

GW-001

1 of 2

**Bloomfield Refinery
River Terrance
Voluntary Corrective Measures
Bioventing System Annual Report**

Submitted 2013

**For Duration
Jan. 2012 – Dec. 2012**

February 28, 2013

John E. Kieling, Bureau Chief
New Mexico Environmental Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East
Santa Fe, NM 87505

Carl Chavez
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Dr
Santa Fe, NM 87505

UPS Tracking #: 1Z 881 839 01 5522 1808 (to NMED)
UPS Tracking #: 1Z 881 839 01 5301 7426 (to OCD)

6/1

**Re: River Terrace Voluntary Corrective Measures
Bioventing System Annual Report
January 2012 through December 2012**

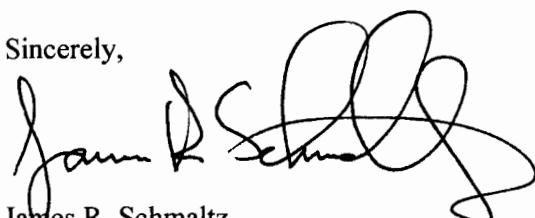
GW-1
New Thurm
River Terrace
Bioventing Inc

Dear Mr. Kieling and Mr. Chavez,

Western Refining Southwest, Inc. - Bloomfield Refinery submits the River Terrace Voluntary Corrective Measures Bioventing System Annual Report pursuant to Section V.B.1. of the July 2007 Consent Order. This report summarizes monitoring activities and data gathered at the River Terrace throughout 2012.

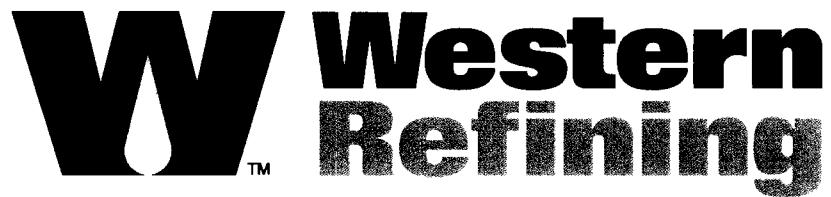
If you have questions or would like to discuss any aspect of the report, please contact me at (505) 632-4171.

Sincerely,



James R. Schmaltz
Health, Safety, Environmental, and Regulatory Director
Bloomfield Refinery

Cc: Allen Hains – Western Refining – El Paso



RIVER TERRACE ANNUAL REPORT
Voluntary Bioventing System

January – December 2012

Bloomfield Refinery
Western Refining Southwest, Inc.
#50 Rd 4990
Bloomfield, New Mexico 87413

Submitted: February 2013

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List of Acronyms

benzene, toluene, ethylbenzene, and xylene (BTEX)
below grade level (bgl)
bioventing well (BV)
diesel range organics (DRO)
dissolved oxygen (D.O.)
Environmental Protection Agency (EPA)
feet (ft)
gasoline range organics (GRO)
New Mexico Environment Department Hazardous Waste Bureau (NMED-HWB)
investigation derived waste (IDW)
liters (L)
maximum contaminant level (MCL)
methyl tert-butyl ether (MTBE)
micrograms per liter (ug/L)
micro mhos per centimeter (uMhos/cm)
milligrams per liter (mg/L)
millivolts (mV)
monitoring well (MW)
New Mexico Administrative Code (NMAC)
Oxidation reduction potential (ORP)
parts per million (ppm)
photoionization detector (PID)
polyvinyl chloride (PVC)
pounds per square inch (psi)
Resource Conservation and Recovery Act (RCRA)
separate phase hydrocarbon (SPH)
Solid Waste Management Units (SWMUs)
Standard cubic feet per minute (scfm)
Temporary piezometer (TP)
top of casing (TOC)
total petroleum hydrocarbon (TPH)
toxicity characteristic leaching procedure (TCLP)
volatile organic constituent (VOC)
Water Quality Control Commission (WQCC)

Executive Summary

This report is a summary of monitoring activities conducted in 2012 at the River Terrace Bioventing System located at the Bloomfield Refinery. The following is a synopsis of activities performed at the River Terrace in 2012.

Dewatering System

The Dewatering System operated well during 2012. A total of 1,292,472 gallon of impacted groundwater was removed and treated through the biovent system GAC filters. At the inlet to the dewater system, the average BTEX concentration detected above the respective laboratory detection limits was 3.1 mg/L. The average TPH-DRO and TPH-GRO GAC inlet concentrations were 1.15 mg/L and 6.38 mg/L, respectively. The analytical samples collected at the GAC outlet were consistently below the respective laboratory reporting limits. Therefore, the groundwater system was successful at targeting the impacted groundwater and treating the water to below respective regulatory screening limits.

Aeration System

The aeration system ran throughout 2012, except during times when regular maintenance was performed on the mechanical equipment and also during portions of when the system optimization work was being implemented. The air pressure readings at each of the biovent wells were consistent, affirming an even distribution of air throughout the biovent area.

Soil gas field measurements were collected at selective TP wells. The field readings show that there exists sufficient oxygen levels in the biovent area subsurface to sustain bioremedial activity.

Groundwater Monitoring

On-going groundwater monitoring activities were conducted in 2012 in compliance with the New Mexico Environment Department – Hazardous Waste Bureau's approval of Western's proposed performance monitoring at the River Terrace (NMED, 2011). Groundwater samples were collected from selected TP and monitoring wells during high flow and low flow operating conditions of the San Juan River. The groundwater sample results show that the area of the impacted groundwater is contained and separated from the San Juan River through use of groundwater recovery efforts and the existence of the underground slurry barrier. Elevated groundwater concentrations are localized to the area around TP-1. The analytical for samples collected at monitoring well MW-49, located on the river side of the river terrace slurry wall,

show that the San Juan River continues to not be impacted by the groundwater impacts within the biovent area.

Western has conducted three separate in-situ respiration tests at the River Terrace area in May 2006, September 2007, and October 2009. In a response letter from the New Mexico Environment Department – Hazardous Waste Bureau (NMED) dated November 23, 2010 (NMED, 2010), NMED granted approval to discontinue conducting the in-situ respiration tests. Therefore to-date, no additional in-situ respiration testing has been conducted.

System Optimization

On October 12, 2012, NMED Hazardous Waste Bureau approved a Work Plan submitted by Western dated October 9, 2012 authorizing Western to optimize the remediation efforts at the River Terrace area. Optimization activities conducted in 2012 included the removal of approximately 250 cubic yards of impacted clay-type soil from the river terrace area, and conversion of a portion of the biovent system to an air sparging system in efforts to target the most impacted groundwater area located within the southwest corner of the River Terrace Area. A more detailed report documenting these activities will be submitted to NMED-HWB under a separate cover.

Recommendations

Soil gas field measurements indicate that the aeration system has been successful in maintaining sufficient oxygen within the subsurface to help sustain bioremedial activity. Groundwater samples indicate that the impacted groundwater in the River Terrace area remains within the influence area of the bioventing system. GAC filter monitoring results indicate that the GAC filter system is successful at treating the extracted groundwater.

Western will continue to refine the optimization changes to the system with the intent to target both soil and groundwater remediation through the combination of air sparging, bioventing and groundwater extraction. A more detailed summary of the system optimization activities will be submitted to NMED-HWB under a separate cover.

Section 1

Introduction

1.1 Site Location and Description

Owner: San Juan Refining Company, a New Mexico Corporation
1250 Washington Street
Tempe, Arizona 85281

Operator: Western Refining Southwest, Inc.
(Formerly Giant Industries Arizona, Inc.), an Arizona Corporation
1250 Washington Street
Tempe, Arizona 85281

Facility: Bloomfield Refinery (physical address)
50 Road 4990
Bloomfield, New Mexico 87413

Western Refining Southwest, Inc. (postal address)
P.O. Box 159
Bloomfield, New Mexico 87413

US EPA ID: NMD089416416

SIC Code: 2911

The Bloomfield Refinery is currently owned by San Juan Refining Company, a New Mexico corporation, and operated by Western Refining Southwest, Inc. formerly known as Giant Industries Arizona, Inc., an Arizona corporation. The Bloomfield Refinery had an approximate refining capacity of 18,000 barrels per day. Various process units operated at the facility, including crude distillation, reforming, fluidized catalytic cracking, sulfur recovery, merox treater, catalytic polymerization, and diesel hydrotreating. Products produced at the refinery included gasoline, diesel fuels, jet fuels, kerosene, propane, butane, naphtha, residual fuel, fuel oils, and LPG.

The Bloomfield Refinery is located on approximately 263 acres south of Bloomfield, New Mexico in San Juan County (Figure 1). The refinery complex is bisected by County Road 4990 (Sullivan Road), which runs east-west. The process units, tank farm, wastewater treatment system, raw water ponds, and fire training area are located north of the county road. The crude oil and product loading racks, LPG storage tanks and loading racks, maintenance buildings/90-day storage area, pipeline offices, transportation truck shop, and Class I injection well are located south of the country road (Figure 2).

The refinery is located on a bluff 120 feet above the south side of the San Juan River. The top of the bluff is relatively flat and is at an elevation of 5,540 feet above sea level. Based on the available site-specific and regional subsurface information, the site is underlain by the Quaternary Jackson Lake terrace deposits, which unconformably overlie the tertiary Nacimiento Formation. The Jackson Lake deposits consist of fine grained sand, silt, and clay that grades to coarse sand, gravel and cobble size material closer to the contact with the Nacimiento Formation. The Jackson Lake Formation is over 40 feet thick near the southeast portion of the site and generally thins to the northwest toward the San Juan River. The Nacimiento Formation is primarily composed of fine grained materials (e.g., carbonaceous mudstone/claystone with interbedded sandstones) with a reported local thickness of approximately 570 feet (Groundwater Technology, 1994).

The River Terrace Area is located north of the Hammond Ditch, approximately 120 feet lower in elevation than the Refinery process and Tank Farm areas. Since 2006, Western has operated a bioventing system for the purpose of providing oxygen to the subsurface and support aerobic biodegradation of petroleum hydrocarbons that were identified in soil along the western portion of the River Terrace to a depth of approximately 8 feet below existing grade surface (bgs). The bioventing system includes a dewatering system, which consists of two dewatering wells and a collection gallery. The dewatering wells are equipped with variable-speed submersible pumps, which were installed and operational in January 2006. The collection gallery, consisting of a 4-inch perforated pipe with an 8-inch diameter vertical riser pipe and submersible pump, was installed and placed into operation by early October 2009. The dewater system is used to enhance the effectiveness of the bioventing system by dewatering the influenced area. The more efficient the dewatering system operates the larger vadose zone that is exposed to air injection, and thus supporting enhanced bioremedial activity.

Section 2

Background

This section presents a summary of the events and activities conducted at the River Terrace Area since 1999.

1999

- Installation of a bentonite slurry and sheet pile barrier wall adjacent to the San Juan River was completed. The barrier extends approximately 35 feet below the ground surface, and extends around the perimeter of the riverbank from the bluff opposite the west end of the process area to the river inlet station. The bentonite slurry and sheet pile barrier wall was installed to prevent hydrocarbons from migrating into the San Juan River.

2004

- Two groundwater monitoring wells were installed (MW-48 and MW-49) to replace two piezometers (P-4 and P-5). In addition, eight temporary piezometers were installed (TP-1 through TP-8). The purpose of installing the monitoring wells and piezometers was to determine the extent of hydrocarbon impacts in soil on the refinery side of the bentonite slurry wall and sheet pile barrier.

2005

- Bloomfield Refinery initiated construction of the River Terrace Bioventing Project to provide oxygen to the subsurface and support aerobic biodegradation of petroleum hydrocarbons existing in the soil at the River Terrace. Construction activities included the following:
 - Installation of five additional piezometers (TP-9 through TP-13) within the eastern portion of the River Terrace area.
 - Construction of an aeration system designed to increase bioremedial activity in the subsurface. The aeration system included installation of 13 bioventing wells (BV-1 through BV-13), all located within the western portion of the River Terrace area. The bioventing wells were installed in August 2005.
 - Construction of a dewatering system designed to expand the bioremedial vadose zone. The dewatering system included installation of two dewatering wells (DW-1 and DW-2). The dewatering wells were installed in August 2005.

2006

- Operation of the Bioventing System commenced in January 2006. System monitoring activities were conducted in compliance with the approved River Terrace Voluntary Corrective Measures Monitoring Plan (Revised) dated October 28, 2005 (Malcolm Pirnie, 2005).
- An In-Situ Respiration Test was conducted in May 2006. The results of the In-Situ Test were used to evaluate progress of the bioremedial activity.

- Quarterly performance monitoring was conducted in March, June, September, and December of 2006.

2007

- Quarterly performance monitoring of the Bioventing System was conducted in February, June, August, and October.
- An In-Situ Respiration Test was conducted in September. The results of the In-Situ Test were used to evaluate progress of the bioremedial activity.
- The dewatering pumps were replaced in February 2007.
- Breakthrough in the lead GAC (V-612) was detected in April 2007. Upon confirmation of breakthrough, GAC filter V-611 became the lead GAC filter. V-612 was replaced and placed back in service in June as the lag filter.

2008

- Quarterly performance monitoring activities for the Bioventing System were conducted in March, May, July, and November.
- The aeration system blower bearings were replaced in February 2008.
- The dewatering pump equipped in monitoring well MW-48 was replaced in August 2008.
- Blower piping was upgraded in October 2008.

2009

- Quarterly performance monitoring for the Bioventing System was conducted in March, April, September, and October 2009.
- An In-Situ Respiration Test was conducted during the week of October 26, 2009.
- In order to improve and optimize the dewatering system, a collection gallery, pump, and piping system were installed in the southwest portion of the River Terrace and put in service October 13, 2009.

2010

- Quarterly performance monitoring for the Bioventing System was conducted in March, April, July, and October of 2010.
- Following suspension of refining operations on November 23, 2009, operation of the River Pump station decreased, thus impacting the frequency of the River Terrace dewatering system. Although the aeration system continued to operate consistently, operation of the dewatering system has become infrequent due to the decreased demand for fresh water to support current facility operations.

2011

- In March 2011, Western received approval from NMED-HWB to modify the piping of the River Terrace dewatering system. Piping modifications included installation of a 3,000-gallon surge tank and booster pump which allows the treated water from the River Terrace dewatering system to discharge directly into the Refinery's fresh water ponds. Piping modifications were completed in April 2011.

- Approved modifications to on-going monitoring at the River Terrace (NMED, 2011) were implemented as part of the 2011 sampling program for the River Terrace. High and low flow monitoring events were conducted in June 2011 and July 2011, respectively.
- Quarterly performance monitoring of the Biovent System GAC filters inlet and outlet occurred in March, May, July, and October of 2011.
- Monthly samples were collected at the discharge of the lead GAC filter on a monthly basis, with the exception that a sample was not collected in April 2011 due to the dewatering system being off-line.

2012

- In June 2012, the lead GAC filter was exchanged for a new filter. The biovent dewatering system consists of two GAC filters that operate in series. The new filter was placed in the lag position, and the previous lag filter was placed in the lead position.
- In October 2012, Western submitted a Work Plan that summarized proposed activities to optimize the remediation progress at the River Terrace. Approval of the Work Plan was issued by NMED-HWB on October 12, 2012. Field activities commenced on October 20, 2012 and included the following activities:
 - Removal of impacted clay soil at the River Terrace; and
 - installation of a sparging piping to target areas of the river terrace where groundwater is impacted.

Section 3

Performance Monitoring

Performance monitoring at the River Terrace area includes collecting groundwater and soil gas samples for laboratory analysis, collecting field measurement and system readings, and evaluating system treatment performance by the GAC filter system. The location of the river terrace wells and bioventing system is shown in Figure 3. A summary of the field methods used to conduct performance monitoring at the River Terrace is provided in Appendix B.

The following is a summary of monitoring activities conducted at the River Terrace area in 2012. These activities were performed in accordance with NMED's approval to modify the monitoring plan for the River Terrace area (NMED, 2011), and in accordance with NMED's approval to optimize the river terrace remediation system (NMED, 2012).

