property operates as the Circle K No. 5492/BP No. 11054/76 No. 270 service station. The Circle K property is listed on the Ecology site registry as Facility/Site Identification No. 15543314 and is enrolled in the VCP (Identification No. NW2686). Soil and groundwater at the Circle K property have been impacted by petroleum products released from leaking underground storage tank systems at the Circle K property in 1990. Reportedly, five underground storage tanks were removed from the Circle K property in 1990, and in 1992 three groundwater monitoring wells were installed at the O'Donnell Business Park adjacent to the boundary with the Circle K property. Reportedly, petroleum hydrocarbons were not detected in groundwater samples collected from these monitoring wells in 1992. Based on the 1992 groundwater sampling results (URS 2005) and its ongoing enrollment in the VCP, there is a low potential for releases at the Circle K property to impact the Property.

2.5 REGULATORY STATUS

The Ecology Toxics Cleanup Program maintains environmental information pertaining to properties with known environmental concerns, and provides such information in a number of lists available on the Ecology (2017) website. The Cleanup Site Details report (Ecology 2017b) included on the Ecology website indicated the Property was listed as "Qualex Photo Finishing," with Cleanup Site Identification No. 332 and Facility Identification No. 598108. The Cleanup Site Details report indicated that a Site Discovery/Release Report for the Property was received by Ecology on December 23, 2003 and the Site was enrolled in the VCP. Mr. Mark Adams of the Ecology Northwest Regional Office was assigned as the Ecology Project Manager for the Site. The VCP enrollment of the Site was terminated in 2010. According to the Cleanup Site Details report, the site status is "Cleanup Started." The Site was re-enrolled in the VCP on August 31, 2016 and was assigned VCP Identification No. NW3088. According to the Cleanup Site Details report, a no Ecology Project Manager has been assigned to the Site.

3.0 REMEDIAL INVESTIGATION

This section describes the results from the RI for the Site. Multiple subsurface investigations and groundwater monitoring events have been conducted at the Site since 2003. The subsurface investigations have assessed the condition of soil and groundwater at the Site, and characterized the sources, nature, and extent of the hazardous substances under the Site. These results from the investigations together constitute the RI for the Site.

This section summarizes the subsurface investigations that together constitute the RI, presents the analytical results of soil and groundwater samples collected at the Site, describes the local geology and hydrogeology, defines the nature and extent of contamination at the Site, identifies the known or suspected sources of contamination at the Site, presents a conceptual site model for the Site, and presents cleanup standards for the Site.

3.1 PREVIOUS ENVIRONMENTAL INVESTIGATIONS AND ACTIVITIES

This section describes previous environmental investigations conducted by Farallon and Geologica, Inc. (Geologica) at the Site. These results of these investigations were previously presented to Ecology in the following documents:

- *Report, Phase II Subsurface Environmental Investigation, Former Qualex Photofinishing Facility, 21249 72nd Avenue South, Kent, Washington* dated October 2, 2003, prepared by Geologica (2003);
- *Report, Supplemental Phase II Field Investigation, Former Qualex Photofinishing Facility, 21249 72nd Avenue South, Kent, Washington* dated February 19, 2004, prepared by Geologica (2004a);
- *Report, March 2004 Quarterly Groundwater Sampling Results, Former Qualex Photofinishing Facility, VCP Site No. 59108, 21249 72nd Avenue South, Kent, Washington* dated July 2004, prepared by Geologica (2004b);
- *Report, June 2004 Quarterly Groundwater Sampling Results, VCP Site No. 598108, Former Qualex Photofinishing Facility, 21249 72nd Avenue South, Kent, Washington* dated October 29, 2004, prepared by Geologica (2004c);
- *2004 Annual Summary, Quarterly Groundwater Sampling, Former Qualex Photofinishing Facility, 21249 72nd Avenue South, Kent, Washington* dated January 5, 2005 [incorrectly dated 2004], prepared by Geologica (2005);
- *Report, Trap Tank Sump Closure, Former Qualex Photofinishing Facility, VCP Site No. 598108, 21249 72nd Avenue South, Kent, Washington* dated March 21, 2006, prepared by Geologica (2006a);
- *Report, 2006 Groundwater Sampling Results, Former Qualex Photofinishing Facility, VCP Site No. 598108, 21249 72nd Avenue South, Kent, Washington* dated August 2006, prepared by Geologica (2006b);

- *Report, Supplemental Groundwater Quality Assessment, Former Qualex Photofinishing Facility, VCP Site No. 598108, 21249 72nd Avenue South, Kent, Washington* dated March 21, 2007, prepared by Geologica (2007);
- *Report, March 2008 Groundwater Quality Assessment, Former Qualex Photofinishing Facility, VCP Site No. 598108, 21249 72nd Avenue South, Kent, Washington* dated March 2008, prepared by Geologica (2008);
- *Report, March 2009 Groundwater Quality Monitoring Results, Former Qualex Photofinishing Facility, VCP Site No. 598108 21249 72nd Avenue South, Kent, Washington* dated April 2010, prepared by Geologica (2010);
- *Report, January 2011 Groundwater Quality Monitoring Results, Former Qualex Photofinishing Facility, 22149 72nd Avenue South, Kent, Washington* dated March 2011, prepared by Geologica (2011); and
- Letter regarding Groundwater Monitoring Results, Former Qualex Photofinishing Facility, 21249 72nd Avenue South, Kent, Washington dated July 26, 2016, from Messrs. Mark Havighorst and Scott Allin to Ms. Janet Frentzel, Prologis, Inc. (Farallon 2016a) (Groundwater Monitoring Letter).

Additional information on the investigation procedures and results are provided in the referenced reports.

3.1.1 2003 Phase I Environmental Site Assessment

According to a report describing a Phase II subsurface environmental investigation (Geologica 2003), a Phase I Environmental Site Assessment (ESA) of the Property was performed by Geologica in May 2003. The Phase I ESA identified the following environmental conditions in connection with the Property:

- A leak in the effluent piping from the silver reclamation system near the trap tank. The leak was repaired in February 2000. Observations during the piping repairs indicated that soil near the piping was saturated with wastewater. The duration of the leak was not determined.
- Staining was observed on the floor in the room that house the air compressor. Condensate from the compressor was routed into a floor drain in the compressor room. The floor drain discharged to the effluent piping from the silver reclamation system.

3.1.2 2003 Site Investigation and VCP Enrollment

A soil and groundwater investigation was performed by Geologica in March 2003 (Geologica 2003) to evaluate potential impacts related to the environmental conditions observed during the 2003 Phase I ESA conducted by Geologica. The Phase II investigation was conducted in three phases in March, July, and December 2003, and included the following:

- March 2003

- Advancing soil borings S-1 through S-3 inside the former Qualex Photofinishing Facility for the collection of soil, reconnaissance groundwater, and groundwater samples to evaluate conditions proximate to the trap tank;

- Advancing soil boring S-4 inside the former Qualex Photofinishing Facility for the collection of soil samples to evaluate conditions near the floor drain in the room that housed the air compressor; and

- Advancing boring B-1 in the parking lot adjacent to the former Qualex Photofinishing Facility for the collection of soil samples to evaluate background conditions.

- July 2003
    - Installing monitoring well MW-1 inside the former Qualex Photofinishing Facility for the collection of soil, reconnaissance groundwater, and groundwater samples to evaluate conditions proximate to the trap tank.

- December 2003
    - Installing monitoring wells MW-2 through MW-5 in the parking lot adjacent to the former Qualex Photofinishing Facility for the collection of groundwater samples to evaluate conditions up- and down-gradient from the trap tank and sewer piping.

The boring and monitoring well locations are shown on Figure 2.

Borings were advanced by direct-push methods to depths ranging from 5 to 8 feet below ground surface (bgs). Monitoring wells were installed using a hollow-stem auger drill rig and constructed with a 2-inch casing, 0.020-inch slotted screens, and a filter pack consisting of size 3.0 Colorado silica sand. Monitoring well MW-1 was constructed with a screened interval extending from 4 to 14 feet bgs; monitoring wells MW-2 through MW-5 were constructed with a screened interval extending from 8 to 15 feet bgs.

Geologica did not prepare boring logs for borings S-1 through S-4 and B-1.

Monitoring well construction logs are included in Appendix A. During soil boring advancement and monitoring well construction, soil was identified as silty-sand and sandy-silt to a depth of 15 feet bgs. The depth to groundwater in the borings was not reported.

Four soil samples collected from borings S-1 through S-4 were analyzed for TPH as gasoline-range organics (GRO) and as diesel-range organics (DRO), ORO, volatile organic compounds (VOCs), priority pollutant metals[1], pH, nitrate, sulfate, and total cyanide. One background soil sample collected from boring B-1 was analyzed for priority pollutant metals, pH, nitrate, sulfate,

[1] Priority pollutant metals include antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc.

and total cyanide. A soil sample collected from the MW-1 auger cuttings was analyzed for GRO, DRO, ORO, VOCs, priority pollutant metals, pH, nitrate, sulfate, and total cyanide.

VOCs were not detected in the soil samples. GRO, DRO, ORO, and priority pollutant metals were not detected at concentrations exceeding MTCA cleanup levels in the soil samples analyzed. GRO, DRO, and ORO analytical data for soil samples are presented in Table 1. Metals analytical data for soil samples are presented in Table 2. Laboratory reports for soil samples are included in Appendix B.

A reconnaissance groundwater sample collected from a temporary monitoring well installed in boring S-3 was analyzed for GRO, DRO, ORO, VOCs, priority pollutant metals, pH, nitrate, sulfate, and total cyanide. A groundwater sample collected from monitoring well MW-1 was analyzed for GRO, DRO, ORO, VOCs, dissolved priority pollutant metals, pH, nitrate, sulfate, iron, manganese, and total cyanide. The groundwater samples collected from monitoring wells MW-2 through MW-5 were analyzed for GRO, DRO, and dissolved arsenic, iron, manganese, and selenium.

VOCs were not detected in the reconnaissance groundwater sample collected from boring S-3 or in the groundwater sample collected from monitoring well MW-1.

DRO and ORO were detected in the reconnaissance groundwater sample collected from boring S-3 at concentrations of 0.58 micrograms per liter (µg/l) and 0.42 µg/l, which are less than the MTCA Method A cleanup level of 500 µg/l.

Arsenic was detected in the reconnaissance groundwater sample collected from boring S-3 at a concentration of 97 µg/l[2] and in groundwater samples collected from monitoring wells MW-1 and MW-2 at concentrations ranging from 11 to 21 µg/l, which exceed the MTCA Method A cleanup level of 5 µg/l.

Selenium was detected at a concentration of 170 µg/l in the reconnaissance groundwater sample collected from boring S-3, which exceeds the MTCA Method A cleanup level of 80 µg/l.

No other metals were detected at concentrations exceeding MTCA cleanup levels in the reconnaissance groundwater and groundwater samples analyzed.

GRO, DRO, ORO, and metals analytical data for reconnaissance groundwater and groundwater samples are presented in Table 3. Laboratory reports for groundwater and reconnaissance groundwater samples are included in Appendix B.

The Site subsequently was enrolled in the VCP, and was assigned VCP Identification No. NW1202.

[2] Metals concentrations in reconnaissance groundwater samples may be elevated and higher than actual dissolved metals concentrations in groundwater due to turbidity.

3.1.3 2003 through 2006 Groundwater Monitoring

Geologica performed quarterly groundwater monitoring at the Site from December 2003 through March 2005 and on February 8, 2006 (Geologica 2004b, 2004c, 2005, 2006b, 2007). Monitoring activities included measuring the depth to groundwater and collecting samples from groundwater monitoring wells MW-1 through MW-5.

The depth to groundwater during these quarterly monitoring events ranged from 4.49 to 10.77 feet bgs, and groundwater flow was to the southeast. The depth to groundwater in monitoring well MW-1, which was installed proximate to the trap tank sump, ranged from 8.97 to 10.77 feet bgs. Groundwater elevation data are summarized in Table 4.

Groundwater samples collected from monitoring wells were screened for field parameters, including pH, dissolved oxygen (DO), and ORP, and submitted for laboratory analysis for DRO; ORO; dissolved metals, including arsenic, iron, manganese, and selenium; and inorganic parameters, including nitrate, sulfate, and total alkalinity.

DRO, ORO, and metals were detected at concentrations exceeding MTCA cleanup levels in groundwater samples collected during the December 2003 through February 2006 monitoring events in the following instances:

- ORO was detected at a concentration of 530 µg/l in the groundwater sample collected from monitoring well MW-1, located near the former trap tank, in March 2004, which exceeds the MTCA Method A cleanup level of 500 µg/l;
- Arsenic was detected at concentrations ranging from 6 to 51.6 µg/l in the five monitoring wells sampled, which exceed the MTCA Method A cleanup level of 5 µg/l;
- Manganese was detected at concentrations of up to 7,260 µg/l in monitoring wells MW-2 through MW-4which exceeds the MTCA Method A cleanup level of 2,240 µg/l; and
- Selenium was detected at a concentration of 83.1 µg/l in monitoring well MW-1 during the February 8, 2006 monitoring event, which exceeds the MTCA Method A cleanup level of 80 µg/l.

Analytical data for reconnaissance groundwater and groundwater samples are presented in Table 3. Laboratory reports for groundwater and reconnaissance groundwater samples are included in Appendix B.

Monitoring reports prepared by Geologica (2004a, 2004b, 2005) attributed the arsenic concentrations in groundwater to geochemical conditions stimulated by biodegradation of TPH, based on low field measurements of reduction-oxidation reaction (redox) conditions as ORP and DO, and high concentrations of iron and manganese in groundwater. However, the monitoring events did not evaluate naturally occurring (background) concentrations of metals in regional groundwater that could be affecting Site conditions.

3.1.4 May 10, 2005 Ecology Opinion Letter

Ecology (2005a) issued an Opinion Letter for the Site based on a review of results of environmental investigation and groundwater monitoring activities performed at the Site from 2003 through March 2004. In this Opinion Letter, Ecology indicated that because the dissolved arsenic concentrations were caused by the petroleum release and resulting geochemical conditions, an NFA determination for the Site could not be issued until dissolved arsenic concentrations in groundwater were addressed. Ecology (2005a) further indicated that dissolved arsenic concentrations in groundwater were anticipated to decrease to less than MTCA Method A cleanup levels as TPH in groundwater naturally attenuated, and recommended additional groundwater monitoring to further demonstrate attenuation of TPH and arsenic.

3.1.5 2006 Trap Tank Removal

In February 2006, Geologica reportedly directed removal of the below-grade trap tank sump (Geologica 2006). The trap tank sump was exposed by saw cutting an approximately 5-foot by 5-foot hole in the concrete floor of the Property building. The trap tank sump reportedly was constructed of fiber-reinforced ABS plastic, measured approximately 30 inches in diameter, and was equipped with one 4-inch-diameter influent pipe running from the north and one 4-inch-diameter effluent pipe running to the south. The trap tank sump reportedly was found to be intact.

Approximately 10 gallons of sediment was removed from the trap tank sump. A sample collected from the sediment was analyzed for GRO, DRO, ORO, and priority pollutant metals. GRO was not detected in the sediment sample. DRO and ORO were detected at concentrations exceeding the MTCA cleanup levels for soil in the sediment sample. Priority pollutant metals were not detected at concentrations exceeding MTCA cleanup levels for soil in the sump sediment sample. GRO, DRO, and ORO analytical data for the sediment sample are presented in Table 1. Priority pollutant metals analytical data for the sediment sample are presented in Table 2. Laboratory reports for the sediment sample are included in Appendix B.

The trap tank sump was broken up and removed using a small excavator, soil in proximity to the former location of the trap tank sump was excavated, and the influent and effluent piping remaining in the ground was plugged. Excavation was completed to a depth of approximately 5 feet bgs, which was approximately 1 foot below the bottom of the sump. Groundwater was reportedly not encountered in the excavation. The approximate excavation extents are shown on Figure 2.

Geologica collected one composite sample consisting of seven grab samples from each sidewall and the bottom of the excavation, and one composite sample from a stockpile consisting of the excavated soil and trap tank sump sediment. The composite and stockpile samples were analyzed for DRO, ORO, arsenic, lead, selenium, silver, and total cyanide. The stockpile composite sample was also analyzed for GRO, barium, cadmium, and mercury.

DRO, ORO, and selenium were not detected in the excavation composite sample. Chromium and lead were not detected at concentrations exceeding MTCA cleanup levels. Arsenic and silver were detected in the excavation composite sample collected from the north sidewall at concentrations of 8.64 and 48.2 milligrams per kilogram (mg/kg), respectively, which exceed the MTCA cleanup

levels of soil protective of vadose zone groundwater of 2.92 and 13.6 mg/kg, respectively. However, the north sidewall composite sample was collected from 0 to 5 feet bgs, which is approximately 4 feet above the depth to groundwater measured in monitoring well MW-1 on February 8, 2006; therefore, the MTCA cleanup levels for soil protective of vadose zone groundwater are not relevant for this sample. Other metals were not detected at concentrations exceeding MTCA cleanup levels in the excavation composite sample.

GRO, DRO, ORO, and selenium were not detected in the stockpile composite sample. Arsenic, barium, chromium, lead, and mercury were not detected at concentrations exceeding MTCA cleanup levels. Silver was detected in the stockpile composite sample at a concentration of 43.2 mg/kg, which exceeds the MTCA cleanup levels of soil protective of vadose zone groundwater of 13.6 mg/kg. However, the stockpile was composed of soil excavated from 0 to 5 feet bgs, and is not representative of soil left in the vadose zone; therefore, the MTCA cleanup levels for soil protective of vadose zone groundwater are not relevant for this sample.

GRO, DRO, and ORO analytical data for the excavation and stockpile samples are presented in Table 1. Metals analytical data for the excavation and stockpile composite samples are presented in Table 2. Laboratory reports for the excavation and stockpile samples are included in Appendix B.

The trap tank sediment, approximately 9 tons of concrete, and excavated soil were reportedly transported to Roosevelt Regional Landfill in Klickitat County, Washington for disposal. The trap tank influent and effluent piping were connected, the trap tank sump excavation was backfilled, and the concrete surface treatments were restored.

3.1.6 2006 Supplemental Groundwater Investigation

Geologica performed a supplemental groundwater investigation in December 2006 (Geologica 2007) to evaluate groundwater conditions at the Site after removal of the trap tank sump. The investigation included the following:

- Advancing soil borings GP-1 through GP-3 in the parking lot west of the former Qualex Photofinishing Facility for the collection of reconnaissance groundwater samples in the apparently hydrogeologically up-gradient direction of the trap tank; and
- Measuring the depth to groundwater and collecting samples from groundwater monitoring wells MW-1 through MW-5 to further evaluate groundwater conditions at the Site.

Borings were advanced by direct-push methods to a depth of 16 feet bgs. During soil boring advancement and monitoring well construction, soil was identified as sandy-clay and silty-clay with gravel in borings GP-1 and GP-2, and silty-clay and sand with gravel in boring GP-3 to a depth of 16 feet bgs. Boring logs are provided in Appendix A. The boring locations are shown on Figure 2.

Soil borings GP-1 through GP-3 were outfitted with a temporary well screened from 5 to 15 feet bgs. Groundwater was encountered at depths ranging from approximately 9 to 12 feet bgs in the

soil borings. Groundwater was encountered at depths ranging from 4.88 and 9.40 feet bgs in monitoring wells MW-1 through MW-5, and groundwater flow was to the southeast. Groundwater elevation data for the monitoring wells are summarized in Table 4.

A reconnaissance groundwater sample was collected from the temporary monitoring wells installed in borings GP-1 through GP-3, and groundwater samples were collected from monitoring wells MW-1 through MW-5 using a peristaltic pump. The samples collected from the monitoring wells were screened for field parameters, including pH, DO, and oxidation-reduction potential.

Reconnaissance groundwater and groundwater samples were submitted for laboratory analysis for GRO, DRO; ORO; and dissolved metals, including arsenic, iron, and selenium. Reconnaissance groundwater samples collected from borings GP-1 through GP-3 were also analyzed for dissolved barium, cadmium, lead, manganese, and silver; and for total chromium.

DRO and ORO were detected in the reconnaissance groundwater sample collected from boring GP-3 at concentrations of 82 µg/l and 410 µg/l, which are less than the MTCA Method A cleanup levels of 500 µg/l, respectively. DRO and ORO were not detected in reconnaissance groundwater samples collected from borings GP-1 and GP-2, or in the groundwater samples collected from monitoring wells MW-1 through MW-5.

Arsenic was detected in the groundwater samples collected from monitoring wells MW-1 and MW-3 at concentrations of 14.2 and 6 µg/l, respectively, which exceed the MTCA Method A cleanup level of 5 µg/l.

Manganese was detected in reconnaissance groundwater samples collected from borings GP-1 and GP-2 at concentrations of 2,300 and 2,860 µg/l, respectively, which exceed the MTCA Method A cleanup level of 2,240 µg/l.

GRO and other metals were not detected at concentrations exceeding MTCA cleanup levels in the reconnaissance groundwater samples analyzed.

Analytical data for reconnaissance groundwater and groundwater samples are presented in Table 3. Laboratory reports for groundwater and reconnaissance groundwater samples are included in Appendix B.

3.1.7 2008 through 2011 Groundwater Monitoring

Geologica performed additional groundwater monitoring activities at the Site in March 2008, March 2009, and January 2011 (Geologica 2011). Monitoring activities included measuring depth to groundwater in and collecting samples from groundwater monitoring wells MW-1 through MW-5.

The depth to groundwater during these quarterly monitoring events ranged from 4.32 to 9.86 feet bgs, and groundwater flow was to the south or southeast. Groundwater elevation data are summarized in Table 3.

Groundwater samples collected from monitoring wells were screened for field parameters, including pH, DO, and oxidation-reduction potential, and submitted for laboratory analysis for DRO; ORO; dissolved metals, including arsenic, iron, manganese, and selenium; and inorganic parameters, including nitrate, sulfate, and total alkalinity.

DRO and ORO were not detected at concentrations exceeding MTCA cleanup levels in groundwater samples collected during the March 2008 through January 2011 monitoring events. Metals were not detected at concentrations exceeding MTCA cleanup levels in groundwater samples collected during the March 2008 through January 2011 monitoring events, with the following exceptions:

- Arsenic was detected at concentrations ranging from 5.7 to 58 µg/l in the five monitoring wells sampled, which exceed the MTCA Method A cleanup level of 5 µg/l;
- Manganese was detected at concentrations ranging from 2,290 to 4,500 µg/l in monitoring wells MW-3 and MW-4, which exceed the MTCA Method A cleanup level of 2,240 µg/l; and
- Selenium was detected at a concentration of 116 µg/l in monitoring well MW-1 during the February 8, 2006 monitoring event, which exceeds the MTCA Method A cleanup level of 80 µg/l.

Analytical data for the groundwater samples are presented in Table 3. Laboratory reports for groundwater and reconnaissance groundwater samples are included in Appendix B.

3.1.8 2016 Groundwater Monitoring

Farallon performed groundwater monitoring activities at the Site on January 21, 2016 (Farallon 2016a) to evaluate current groundwater conditions, confirm that concentrations of DRO and ORO remained less than MTCA Method A cleanup levels, and assess the potential for natural attenuation of TPH in groundwater. Groundwater monitoring activities included the following tasks:

- Measuring the depth to groundwater in monitoring wells MW-2 through MW-5;
- Purging and sampling monitoring wells MW-2 through MW-5 using EPA low-flow sampling methods;
- Measuring water quality parameters, including pH, conductivity, ORP, DO, and turbidity, during monitoring well purging to assess groundwater stabilization; and
- Submitting the groundwater samples for laboratory analysis.

Monitoring well MW-1 is inside the Site building and was not accessible due to interior improvements underway during the sampling event. Farallon opened monitoring wells MW-2 through MW-5 to allow water levels to equilibrate with atmospheric pressure for a minimum of 15 minutes prior to obtaining groundwater level measurements to an accuracy of 0.01 foot using an electronic water-level meter. Groundwater was detected at depths ranging from 4.13 to 8.21 feet bgs, which is consistent with historical observations.

The groundwater level measurements indicate a groundwater flow direction approximately to the northeast, and an average hydraulic gradient at the Site of approximately 0.003 foot per foot. Groundwater level measurements and calculated groundwater elevations are summarized in Table 4. Figure 3 provides a groundwater elevation contour map illustrating the estimated groundwater flow direction and gradient on January 21, 2016.

Following collection of groundwater level measurements, monitoring wells MW-2 through MW-5 were purged and sampled using a bladder pump and polyethylene tubing. Purging was conducted at a flow rate ranging between 100 and 180 milliliters per minute, with the intake tubing placed a maximum of 3 feet above the bottom of each monitoring well. During purging, water quality was monitored using a Horiba water-quality meter equipped with a flow-through cell. The water quality parameters monitored and recorded during purging and sampling included temperature, pH, specific conductance, DO, and ORP. The monitoring wells were purged until the water quality parameters stabilized in accordance with the EPA *Low Stress (Low Flow) Purging and Sampling Procedure for the Collection of Ground-Water* (EPA 2006). The groundwater samples were transferred directly from the tubing into laboratory-prepared containers. The containers were placed on ice in a cooler and transported to OnSite Environmental, Inc. laboratory of Redmond, Washington under standard chain-of-custody protocols. The groundwater samples were analyzed for DRO and ORO by Northwest Method NWTPH-Dx, and for dissolved arsenic and selenium by EPA Method 200.8 ICP/MS. Analytical results included the following:

- DRO and ORO were not detected in the groundwater samples analyzed;
- Arsenic was detected at concentrations ranging from 3.9 to 27 µg/l, with concentrations in three of four samples exceeding the MTCA Method A cleanup level.; and
- Selenium was not detected at concentrations exceeding the MTCA Method B cleanup level in the groundwater samples analyzed.

The laboratory analytical results for DRO, ORO, selenium, and arsenic in groundwater samples collected from 2003 through January 2016 are summarized in Table 3. Laboratory analytical reports are provided in Appendix B.

The results of the 2016 groundwater monitoring activities were presented the Groundwater Monitoring Letter. The Groundwater Monitoring Letter also included a summary of the results of previous environmental investigations, cleanup activities, and groundwater monitoring activities; an evaluation to determine whether natural attenuation of TPH is occurring; an evaluation to determine whether natural attenuation is resulting in geochemical conditions that enhance arsenic mobility in groundwater at the Site; and the results of a review of publicly available groundwater data to determine whether the dissolved arsenic concentrations in Site groundwater are representative of naturally occurring conditions. The results of the natural attenuation evaluation and background data review are described below.

3.1.9 Natural Attenuation Evaluation

According to the Ecology *Guidance on Remediation of Petroleum-Contaminated Ground Water By Natural Attenuation* (Ecology 2005b), demonstration of natural attenuation may be completed

by evaluating primary, secondary, and optional lines of evidence. Primary and secondary lines of evidence are required to demonstrate that natural attenuation is occurring; evaluation of optional lines of evidence should be based on site-specific factors.

The most-common primary line of evidence is analytical data that demonstrate that TPH concentrations are decreasing and/or the TPH plume is shrinking. Secondary lines of evidence include evaluation of geochemical indicators that favor naturally occurring biodegradation. Optional lines of evidence may include solute transport modeling and microbiological studies.

The primary and secondary lines of evidence for natural attenuation of TPH were evaluated using groundwater monitoring data collected from 2003 through 2016, and time-series plots comparing DRO concentrations with pH, ORP, and DO in monitoring wells MW-1 through MW-5. Because ORO was detected in groundwater samples infrequently (i.e., only in samples collected during the March 3, 2004 groundwater monitoring event), ORO concentrations were not evaluated. The time-series plots are provided in Appendix C.

Primary Lines of Evidence. Concentrations of DRO detected in samples collected from source area monitoring well MW-1, up-gradient monitoring well MW-2, and down-gradient monitoring wells MW-3, MW-4, and MW-5 generally have decreased or remained consistent. However, because concentrations of DRO and ORO in groundwater historically have been relatively low (i.e., commonly below laboratory method reporting limits), concentration trend analysis is impractical. Therefore, the primary lines of evidence for natural attenuation of TPH are inconclusive.

Secondary Lines of Evidence. Geochemical indicators that may be used to evaluate natural attenuation of TPH include DO, ORP, pH, alkalinity, conductivity, temperature, nitrate, dissolved manganese, dissolved ferrous iron, and methane indicators. Of these indicators, DO, ORP, pH, dissolved manganese, and dissolved ferrous iron data were collected during groundwater monitoring activities. When TPH is released to groundwater, there is a progression from aerobic to anaerobic conditions, and a reduction in the redox potential in the groundwater system. In decreasing order of redox potential, the progression is aerobic respiration, nitrate reduction, manganese reduction, iron reduction, sulfate reduction, and methanogenesis. When natural attenuation is occurring, the most-reduced conditions (i.e., the lowest DO and the highest ORP) typically are found in the source area, and the least-reduced conditions (i.e., the highest DO and the lowest ORP) typically are found at the plume boundary. A zone of lower pH may indicate that conditions are anaerobic and biodegradation is producing organic acids. When anaerobic biodegradation is occurring, iron and manganese are reduced to their more-soluble forms, and concentrations of iron and manganese in groundwater increase. A review of historical DO, ORP, pH, dissolved ferrous iron, and dissolved manganese data with respect to natural attenuation indicates the following:

- There is no discernable correlation between DO and the distance from the source area. DO concentrations in source area monitoring well MW-1 typically have not been less than those in down-gradient monitoring wells MW-3, MW-4, or MW-5.

- There is no discernable correlation between ORP and the distance from the source area. ORP in source area monitoring well MW-1 typically has not been less than that in down-gradient monitoring wells MW-3, MW-4, or MW-5.
- There are no discernible zones of low pH. The average pH in monitoring wells has ranged from 6.5 in monitoring well MW-1 to 6.8 in monitoring well MW-2.
- Concentrations of dissolved iron and manganese in the monitoring wells generally have been stable, and have not varied with DO or ORP.

Based on these findings, the secondary lines of evidence do not support natural attenuation of TPH in Site groundwater.

3.1.10 Arsenic Mobility Evaluation

Sites with naturally occurring arsenic-bearing minerals have a stable arsenic geochemistry that determines the background level of dissolved arsenic in groundwater. A release of TPH can alter that stable geochemistry, resulting in mobilization of arsenic at concentrations exceeding the background level. The primary geochemical factors affecting arsenic mobility are redox conditions and pH. Arsenic is initially mobilized by a reduction in redox conditions and pH. Groundwater arsenic concentrations initially are highest in the source area. Groundwater with elevated arsenic concentrations eventually may extend beyond the TPH plume. Dissolved arsenic concentrations decrease as TPH attenuates and the aquifer becomes more oxidizing. In shallow aquifers, arsenic is more soluble at low pH (i.e., less than 4) and high pH (i.e., greater than 8); arsenic typically is re-adsorbed onto the soil matrix when DO is greater than 1.5 to 2 milligrams per liter (Brown 2010). A review of historical DO, ORP, and pH data with respect to potential mobilization of arsenic indicated the following:

- There is no discernable correlation between DO and dissolved arsenic. In monitoring wells MW-1 through MW-4, the highest dissolved arsenic concentrations occurred when DO was above 1.5 milligrams per liter.
- There is no discernable correlation between ORP and dissolved arsenic. For instance, although ORP generally increased between 2006 and 2016, arsenic concentrations did not increase.
- There is no discernible correlation between pH and dissolved arsenic. pH measured in monitoring wells ranged from 4.73 in monitoring well MW-1 to 9.2 in monitoring well MW-2; pH greater than 8 was measured in monitoring wells MW-1, MW-2, MW-4, and MW-5. The highest dissolved arsenic concentrations do not correlate with the highest measured pH; instead, highest dissolved arsenic concentrations occurred when pH ranged from 6.3 to 6.5.
- Dissolved arsenic concentrations in Site groundwater generally have been stable. Although reducing conditions exist, dissolved arsenic concentration have not been increasing.

According to these findings, variability in geochemistry is not significantly influencing dissolved arsenic concentrations in groundwater at the Site. Therefore, it is unlikely that dissolved arsenic concentrations are being affected by the petroleum release.

3.1.11 Background Metals Evaluation

Because TPH historically has been detected in all Site monitoring wells, it is not possible to define a background concentrations for metals COPCs arsenic, manganese, and selenium in Site groundwater using historical groundwater monitoring data. In the absence of appropriate Site data, Farallon performed a document review to obtain information regarding background concentrations of arsenic and manganese in the region. Selenium was detected at concentrations exceeding MTCA cleanup levels in only two of 60 reconnaissance groundwater and groundwater samples collected at the Site; therefore, a background evaluation for selenium was not performed.

3.1.11.1 Arsenic

In the absence of appropriate Site data, Farallon reviewed the Ecology (2016) Environmental Information Management database for information regarding background arsenic concentrations in groundwater at nearby properties. The review identified data collected as part of a background arsenic groundwater study requested by Ecology for the Boeing Striker South property at 21249 72nd Avenue South in Kent (Striker Property), approximately 1 mile northwest of the Site. Study results were described in letters dated October 11, 2011 and March 16, 2012 from The Boeing Company (2011, 2012) to Ecology. The study indicated that although environmental investigations identified dissolved arsenic in groundwater at the Striker Property at concentrations ranging from 0.3 to 114 µg/l, the investigations had not identified an anthropogenic arsenic source at the Striker Property.

The study further indicated that concentrations of dissolved arsenic in shallow groundwater samples collected at Ecology-approved locations at nearby properties with no known impacts to groundwater ranged from 3.3 to 115 µg/l. The study concluded that the dissolved arsenic concentrations detected in groundwater at the Striker Property and nearby locations are isolated and the result of regional background conditions, and do not pose a potential threat to human health or the environment. In "Public Comment Notice for Termination of Interim Status for the Boeing Space Center – Striker Property in Kent" issued by Ecology (2012) in July 2012, Ecology concluded that the dissolved arsenic concentrations present in groundwater at the Striker Property are localized and isolated in several different locations, and consistent with the area-wide pattern of arsenic in groundwater in the vicinity of the Boeing Kent Space Center.

Dissolved arsenic concentrations detected in groundwater samples collected at the Site ranged from 1.18 to 60 µg/l, which is consistent with results from the background arsenic groundwater study performed for the nearby Striker Property. Therefore, it is reasonable to conclude that arsenic concentrations at the Site are representative of background conditions.

3.1.11.2 Manganese

Farallon reviewed the U.S. Geological Survey (USGS) records for information regarding background manganese concentrations in groundwater in the Puget Sound region. The review identified a USGS report entitled *Quality of Ground Water in the Puget Sound Region, Washington, 1981* (USGS 1986). The report was prepared in collaboration with Ecology presented groundwater sampling data collected from drinking water wells at more than 100 sites in the Puget Sound area, including King County. The report indicated that naturally occurring concentrations of dissolved manganese in King County ranged from non-detect to 510,000 µg/l, with a median concentration of 48,000 µg/l.

Dissolved manganese concentrations detected in groundwater samples collected at the Site ranged from 610 to 21,000 µg/l, which is consistent with concentrations in King County area drinking water wells reported by USGS. Therefore, it is reasonable to conclude that manganese concentrations at the Site are representative of background conditions.

3.2 GEOLOGY AND HYDROGEOLOGY

A summary of the Site vicinity geology and hydrology is provided below.

3.2.1 Geology

The Puget Sound region is underlain by Quaternary sediments deposited by a number of glacial episodes. Deposition occurred prior to, during, and following glacial advances and retreats, creating the existing subsurface conditions. The sediments in Puget Sound region consist primarily of interlayered and/or sequential deposits of alluvial clays, silts, and sands that typically are situated over deposits of glacial till that consist of silty sand to sandy silt with gravel. Outwash sediments consisting of sands, silts, clays, and gravels were deposited by rivers, streams, and post-glacial lakes during glacial advances and recessions. Advance outwash sediments have been largely over-consolidated by the overriding ice sheets. These advance outwash sediments are overlain by a till-like layer and recessional outwash sediments that are less consolidated (Galster and Laprade 1991).

The Site is in the Green River Valley and is underlain by alluvium deposited by the Green River and its tributary streams. The alluvium consists mostly of sand, silt, and clay, and contains curvilinear lenticular deposits of gravels and thin peat lenses. The uppermost deposits typically consist of clayey silt and fine sand with local peat deposits. These deposits are 10 to 20 feet thick near Kent and increase in thickness to the north to near 20 to 40 feet near Tukwila. The lower portions of the alluvium predominantly consist of medium and coarse sand deposits more than 75 feet thick (Mullineaux 1965).

The general subsurface stratigraphy encountered in the borings advanced on the Site generally consisted of sand, silt, and gravel from the ground surface to depths up to 16.5 feet bgs.

3.2.2 Hydrogeology

Local groundwater occurs within the uppermost alluvial deposits at depths generally less than 10 feet bgs (Luzier 1969). Groundwater flow in the Green River Valley generally follows the same gradient as the land and surface water and flows toward the north or northwest (Luzier 1969). Localized and/or seasonal variations in groundwater flow direction are not uncommon.

During groundwater monitoring events performed from 2003 through 2016, the depth to groundwater in monitoring wells at the Site ranged from 4.13 to 10.77 feet bgs, and groundwater generally flowed toward the south to southeast, with an average gradient of 0.005 foot per foot. However, during the 2016 groundwater monitoring event, groundwater flowed toward the northeast, with an average gradient of 0.003 foot per foot.

Groundwater on the Site is not used for drinking water. A review of maps maintained by the King County GIS Center (2016) indicated that no drinking water supply wells are located within 0.25 mile of the Site, and the nearest surface water body, the Green River, is more than 0.5 mile west of the Site.

3.3 CONCEPTUAL SITE MODEL

The conceptual site model has been developed to evaluate, define, or document the following elements in accordance with WAC 173-340-200:

- Environmental setting;
- COPCs;
- Confirmed and suspected source areas;
- Media of concern;
- Nature and extent of contamination in soil and/or groundwater at concentrations exceeding MTCA Method A cleanup levels;
- Contaminant fate and transport of COPCs;
- Potential exposure pathways and scenarios; and
- Cleanup standards.

These elements are described for the Site in the following sections.

3.3.1 Environmental Setting

The general subsurface geology of the Site is described in Section 3.2.1, Geology. The stratigraphy reportedly encountered in the borings advanced at the Site by Farallon primarily consisted of consisted of sand, silt, and gravel from the ground surface to an explored depth of 16.5 feet bgs. Boring logs are provided in Appendix A. A geological cross-section of the Site is shown in Figure 4.

During groundwater monitoring events performed from 2003 through 2016, the depth to groundwater in monitoring wells at the Site ranged from 4.13 to 10.77 feet bgs, and groundwater generally flowed toward the south to southeast, with an average gradient of 0.005 foot per foot. Groundwater was not encountered in the trap tank sump excavation, which was completed to a depth of approximately 6 feet bgs. During groundwater monitoring events performed from 2003 through 2016, the depth to groundwater in monitoring well MW-1, which was installed proximate to the trap tank sump, ranged from 8.81 to 10.77 feet bgs, which is at least 2.81 feet below the bottom of the trap tank sump excavation.

Groundwater at the Site is not used for drinking water, and no drinking water supply wells are located within 0.25 mile of the Site. The Site is approximately 0.5 miles east of the Green River. No surface water bodies are present in the Site vicinity.

3.3.2 Constituents of Potential Concern

COPCs are defined as the hazardous substances that have been detected at concentrations exceeding relevant MTCA cleanup levels. The COPCs for the Site are ORO, arsenic, manganese, and selenium.

3.3.3 Confirmed and Suspected Source Areas

Releases from the trap tank sump and associated piping are a confirmed source of COPCs, including DRO and ORO exceeding relevant MTCA cleanup levels in soil and groundwater, on the Site. Soil with DRO and ORO concentrations exceeding relevant MTCA cleanup levels related to the releases from the trap tank sump and associated piping has been removed from the Property and disposed of at an Ecology-licensed landfill; therefore, the source of DRO and ORO impacts to soil and groundwater at the Site has been effectively eliminated.

Selenium was not detected in soil samples collected at the Site, and concentrations of arsenic detected in soil samples collected at the Site ranged from 1.55 to 8.64 mg/kg, which are less than MTCA cleanup levels and the 90th percentile of regional background levels published in Ecology's *Natural Background Soil Metals Concentrations in Washington State* (Ecology 1994). These data suggest that soil at the Site is not a significant potential source of COPCs in groundwater. The source of arsenic, manganese, and selenium in groundwater is suspected to be related to naturally occurring background conditions.

3.3.4 Media of Concern

The medium of concern for the Site is shallow groundwater, due to the presence of COPCs at concentrations exceeding MTCA Method cleanup levels in reconnaissance groundwater and groundwater samples collected from 2003 through 2016. COPCs were detected at concentrations exceeding MTCA Method A cleanup levels in reconnaissance groundwater samples collected from borings GP-1, GP-2, and S-3, and in groundwater samples collected from monitoring wells MW-1 through MW-5.

Concentrations of COPCs detected in groundwater exceeded the screening level for potable use, but not for evaluation of indoor air as a medium of concern; therefore, indoor air is not a medium of concern for the Site.

Soil with concentrations of COPCs exceeding relevant MTCA Method A cleanup levels was excavated during the 2006 trap tank removal; therefore, soil is not a medium of concern for the Site.

The Site is covered by impermeable surfaces with an established stormwater conveyance system, and surface water features are sufficiently distant from the Site; therefore, surface water and sediments are not media of concern for the Site.

3.3.5 Nature and Extent of Contamination

Based on the analytical results for groundwater samples, the nature and extent of groundwater contamination have been sufficiently characterized to support a FS for the evaluation and recommendation of a cleanup action for the Site.

COPCs were detected at concentrations exceeding MTCA Method A and B cleanup levels in groundwater samples collected from monitoring wells MW-1 through MW-5 and in reconnaissance groundwater samples collected from borings B-1, B-2, and S-1 (Table 3). Based on the investigation data, the extent of each COPCs in groundwater is as follows:

- ORO was detected at concentrations exceeding the MTCA cleanup level in groundwater samples collected from only source area well MW-1 in 2004, and ORO was not detected in groundwater samples collected after the 2006 trap tank removal. Therefore, ORO resulting from releases at the trap tank area is no longer present in shallow groundwater at the Site.
- Arsenic was detected at concentrations exceeding the MTCA cleanup level in groundwater and reconnaissance groundwater samples collected from source area monitoring well MW-1 and boring S-1, up-gradient monitoring well MW-2 and boring GP-2, cross-gradient boring GP-1, and/or down-gradient monitoring wells MW-3 through MW-5 from 2003 through 2016. Based on this information, arsenic may be present at concentrations exceeding the MTCA cleanup level, but not exceeding regional background concentrations, in groundwater throughout the Site.
- Manganese was detected at concentrations exceeding the MTCA cleanup level in groundwater and reconnaissance groundwater samples collected from source area monitoring well MW-1, up-gradient monitoring well MW-2 and boring GP-2, cross-gradient boring GP-1, and/or down-gradient monitoring wells MW-3 and MW-4 from 2003 through 2011. Based on this information, manganese may be present at concentrations exceeding the MTCA cleanup level, but not exceeding regional background concentrations, in groundwater throughout the Site.
- Selenium was detected at concentrations exceeding the MTCA cleanup level in groundwater and samples collected from source area monitoring well MW-1 during the

February 2006 and March 2008 groundwater monitoring events. Based on this information, selenium may be present at concentrations exceeding MTCA cleanup level in groundwater proximate to the source area, but not throughout the Site.

3.3.6 Contaminant Fate and Transport

Dissolved COPCs potentially can be transported in groundwater from the source area to down-gradient areas. Groundwater flow at the Site has been generally toward the south to southeast, but also flows toward the northeast. DRO is not a COPC for the Site; however, the presence of DRO in groundwater samples collected from monitoring well MW-2 indicate that groundwater may also flow toward the northwest.

3.3.7 Exposure Pathways

This section presents the assessment and conclusions pertaining to possible exposure pathways at the Site and in the near vicinity. The two types of possible exposure risk associated with the presence of COPCs at the Site are human health risk and terrestrial ecological risk. This section identifies potential exposure scenarios, which will assist in the evaluation of potential feasible remediation technologies.

A qualitative evaluation of potential exposure pathways was conducted for the RI to assess whether exposure pathways are potentially complete from source to human receptors. The evaluation involved some basic assumptions, including the recognition that parcels down-gradient of the Site that may potentially be part of the Site are zoned commercial, and that exposure pathways would be evaluated based on the use and zoning of those parcels.

Potential exposure pathways for the Site include groundwater exposure via the direct contact pathway, which comprises both dermal contact and ingestion pathways. Direct contact with groundwater would require excavation through the existing surface cover to encounter levels of COPCs that could pose a human health risk.

Drinking water in the area is provided by the King County Water District No. 111. Groundwater at the Site is not used for drinking water. A review of maps maintained by the King County GIS Center (2016) indicates that no drinking water supply wells are located within 0.25 mile of the Site; therefore, it is unlikely that groundwater in the vicinity of the Site is used for potable water supply. Because of the availability of the municipal water supply in the Site vicinity, there is a low probability that groundwater at the Site or adjacent properties would be used as a potable water source. Because there is no practical use for groundwater at the Site, an exposure pathway via groundwater ingestion is unlikely to present a potential risk to human health, although without an environmental covenant prohibiting groundwater use at the Site, groundwater ingestion is a potential pathway.

3.3.8 Terrestrial Ecological Evaluation Results

A terrestrial ecological evaluation (TEE) is required by WAC 173-340-7490 at any site where there has been a release of a hazardous substance to soil. The regulation requires that one of the following actions be taken:

- Documenting a TEE exclusion using the criteria presented in WAC 173-340-7491;
- Conducting a simplified TEE in accordance with WAC 173-340-7492; or
- Conducting a site-specific TEE in accordance with WAC 173-340-7493.

A completed Terrestrial Ecological Evaluation Form is provided in Appendix D. Based on the criteria for TEE exclusion in WAC 173-340-7491(1)(c)(i), the Site is excluded from a TEE because there are less than 1.5 acres of contiguous undeveloped land on the Site or within 500 feet of any area of Site, and the Site is not contaminated with any of the hazardous substances listed in WAC 173-340-7491(1)(c)(ii). No further consideration of terrestrial ecological impacts is required under MTCA.

3.3.9 Cleanup Standards

The following is a discussion of the proposed cleanup standards for the Site, including media of concern; constituents of concern (COCs); cleanup levels; and the points of compliance for groundwater, the medium of concern. The cleanup standards for the Site have been established to be protective of human health and the environment in accordance with WAC 173-340-700 through 173-340-760.

3.3.9.1 Media of Concern

The medium of concern for the Site is shallow groundwater. As described in Section 3.3.4, Media of Concern, soil, indoor air, surface water, and sediments are not media of concern for the Site.

3.3.9.2 Constituents of Concern

COPCs occurring at concentrations exceeding selected cleanup levels within the selected points of compliance are considered COCs for the cleanup action. Site groundwater monitoring data collectively indicate that concentrations of ORO and selenium are less than MTCA cleanup levels; therefore, ORO and selenium are not COCs for the cleanup action. Site groundwater monitoring data indicate that arsenic and manganese are present at concentrations exceeding MTCA cleanup levels; therefore, arsenic and manganese are COCs for the cleanup action.

3.3.9.3 Cleanup Levels

The cleanup levels are the concentrations of COCs that are to be met for the media of concern at the points of compliance defined for the Site. The cleanup levels for COCs in groundwater are presented below. Consistent with WAC 173-340-700 (6)(d), the

preliminary cleanup levels for COCs are the following natural background concentrations of the COCs for the media of concern:

- Arsenic – 5 µg/l (MTCA Method A) or 115 µg/l (natural background concentration for the Kent area); and
- Manganese – 2,240 µg/l (MTCA Method B) or 510,000 µg/l (natural background concentration for the Puget Sound region).

3.3.10 Points of Compliance

The points of compliance are the locations at which the preliminary cleanup levels for the COCs in each medium of concern must be attained to meet the requirements of MTCA and support the issuance of a No Further Action determination for the Site from Ecology. The points of compliance for the Site were established in accordance with WAC 173-340-720(8) for groundwater. The standard point of compliance for groundwater is defined as the uppermost level of the saturated zone extending vertically to the lowest depth that potentially could be impacted by COCs throughout the Site. This groundwater interval consists of the shallow groundwater-bearing zone at the Site.

4.0 FEASIBILITY STUDY

This section presents the FS for the Site. Per WAC 173-340-350(8)(a), the purpose of the FS was to develop and evaluate cleanup alternatives to enable a cleanup action to be selected for the Site according to WAC 173-340-360. The objective of a selected cleanup action is to protect human health and the environment, and to meet the requirements of MTCA. The FS considered and evaluated four potential cleanup alternatives for the Site. Each of the potential cleanup action alternatives evaluated in the FS would constitute the final remedy for the Site. This section identifies viable cleanup alternatives for the Site; discusses ARARs for the cleanup alternatives; evaluates the identified cleanup alternatives; and identifies a preferred cleanup alternative that would provide the highest degree of permanence to the maximum extent practicable, and would constitute the final remedy for the Site.

4.1 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Per MTCA (WAC 173-340-710), all cleanup actions will comply with applicable state and federal laws (i.e., ARARs). Other relevant and appropriate requirements are to be considered for addressing problems or situations sufficiently similar to those to be encountered that their use is well suited.

The following ARARs are anticipated to be the primary applicable requirements for cleanup of the Site:

- Model Toxics Control Act, Chapter 70.105D of the Revised Code of Washington;
- MTCA Cleanup Regulation, WAC 173-340;
- Minimum Standards for Construction and Maintenance of Wells, WAC 173-160;
- Occupational Safety and Health Act, Part 1910 of Title 29 of the Code of Federal Regulations;
- Washington State General Occupational Health Standards, WAC 296-62;
- Safety Standards for Construction Work, WAC 296-155;
- Accreditation of Environmental Laboratories, WAC 173-50;
- Washington State Solid Waste Management Laws and Regulations, Chapter 70.95 of the Revised Code of Washington, WAC 173-351, and WAC 173-304;
- Dangerous Waste Regulations, WAC 173-303; and
- Applicable local permits and ordinances indicated by the City of Kent Municipal Code.

4.2 SCREENING OF REMEDIATION TECHNOLOGIES

As part of the FS, Farallon screened the following types of remediation technologies for the Site:

- No action/natural attenuation;

- Monitored natural attenuation;
- In-situ treatment; and
- Ex-situ treatment.

Farallon identified methods and process options for each technology, and then scored each with regard to compliance with MTCA criteria for evaluation of permanence to the maximum extent practicable, and reasonable restoration time frame (WAC 173-340-360[3] and 173-340-360[4]). Criteria used for scoring included implementability, protectiveness, permanence, effectiveness, short-term risk management, restoration time frame, consideration of public concerns, and cost. Individual scores for each remediation technology were totaled, and the remediation technologies were ranked according to score. The screening results are presented in Table 5. The two highest-scoring remediation technologies were compiled into viable cleanup alternatives for the Site, as discussed in Section 4.3, Cleanup Alternatives.

The following potential groundwater remediation technologies were retained for consideration after the preliminary screening:

- No action/natural attenuation and institutional controls; and
- Monitored natural attenuation.

4.3 CLEANUP ALTERNATIVES

The FS considered the requirements for feasibility studies under WAC 173-340-350, the requirements for selection of cleanup actions under WAC 173-340-360, current conditions at the Site, and planned future use of the Site.

Farallon compiled potentially viable cleanup alternatives using the results from the remediation technology screen (Table 5). A description of the cleanup alternatives evaluated during the FS is provided below. Evaluation of the cleanup alternatives is discussed in Section 4.4, Cleanup Alternative Evaluation, and shown in further detail in Table 6.

Farallon assembled the following cleanup alternatives as potentially applicable to the Site:

- **Cleanup Alternative 1: No Action/Natural Attenuation and Institutional Controls.** Cleanup Alternative 1 assumes natural attenuation of TPH in groundwater may be occurring at the Site, but is not resulting in geochemical conditions that cause concentrations of dissolved arsenic and manganese in groundwater to exceed local or regional background concentrations.

  Cleanup Alternative 1 involves leaving all groundwater in-situ at the Site, with no additional groundwater monitoring. Cleanup Alternative 1 also involves recording an environmental covenant against the title for the Property to prohibit withdrawal of groundwater without advance approval of Ecology. Exposure to concentrations of COCs in groundwater would be limited by the environmental covenant.

- **Cleanup Alternative 2: Monitored Natural Attenuation.** Cleanup Alternative 2 involves periodic groundwater sampling and collection of monitored natural attenuation parameters to evaluate potential natural attenuation of TPH and concentrations of dissolved arsenic, manganese, and selenium in groundwater.

  Cleanup Alternative 2 assumes that natural attenuation of TPH in groundwater is occurring and resulting in geochemical conditions that cause concentrations of dissolved arsenic and manganese in groundwater to exceed MTCA cleanup levels and potentially regional background concentrations. Cleanup Alternative 2 also assumes that concentrations of dissolved arsenic and manganese in groundwater will diminish with natural attenuation processes to less than MTCA cleanup levels.

4.4 CLEANUP ALTERNATIVE EVALUATION

A cleanup alternative must satisfy the following threshold criteria, as specified in WAC 173-340-360(2)(a):

- Protect human health and the environment;
- Comply with cleanup standards;
- Comply with applicable state and federal laws; and
- Provide for compliance monitoring.

These criteria represent the minimum standards for an acceptable cleanup action. In addition to meeting the threshold criteria, cleanup actions under MTCA must:

- Provide for a reasonable restoration time frame based on the factors provided in WAC 173-340-360(4)(b);
- Use permanent solutions to the maximum extent practicable based on the criteria defined in WAC 173-340-360(3)(f); and
- Consider public concerns raised during public comment on the Cleanup Action Plan (WAC 173-340-600).

Farallon evaluated each cleanup alternative according to threshold and other requirements established in MTCA. The FS considered the requirements under WAC 173-340-350 and the criteria defined in WAC 173-340-360 for screening potentially feasible cleanup alternatives for the Site. Specific details regarding the cleanup alternatives evaluation and associated scoring are provided in Table 6.

Cleanup Alternatives 1 and 2 both meet the threshold requirements specified in MTCA and are appropriate for the Site. Cleanup Alternative 2 relies solely on natural attenuation to reduce the potential for exposure to groundwater with COC concentrations exceeding MTCA cleanup levels. Natural attenuation of COCs in groundwater has not been demonstrated at the Site; therefore, Alternative 2 does not provide for a reasonable restoration time frame in accordance with WAC 173-340-360(4)(b)(ix).

4.5 PREFERRED CLEANUP ALTERNATIVE

Cleanup Alternative 1, No Action/Natural Attenuation and Institutional Controls is the preferred cleanup alternative for the Site. An evaluation of the preferred cleanup action alternative to demonstrate that it meets MTCA threshold requirements is provided below.

4.5.1 Protection of Human Health and the Environment

The only exposure pathway of concern, as discussed in Section 3.3.7, Exposure Pathways, is direct contact with groundwater containing COCs at concentrations exceeding the selected cleanup levels. This exposure pathway becomes complete if groundwater is withdrawn for potable use, or if a construction worker contacts impacted soil or groundwater during possible utilities work or future redevelopment of the Site. Because there is no practical use for groundwater at the Site, an exposure pathway via groundwater ingestion is unlikely to present a potential risk to human health. The environmental covenant will further protect against the groundwater ingestions exposure pathway. Alternative 1 will protect human health and the environment over the long term by permanently restricting future withdrawal of groundwater at the Site.

4.5.2 Compliance with Cleanup Standards

Alternative 1 will comply with the cleanup levels established in Section 3.3.9.3, Cleanup Levels, by meeting the local/regional background concentrations for groundwater at the points of compliance.

4.5.3 Compliance with Applicable State and Federal Laws

Alternative 1 will comply with the requirements of ARARs. The cleanup action will be conducted as an independent cleanup action in accordance with applicable MTCA requirements.

4.5.4 Provision for Compliance Monitoring

Alternative 1 does not include additional groundwater monitoring. However, sufficient groundwater monitoring has been performed at the Site to demonstrate compliance with cleanup standards; therefore, the provision for compliance monitoring has been met.

4.5.5 Permanence to the Maximum Extent Practicable

Alternative 1 is the more protective of the cleanup alternatives evaluated. Alternative 1 will result in permanent reduction of the toxicity, mobility, and volume of COCs, and achievement of cleanup standards in shallow groundwater at the Site by eliminating the exposure pathway. Alternative 1 presents no risk for short-term exposure and can be readily implemented.

4.5.6 Restoration Time Frame

The preferred cleanup alternative will meet the requirements for cleanup actions under MTCA within approximately 3 months (i.e., the presumed time required to file an environmental covenant), which is a reasonable restoration time frame.

5.0 SUMMARY AND CONCLUSIONS

The information provided in this RI/FS Report is sufficient to assess the nature and extent of contamination at the Site, screen cleanup technologies, evaluate technically feasible cleanup alternatives, and identify a preferred cleanup alternative for the Site that meets MTCA requirements.

Site groundwater and soil was impacted by releases from a below-grade trap tank system. The trap tank sump and surrounding soil were excavated in 2006 such that no soil with COPCs at concentrations exceeding relevant MTCA cleanup levels resulting from the releases remains at the Site. Groundwater monitoring has been performed at the Site since 2003. Concentrations of COPCs, including ORO, arsenic, manganese, and selenium, have been detected in Site groundwater at concentrations exceeding MTCA cleanup levels. However, with the exception of ORO in one groundwater sample collected in March 2003, TPH has not been detected in groundwater at concentrations exceeding MTCA cleanup levels; concentrations of dissolved selenium in groundwater were less than MTCA cleanup levels in all but two groundwater samples; and concentration of arsenic and manganese are within the range of regional background concentrations.

The 2005 Ecology Opinion Letter indicated that a No Further Action determination for the Site could not be issued until dissolved arsenic in groundwater caused by natural attenuation of TPH and resulting changes in Site geochemistry were addressed. Ecology's conclusion was based on limited groundwater monitoring data collected in 2003 and 2004. Evaluation of 2003 through 2016 groundwater monitoring data for natural attenuation of TPH was inconclusive. However, the data indicate that if natural attenuation of TPH is occurring, its effects on geochemistry are insignificant and have not resulted in elevated concentrations of dissolved arsenic and manganese in Site groundwater or the presence of arsenic and manganese at concentrations exceeding background levels in the region.

The preferred cleanup alternative includes natural attenuation and implementation of an environmental covenant that restricts the withdrawal of Site groundwater. This cleanup alternative meets MTCA requirements and will serve as the final remedy for Site. This cleanup alternative is appropriate in part because regional background levels of dissolved arsenic and manganese in groundwater exceed the MTCA cleanup level, and it is unlikely that dissolved arsenic and manganese concentrations in Site groundwater will decrease to less than the MTCA cleanup level, regardless of the selected remedial alternative.

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7.0 LIMITATIONS

7.1 GENERAL LIMITATIONS

The conclusions contained in this report are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location. The conclusions contained herein are subject to the following inherent limitations:

- **Accuracy of Information.** Farallon obtained, reviewed, and evaluated certain information used in this report from sources that were believed to be reliable. Farallon's conclusions, opinions, and recommendations are based in part on such information. Farallon's services did not include verification of its accuracy or authenticity. Should the information upon which Farallon relied prove to be inaccurate or unreliable, Farallon reserves the right to amend or revise its conclusions, opinions, and/or recommendations.
- **Reconnaissance and/or Characterization.** Farallon performed a reconnaissance and characterization of the Property that is the subject of this report to document current conditions. Farallon focused on areas deemed more likely to exhibit hazardous materials conditions. Contamination may exist in other areas of the Property that were not investigated or were inaccessible. Activities at the Property beyond Farallon's control could change at any time after the completion of this report.

For the foregoing reasons, Farallon cannot and does not warrant or guarantee that the Property is free of hazardous or potentially hazardous substances or conditions, or that latent or undiscovered conditions will not become evident in the future. Farallon's observations, findings, and opinions can be considered valid only as of the date of this report.

This report has been prepared in accordance with the contract for services between Farallon and Prologis, Inc., and currently accepted industry standards. No other warranties, representations, or certifications are made.

7.2 LIMITATION ON RELIANCE BY THIRD PARTIES

Reliance by third parties is prohibited. This report has been prepared for the exclusive use of Prologis to address the unique needs of Prologis, Inc. at the Property at a specific point in time. Services have been provided to Prologis, Inc. in accordance with a contract for services between Farallon and Prologis, Inc., and generally accepted environmental practices for the subject matter at the time this report was prepared.

No other party may rely on this report unless Farallon agrees in advance to such reliance in writing. Any use, interpretation, or reliance upon this report by anyone other than Prologis, Inc. is at the sole risk of that party, and Farallon will have no liability for such unauthorized use, interpretation, or reliance.

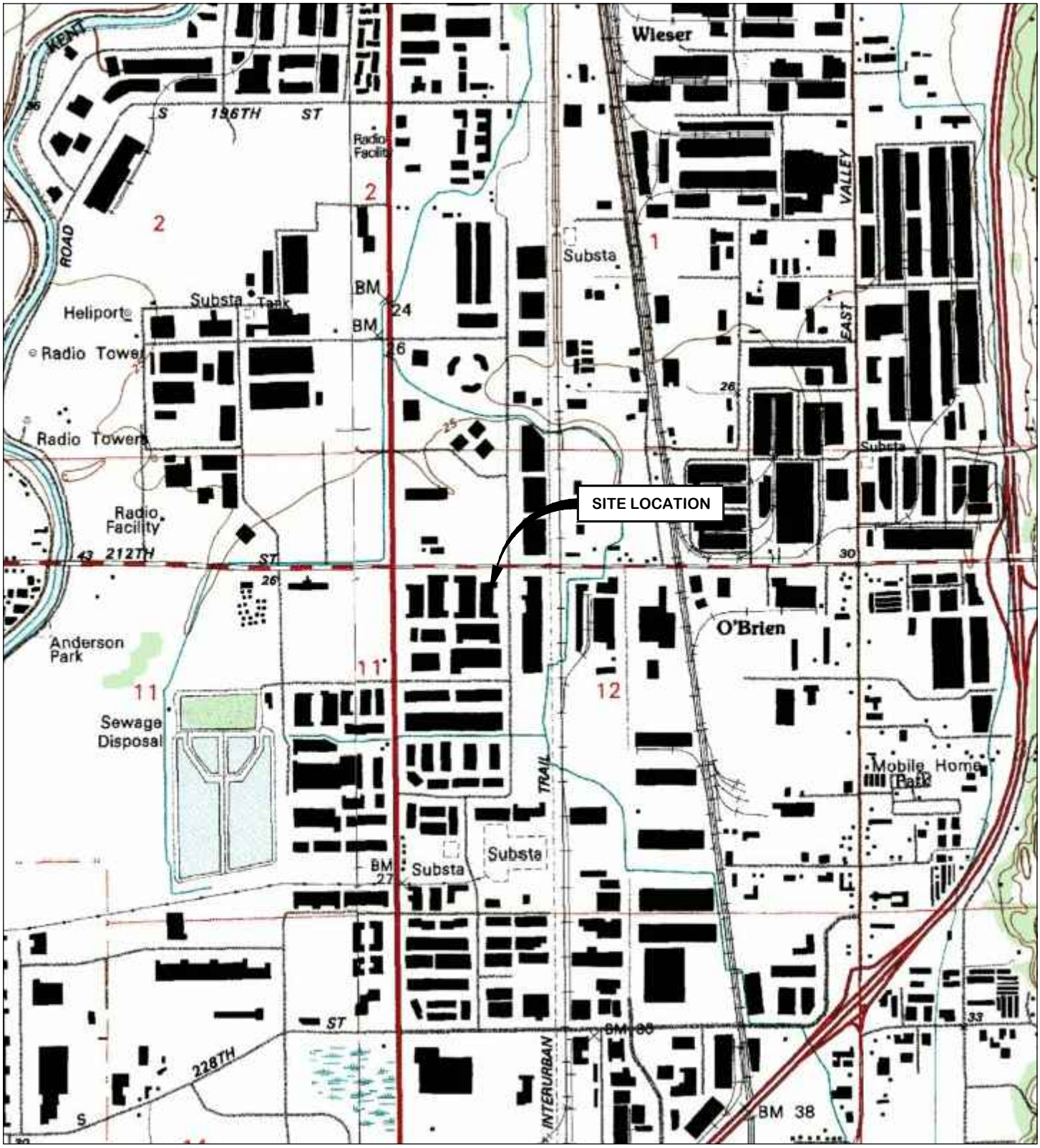
Do not rely on this report/assessment if:

- It was not prepared for you;
- It was not prepared for your project;
- It was not prepared for your specific property; or
- It was not prepared under an approved scope of work for which you are under contract with Farallon.

FIGURES

REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington

Farallon PN: 1071-013 (Task 1)



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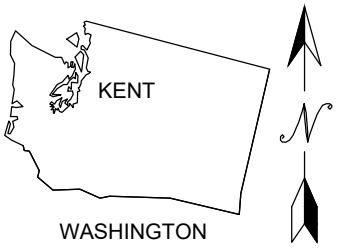

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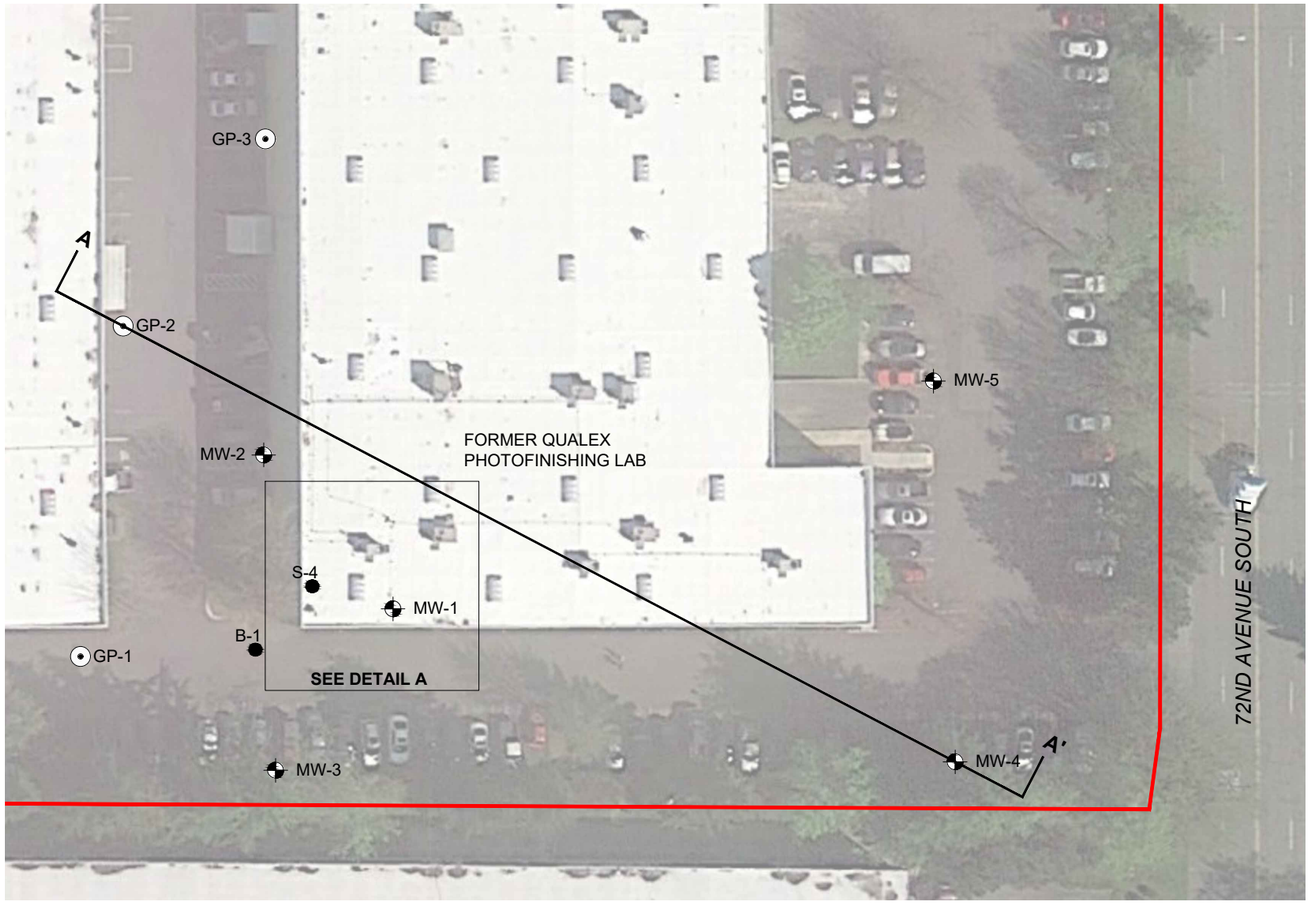
FIGURE 1

SITE VICINITY MAP
21249 72nd AVENUE SOUTH
KENT, WASHINGTON

FARALLON PN: 1071-013-1

Drawn By: GPF Checked By: SA Date: 2/15/2016 Disk Reference: 1071-013-1



0 50
SCALE IN FEET

DETAIL A

0 10
SCALE IN FEET

LEGEND:

- SITE BOUNDARY
- MONITORING WELL LOCATION (GEOLOGICA, 2003)
- BORING LOCATION (GEOLOGICA, 2006)
- TRAP TANK EXCAVATION SAMPLE LOCATION (GEOLOGICA, 2006)
- BORING LOCATION (GEOLOGICA, 2003)
- SEWER LINE
- EXCAVATION LIMITS
- A A' LINE OF CROSS-SECTION

N

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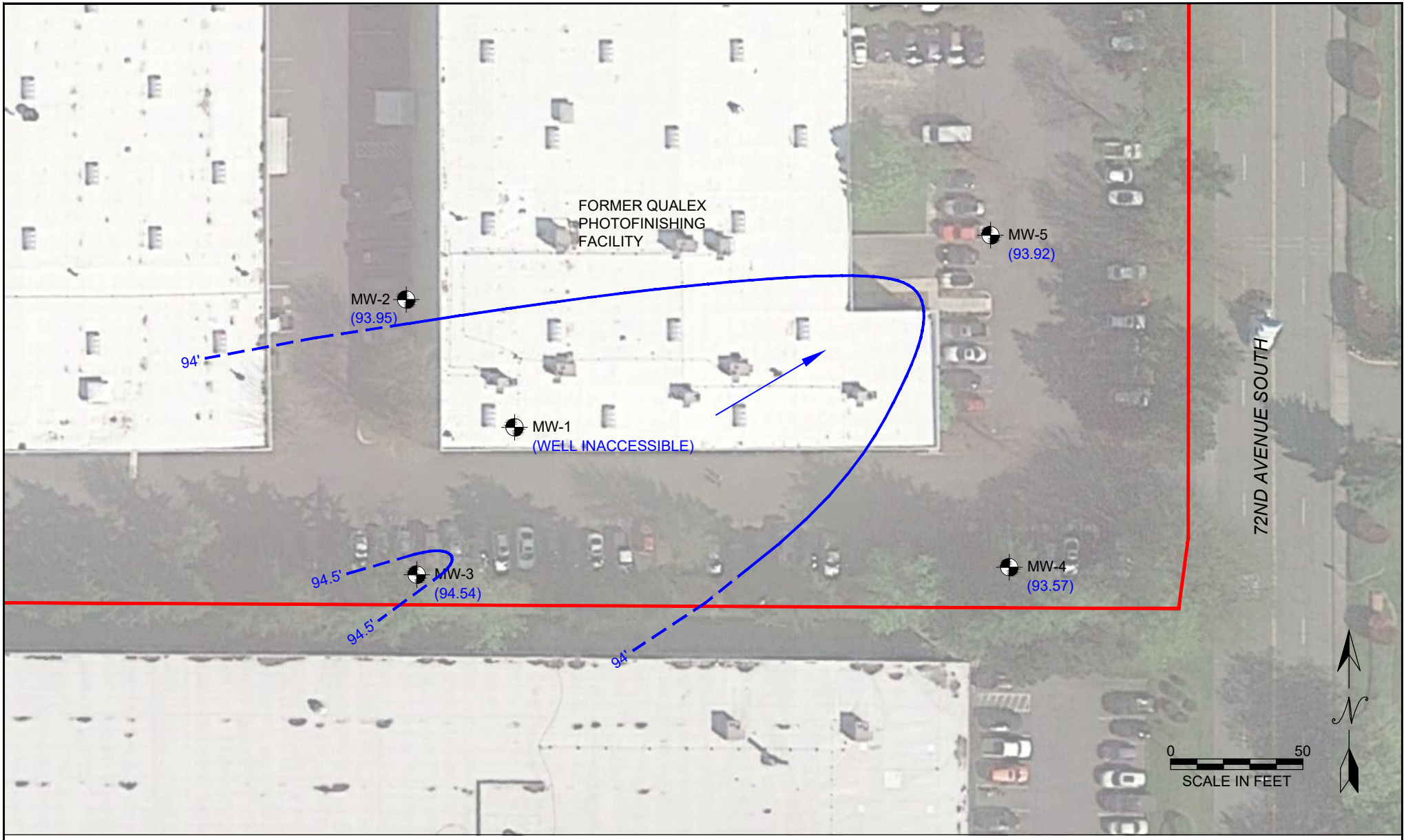
FIGURE 2

SITE PLAN
21249 72nd AVENUE SOUTH
KENT, WASHINGTON

FARALLON PN:1071-013-1

Drawn By: GPF Checked By: MH Date: 3/31/2017 Disk Reference: 1071-013-1a



LEGEND:

- SITE BOUNDARY
- MONITORING WELL LOCATION
- (94.54) GROUNDWATER ELEVATION (FEET IN REFERENCE TO MW-3 TOP OF CASING)
- 94' GROUNDWATER ELEVATION CONTOUR (FEET IN REFERENCE TO MW-3 TOP OF CASING)
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW

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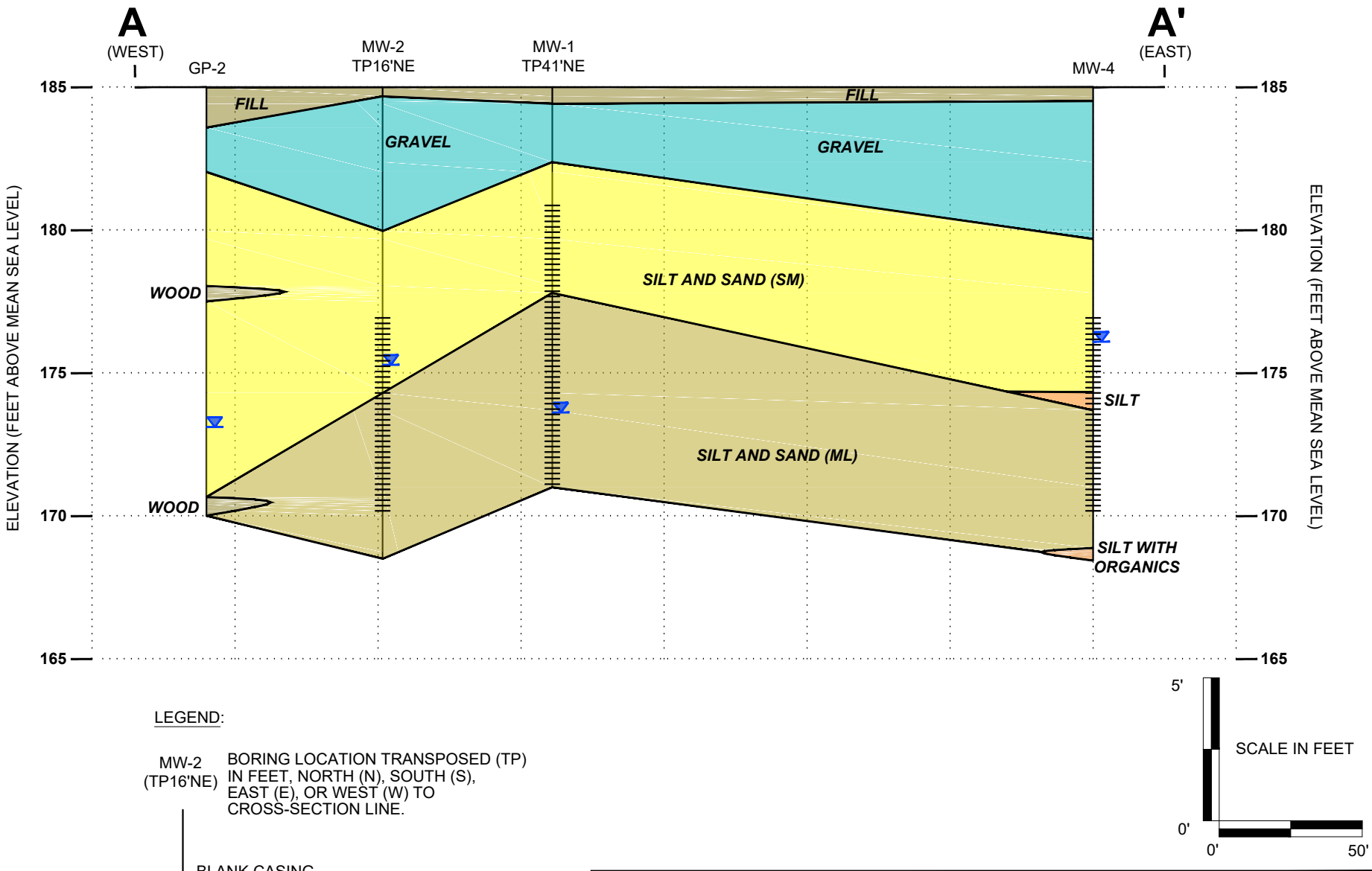
FIGURE 3

SITE PLAN SHOWING GROUNDWATER ELEVATION CONTOURS, JANUARY 21, 2016
21249 72nd AVENUE SOUTH
KENT, WASHINGTON

FARALLON PN:1071-013-1

Drawn By: GPF Checked By: SA Date: 2/15/2016 Disk Reference: 1071-013-1



LEGEND:

MW-2 (TP16'NE) BORING LOCATION TRANSPOSED (TP) IN FEET, NORTH (N), SOUTH (S), EAST (E), OR WEST (W) TO CROSS-SECTION LINE.

BLANK CASING

STRATIGRAPHIC CONTACT

GROUNDWATER ELEVATION

WELL SCREEN INTERVAL

5'

0'

SCALE IN FEET

0'

50'

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FIGURE 4

CROSS-SECTION A-A'
21249 72nd AVENUE SOUTH
KENT, WASHINGTON

FARALLON PN:1071-013-1

Drawn By: GPF Checked By: MH Date: 4/13/2017 Disk Reference: 1071-013-1 X-SEC

TABLES

REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington

Farallon PN: 1071-013 (Task 1)

Table 1
Soil Analytical Results for Total Petroleum Hydrocarbons
Formert Qualex Photofinishing Facility
Kent, Washington
Farallon PN: 1071-013 Task 001

Sample Location	Sample Identification	Sample Depth (feet)[1]	Sample Date	Analytical Results (mg/kg)		
				GRO[2]	DRO[2]	ORO[2]
Background Boring Outside Building	B-1-6'	6.0	3/23/2003	-	-	-
Inside Qualex Building Under Trap Tank	S-1-4'	4.0	3/23/2003	<1	6.4	<10
Inside Qualex Building Under Trap Tank	S-2-2'	2.0	3/23/2003	<1	5.5	<10
Inside Qualex Building Under Trap Tank	S-3-8'	8.0	3/23/2003	<1	<5	<10
Compressor Room	S-4-3'	3.0	3/23/2003	<1	<5	<10
MW-1 Auger Cuttings Sample	Comp-1	NA	7/24/2003	<1	19	29
Trap Tank Sediment	TT-1	NA	1/23/2006	<2	8,600	16,000
North Sidewall	N-Wall	0-5	2/7/2006	-	<50	<250
South Sidewall	S-Wall	0-5	2/7/2006	-	<50	<250
East Sidewall	E-Wall	0-5	2/7/2006	-	<50	<250
West Sidewall	W-Wall	0-5	2/7/2006	-	<50	<250
Bottom of Excavation	Bottom	5.0	2/7/2006	-	<50	<250
Excavated Soil Stockpile	Stock-1	NA	2/7/2006	<2	<50	<250
MTCA Method A Cleanup Levels for Soil[3]				**30/100[4]**	**2,000**	**2,000**

NOTES:

Results in **bold** denote concentrations exceeding applicable cleanup levels.

< denotes analyte not detected at or exceeding the laboratory reporting limit listed.

— denotes sample not analyzed.

[1]Depth in feet below ground surface.

[2]Analyzed by U.S. Environmental Protection Agency Method 8015B.

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

GRO = TPH as gasoline-range organics

mg/kg = milligrams per kilogram

NA = Not applicable

ORO = TPH as oil-range organics

[3]Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

[4]Cleanup level is 30 milligrams per kilogram if benzene is detected and 100 milligrams per kilogram if benzene is not detected.

Table 2
Soil Analytical Results for Metals
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington
Farallon PN: 1071-013 Task 001

Sample Location	Sample Identification	Sample Depth (feet) [1]	Sample Date	Analytical Results (mg/kg)[2]																
				Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Background Boring Outside Building	B-1-6'	6	3/23/2003	<5.6	<9.3	38	0.23	<0.93	16	4.6	10	<6.9	0.021	3.8	17	<9.3	<0.65	<9.3	31	23
Inside Qualex Building Under Trap Tank	S-1-4'	4	3/23/2003	<5.7	<9.4	56	0.3	<0.94	13	5.5	21	<7.1	0.027	<2.4	12	<9.4	<.66	<9.4	36	29
Inside Qualex Building Under Trap Tank	S-2-2'	2	3/23/2003	<5.2	<8.6	38	0.22	<.86	21	4.1	13	<6.5	0.033	<2.2	18	<8.6	3.6	<8.6	27	21
Inside Qualex Building Under Trap Tank	S-3-8'	8	3/23/2003	<5.3	<8.8	43	0.26	<0.88	9.6	4.1	15	<6.6	0.055	7.1	10	<8.8	<0.61	<8.8	34	28
Compressor Room	S-4-3	3	3/23/2003	<5.8	<9.6	41	0.23	<0.96	17	3	57	<7.2	0.024	8.5	18	<9.6	27	<9.6	29	20
MW-1 Auger Cuttings Sample	Comp-1	NA	7/24/2003	<5.8	<9.6	160	0.71	<0.96	15	1.9	7.7	7.8	0.027	<1.9	4.8	<9.6	0.97	<9.6	22	27
Trap Tank Sediment	TT-1	NA	1/23/2006	-	8.64	20.6	-	<1	153	-	-	94	0.78	-	-	<1	48.2	-	-	-
North Sidewall	N-Wall	0-5	2/7/2006	-	2.39	-	-	-	11.7	-	-	2.63	-	-	-	<1	3.91	-	-	-
South Sidewall	S-Wall	0-5	2/7/2006	-	1.93	-	-	-	10.8	-	-	2.93	-	-	-	<1	4.85	-	-	-
East Sidewall	E-Wall	0-5	2/7/2006	-	1.67	-	-	-	11.1	-	-	2.28	-	-	-	<1	<1	-	-	-
West Sidewall	W-Wall	0-5	2/7/2006	-	1.55	-	-	-	10.6	-	-	1.89	-	-	-	<1	<1	-	-	-
Bottom of Excavation	Bottom	5	2/7/2006	-	2.68	-	-	-	10.1	-	-	2.95	-	-	-	<1	2.41	-	-	-
Excavated Soil Stockpile	Stock-1	NA	2/7/2006	-	2.32	40.9	-	<1	11.4	-	-	3.36	0.049	-	-	<1	43.2	-	-	-
MTCA Cleanup Levels for Soil [3]				**32[4]**	**20**	**16,000[4]**	**160[4]**	**2**	**2,000**	**NE**	**3,200[4]**	**250**	**2**	**400[4]**	**1,600[4]**	**400[4]**	**400[4]**	**0.80[4]**	**400[4]**	**24,000[4]**
MTCA Method B Cleanup Levels for Soil Protective of Groundwater Vadose @ 25 Degrees Celsius[5]				**5.42**	**2.92**	**1,650**	**63.2**	**0.69**	**480,000**	**NE**	**284**	**3,000**	**2.09**	**NE**	**130**	**5.20**	**13.6**	**0.228**	**1,600**	**5,970**
MTCA Method B Cleanup Levels for Soil Protective of Groundwater Vadose @ 13 Degrees Celsius[5]				**5.42**	**2.92**	**1,650**	**63.2**	**0.69**	**480,000**	**NE**	**284**	**3,000**	**2.09**	**NE**	**130**	**5.20**	**13.6**	**0.228**	**1,600**	**5,970**
MTCA Method B Cleanup Levels for Soil Protective of Groundwater Saturated[5]				**0.272**	**0.146**	**82.6**	**3.16**	**0.0349**	**24,000**	**NE**	**14.3**	**150**	**0.105**	**NE**	**6.53**	**0.264**	**0.687**	**0.0114**	**80**	**299**
Background Concentration in Soil[6]				**-**	**14.6**	**-**	**-**	**1.5**	**-**	**96.3**	**72.7**	**33.7**	**0.14**	**-**	**76.4**	**-**	**-**	**-**	**-**	**170.1**

NOTES:

Results in **bold** denote concentrations exceeding Method A cleanup levels, or Method B direct contact or protective of groundwater vadose zone values if Method A values are not available.

< denotes analyte not detected at or exceeding the laboratory reporting limit listed.

mg/kg = milligrams per kilogram

NE = not established

[1]Depth in feet below ground surface.

[2]Analyzed by U.S. Environmental Protection Agency Methods 6000/7000.

[3]Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as amended 2013 unless otherwise noted.

[4]Washington State Department of Ecology Cleanup Levels and Risk Calculations, under MTCA Standard Method B Formula Values for Soil (Unrestricted Land Use) - Direct Contact (Ingestion Only) and Leaching Pathway, https://fortress.wa.gov/ecy/clarc/Reporting/ChemicalQuery.aspx

[5]Washington State Cleanup Levels and Risk Calculations under the Washington State MTCA, Standard Method B Formula Values for Soil from CLARC Master spreadsheet updated September 2015, https://fortress.wa.gov/ecy/clarc/CLARCDataTables.aspx

[6]90th Percentile values for the Puget Sound region from Washington State Department of Ecology's Natural Background Soil Metals Concentrations in Washington State, 1994.

Table 3
Summary of Groundwater Field Parameters and Analytical Results
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington
Farallon PN: 1071-013 Task 001

Sample Identification	Sample Date	Field Parameters			Dissolved Metals (µg/l)				Total Petroleum Hydrocarbons (µg/l)		
		ORP (mV)	pH (SU)	DO (mg/l)	Arsenic[1]	Iron[1]	Manganese[1]	Selenium[1]	GRO[2]	DRO[2]	ORO[2]
MW-1	7/24/2003	--	6.57		21J	63,000	2,000	<16	<50	430	320
	12/18/2003	--	8.9	0.4	28/26	63,000	2,000	<100	--	350/370	<240/250
	3/31/2004	--	4.73	--	30	--	--	<16	--	390	**530**
	6/17/2004	103	--	--	17	--	--	63	--	230	<240
	10/20/2004	170	5.82	0.49	17	--	--	43	--	290	<260
	3/30/2005	--	6.21	--	17	59,000	160	38	--	170(B)	<240
	2/8/2006	--	6.3	3	48.3/49.6	2,150	1,830	83.1/77.7	--	200/150	<250
	12/13/2006	-98	6.7	--	14.2	2,510	--	<1	<50	<50	<250
	3/27/2008	-153.3	6.39	0.11	41	20,400	1,070	116	--	83	<250
	3/26/2009	-155.7	6.5	3.87	27.6	35,800	1,750	63.2	--	110	<250
	1/27/2011	-131.2	6.57	0.13	10/10	49,000	1,300	19/20	--	<120/<120	<240/<240
	1/21/2016	Well inaccessible - Sample not collected									
MW-2	12/22/2003	--	9.1	0.6	11	59,000	3,700	<16	--	340	<240
	3/31/2004	--	4.83	4	22	--	--	<100	--	390	490
	6/17/2004	126	9.2	--	12	--	--	7.5	--	230	<240
	10/20/2004	185	5.94	1.31	18	--	--	10	--	370	<250
	3/30/2005	--	6.28	--	48	92,000	3,600	7.9	--	260(B)	<240
	2/8/2006	--	6.5	1.72	51.6	26,400	2,820	11.9	--	130	<250
	12/13/2006	-106	6.5	--	4.52	3,180	--	<1	<50	<50	<250
	3/27/2008	-15.3	6.44	0.14	15.9	22,800	1,570	9.13	--	86	<250
	3/26/2009	-147.8	6.57	6.14	33.3	46,000	1,750	10.9	--	120	<250
	1/27/2011	-105.6	6.34	0.22	26	46,000	2,000	2.9	--	<120	<240
	1/21/2016	9	6.57	0.66	13	--	--	<5.0	--	<260	<410
MW-3	12/22/2003	--	--	0.8	<5	5,300	2,100	<100	--	<48	<240
	3/31/2004	--	7.5	5.4	12	--	--	<16	--	140	220
	6/17/2004	52	7.92	--	15	--	--	<5	--	110	<240
	10/20/2004	174	5.75	1.28	16	--	--	15	--	120	<260
	3/30/2005	--	--	--	26	17,000	3,600	<2	--	110(B)	<240
	2/8/2006	--	6.4	1.9	28.9	26,700	3,980	2.41	--	66	<250
	12/13/2006	-62	6.7	--	6	<100	--	<1	<50	<50	<250
	3/27/2008	-106.1	6.3	0.15	15.1	8,870	2,940	2.71	--	<50	<250
	3/26/2009	-135.1	6.43	2.67	18.9	16,600	3,400	1.91	--	<50	<250
	1/27/2011	-107.8	6.31	0.13	23	24,000	4,000	0.96	--	<120	<240
	1/21/2016	15	6.52	0.93	27			<5.0	--	<260	<410
MW-4	12/22/2003	--	7.2	0.5	<5	29,000	2,700	<16	--	87	<240
	3/31/2004	--	5.08	5.5	7.2	--	--	<16	--	110	140
	6/17/2004	87	8.52	--	<5	--	--	<5	--	79	<240
	10/20/2004	119	--	0.96	<5	--	--	<5	--	97	<260
	3/30/2005	--	6.32	--	6.2	43,000	4,400	<2	--	92(B)	<240
	2/8/2006	--	6.5	2	60	57,100	7,260	5.25	--	180	<250
	12/13/2006	-92	6.7	--	1.32	305	--	<1	<50	<50	<250
	3/27/2008	-175.7	6.33	0.19	4.57	12,100	3,040	4.37	--	<50	<250
	3/26/2009	-195.1	6.5	1.19	22.8	31,700	2,290	4.73	--	56	<250
	1/27/2011	-128.6	6.49	0.26	58	63,000	4,500	1.8	--	<120	<240
	1/21/2016	-20	6.61	0.93	21	--	--	<5.0	--	<250	<410

Table 3
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Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington
Farallon PN: 1071-013 Task 001

Sample Identification	Sample Date	Field Parameters			Dissolved Metals (µg/l)				Total Petroleum Hydrocarbons (µg/l)		
		ORP (mV)	pH (SU)	DO (mg/l)	Arsenic[1]	Iron[1]	Manganese[1]	Selenium[1]	GRO[2]	DRO[2]	ORO[2]
MW-5	12/22/2003	--	7.4	0.2	<5	55,000	1,900	<100	--	64	<240
	3/31/2004	--	7.3	3.4	<5	--	--	<16	--	160	210
	6/17/2004	83	8.47	--	<5	--	--	<5	--	100	<240
	10/20/2004	117	5.22	0.67	<5	--	--	11	--	130	<260
	3/30/2005	--	6.35	--	7.8	48,000	1,700	<2	--	184/74(B)	<240/(<240)
	2/8/2006	--	6.5	1.25	9.83	46,300	1,630	3.49	--	63	<250
	12/13/2006	-82	6.6		1.18	3,120	--	<1	<50	<50	<250
	3/27/2008	-111	6.19	0.15	3.82	16,900	944	3.62	--	<50	<250
	3/26/2009	-165.9	6.39	1.05	5.93	34,300	1,270	4.89	--	120	<250
	1/27/2011	-100.6	6.25	0.13	5.7	54,000	1,800	2.4	--	<120	<240
	1/21/2016	10	6.46	0.83	3.9	--	--	<5.0	--	<280	<460
S-3	3/24/2003	--	7.48	--	97	--	<20	170	<50	0.58	0.42
GP-1	12/13/2006	--	--	--	4.22	32,700	2,860	1.03	<100	<50	<250
GP-2	12/13/2006	--	--	--	4.34	50	2,300	6.57	<100	<50	<250
GP-3	12/13/2006	--	--	--	<1	94	312	<1	<100	82	410
MTCA Method A Cleanup Level[3]		--	--	--	**5**	--	--	--	**1,000**	**500**	**500**
MTCA Method B Cleanup Level[4]		--	--	--	--	**11,200**	**2,240**	**80**	--	--	--
Background Concentration		--	--	--	**3.3 - 115[5]**	--	**<1 - 510,000[6]**	--	--	--	--

NOTES:

< denotes analyte not detected at or exceeding the reporting limit listed.

Shading denotes COPC concentration exceeds Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Cleanup Level.

<250/330 = Primary sample result/field duplicate sample result.

[1]Analyzed by Northwest Method NWTPH-Dx

[2]Analyzed by U.S. Environmental Protection Agency Method 200.8 ICP/MS.

[3]MTCA Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised 2013.

[3]Standard Method A Formula Values for Groundwater (potable use).

[4]MTCA Cleanup Levels and Risk Calculations, Standard Method B Values for Groundwater, https://fortress.wa.gov/ecy/clarc/Reporting/ChemicalQuery.aspx

[5]Washington Sate Department of Ecology. Public Comment Notice for Termination of Interim Status for the Boeing Space Center – Striker Property in Kent, Washington. July, 2012.

[6]United States Department of the Interior Geological Survey. Quality of Ground Water in the Puget Sound Region, Washington, 1981. Prepared in cooperation with the Washington State Department of Ecology. 1986.

B = analyte is found in the associated laboratory control blank

COPC = constituent of potential concern

DO = dissolved oxygen

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

GRO = TPH as gasoline-range organics

J = concentration is an estimated value

mg/l = milligrams per liter

mV = millivolt

µg/l = micrograms per liter

ORO = TPH as oil-range organics

ORP = oxidation reduction potential

SU = standard units

Table 4
Groundwater Elevation Data
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington
Farallon PN: 1071-013 Task 001

Monitoring Well	Top of Casing Elevation (ft msl)	Monitoring Date	Depth to Water (ft btoc)	Elevation (elev ft)
MW-1	102.57	12/18/2003	9.92	92.65
		1/21/2004	9.87	92.70
		3/31/2004	10.30	92.27
		6/17/2004	10.77	91.80
		10/20/2004	10.75	91.82
		3/30/2005	10.55	92.02
		2/8/2006	8.97	93.60
		12/13/2006	9.40	93.17
		3/27/2008	9.86	92.71
		3/26/2009	9.86	92.71
		1/27/2011	8.81	93.76
		1/21/2016	Well Inaccessible	
MW-2	102.16	12/18/2003	9.42	92.74
		1/21/2004	9.39	92.77
		3/31/2004	9.86	92.30
		6/17/2004	10.35	91.81
		10/20/2004	10.30	91.86
		3/30/2005	10.09	92.07
		2/8/2006	8.55	93.61
		12/13/2006	8.90	93.26
		3/27/2008	9.41	92.75
		3/26/2009	9.43	92.73
		1/27/2011	8.33	93.83
		1/21/2016	8.21	93.95
MW-3	100.00	12/18/2003	7.20	92.80
		1/21/2004	6.97	93.03
		3/31/2004	7.40	92.60
		6/17/2004	7.96	92.04
		10/20/2004	8.04	91.96
		3/30/2005	7.71	92.29
		2/8/2006	6.88	93.12
		12/13/2006	6.88	93.12
		3/27/2008	7.24	92.76
		3/26/2009	7.08	92.92
		1/27/2011	5.90	94.10
		1/21/2016	5.46	94.54

Table 4
Groundwater Elevation Data
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington
Farallon PN: 1071-013 Task 001

Monitoring Well	Top of Casing Elevation (ft msl)	Monitoring Date	Depth to Water (ft btoc)	Elevation (elev ft)
MW-4	98.64	12/18/2003	6.26	92.38
		1/21/2004	6.29	92.35
		3/31/2004	6.77	91.87
		6/17/2004	7.20	91.44
		10/20/2004	7.20	91.44
		3/30/2005	7.04	91.60
		2/8/2006	5.55	93.09
		12/13/2006	6.10	92.54
		3/27/2008	6.48	92.16
		3/26/2009	6.40	92.24
		1/27/2011	5.42	93.22
		1/21/2016	5.07	93.57
MW-5	98.05	12/18/2003	5.35	92.70
		1/21/2004	5.36	92.69
		3/31/2004	5.77	92.28
		6/17/2004	6.26	91.79
		10/20/2004	6.21	91.84
		3/30/2005	6.05	92.00
		2/8/2006	4.49	93.56
		12/13/2006	4.88	93.17
		3/27/2008	5.39	92.66
		3/26/2009	5.38	92.67
		1/27/2011	4.32	93.73
		1/21/2016	4.13	93.92

NOTES:

Shade denotes current monitoring results.

elev ft = elevation in feet reference to monitoring well MW-3 top of casing

ft btoc = feet below top of casing

Table 5
Technology Screening for Groundwater Cleanup Alternatives
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington
Farallon PN: 1071-013 Task 001

Remediation Technology	Method	Process Option	Score									Rank	Retain (Y/N)
			Implementability	Protectiveness	Permanence	Effectiveness	Short-Term Risk Management	Restoration Time Frame	Consideration of Public Concerns	Cost	Total Score		
No Action/Natural Attenuation and Institutional Controls	Natural Attenuation	Natural degradation processes.	4	4	4	4	4	4	2	4	30	1	Y
Monitored Natural Attenuation	Natural Attenuation with Groundwater Monitoring and Sampling	Sample collection and analysis for COPCs and natural attenuation parameters.	4	4	4	1	2	0	3	2	20	2	Y
In-Situ Treatment	Enhanced Bioremediation	Bioagumentnation using a substrate	1	1	2	1	1	0	2	1	9	3	N
Ex-Situ Treatment	Pump and Treat	Adsorption and coprecipitation	1	2	3	2	1	1	1	0	11	3	N
		Ion exchange	1	2	3	2	1	1	1	0	11	3	N
		Reverse osmosis filtration	1	2	3	2	1	1	1	0	11	3	N

NOTES:
Scores = 0 least favorable, 4 most favorable.
Rank = Relative position to other technologies based on total score.
Total Score = Sum of individual scores.
Y = Retained for consideration in cleanup alternative(s).
N = Not retained for consideration in cleanup alternative(s).

COPCs = constituents of potential concern

Table 6
Evaluation of Cleanup Alternatives
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington
Farallon PN: 1071-013 Task 001

	Cleanup Alternative 1 No Action/Natural Attenuation	Cleanup Alternative 2 Monitored Natural Attenuation
Description	No additional investigation or remediation activities.	Periodic groundwater sampling and collection of monitored natural attenuation parameters to evaluate potential natural attenuation of TPH and concentrations of dissolved arsenic, manganese, and selenium in groundwater.
THRESHOLD REQUIREMENTS		
Protective of Human Health and the Environment	**Yes** - Cleanup alternative will protect human health and the environment. Worker protections will be needed if future construction or utility work occurs in areas where dissolved arsenic and/or manganese are present at concentrations exceeding MTCA cleanup levels in groundwater.	**Yes** - Cleanup alternative will protect human health and the environment. Worker protections may be needed if future construction or utility work occurs in areas where dissolved arsenic and/or manganese are present at concentrations exceeding MTCA cleanup levels in groundwater.
Compliant with Cleanup Standards	**Yes** - Cleanup alternative will eventually comply with cleanup standards.	**Yes** - Cleanup alternative will comply with cleanup standards.
Compliant with Applicable State and Federal Laws	**Yes** - Cleanup alternative complies with applicable laws.	**Yes** - Cleanup alternative complies with applicable laws.
Provision for Compliance Monitoring	**Yes** - Cleanup alternative includes provisions for compliance monitoring of groundwater.	**Yes** - Cleanup alternative includes provisions for compliance monitoring (i.e., compliance soil and groundwater sampling during source removal).
OTHER REQUIREMENTS		
Permanent to the Maximum Extent Practicable (see detail below)	**Yes** - Cleanup alternative is permanent to the maximum extent practicable.	**Yes** - Cleanup alternative is permanent to the maximum extent practicable.
Reasonable Restoration Time Frame	Restoration time frame is 0 years.	Restoration time frame is uknown because natural attenuation of TPH in Site groundwater has not been confirmed and groundwater conditions are variable.
EVALUATION CRITERIA FOR PERMANENCE TO THE MAXIMUM EXTENT PRACTICABLE		
Protectiveness (30% Weighted Factor)	Cleanup alternative will achieve overall protection. = **4**	Cleanup alternative will achieve overall protection. = **4**
Permanence (20% Weighted Factor)	Concentrations of COCs exceeding established MTCA Method A cleanup levels will diminish over time by natural attenuation processes. = **4**	Concentrations of COCs exceeding established MTCA Method A cleanup levels will diminish over time by natural attenuation processes. = **4**
Long-Term Effectiveness (20% Weighted Factor)	Cleanup alternative is generally effective over the long term. = **4**	Cleanup alternative is generally effective over the long term; however, the restoration time frame is indeterminate. = **1**
Short-Term Risk Management (10% Weighted Factor)	Cleanup alternative would pose no short-term risk. = **4**	Cleanup alternative would pose a short-term risk for personnel performing field work. = **3**
Technical and Administrative Implementability (10% Weighted Factor)	Cleanup alternative requires some legal administrative matters. = **3**	Cleanup alternative requires some field work, reporting, and administrative matters. = **2**
Public Concerns (10% Weighted Factor)	Cleanup alternative may cause some limited public concern due to the ongoing presence of groundwater with concentrations of COPCs exceeding established MTCA cleanup levels. = **2**	Cleanup alternative may cause some limited public concern due to the possible ongoing presence of groundwater with concentrations of COPCs exceeding established MTCA cleanup levels. = **3**
Overall Score	**3.7**	**3.0**

NOTES:

COCs retained for evaluation through the focused feasibility study include total petroleum hydrocarbons as oil-range organics, carcinogenic polycyclic aromatic hydrocarbons, and lead in soil; and total petroleum hydrocarbons as diesel-range organics and as oil-range organics, and arsenic in groundwater.

[1] Soil categories described in the Washington State Department of Ecology document G*uidance for Remediation of Petroleum Contaminated Sites* , Publication No. 10-09-057, dated September 2011.

COCs = constituents of concern
COPCs - constituents of potential concern
MTCA = Washington State Model Toxics Control Act Regulation
TPH = total petroleum hydrocarbons

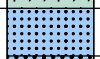
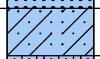
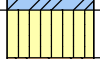
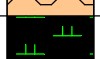
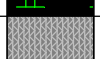
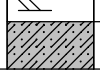
APPENDIX A
BORING LOGS

REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington

Farallon PN: 1071-013 (Task 1)

FARALLON CONSULTING

USCS Classification and Graphic Legend

Major Divisions			USCS Graphic Symbol	USCS Letter Symbol	Lithologic Description
Coarse-Grained Soil (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little or no fines)		GW	Well graded GRAVEL, well graded GRAVEL with sand
				GP	Poorly graded GRAVEL, GRAVEL with sand
		GRAVEL WITH FINES (Appreciable amount of fines)		GP-GM	Poorly graded GRAVEL - GRAVEL with sand and silt
				GM	Silty GRAVEL
				GC	Clayey GRAVEL
	SAND AND SANDY SOIL (More than 50% of coarse fraction passed through No. 4 sieve)	CLEAN SAND (Little or no fines)		SW	Well graded SAND
				SP	Poorly graded SAND
		SAND WITH FINES (Appreciable amount of fines)		SP-SM	Poorly graded SAND - silty SAND
				SM	Silty SAND
				SC	Clayey SAND
				SM-ML	SILT - Silty SAND
Fine-Grained Soil (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY (Liquid limit less than 50)			ML	SILT
				CL	CLAY
				OL	Organic SILT
	SILT AND CLAY (Liquid limit greater than 50)			MH	Inorganic SILT
				CH	Inorganic CLAY
				OH	Organic CLAY
		Highly Organic Soil		PT	Peat
OTHER MATERIALS	PAVEMENT			AC	Asphalt concrete
				CO	Concrete
	OTHER			RK	Bedrock
				WD	Wood Debris
				DB	Debris (Miscellaneous)
				PC	Portland cement

Legend

- Sample Interval
- G — Grab Sample Interval
- Water level at time of drilling
- Water level at time of sampling
- Blank Casing
- Screened Casing
- Cement Grout
- Bentonite
- Sand Pack
- Well Cap
- _____ Solid line indicates sharp contact between units well defined.
- - - - - - - Dashed line indicates gradational contact between units.

feet bgs = feet below ground surface
NE = Not Encountered
NA = Not Applicable
PID = Photoionization Detector
PN = Project Number
*ppm = parts per million total organic vapors in isobutylene equivalents using a 10.6 electron volt lamp
USCS = Unified Soil Classification System

APPENDIX A

Soil Boring Logs

GEOLOGICA INC.
Boring Log
594 Howard St, Suite 400
San Francisco, CA 98105

Boring Number: GP-1

Project Number:	Date Started: 12/13/2006
Project Name: Former Qualex Facility	Date Completed: 12/13/2006
Site Location: 21249 S. 72nd Ave, Kent, WA	Casing Type/Diameter: N/A
Boring Location:	Screen Type/Slot: N/A
Drilling Method: Direct Push	Gravel/Sand Pack Type: N/A
Sampling Method:	Grout Type/Quantity: N/A
Boring Diameter: 2" OD	Depth to Water: approx 10 feet bgs
Logged by: GR	Elevation of Top of PVC Casing: N/A
Drilling Contractor: Cascade Drilling, Inc.	Casing Stickup, ft: N/A

Remarks: Weather:

PID/OVA (ppm)	Blow Counts	Recovery (inches)	Sample ID.	Depth (ft BGS)	USCS	Lithologic Description	Well Completion Diagram
				0		Gravelly sand (fill)	
				1		Black sand with fine gravel	
				2			
				3		Tan sandy clay with gravel	
				4			
				5			
				6		Grading to damp/wet gray clay	
				7			
				8			
				9		Gray, sandy clay (wet)	
				10		Gray, silty clay (wet)	
				11			
				12			
				13			
				14		Gray, sandy clay (wet)	
				15			
				16			

Figure A-1

GEOLOGICA INC.
Boring Log
594 Howard St, Suite 400
San Francisco, CA 98105

Boring Number: GP-2

Page 1 of 1

Project Number:	Date Started: 12/13/2006
Project Name: Former Qualex Facility	Date Completed: 12/13/2006
Site Location: 21249 S. 72nd Ave, Kent, WA	Casing Type/Diameter: N/A
Boring Location:	Screen Type/Slot: N/A
Drilling Method: Direct Push	Gravel/Sand Pack Type: N/A
Sampling Method:	Grout Type/Quantity: N/A
Boring Diameter: 2" OD	Depth to Water: approx 12 feet bgs
Logged by: GR	Elevation of Top of PVC Casing: N/A
Drilling Contractor: Cascade Drilling, Inc.	Casing Stickup, ft: N/A

Remarks: Weather:

PID/OVA (ppm)	Blow Counts	Recovery (inches)	Sample ID.	Depth (ft BGS)	USCS	Lithologic Description	Well Completion Diagram
				1		Black sand with gravel and rocks (fill)	
				2			
				3		Tan sandy clay with gravel	
				4			
				5			
				6		Gray sand, poorly graded medium sand	
				7		Gray sandy clay with gravel	
				8		Black clay, wood fragments	
				9		Tan sandy clay with gravel	
				10		Gray silty clay, grades damp to wet	
				11			
				12		Gray sandy clay with gravel (wet)	
				13			
				14		Gray, silty clay (wet)	
				15		Black sand (wet), fine to medium grained, wood fragments	
				16			

Figure A-2

GEOLOGICA INC.
Boring Log
594 Howard St, Suite 400
San Francisco, CA 98105

Boring Number: GP-3

Page 1 of 1

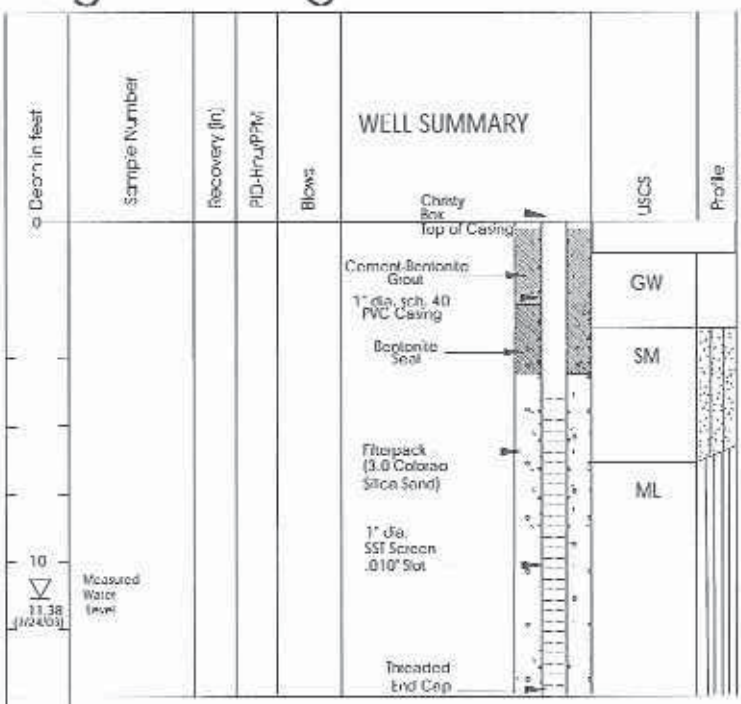
Project Number:	Date Started: 12/13/2006
Project Name: Former Qualex Facility	Date Completed: 12/13/2006
Site Location: 21249 S. 72nd Ave, Kent, WA	Casing Type/Diameter: N/A
Boring Location:	Screen Type/Slot: N/A
Drilling Method: Direct Push	Gravel/Sand Pack Type: N/A
Sampling Method:	Grout Type/Quantity: N/A
Boring Diameter: 2" OD	Depth to Water: approx 9 feet bgs
Logged by: GR	Elevation of Top of PVC Casing: N/A
Drilling Contractor: Cascade Drilling, Inc.	Casing Stickup, ft: N/A

Remarks: Weather:

PID/OVA (ppm)	Blow Counts	Recovery (inches)	Sample ID.	Depth (ft BGS)	USCS	Lithologic Description	Well Completion Diagram
				0		Brown, gravelly sand	
				1			
				2		Tan sand with gravel	
				3		grades to gray	
				4		Gray, sandy clay with gravel, wood fragments	
				5			
				6			
				7		Gray silty clay (moist)	
				8			
				9			
				10		Gray silty clay (wet)	
				11			
				12		Gray sand with gravel (wet)	
				13			
				14			
				15			
				16			

Figure A-3

Log of Boring/Well Construction



Monitoring Well No. MW-1

FLD ENGR	Kris Vowles	COORD:	N.
EDITED BY	Brian Aubry		E.
TOTAL DEPTH	14.0	GRND. SURF. EL.	
DATE BEGAN	7/24/03	ELEV. OF TOP OF:	
DATE FINISHED	7/24/03	OUTER CASING	
DATE DEVELOPED	7/24/03	INNER CASING	
		REFERENCE DATUM	

DESCRIPTION

6" Concrete

Poa Gravel (GW).

Brown SILTY SAND (SM) with med to large cobbles. Very dense.

Grades Dark Grey SANDY SILT (ML). Soft, moist.

TOTAL DEPTH=14'
DEPTH FROM TOP OF CASING = 14.0'

DRILLING Co.: Bortech, Inc.
DRILL METHOD: 5" Hollow Stem Auger
CLIENT: NPEC, Inc.

Phase II Environmental Site Assessment
Former Kodak Processing Lab (KPL)
21249 72nd Avenue South
Kent, Washington

geologica

Figure A-1

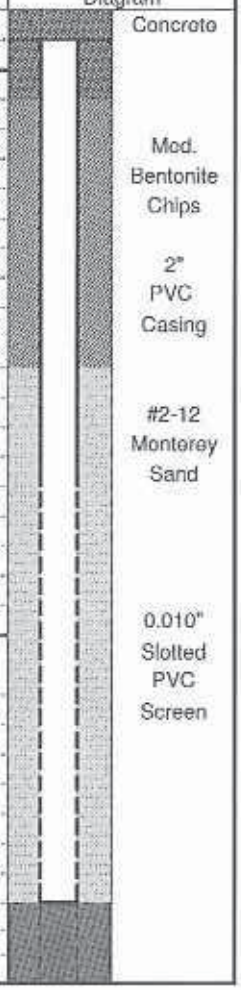
GEOLOGICA INC.
Boring Log
594 Howard St, Suite 400
San Francisco, CA 98105

Boring/Well Number: MW-2

Project Number:	Date Started: 12/17/2003
Project Name: Qualex - Kent	Date Completed: 12/17/2003
Site Location: 21249 72nd Ave S, Kent, WA	Casing Type/Diameter: 2" sched. 40, flush-threaded PVC
Boring Location: behind building	Screen Type/Slot: 7' machine-slotted 0.010 in. PVC
Drilling Method: HSA	Gravel/Sand Pack Type: Monterey #2-12 silica sand
Sampling Method: D&M sampler; 300 lb hammer	Grout Type/Quantity: medium Purogold bentonite chips
Boring Diameter: 8"	Depth to Water: 9.35 ft below TOC
Logged by: Dan Matthews	Elevation of Top of PVC Casing:
Drilling Contractor: Cascade Drilling	Casing Stickup, ft -0.48 (flush monument)

Remarks: Weather: sunny, mild

PID/OVA (ppm)	Blow Counts	Recovery (inches)	Sample ID.	Depth (ft BGS)	USCS	Lithologic Description
				0		3" asphalt over moist, sandy Gravel
				1		
				2		
				3		
				4		
				5		
	9				SM/	Moist to damp, brown, loose, sandy SILT/silty fine SAND with
	5	12"	S-1	6	ML	few gravel
	12					
				7		
				8		
				9		
				10		
	8					
	8	18"	S-2	11	SW	Damp, dark gray, loose, fine SAND with trace silt and few
	8					organics
				12		
				13		
				14		
				15		
	7					
	8	18"	S-3	16	SW	Wet, loose, fine to medium SAND; 1" silt lense at 16.3 ft
	9					



Bottom of hole at 16.5 ft below ground surface on 12/17/2003.

Figure A-1

GEOLOGICA INC.
Boring Log
594 Howard St, Suite 400
San Francisco, CA 98105

Boring/Well Number: MW-3

Page 1 of 1

Project Number:	Date Started: 12/17/2003
Project Name: Qualex - Kent	Date Completed: 12/17/2003
Site Location: 21249 72nd Ave S, Kent, WA	Casing Type/Diameter: 2" sched. 40, flush-threaded PVC
Boring Location: southwest corner of building	Screen Type/Slot: 7' machine-slotted 0.010 in. PVC
Drilling Method: HSA	Gravel/Sand Pack Type: Monterey #2-12 silica sand
Sampling Method: D&M sampler; 300 lb hammer	Grout Type/Quantity: medium Puregold bentonite chips
Boring Diameter: 8"	Depth to Water: 7.25 ft below TOC
Logged by: Dan Matthews	Elevation of Top of PVC Casing:
Drilling Contractor: Cascade Drilling	Casing Stickup, ft -0.5 (flush monument)

Remarks: Weather: sunny, mild

PID/OVA (ppm)	Blow Counts	Recovery (inches)	Sample ID.	Depth (ft BGS)	USCS	Lithologic Description	Well Completion Diagram
						3" asphalt over dry to moist, sandy Gravel	Concrete
	5				SM/	Damp, gray, loose, fine SAND with some SILT, few organics	Mod. Bentonite Chips
	5	18"	S-1	6	ML		2" PVC Casing
	4						#2-12 Monterey Sand
	6						0.010" Slotted PVC Screen
	7	18"	S-2	11	SM	As above, damp to wet	
	5						
	6						
	11	18"	S-3	16	ML	Wet, gray, medium stiff to stiff, very fine sandy SILT	
	12				SM	Wet, gray, loose, slightly silty, fine SAND	

Bottom of hole at 16.5 ft below ground surface on 12/17/2003.

Figure A-2

GEOLOGICA INC.
Boring Log
594 Howard St, Suite 400
San Francisco, CA 98105

Boring/Well Number: MW-4

Page 1 of 1

Project Number:	Date Started: 12/17/2003
Project Name: Qualex - Kent	Date Completed: 12/17/2003
Site Location: 21249 72nd Ave S, Kent, WA	Casing Type/Diameter: 2" sched. 40, flush-threaded PVC
Boring Location: southeast corner of building	Screen Type/Slot: 7' machine-slotted 0.010 in. PVC
Drilling Method: HSA	Gravel/Sand Pack Type: Monterey #2-12 silica sand
Sampling Method: D&M sampler; 300 lb hammer	Grout Type/Quantity: medium Puregold bentonite chips
Boring Diameter: 8"	Depth to Water: 6.07 ft below TOC
Logged by: Dan Matthews	Elevation of Top of PVC Casing:
Drilling Contractor: Cascade Drilling	Casing Stickup, ft -0.48 (flush monument)

Remarks: Weather: sunny, mild

PID/OVA (ppm)	Blow Counts	Recovery (inches)	Sample ID.	Depth (ft BGS)	USCS	Lithologic Description	Well Completion Diagram
				0		3" asphalt over moist, sandy Gravel	Concrete
				1			
				2			Med. Bentonite Chips
				3			
				4			2" PVC Casing
				5			
	5				SM	Moist to damp, dark gray, loose to medium dense, trace silt to silty, fine SAND	
	3	18"	S-1	6			
	2						
				7			#2-12 Monterey Sand
				8			
				9			
				10			
	11						0.010" Slotted PVC Screen
	16	18"	S-2	11	ML	Damp, gray SILT	
	15				SM	Wet, dark gray, loose to medium dense, slighty silty to silty, fine SAND	
				12			
				13			
				14			
				15			
	9						
	5	18"	S-3	16			
	5				ML	Damp, dark gray, medium stiff, SILT with trace organics	

Bottom of hole at 16.5 ft below ground surface on 12/17/2003.

Figure A-3

GEOLOGICA INC.
Boring Log
594 Howard St, Suite 400
San Francisco, CA 98105

Boring/Well Number: MW-5

Page 1 of 1

Project Number:	Date Started: 12/17/2003
Project Name: Qualex - Kent	Date Completed: 12/17/2003
Site Location: 21249 72nd Ave S, Kent, WA	Casing Type/Diameter: 2" sched. 40, flush-threaded PVC
Boring Location: southeast corner of building	Screen Type/Slot: 7' machine-slotted 0.010 in. PVC
Drilling Method: HSA	Gravel/Sand Pack Type: Monterey #2-12 silica sand
Sampling Method: D&M sampler; 300 lb hammer	Grout Type/Quantity: medium Puregold bentonite chips
Boring Diameter: 8"	Depth to Water: 5.27 ft below TOC
Logged by: Dan Matthews	Elevation of Top of PVC Casing:
Drilling Contractor: Cascade Drilling	Casing Stickup, ft -0.32 (flush monument)

Remarks: Weather: sunny, mild

PID/OVA (ppm)	Blow Counts	Recovery (inches)	Sample ID.	Depth (ft BGS)	USCS	Lithologic Description	Well Completion Diagram
						3" asphalt over wet, sandy Gravel	Concrete
				1			
				2			Med. Bentonite Chips
				3			
				4			2" PVC Casing
				5			
	4				SM	Moist to damp, dark gray, loose, slightly silty to silty fine SAND	
	7	18"	S-1	6		with few gravel and wood chips	
	7						
				7			#2-12 Monterey Sand
				8			
				9			
				10			
	7						0.010" Slotted PVC Screen
	11	18"	S-2	11		Wet, trace organics	
	11						
				12			
				13			
				14			
				15			
	6						
	7	18"	S-3	16	SP		
	6					Wet, dark gray, loose, fine to medium SAND with few organics	

Bottom of hole at 16.5 ft below ground surface on 12/17/2003.