3.1 Groundwater Monitoring

Based on NMED's approval to modify the sampling requirements for the River Terrace area (NMED, 2011), groundwater samples were collected in 2012 during high and low flow operation of the San Juan River. Groundwater sampling activities during high flow conditions of the San Juan River (i.e. with a flow rate of approximately 5,000 scfm) were conducted the week of May 29, 2012. Groundwater sampling activities during low flow conditions of the San Juan River (i.e. with a flow rate of approximately 500 scfm) were conducted the week of April 9, 2012. The following is a summary of activities performed during the two groundwater monitoring events conducted in 2012.

3.1.1 Groundwater Measurements

Depth-to-groundwater and depth-to-product measurements were collected from each of the TP wells, DW-1, and MW-49 prior to the collection of groundwater samples during the San Juan River high flow and low flow sampling events. A summary of the groundwater measurements is provided in Table 2.

3.1.2 Groundwater Field Parameters

Groundwater field parameters (temperature, pH, conductivity, D.O., and ORP) were collected prior to collecting groundwater samples. Groundwater field parameters were collected from TP-1, TP-2, TP-5, TP-6, TP-8, TP-9, and MW-49 during low flow and high flow operation of the San

Juan River. A summary of the groundwater field parameters collected during each sampling event are included in Table 2.

3.1.3 Groundwater Sampling

Groundwater samples were collected from specific River Terrace area wells during periods of high flow and low flow operation of the San Juan River. Groundwater samples were collected from TP-1, TP-2, TP-5, TP-6, TP-8, TP-9 and MW-49. Groundwater samples collected during each sampling event were submitted to Hall Environmental Analytical Laboratory and analyzed for the following:

- Volatile Organic Compounds – BTEX and MTBE by EPA Method 8021B;
- Total Petroleum Hydrocarbons (TPH) – Gasoline Range Organics (GRO) by EPA Modified Method 8015B;
- Total Petroleum Hydrocarbons (TPH) – Diesel Range Organics (DRO) by EPA Modified Method 8015B; and
- Total Recoverable Metals – Total lead by EPA Method 6010C.

The procedure followed for collecting groundwater samples is provided in Appendix B. A summary of the groundwater analytical results is provided in Table 2.

3.2 Soil Vapor Monitoring

3.2.1 Pressure and Velocity Readings

During each sampling event, field pressure readings were collected from TP-1, TP-2, TP-5, TP-6, TP-8, TP-9, and MW-49 using a hand-held magnahelic gauge connected to the sample port at the top of each well. Pressure readings were inadvertently not collected at TP-7 and DW-1 during the high and low flow sampling events. Refer to Table 1 for a summary of the pressure readings collected at the TP wells and MW-49 in 2012.

Injection pressure and air flow velocity readings were collected from the bioventing wells during the high and low sampling events. Pressure readings were inadvertently not collected on a quarterly frequency. Overall system pressure measurements were also collected at the main air blower. Due to the piping configuration, an all system flowrate measurement could not be collected. Refer to Table 3 for a summary of the pressure and air flow velocity readings.

3.2.2 Soil Gas Field Parameters

Field measurements of soil gas hydrocarbons (using a PID), oxygen, and carbon dioxide concentrations (using a multi-gas meter) were collected from each of the TP wells within the western portion of the River Terrace area (TP-1, TP-2, TP-5, TP-6, TP-8, and TP-9), and MW-49 during both the low flow and high flow sampling events. Soil gas field parameters were inadvertently not collected at TP-7 and DW-1 during both high and low flow sampling events. A summary of the soil gas field parameters is provided in Table 1.

3.2.3 Soil Gas Sampling

Soil gas samples were collected from the TP wells located in the western portion of the River Terrace area (TP-1, TP-2, TP-5, TP-6, TP-8, and TP-9), and MW-49 during low flow operation of the San Juan River. Additional soil gas samples were collected from the same 7 wells during high flow conditions. Samples were inadvertently not collected at TP-3, TP-7, TP-10, TP-11, TP-12, TP-13, and DW-1 during low flow operation of the San Juan River. All soil gas samples were collected in teflar bags, and submitted to Hall Environmental Analytical Laboratory to be analyzed for the following parameters:

- Volatile Organic Compounds – BTEX by EPA Method 8021B
- Total Petroleum Hydrocarbons – GRO by EPA Method 8015B

A summary of the soil gas analytical results is provided in Table 1.

3.3 Bioventing System Performance Monitoring

3.3.1 GAC Sampling

Extracted groundwater from the active dewatering wells is treated prior to discharging to the raw water ponds, located within the east portion of the refinery. Extracted groundwater is pumped through two granular activated carbon (GAC) filters positioned in series for removal of dissolved-phase hydrocarbons.

GAC influent (GAC-Inlet) samples, GAC effluent samples (GAC-Lag), and lead GAC filter effluent samples (GAC-Lead) were collected quarterly. Samples were submitted to Hall Environmental Analytical Laboratory and analyzed for the following parameters:

- Volatile Organic Compounds – BTEX by EPA Method 8021B
- Total Petroleum Hydrocarbons – Gasoline Range Organics by EPA Method 8015B
- Total Petroleum Hydrocarbons – Diesel Range Organics by EPA Method 8015B

Additional samples were collected at the outlet of the lead GAC (GAC-LEAD) monthly during 2012. First quarter samples collected at the GAC inlet, and GAC outlet were inadvertently not analyzed for BTEX. GAC samples collected during 2012 were inadvertently not analyzed for MTBE. A summary of the GAC sample analytical results is provided in Table 4.

3.3.2 *In-Situ Respiration Test*

Western has conducted three separate in-situ respiration tests at the River Terrace area in May 2006, September 2007, and October 2009. The suspension of refining operations causes the dewatering system to operate intermittently which in turn affects exposure of the vadose zone thus affecting the accuracy of the in-situ respiration test. In a response letter from NMED dated November 23, 2010 (NMED010), NMED granted approval to discontinue conducting the in-situ respiration tests. Therefore an in-situ respiration was not performed in 2012.

Section 4

Remediation System Optimization

During installation of the River Terrace collection gallery in 2009, Western identified a hydrocarbon-impacted clay layer approximately 4 to 6 inches thick and between 3 and 6 feet below the ground surface. Based on field observations made during installation of the collection gallery, the impacted clay layer was believed to be serving as a source to groundwater during high river flow conditions, and was also thought to be serving as a “cap” over the aeration area and thus deterring progress of aerating the vadose zone.

On October 12, 2012, NMED Hazardous Waste Bureau approved a Work Plan submitted by Western dated October 9, 2012 that summarized proposed activities intended to optimize the remediation efforts at the River Terrace area. The Work Plan activities included removal of impacted clay-type soil, and conversion of a portion of the biovent system to an air sparging system in efforts to target the most impacted groundwater area located within the southwest corner of the River Terrace Area. Below is a brief summary of the activities performed in 2012 pursuant to the approved optimization Work Plan. A more detailed report documenting these activities will be submitted to NMED-HWB under a separate cover.

4.1 Excavation Activities

On October 22nd Western initiated field activities that included removal of a clay layer located within the western portion of the river terrace area. Through excavation efforts, the clay layer was found to be approximately 3 to 4 feet below grade and measured between 3 to 6 inches thick.

Initially as outlined in the approved Work Plan, excavation efforts were to be limited to the southwest portion of the biovent area. However, due to the effectiveness of excavation efforts, the excavated area extended to over 90 percent of the biovent area resulting in removal of the majority of the clay layer in the River Terrace area.

Figure 8 shows the approximate footprint of the area excavated in 2012.



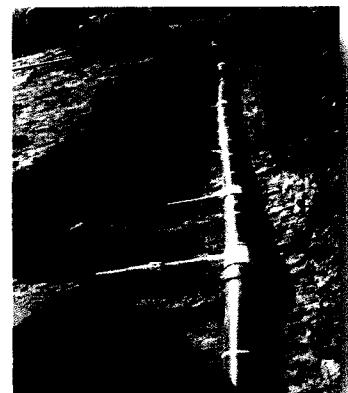
A contaminated clay layer was found 3 ft below grade. This picture shows the edge of the contamination on the North West side of the River Terrace.

Excavation efforts included removal of the soil above the clay layer (overburden) to a depth of just above the clay layer. The impacted clay layer was then carefully segregated and staged on appropriate secondary containment. The overburden was placed back into the excavation and mixed vigorously to enhance the bacterial consumption of hydrocarbons.

4.2 Air Sparging Modifications

In order to optimize removal of the clay layer, six biovent wells (BV-8 through BW-13) and two piezometers (TP-1 and TP-2) were removed during excavation activities due to their close proximity to the target areas. The biovent wells were replaced with a more aggressive air sparging piping network.

A total of 13 new sparging tubes were installed to replace the six removed biovent wells. Each sparging tube is made of 2-inch diameter PVC and is approximately 5 ft in length, extending vertically into the water table. At the end of each sparging tube is a 6-inch long machine slotted pipe. The machine-slotted section of pipe is approximately 2 feet below the water surface enhancing the sparging effects. The new sparging tubes connect to a 4-inch PVC header pipe from which air is transferred through from the biovent system main air blower. The 4-inch piping manifold is buried approximately two feet below ground to protect the piping from weather degradation effects and allow better access to the biovent area. There are 4 new sparging tubes on the middle line and 9 new sparging tubes along the Southside of the River Terrace. The approximate location of the 13 sparging points are shown on Figure 8.



New Sparging Tubes were added to the system

The new modification to the bio-venting system was run through volume calculations by a mechanical engineer in order to verify it would continue to function correctly, according to the specifications of the system. On completion of the new system, air pressure tests were also preformed to confirm functionality of the new system.

4.3 Investigation Derived Waste

Approximate 250 cubic yards of excavated soil was placed on secondary containment. Two composite samples were collected of the staged material. Each composite sample was collected by depositing five aliquots of soil from five random locations of each stock pile into a

clean sample container provided by the analytical laboratory. Each composite sample was sent to the laboratory and analyzed for the following:

- BTEX by EPA Method 8260B;
- TPH-DRO by EPA Method 8015B;
- TPH-GRO by EPA Method 8015B'
- RCRA 8 TCPL Metals by EPA Method 6010B; and
- Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8310.

The waste characterization results showed that the material in both stock piles is non-hazardous.

Section 5

Conclusions and Recommendations

This section summarizes and provides an evaluation of the results shown in field monitoring data and analytical data. The analytical reports for groundwater and soil gas samples are provided in Appendix D. The regulatory criteria and groundwater clean-up standards used to compare the river terrace sample results are provided in Appendix A.

5.1 Conclusions

5.1.1 Groundwater Monitoring

Depth-to-groundwater measurements were collected during the high flow and low flow operation of the San Juan River. The change in elevation at MW-49 (the well located in the river-side of the river terrace slurry wall) between low and high flow operation of the San Juan River was approximately 3.8 feet. The average groundwater elevation increase within the bioventing area between low and high flow operation of the San Juan River was approximately 1.6 ft. The lesser effect of the groundwater elevation change between the high and low flow conditions of the San Juan River within the bioventing area could be attributed to the operation of the dewatering system and the existence and the underground slurry barrier. The change in elevation at TP-9 between high flow and low flow river operations (3.57 ft) is similar to changes seen at MW-49 (the monitoring well along the river).

Groundwater samples were collected at specific wells and analyzed for volatile organic compounds (benzene, toluene, ethylbenzene, xylenes, and MTBE), TPH-DRO, TPH-GRO, and total metals (lead). The analytical results for samples collected in 2012 were below their respective screening levels with the following exceptions:

- Lead was detected at concentrations above the Maximum Contaminant Level (MCL) of 0.015 mg/L in five locations (TP-1, TP-2, TP-5, TP-6, and TP-8). The highest concentration of lead was detected at TP-5 (0.360 mg/L) during low flow states of the San Juan River. All the locations where lead was detected above the respective MCL are located within the active bioventing area.
- Benzene was detected at concentrations above the respective MCL (0.005 mg/L) at two locations (TP-1 and TP-2). The highest concentration of benzene was detected at TP-1 (3.50 mg/L) during low flow stages of the San Juan River. Both TP-1 and TP-2 are located within the active bioventing area.
- Ethylbenzene was detected at concentrations above the respective MCL (0.7 mg/L) at two locations (TP-1 and TP-2.). The highest concentration of ethylbenzene was detected at TP-2 (3.6 mg/L) during low flow stages of the San Juan River. The two

locations where ethylbenzene was detected above the respective screening level are located within the active bioventing area.

- Xylenes were detected at concentrations above the respective WQCC screening level (0.62 mg/L) at two locations (TP-1 and TP-2). The highest concentration of xylenes was detected at TP-2 (25.0 mg/L) during low flow stages of the San Juan River. The two locations where xylenes were detected above the respective screening level are located within the active bioventing area.
- TPH-DRO was detected at concentrations above the respective NMED screening level of 0.2 mg/L at four locations (TP-1, TP-2, TP-5, and TP-8). The highest concentration of TPH-DRO was detected at TP-1 (2.8 mg/L) during low flow states of the San Juan River. All four locations where TPH-DRO was detected above the respective screening level are located within the active bioventing area.

Table 2 provides a summary of the analytical groundwater results. Figure 6 and Figure 7 are concentration maps shows the benzene, toluene, ethylbenzene, and xylenes concentrations for the River Terrace wells during high and low flow conditions, respectively.

5.1.2 *Soil Vapor Monitoring*

Soil gas field readings were collected to measure organics, oxygen, and carbon dioxide in the subsurface. The PID meter detected low level concentrations of organics, ranging from 0.0 ppm to 52.1 ppm. The highest concentration was detected at TP-1, located within the active area of the bioventing system. The oxygen levels, ranging from 20.8 % and above indicate that the entire river terrace area is well oxygenated, which is supportive of bioremedial activity. Soil gas field readings are provided in Table 1.

Soil gas samples were collected at specific wells and analyzed for volatile organic compounds (benzene, toluene, ethylbenzene, and xylenes), and TPH-GRO. A summary of the results is provided in Table 1. The analytical results for samples collected in 2012 were not detected above the laboratory screening level, with the exception of the following:

- Benzene was detected in a sample collected at TP-1 during high flow stages of the San Juan River. Benzene was detected in soil gas at a concentration of 12.0 ug/L.
- Ethylbenzene was detected in samples collected at TP-1, with a concentration detected at 12.0 ug/L during high flow stages of the San Juan River.
- Xylene was detected in samples collected at TP-1, with a concentration detected at 26 ug/L during high flow states of the San Juan River.
- TPH-GRO was detected in samples collected at TP-1, TP-6, TP-7 and TP-8, with the highest concentration detected at TP-1 (190.0 ug/L) during high flow states of the San Juan River.

Soil gas field measurements indicate that the aeration system has been successful in maintaining sufficient oxygen within the subsurface to help sustain bioremedial activity. The elevated PID field readings correlate with the respective soil gas analytical results. Well location TP-1 shows the highest soil gas concentrations, which also correlates to the groundwater results in this location.

5.1.3 Biovent System Monitoring

In 2012 approximately 1,292,472 gallons of groundwater were treated through river terrace GAC filters. Groundwater samples were collected at the GAC filter inlet, at the outlet of the lead filter, and at the outlet of the lag filter during 2012 and submitted to the lab for analysis of volatile organic compounds (benzene, toluene, ethylbenzene, and xylenes), TPH-DRO, and TPH-GRO. At the GAC-inlet, the average BTEX concentration detected above the respective laboratory detection limit for 2012 was 3.1 mg/L. The average TPH-DRO and TPH-GRO GAC inlet concentrations were 1.15 mg/L and 6.38 mg/L, respectively.

Benzene and TPH-GRO concentrations were detected at the outlet of the lead GAC during the first and second quarter of 2012. The average detected benzene and TPH-GRO concentration at the GAC-Lead sample location was 0.02 mg/L and 0.61 mg/L, respectively.

During the later part of June 2012, Western changed-out the lead GAC filter with a new filter. This is reflective in the non-detect sample results of samples collected from the effluent of the lead GAC filter after June 2012. Samples collected at the outlet of the GAC filter throughout 2012 (GAC-Lag) shows that the intermittent breakthrough detections in the lead filter were captured by the lag filter. A summary of the sample results is presented in Table 4.