Figure A-4

APPENDIX B
LABORATORY ANALYTICAL REPORTS

REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington

Farallon PN: 1071-013 (Task 1)

Sequoia
Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

10 April, 2003

Brian Aubry
Geologica Inc.
703 Market St., Ste 609
San Francisco, CA 94103

RE: Qualex Kent, WA
Sequoia Work Order: P303395

Enclosed are the results of analyses for samples received by the laboratory on 03/25/03 10:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angelee Cari

Angelee Cari
Project Manager

CA ELAP Certificate #2374

Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-3	P303395-01	Water	03/24/03 12:00	03/25/03 10:00
B-1-3'	P303395-02	Soil	03/24/03 12:00	03/25/03 10:00
B-1-6'	P303395-03	Soil	03/24/03 12:00	03/25/03 10:00
S-1-2'	P303395-04	Soil	03/24/03 12:00	03/25/03 10:00
S-1-4'	P303395-05	Soil	03/24/03 12:00	03/25/03 10:00
S-2-2'	P303395-06	Soil	03/24/03 12:00	03/25/03 10:00
S-3-2'	P303395-07	Soil	03/24/03 12:00	03/25/03 10:00
S-3-4'	P303395-08	Soil	03/24/03 12:00	03/25/03 10:00
S-3-8'	P303395-09	Soil	03/24/03 12:00	03/25/03 10:00
S-4-3'	P303395-10	Soil	03/24/03 12:00	03/25/03 10:00
S-4-6'	P303395-11	Soil	03/24/03 12:00	03/25/03 10:00

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Total Petroleum Hydrocarbons as Gasoline by EPA 8015B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-3 (P303395-01) Water Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Gasoline Range Organics	ND	50	ug/l	1	3030542	03/26/03	03/26/03	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		*98 %*	*65-135*		"	"	"	"	
S-1-4' (P303395-05) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Gasoline Range Organics	ND	1000	ug/kg	1	3040083	04/03/03	04/03/03	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		*113 %*	*65-135*		"	"	"	"	
S-2-2' (P303395-06) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Gasoline Range Organics	ND	1000	ug/kg	1	3040083	04/03/03	04/03/03	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		*111 %*	*65-135*		"	"	"	"	
S-3-8' (P303395-09) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Gasoline Range Organics	ND	1000	ug/kg	1	3040083	04/03/03	04/03/03	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		*106 %*	*65-135*		"	"	"	"	
S-4-3' (P303395-10) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Gasoline Range Organics	ND	1000	ug/kg	1	3040083	04/03/03	04/03/03	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		*110 %*	*65-135*		"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	Reported:
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Total Petroleum Hydrocarbons as Diesel & others by EPA 8015B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-3 (P303395-01) Water Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									**HT-03**
Diesel Range Organics (C10-C28)	**0.58**	0.050	mg/l	1	3040013	04/02/03	04/07/03	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	**0.42**	0.25	"	"	"	"	"	"	
Surrogate: Octacosane		*57 %*	*50-150*		"	"	"	"	
S-1-4' (P303395-05) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Diesel Range Organics (C10-C28)	**6.4**	5.0	mg/kg	1	3030625	04/02/03	04/03/03	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	10	"	"	"	"	"	"	
Surrogate: Octacosane		*104 %*	*50-150*		"	"	"	"	
S-2-2' (P303395-06) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Diesel Range Organics (C10-C28)	**5.5**	5.0	mg/kg	1	3030625	04/02/03	04/03/03	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	10	"	"	"	"	"	"	
Surrogate: Octacosane		*97 %*	*50-150*		"	"	"	"	
S-3-8' (P303395-09) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Diesel Range Organics (C10-C28)	ND	5.0	mg/kg	1	3030625	04/02/03	04/03/03	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	10	"	"	"	"	"	"	
Surrogate: Octacosane		*96 %*	*50-150*		"	"	"	"	
S-4-3' (P303395-10) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Diesel Range Organics (C10-C28)	ND	5.0	mg/kg	1	3030625	04/02/03	04/03/03	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	10	"	"	"	"	"	"	
Surrogate: Octacosane		*90 %*	*50-150*		"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	Reported:
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-1-6' (P303395-03) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Mercury	**0.021**	0.019	mg/kg	1	3030546	04/02/03	04/03/03	EPA 7471A	
Antimony	ND	5.6	"	"	3030562	03/26/03	04/04/03	EPA 6010B	
Arsenic	ND	9.3	"	"	"	"	"	"	
Barium	**38**	0.93	"	"	"	"	"	"	
Beryllium	**0.23**	0.093	"	"	"	"	"	"	
Cadmium	ND	0.93	"	"	"	"	"	"	
Chromium	**16**	0.93	"	"	"	"	"	"	
Cobalt	**4.6**	0.65	"	"	"	"	"	"	
Copper	**10**	1.9	"	"	"	"	"	"	
Lead	ND	6.9	"	"	"	"	"	"	
Molybdenum	**3.8**	2.3	"	"	"	"	"	"	
Nickel	**17**	2.8	"	"	"	"	"	"	
Selenium	ND	9.3	"	"	"	"	"	"	
Silver	ND	0.65	"	"	"	"	"	"	
Thallium	ND	9.3	"	"	"	"	"	"	
Vanadium	**31**	0.93	"	"	"	"	"	"	
Zinc	**23**	1.9	"	"	"	"	"	"	
S-1-4' (P303395-05) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Mercury	**0.027**	0.019	mg/kg	1	3030546	04/02/03	04/03/03	EPA 7471A	
Antimony	ND	5.7	"	"	3030562	03/26/03	04/04/03	EPA 6010B	
Arsenic	ND	9.4	"	"	"	"	"	"	
Barium	**56**	0.94	"	"	"	"	"	"	
Beryllium	**0.30**	0.094	"	"	"	"	"	"	
Cadmium	ND	0.94	"	"	"	"	"	"	
Chromium	**13**	0.94	"	"	"	"	"	"	
Cobalt	**5.5**	0.66	"	"	"	"	"	"	
Copper	**21**	1.9	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Molybdenum	ND	2.4	"	"	"	"	"	"	
Nickel	**12**	2.8	"	"	"	"	"	"	
Selenium	ND	9.4	"	"	"	"	"	"	
Silver	ND	0.66	"	"	"	"	"	"	
Thallium	ND	9.4	"	"	"	"	"	"	
Vanadium	**36**	0.94	"	"	"	"	"	"	
Zinc	**29**	1.9	"	"	"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-2-2' (P303395-06) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Mercury	**0.033**	0.020	mg/kg	1	3030546	04/02/03	04/03/03	EPA 7471A	
Antimony	ND	5.2	"	"	3030562	03/26/03	04/04/03	EPA 6010B	
Arsenic	ND	8.6	"	"	"	"	"	"	
Barium	**38**	0.86	"	"	"	"	"	"	
Beryllium	**0.22**	0.086	"	"	"	"	"	"	
Cadmium	ND	0.86	"	"	"	"	"	"	
Chromium	**21**	0.86	"	"	"	"	"	"	
Cobalt	**4.1**	0.60	"	"	"	"	"	"	
Copper	**13**	1.7	"	"	"	"	"	"	
Lead	ND	6.5	"	"	"	"	"	"	
Molybdenum	ND	2.2	"	"	"	"	"	"	
Nickel	**18**	2.6	"	"	"	"	"	"	
Selenium	ND	8.6	"	"	"	"	"	"	
Silver	**3.6**	0.60	"	"	"	"	"	"	
Thallium	ND	8.6	"	"	"	"	"	"	
Vanadium	**27**	0.86	"	"	"	"	"	"	
Zinc	**21**	1.7	"	"	"	"	"	"	
S-3-8' (P303395-09) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Mercury	**0.055**	0.018	mg/kg	1	3030546	04/02/03	04/03/03	EPA 7471A	
Antimony	ND	5.3	"	"	3030562	03/26/03	04/04/03	EPA 6010B	
Arsenic	ND	8.8	"	"	"	"	"	"	
Barium	**43**	0.88	"	"	"	"	"	"	
Beryllium	**0.26**	0.088	"	"	"	"	"	"	
Cadmium	ND	0.88	"	"	"	"	"	"	
Chromium	**9.6**	0.88	"	"	"	"	"	"	
Cobalt	**4.1**	0.61	"	"	"	"	"	"	
Copper	**15**	1.8	"	"	"	"	"	"	
Lead	ND	6.6	"	"	"	"	"	"	
Molybdenum	**7.1**	2.2	"	"	"	"	"	"	
Nickel	**10**	2.6	"	"	"	"	"	"	
Selenium	ND	8.8	"	"	"	"	"	"	
Silver	ND	0.61	"	"	"	"	"	"	
Thallium	ND	8.8	"	"	"	"	"	"	
Vanadium	**34**	0.88	"	"	"	"	"	"	
Zinc	**28**	1.8	"	"	"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	Reported:
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-4-3' (P303395-10) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Mercury	**0.024**	0.020	mg/kg	1	3030546	04/02/03	04/03/03	EPA 7471A	
Antimony	ND	5.8	"	"	3030562	03/26/03	04/04/03	EPA 6010B	
Arsenic	ND	9.6	"	"	"	"	"	"	
Barium	**41**	0.96	"	"	"	"	"	"	
Beryllium	**0.23**	0.096	"	"	"	"	"	"	
Cadmium	ND	0.96	"	"	"	"	"	"	
Chromium	**17**	0.96	"	"	"	"	"	"	
Cobalt	**3.0**	0.67	"	"	"	"	"	"	
Copper	**57**	1.9	"	"	"	"	"	"	
Lead	ND	7.2	"	"	"	"	"	"	
Molybdenum	**8.5**	2.4	"	"	"	"	"	"	
Nickel	**18**	2.9	"	"	"	"	"	"	
Selenium	ND	9.6	"	"	"	"	"	"	
Silver	**27**	0.67	"	"	"	"	"	"	
Thallium	ND	9.6	"	"	"	"	"	"	
Vanadium	**29**	0.96	"	"	"	"	"	"	
Zinc	**20**	1.9	"	"	"	"	"	"	

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703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Dissolved Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-3 (P303395-01) Water Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Mercury	ND	0.20	ug/l	1	3030583	04/04/03	04/07/03	EPA 7470A	
Antimony	ND	5.0	"	"	3030561	04/02/03	04/03/03	EPA 6020	
Arsenic	**97**	5.0	"	"	"	"	"	"	
Barium	**86**	10	"	"	"	"	"	"	
Beryllium	ND	4.0	"	"	"	"	"	"	
Cadmium	**4.9**	1.0	"	"	"	"	"	"	
Chromium	ND	10	"	"	"	"	"	"	
Cobalt	**7.1**	7.0	"	"	"	"	"	"	
Copper	ND	10	"	"	"	"	"	"	
Lead	ND	3.0	"	"	"	"	"	"	
Molybdenum	ND	20	"	"	"	"	"	"	
Nickel	**230**	10	"	"	"	"	"	"	
Selenium	**170**	5.0	"	"	"	"	"	"	
Silver	ND	1.0	"	"	"	"	"	"	
Thallium	ND	2.0	"	"	"	"	"	"	
Vanadium	**39**	10	"	"	"	"	"	"	
Zinc	**34**	20	"	"	"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-3 (P303395-01) Water Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									**R-04**
Acetone	ND	100	ug/l	10	3040132	04/04/03	04/04/03	EPA 8260B	
Benzene	ND	10	"	"	"	"	"	"	
Bromobenzene	ND	10	"	"	"	"	"	"	
Bromochloromethane	ND	10	"	"	"	"	"	"	
Bromodichloromethane	ND	10	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
Bromomethane	ND	10	"	"	"	"	"	"	
2-Butanone	ND	100	"	"	"	"	"	"	
n-Butylbenzene	ND	10	"	"	"	"	"	"	
sec-Butylbenzene	ND	10	"	"	"	"	"	"	
tert-Butylbenzene	ND	10	"	"	"	"	"	"	
Carbon disulfide	ND	100	"	"	"	"	"	"	
Carbon tetrachloride	ND	10	"	"	"	"	"	"	
Chlorobenzene	ND	10	"	"	"	"	"	"	
Chloroethane	ND	10	"	"	"	"	"	"	
Chloroform	ND	10	"	"	"	"	"	"	
Chloromethane	ND	10	"	"	"	"	"	"	
2-Chlorotoluene	ND	10	"	"	"	"	"	"	
4-Chlorotoluene	ND	10	"	"	"	"	"	"	
Dibromochloromethane	ND	10	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	10	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	10	"	"	"	"	"	"	
Dibromomethane	ND	10	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	10	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	10	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	10	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	10	"	"	"	"	"	"	
1,1-Dichloroethane	ND	10	"	"	"	"	"	"	
1,2-Dichloroethane	ND	10	"	"	"	"	"	"	
1,1-Dichloroethene	ND	10	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	10	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	10	"	"	"	"	"	"	
1,2-Dichloropropane	ND	10	"	"	"	"	"	"	
1,3-Dichloropropane	ND	10	"	"	"	"	"	"	
2,2-Dichloropropane	ND	10	"	"	"	"	"	"	
1,1-Dichloropropene	ND	10	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	10	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	10	"	"	"	"	"	"	
Ethylbenzene	ND	10	"	"	"	"	"	"	
Freon 113	ND	10	"	"	"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	Reported:
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-3 (P303395-01) Water Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									**R-04**
Hexachlorobutadiene	ND	10	ug/l	10	3040132	04/04/03	04/04/03	EPA 8260B	
2-Hexanone	ND	100	"	"	"	"	"	"	
Isopropylbenzene	ND	10	"	"	"	"	"	"	
p-Isopropyltoluene	ND	10	"	"	"	"	"	"	
Methylene chloride	ND	10	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	10	"	"	"	"	"	"	
Naphthalene	ND	10	"	"	"	"	"	"	
n-Propylbenzene	ND	10	"	"	"	"	"	"	
Styrene	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	10	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	10	"	"	"	"	"	"	
Tetrachloroethene	ND	10	"	"	"	"	"	"	
Toluene	ND	10	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	10	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	10	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	10	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	10	"	"	"	"	"	"	
Trichloroethene	ND	10	"	"	"	"	"	"	
Trichlorofluoromethane	ND	10	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	10	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	10	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	10	"	"	"	"	"	"	
Vinyl acetate	ND	200	"	"	"	"	"	"	
Vinyl chloride	ND	10	"	"	"	"	"	"	
m,p-Xylene	ND	10	"	"	"	"	"	"	
o-Xylene	ND	10	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*98 %*		*84-122*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*105 %*		*74-135*	"	"	"	"	
Surrogate: Toluene-d8		*104 %*		*84-119*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*99 %*		*86-119*	"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	Reported:
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-1-4' (P303395-05) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Acetone	ND	50	ug/kg	1	3040167	04/07/03	04/07/03	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
2-Butanone	ND	10	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon disulfide	ND	10	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-1-4' (P303395-05) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Freon 113	ND	5.0	ug/kg	1	3040167	04/07/03	04/07/03	EPA 8260B	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	10	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl acetate	ND	10	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*91 %*	*81-126*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*92 %*	*73-131*		"	"	"	"	
Surrogate: Toluene-d8		*95 %*	*82-129*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*94 %*	*74-131*		"	"	"	"	

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Sequoia Analytical

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	Reported:
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-2-2' (P303395-06) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Acetone	ND	50	ug/kg	1	3040167	04/07/03	04/07/03	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
2-Butanone	ND	10	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon disulfide	ND	10	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	

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Sequoia Analytical

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-2-2' (P303395-06) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Freon 113	ND	5.0	ug/kg	1	3040167	04/07/03	04/07/03	EPA 8260B	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	10	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl acetate	ND	10	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*95 %*		*81-126*	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*95 %*		*73-131*	"	"	"	"	
Surrogate: Toluene-d8		*106 %*		*82-129*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*91 %*		*74-131*	"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-3-8' (P303395-09) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Acetone	ND	50	ug/kg	1	3040167	04/07/03	04/07/03	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
2-Butanone	ND	10	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon disulfide	ND	10	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	

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Sequoia Analytical

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-3-8' (P303395-09) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Freon 113	ND	5.0	ug/kg	1	3040167	04/07/03	04/07/03	EPA 8260B	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	10	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl acetate	ND	10	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*90 %*	*81-126*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*91 %*	*73-131*		"	"	"	"	
Surrogate: Toluene-d8		*96 %*	*82-129*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92 %*	*74-131*		"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	Reported:
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-4-3' (P303395-10) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Acetone	ND	50	ug/kg	1	3040167	04/07/03	04/07/03	EPA 8260B	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
2-Butanone	ND	10	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon disulfide	ND	10	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-4-3' (P303395-10) Soil Sampled: 03/24/03 12:00 Received: 03/25/03 10:00									
Freon 113	ND	5.0	ug/kg	1	3040167	04/07/03	04/07/03	EPA 8260B	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
2-Hexanone	ND	10	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl acetate	ND	10	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*91 %*		*81-126*		"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*91 %*		*73-131*		"	"	"	
Surrogate: Toluene-d8		*93 %*		*82-129*		"	"	"	
Surrogate: 4-Bromofluorobenzene		*94 %*		*74-131*		"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Conventional Chemistry Parameters by APHA/EPA Methods

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-3 (P303395-01) Water	**Sampled: 03/24/03 12:00**	**Received: 03/25/03 10:00**							
Cyanide (total)	ND	0.0050	mg/l	1	3040118	04/04/03	04/04/03	EPA 335.2	
pH	**6.57**	2.00	pH Units	"	3030555	03/25/03	03/25/03	EPA 150.1	HT-01
B-1-6' (P303395-03) Soil	**Sampled: 03/24/03 12:00**	**Received: 03/25/03 10:00**							
Cyanide (total)	ND	0.49	mg/kg	1	3040146	04/07/03	04/07/03	EPA 335.2	
pH	**7.48**	2.00	pH Units	"	3030554	03/25/03	03/25/03	EPA 9045C	HT-01
S-1-4' (P303395-05) Soil	**Sampled: 03/24/03 12:00**	**Received: 03/25/03 10:00**							
Cyanide (total)	ND	0.43	mg/kg	1	3040146	04/07/03	04/07/03	EPA 335.2	
pH	**8.23**	2.00	pH Units	"	3030554	03/25/03	03/25/03	EPA 9045C	HT-01
S-2-2' (P303395-06) Soil	**Sampled: 03/24/03 12:00**	**Received: 03/25/03 10:00**							
Cyanide (total)	ND	0.41	mg/kg	1	3040146	04/07/03	04/07/03	EPA 335.2	
pH	**7.26**	2.00	pH Units	"	3030554	03/25/03	03/25/03	EPA 9045C	HT-01
S-3-8' (P303395-09) Soil	**Sampled: 03/24/03 12:00**	**Received: 03/25/03 10:00**							
Cyanide (total)	ND	0.44	mg/kg	1	3040146	04/07/03	04/07/03	EPA 335.2	
pH	**6.58**	2.00	pH Units	"	3030554	03/25/03	03/25/03	EPA 9045C	HT-01
S-4-3' (P303395-10) Soil	**Sampled: 03/24/03 12:00**	**Received: 03/25/03 10:00**							
Cyanide (total)	ND	0.40	mg/kg	1	3040146	04/07/03	04/07/03	EPA 335.2	
pH	**8.37**	2.00	pH Units	"	3030554	03/25/03	03/25/03	EPA 9045C	HT-01

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Anions by EPA Method 300.0

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
S-3 (P303395-01) Water	**Sampled: 03/24/03 12:00**	**Received: 03/25/03 10:00**							
Nitrate as N	ND	1.0	mg/l	5	3040196	03/25/03	03/25/03	EPA 300.0	
Sulfate as SO4	ND	1.0	"	1	3040199	04/09/03	04/09/03	"	
B-1-6' (P303395-03) Soil	**Sampled: 03/24/03 12:00**	**Received: 03/25/03 10:00**							
Nitrate as N	ND	2.0	mg/kg	1	3040197	03/25/03	03/25/03	EPA 300.0	
Sulfate as SO4	ND	10	"	"	3040200	04/08/03	04/08/03	"	
S-1-4' (P303395-05) Soil	**Sampled: 03/24/03 12:00**	**Received: 03/25/03 10:00**							
Nitrate as N	**2.0**	2.0	mg/kg	1	3040197	03/25/03	03/25/03	EPA 300.0	
Sulfate as SO4	**120**	10	"	"	3040200	04/08/03	04/08/03	"	
S-2-2' (P303395-06) Soil	**Sampled: 03/24/03 12:00**	**Received: 03/25/03 10:00**							
Nitrate as N	**160**	2.0	mg/kg	1	3040197	03/25/03	03/25/03	EPA 300.0	
Sulfate as SO4	**670**	500	"	50	3040200	04/08/03	04/08/03	"	
S-3-8' (P303395-09) Soil	**Sampled: 03/24/03 12:00**	**Received: 03/25/03 10:00**							
Nitrate as N	ND	2.0	mg/kg	1	3040197	03/25/03	03/25/03	EPA 300.0	
Sulfate as SO4	**24**	10	"	"	3040200	04/08/03	04/08/03	"	
S-4-3' (P303395-10) Soil	**Sampled: 03/24/03 12:00**	**Received: 03/25/03 10:00**							
Nitrate as N	ND	2.0	mg/kg	1	3040197	03/25/03	03/25/03	EPA 300.0	
Sulfate as SO4	**210**	10	"	"	3040200	04/08/03	04/08/03	"	

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Total Petroleum Hydrocarbons as Gasoline by EPA 8015B - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3030542 - EPA 5030, waters										
Blank (3030542-BLK1)				Prepared & Analyzed: 03/26/03						
Gasoline Range Organics	ND	50	ug/l							
Surrogate: 4-Bromofluorobenzene	*303*		"	*300*		*101*	*65-135*			
Laboratory Control Sample (3030542-BS1)				Prepared & Analyzed: 03/26/03						
Gasoline Range Organics	2550	50	ug/l	2750		93	65-135			
Surrogate: 4-Bromofluorobenzene	*321*		"	*300*		*107*	*65-135*			
Matrix Spike (3030542-MS1)		Source: P303387-01		Prepared & Analyzed: 03/26/03						
Gasoline Range Organics	2470	50	ug/l	2750	18	89	65-135			
Surrogate: 4-Bromofluorobenzene	*311*		"	*300*		*104*	*65-135*			
Matrix Spike Dup (3030542-MSD1)		Source: P303387-01		Prepared & Analyzed: 03/26/03						
Gasoline Range Organics	2480	50	ug/l	2750	18	90	65-135	0.4	20	
Surrogate: 4-Bromofluorobenzene	*312*		"	*300*		*104*	*65-135*			
Batch 3040083 - EPA 5030, soils										
Blank (3040083-BLK1)				Prepared & Analyzed: 04/03/03						
Gasoline Range Organics	ND	1000	ug/kg							
Surrogate: 4-Bromofluorobenzene	*308*		"	*279*		*110*	*65-135*			
Laboratory Control Sample (3040083-BS1)				Prepared & Analyzed: 04/03/03						
Gasoline Range Organics	2180	1000	ug/kg	2750		79	65-135			
Surrogate: 4-Bromofluorobenzene	*331*		"	*279*		*119*	*65-135*			
Matrix Spike (3040083-MS1)		Source: P304038-07		Prepared & Analyzed: 04/03/03						
Gasoline Range Organics	2180	1000	ug/kg	2750	25	78	65-135			

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Total Petroleum Hydrocarbons as Gasoline by EPA 8015B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040083 - EPA 5030, soils										
Matrix Spike (3040083-MS1)	**Source: P304038-07**			Prepared & Analyzed: 04/03/03						
Surrogate: 4-Bromofluorobenzene	*328*		*ug/kg*	*279*		*118*	*65-135*			
Matrix Spike Dup (3040083-MSD1)	**Source: P304038-07**			Prepared & Analyzed: 04/03/03						
Gasoline Range Organics	1980	1000	ug/kg	2750	25	71	65-135	10	20	
Surrogate: 4-Bromofluorobenzene	*320*		*"*	*279*		*115*	*65-135*			

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Total Petroleum Hydrocarbons as Diesel & others by EPA 8015B - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3030625 - EPA 3550A										
Blank (3030625-BLK1)				Prepared: 04/02/03 Analyzed: 04/03/03						
Diesel Range Organics (C10-C28)	ND	5.0	mg/kg							
Motor Oil Range Organics (C24-C36)	ND	10	"							
Surrogate: Octacosane	*1.49*		"	*1.67*		*89*	*50-150*			
Laboratory Control Sample (3030625-BS1)				Prepared: 04/02/03 Analyzed: 04/03/03						
Diesel Range Organics (C10-C28)	28.0	5.0	mg/kg	33.3		84	50-150			
Surrogate: Octacosane	*1.55*		"	*1.67*		*93*	*50-150*			
Matrix Spike (3030625-MS1)	**Source: P303427-01**			Prepared: 04/02/03 Analyzed: 04/03/03						
Diesel Range Organics (C10-C28)	26.6	5.0	mg/kg	33.3	2.3	73	50-150			
Surrogate: Octacosane	*1.50*		"	*1.67*		*90*	*50-150*			
Matrix Spike Dup (3030625-MSD1)	**Source: P303427-01**			Prepared: 04/02/03 Analyzed: 04/03/03						
Diesel Range Organics (C10-C28)	26.7	5.0	mg/kg	33.3	2.3	73	50-150	0.4	35	
Surrogate: Octacosane	*1.51*		"	*1.67*		*90*	*50-150*			
Batch 3040013 - EPA 3510C										
Blank (3040013-BLK1)				Prepared: 04/02/03 Analyzed: 04/07/03						
Diesel Range Organics (C10-C28)	ND	0.050	mg/l							
Motor Oil Range Organics (C24-C36)	ND	0.25	"							
Surrogate: Octacosane	*0.0438*		"	*0.0500*		*88*	*50-150*			
Laboratory Control Sample (3040013-BS1)				Prepared: 04/02/03 Analyzed: 04/07/03						
Diesel Range Organics (C10-C28)	0.654	0.050	mg/l	1.00		65	50-150			
Surrogate: Octacosane	*0.0407*		"	*0.0500*		*81*	*50-150*			

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Total Petroleum Hydrocarbons as Diesel & others by EPA 8015B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040013 - EPA 3510C										
Laboratory Control Sample Dup (3040013-BSD1)				Prepared: 04/02/03 Analyzed: 04/07/03						
Diesel Range Organics (C10-C28)	0.704	0.050	mg/l	1.00		70	50-150	7	20	
Surrogate: Octacosane	*0.0414*		"	*0.0500*		*83*	*50-150*			

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3030546 - EPA 7471A										
Blank (3030546-BLK1)				Prepared: 04/02/03 Analyzed: 04/03/03						
Mercury	ND	0.020	mg/kg							
Laboratory Control Sample (3030546-BS1)				Prepared: 04/02/03 Analyzed: 04/03/03						
Mercury	0.134	0.019	mg/kg	0.124		108	80-120			
Matrix Spike (3030546-MS1)	Source: P303395-03			Prepared: 04/02/03 Analyzed: 04/03/03						
Mercury	0.160	0.020	mg/kg	0.132	0.021	105	80-120			
Matrix Spike Dup (3030546-MSD1)	Source: P303395-03			Prepared: 04/02/03 Analyzed: 04/03/03						
Mercury	0.140	0.018	mg/kg	0.119	0.021	100	80-120	13	20	
Batch 3030562 - EPA 3050B										
Blank (3030562-BLK1)				Prepared: 03/26/03 Analyzed: 04/04/03						
Antimony	ND	6.0	mg/kg							
Arsenic	ND	10	"							
Barium	ND	1.0	"							
Beryllium	ND	0.10	"							
Cadmium	ND	1.0	"							
Chromium	ND	1.0	"							
Cobalt	ND	0.70	"							
Copper	ND	2.0	"							
Lead	ND	7.5	"							
Molybdenum	ND	2.5	"							
Nickel	ND	3.0	"							
Selenium	ND	10	"							
Silver	ND	0.70	"							
Thallium	ND	10	"							
Vanadium	ND	1.0	"							
Zinc	ND	2.0	"							

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703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3030562 - EPA 3050B										
Laboratory Control Sample (3030562-BS1)				Prepared: 03/26/03 Analyzed: 04/04/03						
Antimony	43.2	6.0	mg/kg	50.0		86	80-120			
Arsenic	44.1	10	"	50.0		88	80-120			
Barium	46.5	1.0	"	50.0		93	80-120			
Beryllium	4.48	0.10	"	5.00		90	80-120			
Cadmium	4.78	1.0	"	5.00		96	80-120			
Chromium	45.8	1.0	"	50.0		92	80-120			
Cobalt	43.6	0.70	"	50.0		87	80-120			
Copper	45.3	2.0	"	50.0		91	80-120			
Lead	43.9	7.5	"	50.0		88	80-120			
Molybdenum	46.6	2.5	"	50.0		93	80-120			
Nickel	45.1	3.0	"	50.0		90	80-120			
Selenium	42.5	10	"	50.0		85	80-120			
Silver	4.34	0.70	"	5.00		87	80-120			
Thallium	45.4	10	"	50.0		91	80-120			
Vanadium	44.7	1.0	"	50.0		89	80-120			
Zinc	41.6	2.0	"	50.0		83	80-120			
Matrix Spike (3030562-MS1)		**Source: P303395-03**		Prepared: 03/26/03 Analyzed: 04/04/03						
Antimony	26.2	5.5	mg/kg	45.5	ND	58	80-120			QM-07
Arsenic	41.4	9.1	"	45.5	3.3	84	80-120			
Barium	82.2	0.91	"	45.5	38	97	80-120			
Beryllium	4.25	0.091	"	4.55	0.23	88	80-120			
Cadmium	4.09	0.91	"	4.55	0.47	80	80-120			
Chromium	57.6	0.91	"	45.5	16	91	80-120			
Cobalt	42.7	0.64	"	45.5	4.6	84	80-120			
Copper	51.2	1.8	"	45.5	10	91	80-120			
Lead	39.3	6.8	"	45.5	ND	86	80-120			
Molybdenum	39.9	2.3	"	45.5	3.8	79	80-120			QM-07
Nickel	58.8	2.7	"	45.5	17	92	80-120			
Selenium	40.1	9.1	"	45.5	ND	88	80-120			
Silver	3.66	0.64	"	4.55	ND	80	80-120			
Thallium	36.2	9.1	"	45.5	ND	80	80-120			
Vanadium	72.4	0.91	"	45.5	31	91	80-120			
Zinc	58.2	1.8	"	45.5	23	77	80-120			QM-07

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703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3030562 - EPA 3050B										
Matrix Spike Dup (3030562-MSD1)	**Source: P303395-03**			Prepared: 03/26/03 Analyzed: 04/04/03						
Antimony	29.3	5.4	mg/kg	44.6	ND	66	80-120	11	20	QM-07
Arsenic	42.4	8.9	"	44.6	3.3	88	80-120	2	20	
Barium	67.9	0.89	"	44.6	38	67	80-120	19	20	QM-07
Beryllium	4.18	0.089	"	4.46	0.23	89	80-120	2	20	
Cadmium	4.16	0.89	"	4.46	0.47	83	80-120	2	20	
Chromium	54.9	0.89	"	44.6	16	87	80-120	5	20	
Cobalt	42.6	0.62	"	44.6	4.6	85	80-120	0.2	20	
Copper	47.0	1.8	"	44.6	10	83	80-120	9	20	
Lead	39.9	6.7	"	44.6	ND	89	80-120	2	20	
Molybdenum	40.0	2.2	"	44.6	3.8	81	80-120	0.3	20	
Nickel	55.3	2.7	"	44.6	17	86	80-120	6	20	
Selenium	38.3	8.9	"	44.6	ND	86	80-120	5	20	
Silver	3.73	0.62	"	4.46	ND	84	80-120	2	20	
Thallium	37.7	8.9	"	44.6	ND	85	80-120	4	20	
Vanadium	62.5	0.89	"	44.6	31	71	80-120	15	20	QM-07
Zinc	50.7	1.8	"	44.6	23	62	80-120	14	20	QM-07

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Sequoia Analytical

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	Reported:
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3030561 - EPA 3005A										
Blank (3030561-BLK1)				Prepared: 04/02/03 Analyzed: 04/03/03						
Antimony	ND	5.0	ug/l							
Arsenic	ND	5.0	"							
Barium	ND	10	"							
Beryllium	ND	4.0	"							
Cadmium	ND	1.0	"							
Chromium	ND	10	"							
Cobalt	ND	7.0	"							
Copper	ND	10	"							
Lead	ND	3.0	"							
Molybdenum	ND	20	"							
Nickel	ND	10	"							
Selenium	ND	5.0	"							
Silver	ND	1.0	"							
Thallium	ND	2.0	"							
Vanadium	ND	10	"							
Zinc	ND	20	"							
Laboratory Control Sample (3030561-BS1)				Prepared: 04/02/03 Analyzed: 04/03/03						
Antimony	531	5.0	ug/l	500		106	80-120			
Arsenic	522	5.0	"	500		104	80-120			
Barium	505	10	"	500		101	80-120			
Beryllium	53.6	4.0	"	50.0		107	80-120			
Cadmium	51.3	1.0	"	50.0		103	80-120			
Chromium	498	10	"	500		100	80-120			
Cobalt	501	7.0	"	500		100	80-120			
Copper	473	10	"	500		95	80-120			
Lead	539	3.0	"	500		108	80-120			
Molybdenum	489	20	"	500		98	80-120			
Nickel	501	10	"	500		100	80-120			
Selenium	521	5.0	"	500		104	80-120			
Silver	50.5	1.0	"	50.0		101	80-120			
Thallium	539	2.0	"	500		108	80-120			
Vanadium	502	10	"	500		100	80-120			
Zinc	475	20	"	500		95	80-120			

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703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3030561 - EPA 3005A										
Matrix Spike (3030561-MS1)	**Source: P303391-01**			Prepared: 04/02/03 Analyzed: 04/03/03						
Antimony	529	5.0	ug/l	500	0.24	106	80-120			
Arsenic	526	5.0	"	500	3.3	105	80-120			
Barium	531	10	"	500	30	100	80-120			
Beryllium	54.4	4.0	"	50.0	ND	109	80-120			
Cadmium	54.4	1.0	"	50.0	0.91	107	80-120			
Chromium	504	10	"	500	0.88	101	80-120			
Cobalt	501	7.0	"	500	0.76	100	80-120			
Copper	479	10	"	500	2.8	95	80-120			
Lead	539	3.0	"	500	1.1	108	80-120			
Molybdenum	487	20	"	500	ND	97	80-120			
Nickel	504	10	"	500	2.0	100	80-120			
Selenium	523	5.0	"	500	ND	105	80-120			
Silver	50.3	1.0	"	50.0	ND	101	80-120			
Thallium	542	2.0	"	500	ND	108	80-120			
Vanadium	509	10	"	500	2.3	101	80-120			
Zinc	670	20	"	500	220	90	80-120			
Matrix Spike Dup (3030561-MSD1)	**Source: P303391-01**			Prepared: 04/02/03 Analyzed: 04/03/03						
Antimony	532	5.0	ug/l	500	0.24	106	80-120	0.6	20	
Arsenic	524	5.0	"	500	3.3	104	80-120	0.4	20	
Barium	535	10	"	500	30	101	80-120	0.8	20	
Beryllium	54.6	4.0	"	50.0	ND	109	80-120	0.4	20	
Cadmium	53.5	1.0	"	50.0	0.91	105	80-120	2	20	
Chromium	501	10	"	500	0.88	100	80-120	0.6	20	
Cobalt	506	7.0	"	500	0.76	101	80-120	1	20	
Copper	682	10	"	500	2.8	136	80-120	35	20	QM-07
Lead	534	3.0	"	500	1.1	107	80-120	0.9	20	
Molybdenum	483	20	"	500	ND	97	80-120	0.8	20	
Nickel	509	10	"	500	2.0	101	80-120	1	20	
Selenium	518	5.0	"	500	ND	104	80-120	1	20	
Silver	49.7	1.0	"	50.0	ND	99	80-120	1	20	
Thallium	542	2.0	"	500	ND	108	80-120	0	20	
Vanadium	511	10	"	500	2.3	102	80-120	0.4	20	
Zinc	670	20	"	500	220	90	80-120	0	20	

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703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3030583 - EPA 7470A										
Blank (3030583-BLK1)				Prepared: 04/04/03 Analyzed: 04/07/03						
Mercury	ND	0.20	ug/l							
Laboratory Control Sample (3030583-BS1)				Prepared: 04/04/03 Analyzed: 04/07/03						
Mercury	1.84	0.20	ug/l	1.60		115	80-120			
Matrix Spike (3030583-MS1)		Source: P303395-01		Prepared: 04/04/03 Analyzed: 04/07/03						
Mercury	1.34	0.20	ug/l	1.60	0.15	74	80-120			QM-07
Matrix Spike (3030583-MS2)		Source: P304070-07		Prepared: 04/04/03 Analyzed: 04/07/03						
Mercury	ND	0.20	ug/l	1.60	ND		80-120			QM-07
Matrix Spike Dup (3030583-MSD1)		Source: P303395-01		Prepared: 04/04/03 Analyzed: 04/07/03						
Mercury	1.36	0.20	ug/l	1.60	0.15	76	80-120	1	20	QM-07
Matrix Spike Dup (3030583-MSD2)		Source: P304070-07		Prepared: 04/04/03 Analyzed: 04/07/03						
Mercury	ND	0.20	ug/l	1.60	ND		80-120		20	QM-07

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703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040132 - EPA 5030 waters										
Blank (3040132-BLK1)				Prepared & Analyzed: 04/04/03						
Acetone	ND	10	ug/l							
Benzene	ND	1.0	"							
Bromobenzene	ND	1.0	"							
Bromochloromethane	ND	1.0	"							
Bromodichloromethane	ND	1.0	"							
Bromoform	ND	1.0	"							
Bromomethane	ND	1.0	"							
2-Butanone	ND	10	"							
n-Butylbenzene	ND	1.0	"							
sec-Butylbenzene	ND	1.0	"							
tert-Butylbenzene	ND	1.0	"							
Carbon disulfide	ND	10	"							
Carbon tetrachloride	ND	1.0	"							
Chlorobenzene	ND	1.0	"							
Chloroethane	ND	1.0	"							
Chloroform	ND	1.0	"							
Chloromethane	ND	1.0	"							
2-Chlorotoluene	ND	1.0	"							
4-Chlorotoluene	ND	1.0	"							
Dibromochloromethane	ND	1.0	"							
1,2-Dibromo-3-chloropropane	ND	1.0	"							
1,2-Dibromoethane (EDB)	ND	1.0	"							
Dibromomethane	ND	1.0	"							
1,2-Dichlorobenzene	ND	1.0	"							
1,3-Dichlorobenzene	ND	1.0	"							
1,4-Dichlorobenzene	ND	1.0	"							
Dichlorodifluoromethane	ND	1.0	"							
1,1-Dichloroethane	ND	1.0	"							
1,2-Dichloroethane	ND	1.0	"							
1,1-Dichloroethene	ND	1.0	"							
cis-1,2-Dichloroethene	ND	1.0	"							
trans-1,2-Dichloroethene	ND	1.0	"							
1,2-Dichloropropane	ND	1.0	"							
1,3-Dichloropropane	ND	1.0	"							
2,2-Dichloropropane	ND	1.0	"							
1,1-Dichloropropene	ND	1.0	"							

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703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040132 - EPA 5030 waters										
Blank (3040132-BLK1)			Prepared & Analyzed: 04/04/03							
cis-1,3-Dichloropropene	ND	1.0	ug/l							
trans-1,3-Dichloropropene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Freon 113	ND	1.0	"							
Hexachlorobutadiene	ND	1.0	"							
2-Hexanone	ND	10	"							
Isopropylbenzene	ND	1.0	"							
p-Isopropyltoluene	ND	1.0	"							
Methylene chloride	ND	1.0	"							
4-Methyl-2-pentanone	ND	10	"							
Methyl tert-butyl ether	ND	1.0	"							
Naphthalene	ND	1.0	"							
n-Propylbenzene	ND	1.0	"							
Styrene	ND	1.0	"							
1,1,2,2-Tetrachloroethane	ND	1.0	"							
1,1,1,2-Tetrachloroethane	ND	1.0	"							
Tetrachloroethene	ND	1.0	"							
Toluene	ND	1.0	"							
1,2,3-Trichlorobenzene	ND	1.0	"							
1,2,4-Trichlorobenzene	ND	1.0	"							
1,1,2-Trichloroethane	ND	1.0	"							
1,1,1-Trichloroethane	ND	1.0	"							
Trichloroethene	ND	1.0	"							
Trichlorofluoromethane	ND	1.0	"							
1,2,3-Trichloropropane	ND	1.0	"							
1,3,5-Trimethylbenzene	ND	1.0	"							
1,2,4-Trimethylbenzene	ND	1.0	"							
Vinyl acetate	ND	20	"							
Vinyl chloride	ND	1.0	"							
m,p-Xylene	ND	1.0	"							
o-Xylene	ND	1.0	"							
Surrogate: Dibromofluoromethane	*4.48*		"	*4.50*		*100*	*84-122*			
Surrogate: 1,2-Dichloroethane-d4	*4.83*		"	*4.50*		*107*	*74-135*			
Surrogate: Toluene-d8	*4.78*		"	*4.50*		*106*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*4.43*		"	*4.50*		*98*	*86-119*			

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703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040132 - EPA 5030 waters										
Blank (3040132-BLK1)				Prepared & Analyzed: 04/04/03						
Laboratory Control Sample (3040132-BS1)				Prepared & Analyzed: 04/04/03						
Benzene	4.68	1.0	ug/l	5.00		94	81-118			
Chlorobenzene	5.41	1.0	"	5.00		108	88-119			
1,1-Dichloroethene	5.33	1.0	"	5.00		107	77-121			
Toluene	5.27	1.0	"	5.00		105	84-119			
Trichloroethene	6.03	1.0	"	5.00		121	83-126			
Surrogate: Dibromofluoromethane	*4.42*		"	*4.50*		*98*	*84-122*			
Surrogate: 1,2-Dichloroethane-d4	*4.85*		"	*4.50*		*108*	*74-135*			
Surrogate: Toluene-d8	*4.89*		"	*4.50*		*109*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*5.26*		"	*4.50*		*117*	*86-119*			
Laboratory Control Sample Dup (3040132-BSD1)				Prepared & Analyzed: 04/04/03						
Benzene	4.29	1.0	ug/l	5.00		86	81-118	9	20	
Chlorobenzene	4.80	1.0	"	5.00		96	88-119	12	20	
1,1-Dichloroethene	4.88	1.0	"	5.00		98	77-121	9	20	
Toluene	4.81	1.0	"	5.00		96	84-119	9	20	
Trichloroethene	5.85	1.0	"	5.00		117	83-126	3	20	
Surrogate: Dibromofluoromethane	*4.54*		"	*4.50*		*101*	*84-122*			
Surrogate: 1,2-Dichloroethane-d4	*4.90*		"	*4.50*		*109*	*74-135*			
Surrogate: Toluene-d8	*5.05*		"	*4.50*		*112*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*4.85*		"	*4.50*		*108*	*86-119*			
Batch 3040167 - EPA 5030 soils										
Blank (3040167-BLK1)				Prepared & Analyzed: 04/07/03						
Acetone	ND	50	ug/kg							
Benzene	ND	5.0	"							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
2-Butanone	ND	10	"							

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040167 - EPA 5030 soils										
Blank (3040167-BLK1)			Prepared & Analyzed: 04/07/03							
n-Butylbenzene	ND	5.0	ug/kg							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon disulfide	ND	10	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
2-Chloroethylvinyl ether	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	5.0	"							
2-Chlorotoluene	ND	5.0	"							
4-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Freon 113	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
2-Hexanone	ND	10	"							
Isopropylbenzene	ND	5.0	"							

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San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040167 - EPA 5030 soils										
Blank (3040167-BLK1)				Prepared & Analyzed: 04/07/03						
p-Isopropyltoluene	ND	5.0	ug/kg							
Methylene chloride	ND	5.0	"							
4-Methyl-2-pentanone	ND	10	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
Vinyl acetate	ND	10	"							
Vinyl chloride	ND	5.0	"							
m,p-Xylene	ND	5.0	"							
o-Xylene	ND	5.0	"							
Surrogate: Dibromofluoromethane	*39.7*		"	*45.0*		*88*	*81-126*			
Surrogate: 1,2-Dichloroethane-d4	*40.6*		"	*45.0*		*90*	*73-131*			
Surrogate: Toluene-d8	*42.8*		"	*45.0*		*95*	*82-129*			
Surrogate: 4-Bromofluorobenzene	*42.8*		"	*45.0*		*95*	*74-131*			

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San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040167 - EPA 5030 soils										
Laboratory Control Sample (3040167-BS1)				Prepared & Analyzed: 04/07/03						
Benzene	44.6	5.0	ug/kg	50.0		89	75-123			
Chlorobenzene	49.1	5.0	"	50.0		98	79-123			
1,1-Dichloroethene	45.0	5.0	"	50.0		90	77-128			
Toluene	51.3	5.0	"	50.0		103	76-123			
Trichloroethene	56.5	5.0	"	50.0		113	72-119			
Surrogate: Dibromofluoromethane	*40.1*		"	*45.0*		*89*	*81-126*			
Surrogate: 1,2-Dichloroethane-d4	*39.3*		"	*45.0*		*87*	*73-131*			
Surrogate: Toluene-d8	*43.1*		"	*45.0*		*96*	*82-129*			
Surrogate: 4-Bromofluorobenzene	*40.3*		"	*45.0*		*90*	*74-131*			
Matrix Spike (3040167-MS1)	**Source: P303474-03**			Prepared & Analyzed: 04/07/03						
Benzene	43.2	5.0	ug/kg	50.0	ND	86	75-123			
Chlorobenzene	39.8	5.0	"	50.0	ND	80	79-123			
1,1-Dichloroethene	42.1	5.0	"	50.0	ND	84	77-128			
Toluene	42.8	5.0	"	50.0	ND	86	76-123			
Trichloroethene	52.1	5.0	"	50.0	ND	104	72-119			
Surrogate: Dibromofluoromethane	*42.0*		"	*45.0*		*93*	*81-126*			
Surrogate: 1,2-Dichloroethane-d4	*42.1*		"	*45.0*		*94*	*73-131*			
Surrogate: Toluene-d8	*42.3*		"	*45.0*		*94*	*82-129*			
Surrogate: 4-Bromofluorobenzene	*38.0*		"	*45.0*		*84*	*74-131*			
Matrix Spike Dup (3040167-MSD1)	**Source: P303474-03**			Prepared & Analyzed: 04/07/03						
Benzene	39.9	5.0	ug/kg	50.0	ND	80	75-123	8	35	
Chlorobenzene	38.9	5.0	"	50.0	ND	78	79-123	2	35	Q-LIM
1,1-Dichloroethene	43.1	5.0	"	50.0	ND	86	77-128	2	35	
Toluene	41.5	5.0	"	50.0	ND	83	76-123	3	35	
Trichloroethene	49.9	5.0	"	50.0	ND	100	72-119	4	35	
Surrogate: Dibromofluoromethane	*40.8*		"	*45.0*		*91*	*81-126*			
Surrogate: 1,2-Dichloroethane-d4	*41.0*		"	*45.0*		*91*	*73-131*			
Surrogate: Toluene-d8	*43.7*		"	*45.0*		*97*	*82-129*			
Surrogate: 4-Bromofluorobenzene	*40.9*		"	*45.0*		*91*	*74-131*			

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Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3030554 - General Preparation										
Duplicate (3030554-DUP1)		**Source: P303395-05**		Prepared & Analyzed: 03/25/03						
pH	8.21	2.00	pH Units		8.23			0.2	20	
Batch 3030555 - General Preparation										
Duplicate (3030555-DUP1)		**Source: P303395-01**		Prepared & Analyzed: 03/25/03						
pH	6.64	2.00	pH Units		6.57			1	20	
Batch 3040118 - General Preparation										
Blank (3040118-BLK1)				Prepared & Analyzed: 04/04/03						
Cyanide (total)	ND	0.0050	mg/l							
Laboratory Control Sample (3040118-BS1)				Prepared & Analyzed: 04/04/03						
Cyanide (total)	0.199	0.0050	mg/l	0.200		100	80-120			
Matrix Spike (3040118-MS1)		**Source: P303475-01**		Prepared & Analyzed: 04/04/03						
Cyanide (total)	0.186	0.0050	mg/l	0.204	ND	91	75-125			
Matrix Spike Dup (3040118-MSD1)		**Source: P303475-01**		Prepared & Analyzed: 04/04/03						
Cyanide (total)	0.164	0.0050	mg/l	0.204	ND	80	75-125	13	20	
Batch 3040146 - General Preparation										
Blank (3040146-BLK1)				Prepared & Analyzed: 04/07/03						
Cyanide (total)	ND	0.50	mg/kg							

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040146 - General Preparation										
Laboratory Control Sample (3040146-BS1)				Prepared & Analyzed: 04/07/03						
Cyanide (total)	5.25	0.50	mg/kg	5.00		105	80-120			
Duplicate (3040146-DUP1)		Source: P303395-10		Prepared & Analyzed: 04/07/03						
Cyanide (total)	ND	0.46	mg/kg		ND				200	
Matrix Spike (3040146-MS1)		Source: P303395-03		Prepared & Analyzed: 04/07/03						QM-07
Cyanide (total)	1.60	0.46	mg/kg	4.59	ND	35	75-125			
Matrix Spike Dup (3040146-MSD1)		Source: P303395-03		Prepared & Analyzed: 04/07/03						QM-07
Cyanide (total)	3.19	0.47	mg/kg	4.69	ND	68	75-125	66	20	

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	Reported:
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Anions by EPA Method 300.0 - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040196 - General Preparation										
Blank (3040196-BLK1)				Prepared & Analyzed: 03/25/03						
Nitrate as N	ND	0.20	mg/l							
Laboratory Control Sample (3040196-BS1)				Prepared & Analyzed: 03/25/03						
Nitrate as N	10.2	0.20	mg/l	10.0		102	90-110			
Matrix Spike (3040196-MS1)	Source: P303395-01			Prepared & Analyzed: 03/25/03						
Nitrate as N	26.5	1.0	mg/l	25.0	ND	106	80-120			
Matrix Spike Dup (3040196-MSD1)	Source: P303395-01			Prepared & Analyzed: 03/25/03						
Nitrate as N	25.7	1.0	mg/l	25.0	ND	103	80-120	3	20	
Batch 3040197 - General Preparation										
Blank (3040197-BLK1)				Prepared & Analyzed: 03/25/03						
Nitrate as N	ND	2.0	mg/kg							
Laboratory Control Sample (3040197-BS1)				Prepared & Analyzed: 03/25/03						
Nitrate as N	101	2.0	mg/kg	100		101	90-110			
Matrix Spike (3040197-MS1)	Source: P303395-03			Prepared & Analyzed: 03/25/03						
Nitrate as N	102	4.0	mg/kg	100	1.9	100	80-120			
Matrix Spike Dup (3040197-MSD1)	Source: P303395-03			Prepared & Analyzed: 03/25/03						
Nitrate as N	101	4.0	mg/kg	100	1.9	99	80-120	1	20	
Batch 3040199 - General Preparation										
Blank (3040199-BLK1)				Prepared & Analyzed: 04/09/03						
Sulfate as SO4	ND	1.0	mg/l							

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Anions by EPA Method 300.0 - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3040199 - General Preparation										
Laboratory Control Sample (3040199-BS1)				Prepared & Analyzed: 04/09/03						
Sulfate as SO4	10.9	1.0	mg/l	10.0		109	90-110			
Matrix Spike (3040199-MS1)	Source: P303483-05			Prepared & Analyzed: 04/09/03						
Sulfate as SO4	49.8	5.0	mg/l	25.0	23	107	80-120			
Matrix Spike Dup (3040199-MSD1)	Source: P303483-05			Prepared & Analyzed: 04/09/03						
Sulfate as SO4	50.4	5.0	mg/l	25.0	23	110	80-120	1	20	
Batch 3040200 - General Preparation										
Blank (3040200-BLK1)				Prepared & Analyzed: 04/08/03						
Sulfate as SO4	ND	10	mg/kg							
Laboratory Control Sample (3040200-BS1)				Prepared & Analyzed: 04/08/03						
Sulfate as SO4	110	10	mg/kg	100		110	90-110			
Matrix Spike (3040200-MS1)	Source: P303395-03			Prepared & Analyzed: 04/08/03						
Sulfate as SO4	138	20	mg/kg	100	8.8	129	80-120			QM-07
Matrix Spike Dup (3040200-MSD1)	Source: P303395-03			Prepared & Analyzed: 04/08/03						
Sulfate as SO4	139	20	mg/kg	100	8.8	130	80-120	0.7	20	QM-07

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Geologica Inc.	Project: Qualex Kent, WA	P303395
703 Market St., Ste 609	Project Number: [none]	**Reported:**
San Francisco CA, 94103	Project Manager: Brian Aubry	04/10/03 18:47

Notes and Definitions

HT-01	This sample was received beyond the EPA recommended holding time. The results may still be useful for their intended purpose.
HT-03	This sample was extracted beyond the EPA recommended holding time. The results may still be useful for their intended purpose.
Q-LIM	The percent recovery was outside of the control limits. The samples results may still be useful for their intended purpose.
QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
R-04	The Reporting Limits for this analysis are elevated due to sample foaming.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Page 1 of 2

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

- ☐ 885 Jarvis Drive • **Morgan Hill, CA 95037** • (408) 776-9600 • FAX (408) 782-6308
- ☑ 1455 McDowell Blvd, Suite D. • **Petaluma, CA 94954** • (707) 792-1865 • FAX (707) 792-0342
- ☐ 819 Striker Ave., Suite 8 • **Sacramento, CA 95834** • (916) 921-9600 • FAX (916) 921-0100
- ☐ 1551 Industrial Road • **San Carlos, CA 94070** • (650) 232-9600 • FAX (650) 232-9612
- ☐ 404 N. Wiget Lane • **Walnut Creek, CA 94598** • (925) 988-9600 • FAX (925) 988-9673

Company Name:	GEOLOGICA INC	Project:	Quaker – Kent, WA
Mailing Address:	703 MARKET ST, STE 609	Billing Address (if different):	
City:	San Francisco	State: CA Zip Code:	94103
Telephone:	415-597-7883	Fax #: 415-597-7880	P.O. #:
Report To:	B. AUBRY	E-mail Address: baubry@geologica.net	QC Data: ☑ Level II (standard) ☐ Level III ☐ Level IV
Sampler:	B. AUBRY	Date / Time Results Required:	Sequoia's Work Order #

Turnaround Time:
- ☑ 10-15 Working Days (Standard TAT)
- ☐ 7 Working Days
- ☐ 5 Working Days
- ☐ 72 Hours
- ☐ 48 Hours
- ☐ 24 Hours
- ☐ 2-8 Hours

MANDATORY:
- ☐ SDWA (Drinking Water)
- ☐ CWA (Waste Water)
- ☐ RCRA (Hazardous Waste)
- ☐ Other

ANALYSES REQUESTED (Please provide method)

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's Sample #	pH	CAM Metals 6010	Cyanide 335.2	Nitrate/Sulfate	BTEX 8260	TPH gas/diesel 8015 modified	motor oil		Comments/ Temp.(If required)
1. S-3	3-24	GW	2	1L amber	303395-01	✓	✓	✓	✓	✓	✓	✓		
2. S-3	3-24	GW	1	100 ml	-02									
3. S-3	3-24	GW	1	100 NaOH	-03									
4. S-3	3-24	GW	1	100 NO_3	-04									
5. S-3	3-24	GW	6	40 ml VOA	-05									
6. B-1-3'	3-24	S	2	glass	-06									HOLD
7. B-1-6'	3-24	S	2	glass	-07	✓	✓	✓	✓					
8. S-1-2'	3-24	S	2	glass	~~-08~~ -09									HOLD
9. S-1-4'	3-24	S	2	glass	~~-09~~ -08	✓	✓	✓	✓	✓	✓	✓		
10.					~~-10~~ -09									

Relinquished By:	3/24/03	Received By:	Date / Time:
Relinquished By:		Received By:	Date / Time: 3/25/03 1000
Relinquished By:		Received By:	Date / Time:
Relinquished By:		Received By:	Date / Time:

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment: _____ Page ___ of ___

White: Sequoia Yellow: Sequoia Pink: Client

Page 2 of 2

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

☐ 885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 778-6800 • FAX (408) 782-6...
☑ 1455 McDowell Blvd, Suite D. • **Petaluma, CA 94954** • (707) 792-1865 • FAX (707) 792-0342
☐ 819 Striker Ave., Suite 8 • **Sacramento, CA 95834** • (916) 921-9600 • FAX (916) 921-0100
☐ 1551 Industrial Road • **San Carlos, CA 94070** • (650) 232-9600 • FAX (650) 232-9612
☐ 404 N. Wiget Lane • **Walnut Creek, CA 94598** • (925) 988-9600 • FAX (925) 988-9673

Company Name: Geologica Inc		Project: Quality Kent, WA	
Mailing Address: 703 Market ST		Billing Address (if different):	
City: SF	State: CA Zip Code: 94103		
Telephone: 415-597-7883	Fax #: 415-597-7880	P.O. #:	
Report To: BFAubury	E-mail Address: baubury@geologica.net	QC Data: ☑ Level II (standard) ☐ Level III ☐ Level IV	
Sampler: BFA	Date / Time Results Required:	Sequoia's Work Order #	

Turnaround Time:
☑ 10-15 Working Days (Standard TAT)
☐ 7 Working Days
☐ 5 Working Days
☐ 72 Hours
☐ 48 Hours
☐ 24 Hours
☐ 2-8 Hours

MANDATORY:
☐ SDWA (Drinking Water)
☐ CWA (Waste Water)
☐ RCRA (Hazardous Waste)
☐ Other

ANALYSES REQUESTED (Please provide method)

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's Sample #	pH	CAM Metals	Cyanide 335.2	Nitrate/Sulfate	TPH gas/diesel motor oil	8260			Comments/ Temp.(If required)
1. S-2-2'	3/24	S	2	glass	303915-06	✓	✓	✓	✓	✓	✓	✓			
2. S-3-2'		S	2		-08										HOLD
3. S-3-4'		S	2		-09										HOLD
4. S-3-8'		S	2		-10	✓	✓	✓	✓	✓	✓	✓			
5. S-4-3'		S	2		-11	✓	✓	✓	✓	✓	✓	✓			
6. S-4-6'		S	2												HOLD
7.															
8.					COOLER CUSTODY SEALS INTACT ☐										
9.					NOT INTACT ☐										
10.					COOLER TEMPERATURE 5.2 °c										

Relinquished By: BFAubury	3/24/03	Received By:	Date / Time:
Relinquished By:		Received By: Jose Hermosa	Date / Time: 3/2[illegible]
Relinquished By:		Received By:	Date / Time:
Relinquished By:		Received By:	Date / Time:

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment: _____

White: Sequoia Yellow: Sequoia Pink: C

Sequoia Analytical

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4 August, 2003

Brian Aubry
Geologica Inc.
594 Howard St., Suite 400
San Francisco, CA 94105

RE: Qualex Kent, WA
Work Order: P307466

Enclosed are the results of analyses for samples received by the laboratory on 07/25/03 10:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angelee Cari

Angelee Cari
Project Manager

CA ELAP Certificate #2374

Sequoia Analytical

1455 McDowell Blvd, North Ste D
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(707) 792-1865
FAX (707) 792-0342
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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1-072403	P307466-01	Water	07/24/03 09:40	07/25/03 10:30
Comp-1	P307466-02	Soil	07/24/03 09:50	07/25/03 10:30

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Total Petroleum Hydrocarbons as Gasoline by EPA 8015B
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-072403 (P307466-01) Water	**Sampled: 07/24/03 09:40**		**Received: 07/25/03 10:30**							
Gasoline Range Organics	ND		50	ug/l	1	3070646	07/30/03	07/30/03	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		*93 %*	*65-135*			"	"	"	"	
Comp-1 (P307466-02) Soil	**Sampled: 07/24/03 09:50**		**Received: 07/25/03 10:30**							
Gasoline Range Organics	ND		1000	ug/kg	1	3070609	07/29/03	07/29/03	EPA 8015B-VOA	
Surrogate: 4-Bromofluorobenzene		*72 %*	*65-135*			"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Total Petroleum Hydrocarbons as Diesel & others by EPA 8015B
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-072403 (P307466-01) Water	**Sampled: 07/24/03 09:40**		**Received: 07/25/03 10:30**							
Diesel Range Organics (C10-C28)	**0.43**		0.054	mg/l	1	3070602	07/29/03	07/30/03	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	**0.32**		0.27	"	"	"	"	"	"	
Surrogate: Octacosane		*111 %*	*50-150*			"	"	"	"	
Comp-1 (P307466-02) Soil	**Sampled: 07/24/03 09:50**		**Received: 07/25/03 10:30**							
Diesel Range Organics (C10-C28)	**19**		5.0	mg/kg	1	3070576	07/28/03	07/29/03	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	**29**		10	"	"	"	"	"	"	
Surrogate: Octacosane		*207 %*	*50-150*			"	"	"	"	*S-02*

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Total Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Comp-1 (P307466-02) Soil Sampled: 07/24/03 09:50 Received: 07/25/03 10:30										
Mercury	**0.027**		0.019	mg/kg	1	3070509	07/28/03	07/29/03	EPA 7471A	
Antimony	ND		5.8	"	"	3070630	07/30/03	07/30/03	EPA 6010B	
Arsenic	ND		9.6	"	"	"	"	"	"	
Barium	**160**		0.96	"	"	"	"	"	"	
Beryllium	**0.71**		0.096	"	"	"	"	"	"	
Cadmium	ND		0.96	"	"	"	"	"	"	
Chromium	**15**		0.96	"	"	"	"	"	"	
Cobalt	**1.9**		0.67	"	"	"	"	"	"	
Copper	**7.7**		1.9	"	"	"	"	"	"	
Lead	**7.8**		7.2	"	"	"	"	"	"	
Molybdenum	ND		1.9	"	"	"	"	"	"	
Nickel	**4.8**		2.9	"	"	"	"	"	"	
Selenium	ND		9.6	"	"	"	"	"	"	
Silver	**0.97**		0.67	"	"	"	"	"	"	
Thallium	ND		9.6	"	"	"	"	"	"	
Vanadium	**22**		0.96	"	"	"	"	"	"	
Zinc	**27**		1.9	"	"	"	"	"	"	

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Sequoia Analytical

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Dissolved Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-072403 (P307466-01) Water	**Sampled: 07/24/03 09:40**		**Received: 07/25/03 10:30**							
Iron	**63000**	51	300	ug/l	1	3070635	07/30/03	07/31/03	EPA 6010B	
Mercury	**0.22**	0.032	0.20	"	"	3070461	07/30/03	07/31/03	EPA 7470A	
Antimony	ND	24	60	"	"	3070635	07/30/03	07/31/03	EPA 6010B	
Arsenic	**21**	21	100	"	"	"	"	"	"	J
Barium	**39**	0.84	10	"	"	"	"	"	"	
Beryllium	ND	0.16	1.0	"	"	"	"	"	"	
Cadmium	ND	2.1	10	"	"	"	"	"	"	
Chromium	**2.9**	2.7	10	"	"	"	"	"	"	J
Cobalt	ND	2.8	7.0	"	"	"	"	"	"	
Copper	ND	2.6	10	"	"	"	"	"	"	
Lead	ND	18	75	"	"	"	"	"	"	
Molybdenum	ND	7.8	20	"	"	"	"	"	"	
Nickel	**24**	12	30	"	"	"	"	"	"	J
Selenium	ND	16	100	"	"	"	"	"	"	
Silver	ND	2.8	7.0	"	"	"	"	"	"	
Thallium	ND	16	100	"	"	"	"	"	"	
Vanadium	**15**	1.8	10	"	"	"	"	"	"	
Zinc	**14**	5.5	20	"	"	"	"	"	"	J
Manganese	**2300**	0.66	10	"	"	"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Volatile Organic Compounds by EPA Method 8260B
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-072403 (P307466-01) Water	**Sampled: 07/24/03 09:40**		**Received: 07/25/03 10:30**							**R-04**
Acetone	ND		50	ug/l	5	3070681	07/31/03	07/31/03	EPA 8260B	
Benzene	ND		5.0	"	"	"	"	"	"	
Bromobenzene	ND		5.0	"	"	"	"	"	"	
Bromochloromethane	ND		5.0	"	"	"	"	"	"	
Bromodichloromethane	ND		5.0	"	"	"	"	"	"	
Bromoform	ND		5.0	"	"	"	"	"	"	
Bromomethane	ND		5.0	"	"	"	"	"	"	
2-Butanone	ND		50	"	"	"	"	"	"	
n-Butylbenzene	ND		5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND		5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND		5.0	"	"	"	"	"	"	
Carbon disulfide	ND		50	"	"	"	"	"	"	
Carbon tetrachloride	ND		5.0	"	"	"	"	"	"	
Chlorobenzene	ND		5.0	"	"	"	"	"	"	
Chloroethane	ND		5.0	"	"	"	"	"	"	
Chloroform	ND		5.0	"	"	"	"	"	"	
Chloromethane	ND		5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND		5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND		5.0	"	"	"	"	"	"	
Dibromochloromethane	ND		5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND		5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND		5.0	"	"	"	"	"	"	
Dibromomethane	ND		5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND		5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND		5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND		5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND		5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND		5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND		5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND		5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND		5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND		5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND		5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND		5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND		5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND		5.0	"	"	"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Volatile Organic Compounds by EPA Method 8260B
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-072403 (P307466-01) Water	**Sampled: 07/24/03 09:40**		**Received: 07/25/03 10:30**							**R-04**
cis-1,3-Dichloropropene	ND		5.0	ug/l	5	3070681	07/31/03	07/31/03	EPA 8260B	
trans-1,3-Dichloropropene	ND		5.0	"	"	"	"	"	"	
Ethylbenzene	ND		5.0	"	"	"	"	"	"	
Freon 113	ND		5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND		5.0	"	"	"	"	"	"	
2-Hexanone	ND		50	"	"	"	"	"	"	
Isopropylbenzene	ND		5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND		5.0	"	"	"	"	"	"	
Methylene chloride	ND		5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND		50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND		5.0	"	"	"	"	"	"	
Naphthalene	ND		5.0	"	"	"	"	"	"	
n-Propylbenzene	ND		5.0	"	"	"	"	"	"	
Styrene	ND		5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND		5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND		5.0	"	"	"	"	"	"	
Tetrachloroethene	ND		5.0	"	"	"	"	"	"	
Toluene	ND		5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND		5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND		5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND		5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND		5.0	"	"	"	"	"	"	
Trichloroethene	ND		5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND		5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND		5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND		5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND		5.0	"	"	"	"	"	"	
Vinyl acetate	ND		100	"	"	"	"	"	"	
Vinyl chloride	ND		5.0	"	"	"	"	"	"	
m,p-Xylene	ND		5.0	"	"	"	"	"	"	
o-Xylene	ND		5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*114 %*	*84-122*			"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*106 %*	*74-135*			"	"	"	"	
Surrogate: Toluene-d8		*103 %*	*84-119*			"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*92 %*	*86-119*			"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Volatile Organic Compounds by EPA Method 8260B
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Comp-1 (P307466-02) Soil Sampled: 07/24/03 09:50 Received: 07/25/03 10:30										
Acetone	ND		50	ug/kg	1	3070577	07/28/03	07/28/03	EPA 8260B	
Benzene	ND		5.0	"	"	"	"	"	"	
Bromobenzene	ND		5.0	"	"	"	"	"	"	
Bromochloromethane	ND		5.0	"	"	"	"	"	"	
Bromodichloromethane	ND		5.0	"	"	"	"	"	"	
Bromoform	ND		5.0	"	"	"	"	"	"	
Bromomethane	ND		10	"	"	"	"	"	"	
2-Butanone	ND		10	"	"	"	"	"	"	
n-Butylbenzene	ND		5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND		5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND		5.0	"	"	"	"	"	"	
Carbon disulfide	ND		10	"	"	"	"	"	"	
Carbon tetrachloride	ND		5.0	"	"	"	"	"	"	
Chlorobenzene	ND		5.0	"	"	"	"	"	"	
Chloroethane	ND		5.0	"	"	"	"	"	"	
2-Chloroethylvinyl ether	ND		5.0	"	"	"	"	"	"	
Chloroform	ND		5.0	"	"	"	"	"	"	
Chloromethane	ND		5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND		5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND		5.0	"	"	"	"	"	"	
Dibromochloromethane	ND		5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND		5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND		5.0	"	"	"	"	"	"	
Dibromomethane	ND		5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND		5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND		5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND		5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND		5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND		5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND		5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND		5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND		5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND		5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND		5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND		5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND		5.0	"	"	"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Volatile Organic Compounds by EPA Method 8260B
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Comp-1 (P307466-02) Soil Sampled: 07/24/03 09:50 Received: 07/25/03 10:30										
1,1-Dichloropropene	ND		5.0	ug/kg	1	3070577	07/28/03	07/28/03	EPA 8260B	
cis-1,3-Dichloropropene	ND		5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND		5.0	"	"	"	"	"	"	
Ethylbenzene	ND		5.0	"	"	"	"	"	"	
Freon 113	ND		5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND		5.0	"	"	"	"	"	"	
2-Hexanone	ND		10	"	"	"	"	"	"	
Isopropylbenzene	ND		5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND		5.0	"	"	"	"	"	"	
Methylene chloride	ND		5.0	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND		10	"	"	"	"	"	"	
Methyl tert-butyl ether	ND		5.0	"	"	"	"	"	"	
Naphthalene	ND		5.0	"	"	"	"	"	"	
n-Propylbenzene	ND		5.0	"	"	"	"	"	"	
Styrene	ND		5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND		5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND		5.0	"	"	"	"	"	"	
Tetrachloroethene	ND		5.0	"	"	"	"	"	"	
Toluene	ND		5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND		5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND		5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND		5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND		5.0	"	"	"	"	"	"	
Trichloroethene	ND		5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND		5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND		5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND		5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND		5.0	"	"	"	"	"	"	
Vinyl acetate	ND		10	"	"	"	"	"	"	
Vinyl chloride	ND		5.0	"	"	"	"	"	"	
m,p-Xylene	ND		5.0	"	"	"	"	"	"	
o-Xylene	ND		5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*92 %*	*81-126*			"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*96 %*	*73-131*			"	"	"	"	
Surrogate: Toluene-d8		*95 %*	*82-129*			"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*103 %*	*74-131*			"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Conventional Chemistry Parameters by APHA/EPA Methods
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-072403 (P307466-01) Water	**Sampled: 07/24/03 09:40**		**Received: 07/25/03 10:30**							
Cyanide (total)	ND		0.0050	mg/l	1	3070665	07/31/03	08/01/03	EPA 335.2	
pH	**6.57**		2.00	pH Units	"	3070562	07/25/03	07/25/03	EPA 150.1	HT-01
Comp-1 (P307466-02) Soil	**Sampled: 07/24/03 09:50**		**Received: 07/25/03 10:30**							
Cyanide (total)	ND		0.50	mg/kg	1	3070666	07/31/03	08/01/03	EPA 335.2	
pH	**8.05**		2.00	pH Units	"	3070618	07/25/03	07/25/03	EPA 9045C	HT-01

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Anions by EPA Method 300.0
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-072403 (P307466-01) Water Sampled: 07/24/03 09:40 Received: 07/25/03 10:30										
Nitrate as N	ND		1.0	mg/l	5	3070560	07/25/03	07/25/03	EPA 300.0	
Sulfate as SO4	ND		5.0	"	"	"	"	"	"	
Comp-1 (P307466-02) Soil Sampled: 07/24/03 09:50 Received: 07/25/03 10:30										
Nitrate as N	**6.8**		2.0	mg/kg	1	3070590	07/25/03	07/25/03	EPA 300.0	
Sulfate as SO4	**240**		10	"	"	"	"	"	"	

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Total Petroleum Hydrocarbons as Gasoline by EPA 8015B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070609 - EPA 5030, soils											
Blank (3070609-BLK1)					Prepared & Analyzed: 07/29/03						
Gasoline Range Organics	ND		1000	ug/kg							
Surrogate: 4-Bromofluorobenzene	*317*			"	*300*		*106*	*65-135*			
Laboratory Control Sample (3070609-BS1)					Prepared & Analyzed: 07/29/03						
Gasoline Range Organics	2270		1000	ug/kg	2750		83	65-135			
Surrogate: 4-Bromofluorobenzene	*302*			"	*300*		*101*	*65-135*			
Matrix Spike (3070609-MS1)	**Source: P307420-01**				Prepared & Analyzed: 07/29/03						
Gasoline Range Organics	2090		1000	ug/kg	2750	28	75	65-135			
Surrogate: 4-Bromofluorobenzene	*287*			"	*300*		*96*	*65-135*			
Matrix Spike Dup (3070609-MSD1)	**Source: P307420-01**				Prepared & Analyzed: 07/29/03						
Gasoline Range Organics	1950		1000	ug/kg	2750	28	70	65-135	7	20	
Surrogate: 4-Bromofluorobenzene	*271*			"	*300*		*90*	*65-135*			
Batch 3070646 - EPA 5030, waters											
Blank (3070646-BLK1)					Prepared & Analyzed: 07/30/03						
Gasoline Range Organics	ND		50	ug/l							
Surrogate: 4-Bromofluorobenzene	*270*			"	*300*		*90*	*65-135*			
Laboratory Control Sample (3070646-BS1)					Prepared & Analyzed: 07/30/03						
Gasoline Range Organics	2210		50	ug/l	2750		80	65-135			
Surrogate: 4-Bromofluorobenzene	*292*			"	*300*		*97*	*65-135*			
Matrix Spike (3070646-MS1)	**Source: P307491-04**				Prepared & Analyzed: 07/30/03						
Gasoline Range Organics	2120		50	ug/l	2750	ND	77	65-135			
Surrogate: 4-Bromofluorobenzene	*281*			"	*300*		*94*	*65-135*			

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Total Petroleum Hydrocarbons as Gasoline by EPA 8015B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070646 - EPA 5030, waters											
Matrix Spike Dup (3070646-MSD1)	**Source: P307491-04**				Prepared & Analyzed: 07/30/03						
Gasoline Range Organics	2100		50	ug/l	2750	ND	76	65-135	0.9	20	
Surrogate: 4-Bromofluorobenzene	*289*			"	*300*		*96*	*65-135*			

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Total Petroleum Hydrocarbons as Diesel & others by EPA 8015B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070576 - CA LUFT - orb shaker											
Blank (3070576-BLK1)					Prepared: 07/28/03 Analyzed: 07/29/03						
Diesel Range Organics (C10-C28)	ND		5.0	mg/kg							
Motor Oil Range Organics (C24-C36)	ND		10	"							
Surrogate: Octacosane	*1.56*			"	*1.67*		*93*	*50-150*			
Laboratory Control Sample (3070576-BS1)					Prepared: 07/28/03 Analyzed: 07/29/03						
Diesel Range Organics (C10-C28)	32.4		5.0	mg/kg	33.3		97	62-103			
Surrogate: Octacosane	*1.79*			"	*1.67*		*107*	*50-150*			
Matrix Spike (3070576-MS1)	**Source: P307334-01**				Prepared: 07/28/03 Analyzed: 07/29/03						
Diesel Range Organics (C10-C28)	28.3		5.0	mg/kg	33.3	ND	85	62-103			
Surrogate: Octacosane	*1.74*			"	*1.67*		*104*	*50-150*			
Matrix Spike Dup (3070576-MSD1)	**Source: P307334-01**				Prepared: 07/28/03 Analyzed: 07/29/03						
Diesel Range Organics (C10-C28)	29.5		5.0	mg/kg	33.3	ND	89	62-103	4	35	
Surrogate: Octacosane	*1.67*			"	*1.67*		*100*	*50-150*			
Batch 3070602 - EPA 3510C											
Blank (3070602-BLK1)					Prepared: 07/29/03 Analyzed: 07/30/03						
Diesel Range Organics (C10-C28)	ND		0.050	mg/l							
Motor Oil Range Organics (C24-C36)	ND		0.25	"							
Surrogate: Octacosane	*0.0525*			"	*0.0500*		*105*	*50-150*			
Laboratory Control Sample (3070602-BS1)					Prepared: 07/29/03 Analyzed: 07/30/03						
Diesel Range Organics (C10-C28)	0.924		0.050	mg/l	1.00		92	49-102			
Surrogate: Octacosane	*0.0528*			"	*0.0500*		*106*	*50-150*			

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Total Petroleum Hydrocarbons as Diesel & others by EPA 8015B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070602 - EPA 3510C											
Laboratory Control Sample Dup (3070602-BSD1)					Prepared: 07/29/03 Analyzed: 07/30/03						
Diesel Range Organics (C10-C28)	0.911		0.050	mg/l	1.00		91	49-102	1	20	
Surrogate: Octacosane	*0.0522*			"	*0.0500*		*104*	*50-150*			

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070509 - EPA 7471A											
Blank (3070509-BLK1)					Prepared & Analyzed: 07/28/03						
Mercury	ND		0.018	mg/kg							
Laboratory Control Sample (3070509-BS1)					Prepared & Analyzed: 07/28/03						
Mercury	0.110		0.019	mg/kg	0.126		87	80-120			
Matrix Spike (3070509-MS1)	**Source: P307318-01**				Prepared & Analyzed: 07/28/03						
Mercury	0.206		0.015	mg/kg	0.101	0.10	105	80-120			
Matrix Spike Dup (3070509-MSD1)	**Source: P307318-01**				Prepared & Analyzed: 07/28/03						
Mercury	0.238		0.018	mg/kg	0.118	0.10	117	80-120	14	20	
Batch 3070630 - EPA 3050B											
Blank (3070630-BLK1)					Prepared & Analyzed: 07/30/03						
Antimony	ND		6.0	mg/kg							
Arsenic	ND		10	"							
Barium	ND		1.0	"							
Beryllium	ND		0.10	"							
Cadmium	ND		1.0	"							
Chromium	ND		1.0	"							
Cobalt	ND		0.70	"							
Copper	ND		2.0	"							
Lead	ND		7.5	"							
Molybdenum	ND		2.0	"							
Nickel	ND		3.0	"							
Selenium	ND		10	"							
Silver	ND		0.70	"							
Thallium	ND		10	"							
Vanadium	ND		1.0	"							
Zinc	ND		2.0	"							

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070630 - EPA 3050B											
Laboratory Control Sample (3070630-BS1)					Prepared & Analyzed: 07/30/03						
Antimony	44.1		6.0	mg/kg	50.0		88	80-120			
Arsenic	48.9		10	"	50.0		98	80-120			
Barium	49.5		1.0	"	50.0		99	80-120			
Beryllium	4.87		0.10	"	5.00		97	80-120			
Cadmium	4.88		1.0	"	5.00		98	80-120			
Chromium	48.6		1.0	"	50.0		97	80-120			
Cobalt	47.5		0.70	"	50.0		95	80-120			
Copper	49.1		2.0	"	50.0		98	80-120			
Lead	48.1		7.5	"	50.0		96	80-120			
Molybdenum	47.4		2.0	"	50.0		95	80-120			
Nickel	45.9		3.0	"	50.0		92	80-120			
Selenium	45.6		10	"	50.0		91	80-120			
Silver	4.56		0.70	"	5.00		91	80-120			
Thallium	47.9		10	"	50.0		96	80-120			
Vanadium	48.8		1.0	"	50.0		98	80-120			
Zinc	48.0		2.0	"	50.0		96	80-120			
Matrix Spike (3070630-MS1)	Source: P307466-02				Prepared & Analyzed: 07/30/03						
Antimony	13.7		4.7	mg/kg	39.1	ND	35	80-120			QM-07
Arsenic	36.8		7.8	"	39.1	ND	94	80-120			
Barium	101		0.78	"	39.1	160	NR	80-120			QM-07
Beryllium	3.67		0.078	"	3.91	0.71	76	80-120			QM-07
Cadmium	3.75		0.78	"	3.91	ND	96	80-120			
Chromium	92.7		0.78	"	39.1	15	199	80-120			QM-07
Cobalt	36.9		0.55	"	39.1	1.9	90	80-120			
Copper	52.8		1.6	"	39.1	7.7	115	80-120			
Lead	36.4		5.9	"	39.1	7.8	73	80-120			QM-07
Molybdenum	34.0		1.6	"	39.1	ND	87	80-120			
Nickel	44.6		2.3	"	39.1	4.8	102	80-120			
Selenium	33.2		7.8	"	39.1	ND	85	80-120			
Silver	4.51		0.55	"	3.91	0.97	91	80-120			
Thallium	30.2		7.8	"	39.1	ND	77	80-120			QM-07
Vanadium	71.1		0.78	"	39.1	22	126	80-120			QM-07
Zinc	67.5		1.6	"	39.1	27	104	80-120			

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Total Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070630 - EPA 3050B											
Matrix Spike Dup (3070630-MSD1)	**Source: P307466-02**				Prepared & Analyzed: 07/30/03						
Antimony	12.9		5.4	mg/kg	44.6	ND	29	80-120	6	20	QM-07
Arsenic	39.1		8.9	"	44.6	ND	88	80-120	6	20	
Barium	254		0.89	"	44.6	160	211	80-120	86	20	QM-07, QR-07
Beryllium	4.49		0.089	"	4.46	0.71	85	80-120	20	20	
Cadmium	3.81		0.89	"	4.46	ND	85	80-120	2	20	
Chromium	66.4		0.89	"	44.6	15	115	80-120	33	20	QR-07
Cobalt	42.2		0.62	"	44.6	1.9	90	80-120	13	20	
Copper	55.4		1.8	"	44.6	7.7	107	80-120	5	20	
Lead	42.9		6.7	"	44.6	7.8	79	80-120	16	20	QM-07
Molybdenum	39.5		1.8	"	44.6	ND	89	80-120	15	20	
Nickel	49.2		2.7	"	44.6	4.8	100	80-120	10	20	
Selenium	34.6		8.9	"	44.6	ND	78	80-120	4	20	QM-07
Silver	5.74		0.62	"	4.46	0.97	107	80-120	24	20	QR-07
Thallium	36.8		8.9	"	44.6	ND	83	80-120	20	20	
Vanadium	68.1		0.89	"	44.6	22	103	80-120	4	20	
Zinc	73.9		1.8	"	44.6	27	105	80-120	9	20	

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070461 - EPA 245/7470A											
Blank (3070461-BLK1)					Prepared: 07/30/03 Analyzed: 07/31/03						
Mercury	ND	0.032	0.20	ug/l							
Laboratory Control Sample (3070461-BS1)					Prepared: 07/30/03 Analyzed: 07/31/03						
Mercury	1.50	0.032	0.20	ug/l	1.59		94	80-120			
Matrix Spike (3070461-MS1)	Source: P307372-01				Prepared: 07/30/03 Analyzed: 07/31/03						
Mercury	1.37	0.032	0.20	ug/l	1.59	ND	86	80-120			
Matrix Spike Dup (3070461-MSD1)	Source: P307372-01				Prepared: 07/30/03 Analyzed: 07/31/03						
Mercury	1.33	0.032	0.20	ug/l	1.59	ND	84	80-120	3	20	
Batch 3070635 - EPA 3010A											
Blank (3070635-BLK1)					Prepared: 07/30/03 Analyzed: 07/31/03						
Antimony	27.7	24	60	ug/l							J
Iron	ND	51	300	"							
Manganese	ND	0.66	10	"							
Arsenic	ND	21	100	"							
Barium	ND	0.84	10	"							
Beryllium	ND	0.16	1.0	"							
Cadmium	ND	2.1	10	"							
Chromium	ND	2.7	10	"							
Cobalt	ND	2.8	7.0	"							
Copper	ND	2.6	10	"							
Lead	ND	18	75	"							
Molybdenum	ND	7.8	20	"							
Nickel	ND	12	30	"							
Selenium	ND	16	100	"							
Silver	ND	2.8	7.0	"							
Thallium	ND	16	100	"							
Vanadium	ND	1.8	10	"							
Zinc	ND	5.5	20	"							

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594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070635 - EPA 3010A											
Laboratory Control Sample (3070635-BS1)					Prepared: 07/30/03 Analyzed: 07/31/03						
Antimony	520	24	60	ug/l	500		104	80-120			
Iron	5470	51	300	"	5000		109	80-120			
Manganese	511	0.66	10	"	500		102	80-120			
Arsenic	535	21	100	"	500		107	80-120			
Barium	523	0.84	10	"	500		105	80-120			
Beryllium	52.3	0.16	1.0	"	50.0		105	80-120			
Cadmium	54.4	2.1	10	"	50.0		109	80-120			
Chromium	520	2.7	10	"	500		104	80-120			
Cobalt	507	2.8	7.0	"	500		101	80-120			
Copper	517	2.6	10	"	500		103	80-120			
Lead	499	18	75	"	500		100	80-120			
Molybdenum	520	7.8	20	"	500		104	80-120			
Nickel	519	12	30	"	500		104	80-120			
Selenium	487	16	100	"	500		97	80-120			
Silver	50.9	2.8	7.0	"	50.0		102	80-120			
Thallium	514	16	100	"	500		103	80-120			
Vanadium	523	1.8	10	"	500		105	80-120			
Zinc	500	5.5	20	"	500		100	80-120			
Matrix Spike (3070635-MS1)	**Source: P307372-01**				Prepared: 07/30/03 Analyzed: 07/31/03						
Antimony	517	24	60	ug/l	500	ND	103	80-120			
Iron	5340	51	300	"	5000	84	105	80-120			
Manganese	507	0.66	10	"	500	13	99	80-120			
Arsenic	520	21	100	"	500	ND	104	80-120			
Barium	546	0.84	10	"	500	47	100	80-120			
Beryllium	50.4	0.16	1.0	"	50.0	0.54	100	80-120			
Cadmium	50.8	2.1	10	"	50.0	ND	102	80-120			
Chromium	514	2.7	10	"	500	10	101	80-120			
Cobalt	490	2.8	7.0	"	500	4.0	97	80-120			
Copper	499	2.6	10	"	500	11	98	80-120			
Lead	506	18	75	"	500	ND	101	80-120			
Molybdenum	509	7.8	20	"	500	ND	102	80-120			
Nickel	506	12	30	"	500	ND	101	80-120			
Selenium	501	16	100	"	500	ND	100	80-120			

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594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070635 - EPA 3010A											
Matrix Spike (3070635-MS1)	**Source: P307372-01**				Prepared: 07/30/03 Analyzed: 07/31/03						
Silver	49.4	2.8	7.0	ug/l	50.0	ND	99	80-120			
Thallium	482	16	100	"	500	ND	96	80-120			
Vanadium	510	1.8	10	"	500	3.0	101	80-120			
Zinc	505	5.5	20	"	500	43	92	80-120			
Matrix Spike Dup (3070635-MSD1)	**Source: P307372-01**				Prepared: 07/30/03 Analyzed: 07/31/03						
Antimony	496	24	60	ug/l	500	ND	99	80-120	4	20	
Iron	5140	51	300	"	5000	84	101	80-120	4	20	
Manganese	491	0.66	10	"	500	13	96	80-120	3	20	
Arsenic	505	21	100	"	500	ND	101	80-120	3	20	
Barium	544	0.84	10	"	500	47	99	80-120	0.4	20	
Beryllium	49.1	0.16	1.0	"	50.0	0.54	97	80-120	3	20	
Cadmium	48.0	2.1	10	"	50.0	ND	96	80-120	6	20	
Chromium	499	2.7	10	"	500	10	98	80-120	3	20	
Cobalt	470	2.8	7.0	"	500	4.0	93	80-120	4	20	
Copper	497	2.6	10	"	500	11	97	80-120	0.4	20	
Lead	478	18	75	"	500	ND	96	80-120	6	20	
Molybdenum	498	7.8	20	"	500	ND	100	80-120	2	20	
Nickel	494	12	30	"	500	ND	99	80-120	2	20	
Selenium	481	16	100	"	500	ND	96	80-120	4	20	
Silver	49.6	2.8	7.0	"	50.0	ND	99	80-120	0.4	20	
Thallium	499	16	100	"	500	ND	100	80-120	3	20	
Vanadium	496	1.8	10	"	500	3.0	99	80-120	3	20	
Zinc	496	5.5	20	"	500	43	91	80-120	2	20	

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070577 - EPA 5030 soils											
Blank (3070577-BLK1)				Prepared & Analyzed: 07/28/03							
Acetone	ND		50	ug/kg							
Benzene	ND		5.0	"							
Bromobenzene	ND		5.0	"							
Bromochloromethane	ND		5.0	"							
Bromodichloromethane	ND		5.0	"							
Bromoform	ND		5.0	"							
Bromomethane	ND		10	"							
2-Butanone	ND		10	"							
n-Butylbenzene	ND		5.0	"							
sec-Butylbenzene	ND		5.0	"							
tert-Butylbenzene	ND		5.0	"							
Carbon disulfide	ND		10	"							
Carbon tetrachloride	ND		5.0	"							
Chlorobenzene	ND		5.0	"							
Chloroethane	ND		5.0	"							
2-Chloroethylvinyl ether	ND		5.0	"							
Chloroform	ND		5.0	"							
Chloromethane	ND		5.0	"							
2-Chlorotoluene	ND		5.0	"							
4-Chlorotoluene	ND		5.0	"							
Dibromochloromethane	ND		5.0	"							
1,2-Dibromo-3-chloropropane	ND		5.0	"							
1,2-Dibromoethane (EDB)	ND		5.0	"							
Dibromomethane	ND		5.0	"							
1,2-Dichlorobenzene	ND		5.0	"							
1,3-Dichlorobenzene	ND		5.0	"							
1,4-Dichlorobenzene	ND		5.0	"							
Dichlorodifluoromethane	ND		5.0	"							
1,1-Dichloroethane	ND		5.0	"							
1,2-Dichloroethane	ND		5.0	"							
1,1-Dichloroethene	ND		5.0	"							
cis-1,2-Dichloroethene	ND		5.0	"							
trans-1,2-Dichloroethene	ND		5.0	"							
1,2-Dichloropropane	ND		5.0	"							

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070577 - EPA 5030 soils											
Blank (3070577-BLK1)				Prepared & Analyzed: 07/28/03							
1,3-Dichloropropane	ND		5.0	ug/kg							
2,2-Dichloropropane	ND		5.0	"							
1,1-Dichloropropene	ND		5.0	"							
cis-1,3-Dichloropropene	ND		5.0	"							
trans-1,3-Dichloropropene	ND		5.0	"							
Ethylbenzene	ND		5.0	"							
Freon 113	ND		5.0	"							
Hexachlorobutadiene	ND		5.0	"							
2-Hexanone	ND		10	"							
Isopropylbenzene	ND		5.0	"							
p-Isopropyltoluene	ND		5.0	"							
Methylene chloride	ND		5.0	"							
4-Methyl-2-pentanone	ND		10	"							
Methyl tert-butyl ether	ND		5.0	"							
Naphthalene	ND		5.0	"							
n-Propylbenzene	ND		5.0	"							
Styrene	ND		5.0	"							
1,1,2,2-Tetrachloroethane	ND		5.0	"							
1,1,1,2-Tetrachloroethane	ND		5.0	"							
Tetrachloroethene	ND		5.0	"							
Toluene	ND		5.0	"							
1,2,3-Trichlorobenzene	ND		5.0	"							
1,2,4-Trichlorobenzene	ND		5.0	"							
1,1,2-Trichloroethane	ND		5.0	"							
1,1,1-Trichloroethane	ND		5.0	"							
Trichloroethene	ND		5.0	"							
Trichlorofluoromethane	ND		5.0	"							
1,2,3-Trichloropropane	ND		5.0	"							
1,3,5-Trimethylbenzene	ND		5.0	"							
1,2,4-Trimethylbenzene	ND		5.0	"							
Vinyl acetate	ND		10	"							
Vinyl chloride	ND		5.0	"							
m,p-Xylene	ND		5.0	"							
o-Xylene	ND		5.0	"							

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	Reported:
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070577 - EPA 5030 soils											
Blank (3070577-BLK1)					Prepared & Analyzed: 07/28/03						
Surrogate: Dibromofluoromethane	*40.9*			*ug/kg*	*45.0*		*91*	*81-126*			
Surrogate: 1,2-Dichloroethane-d4	*41.1*			*"*	*45.0*		*91*	*73-131*			
Surrogate: Toluene-d8	*42.9*			*"*	*45.0*		*95*	*82-129*			
Surrogate: 4-Bromofluorobenzene	*45.0*			*"*	*45.0*		*100*	*74-131*			
Laboratory Control Sample (3070577-BS1)					Prepared & Analyzed: 07/28/03						
Benzene	41.2		5.0	ug/kg	50.0		82	75-123			
Chlorobenzene	41.3		5.0	"	50.0		83	79-123			
1,1-Dichloroethene	41.3		5.0	"	50.0		83	77-128			
Toluene	38.4		5.0	"	50.0		77	76-123			
Trichloroethene	38.7		5.0	"	50.0		77	72-119			
Surrogate: Dibromofluoromethane	*41.2*			*"*	*45.0*		*92*	*81-126*			
Surrogate: 1,2-Dichloroethane-d4	*40.9*			*"*	*45.0*		*91*	*73-131*			
Surrogate: Toluene-d8	*43.3*			*"*	*45.0*		*96*	*82-129*			
Surrogate: 4-Bromofluorobenzene	*45.7*			*"*	*45.0*		*102*	*74-131*			
Matrix Spike (3070577-MS1)	**Source: P307420-01**				Prepared & Analyzed: 07/28/03						
Benzene	45.4		5.0	ug/kg	50.0	ND	91	75-123			
Chlorobenzene	45.6		5.0	"	50.0	ND	91	79-123			
1,1-Dichloroethene	44.4		5.0	"	50.0	ND	89	77-128			
Toluene	42.7		5.0	"	50.0	1.9	82	76-123			
Trichloroethene	48.2		5.0	"	50.0	ND	96	72-119			
Surrogate: Dibromofluoromethane	*40.7*			*"*	*45.0*		*90*	*81-126*			
Surrogate: 1,2-Dichloroethane-d4	*40.2*			*"*	*45.0*		*89*	*73-131*			
Surrogate: Toluene-d8	*42.9*			*"*	*45.0*		*95*	*82-129*			
Surrogate: 4-Bromofluorobenzene	*44.5*			*"*	*45.0*		*99*	*74-131*			
Matrix Spike Dup (3070577-MSD1)	**Source: P307420-01**				Prepared & Analyzed: 07/28/03						
Benzene	46.4		5.0	ug/kg	50.0	ND	93	75-123	2	35	
Chlorobenzene	45.7		5.0	"	50.0	ND	91	79-123	0.2	35	
1,1-Dichloroethene	44.8		5.0	"	50.0	ND	90	77-128	0.9	35	
Toluene	42.9		5.0	"	50.0	1.9	82	76-123	0.5	35	
Trichloroethene	49.6		5.0	"	50.0	ND	99	72-119	3	35	
Surrogate: Dibromofluoromethane	*40.8*			*"*	*45.0*		*91*	*81-126*			
Surrogate: 1,2-Dichloroethane-d4	*39.8*			*"*	*45.0*		*88*	*73-131*			
Surrogate: Toluene-d8	*43.0*			*"*	*45.0*		*96*	*82-129*			

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070577 - EPA 5030 soils											
Matrix Spike Dup (3070577-MSD1)	**Source: P307420-01**				Prepared & Analyzed: 07/28/03						
Surrogate: 4-Bromofluorobenzene	*44.8*			*ug/kg*	*45.0*		*100*	*74-131*			
Batch 3070681 - EPA 5030 waters											
Blank (3070681-BLK1)					Prepared & Analyzed: 07/31/03						
Acetone	ND		10	ug/l							
Benzene	ND		1.0	"							
Bromobenzene	ND		1.0	"							
Bromochloromethane	ND		1.0	"							
Bromodichloromethane	ND		1.0	"							
Bromoform	ND		1.0	"							
Bromomethane	ND		1.0	"							
2-Butanone	ND		10	"							
n-Butylbenzene	ND		1.0	"							
sec-Butylbenzene	ND		1.0	"							
tert-Butylbenzene	ND		1.0	"							
Carbon disulfide	ND		10	"							
Carbon tetrachloride	ND		1.0	"							
Chlorobenzene	ND		1.0	"							
Chloroethane	ND		1.0	"							
Chloroform	ND		1.0	"							
Chloromethane	ND		1.0	"							
2-Chlorotoluene	ND		1.0	"							
4-Chlorotoluene	ND		1.0	"							
Dibromochloromethane	ND		1.0	"							
1,2-Dibromo-3-chloropropane	ND		1.0	"							
1,2-Dibromoethane (EDB)	ND		1.0	"							
Dibromomethane	ND		1.0	"							
1,2-Dichlorobenzene	ND		1.0	"							
1,3-Dichlorobenzene	ND		1.0	"							
1,4-Dichlorobenzene	ND		1.0	"							
Dichlorodifluoromethane	ND		1.0	"							
1,1-Dichloroethane	ND		1.0	"							
1,2-Dichloroethane	ND		1.0	"							
1,1-Dichloroethene	ND		1.0	"							

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070681 - EPA 5030 waters											
Blank (3070681-BLK1)				Prepared & Analyzed: 07/31/03							
cis-1,2-Dichloroethene	ND		1.0	ug/l							
trans-1,2-Dichloroethene	ND		1.0	"							
1,2-Dichloropropane	ND		1.0	"							
1,3-Dichloropropane	ND		1.0	"							
2,2-Dichloropropane	ND		1.0	"							
1,1-Dichloropropene	ND		1.0	"							
cis-1,3-Dichloropropene	ND		1.0	"							
trans-1,3-Dichloropropene	ND		1.0	"							
Ethylbenzene	ND		1.0	"							
Freon 113	ND		1.0	"							
Hexachlorobutadiene	ND		1.0	"							
2-Hexanone	ND		10	"							
Isopropylbenzene	ND		1.0	"							
p-Isopropyltoluene	ND		1.0	"							
Methylene chloride	ND		1.0	"							
4-Methyl-2-pentanone	ND		10	"							
Methyl tert-butyl ether	ND		1.0	"							
Naphthalene	ND		1.0	"							
n-Propylbenzene	ND		1.0	"							
Styrene	ND		1.0	"							
1,1,2,2-Tetrachloroethane	ND		1.0	"							
1,1,1,2-Tetrachloroethane	ND		1.0	"							
Tetrachloroethene	ND		1.0	"							
Toluene	ND		1.0	"							
1,2,3-Trichlorobenzene	ND		1.0	"							
1,2,4-Trichlorobenzene	ND		1.0	"							
1,1,2-Trichloroethane	ND		1.0	"							
1,1,1-Trichloroethane	ND		1.0	"							
Trichloroethene	ND		1.0	"							
Trichlorofluoromethane	ND		1.0	"							
1,2,3-Trichloropropane	ND		1.0	"							
1,3,5-Trimethylbenzene	ND		1.0	"							
1,2,4-Trimethylbenzene	ND		1.0	"							
Vinyl acetate	ND		20	"							

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070681 - EPA 5030 waters											
Blank (3070681-BLK1)					Prepared & Analyzed: 07/31/03						
Vinyl chloride	ND		1.0	ug/l							
m,p-Xylene	ND		1.0	"							
o-Xylene	ND		1.0	"							
Surrogate: Dibromofluoromethane	*5.11*			"	*4.50*		*114*	*84-122*			
Surrogate: 1,2-Dichloroethane-d4	*4.63*			"	*4.50*		*103*	*74-135*			
Surrogate: Toluene-d8	*4.46*			"	*4.50*		*99*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*3.81*			"	*4.50*		*85*	*86-119*			*S-LIM*
Laboratory Control Sample (3070681-BS1)					Prepared & Analyzed: 07/31/03						
Benzene	5.48		1.0	ug/l	5.00		110	81-118			
Chlorobenzene	5.96		1.0	"	5.00		119	88-119			
1,1-Dichloroethene	5.82		1.0	"	5.00		116	77-121			
Toluene	5.74		1.0	"	5.00		115	84-119			
Trichloroethene	5.59		1.0	"	5.00		112	83-126			
Surrogate: Dibromofluoromethane	*5.28*			"	*4.50*		*117*	*84-122*			
Surrogate: 1,2-Dichloroethane-d4	*4.81*			"	*4.50*		*107*	*74-135*			
Surrogate: Toluene-d8	*4.52*			"	*4.50*		*100*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*4.58*			"	*4.50*		*102*	*86-119*			
Laboratory Control Sample Dup (3070681-BSD1)					Prepared & Analyzed: 07/31/03						
Benzene	5.30		1.0	ug/l	5.00		106	81-118	3	20	
Chlorobenzene	5.67		1.0	"	5.00		113	88-119	5	20	
1,1-Dichloroethene	5.31		1.0	"	5.00		106	77-121	9	20	
Toluene	5.54		1.0	"	5.00		111	84-119	4	20	
Trichloroethene	5.26		1.0	"	5.00		105	83-126	6	20	
Surrogate: Dibromofluoromethane	*5.00*			"	*4.50*		*111*	*84-122*			
Surrogate: 1,2-Dichloroethane-d4	*4.48*			"	*4.50*		*100*	*74-135*			
Surrogate: Toluene-d8	*4.50*			"	*4.50*		*100*	*84-119*			
Surrogate: 4-Bromofluorobenzene	*4.60*			"	*4.50*		*102*	*86-119*			

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070562 - General Preparation											
Duplicate (3070562-DUP1)		**Source: P307373-01**			Prepared & Analyzed: 07/25/03						
pH	7.45		2.00	pH Units		7.41			0.5	20	
Duplicate (3070562-DUP2)		**Source: P307466-01**			Prepared & Analyzed: 07/25/03						
pH	6.51		2.00	pH Units		6.57			0.9	20	
Batch 3070618 - General Preparation											
Duplicate (3070618-DUP1)		**Source: P307466-02**			Prepared & Analyzed: 07/25/03						
pH	8.09		2.00	pH Units		8.05			0.5	20	
Batch 3070665 - General Preparation											
Blank (3070665-BLK1)					Prepared: 07/31/03 Analyzed: 08/01/03						
Cyanide (total)	ND		0.0050	mg/l							
Laboratory Control Sample (3070665-BS1)					Prepared: 07/31/03 Analyzed: 08/01/03						
Cyanide (total)	0.214		0.0050	mg/l	0.200		107	80-120			
Matrix Spike (3070665-MS1)		**Source: P307369-01**			Prepared: 07/31/03 Analyzed: 08/01/03						
Cyanide (total)	0.152		0.0050	mg/l	0.200	ND	76	75-125			
Matrix Spike Dup (3070665-MSD1)		**Source: P307369-01**			Prepared: 07/31/03 Analyzed: 08/01/03						
Cyanide (total)	0.153		0.0050	mg/l	0.200	ND	76	75-125	0.7	20	
Batch 3070666 - General Preparation											
Blank (3070666-BLK1)					Prepared: 07/31/03 Analyzed: 08/01/03						
Cyanide (total)	ND		0.50	mg/kg							

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070666 - General Preparation											
Laboratory Control Sample (3070666-BS1)					Prepared: 07/31/03 Analyzed: 08/01/03						
Cyanide (total)	5.37		0.50	mg/kg	5.00		107	80-120			
Matrix Spike (3070666-MS1)	Source: P307466-02				Prepared: 07/31/03 Analyzed: 08/01/03						
Cyanide (total)	5.37		0.50	mg/kg	5.00	ND	107	75-125			
Matrix Spike Dup (3070666-MSD1)	Source: P307466-02				Prepared: 07/31/03 Analyzed: 08/01/03						
Cyanide (total)	5.31		0.50	mg/kg	5.00	ND	106	75-125	1	20	

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Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Anions by EPA Method 300.0 - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070560 - General Preparation											
Blank (3070560-BLK1)					Prepared & Analyzed: 07/25/03						
Nitrate as N	ND		0.20	mg/l							
Sulfate as SO4	ND		1.0	"							
Laboratory Control Sample (3070560-BS1)					Prepared & Analyzed: 07/25/03						
Nitrate as N	9.90		0.20	mg/l	10.0		99	90-110			
Sulfate as SO4	10.1		1.0	"	10.0		101	90-110			
Matrix Spike (3070560-MS1)	**Source: P307475-01**				Prepared & Analyzed: 07/25/03						
Nitrate as N	245		10	mg/l	250	1.8	97	80-120			
Sulfate as SO4	415		50	"	250	140	110	80-120			
Matrix Spike Dup (3070560-MSD1)	**Source: P307475-01**				Prepared & Analyzed: 07/25/03						
Nitrate as N	246		10	mg/l	250	1.8	98	80-120	0.4	20	
Sulfate as SO4	403		50	"	250	140	105	80-120	3	20	
Batch 3070590 - General Preparation											
Blank (3070590-BLK1)					Prepared & Analyzed: 07/25/03						
Nitrate as N	ND		2.0	mg/kg							
Sulfate as SO4	ND		10	"							
Laboratory Control Sample (3070590-BS1)					Prepared & Analyzed: 07/25/03						
Nitrate as N	99.8		2.0	mg/kg	100		100	90-110			
Sulfate as SO4	103		10	"	100		103	90-110			
Matrix Spike (3070590-MS1)	**Source: P307482-01**				Prepared & Analyzed: 07/25/03						
Nitrate as N	95.8		4.0	mg/kg	100	0.58	95	80-120			
Sulfate as SO4	105		20	"	100	12	93	80-120			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Anions by EPA Method 300.0 - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070590 - General Preparation											
Matrix Spike Dup (3070590-MSD1)	**Source: P307482-01**				Prepared & Analyzed: 07/25/03						
Nitrate as N	97.0		4.0	mg/kg	100	0.58	96	80-120	1	20	
Sulfate as SO4	110		20	"	100	12	98	80-120	5	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Sequoia Analytical

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www.sequoialabs.com

Geologica Inc.	Project: Qualex Kent, WA	P307466
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/04/03 13:00

Notes and Definitions

HT-01	This sample was received beyond the EPA recommended holding time. The results may still be useful for their intended purpose.
J	Estimated value.
QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR-07	The RPD was outside control limits. The results may still be useful for their intended purpose.
R-04	The Reporting Limits for this analysis are elevated due to sample foaming.
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
S-LIM	The surrogate recovery was outside control limits. The result may still be useful for its intended purpose.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

revised

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

- ☐ 885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 776-9600 • FAX (408) 782-6308
- ☐ 1455 McDowell Blvd, Suite D. • Petaluma, CA 94954 • (707) 792-1865 • FAX (707) 792-0342
- ☐ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 • FAX (916) 921-0100
- ☐ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 • FAX (650) 232-9612
- ☐ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 • FAX (925) 988-9673

Company Name: Geocon Inc. | Project: Quinn-Kaiser

Mailing Address: 7 534 Hanford St. Ste 400 | Billing Address (if different):

City: SF | State: CA | Zip Code: 94105

Telephone: 415 597 7833 | Fax #: 415 597 7890 | P.O. #:

Report To: B. Avery | E-mail Address: BAvery@Geoconinc.net | QC Data: ☐ Level II (standard) ☐ Level III ☐ Level IV

Sampler: K. Arrieta | Date / Time Results Required: | Sequoia's Work Order #

Turnaround Time:
- 10-15 Working Days (Standard TAT)
- 7 Working Days
- 5 Working Days
- ☐ 72 Hours
- ☐ 48 Hours
- ☐ 24 Hours
- ☐ 2-8 Hours

MANDATORY:
- ☐ SDWA (Drinking Water)
- ☐ CWA (Waste Water)
- ☐ RCRA (Hazardous Waste)
- ☐ Other

ANALYSES REQUESTED (Please provide method)

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's Sample #	TPH-D/MO (8015)	TPH-G (8015)	VOCs (8260)	Nitrate & Sulfate (300)	Chloride (325.2/300)	Boron (6010/200.7)	pH	Fe, Mn	Comments/ Temp (if required)
1. MW-1-072403	7/24/03 0940	W	7	1-Liter 5-pint 2-Liter Amber		X	X	X	X	X	X	X	X	
2. Comp-1	7/23/03 0950	S	1	8-8oz Jars		X	X	X	X	X	X	X		Dissolved
3.														
4.														
5.														
6.														
7.														
8.														
9.														
10.														

COOLER CUSTODY SEALS INTACT ☐
NOT INTACT ☐
COOLER TEMPERATURE 5.2 °C

Relinquished By:	Received By:	Date / Time: 7/25/03 1630
Relinquished By:	Received By:	Date / Time:
Relinquished By:	Received By:	Date / Time:
Relinquished By:	Received By:	Date / Time:

Were Samples Received In Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment: _____ Page ___ of ___

White: Sequoia Yellow: Sequoia Pink: Client

RECEIVED: 7/25/03 4:32PM; GEOLOGICA INC; #331; PAGE 2
SENT BY: GEOLOGICA INC; 415 597 7880; JUL-25-03 4:35PM; PAGE 1/1
JUL.25.2003 3:28PM SEQUOIA ANALYTICAL

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

- ☐ 885 Jarvis Drive • **Morgan Hill, CA 95037** • (408) 776-9600 • FAX (408) 782-6308
- ☐ 1455 McDowell Blvd, Suite D. • **Petaluma, CA 94954** • (707) 792-1865 • FAX (707) 792-0342
- ☐ 819 Striker Ave., Suite 8 • **Sacramento, CA 95834** • (916) 921-9600 • FAX (916) 921-0100
- ☐ 1551 Industrial Road • **San Carlos, CA 94070** • (650) 232-9600 • FAX (650) 232-9612
- ☐ 404 N. Wiget Lane • **Walnut Creek, CA 94598** • (925) 988-9600 • FAX (925) 988-9673

Company Name: Geologica, Inc.		Project: Quarry - Kent	
Mailing Address: 594 Howard St. Ste 400		Billing Address (if different):	
City: SF	State: CA Zip Code: 94105		
Telephone: 415 597 7883	Fax #: 415 597 7890	P.O. #:	
Report To: B. Aubry	E-mail Address: BAubry@Geologica.net	QC Data: ☐ Level II (standard) ☐ Level III ☐ Level IV	
Sampler: K. Asmussen	Date / Time Results Required:	Sequoia's Work Order #	

Turnaround Time:
- ☑ 10-15 Working Days (Standard TAT)
- ☐ 7 Working Days
- ☐ 5 Working Days
- ☐ 72 Hours
- ☐ 48 Hours
- ☐ 24 Hours
- ☐ 2-8 Hours

MANDATORY:
- ☐ SDWA (Drinking Water)
- ☐ CWA (Waste Water)
- ☐ RCRA (Hazardous Waste)
- ☐ Other

ANALYSES REQUESTED (Please provide method)

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's Sample #	TPH-D/MO (8015)	TPH-G (8015)	VOCs (8260)	Nitrates Sulfates Chloride	CYANIDE (335.2/9010)	CAM17 (6010/7000)	PH			Comments/ Temp.(if required)
1. MW-1-072403	7/24/03 0940	W	7	3-VOAs 2-1pt 2-1 LTR AMBER	P3074166-01	X	X	X	X	X	X	X			
2. Comp-1	7/24/03 0950	S	1	1-8oz glass ↓	-02	X	X	X	X	X	X	X			
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															

COOLER CUSTODY SEALS INTACT ☐
NOT INTACT ☐
COOLER TEMPERATURE: 5.2 °C

Relinquished By:	Received By:	Date / Time: 7/25/03 1030
Relinquished By:	Received By:	Date / Time:
Relinquished By:	Received By:	Date / Time:
Relinquished By:	Received By:	Date / Time:

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment: _____ Page ___ of ___

White: Sequoia Yellow: Sequoia Pink: Client

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: Geologica
REC. BY (PRINT) ACI
WORKORDER: 30 1466

DATE Received at Lab: 7/25/03
TIME Received at Lab: 10:30
LOG IN DATE: 7/25/03

(Drinking water) for regulatory purposes: YES/NO
(Wastewater) for regulatory purposes: YES/NO

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	#	CLIENT ID	DESCRIPTION	SAMPLE MATRIX	DATE SAMPLED	CONDITION (ETC.)
1. Custody Seal(s)	Present / Absent			MW-1 - 072403	8x04 125D	W	7/24	
	Intact / Broken*				250D HNO3			
2. Chain-of-Custody	Present / Absent*				2x1LA			+125D NaOH
3. Traffic Reports or Packing List:	Present / Absent			COMP-1	8021	S		
4. Airbill:	Airbill / Sticker Present / Absent							
5. Airbill #: 8396 9632 8407								
6. Sample Labels:	Present / Absent							
7. Sample IDs:	Listed / Not Listed on Chain-of-Custody							
8. Sample Condition:	Intact / Broken* / Leaking*							
9. Does information on custody reports, traffic reports and sample labels agree?	Yes / No*							
10. Sample received within hold time:	Yes / No*							
11. Proper Preservatives used:	Yes / No*							
12. Temp Rec. at Lab: 5.7 (Acceptance range for samples requiring thermal pres.:4+/-2°C)	Yes / No*							

*If Circled, contact Project Manager and attach record of resolution.

Sequoia
Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

5 August, 2003

Brian Aubry
Geologica Inc.
594 Howard St., Suite 400
San Francisco, CA 94105

RE: Qualex Kent, WA
Work Order: P308033

Enclosed are the results of analyses for samples received by the laboratory on 08/04/03 15:41. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angelee Carl

Angelee Carl
Project Manager

CA ELAP Certificate #2374

Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc.	Project: Qualex Kent, WA	P308033
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/05/03 15:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1-072403	P308033-01	Water	07/24/03 09:40	08/04/03 15:41

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc.	Project: Qualex Kent, WA	P308033
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/05/03 15:14

Dissolved Metals by EPA 200 Series Methods

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-072403 (P308033-01) Water	**Sampled: 07/24/03 09:40**		**Received: 08/04/03 15:41**						
Arsenic	**23**	5.0	ug/l	1	3070635	07/30/03	08/05/03	EPA 200.8	
Selenium	**54**	5.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc.	Project: Qualex Kent, WA	P308033
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/05/03 15:14

Dissolved Metals by EPA 200 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3070635 - EPA 3010A										
Blank (3070635-BLK1)				Prepared: 07/30/03 Analyzed: 08/05/03						
Arsenic	ND	5.0	ug/l							
Selenium	ND	5.0	"							
Laboratory Control Sample (3070635-BS1)				Prepared: 07/30/03 Analyzed: 08/05/03						
Arsenic	518	5.0	ug/l	500		104	80-120			
Selenium	494	5.0	"	500		99	80-120			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc.	Project: Qualex Kent, WA	P308033
594 Howard St., Suite 400	Project Number: [none]	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	08/05/03 15:14

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

revised

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

- 885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 776-9600 • FAX (408) 782-6308
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- 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 • FAX (916) 921-0100
- 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 • FAX (650) 232-9612
- 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 • FAX (925) 988-9673

Company Name: Geological Inc. | Project: Quaker-Kent

Mailing Address: 2 514 Howard St. Ste 400 | Billing Address (if different):

City: SF | State: CA | Zip Code: 94105

Telephone: 415 597 7883 | Fax #: 415 597 7890 | P.O. #:

Report To: B. Avery | E-mail Address: Bavery@geological.com | QC Data: ☐ Level II (standard) ☐ Level III ☐ Level IV

Sampler: K. Hamilton | Date / Time Results Required: | Sequoia's Work Order #

Turnaround Time:
- 10-15 Working Days (Standard TAT)
- 7 Working Days
- 5 Working Days
- ☐ 72 Hours
- ☐ 48 Hours
- ☐ 24 Hours
- ☐ 2-8 Hours

MANDATORY:
- ☐ SDWA (Drinking Water)
- ☐ CWA (Waste Water)
- ☐ RCRA (Hazardous Waste)
- ☐ Other

ANALYSES REQUESTED (Please provide method)

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's Sample #	TPH-D/MO (8015)	TPH-G (8015)	VOCs (8260)	Nitrates + Sulfates (300)	CAM17 MC (3552 / 3550)	CAM17 (6010/7000)	pH	Fe, MN	Comments/ Temp (if required)
1. MW-1-072403	7/24/03 0940	W	7	3-40ml 2-1L Amber		X	X	X	X	X	X	X	X	
2. Comp-1	7/23/03 0950	S	1	1-8oz glass		X	X	X	X	X	X	X		Dissolved
3.														
4.														
5.														
6.														
7.														
8.														

CUSTODY SEALS INTACT ☐
NOT INTACT ☐
COOLER TEMPERATURE 5.2°

Relinquished By:	Received By: Alex Ruiz	Date / Time: 7/25/03 10:30
Relinquished By:	Received By:	Date / Time:
Relinquished By:	Received By:	Date / Time:
Relinquished By:	Received By:	Date / Time:

Were Samples Received In Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment: _____ Page ___ of ___

White: Sequoia Yellow: Sequoia Pink: Client

RECEIVED: 7/25/03 4:32PM; -SEQUOIA ANALYTICAL INC; #331; PAGE 2
SENT BY: GEOLOGICA INC; 415 597 7880; JUL-25-03 4:35PM; PAGE 1/1
3:28PM

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

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- ❑ 1455 McDowell Blvd, Suite D. • **Petaluma, CA 94954** • (707) 792-1865 • FAX (707) 792-0342
- ❑ 819 Striker Ave., Suite 8 • **Sacramento, CA 95834** • (916) 921-9600 • FAX (916) 921-0100
- ❑ 1551 Industrial Road • **San Carlos, CA 94070** • (650) 232-9600 • FAX (650) 232-9612
- ❑ 404 N. Wiget Lane • **Walnut Creek, CA 94598** • (925) 988-9600 • FAX (925) 988-9673

Company Name: Geologica, Inc.		Project: Quick-Kent	
Mailing Address: 7 594 Howard St. Ste 400		Billing Address (if different):	
City: SF	State: CA Zip Code: 94105		
Telephone: 415 597 7883	Fax #: 415 597 7890	P.O. #:	
Report To: B. Avery	E-mail Address: BAvery@Geologica.net	QC Data: ❑ Level II (standard) ❑ Level III ❑ Level IV	
Sampler: K. Vonruys	Date / Time Results Required:	Sequoia's Work Order #	

Turnaround Time:
- ☒ 10-15 Working Days (Standard TAT)
- ❑ 7 Working Days
- ❑ 5 Working Days
- ❑ 72 Hours
- ❑ 48 Hours
- ❑ 24 Hours
- ❑ 2-8 Hours

MANDATORY:
- ❑ SDWA (Drinking Water)
- ❑ CWA (Waste Water)
- ❑ RCRA (Hazardous Waste)
- ❑ Other

ANALYSES REQUESTED (Please provide method)

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's Sample #	TPH-D/MO (8015)	TPH-G (8015)	VOCs (8260)	Nitrates & Sulfates (300)	Cyanide (335.2/9010)	CAM17 (6010/7000)	pH			Comments/ Temp.(If required)
1. MW-1-072403	7/24/03 0940	W	7	3-VOAs 2-pints 2-1 liter amber	P3074660-01	X	X	X	X	X	X	X			
2. Comp-1	7/24/03 0950	S	1	1-8 oz glass ↓	-02	X	X	X	X	X	X	X			
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															

COOLER CUSTODY SEALS INTACT ☐
NOT INTACT ☐
COOLER TEMPERATURE 5.2 °C

Relinquished By:	Received By: AMoRuiz	Date / Time: 7/25/03 1030
Relinquished By:	Received By:	Date / Time:
Relinquished By:	Received By:	Date / Time:
Relinquished By:	Received By:	Date / Time:

Were Samples Received in Good Condition? ❑ Yes ❑ No Samples on Ice? ❑ Yes ❑ No Method of Shipment: _____ Page ___ of ___

White: Sequoia Yellow: Sequoia Pink: Client

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: Geologica
REC. BY (PRINT) AC
WORKORDER: P3014666

DATE Received at Lab: 7/25/03
TIME Received at Lab: 10:30
LOG IN DATE: 7/25/03

(Drinking water) for regulatory purposes: YES/NO
(Wastewater) for regulatory purposes: YES/NO

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	#	CLIENT ID	DESCRIPTION	SAMPLE MATRIX	DATE SAMPLED	CONDITION (ETC.)
1. Custody Seal(s)	Present / Absent			MW-1-072403	3xpv, 1250	W	7/24	
	Intact / Broken*				250p HNO3			
2. Chain-of-Custody	Present / Absent*				2x1LA			+125p NaOH
3. Traffic Reports or Packing List:	Present / Absent			Comp-1	8021	3		
4. Airbill:	Airbill / Sticker Present / Absent							
5. Airbill #: 8096 9632 8407								
6. Sample Labels:	Present / Absent							
7. Sample IDs:	Listed / Not Listed on Chain-of-Custody							
8. Sample Condition:	Intact / Broken* / Leaking*							
9. Does information on custody reports, traffic reports and sample labels agree?	Yes / No*							
10. Sample received within hold time:	Yes / No*							
11. Proper Preservatives used:	Yes / No*							
12. Temp Rec. at Lab: 5.7 (Acceptance range for samples requiring thermal pres.:4+/-2°C)	Yes / No*							

*If Circled, contact Project Manager and attach record of resolution.