Pressure readings were collected at the biovent well and the main air blower in 2012. The air injection system ran consistently throughout 2012 and required no changes to the air distribution. The pressure readings at each BV well was consistent and at a sufficient level to provide aeration to the vadose zone. Velocity readings were not collected at each of the BV locations due to instrument failure. As part of the system's original construction, each BV well was equipped with an in-line flow meter. Over the years, these flow meters have weathered. The absence of a velocity measurement is not reflective of a decrease in air injection. This is evident in the field and through the consistent pressure readings at each well location.

5.2 Recommendations

Soil gas field measurements indicate that the aeration system has been successful in maintaining sufficient oxygen within the subsurface to help sustain bioremedial activity.

Groundwater samples indicate that the impacted groundwater in the River Terrace area remains within the influence area of the bioventing system. GAC filter monitoring results indicate that the GAC filter system is successful at treating the extracted groundwater.

Western will continue to refine the optimization changes to the system with the intent to target both soil and groundwater remediation through the combination of air sparging, bioventing and groundwater extraction. A more detailed summary of the system optimization activities will be submitted to NMED-HWB under a separate cover. Samples inadvertently not collected in 2012 will be collected going forward.

Section 6

References

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TABLES

TA 1
2012 Soil Gas Monitoring Data Summary

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (Inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ng/L)	Toluene (ng/L)	Ethylbenzene (ng/L)	Xylenes (ng/L)	TPH-GRO (ng/L)
High Flow 2012	Week of 05-31-12	8.4	4.56	0.00	52.1	20.9	0.0	12.00	<0.50	12.00	26.0	190	
Low Flow 2012	Week of 04-9-12	11.0	5.99	0.00	18.7	20.8	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
Low Flow 2011	Week of 07-26-11	8.9	7.05	0.00	5.3	20.9	0.0	<0.10	<0.10	0.12	10	420	
High Flow 2011	Week of 06-13-11	10.8	5.86	0.00	1.3	19.6	0.0	0.82	<0.10	0.54	0.56	11	
4th Quarter 2010	Week of 10/18/10	11.5	6.30	0.00	0.7	20.2	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
3rd Quarter 2010	Week of 7/20/10	11.0	5.90	0.00	4.3	20.5	0.1	0.14	<0.10	0.39	1.5	17	
2nd Quarter 2010	Week of 4/19/10	12.7	6.96	0.30	56.2	20.3	0.0	<0.10	0.3	0.11	7.4	220	
1st Quarter 2010	Week of 3/08/10	8.0	4.40	0.00	6.2	20.9	0.0	0.70	<0.10	0.62	3.8	34	
4th Quarter 2009	Week of 10-05-09	8.9	4.90	0.00	5.3	20.9	0.0	0.19	<0.10	2.20	12.0	49	
3rd Quarter 2009	Week of 9/10/09	8.9	4.90	0.00	5.1	20.9	0.1	0.62	0.12	94.0	3.3	67	
2nd Quarter 2009	Week of 4/20/09	10.0	5.26	2.00	234.0	20.9	1.1	5.10	<0.10	16.0	100.0	330	
1st Quarter 2009	Week of 3/02/09	9.0	4.91	1.00	37.8	20.9	0.0	0.92	<0.10	3.8	24.0	65	
4th Quarter 2008	Week of 11/10/08	8.0	4.85	0.00	20.4	20.9	0.0	7.70	<0.50	8.0	31.0	210.0	
3rd Quarter 2008	Week of 7/14/08	9.9	5.37	0.00	10.6	20.9	0.0	0.16	0.19	0.2	6.3	48.0	
2nd Quarter 2008	Week of 5/12/08	7.2	3.97	0.00	10.4	20.9	0.0	0.40	<0.10	0.42	1.4	15.0	
1st Quarter 2008	Week of 03/10/08	6.8	3.63	0.00	328.0	20.9	0.4	4.50	<0.10	6.0	11.0	90.0	
4th Quarter 2007	Week of 10/29/07	9.6	5.29	0.00	51.0	19.3	0.7	6.10	<0.10	9.0	12.0	95.0	
3rd Quarter 2007	Week of 8/20/07	11.4	6.24	0.00	3275.0	17.9	4.2	23.00	<0.10	75.0	390.0	1300.0	
2nd Quarter 2007	Week of 6/18/07	10.3	5.67	0.00	301.0	19.0	0.4	<0.10	<0.10	0.28	1.0	7.4	
1st Quarter 2007	Week of 2/26/07	14.2	7.79	0.11	1981.0	20.4	0.3	6.10	8.20	150	1200.0	7300.0	
4th Quarter 2006	Week of 12/04/06	13.5	7.42	0.02	1146.0	20.8	0.3	<5.00	8.30	140.0	1000.0	8000.0	
3rd Quarter 2006	Week of 9/11/06	10.4	5.68	0.01	85.5	20.6	0.1	29.00	<2.0	36.0	170.0	920.0	
2nd Quarter 2006	Week of 6/7/06	12.5	6.80	0.05	1452.0	18.9	0.5	2.60	5.50	<2.0	210.0	3100.0	
1st Quarter 2006	Week of 3/06/06	15.0	8.04	0.30	1534.0	20.7	0.1	22.00	321.00	12.0	2100.0	8500.0	
Pre-Dewater	Week of 1/09/06	9.4	5.14	0.00	1401.0	15.0	1.3	5.80	47.00	3.5	320.0	2800.0	

TP-1

TA 1
2012 Soil Gas Monitoring Data Summary

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (Inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH-GRO (ug/L)
High Flow 2012	Week of 05-31-12	11.2	6.10	7.00	0.3	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
Low Flow 2012	Week of 04-9-12	13.8	7.54	2.00	0.0	20.8	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
Low Flow 2011	Week of 07-26-11	14.1	8.34	4.70	0.4	20.3	0.0	<0.10	<0.10	0.17	0.1	5.1	
High Flow 2011	Week of 06-13-11	12.9	7.23	1.50	2.5	19.7	0.0	<0.10	<0.10	<0.10	0.63	18	
4th Quarter 2010	Week of 10/18/10	14.1	7.70	4.00	0.4	20.3	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
3rd Quarter 2010	Week of 7/20/10	13.0	7.29	6.20	0.6	20.5	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
2nd Quarter 2010	Week of 4/19/10	14.9	8.13	8.00	1.3	20.6	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
1st Quarter 2010	Week of 3/08/10	12.0	6.56	18.00	0.6	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2009	Week of 10-05-09	12.0	6.60	3.10	0.7	20.9	0.0	<0.10	<0.10	<0.10	0.34	<5.0	
3rd Quarter 2009	Week of 9/10/09	11.9	6.52	2.50	0.3	20.9	0.1	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
2nd Quarter 2009	Week of 4/20/09	13.0	6.89	8.20	87.5	20.9	0.0	<0.10	<0.10	<0.10	15.0	290	
1st Quarter 2009	Week of 3/02/09	11.8	6.46	10.50	70.5	20.9	0.0	<0.50	<0.50	1.10	48.0	370	
4th Quarter 2008	Week of 11/10/08	5.8	6.72	6.00	19.5	20.9	0.0	<0.10	<0.10	0.14	1.7	78.0	
3rd Quarter 2008	Week of 7/14/08	12.9	7.06	5.00	71.7	20.9	0.1	<0.50	0.78	1.20	47.0	410.0	
2nd Quarter 2008	Week of 5/12/08	10.0	5.52	1.20	30.3	20.9	0.1	2.80	<1.0	7.10	34.0	310.0	
1st Quarter 2008	Week of 03/10/08	9.7	5.30	1.20	12.5	20.9	0.0	0.57	<0.10	0.36	1.1	18.0	
4th Quarter 2007	Week of 10/29/07	12.5	6.86	0.00	0.7	19.7	0.0	<0.10	<0.10	<0.10	<0.10	<5.0	
3rd Quarter 2007	Week of 8/20/07	14.1	7.73	0.00	13.0	19.9	0.0	<0.10	<0.10	<0.10	<0.10	<5.0	
2nd Quarter 2007	Week of 6/18/07	13.7	7.50	0.10	112.0	20.1	0.1	<0.10	<0.10	1.10	1.4	10.0	
1st Quarter 2007	Week of 2/26/07	16.2	8.86	0.10	8.8	20.6	0.1	<0.10	<0.10	1.1	17.0	88.0	
4th Quarter 2006	Week of 12/04/06	16.5	9.03	0.08	67.0	20.9	0.0	0.11	<0.10	1.6	18.0	120.0	
3rd Quarter 2006	Week of 9/11/06	13.4	7.37	0.01	5.4	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<5.0	
2nd Quarter 2006	Week of 6/17/06	15.1	8.27	0.15	23.8	20.9	0.0	0.21	0.23	0.12	2.8	25.0	
1st Quarter 2006	Week of 3/06/06	18.0	9.83	0.05	92.7	20.9	0.0	0.36	1.80	1.4	17.0	150.0	
Pre-Dewater	Week of 1/09/06	12.0	6.62	0.00	1589.0	4.0	6.4	7.80	11.00	8.0	88.0	1100.0	

TP-2

TA 1
2012 Soil Gas Monitoring Data Summary

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (Inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH-GRO (ug/L)
High Flow 2012	Week of 05-31-12	NR ²	5.32	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
Low Flow 2012	Week of 04-9-12	NR ²	7.37	NR ²	NR ²	NR ²	NR ²	NR ²	NA	NA	NA	NA	NA
High Flow 2011	Week of 06-13-11	NR ²	5.80	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
Low Flow 2011	Week of 07-26-11	12.9	7.71	0.00	0.1	20.3	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
4th Quarter 2010	Week of 10/18/10	12.9	7.05	0.00	0.1	20.3	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
3rd Quarter 2010	Week of 7/20/10	NR ¹	6.85	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
2nd Quarter 2010	Week of 4/19/10	13.4	7.32	0.00	0.6	20.5	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
1st Quarter 2010	Week of 3/08/10	NR ¹	6.75	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
4th Quarter 2009	Week of 10-05-09	NR ¹	6.91	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
3rd Quarter 2009	Week of 9/10/09	12.5	6.85	0.00	0.0	20.9	0.1	<0.10	<0.10	<0.10	<0.30	<5.0	
2nd Quarter 2009	Week of 4/20/09	13.0	7.06	0.00	0.3	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
1st Quarter 2009	Week of 3/02/09	12.6	6.92	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
4th Quarter 2008	Week of 11/10/08	10.0	6.80	0.00	0.5	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
3rd Quarter 2008	Week of 7/14/08	13.1	7.15	0.00	0.8	20.9	0.0	<0.10	<0.10	<0.10	0.55	5.6	
2nd Quarter 2008	Week of 5/12/08	11.0	5.86	0.00	0.8	20.9	0.0	<0.10	<0.10	0.15	0.52	<5.0	
1st Quarter 2008	Week of 03/10/08	9.0	5.17	0.00	2.1	20.9	0.0	<0.10	<0.10	<0.10	0.42	<5.0	
4th Quarter 2007	Week of 10/29/07	12.7	6.94	0.00	0.4	19.2	0.3	<0.10	<0.10	<0.10	<0.1	<5.0	
3rd Quarter 2007	Week of 8/20/07	13.9	7.62	0.00	16.0	19.6	0.1	<0.10	<0.10	<0.10	1.3	19.0	
2nd Quarter 2007	Week of 6/18/07	12.8	7.02	0.00	19.0	20.5	0.1	<0.10	<0.10	<0.10	1.0	7.6	
1st Quarter 2007	Week of 2/26/07	13.7	7.52	0.00	5.2	20.4	0.1	<0.10	<0.10	0.11	1.2	13.0	
4th Quarter 2006	Week of 12/04/06	14.0	7.77	0.00	1.3	19.7	0.5	<0.10	<0.10	<0.10	<0.3	<5.0	
3rd Quarter 2006	Week of 9/11/06	13.5	7.41	0.00	6.6	20.9	0.1	<0.10	<0.10	<0.10	<0.1	<5.0	
2nd Quarter 2006	Week of 6/17/06	13.2	7.23	0.00	2.9	20.9	1.0	<0.10	<0.10	<0.10	<0.3	<5.0	
1st Quarter 2006	Week of 3/06/06	15.0	8.09	0.00	179.8	18.6	0.6	0.55	2.20	0.53	23.0	1300.0	
Pre-Dewater	Week of 1/09/06	11.8	6.44	0.00	NM	17.8	0.0	<0.05	<0.05	<0.05	0.093	<5.0	

TP-3

TA 1
2012 Soil Gas Monitoring Data Summary

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (Inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH-GRO (ug/L)
High Flow 2012	Week of 05-31-12	6.3	3.42	0.00	0.8	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
Low Flow 2012	Week of 04-19-12	9.4	5.09	0.50	0.6	20.8	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
Low Flow 2011	Week of 07-26-11	10.3	5.69	0.40	2.2	20.3	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	12.0
High Flow 2011	Week of 06-13-11	9.0	4.95	0.00	0.9	19.4	0.1	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2010	Week of 10/18/10	10.3	5.65	0.00	2.2	20.3	0.0	<0.10	<0.10	<0.10	<0.10	0.50	6.0
3rd Quarter 2010	Week of 7/20/10	9.3	5.11	0.20	0.8	20.3	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
2nd Quarter 2010	Week of 4/19/10	10.9	5.98	0.30	4.2	19.3	0.2	<0.10	<0.10	<0.10	<0.10	<0.30	12
1st Quarter 2010	Week of 3/08/10	8.0	4.41	0.00	5.5	20.3	60.0	<0.10	<0.10	0.41	2.4	9.3	
4th Quarter 2009	Week of 10-05-09	8.3	4.57	0.00	63.4	20.9	0.1	<0.20	<0.20	8.10	50.0	140	
3rd Quarter 2009	Week of 9/10/09	8.3	4.54	0.00	284.0	20.9	0.1	<0.10	<0.10	42.00	180.0	730	
2nd Quarter 2009	Week of 4/20/09	9.0	4.96	0.50	34.1	20.9	0.0	<0.10	<0.10	2.00	7.6	18	
1st Quarter 2009	Week of 3/02/09	8.8	4.86	0.20	37.7	20.9	0.0	<0.10	<0.10	0.50	2.4	7.8	
4th Quarter 2008	Week of 11/10/08	7.8	4.54	0.30	86.6	20.9	0.0	<0.50	<0.50	12.00	45.0	190.0	
3rd Quarter 2008	Week of 7/14/08	8.7	4.76	0.40	2.3	18.7	1.4	<0.10	0.12	0.45	2.9	9.8	
2nd Quarter 2008	Week of 5/12/08	6.3	3.43	0.00	2.5	20.9	0.0	0.11	<0.10	1.60	8.8	31.0	
1st Quarter 2008	Week of 03/10/08	5.7	3.15	0.00	115.0	20.9	0.0	<0.10	<0.10	2.60	12.0	55.0	
4th Quarter 2007	Week of 10/29/07	8.7	4.78	0.00	54.1	19.3	0.3	<0.10	<0.10	9.80	46.0	180.0	
3rd Quarter 2007	Week of 8/20/07	12.7	6.97	0.00	9890.0	16.9	2.6	<0.10	<0.10	<0.10	910.0	13000.0	
2nd Quarter 2007	Week of 6/18/07	12.1	6.62	0.00	1100.0	18.6	1.9	<5.00	<5.00	<5.00	1500.0	90000.0	
1st Quarter 2007	Week of 2/26/07	10.2	5.59	0.00	1268.0	19.8	0.6	<5.00	9.80	23.00	10000.0	61000.0	
4th Quarter 2006	Week of 12/04/06	11.0	5.95	0.00	1805.0	19.3	0.9	6.10	15.00	14.00	1400.0	89000.0	
3rd Quarter 2006	Week of 9/11/06	9.7	5.32	0.00	137.0	18.6	1.4	<2.5	<2.5	79.00	380.0	12000.0	
2nd Quarter 2006	Week of 6/17/06	9.6	5.24	0.00	953.0	18.6	1.4	<10	15.00	11.00	130.0	1800.0	
1st Quarter 2006	Week of 3/06/06	14.0	7.81	0.01	1534.0	19.7	0.1	69.00	310.00	35.00	2000.0	34000.0	
Pre-Dewater	Week of 1/09/06	8.6	4.70	0.00	103.5	16.0	1.1	0.13	54.00	0.25	38.0	150.0	

TP-5

TA 1
2012 Soil Gas Monitoring Data Summary

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (Inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH-GRO (ug/L)
	High Flow 2012	Week of 05-31-12	7.5	4.06	0.00	0.2	20.9	0.0	<0.10	<0.10	<0.10	<0.30	7.9
	Low Flow 2012	Week of 04-19-12	11.0	6.01	0.00	0.0	20.8	0.0	<0.10	<0.10	<0.10	<0.30	6.8
	Low Flow 2011	Week of 07-26-11	11.9	6.58	0.50	0.5	20.3	0.0	<0.10	<0.10	<0.10	<0.30	10
	High Flow 2011	Week of 06-13-11	9.7	5.36	0.00	0.9	19.8	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2010	Week of 10/18/10	11.9	6.51	0.00	0.5	20.3	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2010	Week of 7/20/10	11.0	5.82	0.20	1.0	20.5	0.0	<0.10	<0.10	<0.10	<0.30	5.0
	2nd Quarter 2010	Week of 4/19/10	12.5	6.84	0.80	2.1	20.7	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
	1st Quarter 2010	Week of 3/08/10	9.6	5.27	0.00	1.3	20.9	0.0	<0.10	<0.10	<0.10	0.41	6.8
	4th Quarter 2009	Week of 10-05-09	10.0	5.49	0.00	134.0	20.9	0.3	0.89	<0.10	1.70	4.00	370
	3rd Quarter 2009	Week of 9/10/09	10.1	5.47	0.00	16.7	20.9	0.2	<0.10	<0.10	4.40	8.00	43
	2nd Quarter 2009	Week of 4/20/09	11.0	5.93	1.00	20.5	20.9	0.0	<0.10	<0.10	5.20	19.00	48
	1st Quarter 2009	Week of 3/02/09	8.9	5.86	0.50	60.1	20.6	0.1	1.70	<0.10	29.00	110.00	620
	4th Quarter 2008	Week of 11/10/08	8.3	5.40	0.00	2.6	20.9	0.0	<0.10	<0.10	0.41	0.35	9.2
	3rd Quarter 2008	Week of 7/14/08	10.4	5.67	0.20	4.5	20.9	0.0	<0.10	0.13	<0.10	3.80	26.0
	2nd Quarter 2008	Week of 5/12/08	7.9	4.33	0.00	2.3	20.9	0.0	0.17	<0.10	0.34	1.10	7.6
	1st Quarter 2008	Week of 03/10/08	7.0	4.02	0.00	16.6	20.9	0.0	<0.10	<0.10	0.49	1.30	9.8
	4th Quarter 2007	Week of 10/29/07	10.4	5.70	0.00	3.6	19.4	0.2	<0.10	<0.10	0.39	2.30	6.6
	3rd Quarter 2007	Week of 8/20/07	14.0	7.65	0.00	14.0	19.1	0.6	<0.10	<0.10	0.44	<5.0	
	2nd Quarter 2007	Week of 6/18/07	13.4	7.32	0.00	25.0	19.2	0.7	<0.10	<0.10	<0.10	<0.10	<5.0
	1st Quarter 2007	Week of 2/26/07	6.4	6.39	0.00	29.5	20.2	0.3	<0.20	<0.20	1.00	13.0	98.0
	4th Quarter 2006	Week of 12/04/06	12.0	6.61	0.00	160.0	19.4	0.6	<0.50	<0.50	2.30	37.0	320.0
	3rd Quarter 2006	Week of 9/11/06	11.3	6.17	0.00	8.1	26.0	0.6	<0.10	<0.10	0.18	1.0	17.0
	2nd Quarter 2006	Week of 6/17/06	11.3	6.18	0.00	56.9	20.6	0.5	<0.10	0.18	<0.10	3.1	100.0
	1st Quarter 2006	Week of 3/06/06	16.0	8.61	0.00	1534.0	20.0	0.3	7.60	47.00	6.50	950.0	4500.0
	Pre-Dewater	Week of 1/09/06	10.4	5.63	0.00	350.0	16.5	1.4	2.70	41.00	0.36	210.0	570.0

TP-6

TA 1
2012 Soil Gas Monitoring Data Summary

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (Inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH-GRO (ug/L)
High Flow 2012	Week of 05-31-12	NM	2.73	NM	NM	NM	NM	NM	NR ²	NR ²	NR ²	NR ²	NR ²
Low Flow 2012	Week of 07-1-12	NM	5.79	NM	NM	NM	NM	NM	NA	NA	NA	NA	NA
Low Flow 2011	Week of 07-26-11	10.6	6.15	0.00	0.1	19.8	0.4	<0.10	<0.10	<0.10	<0.10	<0.30	5.8
High Flow 2011	Week of 06-13-11	11.0	2.95	0.00	0.1	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2010	Week of 10/18/10	10.6	5.84	0.00	0.1	19.8	0.4	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
3rd Quarter 2010	Week of 7/20/10	9.9	5.44	0.00	0.6	19.8	0.6	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
2nd Quarter 2010	Week of 4/19/10	11.2	3.12	0.00	1.6	20.5	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
1st Quarter 2010	Week of 3/08/10	9.7	5.35	0.00	0.7	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2009	Week of 10-05-09	10.0	5.48	0.00	0.1	20.9	0.8	<0.10	<0.10	<0.10	<0.10	<0.30	103
3rd Quarter 2009	Week of 9/10/09	10.0	5.46	0.00	3.7	19.4	1.2	<0.10	<0.10	0.16	0.78	15	
2nd Quarter 2009	Week of 4/20/09	10.5	5.78	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
1st Quarter 2009	Week of 3/02/09	10.1	5.55	0.00	1.1	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2008	Week of 11/10/08	8.0	5.35	0.00	1.3	20.9	0.2	<0.10	<0.10	<0.10	<0.10	<0.30	6.4
3rd Quarter 2008	Week of 7/14/08	9.9	5.43	0.00	7.1	20.9	0.4	<0.10	0.12	<0.10	2.00	2.00	17.0
2nd Quarter 2008	Week of 5/12/08	7.6	4.17	0.00	3.6	20.9	0.0	<0.10	<0.10	0.38	1.50	6.2	
1st Quarter 2008	Week of 03/10/08	6.7	3.63	0.00	9.1	20.9	0.0	0.13	0.10	0.44	2.60	47.0	
4th Quarter 2007	Week of 10/29/07	9.9	5.42	0.00	7.4	19.2	0.7	<0.10	<0.10	<0.10	0.85	9.4	
3rd Quarter 2007	Week of 8/20/07	11.3	6.20	0.00	38.0	19.8	0.1	<0.10	<0.10	<0.10	<0.3	<5.0	
2nd Quarter 2007	Week of 6/18/07	9.9	5.40	0.00	35.0	20.6	0.0	<0.10	<0.10	<0.10	1.00	7.0	
1st Quarter 2007	Week of 2/26/07	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4th Quarter 2006	Week of 12/04/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3rd Quarter 2006	Week of 9/11/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2nd Quarter 2006	Week of 6/17/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1st Quarter 2006	Week of 3/06/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pre-Dewater	Week of 1/09/06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

TP-7

TA 1
2012 Soil Gas Monitoring Data Summary

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH-GRO (ug/L)
	High Flow 2012	Week of 05-31-12	9.2	5.02	0.00	0.6	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
	Low Flow 2012	Week of 04-19-12	11.9	6.50	2.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
	Low Flow 2011	Week of 07-26-11	12.5	7.46	3.90	0.5	20.3	0.0	<0.10	<0.10	<0.10	<0.30	8.7
	High Flow 2011	Week of 06-13-11	11.3	6.26	0.00	0.1	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2010	Week of 10/18/10	12.5	6.83	3.00	0.5	20.3	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
	3rd Quarter 2010	Week of 7/20/10	12.0	6.45	2.50	0.9	20.4	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
	2nd Quarter 2010	Week of 4/19/10	13.7	7.49	5.10	19.8	20.5	0.0	<0.10	<0.10	<0.10	<0.30	56
	1st Quarter 2010	Week of 3/08/10	9.2	5.05	4.00	0.8	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
	4th Quarter 2009	Week of 10-05-09	10.0	5.48	0.10	24.3	10.9	0.1	0.28	<0.10	4.90	25.00	110
	3rd Quarter 2009	Week of 9/10/09	9.9	5.43	0.00	0.7	20.9	0.1	0.27	<0.10	7.00	35.00	180
	2nd Quarter 2009	Week of 4/20/09	10.1	5.60	4.00	0.3	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
	1st Quarter 2009	Week of 3/02/09	9.9	5.42	5.00	1.3	20.9	0.0	<0.10	<0.10	0.10	0.58	<5.0
	4th Quarter 2008	Week of 11/10/08	10.2	5.35	4.10	1.1	20.9	0.0	<0.10	<0.10	<0.10	<0.30	7.0
	3rd Quarter 2008	Week of 7/14/08	10.8	5.88	6.50	0.7	20.9	0.0	<0.10	0.12	0.11	2.00	17.0
	2nd Quarter 2008	Week of 5/12/08	8.1	4.44	0.00	0.9	20.9	0.0	<0.10	<0.10	0.48	2.00	22.0
	1st Quarter 2008	Week of 03/10/08	7.5	4.13	0.00	19.1	20.9	0.0	<0.10	<0.10	0.23	1.20	5.0
	4th Quarter 2007	Week of 10/29/07	10.6	5.81	3.00	3.7	19.7	0.1	<0.10	<0.10	0.11	0.57	<5.0
	3rd Quarter 2007	Week of 8/20/07	12.2	6.67	0.00	91.0	19.7	0.1	<0.10	<0.10	<0.10	0.78	6.2
	2nd Quarter 2007	Week of 6/18/07	11.3	6.22	0.00	59.0	20.1	0.1	<0.10	<0.10	<0.10	<0.30	<5.0
	1st Quarter 2007	Week of 2/26/07	15.6	8.57	0.05	1775.0	20.4	0.3	<5.00	9.50	130.00	1400.0	7100.0
	4th Quarter 2006	Week of 12/04/06	15.0	8.21	0.02	555.0	20.5	0.4	<5.00	7.40	50.00	710.0	4700.0
	3rd Quarter 2006	Week of 9/11/06	11.3	6.21	0.01	11.2	20.9	0.0	<0.10	<0.10	0.13	0.43	14.0
	2nd Quarter 2006	Week of 6/17/06	13.7	7.50	0.01	1641.0	20.9	0.1	<2.00	6.60	2.20	460.0	3700.0
	1st Quarter 2006	Week of 3/06/06	16.0	8.92	0.05	1534.0	20.7	0.1	8.80	220.00	13.00	1900.0	7700.0
	Pre-Dewater	Week of 1/09/06	10.3	5.61	0.00	1589.0	4.6	8.9	6.90	31.00	2.90	300.0	1800.0

TP-8

TA 1
2012 Soil Gas Monitoring Data Summary

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (Inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH-GRO (ug/L)
High Flow 2012	Week of 05-31-12	4.0	2.18	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
Low Flow 2012	Week of 04-19-12	10.6	5.75	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
Low Flow 2011	Week of 07-26-11	9.7	5.93	0.00	0.5	20.8	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
High Flow 2011	Week of 06-13-11	4.9	2.13	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2010	Week of 10/18/10	9.7	5.28	0.00	0.5	20.3	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
3rd Quarter 2010	Week of 7/20/10	9.4	5.13	0.00	0.5	20.6	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
2nd Quarter 2010	Week of 4/19/10	10.5	5.73	0.00	2.1	20.7	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
1st Quarter 2010	Week of 3/08/10	9.7	5.30	0.00	0.7	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2009	Week of 10-05-09	9.7	5.33	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
3rd Quarter 2009	Week of 9/10/09	9.9	5.43	0.00	0.8	20.9	0.0	<0.10	<0.10	<0.10	<0.10	0.55	<5.0
2nd Quarter 2009	Week of 4/20/09	10.0	5.49	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
1st Quarter 2009	Week of 3/02/09	9.7	5.35	0.00	0.6	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2008	Week of 11/10/08	10.4	5.29	0.00	3.2	20.9	0.0	<0.10	<0.10	0.21	1.00	1.00	10.0
3rd Quarter 2008	Week of 7/14/08	9.9	5.40	0.00	0.2	20.9	0.0	<0.10	0.13	<0.10	<0.10	<0.30	<5.0
2nd Quarter 2008	Week of 5/12/08	7.4	4.03	0.00	4.4	20.9	0.0	<0.10	<0.10	0.55	2.1	8.8	
1st Quarter 2008	Week of 03/10/08	6.0	3.32	0.00	2.1	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2007	Week of 10/29/07	9.0	4.94	0.00	8.2	19.7	0.1	<0.10	<0.10	0.56	4.0	49.0	
3rd Quarter 2007	Week of 8/20/07	9.4	5.18	0.00	48.0	19.9	0.0	<0.10	<0.10	<0.10	2.8	65.0	
2nd Quarter 2007	Week of 6/18/07	8.6	4.73	0.00	24.0	20.6	0.1	<0.10	<0.10	<0.10	0.93	6.6	
1st Quarter 2007	Week of 2/26/07	9.2	5.07	0.00	95.1	20.6	0.2	<0.10	0.15	4.30	41.0	290.0	
4th Quarter 2006	Week of 12/04/06	10.0	5.39	0.00	9.6	20.9	0.1	<0.10	<0.10	0.16	3.5	20.0	
3rd Quarter 2006	Week of 9/11/06	10.0	5.48	0.00	18.3	20.3	0.3	<0.10	0.21	0.18	2.5	140.0	
2nd Quarter 2006	Week of 6/17/06	9.0	5.26	0.00	13.9	20.9	0.0	<0.10	0.10	0.62	31.0		
1st Quarter 2006	Week of 3/06/06	10.0	5.21	0.00	7.7	20.6	0.1	<0.05	0.09	0.06	0.53	8.0	
Pre-Dewater	Week of 1/09/06	11.3	5.08	0.00	8.5	17.2	0.2	<0.05	0.05	0.18	0.35	31.0	

TP-9

TA 1
2012 Soil Gas Monitoring Data Summary

TP-10

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH-GRO (ug/L)
	High Flow 2012	Week of 05-31-12	NR ²	2.82	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	Low Flow 2012	Week of 04-19-12	NR ²	5.33	NR ²	NR ²	NR ²	NR ²	NA	NA	NA	NA	NA
	Low Flow 2011	Week of 07-26-11	9.1	5.57	0.00	0.1	20.5	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
	High Flow 2011	Week of 06-13-11	NR ²	3.08	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
	4th Quarter 2010	Week of 10/18/10	9.1	4.97	0.00	0.1	20.5	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
	3rd Quarter 2010	Week of 7/20/10	NR ¹	4.75	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	2nd Quarter 2010	Week of 4/19/10	9.6	5.24	0.00	0.6	20.6	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
	1st Quarter 2010	Week of 3/08/10	NR ¹	4.77	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	4th Quarter 2009	Week of 10-05-09	NR ¹	4.83	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
	3rd Quarter 2009	Week of 9/10/09	8.8	4.79	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
	2nd Quarter 2009	Week of 4/20/09	8.9	4.88	0.00	0.1	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
	1st Quarter 2009	Week of 3/02/09	8.7	4.77	0.00	0.2	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
	4th Quarter 2008	Week of 11/10/08	8.6	5.23	0.00	0.3	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
	3rd Quarter 2008	Week of 7/14/08	8.9	4.88	0.00	3.2	20.9	0.0	<0.10	<0.10	0.75	7.6	
	2nd Quarter 2008	Week of 5/12/08	6.9	3.78	0.00	2.8	20.9	0.0	<0.10	<0.10	0.27	0.82	<5.0
	1st Quarter 2008	Week of 03/10/08	5.0	2.83	0.00	2.4	20.9	0.0	<0.10	<0.10	0.16	0.82	<5.0
	4th Quarter 2007	Week of 10/29/07	8.7	4.74	0.00	0.5	19.4	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
	3rd Quarter 2007	Week of 8/20/07	9.7	5.32	0.00	42.0	19.7	0.0	<0.10	<0.10	1.0	1.0	16.0
	2nd Quarter 2007	Week of 6/18/07	8.5	4.62	0.00	38.0	20.6	0.0	<0.10	<0.10	1.0	11.0	
	1st Quarter 2007	Week of 2/26/07	9.5	5.23	0.00	3.3	20.4	0.1	<0.10	<0.10	0.94	6.0	
	4th Quarter 2006	Week of 12/04/06	10.0	5.57	0.00	18.0	14.4	0.7	<0.10	<0.10	0.20	2.7	22.0
	3rd Quarter 2006	Week of 9/11/06	9.6	5.26	0.00	4.7	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
	2nd Quarter 2006	Week of 6/17/06	9.6	5.23	0.00	6.7	20.9	0.0	0.11	0.16	0.57	14.0	
	1st Quarter 2006	Week of 3/06/06	11.0	5.86	0.00	21.9	17.1	1.1	0.07	0.62	0.05	6.1	25.0
	Pre-Dewater	Week of 1/09/06	9.3	5.08	0.00	0.0	17.8	0.0	<0.05	<0.05	0.28	<5.0	