Sequoia
Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

16 January, 2004

Brian Aubry
Geologica Inc.
594 Howard St., Suite 400
San Francisco, CA 94105

RE: QUALEX
Work Order: P312615

Enclosed are the results of analyses for samples received by the laboratory on 12/23/03 12:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angelee Carl

Angelee Carl
Project Manager

CA ELAP Certificate #2374

Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc.	Project: QUALEX	P312615
594 Howard St., Suite 400	Project Number: Kent, WA	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	01/16/04 16:27

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	P312615-01	Water	12/22/03 10:45	12/23/03 12:15
MW-2	P312615-02	Water	12/22/03 11:50	12/23/03 12:15
MW-3	P312615-03	Water	12/22/03 12:50	12/23/03 12:15
MW-4	P312615-04	Water	12/22/03 09:00	12/23/03 12:15
MW-5	P312615-05	Water	12/22/03 09:55	12/23/03 12:15
MW-6	P312615-06	Water	12/22/03 10:50	12/23/03 12:15

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc.	Project: QUALEX	P312615
594 Howard St., Suite 400	Project Number: Kent, WA	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	01/16/04 16:27

Extractable Hydrocarbons by EPA 8015B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (P312615-01) Water Sampled: 12/22/03 10:45 Received: 12/23/03 12:15									
Diesel Range Organics (C10-C28)	**0.35**	0.048	mg/l	1	3120724	12/29/03	12/30/03	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.24	"	"	"	"	"	"	
Surrogate: Octacosane		*42 %*	*50-150*		"	"	"	"	*S-LIM*
MW-1 (P312615-01RE1) Water Sampled: 12/22/03 10:45 Received: 12/23/03 12:15									**HT-RE**
Diesel Range Organics (C10-C28)	**0.37**	0.050	mg/l	1	4010212	01/14/04	01/16/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.25	"	"	"	"	"	"	
Surrogate: Octacosane		*65 %*	*50-150*		"	"	"	"	
MW-2 (P312615-02) Water Sampled: 12/22/03 11:50 Received: 12/23/03 12:15									
Diesel Range Organics (C10-C28)	**0.34**	0.048	mg/l	1	3120724	12/29/03	01/13/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.24	"	"	"	"	"	"	
Surrogate: Octacosane		*53 %*	*50-150*		"	"	"	"	
MW-3 (P312615-03) Water Sampled: 12/22/03 12:50 Received: 12/23/03 12:15									
Diesel Range Organics (C10-C28)	ND	0.048	mg/l	1	3120724	12/29/03	12/30/03	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.24	"	"	"	"	"	"	
Surrogate: Octacosane		*73 %*	*50-150*		"	"	"	"	
MW-4 (P312615-04) Water Sampled: 12/22/03 09:00 Received: 12/23/03 12:15									
Diesel Range Organics (C10-C28)	**0.087**	0.048	mg/l	1	3120724	12/29/03	12/30/03	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.24	"	"	"	"	"	"	
Surrogate: Octacosane		*56 %*	*50-150*		"	"	"	"	
MW-5 (P312615-05) Water Sampled: 12/22/03 09:55 Received: 12/23/03 12:15									
Diesel Range Organics (C10-C28)	**0.064**	0.048	mg/l	1	3120724	12/29/03	01/13/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.24	"	"	"	"	"	"	
Surrogate: Octacosane		*53 %*	*50-150*		"	"	"	"	

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Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
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FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc.	Project: QUALEX	P312615
594 Howard St., Suite 400	Project Number: Kent, WA	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	01/16/04 16:27

Extractable Hydrocarbons by EPA 8015B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (P312615-06) Water Sampled: 12/22/03 10:50 Received: 12/23/03 12:15									
Diesel Range Organics (C10-C28)	**0.082**	0.048	mg/l	1	3120724	12/29/03	12/30/03	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.24	"	"	"	"	"	"	
Surrogate: Octacosane		*36 %*	*50-150*		"	"	"	"	*S-LIM*
MW-6 (P312615-06RE1) Water Sampled: 12/22/03 10:50 Received: 12/23/03 12:15									**HT-RE**
Diesel Range Organics (C10-C28)	**0.47**	0.050	mg/l	1	4010212	01/14/04	01/16/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	**0.33**	0.25	"	"	"	"	"	"	
Surrogate: Octacosane		*86 %*	*50-150*		"	"	"	"	

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Geologica Inc.	Project: QUALEX	P312615
594 Howard St., Suite 400	Project Number: Kent, WA	Reported:
San Francisco CA, 94105	Project Manager: Brian Aubry	01/16/04 16:27

Dissolved Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (P312615-01) Water	**Sampled: 12/22/03 10:45**	**Received: 12/23/03 12:15**							
Arsenic	**28**	5.0	ug/l	1	3120771	01/06/04	01/12/04	EPA 6020	
Iron	**63000**	300	"	"	"	"	01/06/04	EPA 6010B	
Manganese	**2000**	15	"	"	"	"	"	"	
Selenium	ND	100	"	"	"	"	"	"	
MW-2 (P312615-02) Water	**Sampled: 12/22/03 11:50**	**Received: 12/23/03 12:15**							
Arsenic	**11**	5.0	ug/l	1	3120771	01/06/04	01/12/04	EPA 6020	
Iron	**59000**	300	"	"	"	"	01/06/04	EPA 6010B	
Manganese	**3700**	15	"	"	"	"	"	"	
Selenium	ND	100	"	"	"	"	"	"	
MW-3 (P312615-03) Water	**Sampled: 12/22/03 12:50**	**Received: 12/23/03 12:15**							
Arsenic	ND	5.0	ug/l	1	3120771	01/06/04	01/12/04	EPA 6020	
Iron	**5300**	300	"	"	"	"	01/06/04	EPA 6010B	
Manganese	**2100**	15	"	"	"	"	"	"	
Selenium	ND	100	"	"	"	"	"	"	
MW-4 (P312615-04) Water	**Sampled: 12/22/03 09:00**	**Received: 12/23/03 12:15**							
Arsenic	ND	5.0	ug/l	1	3120771	01/06/04	01/12/04	EPA 6020	
Iron	**29000**	300	"	"	"	"	01/06/04	EPA 6010B	
Manganese	**2700**	15	"	"	"	"	"	"	
Selenium	ND	100	"	"	"	"	"	"	
MW-5 (P312615-05) Water	**Sampled: 12/22/03 09:55**	**Received: 12/23/03 12:15**							
Arsenic	ND	5.0	ug/l	1	3120771	01/06/04	01/12/04	EPA 6020	
Iron	**55000**	300	"	"	"	"	01/06/04	EPA 6010B	
Manganese	**1900**	15	"	"	"	"	"	"	
Selenium	ND	100	"	"	"	"	"	"	

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Geologica Inc.	Project: QUALEX	P312615
594 Howard St., Suite 400	Project Number: Kent, WA	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	01/16/04 16:27

Dissolved Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (P312615-06) Water	**Sampled: 12/22/03 10:50**	**Received: 12/23/03 12:15**							
Arsenic	**26**	5.0	ug/l	1	3120771	01/06/04	01/12/04	EPA 6020	
Iron	**67000**	300	"	"	"	"	01/06/04	EPA 6010B	
Manganese	**2200**	15	"	"	"	"	"	"	
Selenium	ND	100	"	"	"	"	"	"	

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Geologica Inc.	Project: QUALEX	P312615
594 Howard St., Suite 400	Project Number: Kent, WA	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	01/16/04 16:27

Extractable Hydrocarbons by EPA 8015B - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120724 - EPA 3510C										
Blank (3120724-BLK1)				Prepared: 12/29/03 Analyzed: 12/30/03						
Diesel Range Organics (C10-C28)	ND	0.050	mg/l							
Motor Oil Range Organics (C24-C36)	ND	0.25	"							
Surrogate: Octacosane	*0.0374*		"	*0.0500*		*75*	*50-150*			
Laboratory Control Sample (3120724-BS1)				Prepared: 12/29/03 Analyzed: 12/30/03						
Diesel Range Organics (C10-C28)	0.784	0.050	mg/l	1.00		78	49-102			
Surrogate: Octacosane	*0.0445*		"	*0.0500*		*89*	*50-150*			
Laboratory Control Sample Dup (3120724-BSD1)				Prepared: 12/29/03 Analyzed: 12/30/03						
Diesel Range Organics (C10-C28)	0.657	0.050	mg/l	1.00		66	49-102	18	20	
Surrogate: Octacosane	*0.0389*		"	*0.0500*		*78*	*50-150*			
Batch 4010212 - EPA 3510C										
Blank (4010212-BLK1)				Prepared: 01/14/04 Analyzed: 01/16/04						
Diesel Range Organics (C10-C28)	ND	0.050	mg/l							
Motor Oil Range Organics (C24-C36)	ND	0.25	"							
Surrogate: Octacosane	*0.0220*		"	*0.0500*		*44*	*50-150*			*S-LIM*
Laboratory Control Sample (4010212-BS1)				Prepared: 01/14/04 Analyzed: 01/16/04						
Diesel Range Organics (C10-C28)	0.734	0.050	mg/l	1.00		73	49-102			
Surrogate: Octacosane	*0.0322*		"	*0.0500*		*64*	*50-150*			
Laboratory Control Sample Dup (4010212-BSD1)				Prepared: 01/14/04 Analyzed: 01/16/04						
Diesel Range Organics (C10-C28)	0.685	0.050	mg/l	1.00		68	49-102	7	20	
Surrogate: Octacosane	*0.0297*		"	*0.0500*		*59*	*50-150*			

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Geologica Inc.	Project: QUALEX	P312615
594 Howard St., Suite 400	Project Number: Kent, WA	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	01/16/04 16:27

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3120771 - EPA 3005A										
Blank (3120771-BLK1)				Prepared: 12/30/03 Analyzed: 01/12/04						
Arsenic	ND	5.0	ug/l							
Iron	ND	300	"							
Manganese	ND	15	"							
Selenium	ND	100	"							
Laboratory Control Sample (3120771-BS1)				Prepared: 01/06/04 Analyzed: 01/12/04						
Arsenic	539	5.0	ug/l	500		108	80-120			
Iron	5200	300	"	5000		104	80-120			
Manganese	492	15	"	500		98	80-120			
Selenium	480	100	"	500		96	80-120			
Matrix Spike (3120771-MS1)	**Source: P312604-01**			Prepared & Analyzed: 01/06/04						
Iron	3440	300	ug/l	5000	330	62	80-120			QM-07
Manganese	557	15	"	500	400	31	80-120			QM-07
Selenium	307	100	"	500	ND	61	80-120			QM-07
Matrix Spike (3120771-MS2)	**Source: P312615-01**			Prepared: 01/06/04 Analyzed: 01/12/04						
Arsenic	508	5.0	ug/l	500	28	96	80-120			
Iron	67900	300	"	5000	63000	98	80-120			
Manganese	2500	15	"	500	2000	100	80-120			
Selenium	483	100	"	500	ND	97	80-120			
Matrix Spike Dup (3120771-MSD1)	**Source: P312604-01**			Prepared & Analyzed: 01/06/04						
Iron	3480	300	ug/l	5000	330	63	80-120	1	20	QM-07
Manganese	565	15	"	500	400	33	80-120	1	20	QM-07
Selenium	302	100	"	500	ND	60	80-120	2	20	QM-07
Matrix Spike Dup (3120771-MSD2)	**Source: P312615-01**			Prepared: 01/06/04 Analyzed: 01/12/04						
Arsenic	507	5.0	ug/l	500	28	96	80-120	0.2	20	
Iron	68400	300	"	5000	63000	108	80-120	0.7	20	
Manganese	2520	15	"	500	2000	104	80-120	0.8	20	
Selenium	472	100	"	500	ND	94	80-120	2	20	

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Geologica Inc.	Project: QUALEX	P312615
594 Howard St., Suite 400	Project Number: Kent, WA	**Reported:**
San Francisco CA, 94105	Project Manager: Brian Aubry	01/16/04 16:27

Notes and Definitions

HT-RE	This sample was re-extracted beyond the EPA recommended holding time. The results may still be useful for their intended purpose.
QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
S-LIM	The surrogate recovery was outside control limits. The result may still be useful for its intended purpose.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

☐ 885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 776-9600 • FAX (408) 782-6308
☒ 1455 N. McDowell Blvd, Suite D. • Petaluma, CA 94954 • (707) 792-1865 • FAX (707) 792-0342
☐ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 • FAX (916) 921-0100
☐ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 • FAX (925) 988-9673

Company Name: Geologica, Inc		Project: Qualex - Kent, WA	
Mailing Address: 653 Bell St #A		Billing Address (if different):	
City: Edmonds	State: WA Zip Code: 98020		
Telephone: 206-799-5726	Fax #:	P.O. #:	
Report To: Dan Matthews	E-mail Address: dwmatthews@verizon.net	QC Data: ☒ Level II (standard) ☐ Level III ☐ Level IV	
Sampler: DWM	Date / Time Results Required:	Sequoia's Work Order #	

Turnaround Time:
☒ 10-15 Working Days (Standard TAT)
☐ 7 Working Days
☐ 5 Working Days
☐ 72 Hours
☐ 48 Hours
☐ 24 Hours
☐ 2-8 Hours

MANDATORY:
☐ SDWA (Drinking Water)
☐ CWA (Waste Water)
☐ RCRA (Hazardous Waste)
☐ Other

ANALYSES REQUESTED (Please provide method)

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's Sample #	TPH-d, mo	arsenic *	selenium *	manganese *	iron *	Comments/ Temp.(if required)
1. MW-1	12/22/03 10:45	Water	3	glass/poly	P312645-1	X	X	X	X	X	
2. MW-2	12-22-03 11:50	↓		↓	-2	X	X	X	X	X	* Field filtered
3. MW-3	12-22-03 12:50				-3	X	X	X	X	X	
4. MW-4	12/22/03 09:00				-4	X	X	X	X	X	EXCEL deliverable
5. MW-5	12/22/03 09:55				-5	X	X	X	X	X	
6. MW-6	12/22/03 10:50				-6	X	X	X	X	X	
7.											
8.											
9.											
10.											

COOLER CUSTODY SEALS INTACT ☐
NOT INTACT ☐
COOLER TEMPERATURE 5.7 °c
4.0

Relinquished by / Co.: Daniel W. Matthews	Received by / Co.:	Date / Time / Temp.:
Relinquished by / Co.: Geologica	Received by / Co.: Sequoia	Date / Time / Temp.: 12/23/03 @ 1215
Relinquished by / Co.:	Received by / Co.:	Date / Time / Temp.:
Relinquished by / Co.:	Received by / Co.:	Date / Time / Temp.:

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment: _____ Page ___ of ___

White: Sequoia Yellow: Sequoia Pink: Client

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: Geologica
REC. BY (PRINT) AA
WORKORDER: P312615

DATE Received at Lab: 12/23/15
TIME Received at Lab: 1215
LOG IN DATE: 12/23/15

(Drinking water) for regulatory purposes: YES/NO
(Wastewater) for regulatory purposes: YES/NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	#	CLIENT ID	DESCRIPTION	SAMPLE MATRIX	DATE SAMPLED	CONDITION (ETC.)
1. Custody Seal(s) Present / (Absent) Intact / Broken*			MW-1	Diss HNO3 2x1L	W	12/22/15	
2. Chain-of-Custody (Present) / Absent*			2				
3. Traffic Reports or Packing List: Present / (Absent)			3				
4. Airbill: (Airbill) / Sticker Present / (Absent)			4				
5. Airbill #: 794368350649			5				
6. Sample Labels: (Present) / Absent			6				
7. Sample IDs: (Listed) / Not Listed on Chain-of-Custody							
8. Sample Condition: (Intact) / Broken* / Leaking*							
9. Does information on custody reports, traffic reports and sample labels agree? (Yes) / No*							
10. Sample received within hold time: (Yes) / No*							
11. Proper Preservatives used: (Yes) / No*							
12. Temp Rec. at Lab: 5.7, 4.0 (Acceptance range for samples requiring thermal pres.:4+/-2°C) (Yes) / No*							

*If Circled, contact Project Manager and attach record of resolution.

Sequoia
Analytical

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29 April, 2004

Dan Matthews
Geologica Inc.
594 Howard St., Suite 400
San Francisco, CA 94105

RE: QUALEX
Work Order: P404078

Enclosed are the results of analyses for samples received by the laboratory on 04/01/04 10:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angelee Cari

Angelee Cari
Project Manager

CA ELAP Certificate #2374

Sequoia Analytical

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Petaluma, CA 94954
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Geologica Inc.	Project: QUALEX	P404078
594 Howard St., Suite 400	Project Number: Kent, WA.	Reported:
San Francisco CA, 94105	Project Manager: Dan Matthews	04/29/04 19:15

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	P404078-01	Water	03/31/04 12:00	04/01/04 10:00
MW-2	P404078-02	Water	03/31/04 10:20	04/01/04 10:00
MW-3	P404078-03	Water	03/31/04 13:25	04/01/04 10:00
MW-4	P404078-04	Water	03/31/04 09:10	04/01/04 10:00
MW-5	P404078-05	Water	03/31/04 14:20	04/01/04 10:00
PUR-1	P404078-06	Water	03/31/04 15:00	04/01/04 10:00

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Geologica Inc.	Project: QUALEX	P404078
594 Howard St., Suite 400	Project Number: Kent, WA.	**Reported:**
San Francisco CA, 94105	Project Manager: Dan Matthews	04/29/04 19:15

Total Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PUR-1 (P404078-06) Water	**Sampled: 03/31/04 15:00**		**Received: 04/01/04 10:00**							
Arsenic	14		5.0	ug/l	1	4040255	04/12/04	04/13/04	EPA 6020	

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Geologica Inc.	Project: QUALEX	P404078
594 Howard St., Suite 400	Project Number: Kent, WA.	**Reported:**
San Francisco CA, 94105	Project Manager: Dan Matthews	04/29/04 19:15

Dissolved Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (P404078-01) Water	**Sampled: 03/31/04 12:00**		**Received: 04/01/04 10:00**							
Arsenic	**30**		5.0	ug/l	1	4040254	04/12/04	04/12/04	EPA 6020	
Selenium	ND	16	100	"	"	"	"	04/12/04	EPA 6010B	
MW-2 (P404078-02) Water	**Sampled: 03/31/04 10:20**		**Received: 04/01/04 10:00**							
Arsenic	**22**		5.0	ug/l	1	4040254	04/12/04	04/12/04	EPA 6020	
Selenium	ND	16	100	"	"	"	"	04/12/04	EPA 6010B	
MW-3 (P404078-03) Water	**Sampled: 03/31/04 13:25**		**Received: 04/01/04 10:00**							
Arsenic	**12**		5.0	ug/l	1	4040254	04/12/04	04/12/04	EPA 6020	
Selenium	ND	16	100	"	"	"	"	04/12/04	EPA 6010B	
MW-4 (P404078-04) Water	**Sampled: 03/31/04 09:10**		**Received: 04/01/04 10:00**							
Arsenic	**7.2**		5.0	ug/l	1	4040254	04/12/04	04/12/04	EPA 6020	
Selenium	ND	16	100	"	"	"	"	04/12/04	EPA 6010B	
MW-5 (P404078-05) Water	**Sampled: 03/31/04 14:20**		**Received: 04/01/04 10:00**							
Arsenic	ND		5.0	ug/l	1	4040254	04/12/04	04/12/04	EPA 6020	
Selenium	ND	16	100	"	"	"	"	04/12/04	EPA 6010B	

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Geologica Inc.	Project: QUALEX	P404078
594 Howard St., Suite 400	Project Number: Kent, WA.	**Reported:**
San Francisco CA, 94105	Project Manager: Dan Matthews	04/29/04 19:15

Conventional Chemistry Parameters by APHA/EPA Methods
Sequoia Analytical - Sacramento

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PUR-1 (P404078-06) Water Sampled: 03/31/04 15:00 Received: 04/01/04 10:00										
Oil & Grease	ND		5.0	mg/l	1	4040131	04/13/04	04/13/04	EPA 413.1	

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Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
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www.sequoialabs.com

Geologica Inc.	Project: QUALEX	P404078
594 Howard St., Suite 400	Project Number: Kent, WA.	**Reported:**
San Francisco CA, 94105	Project Manager: Dan Matthews	04/29/04 19:15

Extractable Hydrocarbons by EPA 8015B
Sequoia Analytical - Sacramento

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (P404078-01) Water Sampled: 03/31/04 12:00 Received: 04/01/04 10:00										
Motor Oil (C24-C36)	**530**		95	ug/l	1	4040151	04/06/04	04/14/04	EPA 8015B-SVOA	
Diesel Range Organics (C10-C28)	**390**		48	"	"	"	"	"	"	
Surrogate: Octacosane		*84 %*	*50-150*			"	"	"	"	
MW-2 (P404078-02) Water Sampled: 03/31/04 10:20 Received: 04/01/04 10:00										
Motor Oil (C24-C36)	**490**		95	ug/l	1	4040151	04/06/04	04/14/04	EPA 8015B-SVOA	
Diesel Range Organics (C10-C28)	**390**		48	"	"	"	"	"	"	
Surrogate: Octacosane		*81 %*	*50-150*			"	"	"	"	
MW-3 (P404078-03) Water Sampled: 03/31/04 13:25 Received: 04/01/04 10:00										
Motor Oil (C24-C36)	**220**		95	ug/l	1	4040151	04/06/04	04/15/04	EPA 8015B-SVOA	
Diesel Range Organics (C10-C28)	**140**		48	"	"	"	"	"	"	
Surrogate: Octacosane		*86 %*	*50-150*			"	"	"	"	
MW-4 (P404078-04) Water Sampled: 03/31/04 09:10 Received: 04/01/04 10:00										
Motor Oil (C24-C36)	**140**		95	ug/l	1	4040151	04/06/04	04/15/04	EPA 8015B-SVOA	
Diesel Range Organics (C10-C28)	**110**		48	"	"	"	"	"	"	
Surrogate: Octacosane		*85 %*	*50-150*			"	"	"	"	
MW-5 (P404078-05) Water Sampled: 03/31/04 14:20 Received: 04/01/04 10:00										
Motor Oil (C24-C36)	**210**		95	ug/l	1	4040151	04/06/04	04/15/04	EPA 8015B-SVOA	
Diesel Range Organics (C10-C28)	**160**		48	"	"	"	"	"	"	
Surrogate: Octacosane		*77 %*	*50-150*			"	"	"	"	

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Geologica Inc.	Project: QUALEX	P404078
594 Howard St., Suite 400	Project Number: Kent, WA.	**Reported:**
San Francisco CA, 94105	Project Manager: Dan Matthews	04/29/04 19:15

Total Metals by EPA 6000/7000 Series Methods - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4040255 - EPA 3010A											
Blank (4040255-BLK1)					Prepared: 04/12/04 Analyzed: 04/13/04						
Arsenic	ND		5.0	ug/l							
Laboratory Control Sample (4040255-BS1)					Prepared: 04/12/04 Analyzed: 04/13/04						
Arsenic	496		5.0	ug/l	500		99	80-120			
Matrix Spike (4040255-MS1)	**Source: P403620-01**				Prepared: 04/12/04 Analyzed: 04/13/04						
Arsenic	516		5.0	ug/l	500	3.5	102	80-120			
Matrix Spike (4040255-MS2)	**Source: P403696-01**				Prepared: 04/12/04 Analyzed: 04/13/04						
Arsenic	535		5.0	ug/l	500	2.8	106	80-120			
Matrix Spike Dup (4040255-MSD1)	**Source: P403620-01**				Prepared: 04/12/04 Analyzed: 04/13/04						
Arsenic	534		5.0	ug/l	500	3.5	106	80-120	3	20	
Matrix Spike Dup (4040255-MSD2)	**Source: P403696-01**				Prepared: 04/12/04 Analyzed: 04/13/04						
Arsenic	540		5.0	ug/l	500	2.8	107	80-120	0.9	20	

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Geologica Inc.	Project: QUALEX	P404078
594 Howard St., Suite 400	Project Number: Kent, WA.	Reported:
San Francisco CA, 94105	Project Manager: Dan Matthews	04/29/04 19:15

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4040254 - EPA 3005A											
Blank (4040254-BLK1)					Prepared & Analyzed: 04/12/04						
Arsenic	ND		5.0	ug/l							
Selenium	ND	16	100	"							
Blank (4040254-BLK2)					Prepared & Analyzed: 04/12/04						
Arsenic	ND		5.0	ug/l							
Laboratory Control Sample (4040254-BS1)					Prepared & Analyzed: 04/12/04						
Arsenic	537		5.0	ug/l	500		107	80-120			
Selenium	526	16	100	"	500		105	80-120			
Matrix Spike (4040254-MS1)	Source: P404007-01				Prepared & Analyzed: 04/12/04						
Arsenic	571		5.0	ug/l	500	31	108	80-120			
Selenium	514	16	100	"	500	ND	103	80-120			
Matrix Spike (4040254-MS2)	Source: P404078-01				Prepared & Analyzed: 04/12/04						
Arsenic	574		5.0	ug/l	500	30	109	80-120			
Selenium	525	16	100	"	500	ND	105	80-120			
Matrix Spike Dup (4040254-MSD1)	Source: P404007-01				Prepared & Analyzed: 04/12/04						
Arsenic	574		5.0	ug/l	500	31	109	80-120	0.5	20	
Selenium	532	16	100	"	500	ND	106	80-120	3	20	
Matrix Spike Dup (4040254-MSD2)	Source: P404078-01				Prepared & Analyzed: 04/12/04						
Arsenic	562		5.0	ug/l	500	30	106	80-120	2	20	
Selenium	500	16	100	"	500	ND	100	80-120	5	20	

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Geologica Inc.	Project: QUALEX	P404078
594 Howard St., Suite 400	Project Number: Kent, WA.	**Reported:**
San Francisco CA, 94105	Project Manager: Dan Matthews	04/29/04 19:15

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control
Sequoia Analytical - Sacramento

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4040131 - EPA 3510C.											
Blank (4040131-BLK1)					Prepared & Analyzed: 04/13/04						
Oil & Grease	ND		5.0	mg/l							
Laboratory Control Sample (4040131-BS1)					Prepared & Analyzed: 04/13/04						
Oil & Grease	56.6		5.0	mg/l	50.0		113	70-130			
Laboratory Control Sample Dup (4040131-BSD1)					Prepared & Analyzed: 04/13/04						
Oil & Grease	53.4		5.0	mg/l	50.0		107	70-130	6	30	

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Geologica Inc.	Project: QUALEX	P404078
594 Howard St., Suite 400	Project Number: Kent, WA.	**Reported:**
San Francisco CA, 94105	Project Manager: Dan Matthews	04/29/04 19:15

Extractable Hydrocarbons by EPA 8015B - Quality Control
Sequoia Analytical - Sacramento

Analyte	Result	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4040151 - EPA 3510C											
Blank (4040151-BLK1)					Prepared: 04/06/04 Analyzed: 04/14/04						
Motor Oil (C24-C36)	ND		100	ug/l							
Diesel Range Organics (C10-C28)	ND		50	"							
Motor Oil (C16-C36)	ND		100	"							
Surrogate: Octacosane	*54.9*			"	*50.0*		*110*	*50-150*			
Laboratory Control Sample (4040151-BS1)					Prepared: 04/06/04 Analyzed: 04/14/04						
Diesel Range Organics (C10-C28)	1190		50	ug/l	1000		119	60-140			
Surrogate: Octacosane	*59.5*			"	*50.0*		*119*	*50-150*			
Laboratory Control Sample Dup (4040151-BSD1)					Prepared: 04/06/04 Analyzed: 04/14/04						
Diesel Range Organics (C10-C28)	1180		50	ug/l	1000		118	60-140	0.8	50	
Surrogate: Octacosane	*53.6*			"	*50.0*		*107*	*50-150*			

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Geologica Inc.	Project: QUALEX	P404078
594 Howard St., Suite 400	Project Number: Kent, WA.	**Reported:**
San Francisco CA, 94105	Project Manager: Dan Matthews	04/29/04 19:15

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

☐ 885 Jarvis Drive - Morgan Hill, CA 95037 - (408) 776-9600 - FAX (408) 782-6308
☒ **1455 McDowell Blvd, Suite D. - Petaluma, CA 94954 - (707) 792-1865 - FAX (707) 792-0342**
☐ 819 Striker Ave., Suite 8 - Sacramento, CA 95834 - (916) 921-9600 - FAX (916) 921-0100
☐ 1551 Industrial Road - San Carlos, CA 94070 - (650) 232-9600 - FAX (650) 232-9612
☐ 404 N. Wiget Lane - Walnut Creek, CA 94598 - (925) 988-9600 - FAX (925) 988-9673

Company Name: **GEOLOGICA**				Project: **Qualex - Kent, WA**	
Mailing Address:	594 Howard St., Suite 400			Billing Address (if different):	
City:	San Francisco	State: CA	Zip Code: 94105		
Telephone:	(206) 799-5726	FAX#: (415) 597-7880		P.O.#:	
Report To:	**Dan Matthews**	E-mail Address:	dwrnatthews@geologica.net	QC Data: ☒ Level II (Standard)	☐ Level III ☐ Level IV
Sampler:	Dan Matthews	Date/Time Results Required:		Sequoia's Work Order #:	

Turnaround Time:
☒ 10-15 Working Days (Standard TAT)
☐ 7 Working Days
☐ 5 Working Days
☐ 72 Hours
☐ 48 Hours
☐ 24 Hours
☐ 2-8 Hours

MANDATORY:
☐ SDWA (Drinking Water)
☐ CWA (Waste Water)
☐ RCRA (Hazardous Waste)
☐ Other

ANALYSES REQUESTED (Please provide method)

	Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's sample #	TPH-d,mo	Dissolved Arsenic	Dissolved Selenium	Oil & Grease	Total Arsenic	Comments/ Temp. (if required)
1.	MW-1	3-31-04/ 12:00	water	3	poly	040378 01	X	X	X			metals field filtered
2.	MW-2	3-31-04/ 10:20	water	3	"	02	X	X	X			metals HNO3 preserved
3.	MW-3	3-31-04/ 13:25	water	3	"	03	X	X	X			preserve at lab
4.	MW-4	3-31-04/ 9:10	water	3	"	04	X	X	X			preserve at lab
5.	MW-5	3-31-04/ 14:20	water	3	"	05	X	X	X			preserve at lab
6.	PUR-1	3-31-04/ 15:00	water	3	"	06				X	X	field preserved
7.												
8.												
9.												
10.												
11.												
12.												

Relinquished By:	Daniel D. Matthews	Received by:	Date / Time:
Relinquished By:	3-31-04	Received by:	Date / Time:
Relinquished By:	16:00	Received by:	Date / Time: 4-1-04 1000
Relinquished By:		Received by:	Date / Time:

Were samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment: FedEX Page 1 of 1

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: Geologica
REC. BY (PRINT)
WORKORDER: 9443680190 92 P404078

DATE Received at Lab: 4-1-04
TIME Received at Lab: 1000
LOG IN DATE: 4-2-04
4

(Drinking water) for regulatory purposes: YES/NO
(Wastewater) for regulatory purposes: YES/NO

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	#	CLIENT ID	DESCRIPTION	SAMPLE MATRIX	DATE SAMPLED	CONDITION (ETC.)
1. Custody Seal(s)	Present / Absent			MW-1	X2 VOA	W	3-31-04	
	Intact / Broken*			↓	1 Liter Amber			Field Filtered
2. Chain-of-Custody	Present / Absent*			-2	Same			↓
3. Traffic Reports or Packing List:	Present / Absent			-3	X2 VOA			lab to filter
4. Airbill:	Airbill / Sticker			↓	D.S.S			↓
	Present / Absent			4	Same			
5. Airbill #: 944368019092				5	↓	↓	↓	↓
6. Sample Labels:	Present / Absent			DUP-1	X2 VOA, 1 Liter Amber			
7. Sample IDs:	Listed / Not Listed on Chain-of-Custody				1 Liter Amber			
8. Sample Condition:	Intact / Broken* / Leaking*							
9. Does information on custody reports, traffic reports and sample labels agree?	Yes / No*							
10. Sample received within hold time:	Yes / No*							
11. Proper Preservatives used:	Yes / No*							
12. Temp Rec. at Lab: 4.1 (Acceptance range for samples requiring thermal pres.:4+/-2°C)	Yes / No*							

*If Circled, contact Project Manager and attach record of resolution.

Sequoia
Analytical

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15 November, 2004

Charles Wechsler
Geologica Inc.
594 Howard St., Suite 400
San Francisco, CA 94105

RE: QUALEX
Work Order: P410397

Enclosed are the results of analyses for samples received by the laboratory on 10/21/04 09:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mark Shipman
Project Manager

CA ELAP Certificate #2374

Sequoia Analytical

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Petaluma, CA 94954
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Geologica Inc.	Project:QUALEX	P410397
594 Howard St., Suite 400	Project Number:Kent, Wa.	**Reported:**
San Francisco CA, 94105	Project Manager:Charles Wechsler	11/15/04 14:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1-W	P410397-01	Water	10/20/04 09:45	10/21/04 09:30
MW-2-W	P410397-02	Water	10/20/04 11:00	10/21/04 09:30
MW-3-W	P410397-03	Water	10/20/04 12:15	10/21/04 09:30
MW-4-W	P410397-04	Water	10/20/04 14:30	10/21/04 09:30
MW-5-W	P410397-05	Water	10/20/04 13:45	10/21/04 09:30

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Geologica Inc.	Project:QUALEX	P410397
594 Howard St., Suite 400	Project Number:Kent, Wa.	**Reported:**
San Francisco CA, 94105	Project Manager:Charles Wechsler	11/15/04 14:25

Extractable Hydrocarbons by EPA 8015B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-W (P410397-01) Water Sampled: 10/20/04 09:45 Received: 10/21/04 09:30									
Diesel Range Organics (C10-C28)	**0.29**	0.052	mg/l	1	4100576	10/25/04	10/26/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.26	"	"	"	"	"	"	
Surrogate: Octacosane		*171 %*	*54-141*		"	"	"	"	*S04*
MW-2-W (P410397-02) Water Sampled: 10/20/04 11:00 Received: 10/21/04 09:30									
Diesel Range Organics (C10-C28)	**0.37**	0.051	mg/l	1	4100576	10/25/04	10/26/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.25	"	"	"	"	"	"	
Surrogate: Octacosane		*162 %*	*54-141*		"	"	"	"	*S04*
MW-3-W (P410397-03) Water Sampled: 10/20/04 12:15 Received: 10/21/04 09:30									
Diesel Range Organics (C10-C28)	**0.12**	0.052	mg/l	1	4100576	10/25/04	10/26/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.26	"	"	"	"	"	"	
Surrogate: Octacosane		*102 %*	*54-141*		"	"	"	"	
MW-4-W (P410397-04) Water Sampled: 10/20/04 14:30 Received: 10/21/04 09:30									
Diesel Range Organics (C10-C28)	**0.097**	0.051	mg/l	1	4100576	10/25/04	10/26/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.26	"	"	"	"	"	"	
Surrogate: Octacosane		*97 %*	*54-141*		"	"	"	"	
MW-5-W (P410397-05) Water Sampled: 10/20/04 13:45 Received: 10/21/04 09:30									
Diesel Range Organics (C10-C28)	**0.13**	0.052	mg/l	1	4100576	10/25/04	10/26/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.26	"	"	"	"	"	"	
Surrogate: Octacosane		*110 %*	*54-141*		"	"	"	"	

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Geologica Inc.	Project:QUALEX	P410397
594 Howard St., Suite 400	Project Number:Kent, Wa.	**Reported:**
San Francisco CA, 94105	Project Manager:Charles Wechsler	11/15/04 14:25

Dissolved Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-W (P410397-01) Water	**Sampled: 10/20/04 09:45**	**Received: 10/21/04 09:30**							
Arsenic	**17**	5.0	ug/l	1	4100691	11/01/04	11/10/04	EPA 6020	
Selenium	**43**	5.0	"	"	"	"	"	"	
MW-2-W (P410397-02) Water	**Sampled: 10/20/04 11:00**	**Received: 10/21/04 09:30**							
Arsenic	**18**	5.0	ug/l	1	4100691	11/01/04	11/10/04	EPA 6020	
Selenium	**10**	5.0	"	"	"	"	"	"	
MW-3-W (P410397-03) Water	**Sampled: 10/20/04 12:15**	**Received: 10/21/04 09:30**							
Arsenic	**16**	5.0	ug/l	1	4100691	11/01/04	11/10/04	EPA 6020	
Selenium	**15**	5.0	"	"	"	"	"	"	
MW-4-W (P410397-04) Water	**Sampled: 10/20/04 14:30**	**Received: 10/21/04 09:30**							
Arsenic	ND	5.0	ug/l	1	4100691	11/01/04	11/10/04	EPA 6020	
Selenium	ND	5.0	"	"	"	"	"	"	
MW-5-W (P410397-05) Water	**Sampled: 10/20/04 13:45**	**Received: 10/21/04 09:30**							
Arsenic	ND	5.0	ug/l	1	4100691	11/01/04	11/10/04	EPA 6020	
Selenium	**11**	5.0	"	"	"	"	"	"	

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Geologica Inc.	Project:QUALEX	P410397
594 Howard St., Suite 400	Project Number:Kent, Wa.	Reported:
San Francisco CA, 94105	Project Manager:Charles Wechsler	11/15/04 14:25

Extractable Hydrocarbons by EPA 8015B - Quality Control
Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4100576 - EPA 3510C / EPA 8015B-SVOA										
Blank (4100576-BLK1)				Prepared: 10/25/04 Analyzed: 10/26/04						
Diesel Range Organics (C10-C28)	ND	0.050	mg/l							
Motor Oil Range Organics (C24-C36)	ND	0.050	"							
Surrogate: Octacosane	*0.0459*		"	*0.0500*		*92*	*54-141*			
Laboratory Control Sample (4100576-BS1)				Prepared: 10/25/04 Analyzed: 10/26/04						
Diesel Range Organics (C10-C28)	0.864	0.050	mg/l	1.00		86	49-102			
Surrogate: Octacosane	*0.0361*		"	*0.0500*		*72*	*54-141*			
Laboratory Control Sample Dup (4100576-BSD1)				Prepared: 10/25/04 Analyzed: 10/26/04						
Diesel Range Organics (C10-C28)	0.767	0.050	mg/l	1.00		77	49-102	12	20	
Surrogate: Octacosane	*0.0358*		"	*0.0500*		*72*	*54-141*			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Sequoia Analytical

1455 McDowell Blvd, North Ste D
Petaluma, CA 94954
(707) 792-1865
FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc.	Project:QUALEX	P410397
594 Howard St., Suite 400	Project Number:Kent, Wa.	Reported:
San Francisco CA, 94105	Project Manager:Charles Wechsler	11/15/04 14:25

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4100691 - EPA 3005A / EPA 6020										
Blank (4100691-BLK1)				Prepared: 11/01/04 Analyzed: 11/15/04						
Selenium	ND	5.0	ug/l							
Arsenic	ND	5.0	"							
Laboratory Control Sample (4100691-BS1)				Prepared: 11/01/04 Analyzed: 11/10/04						
Selenium	493	5.0	ug/l	500		99	80-120			
Arsenic	496	5.0	"	500		99	80-120			
Matrix Spike (4100691-MS1)	**Source: P410397-03**			Prepared: 11/01/04 Analyzed: 11/10/04						
Selenium	470	5.0	ug/l	500	15	91	80-120			
Arsenic	494	5.0	"	500	16	96	80-120			
Matrix Spike Dup (4100691-MSD1)	**Source: P410397-03**			Prepared: 11/01/04 Analyzed: 11/10/04						
Selenium	457	5.0	ug/l	500	15	88	80-120	3	20	
Arsenic	496	5.0	"	500	16	96	80-120	0.4	20	

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Geologica Inc.	Project:QUALEX	P410397
594 Howard St., Suite 400	Project Number:Kent, Wa.	Reported:
San Francisco CA, 94105	Project Manager:Charles Wechsler	11/15/04 14:25

Notes and Definitions

S04	The surrogate recovery for this sample is above control limits due to interference from the sample matrix.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

☐ 885 Jarvis Drive • **Morgan Hill, CA 95037** • (408) 776-9600 • FAX (408) 782-6308
☒ 1455 N. McDowell Blvd, Suite D. • **Petaluma, CA 94954** • (707) 792-1865 • FAX (707) 792-0342
☐ 819 Striker Ave., Suite 8 • **Sacramento, CA 95834** • (916) 921-9600 • FAX (916) 921-0100
☐ 404 N. Wiget Lane • **Walnut Creek, CA 94598** • (925) 988-9600 • FAX (925) 988-9673

Company Name: GeoLogica Inc		Project: Quelex – Kent, WA	
Mailing Address: 594 Hallwood St Suite 400		Billing Address (if different):	
City: San Francisco	State: CA Zip Code:		
Telephone: 206.799.5726	Fax #:	P.O. #:	
Report To: Dan Matthews	E-mail Address:	QC Data: ☒ Level II (standard) ☐ Level III ☐ Level IV	
Sampler: DWM	Date / Time Results Required:	Sequoia's Work Order #	

Turnaround Time: ☒ 10-15 Working Days (Standard TAT) ☐ 7 Working Days ☐ 5 Working Days ☐ 72 Hours ☐ 48 Hours ☐ 24 Hours ☐ 2-8 Hours

MANDATORY: ☐ SDWA (Drinking Water) ☐ CWA (Waste Water) ☐ RCRA (Hazardous Waste) ☐ Other

ANALYSES REQUESTED (Please provide method)

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's Sample #	TPH d, mo	# dys. Arsenic	# dys. selenium						Comments/ Temp.(If required)
1. MW-1-W	10-20-04 09:45	water	3		0410397-01	X	X	X						* field filtered
2. MW-2-W	11:00	"	"		02	X	X	X						
3. MW3-W	12:15	"	"		03	X	X	X						
4. MW-4-W	14:30	"	"		04	X	X	X						
5. MW-5-W	13:45	"	"		05	X	X	X						
6.														
7.														
8.														
9.														
10.														

CONTACT ☐

COOLER TEMPERATURE 5.2 °C

Relinquished by / Co.: Daniel Matthews		Received by / Co.:	Date / Time / Temp.:
Relinquished by / Co.:	10-20-04 17:00	Received by / Co.:	Date / Time / Temp.: 10/21/04 0930
Relinquished by / Co.:		Received by / Co.:	Date / Time / Temp.:
Relinquished by / Co.:		Received by / Co.:	Date / Time / Temp.:

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment: _____ Page ___ of ___

White: Sequoia Yellow: Sequoia Pink: Client

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: Geologica
REC. BY (PRINT): CV
WORKORDER: 0410397

DATE Received at Lab: 10/21/04
TIME Received at Lab: 0930
LOG IN DATE: 10-21-04

(Drinking water) for regulatory purposes: YES/NO
(Wastewater) for regulatory purposes: YES/NO

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	Dash #	CLIENT ID	CONTAINER DESCRIPTION	pH	SAMPLE MATRIX	DATE SAMPLED	CONDITION (ETC.)
				MW-1W	2x1L, DisMet		W	10/20/04	
1. Custody Seal(s)	Present / Absent Intact / Broken*			-2W					
				-3W					
2. Chain-of-Custody	Present / Absent*			-4W					
3. Airbill:	Airbill / Sticker Present / Absent			-5W					
4. Airbill #: 864305759974									
5. Sample Labels:	Present / Absent								
6. Sample IDs:	Listed / Not Listed on Chain-of-Custody								
7. Sample Condition:	Intact / Broken* / Leaking*								
8. Does information on custody reports, traffic reports, and sample labels agree?	Yes / No*								
9. Sample received within hold time:	Yes / No*								
10. Proper Preservatives used:	Yes / No*								
11. Temperature Blank Received?	Yes / No*								
12. Temp Rec. at Lab: 5.2 degrees C (Acceptance range for samples requiring thermal pres.:4+/-2°C)	Yes / No*				10/21/04 CV				
13. Samples collected more than 4 days ago?	Yes */ No								

*If Circled, contact Project Manager and attach record of resolution.

Sequoia Analytical

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7 July, 2004

Dan Matthews
Geologica Inc.
594 Howard St., Suite 400
San Francisco, CA 94105

RE: QUALEX
Work Order: P406371

Enclosed are the results of analyses for samples received by the laboratory on 06/18/04 10:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Stacy P. Hoch

Stacy P. Hoch For Angelee Cari
Project Manager

CA ELAP Certificate #2374

Sequoia Analytical

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Petaluma, CA 94954
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FAX (707) 792-0342
www.sequoialabs.com

Geologica Inc. 594 Howard St., Suite 400 San Francisco CA, 94105	Project:QUALEX Project Number:Kent, WA. Project Manager:Dan Matthews	P406371 **Reported:** 07/07/04 12:19

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	P406371-01	Water	06/17/04 15:40	06/18/04 10:30
MW-2	P406371-02	Water	06/17/04 15:10	06/18/04 10:30
MW-3	P406371-03	Water	06/17/04 14:25	06/18/04 10:30
MW-4	P406371-04	Water	06/17/04 13:45	06/18/04 10:30
MW-5	P406371-05	Water	06/17/04 12:55	06/18/04 10:30

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The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

Sequoia Analytical

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Petaluma, CA 94954
(707) 792-1865
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www.sequoialabs.com

Geologica Inc. 594 Howard St., Suite 400 San Francisco CA, 94105	Project:QUALEX Project Number:Kent, WA. Project Manager:Dan Matthews	P406371 **Reported:** 07/07/04 12:19

Extractable Hydrocarbons by EPA 8015B

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (P406371-01) Water Sampled: 06/17/04 15:40 Received: 06/18/04 10:30									
Diesel Range Organics (C10-C28)	**0.23**	0.048	mg/l	1	4060488	06/23/04	06/29/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.24	"	"	"	"	"	"	
Surrogate: Octacosane		*110 %*	*54-141*		"	"	"	"	
MW-2 (P406371-02) Water Sampled: 06/17/04 15:10 Received: 06/18/04 10:30									
Diesel Range Organics (C10-C28)	**0.23**	0.048	mg/l	1	4060488	06/23/04	06/29/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.24	"	"	"	"	"	"	
Surrogate: Octacosane		*90 %*	*54-141*		"	"	"	"	
MW-3 (P406371-03) Water Sampled: 06/17/04 14:25 Received: 06/18/04 10:30									
Diesel Range Organics (C10-C28)	**0.11**	0.048	mg/l	1	4060488	06/23/04	06/29/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.24	"	"	"	"	"	"	
Surrogate: Octacosane		*140 %*	*54-141*		"	"	"	"	
MW-4 (P406371-04) Water Sampled: 06/17/04 13:45 Received: 06/18/04 10:30									
Diesel Range Organics (C10-C28)	**0.079**	0.048	mg/l	1	4060488	06/23/04	06/29/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.24	"	"	"	"	"	"	
Surrogate: Octacosane		*111 %*	*54-141*		"	"	"	"	
MW-5 (P406371-05) Water Sampled: 06/17/04 12:55 Received: 06/18/04 10:30									
Diesel Range Organics (C10-C28)	**0.10**	0.048	mg/l	1	4060488	06/23/04	06/29/04	EPA 8015B-SVOA	
Motor Oil Range Organics (C24-C36)	ND	0.24	"	"	"	"	"	"	
Surrogate: Octacosane		*120 %*	*54-141*		"	"	"	"	

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Sequoia Analytical

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www.sequoialabs.com

Geologica Inc.	Project:QUALEX	P406371
594 Howard St., Suite 400	Project Number:Kent, WA.	**Reported:**
San Francisco CA, 94105	Project Manager:Dan Matthews	07/07/04 12:19

Dissolved Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (P406371-01) Water	**Sampled: 06/17/04 15:40**	**Received: 06/18/04 10:30**							
Arsenic	**17**	5.0	ug/l	1	4060450	06/21/04	06/22/04	EPA 6020	
Selenium	**63**	5.0	"	"	"	"	"	"	
MW-2 (P406371-02) Water	**Sampled: 06/17/04 15:10**	**Received: 06/18/04 10:30**							
Arsenic	**12**	5.0	ug/l	1	4060450	06/21/04	06/22/04	EPA 6020	
Selenium	**7.5**	5.0	"	"	"	"	"	"	
MW-3 (P406371-03) Water	**Sampled: 06/17/04 14:25**	**Received: 06/18/04 10:30**							
Arsenic	**15**	5.0	ug/l	1	4060450	06/21/04	06/22/04	EPA 6020	
Selenium	ND	5.0	"	"	"	"	"	"	
MW-4 (P406371-04) Water	**Sampled: 06/17/04 13:45**	**Received: 06/18/04 10:30**							
Arsenic	ND	5.0	ug/l	1	4060450	06/21/04	06/22/04	EPA 6020	
Selenium	ND	5.0	"	"	"	"	"	"	
MW-5 (P406371-05) Water	**Sampled: 06/17/04 12:55**	**Received: 06/18/04 10:30**							
Arsenic	ND	5.0	ug/l	1	4060450	06/21/04	06/22/04	EPA 6020	
Selenium	ND	5.0	"	"	"	"	"	"	

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Sequoia Analytical

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www.sequoialabs.com

Geologica Inc. 594 Howard St., Suite 400 San Francisco CA, 94105	Project:QUALEX Project Number:Kent, WA. Project Manager:Dan Matthews	P406371 **Reported:** 07/07/04 12:19

Extractable Hydrocarbons by EPA 8015B - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4060488 - EPA 3510C										
Blank (4060488-BLK1)				Prepared: 06/23/04 Analyzed: 06/28/04						
Diesel Range Organics (C10-C28)	ND	0.050	mg/l							
Motor Oil Range Organics (C24-C36)	ND	0.25	"							
Surrogate: Octacosane	*0.0582*		"	*0.0500*		*116*	*54-141*			
Laboratory Control Sample (4060488-BS1)				Prepared: 06/23/04 Analyzed: 06/28/04						
Diesel Range Organics (C10-C28)	0.986	0.050	mg/l	1.00		99	49-102			
Surrogate: Octacosane	*0.0594*		"	*0.0500*		*119*	*54-141*			
Laboratory Control Sample Dup (4060488-BSD1)				Prepared: 06/23/04 Analyzed: 06/29/04						
Diesel Range Organics (C10-C28)	1.08	0.050	mg/l	1.00		108	49-102	9	20	QC01
Surrogate: Octacosane	*0.0680*		"	*0.0500*		*136*	*54-141*			

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Geologica Inc.	Project:QUALEX	P406371
594 Howard St., Suite 400	Project Number:Kent, WA.	**Reported:**
San Francisco CA, 94105	Project Manager:Dan Matthews	07/07/04 12:19

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4060450 - EPA 3005A										
Blank (4060450-BLK1)				Prepared: 06/21/04 Analyzed: 06/22/04						
Arsenic	ND	5.0	ug/l							
Selenium	ND	5.0	"							
Laboratory Control Sample (4060450-BS1)				Prepared: 06/21/04 Analyzed: 06/22/04						
Arsenic	512	5.0	ug/l	500		102	80-120			
Selenium	528	5.0	"	500		106	80-120			
Matrix Spike (4060450-MS1)	**Source: P406371-01**			Prepared: 06/21/04 Analyzed: 06/22/04						
Arsenic	516	5.0	ug/l	500	17	100	80-120			
Selenium	566	5.0	"	500	63	101	80-120			
Matrix Spike Dup (4060450-MSD1)	**Source: P406371-01**			Prepared: 06/21/04 Analyzed: 06/22/04						
Arsenic	516	5.0	ug/l	500	17	100	80-120	0	20	
Selenium	565	5.0	"	500	63	100	80-120	0.2	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

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Geologica Inc.	Project:QUALEX	P406371
594 Howard St., Suite 400	Project Number:Kent, WA.	**Reported:**
San Francisco CA, 94105	Project Manager:Dan Matthews	07/07/04 12:19

Notes and Definitions

QC01	The percent recovery was above the control limits. The sample results may still be useful for their intended purpose.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Unless otherwise stated, results are reported on a wet weight basis. This analytical report must be reproduced in its entirety.

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

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☐ 1551 Industrial Road • **San Carlos, CA 94070** • (650) 232-9600 • FAX (650) 232-9612
☐ 404 N. Wiget Lane • **Walnut Creek, CA 94598** • (925) 988-9600 • FAX (925) 988-9673

Company Name: Geologica, Inc | Project: Qwalex - Kent, WA
Mailing Address: 653 Bell St #A | Billing Address (if different):
City: Edmonds | State: WA | Zip Code: 98020
Telephone: 206-799-5726 | Fax #: | P.O. #:
Report To: Dan Matthews | E-mail Address: dmatthews@geologica.net | QC Data: ☒ Level II (standard) ☐ Level III ☐ Level IV
Sampler: Dan Matthews | Date / Time Results Required: | Sequoia's Work Order #

Turnaround Time:
☒ 10-15 Working Days (Standard TAT)
☐ 7 Working Days
☐ 5 Working Days
☐ 72 Hours
☐ 48 Hours
☐ 24 Hours
☐ 2-8 Hours

MANDATORY:
☐ SDWA (Drinking Water)
☐ CWA (Waste Water)
☐ RCRA (Hazardous Waste)
☐ Other

ANALYSES REQUESTED (Please provide method)

Client Sample I.D.	Date / Time Sampled	Matrix Desc.	# of Cont.	Container Type	Sequoia's Sample #	TPH diesel w/ silica gel	diss. arsenic	diss. selenium	Comments/ Temp.(If required)
1. MW-1	6-17-04 15:40	water	3	glass/poly	040627F1	X	X	X	~~Ice~~
2. MW-2	15:10				-2	X	X	X	+ preserve
3. MW-3	14:25				-3	X	X	X	metals
4. MW-4	13:45				-4	X	X	X	at
5. MW-5	12:55				-5	X	X	X	lab
6.									
7.									
8.									
9.									
10.									

Relinquished By:	Daniel Matthews	Received By:	Date / Time: 6-18-04 1230
Relinquished By:		Received By:	Date / Time:
Relinquished By:	6-17-04	Received By:	Date / Time:
Relinquished By:	1700	Received By:	Date / Time:

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment: _____ Page ___ of ___

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: Geologica
REC. BY (PRINT)
WORKORDER: P406374

DATE Received at Lab: 6-18-04
TIME Received at Lab: 1030
LOG IN DATE: 6/18/04

(Drinking water) for regulatory purposes: YES/NO
(Wastewater) for regulatory purposes: YES/NO

CIRCLE THE APPROPRIATE RESPONSE		LAB SAMPLE #	#	CLIENT ID	DESCRIPTION	SAMPLE MATRIX	DATE SAMPLED	CONDITION (ETC.)
1. Custody Seal(s)	Present / Absent Intact / Broken*			MW-1	X2 VOA	W	6-17-04	
				-1	Diss Met			
2. Chain-of-Custody	Present / Absent*			-2	Same			
3. Traffic Reports or Packing List:	Present / Absent			3				
4. Airbill:	Airbill / Sticker Present / Absent			4				
5. Airbill #: 8144 5820 8581				5				
6. Sample Labels:	Present / Absent							
7. Sample IDs:	Listed / Not Listed on Chain-of-Custody							
8. Sample Condition:	Intact / Broken* / Leaking*							
9. Does information on custody reports, traffic reports and sample labels agree?	Yes / No*							
10. Sample received within hold time:	Yes / No*							
11. Proper Preservatives used: preserved upon rec.	Yes / No*							
12. Temp Rec. at Lab: w/ ice - 4.1								
(Acceptance range for samples requiring thermal pres.:4+/-2°C)	Yes / No*							

*If Circled, contact Project Manager and attach record of resolution.

5A 86

SAMPLE CHAIN OF CUSTODY AMB Ice-No

Page # 1 of 1

Send Report To Michael Erdahl

Company Friedman and Bruya, Inc.