TA 1
2012 Soil Gas Monitoring Data Summary

TP-II

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (Inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH-GRO (ug/L)
High Flow 2012	Week of 05-31-12	NR ²	3.48	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
Low Flow 2012	Week of 04-19-12	NR ²	5.75	NR ²	NR ²	NR ²	NR ²	NR ²	NA	NA	NA	NA	NA
High Flow 2011	Week of 06-13-11	NR ²	3.81	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
Low Flow 2011	Week of 07-26-11	9.8	6.03	0.00	0.0	20.4	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
4th Quarter 2010	Week of 10/18/10	9.8	5.38	0.00	0.0	20.4	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
3rd Quarter 2010	Week of 7/20/10	NR ¹	5.22	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
2nd Quarter 2010	Week of 4/19/10	10.3	5.63	0.00	0.7	20.5	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
1st Quarter 2010	Week of 3/08/10	NR ¹	5.17	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
4th Quarter 2009	Week of 10-05-09	NR ¹	5.28	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
3rd Quarter 2009	Week of 9/10/09	9.6	5.25	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
2nd Quarter 2009	Week of 4/20/09	9.7	5.34	0.00	0.2	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
1st Quarter 2009	Week of 3/02/09	9.6	5.22	0.00	0.1	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
4th Quarter 2008	Week of 11/10/08	6.1	4.64	0.00	0.1	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
3rd Quarter 2008	Week of 7/14/08	10.0	5.47	0.00	2.2	20.9	0.0	<0.10	<0.10	<0.10	0.74	8.0	
2nd Quarter 2008	Week of 5/12/08	7.6	4.15	0.00	1.7	20.9	0.0	<0.10	<0.10	0.20	0.64	<5.0	
1st Quarter 2008	Week of 03/10/08	6.0	3.43	0.00	0.9	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
4th Quarter 2007	Week of 10/29/07	9.5	5.18	0.00	0.6	19.4	0.0	<0.10	<0.10	<0.10	<0.3	<5.0	
3rd Quarter 2007	Week of 8/20/07	10.5	5.75	0.00	81.0	14.9	6.2	<0.10	<0.10	<0.10	1.4	39.0	
2nd Quarter 2007	Week of 6/18/07	9.5	5.17	0.00	45.0	20.6	0.0	<0.10	<0.10	<0.10	0.74	7.2	
1st Quarter 2007	Week of 2/26/07	10.4	5.69	0.00	5.9	19.0	1.0	<0.10	<0.10	0.11	1.4	11.0	
4th Quarter 2006	Week of 12/04/06	10.0	6.00	0.00	2.8	14.4	0.7	<0.10	<0.10	<0.10	<0.1	<5.0	
3rd Quarter 2006	Week of 9/11/06	10.3	5.69	0.00	2.8	19.1	1.4	<0.10	<0.10	0.24	1.5	9.0	
2nd Quarter 2006	Week of 6/17/06	10.3	5.61	0.00	2.6	18.8	1.4	<0.10	<0.10	<0.10	<0.3	<5.0	
1st Quarter 2006	Week of 3/06/06	11.0	6.31	0.00	13.2	20.0	0.4	0.06	0.32	0.053	3.3	13.0	
Pre-Dewater	Week of 1/09/06	10.2	5.55	0.00	0.0	17.5	0.3	<0.05	<0.05	<0.05	0.14	<5.0	

TA
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2012 Soil Gas Monitoring Data Summary

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (Inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH-GRO (ug/L)
High Flow 2012	Week of 05-31-12	NR ²	5.00	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
Low Flow 2012	Week of 04-19-12	NR ²	7.45	NR ²	NR ²	NR ²	NR ²	NR ²	NA	NA	NA	NA	NR ²
High Flow 2011	Week of 06-13-11	NR ²	5.24	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
Low Flow 2011	Week of 07-26-11	12.9	7.67	0.00	0.2	20.5	0.0	<0.10	<0.10	<0.30	<0.30	<5.0	NR ²
4th Quarter 2010	Week of 10/18/10	12.9	7.06	0.00	0.2	20.5	0.0	<0.10	<0.10	<0.30	<0.30	<5.0	NR ²
3rd Quarter 2010	Week of 7/20/10	NR ¹	6.93	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
2nd Quarter 2010	Week of 4/19/10	13.4	7.32	0.00	0.7	20.4	0.0	<0.10	<0.10	<0.30	<0.30	<5.0	NR ¹
1st Quarter 2010	Week of 3/08/10	NR ¹	6.94	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
4th Quarter 2009	Week of 10/05/09	NR ¹	7.00	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
3rd Quarter 2009	Week of 9/10/09	12.7	6.97	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0	NR ¹
2nd Quarter 2009	Week of 4/20/09	12.9	7.09	0.00	0.4	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0	NR ¹
1st Quarter 2009	Week of 3/02/09	12.7	6.97	0.00	0.1	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0	NR ¹
4th Quarter 2008	Week of 11/10/08	12.3	5.09	0.00	0.2	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0	NR ¹
3rd Quarter 2008	Week of 7/14/08	13.1	7.18	0.00	3.6	20.9	0.0	<0.10	<0.10	0.77	0.77	8.2	NR ¹
2nd Quarter 2008	Week of 5/12/08	10.7	5.85	0.00	2.8	20.9	0.0	<0.10	<0.10	0.56	0.56	<5.0	NR ¹
1st Quarter 2008	Week of 03/10/08	9.0	5.11	0.00	1.6	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0	NR ¹
4th Quarter 2007	Week of 10/29/07	12.7	6.92	0.00	0.7	19.4	0.0	<0.10	<0.10	<0.30	<0.30	<5.0	NR ¹
3rd Quarter 2007	Week of 8/20/07	13.4	7.36	0.00	19.0	19.8	0.0	<0.10	<0.10	1.0	1.0	14.0	NR ¹
2nd Quarter 2007	Week of 6/18/07	12.5	6.82	0.00	26.0	20.6	0.1	<0.10	<0.10	0.56	0.56	6.0	NR ¹
1st Quarter 2007	Week of 2/26/07	13.5	7.40	0.00	18.1	20.4	0.2	<0.10	<0.10	11.0	11.0	61.0	NR ¹
4th Quarter 2006	Week of 12/04/06	14.0	7.67	0.00	30.3	18.5	1.6	<0.20	<0.20	0.28	24.0	120.0	NR ¹
3rd Quarter 2006	Week of 9/11/06	13.6	7.48	0.00	5.7	20.9	0.0	<0.10	<0.10	0.10	<0.3	<5.0	NR ¹
2nd Quarter 2006	Week of 6/7/06	13.6	7.44	0.00	6.7	20.9	0.0	0.12	0.19	<0.10	0.52	17.0	NR ¹
1st Quarter 2006	Week of 3/06/06	15.0	7.94	0.00	10.1	18.7	1.4	0.05	0.21	0.06	2.3	9.0	NR ¹
Pre-Dewater	Week of 1/09/06	13.5	7.38	0.00	0.2	17.8	0.0	<0.05	<0.05	0.3	<0.3	<5.0	NR ¹

TP-12

TA 1
2012 Soil Gas Monitoring Data Summary

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (Inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH-GRO (ug/L)
High Flow 2012	Week of 05-31-12	NR ²	3.78	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
Low Flow 2012	Week of 04-19-12	NR ²	6.29	NR ²	NR ²	NR ²	NR ²	NR ²	NA	NA	NA	NA
High Flow 2011	Week of 06-13-11	NR ²	3.82	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
Low Flow 2011	Week of 07-26-11	10.8	6.46	0.00	0.2	20.4	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
4th Quarter 2010	Week of 10/18/10	10.8	5.93	0.00	0.2	20.4	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
3rd Quarter 2010	Week of 7/20/10	NR ¹	5.75	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
2nd Quarter 2010	Week of 4/19/10	11.3	6.17	0.00	0.5	20.6	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
1st Quarter 2010	Week of 3/08/10	NR ¹	5.83	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
4th Quarter 2009	Week of 10-05-09	NR ¹	5.85	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹
3rd Quarter 2009	Week of 9/10/09	10.6	5.80	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
2nd Quarter 2009	Week of 4/20/09	10.9	5.98	0.00	0.1	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
1st Quarter 2009	Week of 3/02/09	10.4	5.66	0.00	0.2	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
4th Quarter 2008	Week of 11/10/08	16.9	6.83	0.00	0.2	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
3rd Quarter 2008	Week of 7/14/08	10.9	5.97	0.00	3.2	20.9	0.0	<0.10	<0.10	1.40	1.40	11.0
2nd Quarter 2008	Week of 5/12/08	8.6	4.69	0.00	1.5	20.9	0.0	<0.10	0.17	0.54	0.54	<5.0
1st Quarter 2008	Week of 03/10/08	7.0	3.92	0.00	1.1	20.9	0.0	<0.10	<0.10	<0.30	<0.30	<5.0
4th Quarter 2007	Week of 10/29/07	10.0	5.80	0.00	0.7	19.4	0.1	<0.10	<0.10	<0.30	<0.30	<5.0
3rd Quarter 2007	Week of 8/20/07	11.0	6.10	0.00	128.0	19.8	0.0	<0.10	<0.10	1.3	30.0	
2nd Quarter 2007	Week of 6/18/07	10.3	5.63	0.00	97.0	20.6	0.0	<0.10	<0.10	0.60	5.8	
1st Quarter 2007	Week of 2/26/07	11.3	6.16	0.00	4.1	20.2	0.2	<0.10	0.20	2.9	24.0	
4th Quarter 2006	Week of 12/04/06	11.9	6.51	0.00	13.8	18.5	1.1	<0.10	0.18	2.4	18.0	
3rd Quarter 2006	Week of 9/11/06	11.6	6.33	0.00	1.8	18.6	6.9	<0.10	<0.10	<0.30	<0.30	<5.0
2nd Quarter 2006	Week of 6/17/06	11.6	6.35	0.00	19.5	18.1	1.0	0.11	0.48	0.11	2.4	27.0
1st Quarter 2006	Week of 3/06/06	12.0	6.78	0.00	12.6	19.1	1.0	0.05	0.17	0.09	1.6	8.6
Pre-Dewater	Week of 1/09/06	11.4	6.24	0.00	0.1	17.8	0.0	<0.05	<0.05	<0.05	<0.05	<5.0

TP-13

TA 1
2012 Soil Gas Monitoring Data Summary

DW-1

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (Inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ng/L)	Toluene (ng/L)	Ethylbenzene (ng/L)	Xylenes (ng/L)	TPH-GRO (ng/L)
High Flow 2012	Week of 05-31-12	NM	3.99	NM	NM	NM	NM	NM	NR ²	NR ²	NR ²	NR ²	NR ²
Low Flow 2012	Week of 04-19-12	NM	6.41	NM	NM	NM	NM	NM	NA	NA	NA	NA	NA
High Flow 2011	Week of 06-13-11	75.1	4.54	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
Low Flow 2011	Week of 07-26-11	101.0	6.68	0.00	0.5	20.3	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
4th Quarter 2010	Week of 10/18/10	101.0	3.17	0.00	0.5	20.3	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
3rd Quarter 2010	Week of 7/20/10	95.0	5.82	0.00	0.6	20.5	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
2nd Quarter 2010	Week of 4/19/10	102.0	6.24	0.00	0.9	20.6	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
1st Quarter 2010	Week of 3/08/10	92.0	5.62	0.00	0.6	20.6	15.0	<0.10	<0.10	<0.10	<0.30	<5.0	
4th Quarter 2009	Week of 10-05-09	96.0	5.85	0.00	0.0	20.9	0.1	<0.10	<0.10	<0.10	<0.30	<5.0	
3rd Quarter 2009	Week of 9/10/09	95.0	5.82	0.00	0.0	20.9	0.2	<0.10	<0.10	<0.10	<0.30	<5.0	
2nd Quarter 2009	Week of 4/20/09	99.1	6.02	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
1st Quarter 2009	Week of 3/02/09	93.0	5.69	0.00	0.8	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
4th Quarter 2008	Week of 11/10/08	162.0	5.72	0.00	0.1	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
3rd Quarter 2008	Week of 7/14/08	96.8	5.89	0.00	0.2	20.7	0.6	<0.10	0.11	<0.10	<0.30	<5.0	
2nd Quarter 2008	Week of 5/12/08	76.7	4.66	0.00	0.9	20.9	0.0	<0.10	<0.10	0.12	0.42	<5.0	
1st Quarter 2008	Week of 03/10/08	68.0	4.11	0.00	2.0	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
4th Quarter 2007	Week of 10/29/07	95.0	5.80	0.00	0.7	19.3	0.2	<0.10	<0.10	<0.10	<0.30	<5.0	
3rd Quarter 2007	Week of 8/20/07	110.0	6.71	0.00	27.0	18.6	1.1	<0.10	<0.10	<0.10	0.48	9.0	
2nd Quarter 2007	Week of 6/18/07	95.6	5.81	0.00	9.0	18.6	1.8	<0.10	<0.10	<0.10	0.32	<5.0	
1st Quarter 2007	Week of 2/26/07	100.5	6.11	0.00	1.0	19.8	0.5	<0.10	<0.10	<0.10	<0.30	<5.0	
4th Quarter 2006	Week of 12/04/06	92.0	5.58	0.00	1.1	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0	
3rd Quarter 2006	Week of 9/11/06	105.0	6.39	0.00	7.8	18.8	1.3	<0.10	<0.10	<0.10	<0.30	<5.0	
2nd Quarter 2006	Week of 6/17/06	150.0	6.49	0.00	5.8	16.6	4.4	<0.10	<0.10	<0.10	0.33	8.6	
1st Quarter 2006	Week of 3/06/06	130.0	7.91	0.00	25.4	9.9	8.7	<0.05	0.61	0.17	5.2	61.0	
Pre-Devalter	Week of 1/09/06	113.0	6.90	0.00	0.0	12.7	7.4	0.09	0.14	0.59	1.2	35.0	

TA 1
2012 Soil Gas Monitoring Data Summary

Sample Location	Sampling Activities	Date	Purge Volume (L)	Depth to Water (ft below TOC)	Pressure (Inches of Water)	PID (ppm)	Oxygen (%)	Carbon Dioxide (%)	Benzene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH-GRO (ug/L)
HighFlow 2012	Week of 05-31-12	42.3	5.76	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
Low Flow 2012	Week of 04-19-12	70.1	9.56	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
Low Flow 2011	Week of 07-26-11	67.0	9.76	0.00	0.2	19.7	0.3	<0.10	<0.10	<0.10	<0.30	5.4
High Flow 2011	Week of 06-13-11	45.3	5.74	0.00	0.0	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2010	Week of 10/18/10	67.0	9.14	0.00	0.2	19.7	0.3	<0.10	<0.10	<0.10	<0.30	<5.0
3rd Quarter 2010	Week of 7/20/10	65.0	8.95	0.00	0.6	18.7	1.3	<0.10	<0.10	<0.10	<0.30	<5.0
2nd Quarter 2010	Week of 4/19/10	70.0	9.59	0.00	1.0	20.1	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
1st Quarter 2010	Week of 3/08/10	68.0	9.30	0.00	0.6	20.3	55.0	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2009	Week of 10-05-09	66.0	9.03	0.00	0.0	20.9	1.1	<0.10	<0.10	<0.10	<0.30	<5.0
3rd Quarter 2009	Week of 9/10/09	65.0	9.02	0.00	0.0	19.1	2.3	<0.10	<0.10	<0.10	<0.30	<5.0
2nd Quarter 2009	Week of 4/20/09	67.7	9.24	0.00	0.0	20.9	0.2	<0.10	<0.10	<0.10	<0.30	<5.0
1st Quarter 2009	Week of 3/02/09	65.0	8.96	0.00	0.4	20.5	0.3	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2008	Week of 11/10/08	60.0	8.72	0.00	0.1	20.9	0.6	<0.10	<0.10	<0.10	<0.30	<5.0
3rd Quarter 2008	Week of 7/14/08	66.2	9.03	0.00	0.2	18.1	2.6	<0.10	0.11	<0.10	<0.30	<5.0
2nd Quarter 2008	Week of 5/12/08	56.2	7.66	0.00	1.0	20.9	0.0	<0.10	<0.10	<0.10	<0.10	<5.0
1st Quarter 2008	Week of 03/10/08	50.0	6.90	0.00	2.0	20.9	0.0	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2007	Week of 10/29/07	63.0	8.62	0.00	1.1	18.2	1.6	<0.10	<0.10	<0.10	<0.30	<5.0
3rd Quarter 2007	Week of 8/20/07	68.0	9.30	0.00	22.0	15.7	5.0	<0.10	<0.10	<0.10	0.39	<5.0
2nd Quarter 2007	Week of 6/18/07	61.6	8.41	0.00	64.0	17.4	3.0	<0.10	<0.10	<0.10	<0.30	11.0
1st Quarter 2007	Week of 2/26/07	64.4	8.79	0.00	1.6	19.8	0.6	<0.10	<0.10	<0.10	<0.30	<5.0
4th Quarter 2006	Week of 12/04/06	67.0	9.16	0.00	2.1	19.0	1.0	<0.10	<0.10	<0.10	0.46	<5.0
3rd Quarter 2006	Week of 9/11/06	68.0	9.38	0.00	3.5	17.7	2.8	<0.10	<0.10	<0.10	<0.30	<5.0
2nd Quarter 2006	Week of 6/17/06	73.0	9.98	0.00	16.1	16.8	2.7	<0.10	<0.10	<0.10	1.4	35.0
1st Quarter 2006	Week of 3/06/06	74.0	10.07	0.00	20.3	19.2	1.0	<0.05	1.00	0.06	8.9	28.0
Pre-Dewater	Week of 1/09/06	71.1	9.69	0.00	0.0	17.1	1.0	<0.05	<0.05	0.08	0.24	<5.0

Notes: NR = Not Required (Malcolm Pirnie, 2005)

NR¹ = Not Required (NMED, 2009)

NR² = Not Required (NMED, 2011)

NM = Inadvertantly not measured

NA = Inadvertantly not analyzed

TABLE 2 2012 Groundwater Monitoring Data Summary

TPH Screening Guidelines Table 2a												WQCC 20NMAC 6.2.3103		WQCC 20NMAC 6.2.3103	
MCL	WQCC 20NMAC 6.2.3103	MCL	WQCC 20NMAC 6.2.3103	USEPA Regional Screening Levels	TPH-GRO (mg/L)	TPH-HDRO (mg/L)	Barium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)					
0.005	0.75	0.700	0.620	0.012	0.2	0.2	0.05	0.05	0.050	0.002					
High Flow 2012	DATE	Sampling Event	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	Conductivity (µmhos/cm)	D.O. (mg/L)	ORP (mV)	pH	TEMP (°F)	Benzene (mg/L)	Xylene (mg/L)	Ethylbenzene (mg/L)	Toluene (mg/L)	NR ²
High Flow 2012	Week of 5/29/12	4.56	NPP	9.28	2015	2.46	-204	6.90	59.7	2.700	<0.05	2.500	5.700	<0.05	1.80
Low Flow 2012	Week of 4/9/12	5.99	NPP	9.28	1417	2.72	-313	7.39	48.6	3.500	<0.05	3.000	7.900	<0.05	2.80
Low Flow 2011	Week of 7/26/11	7.05	NPP	9.38	2696	2.83	-79	6.45	66.1	2.100	<0.02	2.800	6.600	<0.05	3.00
High Flow 2011	Week of 6/13/11	5.86	NPP	9.38	2209	1.66	-107	6.94	60.3	1.900	<0.02	2.400	8.400	<0.05	3.60
4th Quarter 2010	Week of 10/18/10	6.30	NPP	9.38	1833	1.89	-47	6.92	66.5	0.720	<0.02	2.600	13,000	<0.05	2.30
3rd Quarter 2010	Week of 7/20/10	5.90	NPP	9.38	1811	0.81	-62	6.58	66.2	0.830	<0.05	3.200	12,000	<0.13	4.40
2nd Quarter 2010	Week of 4/19/10	6.96	NPP	9.38	2654	0.94	-193	6.88	51.2	1.800	<0.05	2.800	14,000	<0.130	9.40
1st Quarter 2010	Week of 3/08/10	4.40	NPP	9.38	2198	1.62	231	6.80	45.1	1.500	<0.10	2.700	10,000	<0.25	6.30
4th Quarter 2009	Week of 10-05-09	4.90	NPP	9.38	2732	1.69	137	6.79	67.4	0.620	<0.10	3.400	15,000	<0.25	11.00
3rd Quarter 2009	Week of 9/10/09	4.90	NPP	9.38	2653	1.51	-42	6.93	7.0	0.810	<0.10	3.200	12,000	<0.25	7.80
2nd Quarter 2009	Week of 4/20/09	5.26	NPP	9.38	2684	0.83	209	6.92	54.5	0.430	<0.10	2.500	14,000	<0.25	15.00
1st Quarter 2009	Week of 3/02/09	4.91	NPP	9.38	2920	10.35	194	6.91	46.6	0.830	<0.10	3,000	15,000	<0.25	14.00
4th Quarter 2008	Week of 11/10/08	4.85	NPP	9.38	3050	0.56	241	6.81	61.1	1.200	<0.25	2.700	16,000	<0.63	17.00
3rd Quarter 2008	Week of 7/14/08	5.37	NPP	9.38	4037	6.94	123	6.96	68.6	1.800	<0.05	3,300	17,000	<0.12	1.60
2nd Quarter 2008	Week of 5/12/08	3.97	NPP	9.38	3572	1.40	262	6.83	58.6	2.500	<0.05	3,000	13,000	<0.12	2.00
1st Quarter 2008	Week of 03/10/08	3.63	NPP	9.38	3533	4.55	210	6.96	49.4	2.100	<0.05	3,400	20,000	<0.12	2.40
4th Quarter 2007	Week of 10/29/07	5.29	NPP	9.38	4123	0.49	223	6.78	63.4	1.500	<0.001	3,800	18,000	<0.25	1.80
3rd Quarter 2007	Week of 8/20/07	6.24	NPP	9.38	4661	4.19	237	6.93	74.4	1.200	<0.10	4,200	20,000	<0.25	3.30
2nd Quarter 2007	Week of 6/18/07	5.67	NPP	9.38	4907	0.31	185	6.93	65.9	1.900	<0.10	4,000	19,000	<0.25	2.10
1st Quarter 2007	Week of 2/26/07	7.79	NPP	9.38	3825	0.65	134	6.82	50.3	2,000	<0.10	6,300	32,000	<0.25	3.00
4th Quarter 2006	Week of 12/04/06	7.42	NPP	9.38	3631	NM	96	6.99	57.3	1.600	<0.10	3,200	20,000	<0.25	3.30
3rd Quarter 2006	Week of 9/11/06	5.68	NPP	9.38	3053	0.71	-50	7.00	72.8	3,200	<0.10	3,800	20,000	<0.25	3.50
2nd Quarter 2006	Week of 6/17/06	6.80	NPP	9.38	2372	0.56	-15	6.96	67.3	2,600	<0.25	3,300	18,000	<0.62	4.30
1st Quarter 2006	Week of 3/06/06	8.04	NPP	9.38	2233	0.83	186	7.04	52.0	1,500	<0.05	4,100	30,000	<0.12	3.80
Baseline	Week of 9/15/05	5.35	NPP	9.38	2034	NR	NR	6.92	70.6	1,400	0.05	3,800	23,000	<0.05	1.90

TABLE 2
2012 Groundwater Monitoring Data Summary

Sample Location	Sampling Event	DATE	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	Conductivity (microhos/cm)	D.O. (mg/L)	ORP (mV)	pH	TEMP (°F)	Benzene (mg/L)	Toluene (mg/L)	Xylene (mg/L)	MTBE (mg/L)	Barium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	TPH Screening Guidelines Table 2a			WQCC 20NMAC 6.2.3103			40 CFR 141.62 (MCL)		
																			0.005	0.75	0.700	0.620	0.012	0.2	0.00	0.05	0.0150
	High Flow 2012	Week of 5/29/12	6.10	NPP	9.92	1084	3.38	-155	7.00	58.5	0.059	<0.05	2.200	14,000	<0.5	0.80	40	NR ²	NR ²	0.0250	NR ²						
	Low Flow 2012	Week of 4/9/12	7.54	NPP	9.92	786	1.31	-302	7.60	52.0	0.086	<0.05	3.600	25,000	<0.5	1.4	59	NR ²	NR ²	0.0440	NR ²						
	Low Flow 2011	Week of 7/26/11	8.34	NPP	9.92	1015	4.82	-65	65.7	63.8	0.200	<0.05	3,600	23,000	<0.013	2	60	NR ²	NR ²	0.0240	NR ²						
	High Flow 2011	Week of 6/13/11	7.23	NPP	9.92	1062	1.10	-82	6.89	61.3	0.200	<0.05	2,800	17,000	<0.013	2.9	40	NR ²	NR ²	0.0260	NR ²						
	4th Quarter 2010	Week of 10/18/10	7.70	NPP	9.92	1222	1.78	-153	7.00	62.6	0.320	0.03	3,200	17,000	<0.013	2.1	45	NR	NR	0.0200	NR						
	3rd Quarter 2010	Week of 7/20/10	7.29	NPP	9.92	1546	0.62	-72	6.77	63.6	0.310	0.015	3,200	11,000	<0.013	2.8	32	NR	NR	0.0290	NR						
	2nd Quarter 2010	Week of 4/19/10	8.13	NPP	9.92	1952	1.17	-64	7.00	53.5	0.660	0.014	4,000	14,000	<0.013	7.7	45	0.23	<0.006	0.0320	NR						
	1st Quarter 2010	Week of 3/08/10	6.56	NPP	9.92	1659	1.94	274	6.73	47.3	0.160	<0.01	1,100	2,600	<0.25	2.7	9	NR	NR	0.0200	NR						
	4th Quarter 2009	Week of 10-05-09	6.60	NPP	9.92	1789	2.38	157	6.84	64.6	0.790	0.015	2,100	4,200	<0.025	5.00	16	NR	NR	0.0190	NR						
	3rd Quarter 2009	Week of 9/10/09	6.52	NPP	9.92	1926	0.75	109	6.97	66.5	0.650	0.017	1,500	3,600	<0.025	4.30	13	NR	NR	0.0200	NR						
	2nd Quarter 2009	Week of 4/20/09	6.89	NPP	9.92	2175	0.73	215	6.90	57.4	0.690	<0.01	1,800	2,100	<0.025	6.70	14	0.22	<0.006	0.0110	NR						
	1st Quarter 2009	Week of 3/02/09	6.46	NPP	9.92	2358	1.80	207	7.00	49.8	0.390	<0.0005	0.500	0.580	<0.013	6.00	4	NR	NR	0.0190	NR						
	4th Quarter 2008	Week of 11/10/08	6.72	NPP	9.92	2619	3.58	174	6.89	59.9	0.310	<0.01	0.730	0.930	<0.025	7.50	6	NR	NR	0.0120	NR						
	3rd Quarter 2008	Week of 7/14/08	7.06	NPP	9.92	3,363	3.48	162	6.98	66.4	0.800	<0.02	3,000	3,400	<0.05	1.40	19	NR	NR	0.0350	NR						
	2nd Quarter 2008	Week of 5/12/08	5.52	NPP	9.92	2664	0.44	118	6.85	56.7	1.100	<0.02	2,200	4,000	<0.05	1.30	19	0.13	<0.006	0.0200	NR						
	1st Quarter 2008	Week of 3/31/08	5.30	NPP	9.92	2748	1.89	171	7.00	51.3	1.200	<0.02	2,300	4,200	<0.05	1.70	18	NR	NR	0.0190	NR						
	4th Quarter 2007	Week of 10/29/07	6.86	NPP	9.92	3,507	0.85	217	6.96	62.4	1.500	<0.10	2,400	3,700	<0.25	1.40	22	NR	NR	0.0071	NR						
	3rd Quarter 2007	Week of 8/20/07	7.73	NPP	9.92	3,771	1.78	217	6.97	71.0	0.640	<0.10	2,000	4,800	<0.25	1.00	28	NR	NR	0.0190	NR						
	2nd Quarter 2007	Week of 6/18/07	7.50	NPP	9.92	2,576	0.70	191	6.87	67.5	1,400	0.32	3,800	15,000	<0.25	*<1.00	47	0.29	<0.006	0.0670	NR						
	1st Quarter 2007	Week of 2/26/07	8.86	NPP	9.92	3,783	1.45	171	6.82	51.4	4,300	<0.10	4,300	19,000	<0.25	2,10	94	NR	NR	NR	NR						
	4th Quarter 2006	Week of 12/04/06	9.03	NPP	9.92	3,548	2.14	177	6.92	53.5	1,700	<0.10	2,400	12,000	<0.25	1.50	41	NR	NR	NR	NR						
	3rd Quarter 2006	Week of 9/11/06	7.37	NPP	9.92	2,531	0.65	-13	7.03	67.4	3,300	0.27	2,800	15,000	<0.25	1.30	77	NR	NR	NR	NR						
	2nd Quarter 2006	Week of 6/17/06	8.27	NPP	9.92	3,586	0.94	-216	6.93	62.8	3,600	2,40	2,800	14,000	<0.12	4.90	42	NR	NR	NR	NR						
	1st Quarter 2006	Week of 3/06/06	9.83	NPP	9.92	1,802	9.48	184	7.08	53.2	6,200	1.70	0.510	5,000	<0.12	9.90	27	NR	NR	NR	NR						
	Baseline	Week of 8/15/05	6.84	NPP	9.92	2,225	NR	NR	6.85	65.2	6,100	8.70	4,200	25,000	<0.05	1.10	84	NR	NR	NR	NR						