Address 3012 16th Ave W

City, State, ZIP Seattle, WA 98119

Phone # (206) 285-8282 Fax # (206) 283-5044

SAMPLERS *(signature)*

PROJECT NAME/NO. 602082

PO # H-135

REMARKS Dissolved Fe by ICPMS per Field Filtered Mike C

Please Fax Results

TURNAROUND TIME
- ☒ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: O&G w/o SG	O&G w/sg	Total Hg	Dissolved Hg	EPH	VPH	Nitrate	Sulfate	Alkalinity	Nitrite	Dissolved Fe (Tamm)	Notes
MW-1		2/8/06	11:00	W	2							✓	✓	✓	✓	✓	
MW-2			10:25									✓	✓	✓	✓	✓	
MW-3			10:05									✓	✓	✓	✓	✓	
MW-4			9:54									✓	✓	✓	✓	✓	
MW-5			8:56									✓	✓	✓	✓	✓	
MW-Dup			—									✓	✓	✓	✓	✓	

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	2/9/06	
Received by:		BRIAN KEGEL	ARI	2/9/06	0955
Relinquished by:					
Received by:					

MS/MSD RESULTS-CONVENTIONALS
JA86-Friedman & Bruya

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 02/16/06

Project: H-135
Event: 60208.02
Date Sampled: 02/08/06
Date Received: 02/09/06

Analyte	Method	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: JA86A Client ID: MW-1							
N-Nitrite	EPA 353.2	02/09/06	mg-N/L	< 1.00	2.75	2.50	110.0%
Nitrate + Nitrite	EPA 353.2	02/09/06	mg-N/L	< 1.00	2.52	2.50	100.8%
Sulfate	EPA 375.2	02/15/06	mg/L	15.7	31.9	20.0	81.0%

STANDARD REFERENCE RESULTS-CONVENTIONALS
JA86-Friedman & Bruya

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized: MK
Reported: 02/16/06

Project: H-135
Event: 602086?
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Method	Date	Units	SRM	True Value	Recovery
N-Nitrite ERA #23034	EPA 353.2	02/09/06	mg-N/L	0.493	0.500	98.6%
Nitrate + Nitrite ERA #20034	EPA 353.2	02/09/06	mg-N/L	0.488	0.500	97.6%
Sulfate ERA #37065	EPA 375.2	02/15/06 02/15/06	mg/L	26.8 27.0	25.0 25.0	107.2% 108.0%

SAMPLE RESULTS-CONVENTIONALS
JA86-Friedman & Bruya

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 02/16/06

Project: H-135
Event: 602086.2
Date Sampled: 02/08/06
Date Received: 02/09/06

Client ID: MW-DUP
ARI ID: 06-2336 JA86F

Analyte	Date Batch	Method	Units	RL	Sample
Alkalinity	02/09/06 020906#1	SM 2320	mg/L CaCO3	1.0	496
N-Nitrate	02/09/06	Calculated	mg-N/L	1.00	< 1.00 U
N-Nitrite	02/09/06 020906#1	EPA 353.2	mg-N/L	1.00	< 1.00 U
Nitrate + Nitrite	02/09/06 020906#1	EPA 353.2	mg-N/L	1.00	< 1.00 U
Sulfate	02/15/06 021506#2	EPA 375.2	mg/L	10.0	27.9

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
JA86-Friedman & Bruya

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 02/16/06

Project: H-135
Event: 602088 2
Date Sampled: 02/08/06
Date Received: 02/09/06

Client ID: MW-4
ARI ID: 06-2334 JA86D

Analyte	Date Batch	Method	Units	RL	Sample
Alkalinity	02/09/06 020906#1	SM 2320	mg/L CaCO3	1.0	683
N-Nitrate	02/09/06	Calculated	mg-N/L	1.00	< 1.00 U
N-Nitrite	02/09/06 020906#1	EPA 353.2	mg-N/L	1.00	< 1.00 U
Nitrate + Nitrite	02/09/06 020906#1	EPA 353.2	mg-N/L	1.00	< 1.00 U
Sulfate	02/15/06 021506#1	EPA 375.2	mg/L	20.0	36.5

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
JA86-Friedman & Bruya

ANALYTICAL RESOURCES INCORPORATED

Matrix: Water
Data Release Authorized:
Reported: 02/16/06

Project: H-135
Event: 602086.2
Date Sampled: 02/08/06
Date Received: 02/09/06

Client ID: MW-2
ARI ID: 06-2332 JA86B

Analyte	Date Batch	Method	Units	RL	Sample
Alkalinity	02/09/06 020906#1	SM 2320	mg/L CaCO3	1.0	520
N-Nitrate	02/09/06	Calculated	mg-N/L	1.00	< 1.00 U
N-Nitrite	02/09/06 020906#1	EPA 353.2	mg-N/L	1.00	< 1.00 U
Nitrate + Nitrite	02/09/06 020906#1	EPA 353.2	mg-N/L	1.00	< 1.00 U
Sulfate	02/15/06 021506#1	EPA 375.2	mg/L	20.0	39.8

RL Analytical reporting limit
U Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: JA86LCS
LIMS ID: 06-2333
Matrix: Water
Data Release Authorized:
Reported: 02/21/06

QC Report No: JA86-Friedman & Bruya
Project: H-135
60208~~8~~2
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Iron	6010B	1.93	2.00	96.5	

Reported in mg/L

N-Control limit not met
Control Limits: 80-120

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: JA86MB
LIMS ID: 06-2333
Matrix: Water
Data Release Authorized: AL
Reported: 02/21/06

QC Report No: JA86-Friedman & Bruya
Project: H-135
602080 2
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	02/13/06	6010B	02/18/06	7439-89-6	Iron	0.05	0.05	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: MW-DUP
SAMPLE

Lab Sample ID: JA86F
LIMS ID: 06-2336
Matrix: Water
Data Release Authorized:
Reported: 02/21/06

QC Report No: JA86-Friedman & Bruya
Project: H-135
60208
Date Sampled: 02/08/06
Date Received: 02/09/06

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	02/13/06	6010B	02/18/06	**7439-89-6**	**Iron**	0.05	1.57	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-4
SAMPLE

Lab Sample ID: JA86D
LIMS ID: 06-2334
Matrix: Water
Data Release Authorized:
Reported: 02/21/06

QC Report No: JA86-Friedman & Bruya
Project: H-135
60208Ø2
Date Sampled: 02/08/06
Date Received: 02/09/06

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	02/13/06	6010B	02/18/06	7439-89-6	Iron	0.05	57.1	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW-2
SAMPLE

Lab Sample ID: JA86B
LIMS ID: 06-2332
Matrix: Water
Data Release Authorized:
Reported: 02/21/06

QC Report No: JA86-Friedman & Bruya
Project: H-135
602080
Date Sampled: 02/08/06
Date Received: 02/09/06

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/L	Q
6010B	02/13/06	6010B	02/18/06	7439-89-6	Iron	0.05	26.4	

U-Analyte undetected at given RL
RL-Reporting Limit

Analytical Resources, Incorporated
Analytical Chemists and Consultants

RECEIVED
FEB 2 8 2006

February 24, 2006

Mike Erdahl
Friedman & Bruya
3012 – 16th Avenue West
Seattle, WA 9819-2029

RE: Project: 602082 PO#H-135
ARI Job: JA86

Dear Mike,

Please find enclosed the original chain of custody record and analytical results for the samples from the project referenced above. Analytical Resources, Inc. accepted sample volume in good condition on February 9, 2006. There were no discrepancies between the COC and the sample containers' labels.

The samples were analyzed for dissolved iron, nitrate, sulfate, alkalinity and nitrite, as requested on the COC.

Metals samples **MW-1, MW-2** and **MW-Dup** were received unpreserved and unfiltered. The samples were pH adjusted prior to sample preparation.

There were no anomalies associated with these samples.

Quality control analysis results are included for your review. Copies of the reports and all associated raw data will be kept on file electronically at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,
ANALYTICAL RESOURCES, INC.

Stephanie Lucas
Project Manager
(206) 695-6213
www.arilabs.com

Enclosures

Date of Report: 02/28/06
Date Received: 02/08/06
Project: Qualex, Kent, F&BI 602082

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	µg/L (ppb)	2,500	117	111	74-139	5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-Dup	Client:	Geologica
Date Received:	02/08/06	Project:	Qualex, Kent, F&BI 602082
Date Extracted:	02/09/06	Lab ID:	602082-06
Date Analyzed:	02/09/06	Data File:	602082-06.017
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Lithium	73	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	49.6
Selenium	77.7
Manganese	1,800

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-4	Client:	Geologica
Date Received:	02/08/06	Project:	Qualex, Kent, F&BI 602082
Date Extracted:	02/09/06	Lab ID:	602082-04
Date Analyzed:	02/09/06	Data File:	602082-04.014
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Lithium	74	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	60.0
Selenium	5.25
Manganese	7,260

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-2	Client:	Geologica
Date Received:	02/08/06	Project:	Qualex, Kent, F&BI 602082
Date Extracted:	02/09/06	Lab ID:	602082-02
Date Analyzed:	02/09/06	Data File:	602082-02.012
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Lithium	75	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	51.6
Selenium	11.9
Manganese	2,820

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/28/06
Date Received: 02/08/06
Project: Qualex, Kent, F&BI 602082
Date Extracted: 02/09/06
Date Analyzed: 02/11/06 and 02/13/06

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 51-132)
MW-1 602082-01	200	<250	127
MW-2 602082-02	130	<250	124
MW-3 602082-03	66	<250	122
MW-4 602082-04	180	<250	117
MW-5 602082-05	63	<250	132
MW-Dup 602082-06	150	<250	117
Method Blank	<50	<250	118

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

January 12, 2007

Dan Mathews, Project Manager
Geologica
594 Howard St., Suite 400
SanFrancisco, CA 94105

Dear Mr. Mathews:

Included are the results from the testing of material submitted on December 14, 2006 from the Kent, F&BI 612150 project. There are 38 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
NAA0112R

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150
Date Extracted: 12/22/06
Date Analyzed: 12/26/06

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 58-139)
S 612150-05	<2	80
Method Blank	<2	70

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150
Date Extracted: 12/22/06 and 12/26/06
Date Analyzed: 12/25/06 and 12/26/06

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 51-134)
GP-1 612150-01	<100	80
GP-2 612150-02	<100	80
GP-3 612150-03	<100	80
MW-1 612150-06	<100	79
MW-2 612150-07	<100	81
MW-3 612150-08	<100	80
MW-4 612150-09	<100	82
MW-5 612150-10	<100	79
Method Blank	<100	80
Method Blank	<100	80

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150
Date Extracted: 12/15/06
Date Analyzed: 12/23/06

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 67-127)
S 612150-05	<50	<250	99
Method Blank	<50	<250	119

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150
Date Extracted: 12/14/06
Date Analyzed: 12/20/06

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 52-134)
GP-1 612150-01	<50	<250	80
GP-2 612150-02	<50	<250	80
GP-3 612150-03	82	410	77
MW-1 612150-06	<50	<250	71
MW-2 612150-07	<50	<250	76
MW-3 612150-08	<50	<250	76
MW-4 612150-09	<50	<250	73
MW-5 612150-10	<50	<250	79
Method Blank	<50	<250	75

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	S	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	12/18/06	Lab ID:	612150-05
Date Analyzed:	12/21/06	Data File:	612150-05.035
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	70	60	125
Indium	78	60	125
Holmium	76	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	16.1
Arsenic	3.48
Selenium	<1
Silver	<1
Cadmium	<1
Barium	45.6
Lead	3.95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Geologica
Date Received:	NA	Project:	Kent, F&BI 612150
Date Extracted:	12/18/06	Lab ID:	I6-451 mb
Date Analyzed:	12/21/06	Data File:	I6-451 mb.034
Matrix:	Soil	Instrument:	ICPMS1
Units:	mg/kg (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	78	60	125
Indium	80	60	125
Holmium	73	60	125

Analyte:	Concentration mg/kg (ppm)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	GP-1	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/05/07	Lab ID:	612150-01
Date Analyzed:	01/05/07	Data File:	612150-01.010
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	104	60	125
Indium	88	60	125
Bismuth	88	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Arsenic	4.22
Selenium	<1
Silver	<1
Cadmium	<1
Barium	29.0
Lead	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	GP-2	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/05/07	Lab ID:	612150-02
Date Analyzed:	01/05/07	Data File:	612150-02.013
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	112	60	125
Indium	82	60	125
Bismuth	84	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Arsenic	4.34
Selenium	<1
Silver	<1
Cadmium	<1
Barium	43.0
Lead	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	GP-3	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/05/07	Lab ID:	612150-03
Date Analyzed:	01/05/07	Data File:	612150-03.014
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	100	60	125
Indium	98	60	125
Bismuth	96	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	2.21
Lead	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Geologica
Date Received:	NA	Project:	Kent, F&BI 612150
Date Extracted:	01/05/07	Lab ID:	I7-6 mb
Date Analyzed:	01/05/07	Data File:	I7-6 mb.008
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	95	60	125
Indium	99	60	125
Bismuth	101	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	W	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	12/19/06	Lab ID:	612150-04
Date Analyzed:	12/20/06	Data File:	612150-04.116
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	69	60	125
Indium	71	60	125
Holmium	87	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	3.93
Arsenic	2.03
Selenium	<1
Silver	<1
Cadmium	<1
Barium	9.82
Lead	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-1	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	12/19/06	Lab ID:	612150-06
Date Analyzed:	12/20/06	Data File:	612150-06.117
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	63	60	125
Indium	67	60	125
Holmium	84	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	14.2
Selenium	<1
Iron (screen)	2,510
Magnesium (screen)	37,200

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-2	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	12/19/06	Lab ID:	612150-07
Date Analyzed:	12/20/06	Data File:	612150-07.118
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	61	60	125
Indium	68	60	125
Holmium	80	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	4.52
Selenium	<1
Iron (screen)	3,180
Magnesium (screen)	54,400

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-3	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	12/19/06	Lab ID:	612150-08
Date Analyzed:	12/20/06	Data File:	612150-08.119
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	63	60	125
Indium	66	60	125
Holmium	78	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	6.00
Selenium	<1
Iron (screen)	<100
Magnesium (screen)	26,100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-4	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	12/19/06	Lab ID:	612150-09
Date Analyzed:	12/20/06	Data File:	612150-09.120
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	61	60	125
Indium	69	60	125
Holmium	84	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	1.32
Selenium	<1
Iron (screen)	305
Magnesium (screen)	33,700

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-5	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	12/19/06	Lab ID:	612150-10
Date Analyzed:	12/20/06	Data File:	612150-10.121
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	64	60	125
Indium	65	60	125
Holmium	82	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	1.18
Selenium	<1
Iron (screen)	3,120
Magnesium (screen)	23,900

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-4	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	12/19/06	Lab ID:	612150-09
Date Analyzed:	12/20/06	Data File:	612150-09.120
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	61	60	125
Indium	69	60	125
Holmium	84	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	1.32
Selenium	<1
Iron (screen)	305
Magnesium (screen)	33,700

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-5	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	12/19/06	Lab ID:	612150-10
Date Analyzed:	12/20/06	Data File:	612150-10.121
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	64	60	125
Indium	65	60	125
Holmium	82	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	1.18
Selenium	<1
Iron (screen)	3,120
Magnesium (screen)	23,900

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Geologica
Date Received:	NA	Project:	Kent, F&BI 612150
Date Extracted:	12/19/06	Lab ID:	I6-455 mb
Date Analyzed:	12/20/06	Data File:	I6-455 mb.105
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	67	60	125
Indium	72	60	125
Holmium	80	60	125

Analyte:	Concentration ug/L (ppb)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1
Iron (screen)	<100
Magnesium (screen)	<500

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150
Date Extracted: 12/20/06
Date Analyzed: 12/21/06

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported on a Dry Weight Basis
Results Reported as mg/kg (ppm)

Sample ID Laboratory ID	Total Mercury
S 612150-05	<0.2
Method Blank	<0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150
Date Extracted: 12/20/06
Date Analyzed: 12/21/06

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Total Mercury
W 612150-04	<0.2
Method Blank	<0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150
Date Extracted: 01/09/07
Date Analyzed: 01/10/07

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Total Mercury
GP-1 612150-01	<0.2
GP-2 612150-02	<0.2
GP-3 612150-03	<0.2
Method Blank	<0.2

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	W	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	12/22/06	Lab ID:	612150-04
Date Analyzed:	12/22/06	Data File:	122207.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	98	64	114
1,2-Dichloroethane-d4	98	61	115
Toluene-d8	92	61	114
4-Bromofluorobenzene	102	56	127

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<0.2	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	1.3	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

Note: The reporting limit for vinyl chloride is equal to the MDL.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	S	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	12/21/06	Lab ID:	612150-05
Date Analyzed:	12/22/06	Data File:	122210.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	62	51	134
1,2-Dichloroethane-d4	67	51	137
Toluene-d8	60	54	139
4-Bromofluorobenzene	70	42	164

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.05	Tetrachloroethene	<0.05
Chloromethane	<0.05	Dibromochloromethane	<0.05
Vinyl chloride	<0.05	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.05	Chlorobenzene	<0.05
Chloroethane	<0.05	Ethylbenzene	<0.05
Trichlorofluoromethane	<0.05	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<0.5	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.05	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Geologica
Date Received:	Not Applicable	Project:	Kent, F&BI 612150
Date Extracted:	12/22/06	Lab ID:	061914 mb
Date Analyzed:	12/22/06	Data File:	122205.D
Matrix:	Water	Instrument:	GCMS4
Units:	ug/L (ppb)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	97	64	114
1,2-Dichloroethane-d4	100	61	115
Toluene-d8	92	61	114
4-Bromofluorobenzene	101	56	127

Compounds:	Concentration ug/L (ppb)	Compounds:	Concentration ug/L (ppb)
Dichlorodifluoromethane	<1	Tetrachloroethene	<1
Chloromethane	<1	Dibromochloromethane	<1
Vinyl chloride	<0.2	1,2-Dibromoethane (EDB)	<1
Bromomethane	<1	Chlorobenzene	<1
Chloroethane	<1	Ethylbenzene	<1
Trichlorofluoromethane	<1	1,1,1,2-Tetrachloroethane	<1
Acetone	<10	m,p-Xylene	<2
1,1-Dichloroethene	<1	o-Xylene	<1
Methylene chloride	<5	Styrene	<1
trans-1,2-Dichloroethene	<1	Isopropylbenzene	<1
1,1-Dichloroethane	<1	Bromoform	<1
2,2-Dichloropropane	<1	n-Propylbenzene	<1
cis-1,2-Dichloroethene	<1	Bromobenzene	<1
Chloroform	<1	1,3,5-Trimethylbenzene	<1
2-Butanone (MEK)	<10	1,1,2,2-Tetrachloroethane	<1
1,2-Dichloroethane (EDC)	<1	1,2,3-Trichloropropane	<1
1,1,1-Trichloroethane	<1	2-Chlorotoluene	<1
1,1-Dichloropropene	<1	4-Chlorotoluene	<1
Carbon Tetrachloride	<1	tert-Butylbenzene	<1
Benzene	<1	1,2,4-Trimethylbenzene	<1
Trichloroethene	<1	sec-Butylbenzene	<1
1,2-Dichloropropane	<1	p-Isopropyltoluene	<1
Bromodichloromethane	<1	1,3-Dichlorobenzene	<1
Dibromomethane	<1	1,4-Dichlorobenzene	<1
4-Methyl-2-pentanone	<10	1,2-Dichlorobenzene	<1
cis-1,3-Dichloropropene	<1	1,2-Dibromo-3-chloropropane	<1
Toluene	<1	1,2,4-Trichlorobenzene	<1
trans-1,3-Dichloropropene	<1	Hexachlorobutadiene	<1
1,1,2-Trichloroethane	<1	Naphthalene	<1
2-Hexanone	<10	1,2,3-Trichlorobenzene	<1
1,3-Dichloropropane	<1		

Note: The reporting limit for vinyl chloride is equal to the MDL.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Geologica
Date Received:	Not Applicable	Project:	Kent, F&BI 612150
Date Extracted:	12/21/06	Lab ID:	061913 mb
Date Analyzed:	12/21/06	Data File:	122105.D
Matrix:	Soil	Instrument:	GCMS5
Units:	mg/kg (ppm)	Operator:	MB

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	99	51	134
1,2-Dichloroethane-d4	104	51	137
Toluene-d8	103	54	139
4-Bromofluorobenzene	116	42	164

Compounds:	Concentration mg/kg (ppm)	Compounds:	Concentration mg/kg (ppm)
Dichlorodifluoromethane	<0.05	Tetrachloroethene	<0.05
Chloromethane	<0.05	Dibromochloromethane	<0.05
Vinyl chloride	<0.05	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.05	Chlorobenzene	<0.05
Chloroethane	<0.05	Ethylbenzene	<0.05
Trichlorofluoromethane	<0.05	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<0.5	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.05	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 612170-09 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Gasoline	mg/kg (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	mg/kg (ppm)	20	125	58-137

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 612137-03 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Gasoline	µg/L (ppb)	4,600	4,700	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Gasoline	µg/L (ppb)	1,000	95	110	63-129	15

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 612150-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Gasoline	µg/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Gasoline	µg/L (ppb)	1,000	110	110	63-129	0

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 612163-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	mg/kg (ppm)	5,000	<50	90	92	82-133	2

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	mg/kg (ppm)	5,000	94	69-142

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	µg/L (ppb)	2,500	107	93	73-142	14

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS BY EPA METHOD 200.8

Laboratory Code: 612139-23 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/kg (ppm)	4.81	4.88	1	0-20
Arsenic	mg/kg (ppm)	1.16	1.52	27 a	0-20
Selenium	mg/kg (ppm)	<1	<1	nm	0-20
Silver	mg/kg (ppm)	<1	<1	nm	0-20
Cadmium	mg/kg (ppm)	<1	<1	nm	0-20
Barium	mg/kg (ppm)	8.65	9.37	8	0-20
Lead	mg/kg (ppm)	1.29	1.24	4	0-20

Laboratory Code: 612139-23 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Chromium	mg/kg (ppm)	20	4.81	92 b	50-150
Arsenic	mg/kg (ppm)	10	1.16	82	50-150
Selenium	mg/kg (ppm)	5	<1	84	50-150
Silver	mg/kg (ppm)	10	<1	77	50-150
Cadmium	mg/kg (ppm)	10	<1	85	50-150
Barium	mg/kg (ppm)	50	8.65	93	50-150
Lead	mg/kg (ppm)	20	1.29	99	50-150

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL METALS BY EPA METHOD 200.8

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Chromium	mg/kg (ppm)	20	96	70-130
Arsenic	mg/kg (ppm)	10	88	70-130
Selenium	mg/kg (ppm)	5	92	70-130
Silver	mg/kg (ppm)	10	81	70-130
Cadmium	mg/kg (ppm)	10	91	70-130
Barium	mg/kg (ppm)	50	98	70-130
Lead	mg/kg (ppm)	20	107	70-130

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS BY EPA METHOD 200.8

Laboratory Code: 612150-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	ug/L (ppb)	<1	<1	nm	0-20
Arsenic	ug/L (ppb)	4.22	4.13	2	0-20
Selenium	ug/L (ppb)	1.03	<1	nm	0-20
Silver	ug/L (ppb)	<1	<1	nm	0-20
Cadmium	ug/L (ppb)	<1	<1	nm	0-20
Barium	ug/L (ppb)	29.0	29.3	1	0-20
Lead	ug/L (ppb)	<1	<1	nm	0-20

Laboratory Code: 612150-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Chromium	ug/L (ppb)	20	<1	82	50-150
Arsenic	ug/L (ppb)	10	4.22	104 b	50-150
Selenium	ug/L (ppb)	5	1.03	98 b	50-150
Silver	ug/L (ppb)	5	<1	74	50-150
Cadmium	ug/L (ppb)	5	<1	109	50-150
Barium	ug/L (ppb)	50	29.0	109 b	50-150
Lead	ug/L (ppb)	10	<1	114	50-150

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 612139-23 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Mercury	mg/kg (ppm)	<0.2	<0.2	nm

Laboratory Code: 612139-23 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.25	<0.2	90	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	mg/kg (ppm)	0.25	104	70-130

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 612208-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Mercury	µg/L (ppb)	<0.2	<0.2	nm

Laboratory Code: 612208-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Mercury	µg/L (ppb)	0.5	<0.2	103	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	µg/L (ppb)	0.5	102	70-130

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL MERCURY USING EPA METHOD 1631E

Laboratory Code: 612150-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Mercury	µg/L (ppb)	<0.2	<0.2	nm

Laboratory Code: 612150-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Mercury	µg/L (ppb)	0.5	<0.2	97	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Mercury	µg/L (ppb)	0.5	102	70-130

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
1,1-Dichloroethene	µg/L (ppb)	50	78	75	43-138	5
t-Butyl alcohol (TBA)	µg/L (ppb)	250	125	123	63-137	1
Methyl t-butyl ether (MTBE)	µg/L (ppb)	50	105	102	80-135	3
Diisopropyl ether (DIPE)	µg/L (ppb)	50	106	103	94-129	3
Ethyl t-butyl ether (ETBE)	µg/L (ppb)	50	100	98	87-135	2
t-Amyl methyl ether (TAME)	µg/L (ppb)	50	104	102	91-127	2
1,2-Dichloroethane (EDC)	µg/L (ppb)	50	104	100	75-128	4
1,1-Dichloropropene	µg/L (ppb)	50	91	85	77-120	7
Benzene	µg/L (ppb)	100	104	98	79-122	6
Trichloroethene	µg/L (ppb)	100	104	99	82-121	5
1,2-Dichloropropane	µg/L (ppb)	50	108	104	87-122	4
cis-1,3-Dichloropropene	µg/L (ppb)	50	98	94	90-123	5
Toluene	µg/L (ppb)	100	111	105	82-114	5
trans-1,3-Dichloropropene	µg/L (ppb)	50	113	109	86-121	4
1,1,2-Trichloroethane	µg/L (ppb)	50	111	107	84-120	3
1,3-Dichloropropane	µg/L (ppb)	50	114	111	70-130	3
1,2-Dibromoethane (EDB)	µg/L (ppb)	50	110	108	86-118	2
Chlorobenzene	µg/L (ppb)	50	104	100	83-116	4
Ethylbenzene	µg/L (ppb)	50	111	105	80-112	6
1,1,1,2-Tetrachloroethane	µg/L (ppb)	50	111	106	86-116	4
m,p-Xylene	µg/L (ppb)	50	112	106	77-113	6
Styrene	µg/L (ppb)	50	104	99	80-117	5
Bromobenzene	µg/L (ppb)	50	110	107	77-114	2
1,3,5-Trimethylbenzene	µg/L (ppb)	50	101	96	76-111	5
1,1,2,2-Tetrachloroethane	µg/L (ppb)	50	112	110	73-133	1
1,2,3-Trichloropropane	µg/L (ppb)	50	111	110	79-122	1
1,2,4-Trimethylbenzene	µg/L (ppb)	50	102	98	70-130	4
p-Isopropyltoluene	µg/L (ppb)	50	103	97	70-130	6
1,2-Dibromo-3-chloropropane	µg/L (ppb)	50	116	114	79-122	1
1,2,4-Trichlorobenzene	µg/L (ppb)	50	101	98	70-130	3
Hexachlorobutadiene	µg/L (ppb)	50	102	95	78-128	6
Naphthalene	µg/L (ppb)	50	109	108	52-149	1
1,2,3-Trichlorobenzene	µg/L (ppb)	50	107	104	70-130	3

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 612207-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
1,1-Dichloroethene	mg/kg (ppm)	2.5	<0.05	72	68	40-127	5
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	<0.05	101	99	62-127	2
1,1-Dichloropropene	mg/kg (ppm)	2.5	<0.05	98	95	63-126	3
Benzene	mg/kg (ppm)	5	<0.03	106	103	60-124	3
Trichloroethene	mg/kg (ppm)	5	<0.03	107	104	63-123	2
1,2-Dichloropropane	mg/kg (ppm)	2.5	<0.05	111	110	64-128	1
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	109	108	56-138	1
Toluene	mg/kg (ppm)	5	<0.05	108	104	60-129	3
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	<0.05	118	117	58-138	1
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	<0.05	119	117	63-135	2
1,3-Dichloropropane	mg/kg (ppm)	2.5	<0.05	117	116	66-130	1
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	<0.05	118	117	66-134	0
Chlorobenzene	mg/kg (ppm)	2.5	<0.05	112	109	68-123	2
Ethylbenzene	mg/kg (ppm)	2.5	<0.05	110	107	50-150	3
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	115	114	66-128	1
m,p-Xylene	mg/kg (ppm)	2.5	<0.1	113	106	50-150	6
Styrene	mg/kg (ppm)	2.5	<0.05	119	116	50-150	3
Bromobenzene	mg/kg (ppm)	2.5	<0.05	123	120	50-150	2
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	122	118	50-150	4
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	<0.05	116	116	60-143	0
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	<0.05	118	119	62-132	1
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	<0.05	130	120	50-150	8
p-Isopropyltoluene	mg/kg (ppm)	2.5	<0.05	123	120	50-150	3
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	<0.05	122	124	40-154	2
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	<0.05	128	125	50-150	2
Hexachlorobutadiene	mg/kg (ppm)	2.5	<0.05	128	125	59-137	2
Naphthalene	mg/kg (ppm)	2.5	<0.05	159 c	135	50-150	16
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	<0.05	129	127	50-150	1

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

Date of Report: 01/12/07
Date Received: 12/14/06
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
1,1-Dichloroethene	mg/kg (ppm)	2.5	70	49-133
1,2-Dichloroethane (EDC)	mg/kg (ppm)	2.5	88	67-137
1,1-Dichloropropene	mg/kg (ppm)	2.5	84	71-122
Benzene	mg/kg (ppm)	5	92	71-119
Trichloroethene	mg/kg (ppm)	5	92	70-122
1,2-Dichloropropane	mg/kg (ppm)	2.5	96	73-126
cis-1,3-Dichloropropene	mg/kg (ppm)	2.5	98	72-135
Toluene	mg/kg (ppm)	5	92	73-130
trans-1,3-Dichloropropene	mg/kg (ppm)	2.5	106	75-136
1,1,2-Trichloroethane	mg/kg (ppm)	2.5	102	75-127
1,3-Dichloropropane	mg/kg (ppm)	2.5	99	75-127
1,2-Dibromoethane (EDB)	mg/kg (ppm)	2.5	98	73-131
Chlorobenzene	mg/kg (ppm)	2.5	95	77-122
Ethylbenzene	mg/kg (ppm)	2.5	94	70-130
1,1,1,2-Tetrachloroethane	mg/kg (ppm)	2.5	103	78-127
m,p-Xylene	mg/kg (ppm)	2.5	93	70-130
Styrene	mg/kg (ppm)	2.5	100	70-130
Bromobenzene	mg/kg (ppm)	2.5	102	70-130
1,3,5-Trimethylbenzene	mg/kg (ppm)	2.5	102	70-130
1,1,2,2-Tetrachloroethane	mg/kg (ppm)	2.5	102	67-137
1,2,3-Trichloropropane	mg/kg (ppm)	2.5	103	67-126
1,2,4-Trimethylbenzene	mg/kg (ppm)	2.5	102	70-130
p-Isopropyltoluene	mg/kg (ppm)	2.5	105	70-130
1,2-Dibromo-3-chloropropane	mg/kg (ppm)	2.5	111	51-144
1,2,4-Trichlorobenzene	mg/kg (ppm)	2.5	105	70-130
Hexachlorobutadiene	mg/kg (ppm)	2.5	107	69-129
Naphthalene	mg/kg (ppm)	2.5	108	70-135
1,2,3-Trichlorobenzene	mg/kg (ppm)	2.5	105	70-130

Note: The calibration verification result for bromomethane, chloroethane and trichlorofluoromethane exceeded 15% deviation. The average deviation for all compounds was not greater than 15%, therefore the calibration is considered valid.

612150

SAMPLE CHAIN OF CUSTODY

ME 12/14/06 AD 9/03/005

Page # 1 of 2

Send Report To Dan Mathews
Company Geologica Inc
Address 594 Howard St Suite 400
City, State, ZIP San Francisco CA 94105
Phone # 415-597-7885 Fax # 415-597-7880

SAMPLERS (signature) Greg Romero
PROJECT NAME/NO. Kent
PO #
REMARKS

TURNAROUND TIME
☑ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	8015	RCRA8 metals	6020			Notes
GP-1	01 A-D	12/13/06	10:55	W	2	X	X							X			NWTPH-D & Dx
GP-2	02 A-D		10:07	W	2	X	X							X			
GP-3	03 A-D		9:21	W	2	X	X							X			
W	04 A-G		11:40	W	7				X				X				
S	05 A-C	↓	9:50	S	3	X	X		X			X	X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Greg Romero	Geologica Inc.	12/14/06	10:10
Received by:	HOLLY NEIMANN	FBI	1	1
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

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612150

SAMPLE CHAIN OF CUSTODY

ME 12/14/06 AIU/07/005

Page # 1 of 1

Send Report To Don Mathews
Company Geologica Inc.
Address 594 Howard St. Suite 400
City, State, ZIP San Francisco, CA 94105
Phone # 415-597-7885 Fax # 415-597-7880

SAMPLERS (signature) [signature]
PROJECT NAME/NO. Kent
PO #
REMARKS

TURNAROUND TIME
☒ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

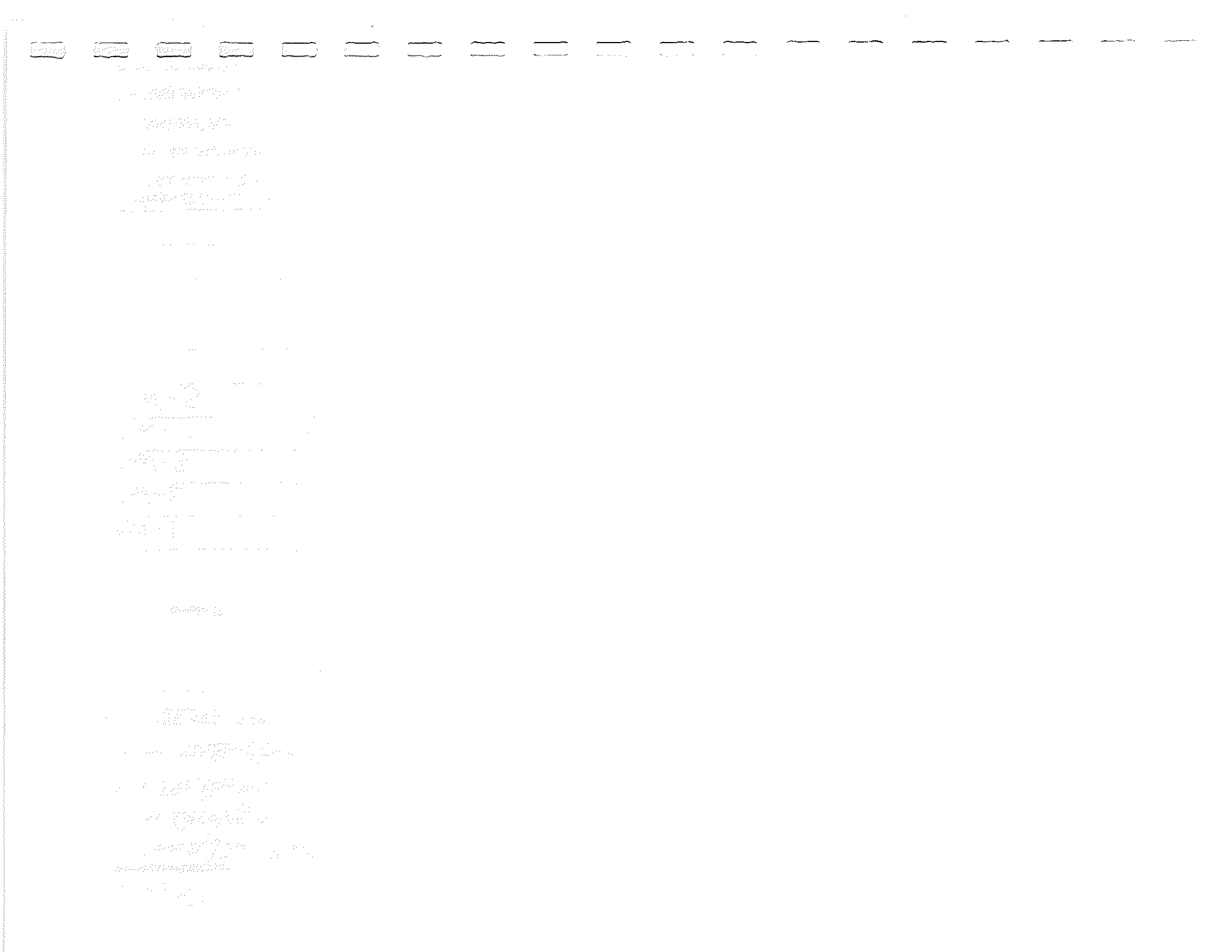
Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	Dissolved Arsenic (As) 6010				Notes
MW-1	06 A-D			W	2	X	X					X				NWTPH-D & Dx
MW-2	07 A-D			W	2	X	X					X				
MW-3	08 A-D			W	2	X	X					X				
MW-4	09 A-D			W	2	X	X					X				
MW-5	10 A-D			W	2	X	X					X				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	[signature]	Greg Romero	Geologica Inc	12/14/06	10:10
Received by:	[signature]	HONG NGUYEN	FBI	1	1
Relinquished by:					
Received by:					

FORMS\COC\COC.DOC

Samples received at 2 °C



FRIEDMAN & BRUYA, INC.
ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

February 6, 2007

Dan Mathews, Project Manager
Geologica
594 Howard St., Suite 400
San Francisco, CA 94105

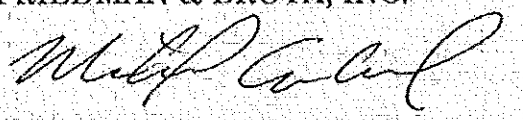
Dear Mr. Mathews:

Included are the additional results from the testing of material submitted on December 14, 2006 from the Kent, F&BI 612150 project. There are 17 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Michael Erdahl
Project Manager

Enclosures
NAA0206R

612150

SAMPLE CHAIN OF CUSTODY

ME 12/14/06 AI 9/03/005

Page # 1 of 2

Send Report To Dan Mathews
Company Geologica Inc
Address 594 Howard St Suite 400
City, State, ZIP San Francisco CA 94105
Phone # 415-597-7885 Fax # 415-597-7880

SAMPLERS (signature) Greg Romero
PROJECT NAME/NO. Kent
PO #
REMARKS

TURNAROUND TIME
☑ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☒ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	8015	RCRA 8 metals	6020	Fe + Mn		Notes
GP-1	01 A-D	12/13/06	10:55	W	2	X	X							X	X		NWTPH-D & Dx
GP-2	02 A-D		10:07	W	2	X	X							X	X		
GP-3	03 A-D		9:21	W	2	X	X							X	X		
W	04 A-G		11:40	W	7				X				X				
S	05 A-C	↓	9:50	S	3	X	X		X			X	X				

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Greg Romero	Geologica Inc.	12/14/06	10:10
Received by:	HOLLY NEWMAN	FBI	1	1
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

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Samples received at 29°C (UPS)

612150

SAMPLE CHAIN OF CUSTODY

ME 12/14/06 AI4/V3/C05

Page # 2 of 2

Send Report To Don Mathews
Company Geologica Inc.
Address 594 Howard St. Suite 400
City, State, ZIP San Francisco, CA 94105
Phone # 415-597-7885 Fax # 415-597-7880

SAMPLERS (signature) Greg Romero

PROJECT NAME/NO. Kent

PO #

REMARKS

TURNAROUND TIME
- [x] Standard (2 Weeks)
- [ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
- [x] Dispose after 30 days
- [ ] Return samples
- [ ] Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	sVOCs by 8270	HFS	Dissolved Arsenic by 6020	Mn			Notes
						ANALYSES REQUESTED										
MW-1	06 A-D			W	2	X	X					X	X			NWTPH-D & Dx
MW-2	07 A-D			W	2	X	X					X	X			
MW-3	08 A-D			W	2	X	X					X	X			
MW-4	09 A-D			W	2	X	X					X	X			
MW-5	10 A-D			W	2	X	X					X	X			

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Greg Romero	Greg Romero	Geologica Inc	12/14/06	10:10
Received by: [signature]	HOWARD GUYMON	FBI	12/14/06	1
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

Samples received at 3 °C

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	GP-1	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/22/07	Lab ID:	612150-01
Date Analyzed:	01/23/07 and 02/01/07	Data File:	612150-01.020
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	103	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	2,860
Iron (screen)	32,700

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	GP-2	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/22/07	Lab ID:	612150-02
Date Analyzed:	01/23/07 and 02/01/07	Data File:	612150-02.021
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	111	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	2,300
Iron (screen)	50,400

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	GP-3	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/22/07	Lab ID:	612150-03
Date Analyzed:	01/23/07 and 02/01/07	Data File:	612150-03.022
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	100	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	312
Iron (screen)	94

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-1	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/19/07	Lab ID:	612150-06 x10
Date Analyzed:	01/23/07	Data File:	612150-06 x10.024
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	101	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	1,540

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-2	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/19/07	Lab ID:	612150-07 x10
Date Analyzed:	01/23/07	Data File:	612150-07 x10.025
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	100	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	2,850

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-3	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/19/07	Lab ID:	612150-08
Date Analyzed:	01/19/07	Data File:	612150-08.026
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	96	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	3,880

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-4	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/19/07	Lab ID:	612150-09
Date Analyzed:	01/19/07	Data File:	612150-09.027
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	102	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	4,680

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	MW-5	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/19/07	Lab ID:	612150-10 x10
Date Analyzed:	01/23/07	Data File:	612150-10 x10.028
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	98	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	1,590

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Geologica
Date Received:	Not Applicable	Project:	Kent, F&BI 612150
Date Extracted:	01/22/07	Lab ID:	I7-22 mb
Date Analyzed:	01/23/07 and 02/01/07	Data File:	I7-22 mb.008
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	98	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	<1
Iron (screen)	<10

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Geologica
Date Received:	Not Applicable	Project:	Kent, F&BI 612150
Date Extracted:	01/19/07	Lab ID:	I7-20 mb
Date Analyzed:	01/19/07	Data File:	I7-20 mb.023
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	100	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	<1

0FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	GP-1	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/26/07	Lab ID:	612150-01
Date Analyzed:	01/26/07 and 02/01/07	Data File:	612150-01.018
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	BTB

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	125	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	2,330
Iron (screen)	32,800

0FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	GP-2	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/26/07	Lab ID:	612150-02 X10
Date Analyzed:	01/29/07 and 02/01/07	Data File:	612150-02 X10.018
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	BTB

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	110	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	2870
Iron (screen)	50,800

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ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	GP-3	Client:	Geologica
Date Received:	12/14/06	Project:	Kent, F&BI 612150
Date Extracted:	01/26/07	Lab ID:	612150-03
Date Analyzed:	01/26/07 and 02/01/07	Data File:	612150-03.021
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	BTB

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	107	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	284
Iron (screen)	86

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Geologica
Date Received:	Not Applicable	Project:	Kent, F&BI 612150
Date Extracted:	01/26/07	Lab ID:	I7-29 mb
Date Analyzed:	01/26/07 and 02/01/07	Data File:	I7-29 mb.010
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	BTB

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	107	60	125

Analyte:	Concentration ug/L (ppb)
Manganese	<1
Iron (screen)	<10

Date of Report: 02/06/07
Date Received: 12/14/07
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS BY EPA METHOD 200.8

Laboratory Code: 701184-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Manganese	ug/L (ppb)	419	395	6	0-20

Laboratory Code: 701184-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Manganese	ug/L (ppb)	20	419	62 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Manganese	ug/L (ppb)	20	100	70-130

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

Date of Report: 02/06/07
Date Received: 12/14/07
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS BY EPA METHOD 200.8

Laboratory Code: 701103-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Manganese	ug/L (ppb)	8,330	7,730	7	0-20

Laboratory Code: 701103-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Manganese	ug/L (ppb)	20	8,330	0 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Manganese	ug/L (ppb)	20	101	70-130

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

Date of Report: 02/06/07
Date Received: 12/14/07
Project: Kent, F&BI 612150

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS BY EPA METHOD 200.8

Laboratory Code: 701234-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Manganese	ug/L (ppb)	<1	<1	nm	0-20

Laboratory Code: 701234-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Manganese	ug/L (ppb)	20	<1	97	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Manganese	ug/L (ppb)	20	101	70-130

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.
ENVIRONMENTAL CHEMISTS

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Excavation Soil Confirmation Sample Results

February 2, 2006

Dan Matthews, Project Manager
Geologica
594 Howard St., Suite 400
SanFrancisco, CA 94105

Dear Mr. Matthews:

Included are the results from the testing of material submitted on January 23, 2006 from the Qualex-Kent, F&BI 601188 project. There are 12 pages included in this report. Sample TT-1 was sent to Analytical Resources, Inc. for mercury and cyanide analyses. The report generated by ARI will be forwarded to your office upon receipt.

Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
NAA0202R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/02/06
Date Received: 01/23/06
Project: Qualex-Kent, F&BI 601188
Date Extracted: 01/26/06
Date Analyzed: 01/26/06

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as µg/g (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 66-150)
TT-1 601188-01	<2	87
Method Blank	<2	88

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/02/06
Date Received: 01/23/06
Project: Qualex-Kent, F&BI 601188
Date Extracted: 01/26/06
Date Analyzed: 01/27/06

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as µg/g (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{30})	Surrogate (% Recovery) (Limit 67-127)
TT-1 601188-01	8,600	16,000	ip
Method Blank	<50	<250	96

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	TT-1	Client:	Geologica
Date Received:	01/23/06	Project:	Qualex-Kent, F&BI 601188
Date Extracted:	01/26/06	Lab ID:	601188-01
Date Analyzed:	01/27/06	Data File:	601188-01.065
Matrix:	Soil	Instrument:	ICPMS1
Units:	ug/g (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Lithium	88	60	125
Germanium	108	60	125
Indium	86	60	125
Holmium	83	60	125
Bismuth	84	60	125

Analyte:	Concentration ug/g (ppm)
Chromium	153
Arsenic	8.64
Selenium	<1
Silver	48.2
Cadmium	<1
Barium	20.6
Lead	94.0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Geologica
Date Received:	NA	Project:	Qualex-Kent, F&BI 601188
Date Extracted:	01/26/06	Lab ID:	I6-127 mb
Date Analyzed:	01/27/06	Data File:	I6-127 mb.041
Matrix:	Soil	Instrument:	ICPMS1
Units:	ug/g (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Lithium	105	60	125
Germanium	110	60	125
Indium	111	60	125
Holmium	106	60	125
Bismuth	104	60	125

Analyte:	Concentration ug/g (ppm)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	TT-1	Client:	Geologica
Date Received:	01/23/06	Project:	Qualex-Kent, F&BI 601188
Date Extracted:	01/25/06	Lab ID:	601188-01
Date Analyzed:	01/26/06	Data File:	012538.D
Matrix:	soil	Instrument:	GCMS5
Units:	ug/g (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	97	50	134
1,2-Dichloroethane-d4	94	50	138
Toluene-d8	93	53	126
4-Bromofluorobenzene	99	70	130

Compounds:	Concentration ug/g (ppm)	Compounds:	Concentration ug/g (ppm)
Dichlorodifluoromethane	<0.05	Tetrachloroethene	<0.05
Chloromethane	<0.05	Dibromochloromethane	<0.05
Vinyl chloride	<0.05	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.05	Chlorobenzene	<0.05
Chloroethane	<0.05	Ethylbenzene	<0.05
Trichlorofluoromethane	<0.05	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<0.5	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.05	o-Xylene	<0.05
Methylene chloride	<5.0	Styrene	0.34
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	0.09
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.03	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	0.12
Trichloroethene	<0.05	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Geologica
Date Received:	Not Applicable	Project:	Qualex-Kent, F&BI 601188
Date Extracted:	01/25/06	Lab ID:	06-207 mb
Date Analyzed:	01/25/06	Data File:	012515.D
Matrix:	soil	Instrument:	GCMS5
Units:	ug/g (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	98	50	134
1,2-Dichloroethane-d4	100	50	138
Toluene-d8	97	53	126
4-Bromofluorobenzene	100	70	130

Compounds:	Concentration ug/g (ppm)	Compounds:	Concentration ug/g (ppm)
Dichlorodifluoromethane	<0.05	Tetrachloroethene	<0.05
Chloromethane	<0.05	Dibromochloromethane	<0.05
Vinyl chloride	<0.05	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.05	Chlorobenzene	<0.05
Chloroethane	<0.05	Ethylbenzene	<0.05
Trichlorofluoromethane	<0.05	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<0.5	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.05	o-Xylene	<0.05
Methylene chloride	<5.0	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.03	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.05	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/02/06
Date Received: 01/23/06
Project: Qualex-Kent, F&BI 601188

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 601214-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Gasoline	µg/g (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	µg/g (ppm)	20	99	58-137

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/02/06
Date Received: 01/23/06
Project: Qualex-Kent, F&BI 601188

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 601214-06 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	µg/g (ppm)	5,000	<50	109	117	71-137	7

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	µg/g (ppm)	5,000	107	70-129

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/02/06
Date Received: 01/23/06
Project: Qualex-Kent, F&BI 601188

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR METALS BY EPA METHOD 200.8

Laboratory Code: 601158-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	ug/g (ppm)	11.9	12.2	2	0-20
Arsenic	ug/g (ppm)	<1	1.54	nm	0-20
Selenium	ug/g (ppm)	<1	<1	nm	0-20
Silver	ug/g (ppm)	<1	<1	nm	0-20
Cadmium	ug/g (ppm)	<1	<1	nm	0-20
Barium	ug/g (ppm)	22.0	22.2	1	0-20
Lead	ug/g (ppm)	1.31	1.36	4	0-20

Laboratory Code: 601158-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	Acceptance Criteria
Chromium	ug/g (ppm)	50	11.9	96	50-150
Arsenic	ug/g (ppm)	10	<1	91	50-150
Selenium	ug/g (ppm)	5	<1	86	50-150
Silver	ug/g (ppm)	10	<1	93	50-150
Cadmium	ug/g (ppm)	10	<1	102	50-150
Barium	ug/g (ppm)	50	22.0	100	50-150
Lead	ug/g (ppm)	20	1.31	97	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	Acceptance Criteria
Chromium	ug/g (ppm)	50	105	70-130
Arsenic	ug/g (ppm)	10	100	70-130
Selenium	ug/g (ppm)	5	105	70-130
Silver	ug/g (ppm)	10	95	70-130
Cadmium	ug/g (ppm)	10	104	70-130
Barium	ug/g (ppm)	50	105	70-130
Lead	ug/g (ppm)	20	98	70-130

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/02/06
Date Received: 01/23/06
Project: Qualex-Kent, F&BI 601188

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 601164-08 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
1,1-Dichloroethene	µg/g (ppm)	<0.05	<0.05	nm
Methylene chloride	µg/g (ppm)	<0.5	<0.05	nm
trans-1,2-Dichloroethene	µg/g (ppm)	<0.05	<0.05	nm
cis-1,2-Dichloroethene	µg/g (ppm)	<0.05	<0.05	nm
Benzene	µg/g (ppm)	<0.03	<0.03	nm
Trichloroethene	µg/g (ppm)	<0.03	<0.03	nm
Bromodichloromethane	µg/g (ppm)	<0.05	<0.05	nm
Toluene	µg/g (ppm)	<0.05	<0.05	nm
Dibromochloromethane	µg/g (ppm)	<0.05	<0.05	nm
Chlorobenzene	µg/g (ppm)	<0.05	<0.05	nm
Ethylbenzene	µg/g (ppm)	<0.05	<0.05	nm
m,p-Xylene	µg/g (ppm)	<0.1	<0.1	nm
Styrene	µg/g (ppm)	<0.05	<0.05	nm
Bromobenzene	µg/g (ppm)	<0.05	<0.05	nm
1,3,5-Trimethylbenzene	µg/g (ppm)	<0.05	<0.05	nm
1,2,4-Trimethylbenzene	µg/g (ppm)	<0.05	<0.05	nm
p-Isopropyltoluene	µg/g (ppm)	<0.05	<0.05	nm
1,2,4-Trichlorobenzene	µg/g (ppm)	<0.05	<0.05	nm
Naphthalene	µg/g (ppm)	<0.05	<0.05	nm
1,2,3-Trichlorobenzene	µg/g (ppm)	<0.05	<0.05	nm

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/02/06
Date Received: 01/23/06
Project: Qualex-Kent, F&BI 601188

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 601164-08 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
1,1-Dichloroethene	µg/g (ppm)	5	<0.05	103	41-128
Methylene chloride	µg/g (ppm)	2.5	<0.5	98	36-128
trans-1,2-Dichloroethene	µg/g (ppm)	2.5	<0.05	107	41-134
cis-1,2-Dichloroethene	µg/g (ppm)	2.5	<0.05	116	44-149
Benzene	µg/g (ppm)	5	<0.03	101	60-124
Trichloroethene	µg/g (ppm)	2.5	<0.03	100	63-124
Bromodichloromethane	µg/g (ppm)	2.5	<0.05	103	41-132
Toluene	µg/g (ppm)	5	<0.05	104	61-130
Dibromochloromethane	µg/g (ppm)	2.5	<0.05	104	42-143-
Chlorobenzene	µg/g (ppm)	2.5	<0.05	105	68-124
Ethylbenzene	µg/g (ppm)	2.5	<0.05	106	50-150
m,p-Xylene	µg/g (ppm)	2.5	<0.1	105	50-150
Styrene	µg/g (ppm)	2.5	<0.05	104	50-150
Bromobenzene	µg/g (ppm)	2.5	<0.05	98	50-150
1,3,5-Trimethylbenzene	µg/g (ppm)	2.5	<0.05	100	50-150
1,2,4-Trimethylbenzene	µg/g (ppm)	2.5	<0.05	104	50-150
p-Isopropyltoluene	µg/g (ppm)	2.5	<0.05	103	50-150
1,2,4-Trichlorobenzene	µg/g (ppm)	2.5	<0.05	103	50-150
Naphthalene	µg/g (ppm)	2.5	<0.05	103	60-143
1,2,3-Trichlorobenzene	µg/g (ppm)	2.5	<0.05	102	50-150

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/02/06
Date Received: 01/23/06
Project: Qualex-Kent, F&BI 601188

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
1,1-Dichloroethene	µg/g (ppm)	5	100	56-117
Methylene chloride	µg/g (ppm)	2.5	78	64-121
trans-1,2-Dichloroethene	µg/g (ppm)	2.5	102	67-115
cis-1,2-Dichloroethene	µg/g (ppm)	2.5	109	77-125
Benzene	µg/g (ppm)	5	96	71-119
Trichloroethene	µg/g (ppm)	2.5	95	70-122
Bromodichloromethane	µg/g (ppm)	2.5	99	72-113
Toluene	µg/g (ppm)	5	98	73-130
Dibromochloromethane	µg/g (ppm)	2.5	101	72-132
Chlorobenzene	µg/g (ppm)	2.5	99	77-122
Ethylbenzene	µg/g (ppm)	2.5	100	70-130
m,p-Xylene	µg/g (ppm)	2.5	100	70-130
Styrene	µg/g (ppm)	2.5	97	70-130
Bromobenzene	µg/g (ppm)	2.5	93	70-130
1,3,5-Trimethylbenzene	µg/g (ppm)	2.5	94	70-130
1,2,4-Trimethylbenzene	µg/g (ppm)	2.5	97	70-130
p-Isopropyltoluene	µg/g (ppm)	2.5	98	70-130
1,2,4-Trichlorobenzene	µg/g (ppm)	2.5	100	70-130
Naphthalene	µg/g (ppm)	2.5	96	67-137
1,2,3-Trichlorobenzene	µg/g (ppm)	2.5	97	70-170

601188 #8 NP 01-23-06

ME 01-23-06 G1

17461 Derian Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3299
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3628

Del Mar Analytical
A TEST AMERICA COMPANY

CHAIN OF CUSTODY FORM

Page 1 of 1

Client Name/Address:	Project/PO Number:
Qualex - 22149 72nd Ave S Kent, WA	Qualex - Kent
Project Manager: Dan Matthews	**Phone Number:** 415-597-7885
Sampler:	**Fax Number:**

Lab ID	Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required: Total Cyanide (Lachat 10-204-00-1-A)	Total Mercury (EPA 7471A)	Sulfide (SM 4500 S2 D)	Special Instructions
01 B	TT-1	Soil	glass	2	1-23-06	13:00	—	X	X	X	Hold pending Client Direction 4pm 1/25/06

Relinquished By:	Date/Time:	Received By:	Date/Time:
Daniel Matthews	1-23-06 13:30		1/23/06 13:31
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:

Turnaround Time: (Check) WILL CALL
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ____

Sample Integrity: (Check)
Intact ____ on ice ____

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

RECEIVED
FEB 02 2006

January 31, 2006

Mike Erdahl
Friedman & Bruya
3012 – 16th Avenue West
Seattle, WA 9819-2029

RE: Project: 601188 PO#H-106
ARI Job: IZ29

Dear Mike,

Please find enclosed the original chain of custody record and analytical results for the samples from the project referenced above. Analytical Resources, Inc. accepted one soil sample in good condition on January 25, 2006. There were no discrepancies between the COC and the sample containers' labels.

The sample was analyzed for total mercury and total cyanide, as requested on the COC.

The cyanide sample contained sulfide. The analyst added in cadmium carbonate during the distillation process in an attempt to precipitate out the sulfide. Sulfide was still present in the sample after distillation. The MS/MSD percent recovery was low (73.3%) due to the high sulfide concentration in the sample. There were no other analytical complications noted for these analyses.

Quality control analysis results are included for your review. Copies of the reports and all associated raw data will be kept on file electronically at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,
ANALYTICAL RESOURCES, INC.
Stephanie Lucas
Project Manager
(206) 695-6213
www.arilabs.com

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • 206-695-6200 • 206-695-6201 fax

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: TT-1
SAMPLE

Lab Sample ID: IZ29A
LIMS ID: 06-1141
Matrix: Soil
Data Release Authorized:
Reported: 01/27/06

QC Report No: IZ29-Friedman & Bruya
Project: H-106
601188
Date Sampled: 01/23/06
Date Received: 01/25/06

Percent Total Solids: 63.7

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
CLP	01/26/06	7471A	01/26/06	7439-97-6	Mercury	0.06	0.78	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: IZ29MB
LIMS ID: 06-1141
Matrix: Soil
Data Release Authorized:
Reported: 01/27/06

QC Report No: IZ29-Friedman & Bruya
Project: H-106
601188
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
CLP	01/26/06	7471A	01/26/06	7439-97-6	Mercury	0.05	0.05	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: IZ29LCS
LIMS ID: 06-1141
Matrix: Soil
Data Release Authorized:
Reported: 01/27/06

QC Report No: IZ29-Friedman & Bruya
Project: H-106
601188
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7471A	1.04	1.00	104	

Reported in mg/kg-dry

N-Control limit not met
Control Limits: 80-120

FORM-VII

SAMPLE RESULTS-CONVENTIONALS
IZ29-Friedman & Bruya

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 01/30/06

Project: H-106
Event: 601188
Date Sampled: 01/23/06
Date Received: 01/25/06

Client ID: TT-1
ARI ID: 06-1141 IZ29A

Analyte	Date	Method	Units	RL	Sample
Total Solids	01/27/06 012706#1	EPA 160.3	Percent	0.01	64.00
Total Cyanide	01/26/06 012606#1	EPA 335.2	mg/kg	0.226	2.48

RL Analytical reporting limit
U Undetected at reported detection limit

METHOD BLANK RESULTS-CONVENTIONALS
IZ29-Friedman & Bruya

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 01/30/06

Project: H-106
Event: 601188
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	01/27/06	Percent	< 0.01 U
Total Cyanide	01/26/06	mg/kg	< 0.050 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
IZ29-Friedman & Bruya

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 01/30/06

Project: H-106
Event: 601188
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Cyanide EPA #05032	01/26/06	mg/kg	6.06	5.60	108.2%

REPLICATE RESULTS-CONVENTIONALS
IZ29-Friedman & Bruya

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 01/30/06

Project: H-106
Event: 601188
Date Sampled: 01/23/06
Date Received: 01/25/06

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: IZ29A Client ID: TT-1					
Total Solids	01/27/06	Percent	64.00	62.10 61.60	2.0%
Total Cyanide	01/26/06	mg/kg	2.48	2.65 3.55	19.9%

MS/MSD RESULTS-CONVENTIONALS
IZ29-Friedman & Bruya

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 01/30/06

Project: H-106
Event: 601188
Date Sampled: 01/23/06
Date Received: 01/25/06

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: IZ29A Client ID: TT-1						
Total Cyanide	01/26/06	mg/kg	2.48	7.32	6.60	73.3%

I229

SAMPLE CHAIN OF CUSTODY AMB 1c-No

Page # 1 of 1

Send Report To Michael Erdahl
Company Friedman and Bruya, Inc.
Address 3012 16th Ave W
City, State, ZIP Seattle, WA 98119
Phone # (206) 285-8282 Fax # (206) 283-5044

SAMPLERS *(signature)*

PROJECT NAME/NO. 601188

PO # H106

REMARKS
Please Fax Results

TURNAROUND TIME
☐ Standard (2 Weeks)
☒ RUSH Due 1/30/06 3-day
Rush charges authorized by: MS

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: O&G w/o SG	O&G w/m SG	Total Hg	Dissolved Hg	EPH	VPH	Nitrate	Sulfate	Cyanide			Notes
TT-1		1/23/06	13:00	S	1			✓						✓			

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	1/25/06	11:50
Received by:		Brian Keller	ARI	1/25/06	1540
Relinquished by:					
Received by:					

FRIEDMAN & BRUYA, INC.
ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

February 8, 2006

Dan Matthews, Project Manager
Geologica
594 Howard St., Suite 400
SanFrancisco, CA 94105

Dear Mr. Matthews:

Included are the results from the additional testing of material submitted on January 23, 2006 from the Qualex-Kent, F&BI 601188 project. There are 2 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
NAA02R8R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/06
Date Received: 01/23/06
Project: Qualex-Kent, F&BI 601188
Date Extracted: 02/02/06
Date Analyzed: 02/02/06

RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TCLP METALS IN ACCORDANCE WITH 40 CFR PART 261

Results Reported as mg/L (ppm)

Sample ID Laboratory ID	Cr	Pb	Ag
TT-1 601188-01	<0.5	<0.5	<0.5
Method Blank	<0.5	<0.5	<0.5
TCLP Limits	*5.0*	*5.0*	*5.0*

Cr Chromium
Pb Lead
Ag Silver

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/08/06
Date Received: 01/23/06
Project: Qualex-Kent, F&BI 601188

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TCLP METALS IN ACCORDANCE WITH 40 CFR PART 261

Laboratory Code: 601259-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	mg/L (ppm)	<0.5	<0.5	nm	0-20
Silver	mg/L (ppm)	<0.1	<0.1	nm	0-20
Lead	mg/L (ppm)	<0.5	<0.5	nm	0-20

Laboratory Code: 601259-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	Acceptance Criteria
Chromium	mg/L (ppm)	2	<0.5	122	50-150
Silver	mg/L (ppm)	0.5	<0.1	75	50-150
Lead	mg/L (ppm)	1	<0.5	88	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	Acceptance Criteria
Chromium	mg/L (ppm)	2	71	70-130
Silver	mg/L (ppm)	0.5	74	70-130
Lead	mg/L (ppm)	1	80	70-130

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

601188 #8 01-23-06

ME 01-23-06 GT

Del Mar Analytical

A TEST AMERICA COMPANY

17461 Derian Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

CHAIN OF CUSTODY FORM

Page 1 of 1

Client Name/Address:	Project/PO Number:
Qualex - 22149 72nd Ave S Kent, WA	Qualex - Kent
Project Manager: Dan Mathews	**Phone Number:** 415-597-7885
Sampler:	**Fax Number:**

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required: TPH gas, diesel, motor oil	VOCs 8260	RCRA 8 metals total Cr and Pb	TCLP Cr, Ag, Pb	Special Instructions
TT-1	Soil	glass	2	1-23-06	13:00	—	X	X	X	X	Hold pending client direction. Dan M 1/25/06 MS Dan M 1/26

Relinquished By:	Date/Time:	Received By:	Date/Time:	Turnaround Time: (Check) WILL CALL
Daniel Mathews	1-23-06 13:30		1/23/06 13:31	same day ____ 72 hours ____
Relinquished By:	Date/Time:	Received By:	Date/Time:	24 hours ____ 5 days ____
				48 hours ____ normal ____
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:	Sample Integrity: (Check)
				intact ____ on ice ____

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Trap Tank Sump Sediment Sample Results

FRIEDMAN & BRUYA, INC.
ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

February 13, 2006

Dan Matthews, Project Manager
Geologica
594 Howard St., Suite 400
SanFrancisco, CA 94105

Dear Mr. Matthews:

Included are the results from the testing of material submitted on February 7, 2006 from the Qualex Kent, F&BI 602058 project. There are 17 pages included in this report. The samples were sent to AMTEST for cyanide and mercury analyses. Review of the enclosed report indicates that all quality assurance was acceptable.

Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
NAA0213R.DOC

FRIEDMAN & BRUYA, INC.
ENVIRONMENTAL CHEMISTS

Date of Report: 02/13/06
Date Received: 02/07/06
Project: Qualex Kent, F&BI 602058
Date Extracted: 02/08/06
Date Analyzed: 02/08/06

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Results Reported on a Dry Weight Basis
Results Reported as µg/g (ppm)

Sample ID Laboratory ID	Gasoline Range	Surrogate (% Recovery) (Limit 66-150)
Stock-1 602058-05	<2	80
Method Blank	<2	80

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/13/06
Date Received: 02/07/06
Project: Qualex Kent, F&BI 602058
Date Extracted: 02/08/06
Date Analyzed: 02/08/06

RESULTS FROM THE ANALYSIS OF THE SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported on a Dry Weight Basis
Results Reported as µg/g (ppm)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 67-127)
N-Wall 602058-01	<50	<250	100
S-Wall 602058-02	<50	<250	100
E-Wall 602058-03	<50	<250	105
W-Wall 602058-04	<50	<250	99
Stock-1 602058-05	<50	<250	99
Bottom 602058-06	<50	<250	104
Method Blank	<50	<250	102

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	N-Wall	Client:	Geologica
Date Received:	02/07/06	Project:	Qualex Kent, F&BI 602058
Date Extracted:	02/08/06	Lab ID:	602058-01
Date Analyzed:	02/08/06	Data File:	602058-01.050
Matrix:	Soil	Instrument:	ICPMS1
Units:	ug/g (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Lithium	99	60	125
Germanium	105	60	125
Indium	97	60	125
Bismuth	93	60	125

Analyte:	Concentration ug/g (ppm)
Chromium	11.7
Arsenic	2.39
Selenium	<1
Silver	3.91
Lead	2.63

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	S-Wall	Client:	Geologica
Date Received:	02/07/06	Project:	Qualex Kent, F&BI 602058
Date Extracted:	02/08/06	Lab ID:	602058-02
Date Analyzed:	02/08/06	Data File:	602058-02.051
Matrix:	Soil	Instrument:	ICPMS1
Units:	ug/g (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Lithium	99	60	125
Germanium	108	60	125
Indium	98	60	125
Bismuth	93	60	125

Analyte:	Concentration ug/g (ppm)
Chromium	10.8
Arsenic	1.93
Selenium	<1
Silver	1.85
Lead	2.93

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	E-Wall	Client:	Geologica
Date Received:	02/07/06	Project:	Qualex Kent, F&BI 602058
Date Extracted:	02/08/06	Lab ID:	602058-03
Date Analyzed:	02/08/06	Data File:	602058-03.052
Matrix:	Soil	Instrument:	ICPMS1
Units:	ug/g (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Lithium	95	60	125
Germanium	106	60	125
Indium	97	60	125
Bismuth	93	60	125

Analyte:	Concentration ug/g (ppm)
Chromium	11.1
Arsenic	1.67
Selenium	<1
Silver	<1
Lead	2.28

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	W-Wall	Client:	Geologica
Date Received:	02/07/06	Project:	Qualex Kent, F&BI 602058
Date Extracted:	02/08/06	Lab ID:	602058-04
Date Analyzed:	02/08/06	Data File:	602058-04.053
Matrix:	Soil	Instrument:	ICPMS1
Units:	ug/g (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Lithium	95	60	125
Germanium	106	60	125
Indium	96	60	125
Bismuth	92	60	125

Analyte:	Concentration ug/g (ppm)
Chromium	10.6
Arsenic	1.55
Selenium	<1
Silver	<1
Lead	1.89

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Stock-1	Client:	Geologica
Date Received:	02/07/06	Project:	Qualex Kent, F&BI 602058
Date Extracted:	02/08/06	Lab ID:	602058-05
Date Analyzed:	02/08/06	Data File:	602058-05.054
Matrix:	Soil	Instrument:	ICPMS1
Units:	ug/g (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Lithium	96	60	125
Germanium	103	60	125
Indium	95	60	125
Holmium	105	60	125
Bismuth	92	60	125

Analyte:	Concentration ug/g (ppm)
Chromium	11.4
Arsenic	2.32
Selenium	<1
Silver	43.2
Cadmium	<1
Barium	40.9
Lead	3.36

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Bottom	Client:	Geologica
Date Received:	02/07/06	Project:	Qualex Kent, F&BI 602058
Date Extracted:	02/08/06	Lab ID:	602058-06
Date Analyzed:	02/08/06	Data File:	602058-06.055
Matrix:	Soil	Instrument:	ICPMS1
Units:	ug/g (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Lithium	96	60	125
Germanium	105	60	125
Indium	96	60	125
Bismuth	91	60	125

Analyte:	Concentration ug/g (ppm)
Chromium	10.1
Arsenic	2.68
Selenium	<1
Silver	2.41
Lead	2.95

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Geologica
Date Received:	NA	Project:	Qualex Kent, F&BI 602058
Date Extracted:	02/08/06	Lab ID:	I6-145 mb
Date Analyzed:	02/08/06	Data File:	I6-145 mb.033
Matrix:	Soil	Instrument:	ICPMS1
Units:	ug/g (ppm)	Operator:	btb

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Lithium	91	60	125
Germanium	98	60	125
Indium	99	60	125
Holmium	100	60	125
Bismuth	97	60	125

Analyte:	Concentration ug/g (ppm)
Chromium	<1
Arsenic	<1
Selenium	<1
Silver	<1
Cadmium	<1
Barium	<1
Lead	<1

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Stock-1	Client:	Geologica
Date Received:	02/07/06	Project:	Qualex Kent, F&BI 602058
Date Extracted:	02/07/06	Lab ID:	602058-05
Date Analyzed:	02/07/06	Data File:	020712.D
Matrix:	soil	Instrument:	GCMS4
Units:	ug/g (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	85	56	118
1,2-Dichloroethane-d4	91	61	115
Toluene-d8	92	51	121
4-Bromofluorobenzene	102	32	146

Compounds:	Concentration ug/g (ppm)	Compounds:	Concentration ug/g (ppm)
Dichlorodifluoromethane	<0.05	Tetrachloroethene	<0.05
Chloromethane	<0.05	Dibromochloromethane	<0.05
Vinyl chloride	<0.05	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.05	Chlorobenzene	<0.05
Chloroethane	<0.05	Ethylbenzene	<0.05
Trichlorofluoromethane	<0.05	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<0.5	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.05	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

FRIEDMAN & BRUYA, INC.
ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B

Client Sample ID:	Method Blank	Client:	Geologica
Date Received:	Not Applicable	Project:	Qualex Kent, F&BI 602058
Date Extracted:	02/07/06	Lab ID:	06-259 mb
Date Analyzed:	02/07/06	Data File:	020706.D
Matrix:	soil	Instrument:	GCMS4
Units:	ug/g (ppm)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	90	56	118
1,2-Dichloroethane-d4	93	61	115
Toluene-d8	96	51	121
4-Bromofluorobenzene	118	32	146

Compounds:	Concentration ug/g (ppm)	Compounds:	Concentration ug/g (ppm)
Dichlorodifluoromethane	<0.05	Tetrachloroethene	<0.05
Chloromethane	<0.05	Dibromochloromethane	<0.05
Vinyl chloride	<0.05	1,2-Dibromoethane (EDB)	<0.05
Bromomethane	<0.05	Chlorobenzene	<0.05
Chloroethane	<0.05	Ethylbenzene	<0.05
Trichlorofluoromethane	<0.05	1,1,1,2-Tetrachloroethane	<0.05
Acetone	<0.5	m,p-Xylene	<0.1
1,1-Dichloroethene	<0.05	o-Xylene	<0.05
Methylene chloride	<0.5	Styrene	<0.05
trans-1,2-Dichloroethene	<0.05	Isopropylbenzene	<0.05
1,1-Dichloroethane	<0.05	Bromoform	<0.05
2,2-Dichloropropane	<0.05	n-Propylbenzene	<0.05
cis-1,2-Dichloroethene	<0.05	Bromobenzene	<0.05
Chloroform	<0.05	1,3,5-Trimethylbenzene	<0.05
2-Butanone (MEK)	<0.5	1,1,2,2-Tetrachloroethane	<0.05
1,2-Dichloroethane (EDC)	<0.05	1,2,3-Trichloropropane	<0.05
1,1,1-Trichloroethane	<0.05	2-Chlorotoluene	<0.05
1,1-Dichloropropene	<0.05	4-Chlorotoluene	<0.05
Carbon Tetrachloride	<0.05	tert-Butylbenzene	<0.05
Benzene	<0.03	1,2,4-Trimethylbenzene	<0.05
Trichloroethene	<0.03	sec-Butylbenzene	<0.05
1,2-Dichloropropane	<0.05	p-Isopropyltoluene	<0.05
Bromodichloromethane	<0.05	1,3-Dichlorobenzene	<0.05
Dibromomethane	<0.05	1,4-Dichlorobenzene	<0.05
4-Methyl-2-pentanone	<0.5	1,2-Dichlorobenzene	<0.05
cis-1,3-Dichloropropene	<0.05	1,2-Dibromo-3-chloropropane	<0.05
Toluene	<0.05	1,2,4-Trichlorobenzene	<0.05
trans-1,3-Dichloropropene	<0.05	Hexachlorobutadiene	<0.05
1,1,2-Trichloroethane	<0.05	Naphthalene	<0.05
2-Hexanone	<0.5	1,2,3-Trichlorobenzene	<0.05
1,3-Dichloropropane	<0.05		

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/13/06
Date Received: 02/07/06
Project: Qualex Kent, F&BI 602058

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING METHOD NWTPH-Gx

Laboratory Code: 601251-04 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Gasoline	µg/g (ppm)	<2	<2	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Gasoline	µg/g (ppm)	20	58	58-137

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 02/13/06
Date Received: 02/07/06
Project: Qualex Kent, F&BI 602058

QUALITY ASSURANCE RESULTS FROM THE ANALYSIS OF SOIL SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: 602058-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	µg/g (ppm)	5,000	<50	105	92	71-137	13

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Diesel Extended	µg/g (ppm)	5,000	89	70-129

Date of Report: 02/13/06
Date Received: 02/07/06
Project: Qualex Kent, F&BI 602058

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR METALS BY EPA METHOD 200.8

Laboratory Code: 602056-04 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	ug/g (ppm)	8.54	8.47	1	0-20
Arsenic	ug/g (ppm)	1.47	1.33	10	0-20
Selenium	ug/g (ppm)	<1	<1	nm	0-20
Silver	ug/g (ppm)	<1	<1	nm	0-20
Cadmium	ug/g (ppm)	<1	<1	nm	0-20
Barium	ug/g (ppm)	17.3	17.1	1	0-20
Lead	ug/g (ppm)	1.09	1.12	3	0-20

Laboratory Code: 602056-04 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	% Recovery MS	Acceptance Criteria
Chromium	ug/g (ppm)	50	8.54	93	50-150
Arsenic	ug/g (ppm)	10	1.47	94	50-150
Selenium	ug/g (ppm)	5	<1	98	50-150
Silver	ug/g (ppm)	10	<1	85	50-150
Cadmium	ug/g (ppm)	10	<1	103	50-150
Barium	ug/g (ppm)	50	17.3	108	50-150
Lead	ug/g (ppm)	20	1.09	97	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	% Recovery LCS	Acceptance Criteria
Chromium	ug/g (ppm)	50	96	70-130
Arsenic	ug/g (ppm)	10	111	70-130
Selenium	ug/g (ppm)	5	101	70-130
Silver	ug/g (ppm)	10	86	70-130
Cadmium	ug/g (ppm)	10	106	70-130
Barium	ug/g (ppm)	50	116	70-130
Lead	ug/g (ppm)	20	98	70-130

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.
ENVIRONMENTAL CHEMISTS

Date of Report: 02/13/06
Date Received: 02/07/06
Project: Qualex Kent, F&BI 602058

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 602033-02 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
1,1-Dichloroethene	µg/g (ppm)	<0.05	<0.05	nm
Methylene chloride	µg/g (ppm)	<0.5	<0.05	nm
trans-1,2-Dichloroethene	µg/g (ppm)	<0.05	<0.05	nm
cis-1,2-Dichloroethene	µg/g (ppm)	<0.05	<0.05	nm
Benzene	µg/g (ppm)	<0.03	<0.03	nm
Trichloroethene	µg/g (ppm)	<0.03	<0.03	nm
Bromodichloromethane	µg/g (ppm)	<0.05	<0.05	nm
Toluene	µg/g (ppm)	<0.05	<0.05	nm
Dibromochloromethane	µg/g (ppm)	<0.05	<0.05	nm
Chlorobenzene	µg/g (ppm)	<0.05	<0.05	nm
Ethylbenzene	µg/g (ppm)	<0.05	<0.05	nm
m,p-Xylene	µg/g (ppm)	<0.1	<0.1	nm
Styrene	µg/g (ppm)	<0.05	<0.05	nm
Bromobenzene	µg/g (ppm)	<0.05	<0.05	nm
1,3,5-Trimethylbenzene	µg/g (ppm)	<0.05	<0.05	nm
1,2,4-Trimethylbenzene	µg/g (ppm)	<0.05	<0.05	nm
p-Isopropyltoluene	µg/g (ppm)	<0.05	<0.05	nm
1,2,4-Trichlorobenzene	µg/g (ppm)	<0.05	<0.05	nm
Naphthalene	µg/g (ppm)	<0.05	<0.05	nm
1,2,3-Trichlorobenzene	µg/g (ppm)	<0.05	<0.05	nm

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

Date of Report: 02/13/06
Date Received: 02/07/06
Project: Qualex Kent, F&BI 602058

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: 602033-02 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
1,1-Dichloroethene	µg/g (ppm)	5	<0.05	101	50-150
Methylene chloride	µg/g (ppm)	2.5	<0.5	92	50-150
trans-1,2-Dichloroethene	µg/g (ppm)	2.5	<0.05	105	50-150
cis-1,2-Dichloroethene	µg/g (ppm)	2.5	<0.05	102	50-150
Benzene	µg/g (ppm)	5	<0.03	90	42-134
Trichloroethene	µg/g (ppm)	2.5	<0.03	93	50-150
Bromodichloromethane	µg/g (ppm)	2.5	<0.05	103	50-150
Toluene	µg/g (ppm)	5	<0.05	92	36-143
Dibromochloromethane	µg/g (ppm)	2.5	<0.05	108	50-150
Chlorobenzene	µg/g (ppm)	2.5	<0.05	97	50-150
Ethylbenzene	µg/g (ppm)	2.5	<0.05	96	39-141
m,p-Xylene	µg/g (ppm)	2.5	<0.1	96	37-143
Styrene	µg/g (ppm)	2.5	<0.05	98	50-150
Bromobenzene	µg/g (ppm)	2.5	<0.05	91	50-150
1,3,5-Trimethylbenzene	µg/g (ppm)	2.5	<0.05	91	50-150
1,2,4-Trimethylbenzene	µg/g (ppm)	2.5	<0.05	98	50-150
p-Isopropyltoluene	µg/g (ppm)	2.5	<0.05	97	50-150
1,2,4-Trichlorobenzene	µg/g (ppm)	2.5	<0.05	85	50-150
Naphthalene	µg/g (ppm)	2.5	<0.05	110	50-150
1,2,3-Trichlorobenzene	µg/g (ppm)	2.5	<0.05	87	50-150

FRIEDMAN & BRUYA, INC.
ENVIRONMENTAL CHEMISTS

Date of Report: 02/13/06
Date Received: 02/07/06
Project: Qualex Kent, F&BI 602058

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR VOLATILES BY EPA METHOD 8260B

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
1,1-Dichloroethene	µg/g (ppm)	5	100	42-136
Methylene chloride	µg/g (ppm)	2.5	114	70-130
trans-1,2-Dichloroethene	µg/g (ppm)	2.5	108	70-130
cis-1,2-Dichloroethene	µg/g (ppm)	2.5	111	70-130
Benzene	µg/g (ppm)	5	96	68-127
Trichloroethene	µg/g (ppm)	2.5	98	80-123
Bromodichloromethane	µg/g (ppm)	2.5	108	70-130
Toluene	µg/g (ppm)	5	86	59-129
Dibromochloromethane	µg/g (ppm)	2.5	104	70-130
Chlorobenzene	µg/g (ppm)	2.5	92	77-120
Ethylbenzene	µg/g (ppm)	2.5	91	58-118
m,p-Xylene	µg/g (ppm)	2.5	93	62-112
Styrene	µg/g (ppm)	2.5	94	70-130
Bromobenzene	µg/g (ppm)	2.5	85	70-130
1,3,5-Trimethylbenzene	µg/g (ppm)	2.5	84	70-130
1,2,4-Trimethylbenzene	µg/g (ppm)	2.5	90	70-130
p-Isopropyltoluene	µg/g (ppm)	2.5	89	70-130
1,2,4-Trichlorobenzene	µg/g (ppm)	2.5	77	70-130
Naphthalene	µg/g (ppm)	2.5	108	70-130
1,2,3-Trichlorobenzene	µg/g (ppm)	2.5	82	70-130

Note: The calibration verification result for tert-butylbenzene exceeded 15% deviation. The average deviation for all compounds was less than 15%, therefore the initial calibration is considered valid.

AMTEST LABORATORIES

RECEIVED
FEB 1 0 2006

ANALYSIS REPORT

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Attention:

Date Received: 2/ 8/06
Date Reported: 2/ 8/06

Project Name: 602058
Project #: 602058
PO Number: H-132

SOIL SAMPLES

PARAMETER	Units	Result
06-A001423		
Client ID: N-WALL		
Date Sampled: 2/ 7/06,		
Total Cyanide	ug/g	0.4
06-A001424		
Client ID: S-WALL		
Date Sampled: 2/ 7/06,		
Total Cyanide	ug/g	0.6
06-A001425		
Client ID: E-WALL		
Date Sampled: 2/ 7/06,		
Total Cyanide	ug/g	0.3
06-A001426		
Client ID: W-WALL		
Date Sampled: 2/ 7/06,		
Total Cyanide	ug/g	0.1
06-A001427		
Client ID: BOTTOM		
Date Sampled: 2/ 7/06,		
Total Cyanide	ug/g	0.2
06-A001428		
Client ID: STOCK		
Date Sampled: 2/ 7/06,		
Total Cyanide	ug/g	0.2
Mercury	ug/g	0.049

Reported by: Kathy Fugiel

AMTEST LABORATORIES

METHODOLOGY REPORT

AM TEST ID 06-A001428
CLIENT ID STOCK

MATRIX : Soil
SAMPLED: 2/ 7/06

ANALYTE	UNITS	METHOD NUMBER	METHOD REFERENCE	DETECTION LIMIT *	DATE OF ANALYSIS
Total Cyanide	ug/g	9010/9012	SW-846		2/ 8/06
Mercury	ug/g	7471A	SW-846	0.01	2/ 8/06

SM = Standard Methods for the Examination of Water and Wastewater 18th ed.
SW-846 = Test Methods for Evaluating Solid Waste Physical/Chemical Methods
EPA = Methods for Chemical Analysis of Water and Wastes 1983
* Instrument Detection Limit

AMTEST LABORATORIES

Quality Control Summary

QC for 649214

06-A001423
06-A001424
06-A001425
06-A001426
06-A001427
06-A001428

DUPLICATES		sample value	duplicate value	RPD %
06-A001423 DUP: Total Cyanide	ug/g	0.4	0.3	29.
06-A001428 DUP: Mercury	ug/g	0.0491	0.0478	2.7

MATRIX SPIKES		sample value	sample+spk value	spike value	Recovery %
06-A001428 SPIKE: Total Cyanide	ug/g	0.2	3.7	5.5	63.6

STANDARD REFERENCE MATERIALS			measured value	true value	Recovery %
Known	SRM: Total Cyanide	ug/g	1.0	0.8	125.
Known	SRM: Mercury	ug/g	1.02	1.20	85.0

BLANKS		Result
BLANK: Total Cyanide	ug/g	< 0.1
BLANK: Mercury	ug/g	< 0.01

SAMPLE CHAIN OF CUSTODY

Page # 1 of 1

Send Report To Michael Erdahl
Company Friedman and Bruya, Inc.
Address 3012 16th Ave W
City, State, ZIP Seattle, WA 98119
Phone # (206) 285-8282 Fax # (206) 283-5044

SAMPLERS (signature)
PROJECT NAME/NO. 602058
PO# H-132
REMARKS Please Fax Results Dw 2/8/06 Dan Mathews Fax to (415) 597-7300

TURNAROUND TIME
- Standard (2 Weeks)
- RUSH 24hr
Rush charges authorized by:

SAMPLE DISPOSAL
- Dispose after 30 days
- Return samples
- Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: O&G w/o SG	O&G w/sg	Total Hg	Dissolved Hg	BTEX	VPH	Nitrate	Sulfate			Notes
N-Wall	14233	1/7/06		S	1									Jennifer		Hold - analyze
S-Wall	24				1											Hold
E-Wall	25															Hold
W-Wall	26															Hold
Bottom	27							✓								Hold
Stack	28	↓		↓	↓			✓								↓

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Michael Erdahl	Friedman & Bruya	1/7/06	
Received by:		Shannon Brockel	AMTEST		
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

602058

SAMPLE CHAIN OF CUSTODY ME 02/07/06

CTL/VSI

Page # 1 of 1

Send Report To: Dan Matthews
Company: Geologica Inc.
Address: 594 Howard St. Suite 400
City, State, ZIP: San Francisco CA 94105
Phone #: 415-597 7883 Fax #: 415-597-7880

SAMPLERS (signature): Ryan J. MacKay
PROJECT NAME/NO.: Dunlap Kent
PO #:
REMARKS:

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☒ RUSH 24 hour
- Rush charges authorized by:

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date	Time	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	[redacted]	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	As, Ag, Se, Cr	TPH-motor oil	RCRA 8	TPH-Gasoline	CN	Notes
N-WALL	01 A-B	2/7/2006	1359	Soil	2	X						X	X			⊗	⊗ pvBm 2/7/06
S-WALL	02 A-B	"	1402	"	2	X						X	X			⊗	
E-Wall	03 A-B	"	1405	"	2	X						X	X			⊗	
W-Wall	04 A-B	"	1408	"	2	X						X	X			⊗	
Stock-1	05 A-C	↓	1350	↓	3	X			X				X	X	X	⊗	
Bottom	06 A-B	2/7/06	14:12	Soil	2	⊗						⊗	⊗			⊗	WP 2-7-06 added in Lab

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Ryan J. MacKay	GFS/Geologica	2/7/06	1530
Received by:	Rhan Bhan	FeBI	2/7/06	15:30
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
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e-mail: fbi@isomedia.com

April 10, 2008

Dan Matthews, Project Manager
Geologica Inc.
564 Howard St 1st Floor
San Francisco, CA 94105

Dear Mr. Matthews:

Included are the results from the testing of material submitted on March 27, 2008 from the Qualex Kent, WA, F&BI 803301 project. There are 11 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
NAA0410R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on March 27, 2008 by Friedman & Bruya, Inc. from the Geologica Inc. Qualex Kent, WA, F&BI 803301 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Geologica Inc.
803301-01	MW-1
803301-02	MW-2
803301-03	MW-3
803301-04	MW-4
803301-05	MW-5

The samples were sent to Aquatic Research for nitrate, alkalinity, and sulfate analyses. The report is enclosed. All other quality control requirements were acceptable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 04/10/08
Date Received: 03/27/08
Project: Qualex Kent, WA, F&BI 803301
Date Extracted: 03/31/08
Date Analyzed: 04/01/08

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 51-132)
MW-1 803301-01	83	<250	83
MW-2 803301-02	86	<250	85
MW-3 803301-03	<50	<250	84
MW-4 803301-04	<50	<250	77
MW-5 803301-05	<50	<250	78
Method Blank	<50	<250	78

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-1	Client:	Geologica Inc.
Date Received:	03/27/08	Project:	Qualex Kent, WA, F&BI 803301
Date Extracted:	04/01/08	Lab ID:	803301-01
Date Analyzed:	04/02/08	Data File:	803301-01.023
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	90	60	125
Indium	77	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	41.0
Selenium	116
Manganese	1,070
Iron (screen)	20,400

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-2	Client:	Geologica Inc.
Date Received:	03/27/08	Project:	Qualex Kent, WA, F&BI 803301
Date Extracted:	04/01/08	Lab ID:	803301-02
Date Analyzed:	04/02/08	Data File:	803301-02.024
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	91	60	125
Indium	74	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	15.9
Selenium	9.13
Manganese	1,570
Iron (screen)	22,800

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-3	Client:	Geologica Inc.
Date Received:	03/27/08	Project:	Qualex Kent, WA, F&BI 803301
Date Extracted:	04/01/08	Lab ID:	803301-03
Date Analyzed:	04/02/08	Data File:	803301-03.025
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	74	60	125
Indium	74	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	15.1
Selenium	2.71
Manganese	2,940
Iron (screen)	8,870

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-4	Client:	Geologica Inc.
Date Received:	03/27/08	Project:	Qualex Kent, WA, F&BI 803301
Date Extracted:	04/01/08	Lab ID:	803301-04
Date Analyzed:	04/02/08	Data File:	803301-04.026
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	72	60	125
Indium	71	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	4.57
Selenium	4.37
Manganese	3,040
Iron (screen)	12,100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-5	Client:	Geologica Inc.
Date Received:	03/27/08	Project:	Qualex Kent, WA, F&BI 803301
Date Extracted:	04/01/08	Lab ID:	803301-05
Date Analyzed:	04/02/08	Data File:	803301-05.027
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	80	60	125
Indium	70	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	3.82
Selenium	3.62
Manganese	944
Iron (screen)	16,900

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Geologica Inc.
Date Received:	NA	Project:	Qualex Kent, WA, F&BI 803301
Date Extracted:	04/01/08	Lab ID:	I8-111 mb
Date Analyzed:	04/02/08	Data File:	I8-111 mb.010
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	77	60	125
Indium	87	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Selenium	<1
Manganese	<1
Iron (screen)	<250

Date of Report: 04/10/08
Date Received: 03/27/08
Project: Qualex Kent, WA, F&BI 803301

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	105	101	67-141	4

Date of Report: 04/10/08
Date Received: 03/27/08
Project: Qualex Kent, WA, F&BI 803301

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 200.8

Laboratory Code: 803265-01 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Arsenic	ug/L (ppb)	3.01	2.94	2	0-20
Selenium	ug/L (ppb)	2.74	2.58	6	0-20
Manganese	ug/L (ppb)	654	662	1	0-20

Laboratory Code: 803265-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	3.01	113 b	50-150
Selenium	ug/L (ppb)	5	2.74	123 b	50-150
Manganese	ug/L (ppb)	20	654	171 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	80	70-130
Selenium	ug/L (ppb)	5	84	70-130
Manganese	ug/L (ppb)	20	102	70-130

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probablility.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

AQUATIC RESEARCH INCORPORATED

LABORATORY & CONSULTING SERVICES
3927 AURORA AVENUE NORTH, SEATTLE, WA 98103
PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	**FBI002-27**	**PAGE 1**	
REPORT DATE:	**04/10/08**		
DATE SAMPLED:	**03/27/08**	**DATE RECEIVED:**	**03/28/08**

FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM FRIEDMAN & BRUYA, INC. / PROJECT NO. 803301

CASE NARRATIVE

Five water samples were received by the laboratory in good condition. Analysis was performed according to the chain of custody received with the samples. No difficulties were encountered in the preparation or analysis of these sample. Sample data follows while QA/QC data is contained on the next page.

SAMPLE DATA

SAMPLE ID	ALKALINITY (mgCaCO3/l)	SULFATE (mg/l)	NITRATE (mg/l)	NITRITE (mg/l)
MW-1	531	<1.00	0.027	0.004
MW-2	512	<1.00	0.044	<0.002
MW-3	380	5.12	0.017	<0.002
MW-4	467	<1.00	0.019	<0.002
MW-5	389	<1.00	0.043	<0.002

AQUATIC RESEARCH INCORPORATED

LABORATORY & CONSULTING SERVICES
3927 AURORA AVENUE NORTH, SEATTLE, WA 98103
PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER: FBI002-27 **PAGE 2**
REPORT DATE: 04/10/08
DATE SAMPLED: 03/27/08 **DATE RECEIVED:** 03/28/08
FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM FRIEDMAN & BRUYA, INC. / PROJECT NO. 803301

QA/QC DATA

QC PARAMETER	ALKALINITY (mgCaCO3/l)	SULFATE (mg/l)	NITRATE (mg/l)	NITRITE (mg/l)
METHOD	EPA 310.1	EPA 415.2	SM184500N03F	EPA354.1
DATE ANALYZED	04/02/08	04/08/08	03/28/08	03/28/08
DETECTION LIMIT	1.00	1.00	0.010	0.002
DUPLICATE				
SAMPLE ID	MW-5	MW-5	MW-1	MW-5
ORIGINAL	389	<1.00	0.027	<0.002
DUPLICATE	388	<1.00	0.030	<0.002
RPD	0.26%	NC	8.85%	NC
SPIKE SAMPLE				
SAMPLE ID		MW-5	MW-1	MW-5
ORIGINAL		<1.00	0.027	<0.002
SPIKED SAMPLE		9.41	0.225	0.040
SPIKE ADDED		10.0	0.200	0.040
% RECOVERY	NA	94.11%	98.80%	100.00%
QC CHECK				
FOUND	99.4	9.32	0.423	0.040
TRUE	100	10.0	0.408	0.040
% RECOVERY	99.40%	93.17%	103.66%	100.00%
BLANK	NA	<1.00	<0.010	<0.002

RPD = RELATIVE PERCENT DIFFERENCE.
NA = NOT APPLICABLE OR NOT AVAILABLE.
NC = NOT CALCULABLE DUE TO ONE OR MORE VALUES BEING BELOW THE DETECTION LIMIT.
OR = RECOVERY NOT CALCULABLE DUE TO SPIKE SAMPLE OUT OF RANGE OR SPIKE TO LOW RELATIVE TOO SAMPLE CONCENTRATION.

SUBMITTED BY:

Steven Lazoff
Laboratory Director

803301

SAMPLE CHAIN OF CUSTODY ME03-27-08 BOS/BIY

Page # 1 of 1

Send Report To Dan Matthews
Company Geologica Inc.
Address 564 Howard st 1st Floor
City, State, ZIP San Francisco, CA 94105
Phone # 415.597.7885 Fax # 415.597.7880

SAMPLERS (signature) Greg Romero
PROJECT NAME/NO. Qualex Kent, WA
PO #
REMARKS

TURNAROUND TIME
☒ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	ANALYSES REQUESTED: TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	Arsenic, Selenium, iron & Manganese by ICP/MS EPA 200.8	nitrate as N	sulfate as SO4 by EPA 300	total alkalinity by EPA 310.1	diesel & motor oil by NWTPH-dx	Notes
MW-1	01 A-D	3/27/08	15:05	water	4							X		X	X	X	All poly's
MW-2	02 A-D		11:55		4							X		X	X	X	were field filtered
MW-3	03 A-D		11:10		4							X		X	X	X	
MW-4	04 A-D		9:30		4							X		X	X	X	
MW-5	05 A-D		10:20		4							X		X	X	X	

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: Greg Romero	Greg Romero	geologica Inc	3/27/08	16:38
Received by:	Milana Babadzhanova	Friedman & Bruya	3/27/8	16:38
Relinquished by:				
Received by:		Samples received at 6 °C		

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FORMS\COC\COC.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

April 8, 2009

Greg Romero, Project Manager
Geologica Inc.
564 Howard St 1st Floor
San Francisco, CA 94105

Dear Mr. Romero:

Included are the results from the testing of material submitted on March 26, 2009 from the NPEC01:008 Kent, WA, F&BI 903249 project. There are 11 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
NAA0408R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on March 26, 2009 by Friedman & Bruya, Inc. from the Geologica Inc. NPEC01:008 Kent, WA, F&BI 903249 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Geologica Inc.
903249-01	MW-1
903249-02	MW-2
903249-03	MW-3
903249-04	MW-4
903249-05	MW-5

The samples were sent to Aquatic Research for nitrate, sulfate, and alkalinity analyses. Review of the enclosed report indicates that all quality assurance was acceptable.

All quality control requirements were acceptable.

Date of Report: 04/08/09
Date Received: 03/26/09
Project: NPEC01:008 Kent, WA, F&BI 903249
Date Extracted: 03/27/09
Date Analyzed: 03/27/09

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL AND MOTOR OIL USING METHOD NWTPH-Dx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Motor Oil Range (C_{25}-C_{36})	Surrogate (% Recovery) (Limit 51-137)
MW-1 903249-01	110 x	<250	114
MW-2 903249-02	120 x	<250	116
MW-3 903249-03	<50	<250	111
MW-4 903249-04	56 x	<250	117
MW-5 903249-05	120 x	<250	96
Method Blank	<50	<250	107

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-1	Client:	Geologica Inc.
Date Received:	03/26/09	Project:	NPEC01:008 Kent, WA, F&BI 903249
Date Extracted:	03/31/09	Lab ID:	903249-01
Date Analyzed:	04/01/09	Data File:	903249-01.017
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	118	60	125
Indium	99	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	27.6
Selenium	63.2
Manganese	1,060
Iron (screen)	35,800

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-2	Client:	Geologica Inc.
Date Received:	03/26/09	Project:	NPEC01:008 Kent, WA, F&BI 903249
Date Extracted:	03/31/09	Lab ID:	903249-02
Date Analyzed:	04/01/09	Data File:	903249-02.019
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	119	60	125
Indium	93	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	33.3
Selenium	10.9
Manganese	1,750
Iron (screen)	46,000

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-3	Client:	Geologica Inc.
Date Received:	03/26/09	Project:	NPEC01:008 Kent, WA, F&BI 903249
Date Extracted:	03/31/09	Lab ID:	903249-03
Date Analyzed:	04/01/09	Data File:	903249-03.020
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	101	60	125
Indium	95	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	18.9
Selenium	1.91
Manganese	3,400
Iron (screen)	16,600

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-4	Client:	Geologica Inc.
Date Received:	03/26/09	Project:	NPEC01:008 Kent, WA, F&BI 903249
Date Extracted:	03/31/09	Lab ID:	903249-04
Date Analyzed:	04/01/09	Data File:	903249-04.021
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	106	60	125
Indium	92	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	22.8
Selenium	4.73
Manganese	2,290
Iron (screen)	31,700

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	MW-5	Client:	Geologica Inc.
Date Received:	03/26/09	Project:	NPEC01:008 Kent, WA, F&BI 903249
Date Extracted:	03/31/09	Lab ID:	903249-05
Date Analyzed:	04/01/09	Data File:	903249-05.022
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	109	60	125
Indium	94	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	5.93
Selenium	4.89
Manganese	1,270
Iron (screen)	34,300

Analysis For Dissolved Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Geologica Inc.
Date Received:	NA	Project:	NPEC01:008 Kent, WA, F&BI 903249
Date Extracted:	03/31/09	Lab ID:	I9-137 mb
Date Analyzed:	04/01/09	Data File:	I9-137 mb.008
Matrix:	Water	Instrument:	ICPMS1
Units:	ug/L (ppb)	Operator:	hr

Internal Standard:	% Recovery:	Lower Limit:	Upper Limit:
Germanium	97	60	125
Indium	100	60	125

Analyte:	Concentration ug/L (ppb)
Arsenic	<1
Selenium	<1
Manganese	<1
Iron (screen)	<250

Date of Report: 04/08/09
Date Received: 03/26/09
Project: NPEC01:008 Kent, WA, F&BI 903249

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL EXTENDED USING METHOD NWTPH-Dx

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	ug/L (ppb)	2,500	96	109	71-131	13

Date of Report: 04/08/09
Date Received: 03/26/09
Project: NPEC01:008 Kent, WA, F&BI 903249

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR DISSOLVED METALS USING EPA METHOD 200.8

Laboratory Code: 903182-05 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Arsenic	ug/L (ppb)	1.37	1.37	0	0-20
Selenium	ug/L (ppb)	<1	<1	nm	0-20
Manganese	ug/L (ppb)	1,480	1,460	1	0-20

Laboratory Code: 903182-05 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	1.37	106	50-150
Selenium	ug/L (ppb)	5	<1	110	50-150
Manganese	ug/L (ppb)	20	1,480	112 b	50-150

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	110	70-130
Selenium	ug/L (ppb)	5	115	70-130
Manganese	ug/L (ppb)	20	106	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

A1 – More than one compound of similar molecule structure was identified with equal probability.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for this range fell outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte indicated may be due to carryover from previous sample injections.

d - The sample was diluted. Detection limits may be raised due to dilution.

ds - The sample was diluted. Detection limits are raised due to dilution and surrogate recoveries may not be meaningful.

dv - Insufficient sample was available to achieve normal reporting limits and limits are raised accordingly.

fb - The analyte indicated was found in the method blank. The result should be considered an estimate.

fc – The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. The variability is attributed to sample inhomogeneity.

ht - The sample was extracted outside of holding time. Results should be considered estimates.

ip - Recovery fell outside of normal control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j – The result is below normal reporting limits. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The analyte result in the laboratory control sample is out of control limits. The reported concentration should be considered an estimate.

jr - The rpd result in laboratory control sample associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the compound indicated is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc – The sample was received in a container not approved by the method. The value reported should be considered an estimate.

pr – The sample was received with incorrect preservation. The value reported should be considered an estimate.

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration should be considered an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The pattern of peaks present is not indicative of diesel.

y - The pattern of peaks present is not indicative of motor oil.

AQUATIC RESEARCH INCORPORATED

LABORATORY & CONSULTING SERVICES
3927 AURORA AVENUE NORTH, SEATTLE, WA 98103
PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	**FBI004-09**		**PAGE 1**
REPORT DATE:	**04/03/09**		
DATE SAMPLED:	**03/26/09**	**DATE RECEIVED:**	**03/27/09**

FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM FRIEDMAN & BRUYA, INC. / PROJECT NO. 903249

CASE NARRATIVE

Five water samples were received by the laboratory in good condition. Analysis was performed according to the chain of custody received with the samples. No difficulties were encountered in the preparation or analysis of these samples. Sample data follows while QA/QC data is contained on the following page.

SAMPLE DATA

SAMPLE ID	SULFATE (mg/l)	NITRATE (mg/l)	NITRITE (mg/l)	ALKALINITY (mgCaCO3/l)
MW-1	<1.00	0.057	0.004	550
MW-2	<1.00	0.087	0.002	557
MW-3	7.58	0.031	0.002	409
MW-4	8.17	0.055	<0.002	438
MW-5	8.06	0.042	0.002	371

AQUATIC RESEARCH INCORPORATED

LABORATORY & CONSULTING SERVICES
3927 AURORA AVENUE NORTH, SEATTLE, WA 98103
PHONE: (206) 632-2715 FAX: (206) 632-2417

CASE FILE NUMBER:	**FBI004-09**		**PAGE 2**
REPORT DATE:	**04/03/09**		
DATE SAMPLED:	**03/26/09**	**DATE RECEIVED:**	**03/27/09**

FINAL REPORT, LABORATORY ANALYSIS OF SELECTED PARAMETERS ON WATER SAMPLES FROM FRIEDMAN & BRUYA, INC. / PROJECT NO. 903249

QA/QC DATA

QC PARAMETER	SULFATE (mg/l)	NITRATE (mg/l)	NITRITE (mg/l)	ALKALINITY (mgCaCO3/l)
METHOD	SM184500SO4E	SM184500N03F	EPA354.1	EPA 310.1
DATE ANALYZED	04/03/09	03/27/09	03/27/09	03/30/09
DETECTION LIMIT	1.00	0.010	0.002	1.00
DUPLICATE				
SAMPLE ID	MW-5	MW-5	MW-5	MW-5
ORIGINAL	8.06	0.042	0.002	371
DUPLICATE	7.72	0.038	0.002	369
RPD	4.30%	10.95%	0.00%	0.54%
SPIKE SAMPLE				
SAMPLE ID	MW-5	MW-5	MW-5	
ORIGINAL	8.06	0.042	0.002	
SPIKED SAMPLE	17.7	0.244	0.041	
SPIKE ADDED	10.0	0.200	0.040	
% RECOVERY	96.01%	100.70%	97.50%	NA
QC CHECK				
FOUND	9.15	0.406	0.039	98.5
TRUE	10.0	0.408	0.040	100
% RECOVERY	91.47%	99.39%	97.50%	98.50%
BLANK	<1.00	<0.010	<0.002	NA

RPD = RELATIVE PERCENT DIFFERENCE.
NA = NOT APPLICABLE OR NOT AVAILABLE.
NC = NOT CALCULABLE DUE TO ONE OR MORE VALUES BEING BELOW THE DETECTION LIMIT.
OR = RECOVERY NOT CALCULABLE DUE TO SPIKE SAMPLE OUT OF RANGE OR SPIKE TO LOW RELATIVE TOO SAMPLE CONCENTRATION.

SUBMITTED BY:

Steven Lazoff
Laboratory Director

903249

SAMPLE CHAIN OF CUSTODY

ME 03/26/09 V2/B03/AI

Page # 1 of 1

Send Report To Greg Romero
Company Geologica Inc
Address 564 Howard st.
City, State, ZIP San Francisco CA 94105
Phone # 415.597.7884 Fax # 415.597.7880

SAMPLERS (signature)

PROJECT NAME/NO. NPEC01:008 Kent, WA

PO #

REMARKS

TURNAROUND TIME
☑ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	TPH-diesel & MO Nwtph-dx	dissolved arsenic selenium, iron & manganese	Nitrate as N Sulfate as SO4	Total Alkalinity	30.1	Notes
MW-1	01 A-F	3/26/09	15:40	Water	6							X					
MW-2	02 A-F		14:05														
MW-3	03 A-F		13:20														
MW-4	04 A-F		11:15														
MW-5	05 A-F		12:10														

Samples received at 1 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Greg Romero	Geologica	3/26/09	5:55
Received by:	Yelena Aravkina	F&B, Inc.	3/26/09	5:55
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-24179-1
Client Project/Site: Qualex Kent

For:
Geologica Inc
#5 3rd Street
Suite 224
San Francisco, California 94103

Attn: Greg Romero

Authorized for release by:
2/3/2011 2:41 PM
Terri Torres
Project Manager II
terri.torres@testamericainc.com

Designee for

Curtis Armstrong
Project Manager I
curtis.armstrong@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Client: Geologica Inc
Project/Site: Qualex Kent

TestAmerica Job ID: 580-24179-1

Job ID: 580-24179-1

Laboratory: TestAmerica Seattle

Narrative

Comments
No additional comments.

Receipt
Non of the sample cotainers had labels. The cap of each sample had number of the ID sample it belong to. Lined up and labeled according to what the cap nuber was.

The sample containers for dissolved metals were field filtered, but were not preserved with HNO3. Presevation was added to containers on same day as recieved, lot # J11046.

All other samples were received in good condition within temperature requirements.

GC Semi VOA
No analytical or quality issues were noted.

Metals
Method(s) 200.8: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for Iron in batch 80014 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Qualifier Definition/Glossary

Client: Geologica Inc
Project/Site: Qualex Kent

TestAmerica Job ID: 580-24179-1

Qualifiers

Metals

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

Glossary

Glossary	Glossary Description
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis.

Client: Geologica Inc
Project/Site: Qualex Kent

TestAmerica Job ID: 580-24179-1

Client Sample ID: MW-1
Date Collected: 01/27/11 15:32
Date Received: 01/27/11 17:00

Lab Sample ID: 580-24179-1
Matrix: Water

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.12		mg/L		02/01/11 09:10	02/02/11 10:43	1
Motor Oil (>C24-C36)	ND		0.24		mg/L		02/01/11 09:10	02/02/11 10:43	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82*		*50 - 150*	*02/01/11 09:10*	*02/02/11 10:43*	*1*

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.010**		0.00040		mg/L		01/28/11 12:25	01/31/11 13:09	1
Iron	**49**		0.040		mg/L		01/28/11 12:25	01/31/11 13:09	1
Manganese	**1.3**		0.00040		mg/L		01/28/11 12:25	01/31/11 13:09	1
Selenium	**0.019**		0.00040		mg/L		01/28/11 12:25	01/31/11 13:09	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.90		mg/L			01/28/11 10:10	1
Sulfate	ND		1.2		mg/L			01/28/11 10:10	1

Client: Geologica Inc
Project/Site: Qualex Kent

TestAmerica Job ID: 580-24179-1

Client Sample ID: MW-1-Dup

Date Collected: 01/27/11 15:35
Date Received: 01/27/11 17:00

Lab Sample ID: 580-24179-2

Matrix: Water

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.12		mg/L		02/01/11 09:10	02/02/11 11:03	1
Motor Oil (>C24-C36)	ND		0.24		mg/L		02/01/11 09:10	02/02/11 11:03	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82*		*50 - 150*	*02/01/11 09:10*	*02/02/11 11:03*	*1*

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.010**		0.00040		mg/L		01/28/11 12:25	01/31/11 13:00	1
Iron	**51**		0.040		mg/L		01/28/11 12:25	01/31/11 13:00	1
Manganese	**1.3**		0.00040		mg/L		01/28/11 12:25	01/31/11 13:00	1
Selenium	**0.020**		0.00040		mg/L		01/28/11 12:25	01/31/11 13:00	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.90		mg/L			01/28/11 10:59	1
Sulfate	ND		1.2		mg/L			01/28/11 10:59	1

Client: Geologica Inc
Project/Site: Qualex Kent

TestAmerica Job ID: 580-24179-1

Client Sample ID: MW-2

Date Collected: 01/27/11 13:42
Date Received: 01/27/11 17:00

Lab Sample ID: 580-24179-3

Matrix: Water

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.12		mg/L		02/01/11 09:10	02/02/11 11:22	1
Motor Oil (>C24-C36)	ND		0.24		mg/L		02/01/11 09:10	02/02/11 11:22	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*83*		*50 - 150*	*02/01/11 09:10*	*02/02/11 11:22*	*1*

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.026**		0.00040		mg/L		01/28/11 12:25	01/31/11 13:58	1
Iron	**46**		0.040		mg/L		01/28/11 12:25	01/31/11 13:58	1
Manganese	**2.0**		0.00040		mg/L		01/28/11 12:25	01/31/11 13:58	1
Selenium	**0.0029**		0.00040		mg/L		01/28/11 12:25	01/31/11 13:58	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.90		mg/L			01/28/11 11:16	1
Sulfate	ND		1.2		mg/L			01/28/11 11:16	1

Client: Geologica Inc
Project/Site: Qualex Kent

TestAmerica Job ID: 580-24179-1

Client Sample ID: MW-3

Date Collected: 01/27/11 14:25
Date Received: 01/27/11 17:00

Lab Sample ID: 580-24179-4

Matrix: Water

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.12		mg/L		02/01/11 09:10	02/02/11 11:42	1
Motor Oil (>C24-C36)	ND		0.24		mg/L		02/01/11 09:10	02/02/11 11:42	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*80*		*50 - 150*	*02/01/11 09:10*	*02/02/11 11:42*	*1*

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.023**		0.00040		mg/L		01/28/11 12:25	01/31/11 14:02	1
Iron	**24**		0.040		mg/L		01/28/11 12:25	01/31/11 14:02	1
Manganese	**4.0**		0.00040		mg/L		01/28/11 12:25	01/31/11 14:02	1
Selenium	**0.00096**		0.00040		mg/L		01/28/11 12:25	01/31/11 14:02	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.90		mg/L			01/28/11 11:32	1
Sulfate	**5.5**		1.2		mg/L			01/28/11 11:32	1

Client: Geologica Inc
Project/Site: Qualex Kent

TestAmerica Job ID: 580-24179-1

Client Sample ID: MW-4
Date Collected: 01/27/11 11:35
Date Received: 01/27/11 17:00

Lab Sample ID: 580-24179-5
Matrix: Water

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.12		mg/L		02/01/11 09:10	02/02/11 12:01	1
Motor Oil (>C24-C36)	ND		0.24		mg/L		02/01/11 09:10	02/02/11 12:01	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*02/01/11 09:10*	*02/02/11 12:01*	*1*

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.058**		0.00040		mg/L		01/28/11 12:25	01/31/11 14:06	1
Iron	**63**		0.040		mg/L		01/28/11 12:25	01/31/11 14:06	1
Manganese	**4.5**		0.00040		mg/L		01/28/11 12:25	01/31/11 14:06	1
Selenium	**0.0018**		0.00040		mg/L		01/28/11 12:25	01/31/11 14:06	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.90		mg/L			01/28/11 11:49	1
Sulfate	ND		1.2		mg/L			01/28/11 11:49	1

Client: Geologica Inc
Project/Site: Qualex Kent

TestAmerica Job ID: 580-24179-1

Client Sample ID: MW-5

Date Collected: 01/27/11 12:37
Date Received: 01/27/11 17:00

Lab Sample ID: 580-24179-6

Matrix: Water

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.12		mg/L		02/01/11 09:10	02/02/11 12:21	1
Motor Oil (>C24-C36)	ND		0.24		mg/L		02/01/11 09:10	02/02/11 12:21	1

Surrogate	*% Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*82*		*50 - 150*	*02/01/11 09:10*	*02/02/11 12:21*	*1*

Method: 200.8 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**0.0057**		0.00040		mg/L		01/28/11 12:25	01/31/11 14:11	1
Iron	**54**		0.040		mg/L		01/28/11 12:25	01/31/11 14:11	1
Manganese	**1.8**		0.00040		mg/L		01/28/11 12:25	01/31/11 14:11	1
Selenium	**0.0024**		0.00040		mg/L		01/28/11 12:25	01/31/11 14:11	1

General Chemistry

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.90		mg/L			01/28/11 12:05	1
Sulfate	ND		1.2		mg/L			01/28/11 12:05	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-80022/1-B
Matrix: Water
Analysis Batch: 80113

Client Sample ID: MB 580-80022/1-B
Prep Type: Total/NA
Prep Batch: 80022

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		0.12		mg/L		02/01/11 09:10	02/02/11 09:45	1
Motor Oil (>C24-C36)	ND		0.25		mg/L		02/01/11 09:10	02/02/11 09:45	1

Surrogate	*MB % Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*02/01/11 09:10*	*02/02/11 09:45*	*1*

Lab Sample ID: LCS 580-80022/2-B
Matrix: Water
Analysis Batch: 80113

Client Sample ID: LCS 580-80022/2-B
Prep Type: Total/NA
Prep Batch: 80022

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
#2 Diesel (C10-C24)	5.00	3.99		mg/L		80	70 - 130
Motor Oil (>C24-C36)	5.00	4.02		mg/L		80	70 - 130

Surrogate	*LCS % Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*90*		*50 - 150*

Lab Sample ID: LCSD 580-80022/3-B
Matrix: Water
Analysis Batch: 80113

Client Sample ID: LCSD 580-80022/3-B
Prep Type: Total/NA
Prep Batch: 80022

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	5.00	4.02		mg/L		80	70 - 130	1	30
Motor Oil (>C24-C36)	5.00	4.03		mg/L		81	70 - 130	0	30

Surrogate	*LCSD % Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*91*		*50 - 150*

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: LCS 580-79908/24-A
Matrix: Water
Analysis Batch: 80014

Client Sample ID: LCS 580-79908/24-A
Prep Type: Total/NA
Prep Batch: 79908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Arsenic	4.00	4.12		mg/L		103	80 - 120
Iron	22.0	24.3		mg/L		110	80 - 120
Manganese	1.00	1.04		mg/L		104	80 - 120
Selenium	4.00	3.97		mg/L		99	80 - 120

Lab Sample ID: LCSD 580-79908/25-A
Matrix: Water
Analysis Batch: 80014

Client Sample ID: LCSD 580-79908/25-A
Prep Type: Total/NA
Prep Batch: 79908

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Arsenic	4.00	4.15		mg/L		104	80 - 120	1	20
Iron	22.0	25.1		mg/L		114	80 - 120	3	20
Manganese	1.00	1.05		mg/L		105	80 - 120	1	20
Selenium	4.00	4.10		mg/L		103	80 - 120	3	20

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 580-79843/13-B — **Client Sample ID: MB 580-79843/13-B**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 80014 — **Prep Batch: 79908**

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.00040		mg/L		01/28/11 13:43	01/31/11 12:56	1
Iron	ND		0.040		mg/L		01/28/11 13:43	01/31/11 12:56	1
Manganese	ND		0.00040		mg/L		01/28/11 13:43	01/31/11 12:56	1
Selenium	ND		0.00040		mg/L		01/28/11 13:43	01/31/11 12:56	1

Lab Sample ID: 580-24179-1 MS — **Client Sample ID: MW-1**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 80014 — **Prep Batch: 79908**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits
Arsenic	0.010		4.00	4.18		mg/L		104	80 - 120
Iron	49		22.0	77.2	F	mg/L		130	80 - 120
Manganese	1.3		1.00	2.40		mg/L		115	80 - 120
Selenium	0.019		4.00	4.12		mg/L		102	80 - 120

Lab Sample ID: 580-24179-1 MSD — **Client Sample ID: MW-1**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 80014 — **Prep Batch: 79908**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	RPD Limit
Arsenic	0.010		4.00	4.17		mg/L		104	80 - 120	0	20
Iron	49		22.0	78.6	F	mg/L		136	80 - 120	2	20
Manganese	1.3		1.00	2.42		mg/L		117	80 - 120	1	20
Selenium	0.019		4.00	4.21		mg/L		105	80 - 120	2	20

Lab Sample ID: 580-24179-1 DU — **Client Sample ID: MW-1**
Matrix: Water — **Prep Type: Dissolved**
Analysis Batch: 80014 — **Prep Batch: 79908**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.010		0.0107		mg/L		3	20
Iron	49		48.7		mg/L		0.1	20
Manganese	1.3		1.28		mg/L		2	20
Selenium	0.019		0.0192		mg/L		3	20

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 580-79979/3 — **Client Sample ID: MB 580-79979/3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 79979

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.2		mg/L			01/28/11 09:37	1

Lab Sample ID: LCS 580-79979/4 — **Client Sample ID: LCS 580-79979/4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 79979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Sulfate	15.0	13.8		mg/L		92	90 - 110

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 580-24179-1 MS — **Client Sample ID: MW-1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 79979

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits		
Sulfate	ND		40.0	35.8		mg/L		90	90 - 110		

Lab Sample ID: 580-24179-1 DU — **Client Sample ID: MW-1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 79979

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Sulfate	ND			ND		mg/L				NC	10

Lab Sample ID: MB 580-79980/3 — **Client Sample ID: MB 580-79980/3**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 79980

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.90		mg/L			01/28/11 09:37	1

Lab Sample ID: LCS 580-79980/4 — **Client Sample ID: LCS 580-79980/4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 79980

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits		
Nitrate as N			2.50	2.51		mg/L		100	90 - 110		

Lab Sample ID: 580-24179-1 MS — **Client Sample ID: MW-1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 79980

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	% Rec. Limits		
Nitrate as N	ND		4.00	ND		mg/L		100	90 - 110		

Lab Sample ID: 580-24179-1 DU — **Client Sample ID: MW-1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 79980

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Nitrate as N	ND			ND		mg/L				NC	10

Lab Chronicle

Client: Geologica Inc
Project/Site: Qualex Kent

TestAmerica Job ID: 580-24179-1

Client Sample ID: MW-1
Date Collected: 01/27/11 15:32
Date Received: 01/27/11 17:00

Lab Sample ID: 580-24179-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			80022	02/01/11 09:10	DB	TestAmerica Seattle
Total/NA	Analysis	NWTPH-Dx		1	80113	02/02/11 10:43	MAM	TestAmerica Seattle
Dissolved	Prep	200.8			79908	01/28/11 12:25	PAB	TestAmerica Seattle
Dissolved	Analysis	200.8		1	80014	01/31/11 13:09	FCW	TestAmerica Seattle
Total/NA	Analysis	300.0		1	79979	01/28/11 10:10	AM	TestAmerica Seattle
Total/NA	Analysis	300.0		1	79980	01/28/11 10:10	AM	TestAmerica Seattle

Client Sample ID: MW-1-Dup
Date Collected: 01/27/11 15:35
Date Received: 01/27/11 17:00

Lab Sample ID: 580-24179-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			80022	02/01/11 09:10	DB	TestAmerica Seattle
Total/NA	Analysis	NWTPH-Dx		1	80113	02/02/11 11:03	MAM	TestAmerica Seattle
Dissolved	Prep	200.8			79908	01/28/11 12:25	PAB	TestAmerica Seattle
Dissolved	Analysis	200.8		1	80014	01/31/11 13:00	FCW	TestAmerica Seattle
Total/NA	Analysis	300.0		1	79979	01/28/11 10:59	AM	TestAmerica Seattle
Total/NA	Analysis	300.0		1	79980	01/28/11 10:59	AM	TestAmerica Seattle

Client Sample ID: MW-2
Date Collected: 01/27/11 13:42
Date Received: 01/27/11 17:00

Lab Sample ID: 580-24179-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			80022	02/01/11 09:10	DB	TestAmerica Seattle
Total/NA	Analysis	NWTPH-Dx		1	80113	02/02/11 11:22	MAM	TestAmerica Seattle
Dissolved	Prep	200.8			79908	01/28/11 12:25	PAB	TestAmerica Seattle
Dissolved	Analysis	200.8		1	80014	01/31/11 13:58	FCW	TestAmerica Seattle
Total/NA	Analysis	300.0		1	79979	01/28/11 11:16	AM	TestAmerica Seattle
Total/NA	Analysis	300.0		1	79980	01/28/11 11:16	AM	TestAmerica Seattle

Client Sample ID: MW-3
Date Collected: 01/27/11 14:25
Date Received: 01/27/11 17:00

Lab Sample ID: 580-24179-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			80022	02/01/11 09:10	DB	TestAmerica Seattle
Total/NA	Analysis	NWTPH-Dx		1	80113	02/02/11 11:42	MAM	TestAmerica Seattle
Dissolved	Prep	200.8			79908	01/28/11 12:25	PAB	TestAmerica Seattle
Dissolved	Analysis	200.8		1	80014	01/31/11 14:02	FCW	TestAmerica Seattle
Total/NA	Analysis	300.0		1	79979	01/28/11 11:32	AM	TestAmerica Seattle
Total/NA	Analysis	300.0		1	79980	01/28/11 11:32	AM	TestAmerica Seattle

Lab Chronicle

Client: Geologica Inc
Project/Site: Qualex Kent

TestAmerica Job ID: 580-24179-1

Client Sample ID: MW-4

Lab Sample ID: 580-24179-5

Date Collected: 01/27/11 11:35

Matrix: Water

Date Received: 01/27/11 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			80022	02/01/11 09:10	DB	TestAmerica Seattle
Total/NA	Analysis	NWTPH-Dx		1	80113	02/02/11 12:01	MAM	TestAmerica Seattle
Dissolved	Prep	200.8			79908	01/28/11 12:25	PAB	TestAmerica Seattle
Dissolved	Analysis	200.8		1	80014	01/31/11 14:06	FCW	TestAmerica Seattle
Total/NA	Analysis	300.0		1	79979	01/28/11 11:49	AM	TestAmerica Seattle
Total/NA	Analysis	300.0		1	79980	01/28/11 11:49	AM	TestAmerica Seattle

Client Sample ID: MW-5

Lab Sample ID: 580-24179-6

Date Collected: 01/27/11 12:37

Matrix: Water

Date Received: 01/27/11 17:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			80022	02/01/11 09:10	DB	TestAmerica Seattle
Total/NA	Analysis	NWTPH-Dx		1	80113	02/02/11 12:21	MAM	TestAmerica Seattle
Dissolved	Prep	200.8			79908	01/28/11 12:25	PAB	TestAmerica Seattle
Dissolved	Analysis	200.8		1	80014	01/31/11 14:11	FCW	TestAmerica Seattle
Total/NA	Analysis	300.0		1	79979	01/28/11 12:05	AM	TestAmerica Seattle
Total/NA	Analysis	300.0		1	79980	01/28/11 12:05	AM	TestAmerica Seattle

Certification Summary

Client: Geologica Inc
Project/Site: Qualex Kent

TestAmerica Job ID: 580-24179-1

Laboratory	Authority	Program	EPA Region	Certification ID	* Expiration Date
TestAmerica Seattle		USDA		P330-08-00099	05/22/11
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022	03/04/11
TestAmerica Seattle	California	NELAC	9	1115CA	01/31/12
TestAmerica Seattle	Florida	NELAC	4	E871074	06/30/11
TestAmerica Seattle	L-A-B	DoD ELAP	0	L2236	01/19/13
TestAmerica Seattle	L-A-B	ISO/IEC 17025	0	L2236	01/19/13
TestAmerica Seattle	Montana	State Program	8		04/30/20
TestAmerica Seattle	Oregon	NELAC	10	WA100007	11/06/11
TestAmerica Seattle	Washington	State Program	10	C553	02/17/11

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.
* Any expired certifications in this list are currently pending renewal and are considered valid.