TABLE 2
2012 Groundwater Monitoring Data Summary

Sample Location	Sampling Event	DATE	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	Conductivity (mmhos/cm)	D.O. (mg/L)	ORP (mV)	pH	TEMP (°F)	Benzene (mg/L)	MTBE (mg/L)	Xylene (mg/L)	Ethybenzene (mg/L)	Barium (mg/L)	TPH-GRO (mg/L)	TPH-DRO (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	TPH Screening Guidelines Table 2a		WQCC 20NMAC 6.2.3103		40 CFR 141.62 (MCL)					
																					0.005	0.75	0.700	0.670	0.012	0.2	1.00	0.05	0.0150	0.002
High Flow 2012	Week of 5/29/12	5.32	NPP	12.35	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²		
Low Flow 2012	Week of 4/9/12	7.37	NPP	12.35	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²			
Low Flow 2011	Week of 7/25/11	7.71	NPP	12.35	434	3.76	256	6.30	66.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.20	<0.05	NR ²	<0.005	NR ²	<0.005	NR ²	<0.005	NR ²	<0.005	NR ²	<0.005		
High Flow 2011	Week of 6/13/11	5.80	NPP	12.35	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²			
4th Quarter 2010	Week of 10/18/10	7.05	NPP	12.35	479	2.03	309	6.98	64.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.20	<0.05	NR ¹	<0.005	NR ¹	<0.005	NR ¹	<0.005	NR ¹	<0.005	NR ¹	<0.005		
3rd Quarter 2010	Week of 7/20/10	6.85	NPP	12.35	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹			
2nd Quarter 2010	Week of 4/19/10	7.32	NPP	12.35	524	0.93	286	6.99	52.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.20	<0.05	0.15	<0.006	<0.005	<0.005	NR ¹	<0.005	NR ¹	<0.005	NR ¹	<0.005		
1st Quarter 2010	Week of 3/08/10	6.75	NPP	12.35	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹			
4th Quarter 2009	Week of 10-05-09	6.91	NPP	12.35	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
3rd Quarter 2009	Week of 9/10/09	6.85	NPP	12.35	802	5.38	271	6.85	67.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	*<1.00	<0.05	NR	NR	0.0250	NR	NR	NR	NR	NR	NR	NR	NR	
2nd Quarter 2009	Week of 4/20/09	7.06	NPP	12.35	752	3.20	231	6.91	55.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	*<1.00	<0.05	0.1	<0.006	<0.005	NR	NR	NR	NR	NR	NR	NR		
1st Quarter 2009	Week of 3/02/09	6.46	NPP	12.35	812	3.04	278	7.07	49.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	*<1.00	<0.05	NR	NR	<0.005	NR	NR	NR	NR	NR	NR	NR		
4th Quarter 2008	Week of 11/10/08	6.80	NPP	12.35	1096	1.75	216	6.90	60.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	*<1.00	<0.05	NR	NR	<0.005	NR	NR	NR	NR	NR	NR	NR		
3rd Quarter 2008	Week of 7/14/08	7.15	NPP	12.35	867	1.56	240	6.99	64.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	*<1.00	<0.05	NR	NR	0.0050	NR	NR	NR	NR	NR	NR	NR		
2nd Quarter 2008	Week of 5/12/08	5.86	NPP	12.35	775	3.95	122	6.86	55.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	*<1.00	<0.05	0.089	<0.006	<0.005	NR	NR	NR	NR	NR	NR	NR	NR	NR
1st Quarter 2008	Week of 03/10/08	5.17	NPP	12.35	602	2.87	223	6.89	48.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	*<1.00	<0.05	NR	NR	<0.005	NR	NR	NR	NR	NR	NR	NR		
4th Quarter 2007	Week of 10/29/07	6.94	NPP	12.35	806	3.40	254	6.87	62.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	*<1.00	<0.05	NR	NR	<0.005	NR	NR	NR	NR	NR	NR	NR		
3rd Quarter 2007	Week of 8/20/07	7.62	NPP	12.35	815	2.67	246	6.97	66.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	*<1.00	<0.05	NR	NR	0.0100	NR	NR	NR	NR	NR	NR	NR		
2nd Quarter 2007	Week of 6/18/07	7.02	NPP	12.35	560	3.12	211	6.85	60.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	*<1.00	<0.05	0.2	0.008	0.0073	NR	NR	NR	NR	NR	NR	NR		
1st Quarter 2007	Week of 2/26/07	7.52	NPP	12.35	839	1.65	248	6.89	47.0	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	*<1.00	<0.05	NR	NR	NR	NR	NR	NR	NR	NR	NR			
4th Quarter 2006	Week of 12/04/06	7.77	NPP	12.35	673	1.32	242	7.06	54.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003															

TABLE 2
2012 Groundwater Monitoring Data Summary

Sample Location	Sampling Event	DATE	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	Conductivity (µmhos/cm)	D.O. (mg/L)	ORP (mV)	pH	TEMP (°F)	Benzene (mg/L)	MTBE (mg/L)	Xylene (mg/L)	Ethylbenzene (mg/L)	TPH-DRO (mg/L)	TPH-GRO (mg/L)	Barium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	TPH Screening Guidelines Table 2a		WQCC 2011MAC 6.2.3103		40 CFR 141.62 (MCL)				
																					0.005	0.75	0.700	0.620	0.012	0.2	1.00	0.05	0.0150
	High Flow 2012	Week of 5/29/12	3.42	NPP	8.84	470	1.48	-33	6.30	61.1	<0.005	0.017	0.450	<0.005	1.10	4.20	NR ²	NR ²	0.0260	NR ²									
	Low Flow 2012	Week of 4/9/12	5.09	NPP	8.84	363	0.93	-266	6.80	50.9	<0.005	0.020	0.410	<0.005	0.60	1.80	NR ²	NR ²	0.3600	NR ²									
	Low Flow 2011	Week of 7/26/11	5.69	NPP	8.84	932	1.78	192	6.70	68.5	<0.010	<0.01	0.051	1.200	<0.025	0.24	4.9	NR ²	NR ²	0.0550	NR ²								
	High Flow 2011	Week of 6/13/11	4.95	NPP	8.84	561	0.72	273	6.95	62.2	<0.010	<0.01	0.350	4.200	<0.025	3.20	20	NR ²	NR ²	0.0580	NR ²								
	4th Quarter 2010	Week of 10/18/10	5.65	NPP	8.84	632	2.06	71	7.01	68.2	<0.005	<0.01	0.830	8.000	<0.025	3.10	30	NR	NR	0.0230	NR								
	3rd Quarter 2010	Week of 7/20/10	5.11	NPP	8.84	707	1.11	84	6.79	65.8	<0.005	<0.01	0.310	8.300	<0.025	3.10	26	NR	NR	0.0830	NR								
	2nd Quarter 2010	Week of 4/19/10	5.98	NPP	8.84	590	0.58	121	7.02	54.1	<0.005	<0.010	1.600	13.000	<0.025	9.00	38	0.89	0.041	0.1300	NR								
	1st Quarter 2010	Week of 3/08/10	4.41	NPP	8.84	807	0.67	253	7.05	48.5	<0.005	0.0078	0.0078	0.150	1.100	<0.013	9.10	31	NR	NR	0.0430	NR							
	4th Quarter 2009	Week of 10-05-09	4.57	NPP	8.84	759	4.57	212	6.76	67.4	<0.005	<0.01	1.900	15.000	<0.025	7.10	40	NR	NR	0.0250	NR								
	3rd Quarter 2009	Week of 9/10/09	4.54	NPP	8.84	794	1.12	152	7.04	72.6	<0.005	<0.01	1.300	13.000	<0.025	8.00	33	NR	NR	0.0330	NR								
	2nd Quarter 2009	Week of 4/20/09	4.96	NPP	8.84	1128	0.69	106	6.69	55.2	0.025	0.011	2.400	15.000	<0.025	11.00	49	0.47	<.006	0.0260	NR								
	1st Quarter 2009	Week of 3/02/09	4.86	NPP	8.84	1092	3.33	176	7.07	49.2	0.019	<0.01	1.800	14.000	<0.025	12.00	37	NR	NR	0.0260	NR								
	4th Quarter 2008	Week of 11/10/08	4.54	NPP	8.84	981	1.23	129	6.83	61.8	0.016	0.01	2.400	12.000	<0.025	8.50	38	NR	NR	0.0290	NR								
	3rd Quarter 2008	Week of 7/14/08	4.76	NPP	8.84	852	1.49	159	6.95	69.8	<0.02	<0.02	1.900	18.000	<0.05	1.10	50	NR	NR	0.0430	NR								
	2nd Quarter 2008	Week of 5/12/08	3.43	NPP	8.84	702	1.32	54	6.87	56.8	0.048	<0.02	1.100	13.000	<0.05	*<1.00	46	0.31	<.006	0.0390	NR								
	1st Quarter 2008	Week of 03/10/08	3.15	NPP	8.84	656	2.34	216	6.82	47.4	<0.020	<0.020	1.600	17.000	<0.050	*<1.00	52	NR	NR	0.0510	NR								
	4th Quarter 2007	Week of 10/29/07	4.78	NPP	8.84	857	0.23	229	7.04	66.5	<0.001	<0.001	2.600	17.000	<0.0025	1.20	56	NR	NR	0.0320	NR								
	3rd Quarter 2007	Week of 8/20/07	6.97	NPP	8.84	911	0.17	129	6.88	69.8	0.300	<0.10	3.000	22.000	<0.25	*<1.00	69	NR	NR	0.0440	NR								
	2nd Quarter 2007	Week of 6/18/07	6.62	NPP	8.84	884	0.80	148	6.87	63.9	0.340	<0.10	3.500	21.000	<0.25	*<1.00	78	0.21	<.006	0.0920	NR								
	1st Quarter 2007	Week of 2/26/07	5.59	NPP	8.84	1027	0.79	219	6.87	49.6	<0.01	<0.01	1.300	18.000	<0.025	*<1.00	85	NR	NR	NR	NR								
	4th Quarter 2006	Week of 12/04/06	5.95	NPP	8.84	1377	1.36	229	6.99	56.0	0.069	<0.050	1.200	10.000	<0.120	*<1.00	50	NR	NR	NR	NR								
	3rd Quarter 2006	Week of 9/11/06	5.32	NPP	8.84	879	0.29	149	7.09	71.0	<0.01	<0.01	3.100	16.000	<0.025	*<1.00	110	NR	NR	NR	NR								
	2nd Quarter 2006	Week of 6/17/06	5.24	NPP	8.84	989	0.05	39	6.94	63.3	0.054	<0.001	1.600	16.000	<0.025	*<1.00	34	NR	NR	NR	NR								
	1st Quarter 2006	Week of 3/06/06	7.81	NPP	8.84	747	0.52	-51	7.03	54.1	0.200	<0.02	0.280	20.000	<0.05	*<1.00	59	NR	NR	NR	NR								
	Baseline	Week of 8/15/05	5.91	NPP	8.84	923	NR	NR	6.90	68.7	0.350	<0.005	3.500	21.000	<0.05	1.20	56	NR	NR	NR	NR								

TABLE 2
2012 Groundwater Monitoring Data Summary

Sampling Event	DATE	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	Conductivity (µmhos/cm)	D.O. (mg/L)	ORP (mV)	pH	TEMP (°F)	MTBE (mg/L)	Xylene (mg/L)	Barium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	TPH Screening Guidelines Table 2a		WQCC 20NMAC 6.2.3103		40 CFR 141.62 (MCL)	
																1.00	0.05	0.0150	0.002		
High Flow 2012	5/29/12	4.06	NPP	9.94	450	1.67	-6	7.10	61.9	<0.001	<0.001	<0.002	<0.001	<0.001	NR ²	0.360	NR ²	0.0240	NR ²		
Low Flow 2012	4/9/12	6.01	NPP	9.94	612	6.00	-64	7.53	51.0	<0.001	<0.001	<0.002	<0.001	<0.001	NR ²	0.20	<0.050	NR ²	0.0230		
Low Flow 2011	7/26/11	6.58	NPP	9.94	706	3.90	182	6.70	68.1	<0.001	<0.001	<0.002	<0.001	<0.001	NR ²	<0.0025	<0.05	NR ²	<0.0050		
High Flow 2011	6/13/11	5.16	NPP	9.94	699	1.08	153	6.89	62.0	<0.001	<0.001	0.002	0.002	<0.0025	NR ²	0.20	0.2	NR ²	0.0520		
4th Quarter 2010	10/18/10	6.50	NPP	9.94	870	2.29	-499	6.96	66.3	<0.001	<0.001	0.009	0.004	<0.0025	NR	0.056	<0.20	NR	0.0074		
3rd Quarter 2010	7/20/10	5.82	NPP	9.94	934	1.09	150	6.63	67.3	<0.001	<0.001	0.002	0.009	<0.0025	NR	<0.20	<0.05	NR	0.0260		
2nd Quarter 2010	4/19/10	6.84	NPP	9.94	1712	6.80	-515	6.91	51.1	<0.001	<0.001	0.002	0.008	<0.0025	NR	0.31	<0.05	0.28	<0.006		
1st Quarter 2010	3/08/10	5.27	NPP	9.94	1262	6.57	214	6.84	46.5	<0.001	<0.001	0.018	0.090	<0.0025	NR	0.45	0.27	NR	0.0310		
4th Quarter 2009	10/05/09	5.49	NPP	9.94	919	1.33	278	6.69	66.0	0.022	<0.02	1.200	3.200	<0.05	NR	3.6	9.8	NR	0.0230		
3rd Quarter 2009	9/10/09	5.47	NPP	9.94	934	1.71	-5	6.99	69.5	0.032	<0.02	1.200	3.800	<0.05	NR	3.00	12	NR	0.0280		
2nd Quarter 2009	4/20/09	5.93	NPP	9.94	1025	5.99	141	6.99	54.2	0.025	<0.02	0.850	3.400	<0.05	NR	2.90	11	0.34	<0.006		
1st Quarter 2009	3/02/09	5.68	NPP	9.94	1126	1.63	169	7.02	48.7	0.025	<0.02	1.100	4.500	<0.05	NR	2.50	12	NR	0.0190		
4th Quarter 2008	11/10/08	5.40	NPP	9.94	1293	0.58	199	7.07	61.0	0.029	<0.005	0.430	1.200	<0.05	NR	3.10	3.40	NR	0.0180		
3rd Quarter 2008	7/14/08	5.67	NPP	9.94	726	0.53	70	7.00	66.3	<0.005	<0.005	0.800	2.700	<0.012	*<1.00	8.60	NR	0.0510			
2nd Quarter 2008	5/12/08	4.33	NPP	9.94	997	0.77	181	6.87	58.0	0.020	<0.001	0.180	0.068	<0.0025	*<1.00	1.20	0.15	<0.006	0.0220		
1st Quarter 2008	03/10/08	4.02	NPP	9.94	1093	1.62	176	6.93	49.9	0.024	<0.001	0.260	0.300	0.0029	*<1.00	1.90	NR	0.0280			
4th Quarter 2007	10/29/07	5.70	NPP	9.94	1502	0.53	177	6.93	63.3	<0.001	<0.001	<0.001	<0.002	<0.0025	*<1.00	0.07	NR	NR	<0.005		
3rd Quarter 2007	8/20/07	7.65	NPP	9.94	1317	0.38	145	6.89	69.0	<0.001	<0.001	<0.002	<0.0025	*<1.00	0.19	NR	NR	0.0093			
2nd Quarter 2007	6/18/07	7.32	NPP	9.94	1361	1.19	220	6.89	62.2	<0.001	<0.001	<0.002	<0.0025	*<1.00	0.11	0.38	<0.006	0.0270			
1st Quarter 2007	6/3/07	6.39	NPP	9.94	1857	0.72	253	6.83	47.5	<0.001	<0.001	<0.002	<0.0025	*<1.00	0.28	NR	NR	NR			
4th Quarter 2006	12/04/06	6.61	NPP	9.94	1826	1.03	226	6.95	54.8	0.006	<0.001	<0.001	<0.003	<0.0025	*<1.00	0.48	NR	NR	NR		
3rd Quarter 2006	9/11/06	6.17	NPP	9.94	2698	0.76	45	7.02	69.4	0.027	<0.01	0.410	0.045	<0.025	*<1.00	5.30	NR	NR	NR		
2nd Quarter 2006	6/17/06	6.18	NPP	9.94	1216	0.38	94	6.98	66.5	<0.001	<0.001	4.400	0.350	<0.025	*<1.00	1.90	NR	NR	NR		
1st Quarter 2006	3/06/06	8.61	NPP	9.94	602	0.63	153	7.35	52.3	<0.001	<0.001	0.180	0.750	<0.025	*<1.00	2.70	NR	NR	NR		
Baseline	8/15/05	5.78	NPP	9.94	1128	NR	NR	6.94	68.2	0.280	<0.01	2.800	7.500	<0.05	1.00	26	NR	NR	NR		