Sample Summary

Client: Geologica Inc
Project/Site: Qualex Kent

TestAmerica Job ID: 580-24179-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-24179-1	MW-1	Water	01/27/11 15:32	01/27/11 17:00
580-24179-2	MW-1-Dup	Water	01/27/11 15:35	01/27/11 17:00
580-24179-3	MW-2	Water	01/27/11 13:42	01/27/11 17:00
580-24179-4	MW-3	Water	01/27/11 14:25	01/27/11 17:00
580-24179-5	MW-4	Water	01/27/11 11:35	01/27/11 17:00
580-24179-6	MW-5	Water	01/27/11 12:37	01/27/11 17:00

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☐ Short Hold

Chain of Custody Record

Client: Geologica Inc.	Client Contact: Greg Romero	Date: 1/27/11	Chain of Custody Number: 8506
Address: 5 Third Street, Suite 224	Telephone Number (Area Code)/Fax Number: 415.597.7884 / 415.597.7880	Lab Number: 24179	Page 1 of 1
City: San Francisco / State: CA / Zip Code: 94103	Sampler: G.R.	Lab Contact:	
Project Name and Location (State): Quelex Kent	Billing Contact: Dave Sheuln - Kodak		
Contract/Purchase Order/Quote No.			

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: Petroleum hydrocarbons diesel 3 mo	NWTPH-D & DX w/silica gel	Dissolved Arsenic, selenium, iron & manganese EPA-200.8	Nitrate as N EPA 300	Sulfate EPA 375.4	Special Instructions/ Conditions of Receipt
MW-1	1/27/11	15:32		X			2			2			X		X	X	X	* All metals were field filtered
MW-1-Dup		15:35											X		X	X	X	
MW-2		13:42											X		X	X	X	
MW-3		14:25											X		X	X	X	
MW-4		11:35											X		X	X	X	
MW-5		12:37											X		X	X	X	

Cooler/TB Dig/IR cor 1.1 °C unc 1.3 °C
Cooler Dsc Lg Red/White @ Lab 1700
Wet/Packs Packing

Cooler/TB Dig/IR cor 3.1 °C unc 3.3 °C
Cooler Dsc Lg Green/Blue @ Lab 1700
Wet/Packs Packing Bubble Bag

Cooler: ☐ Yes ☐ No Cooler Temp:_____

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☒ 5 Days ☐ 10 Days ☐ 15 Days ☐ Other _____

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished By Sign/Print: Greg Romero	1/27/11	1630	1. Received By Sign/Print: Francisco Luna, Jr.	1/27/11	1650
2. Relinquished By Sign/Print:			2. Received By Sign/Print:		
3. Relinquished By Sign/Print:			3. Received By Sign/Print:		

Comments

02/03/2011

Login Sample Receipt Check List

Client: Geologica Inc

Job Number: 580-24179-1

Login Number: 24179

List Source: TestAmerica Seattle

Creator: Luna, Francisco

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	False	Sample container have no labels
Samples are received within Holding Time.	True	
Sample containers have legible labels.	False	There are no labels
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	False	Filtered metals wrong container
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 27, 2016

Scott Allin
Farallon Consulting, LLC
975 5th Avenue NW
Issaquah, WA 98027

Re: Analytical Data for Project 1071-013-001
Laboratory Reference No. 1601-173

Dear Scott:

Enclosed are the analytical results and associated quality control data for samples submitted on January 22, 2016.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: January 27, 2016
Samples Submitted: January 22, 2016
Laboratory Reference: 1601-173
Project: 1071-013-001

Case Narrative

Samples were collected on January 21, 2016 and received by the laboratory on January 22, 2016. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: January 27, 2016
Samples Submitted: January 22, 2016
Laboratory Reference: 1601-173
Project: 1071-013-001

NWTPH-Dx

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**MW-2-012116**					
Laboratory ID:	01-173-01					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	1-25-16	1-25-16	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	1-25-16	1-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*88*	*50-150*				
Client ID:	**MW-3-012116**					
Laboratory ID:	01-173-02					
Diesel Range Organics	**ND**	0.26	NWTPH-Dx	1-25-16	1-25-16	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	1-25-16	1-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*99*	*50-150*				
Client ID:	**MW-4-012116**					
Laboratory ID:	01-173-03					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	1-25-16	1-25-16	
Lube Oil Range Organics	**ND**	0.41	NWTPH-Dx	1-25-16	1-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*98*	*50-150*				
Client ID:	**MW-5-012116**					
Laboratory ID:	01-173-04					
Diesel Range Organics	**ND**	0.28	NWTPH-Dx	1-25-16	1-25-16	
Lube Oil Range Organics	**ND**	0.46	NWTPH-Dx	1-25-16	1-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*100*	*50-150*				

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: January 27, 2016
Samples Submitted: January 22, 2016
Laboratory Reference: 1601-173
Project: 1071-013-001

NWTPH-Dx
QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0125W1					
Diesel Range Organics	**ND**	0.25	NWTPH-Dx	1-25-16	1-25-16	
Lube Oil Range Organics	**ND**	0.40	NWTPH-Dx	1-25-16	1-25-16	
Surrogate:	*Percent Recovery*	*Control Limits*				
o-Terphenyl	*84*	*50-150*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE											
Laboratory ID:	01-173-01										
	ORIG	DUP									
Diesel Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Lube Oil Range	**ND**	**ND**	NA	NA		NA		NA	NA	NA	
Surrogate:											
o-Terphenyl						*88*	*98*	*50-150*			

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: January 27, 2016
Samples Submitted: January 22, 2016
Laboratory Reference: 1601-173
Project: 1071-013-001

DISSOLVED METALS
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	01-173-01					
Client ID:	**MW-2-012116**					
Arsenic	**13**	3.0	200.8	1-22-16	1-25-16	
Selenium	**ND**	5.0	200.8	1-22-16	1-25-16	
Lab ID:	01-173-02					
Client ID:	**MW-3-012116**					
Arsenic	**27**	3.0	200.8	1-22-16	1-25-16	
Selenium	**ND**	5.0	200.8	1-22-16	1-25-16	
Lab ID:	01-173-03					
Client ID:	**MW-4-012116**					
Arsenic	**21**	3.0	200.8	1-22-16	1-25-16	
Selenium	**ND**	5.0	200.8	1-22-16	1-25-16	
Lab ID:	01-173-04					
Client ID:	**MW-5-012116**					
Arsenic	**3.9**	3.0	200.8	1-22-16	1-25-16	
Selenium	**ND**	5.0	200.8	1-22-16	1-25-16	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: January 27, 2016
Samples Submitted: January 22, 2016
Laboratory Reference: 1601-173
Project: 1071-013-001

DISSOLVED METALS
EPA 200.8
METHOD BLANK QUALITY CONTROL

Date Filtered:	1-22-16
Date Analyzed:	1-25-16
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	MB0122F1

Analyte	Method	Result	PQL
Arsenic	200.8	**ND**	3.0
Selenium	200.8	**ND**	5.0

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: January 27, 2016
Samples Submitted: January 22, 2016
Laboratory Reference: 1601-173
Project: 1071-013-001

DISSOLVED METALS
EPA 200.8
DUPLICATE QUALITY CONTROL

Date Filtered: 1-22-16
Date Analyzed: 1-25-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 01-164-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	**ND**	**ND**	NA	6.0	
Selenium	**ND**	**ND**	NA	10.0	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: January 27, 2016
Samples Submitted: January 22, 2016
Laboratory Reference: 1601-173
Project: 1071-013-001

DISSOLVED METALS
EPA 200.8
MS/MSD QUALITY CONTROL

Date Filtered: 1-22-16
Date Analyzed: 1-25-16

Matrix: Water
Units: ug/L (ppb)

Lab ID: 01-164-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	200	**205**	102	**204**	102	0	
Selenium	200	**211**	106	**211**	106	0	

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1- Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: Farallon
Project Number: 1071-013-001
Project Name:
Project Manager: Scott Allin
Sampled by: Jared Kerr

Turnaround Request (in working days)

(Check One)

- ☐ Same Day ☐ 1 Day
- ☐ 2 Days ☐ 3 Days
- ☒ Standard (7 Days) (TPH analysis 5 Days)
- ☐ _____ (other)

Laboratory Number: 01-173

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	Dissolved Arsenic & Selenium EPA Method 200.8 ICP/MS					% Moisture
1	MW-2-012116	1/21/16	1335	water	3				X													X					
2	MW-3-012116	"	1248	"	"				X													X					
3	MW-4-012116	"	1446	"	"				X													X					
4	MW-5-012116	"	1550	"	"				X													X					

	Signature	Company	Date	Time
Relinquished		Farallon	1/22/16	0820
Received	Van	Spdy	"	850
Relinquished	"	"	"	1105
Received		COES	1/22/16	1105
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Please filter sample prior to dissolved arsenic & selenium analysis.

Chromatograms with final report ☐

Data Package: Standard ☐ Level III ☐ Level IV ☐

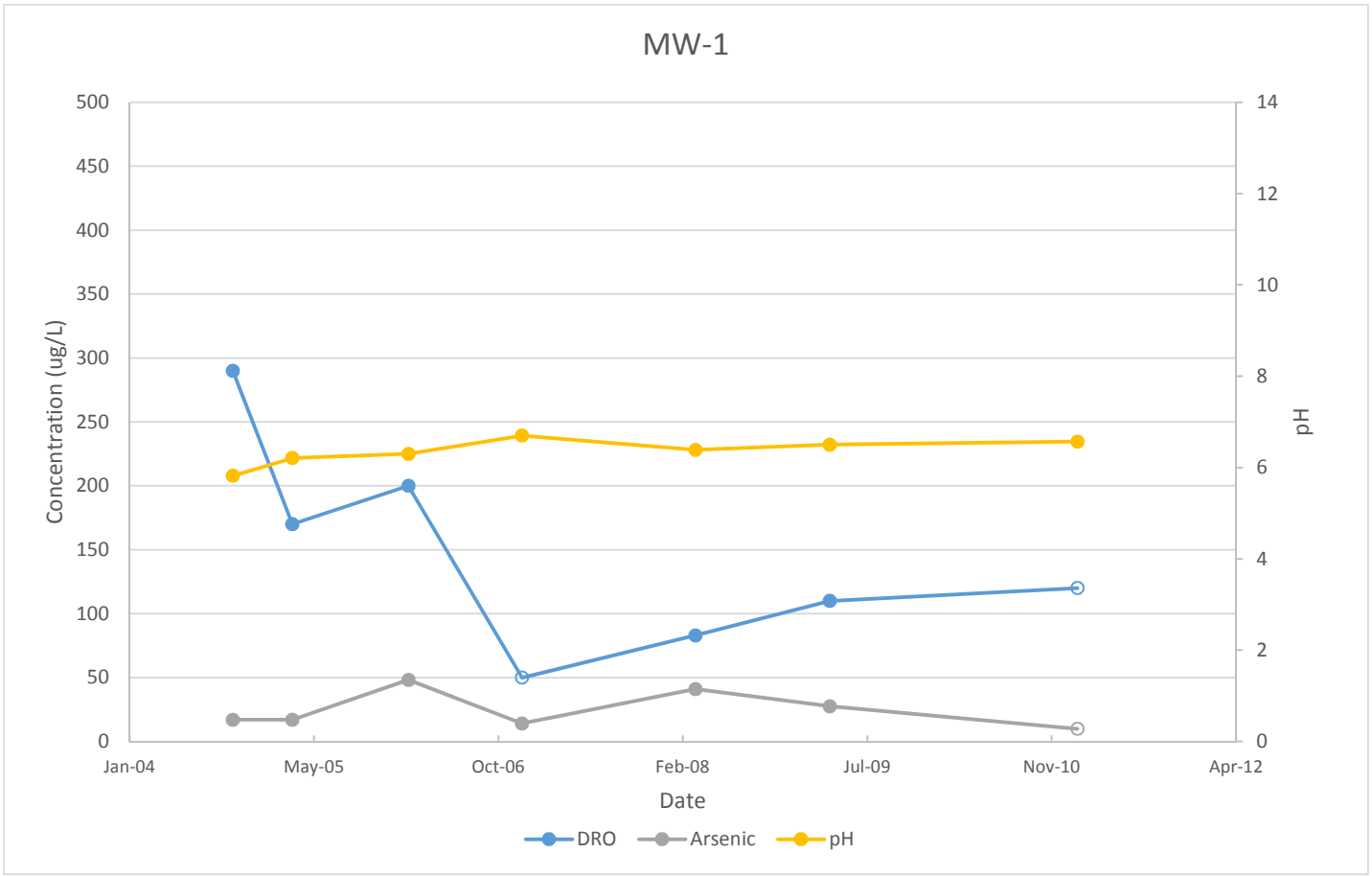
Electronic Data Deliverables (EDDs) ☐ _____

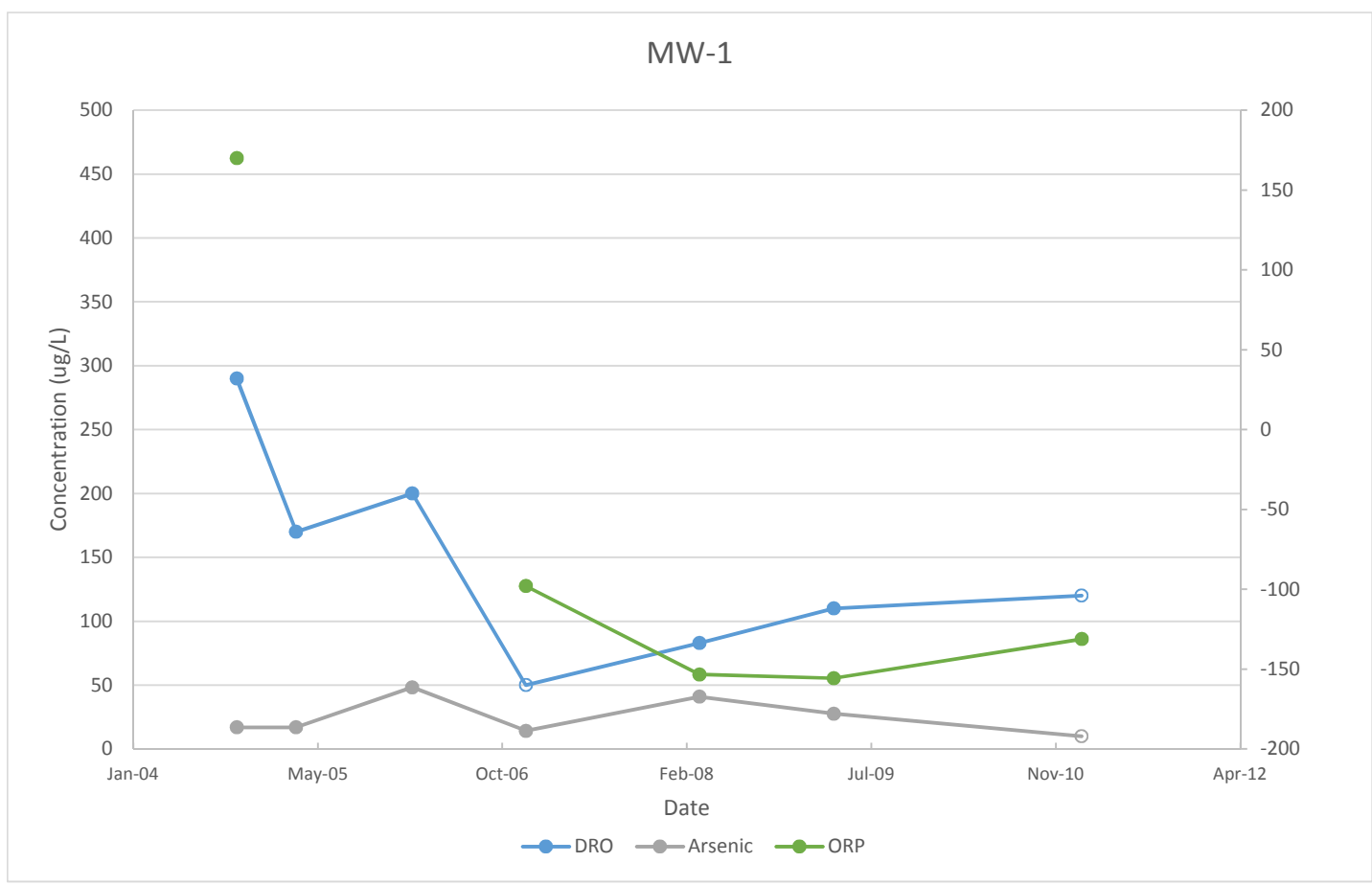
APPENDIX C
TIME SERIES PLOTS

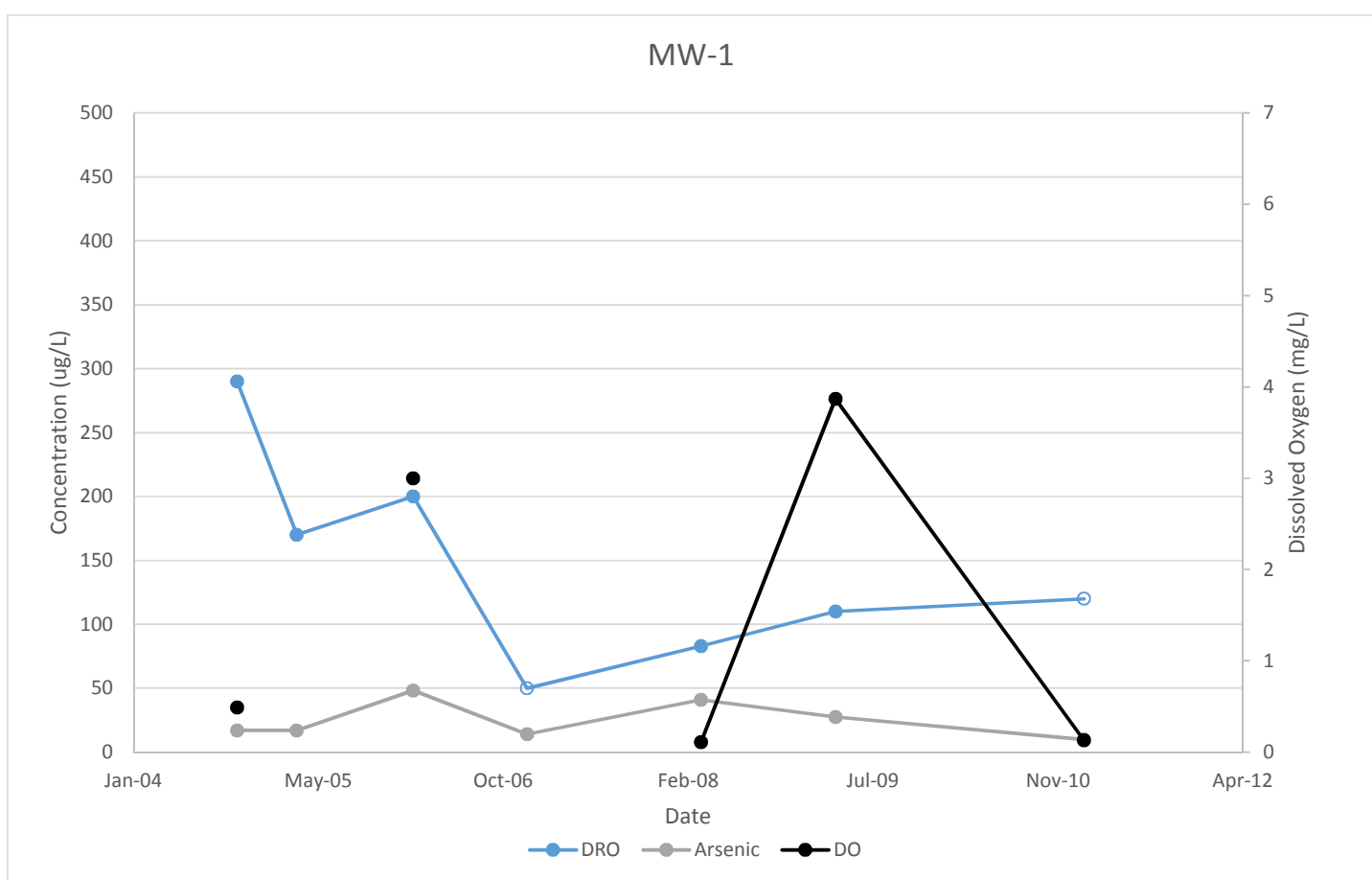
REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington

Farallon PN: 1071-013 (Task 1)

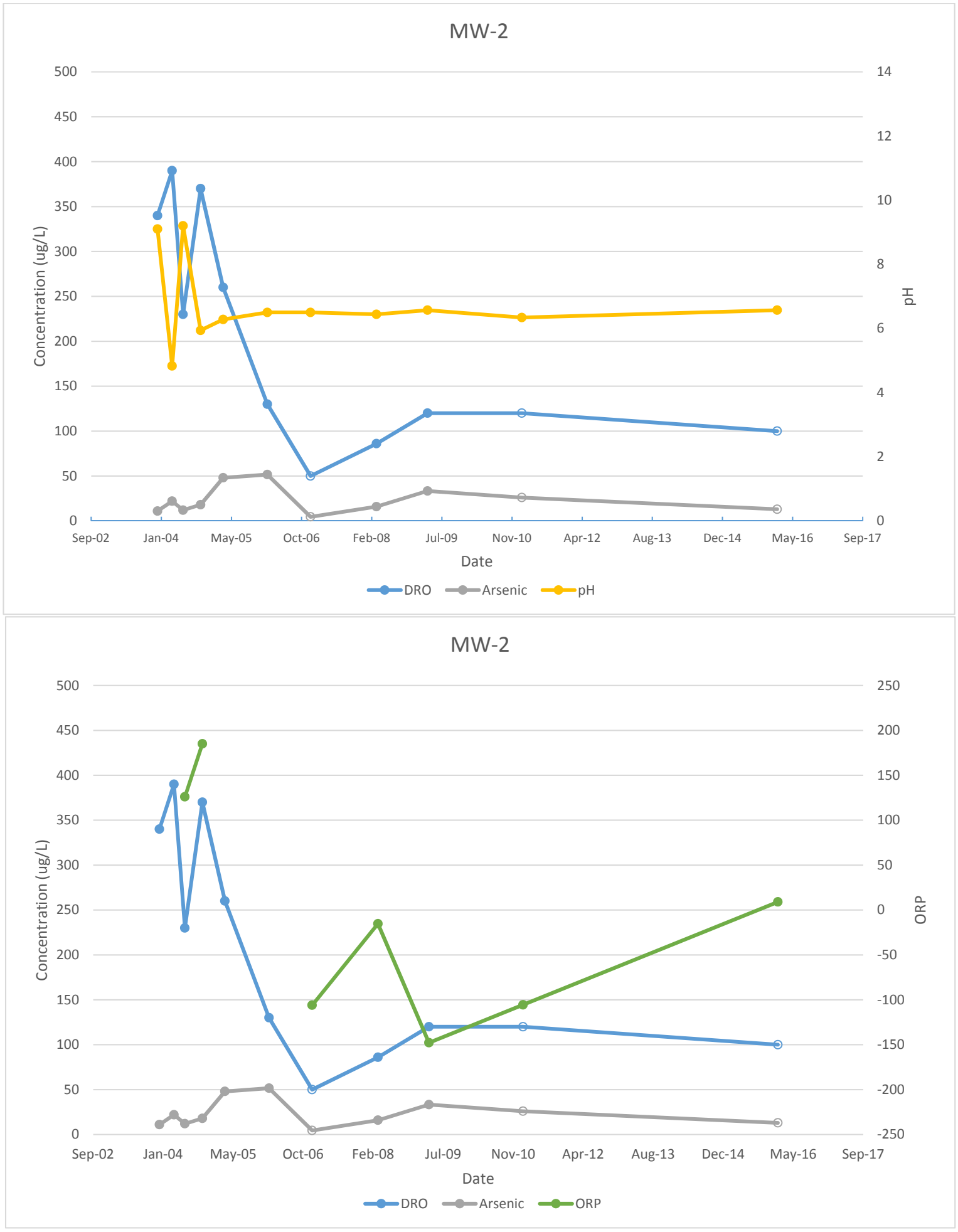
MW-1 Time Plots

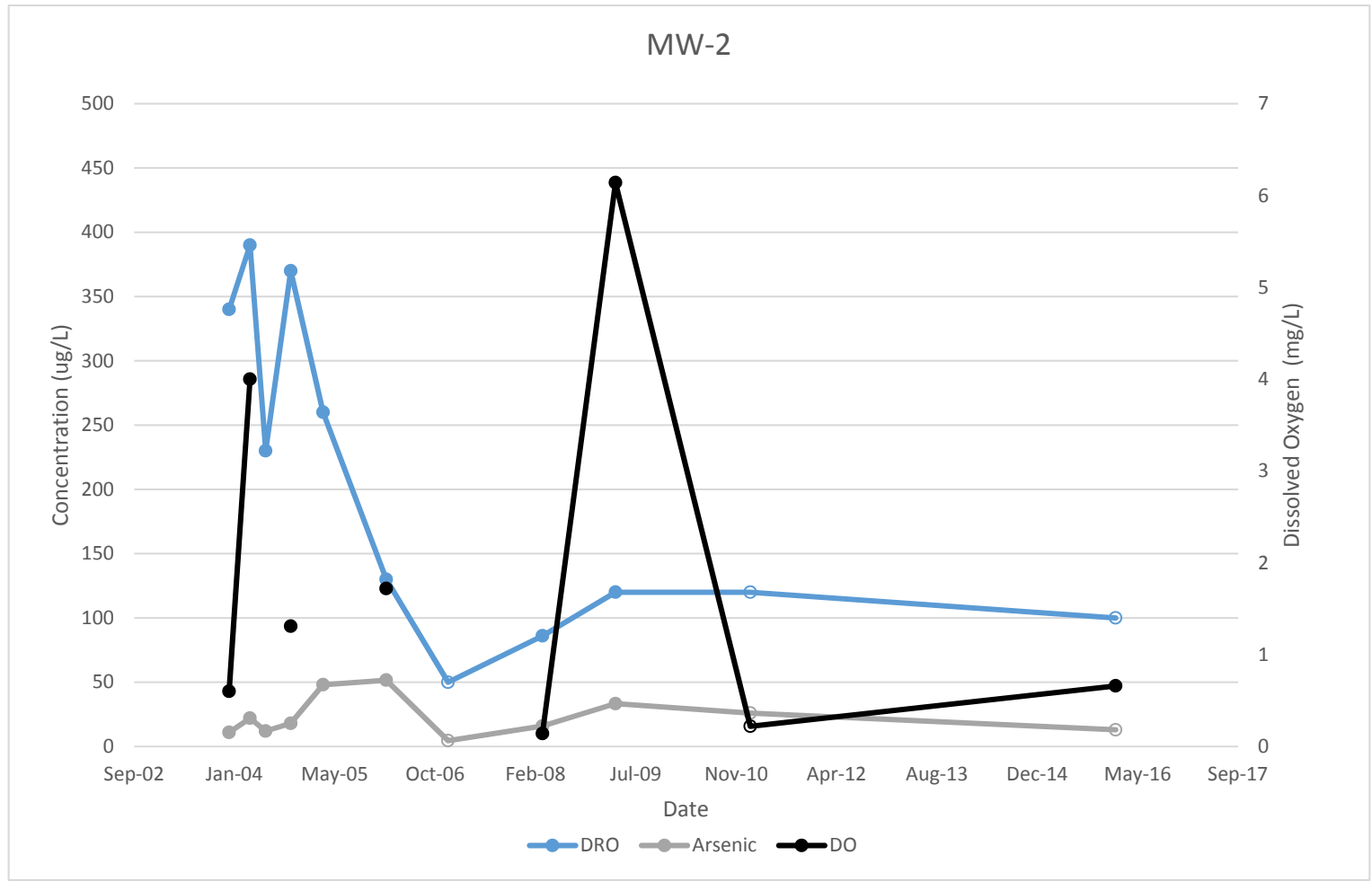




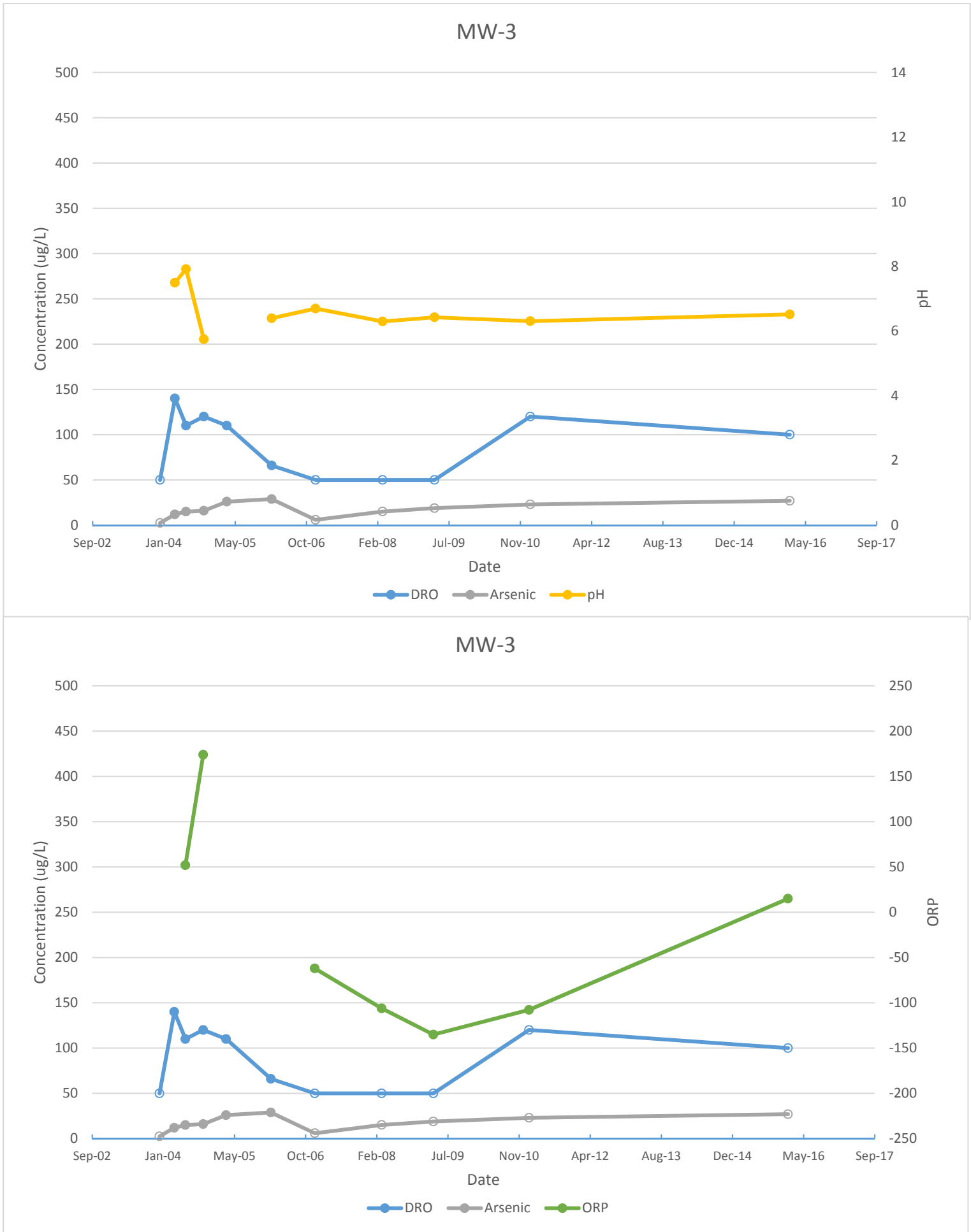


MW-2 Time Plot

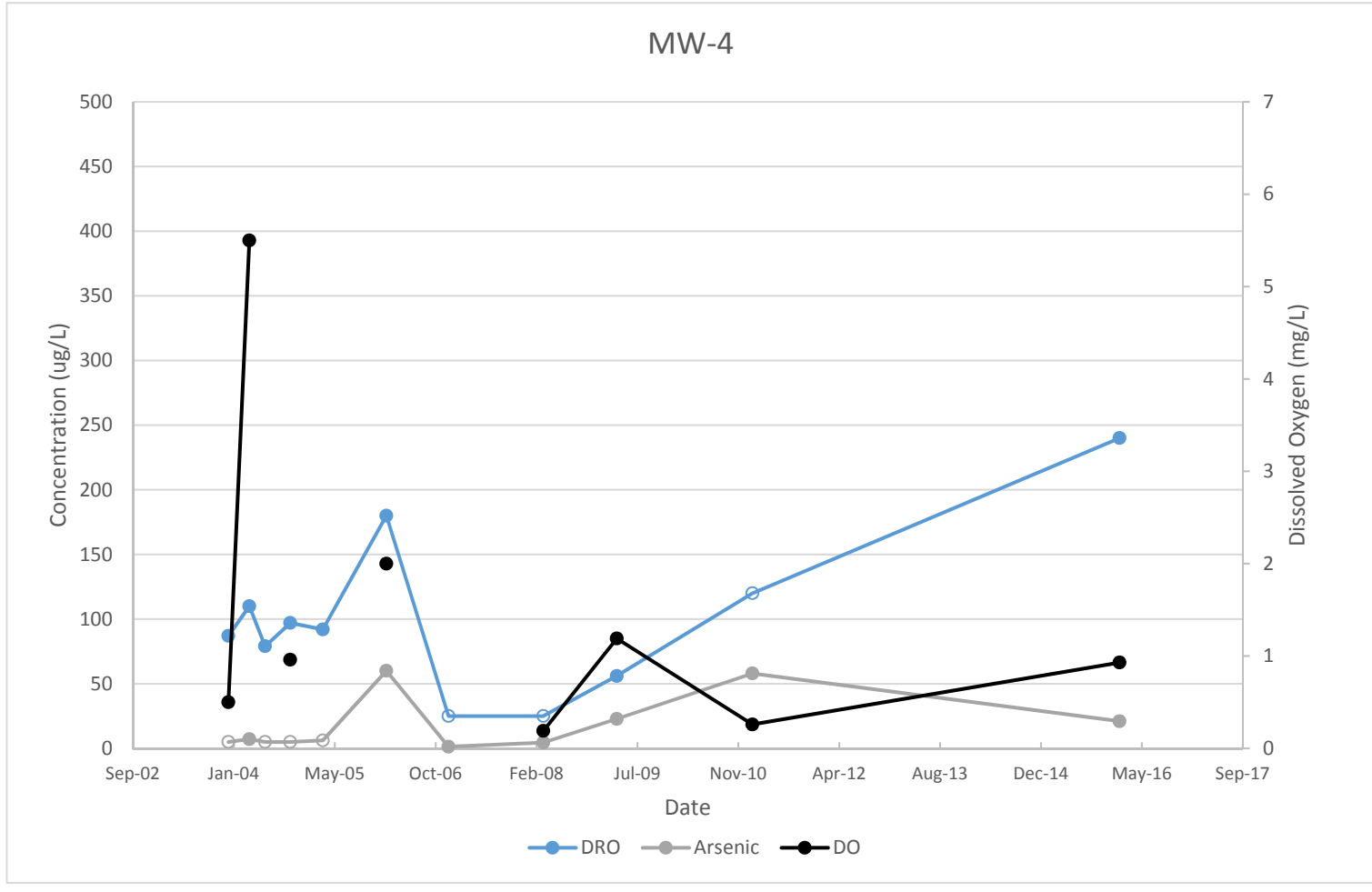


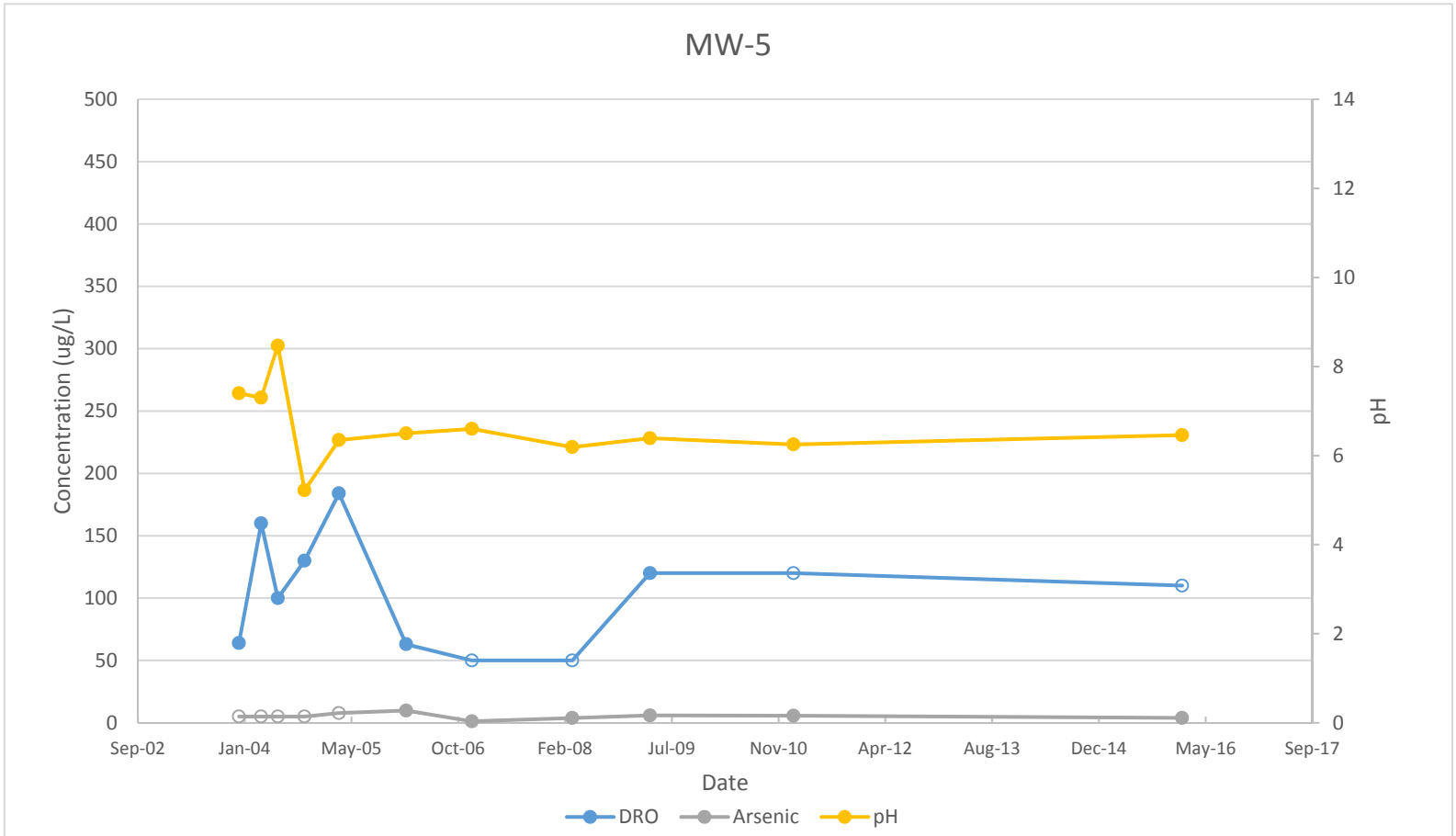


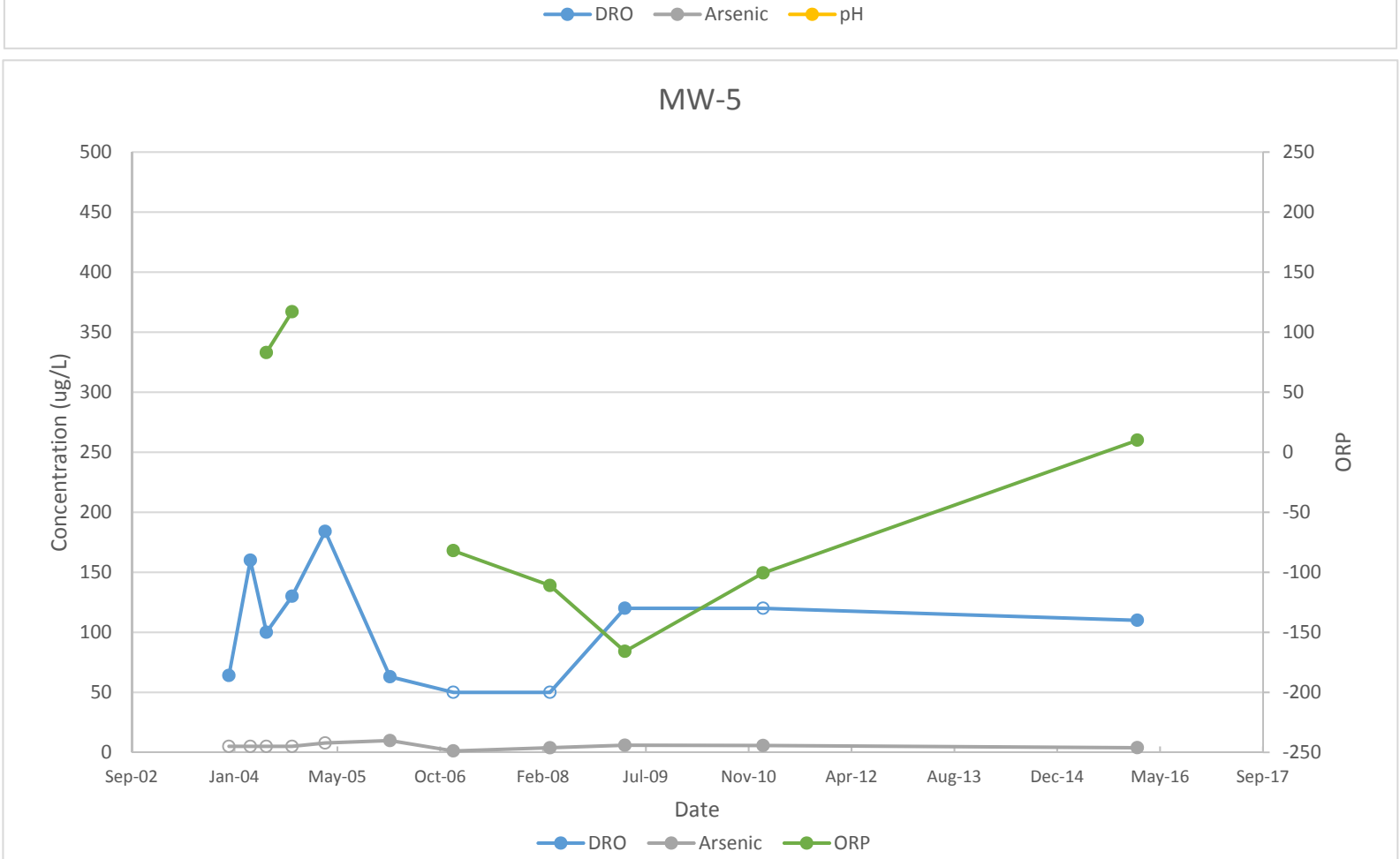
MW-3 Time Plot

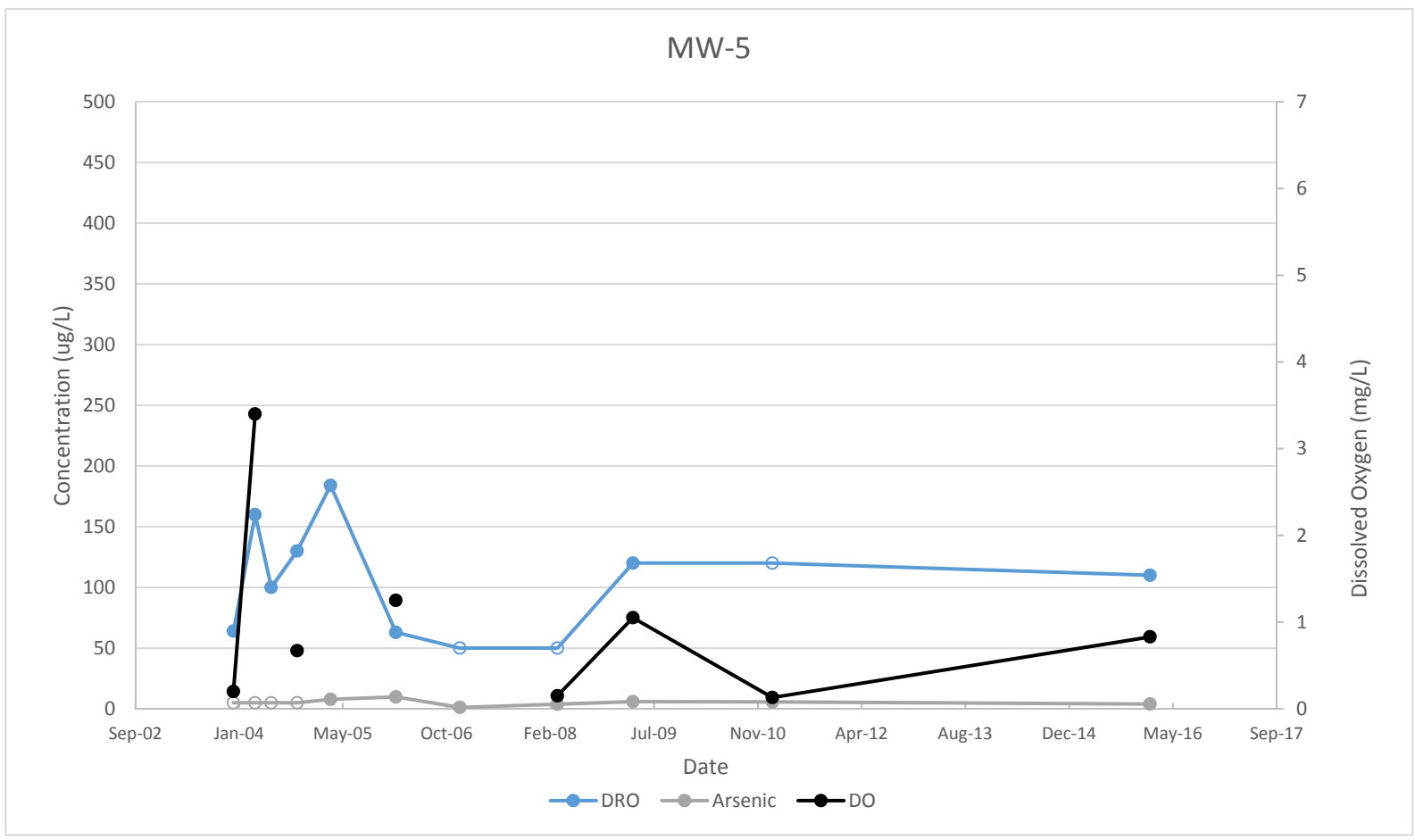


MW-4 Time Plot




MW-5
Concentration (ug/L)
pH
Date
Sep-02
Jan-04
May-05
Oct-06
Feb-08
Jul-09
Nov-10
Apr-12
Aug-13
Dec-14
May-16
Sep-17
DRO
Arsenic
pH


MW-5
Concentration (ug/L)
ORP
Date
DRO
Arsenic
ORP


MW-5
Concentration (ug/L)
Dissolved Oxygen (mg/L)
Date
DRO
Arsenic
DO

APPENDIX D
TERRESTRIAL ECOLOGICAL EVALUATION FORM

REMEDIAL INVESTIGATION/FEASIBILITY STUDY REPORT
Former Qualex Photofinishing Facility
21249 72nd Avenue South
Kent, Washington

Farallon PN: 1071-013 (Task 1)

Voluntary Cleanup Program

Washington State Department of Ecology
Toxics Cleanup Program

TERRESTRIAL ECOLOGICAL EVALUATION FORM

Under the Model Toxics Control Act (MTCA), a terrestrial ecological evaluation is necessary if hazardous substances are released into the soils at a Site. In the event of such a release, you must take one of the following three actions as part of your investigation and cleanup of the Site:

1. Document an exclusion from further evaluation using the criteria in WAC 173-340-7491.
2. Conduct a simplified evaluation as set forth in WAC 173-340-7492.
3. Conduct a site-specific evaluation as set forth in WAC 173-340-7493.

When requesting a written opinion under the Voluntary Cleanup Program (VCP), you must complete this form and submit it to the Department of Ecology (Ecology). The form documents the type and results of your evaluation.

Completion of this form is not sufficient to document your evaluation. You still need to document your analysis and the basis for your conclusion in your cleanup plan or report.

If you have questions about how to conduct a terrestrial ecological evaluation, please contact the Ecology site manager assigned to your Site. For additional guidance, please refer to www.ecy.wa.gov/programs/tcp/policies/terrestrial/TEEHome.htm.

Step 1: IDENTIFY HAZARDOUS WASTE SITE	
Please identify below the hazardous waste site for which you are documenting an evaluation.	
Facility/Site Name: Former Qualex Photofinishing Facility	
Facility/Site Address: 21249 72nd Avenue South, Kent, WA	
Facility/Site No: NA	VCP Project No.: NA

Step 2: IDENTIFY EVALUATOR			
Please identify below the person who conducted the evaluation and their contact information.			
Name: Mark Havighorst			Title: Senior Engineer
Organization: Farallon Consulting			
Mailing address: 4380 SW Macadam Avenue, Suite 500			
City: Portland		State: OR	Zip code: 97239
Phone: 503-280-4628	Fax: NA	E-mail: mhavighorst@farallonconsulting.com	

ECY 090-300 (07/2015) To request ADA accommodation including materials in a format for the visually impaired, call Ecology Toxic Cleanup Program 360-407-7170. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.

Step 3: DOCUMENT EVALUATION TYPE AND RESULTS

A. Exclusion from further evaluation.

1. Does the Site qualify for an exclusion from further evaluation?

☒ Yes *If you answered **"YES,"** then answer **Question 2**.*

☐ No or Unknown *If you answered **"NO" or "UKNOWN,"** then skip to **Step 3B** of this form.*

2. What is the basis for the exclusion? *Check all that apply. Then skip to **Step 4** of this form.*

Point of Compliance: WAC 173-340-7491(1)(a)

☐ All soil contamination is, or will be,* at least 15 feet below the surface.

☐ All soil contamination is, or will be,* at least 6 feet below the surface (or alternative depth if approved by Ecology), and institutional controls are used to manage remaining contamination.

Barriers to Exposure: WAC 173-340-7491(1)(b)

☐ All contaminated soil, is or will be,* covered by physical barriers (such as buildings or paved roads) that prevent exposure to plants and wildlife, and institutional controls are used to manage remaining contamination.

Undeveloped Land: WAC 173-340-7491(1)(c)

☐ There is less than 0.25 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site and any of the following chemicals is present: chlorinated dioxins or furans, PCB mixtures, DDT, DDE, DDD, aldrin, chlordane, dieldrin, endosulfan, endrin, heptachlor, heptachlor epoxide, benzene hexachloride, toxaphene, hexachlorobenzene, pentachlorophenol, or pentachlorobenzene.

☒ For sites not containing any of the chemicals mentioned above, there is less than 1.5 acres of contiguous[#] undeveloped[±] land on or within 500 feet of any area of the Site.

Background Concentrations: WAC 173-340-7491(1)(d)

☒ Concentrations of hazardous substances in soil do not exceed natural background levels as described in WAC 173-340-200 and 173-340-709.

* An exclusion based on future land use must have a completion date for future development that is acceptable to Ecology.

[±] "Undeveloped land" is land that is not covered by building, roads, paved areas, or other barriers that would prevent wildlife from feeding on plants, earthworms, insects, or other food in or on the soil.

[#] "Contiguous" undeveloped land is an area of undeveloped land that is not divided into smaller areas of highways, extensive paving, or similar structures that are likely to reduce the potential use of the overall area by wildlife.

ECY 090-300 (07/2015) To request ADA accommodation including materials in a format for the visually impaired, call Ecology Toxic Cleanup Program 360-407-7170. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.

B. Simplified evaluation.

1. Does the Site qualify for a simplified evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No or Unknown *If you answered **"NO"** or **"UNKNOWN,"** then skip to **Step 3C** of this form.*

2. Did you conduct a simplified evaluation?

☐ Yes *If you answered **"YES,"** then answer **Question 3** below.*

☐ No *If you answered **"NO,"** then skip to **Step 3C** of this form.*

3. Was further evaluation necessary?

☐ Yes *If you answered **"YES,"** then answer **Question 4** below.*

☐ No *If you answered **"NO,"** then answer **Question 5** below.*

4. If further evaluation was necessary, what did you do?

☐ Used the concentrations listed in Table 749-2 as cleanup levels. *If so, then skip to **Step 4** of this form.*

☐ Conducted a site-specific evaluation. *If so, then skip to **Step 3C** of this form.*

5. If no further evaluation was necessary, what was the reason? *Check all that apply. Then skip to **Step 4** of this form.*

Exposure Analysis: WAC 173-340-7492(2)(a)

☐ Area of soil contamination at the Site is not more than 350 square feet.

☐ Current or planned land use makes wildlife exposure unlikely. Used Table 749-1.

Pathway Analysis: WAC 173-340-7492(2)(b)

☐ No potential exposure pathways from soil contamination to ecological receptors.

Contaminant Analysis: WAC 173-340-7492(2)(c)

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations that exceed the values listed in Table 749-2.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations that exceed the values listed in Table 749-2, and institutional controls are used to manage remaining contamination.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 15 feet at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays.

☐ No contaminant listed in Table 749-2 is, or will be, present in the upper 6 feet (or alternative depth if approved by Ecology) at concentrations likely to be toxic or have the potential to bioaccumulate as determined using Ecology-approved bioassays, and institutional controls are used to manage remaining contamination.

ECY 090-300 (07/2015) To request ADA accommodation including materials in a format for the visually impaired, call Ecology Toxic Cleanup Program 360-407-7170. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.

C. Site-specific evaluation. A site-specific evaluation process consists of two parts: (1) formulating the problem, and (2) selecting the methods for addressing the identified problem. Both steps require consultation with and approval by Ecology. *See* WAC 173-340-7493(1)(c).

1. Was there a problem? *See* WAC 173-340-7493(2).

☐ Yes *If you answered **"YES,"** then answer **Question 2** below.*

☐ No *If you answered **"NO,"** then identify the reason here and then skip to **Question 5** below:*

- ☐ No issues were identified during the problem formulation step.
- ☐ While issues were identified, those issues were addressed by the cleanup actions for protecting human health.

2. What did you do to resolve the problem? *See* WAC 173-340-7493(3).

- ☐ Used the concentrations listed in Table 749-3 as cleanup levels. *If so, then skip to **Question 5** below.*
- ☐ Used one or more of the methods listed in WAC 173-340-7493(3) to evaluate and address the identified problem. *If so, then answer **Questions 3 and 4** below.*

3. If you conducted further site-specific evaluations, what methods did you use?
Check all that apply. See WAC 173-340-7493(3).

- ☐ Literature surveys.
- ☐ Soil bioassays.
- ☐ Wildlife exposure model.
- ☐ Biomarkers.
- ☐ Site-specific field studies.
- ☐ Weight of evidence.
- ☐ Other methods approved by Ecology. If so, please specify:

4. What was the result of those evaluations?

- ☐ Confirmed there was no problem.
- ☐ Confirmed there was a problem and established site-specific cleanup levels.

5. Have you already obtained Ecology's approval of both your problem formulation and problem resolution steps?

☐ Yes If so, please identify the Ecology staff who approved those steps:

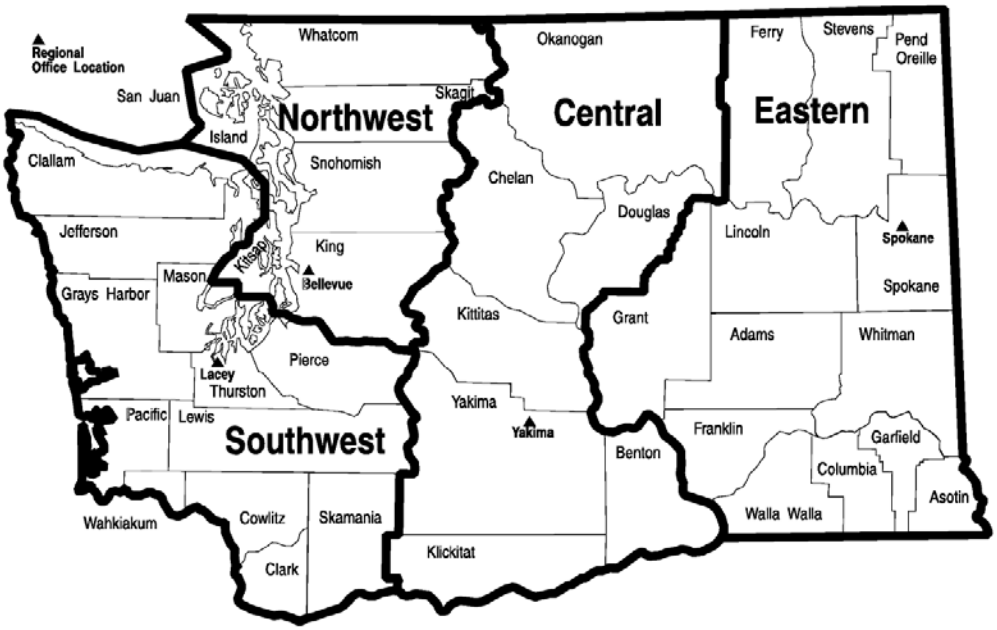
☐ No

ECY 090-300 (07/2015) To request ADA accommodation including materials in a format for the visually impaired, call Ecology Toxic Cleanup Program 360-407-7170. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.

Step 4: SUBMITTAL

Please mail your completed form to the Ecology site manager assigned to your Site. If a site manager has not yet been assigned, please mail your completed form to the Ecology regional office for the County in which your Site is located.

Northwest Region: Attn: VCP Coordinator 3190 160th Ave. SE Bellevue, WA 98008-5452	**Central Region:** Attn: VCP Coordinator 1250 West Alder St. Union Gap, WA 98903-0009
Southwest Region: Attn: VCP Coordinator P.O. Box 47775 Olympia, WA 98504-7775	**Eastern Region:** Attn: VCP Coordinator N. 4601 Monroe Spokane WA 99205-1295



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