TABLE 2
2012 Groundwater Monitoring Data Summary

TABLE 2
2012 Groundwater Monitoring Data Summary

TPH Screening Guidelines Table 2a												WQCC 20NMAC 6.2.3103		40 CFR 141.62 (MCL)		
MCL	WQCC 20NMAC 6.2.3103	MCL	WQCC 20NMAC 6.2.3103	USEPA Regional Screening Levels	TPH Screening Guidelines Table 2a								WQCC 20NMAC 6.2.3103	40 CFR 141.62 (MCL)		
					0.005	0.75	0.790	0.620	0.012	0.2	1.00	0.05	0.0150	0.002		
Sample Location	Sampling Event	Date	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	Conductivity (mmhos/cm)	D.O. (mg/L)	ORP (mV)	pH	TEMP (°F)	Benzene (mg/L)	Ethylbenzene (mg/L)	MTBE (mg/L)	TPH-DRO (mg/L)	TPH-GRO (mg/L)	
High Flow 2012	Week of 5/29/12	5.02	NPP	9.72	789	1.92	79	7.00	60.9	<0.005	0.019	0.110	<0.005	1.30	3.00	
Low Flow 2012	Week of 4/9/12	6.50	NPP	9.72	883	1.65	>209	7.55	50.2	<0.005	0.022	0.069	<0.005	0.83	0.41	
Low Flow 2011	Week of 7/26/11	7.46	NPP	9.72	825	2.09	119	6.70	67.2	<0.005	0.029	0.130	<0.013	0.62	2.1	
High Flow 2011	Week of 6/13/11	6.26	NPP	9.72	886	0.88	204	6.68	59.9	<0.005	0.026	0.140	<0.013	1.0	1.9	
4th Quarter 2010	Week of 10/18/10	6.83	NPP	9.72	1111	2.10	137	6.89	66.9	<0.005	0.100	0.420	<0.013	1.0	2.2	
3rd Quarter 2010	Week of 7/20/10	6.45	NPP	9.72	1308	1.04	50	6.59	68.3	<0.005	0.130	0.350	<0.013	2.9	2.3	
2nd Quarter 2010	Week of 4/19/10	7.49	NPP	9.72	1507	1.21	122	6.87	58.2	<0.005	0.150	0.780	<0.013	4.2	3.5	
1st Quarter 2010	Week of 3/08/10	5.05	NPP	9.72	1779	1.54	303	6.79	45.3	<0.005	0.073	0.780	<0.013	3.1	3.00	
4th Quarter 2009	Week of 10/05/09	5.48	NPP	9.72	1250	1.23	226	6.77	66.7	0.008	0.240	2.100	<0.013	4.9	6.2	
3rd Quarter 2009	Week of 9/10/09	5.43	NPP	9.72	1187	1.65	163	6.98	71.2	0.006	0.220	2.000	<0.013	4.70	5.70	
2nd Quarter 2009	Week of 4/20/09	5.60	NPP	9.72	1581	1.09	253	6.89	52.3	0.014	<0.01	0.350	3.600	<0.025	6.80	
1st Quarter 2009	Week of 3/02/09	5.42	NPP	9.72	1685	4.43	229	6.78	47.9	0.009	<0.005	0.290	2.800	<0.013	5.6	
4th Quarter 2008	Week of 11/10/08	5.29	NPP	9.72	1810	4.70	230	6.96	60.4	<0.005	0.270	0.920	<0.013	8.60	9.60	
3rd Quarter 2008	Week of 7/14/08	5.88	NPP	9.72	1627	0.49	264	6.86	68.9	<0.01	0.340	2.400	<0.025	1.30	14	
2nd Quarter 2008	Week of 5/12/08	4.44	NPP	9.72	1863	1.39	175	6.91	56.6	<0.01	0.390	2.400	<0.025	1.10	19	
1st Quarter 2008	Week of 03/10/08	4.13	NPP	9.72	1877	1.69	214	6.90	49.0	<0.01	0.370	1.800	<0.025	1.40	15	
4th Quarter 2007	Week of 10/29/07	5.81	NPP	9.72	2355	0.77	185	6.88	64.1	<0.01	0.380	1.500	<0.025	1.60	14	
3rd Quarter 2007	Week of 8/20/07	6.67	NPP	9.72	3084	0.36	245	6.89	74.4	<0.01	0.480	3.700	<0.025	1.70	31	
2nd Quarter 2007	Week of 6/18/07	6.22	NPP	9.72	2704	1.21	160	6.92	66..3	<0.01	<0.01	0.290	8.600	<0.025	1.20	
1st Quarter 2007	Week of 2/26/07	8.57	NPP	9.72	2964	2.45	208	6.95	50.5	<0.01	1.300	13.000	<0.025	2.10	70	
4th Quarter 2006	Week of 12/04/06	8.21	NPP	9.72	1855	1.56	187	7.04	57.3	0.041	<0.010	1.300	12.000	<0.025	1.40	79
3rd Quarter 2006	Week of 9/11/06	6.21	NPP	9.72	2977	0.43	107	7.03	74.6	<0.01	0.580	1.600	<0.025	5.60	57	
2nd Quarter 2006	Week of 6/17/06	7.50	NPP	9.72	2032	0.48	143	7.01	67.6	0.260	<0.100	0.640	6.300	<0.025	6.80	19
1st Quarter 2006	Week of 3/06/06	8.92	NPP	9.72	1613	0.61	228	7.03	52.6	0.350	<0.10	1.100	10.000	<0.025	18.00	37
Baseline	Week of 8/15/05	6.61	NPP	9.72	1934	NR	NR	6.94	72.4	1.100	<0.05	3.200	25.000	<0.25	7.80	84

TABLE 2
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TPH Screening Guidelines Table 2a												WQCC 20NMAC 6.2.3103		40 CFR 141.62 (MCL)	
MCL	WQCC 20NMAC 6.2.3103	MCL	WQCC 20NMAC 6.2.3103	USEPA Regional Screening Levels	TPH Screening Guidelines Table 2a	TPH-GRO (mg/L)	TPH-DRO (mg/L)	Barium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	WQCC 20NMAC 6.2.3103	WQCC 20NMAC 6.2.3103	40 CFR 141.62 (MCL)	
0.005	0.75	0.700	0.620	0.012	0.2	NR ²	NR ²	0.002							
Sampling Event	Date	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	Conductivity (mhos/cm)	D.O. (mg/L)	ORP (mV)	pH	TEMP (F)	Benzene (mg/L)	MTBE (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	0.05	
Sample Location														0.0150	
High Flow 2012	Week of 5/29/12	2.82	NPP	9.95	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	0.001		
Low Flow 2012	Week of 4/9/12	5.33	NPP	9.95	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²		
Low Flow 2011	Week of 7/26/11	5.57	NPP	9.95	406	2.24	257	6.60	66.1	<0.001	<0.001	<0.002	<0.20		
High Flow 2011	Week of 6/13/11	3.08	NPP	9.95	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	<0.0050		
4th Quarter 2010	Week of 10/18/10	4.97	NPP	9.95	352	2.03	282	6.96	56.2	<0.001	<0.001	<0.002	<0.20		
3rd Quarter 2010	Week of 7/20/10	4.75	NPP	9.95	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	<0.005		
2nd Quarter 2010	Week of 4/19/10	5.24	NPP	9.95	461	0.92	259	6.95	48.6	<0.001	<0.001	<0.002	<0.20		
1st Quarter 2010	Week of 3/08/10	4.77	NPP	9.95	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	<0.005		
4th Quarter 2009	Week of 10-05-09	4.83	NPP	9.95	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹		
3rd Quarter 2009	Week of 9/10/09	4.79	NPP	9.95	322	1.05	259	6.92	63.8	<0.001	<0.001	<0.002	<0.005		
2nd Quarter 2009	Week of 4/20/09	4.88	NPP	9.95	357	1.26	207	6.95	51.7	<0.001	<0.001	<0.002	<0.006		
1st Quarter 2009	Week of 3/02/09	4.77	NPP	9.95	342	1.45	269	7.06	43.0	<0.001	<0.001	<0.002	<0.005		
4th Quarter 2008	Week of 11/10/08	4.64	NPP	9.95	343	1.48	198	7.06	50.7	<0.001	<0.001	<0.002	<0.005		
3rd Quarter 2008	Week of 7/14/08	4.88	NPP	9.95	405	1.13	212	7.11	66.5	<0.001	<0.001	<0.002	<0.005		
2nd Quarter 2008	Week of 5/12/08	3.78	NPP	9.95	479	0.77	107	6.88	53.7	<0.001	<0.001	<0.002	<0.005		
1st Quarter 2008	Week of 03/10/08	2.83	NPP	9.95	279	2.52	213	6.94	43.5	<0.001	<0.001	<0.002	<0.005		
4th Quarter 2007	Week of 10/29/07	4.74	NPP	9.95	307	2.28	253	6.90	51.3	<0.001	<0.001	<0.002	<0.005		
3rd Quarter 2007	Week of 8/20/07	5.32	NPP	9.95	368	1.16	230	6.98	61.8	<0.001	<0.001	<0.002	<0.005		
2nd Quarter 2007	Week of 6/18/07	4.62	NPP	9.95	268	7.32	213	6.86	57.2	<0.001	<0.001	<0.002	<0.0089		
1st Quarter 2007	Week of 2/26/07	5.23	NPP	9.95	426	3.87	233	6.85	41.1	<0.001	<0.001	<0.002	<0.005		
4th Quarter 2006	Week of 12/04/06	5.57	NPP	9.95	387	1.44	269	7.00	44.9	<0.001	<0.001	<0.003	<0.005		
3rd Quarter 2006	Week of 9/11/06	5.26	NPP	9.95	395	0.45	247	6.97	62.6	<0.001	<0.001	<0.003	<0.005		
2nd Quarter 2006	Week of 6/17/06	5.23	NPP	9.95	325	1.52	168	7.01	59.8	<0.001	<0.001	<0.003	<0.005		
1st Quarter 2006	Week of 3/06/06	5.86	NPP	9.95	355	1.72	224	6.99	42.8	<0.001	<0.001	<0.003	<0.005		
Baseline	Week of 9/15/05	5.10	NPP	9.95	377	NR	NR	NR	6.94	71.2	<0.0005	<0.0005	<0.005	NR	

TABLE 2
2012 Groundwater Monitoring Data Summary

TABLE 2
2012 Groundwater Monitoring Data Summary

Sample Location	Sampling Event	DATE	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	Conductivity (mhos/cm)	D.O. (mg/L)	ORP (mV)	pH	TEMP (°F)	Benzene (mg/L)	Toluene (mg/L)	Xylene (mg/L)	Ethylbenzene (mg/L)	MTBE (mg/L)	TPH-DRO (mg/L)	TPH-GRO (mg/L)	Barium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	TPH Screening Guidelines Table 2a		WQCC 20NMAC 6.2.3103		40 CFR 141.62 (MCL)	
	High Flow 2012	Week of 5/29/12	5.00	NPP	11.79	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²			
	Low Flow 2012	Week of 4/9/12	7.45	NPP	11.79	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²			
	Low Flow 2011	Week of 7/26/11	7.67	NPP	11.79	903	2.13	268	6.70	58.6	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	<0.05	NR ²	NR ²	NR ²	<0.0050	NR ²	NR ²	NR ²			
	High Flow 2011	Week of 6/13/11	5.24	NPP	11.79	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²			
	4th Quarter 2010	Week of 10/18/10	7.06	NPP	11.79	1121	1.96	306	6.88	56.2	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	<0.20	NR ¹	NR ¹	NR ¹	0.0095	NR ¹	NR ¹	NR ¹			
	3rd Quarter 2010	Week of 7/20/10	6.93	NPP	11.79	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹			
	2nd Quarter 2010	Week of 4/19/10	7.32	NPP	11.79	760	0.91	290	6.94	49.9	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	<0.20	NR ¹	NR ¹	NR ¹	<0.006	NR ¹	NR ¹	NR ¹			
	1st Quarter 2010	Week of 3/08/10	6.94	NPP	11.79	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹			
	4th Quarter 2009	Week of 10-05-09	7.00	NPP	11.79	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹			
	3rd Quarter 2009	Week of 9/10/09	6.97	NPP	11.79	1491	4.27	282	6.85	60.1	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	*<1.00	NR	NR	NR	<0.005	NR	NR	NR			
	2nd Quarter 2009	Week of 4/20/09	7.09	NPP	11.79	723	0.91	237	6.91	52.6	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	*<1.00	NR	NR	NR	0.047	NR	NR	NR			
	1st Quarter 2009	Week of 3/02/09	6.97	NPP	11.79	752	1.90	248	7.04	46.9	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	*<1.00	NR	NR	NR	0.0057	NR	NR	NR			
	4th Quarter 2008	Week of 11/10/08	6.83	NPP	11.79	1059	1.10	279	6.87	53.8	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	*<1.00	NR	NR	NR	<0.005	NR	NR	NR			
	3rd Quarter 2008	Week of 7/14/08	7.18	NPP	11.79	526	0.46	250	6.97	58.9	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	*<1.00	NR	NR	NR	0.0050	NR	NR	NR			
	2nd Quarter 2008	Week of 5/12/08	5.85	NPP	11.79	771	0.77	142	6.85	53.9	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	*<1.00	NR	NR	NR	<0.006	NR	NR	NR			
	1st Quarter 2008	Week of 03/10/08	5.11	NPP	11.79	1197	1.75	264	6.86	47.9	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	*<1.00	NR	NR	NR	0.0060	NR	NR	NR			
	4th Quarter 2007	Week of 10/29/07	6.92	NPP	11.79	1745	0.56	271	6.85	54.3	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	*<1.00	NR	NR	NR	0.0100	NR	NR	NR			
	3rd Quarter 2007	Week of 8/20/07	6.36	NPP	11.79	2189	1.60	238	6.97	57.1	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	*<1.00	NR	NR	NR	0.0210	NR	NR	NR			
	2nd Quarter 2007	Week of 6/18/07	6.82	NPP	11.79	1750	2.04	242	6.81	56.7	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	*<1.00	0.010	0.21	0.0160	NR	NR	NR				
	1st Quarter 2007	Week of 2/26/07	7.40	NPP	11.79	952	1.73	205	6.92	48.2	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	*<1.00	NR	NR	NR	NR	NR	NR	NR			
	4th Quarter 2006	Week of 12/04/06	7.67	NPP	11.79	855	3.11	252	6.99	52.8	<0.001	<0.001	<0.001	<0.001	<0.003	<0.003	*<1.00	NR	NR	NR	<0.0025	NR	NR	NR			
	3rd Quarter 2006	Week of 9/11/06	7.48	NPP	11.79	1875	0.91	237	6.98	60.0	<0.001	<0.001	<0.001	<0.001	<0.003	<0.003	*<1.00	NR	NR	NR	NR	NR	NR	NR			
	2nd Quarter 2006	Week of 6/17/06	7.44	NPP	11.79	1171	0.26	157	7.00	55.9	<0.001	<0.001	<0.001	<0.001	<0.003	<0.003	*<1.00	NR	NR	NR	<0.005	NR	NR	NR			
	1st Quarter 2006	Week of 3/06/06	7.94	NPP	11.79	1234	0.19	242	6.91	48.0	<0.001	<0.001	<0.001	<0.001	<0.003	<0.003	*<1.00	<0.05	NR	NR	NR	NR	NR	NR	NR		
	Baseline	Week of 8/15/05	7.43	NPP	11.79	2143	NR	NR	6.88	64.1	<0.0005	<0.0005	<0.0005	<0.0005	0.001	0.001	0.0028	1.00	<0.05	NR	NR	NR	NR	NR	NR	NR	

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TABLE 2
2012 Groundwater Monitoring Data Summary

TPH Screening Guidelines Table												WQCC 20NMAC 6.2.3103		WQCC 20NMAC 6.2.3103	
MCL	WQCC 20NMAC 6.2.3103	MCL	WQCC 20NMAC 6.2.3103	MCL	WQCC 20NMAC 6.2.3103	USEPA Regional Screening Levels	TPH-GRO (mg/L)	TPH-DRO (mg/L)	Barium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)			
0.005	0.75	0.700	0.620	0.012	0.2	0.100	0.05	0.0150	0.002	NR ²	NR ²	NR ²	NR ²		
High Flow 2012	DATE	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	Conductivity (µmhos/cm)	D.O. (mg/L)	ORP (mV)	pH	TEMP (°F)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE (mg/L)	
High Flow 2012	Week of 5/29/12	3.78	NPP	16.09	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	
Low Flow 2012	Week of 4/9/12	6.29	NPP	16.09	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	
Low Flow 2011	Week of 4/19/10	6.46	NPP	16.09	406	1.86	262	6.60	63.7	<0.001	<0.001	<0.002	<0.0025	<0.0050	
High Flow 2011	Week of 4/19/10	3.82	NPP	16.09	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	
4th Quarter 2010	Week of 10/18/10	5.93	NPP	16.09	343	1.86	277	6.96	60.7	<0.001	<0.001	<0.002	<0.0025	<0.0051	
3rd Quarter 2010	Week of 7/20/10	5.75	NPP	16.09	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
2nd Quarter 2010	Week of 4/19/10	6.17	NPP	16.09	422	0.89	276	6.95	47.9	<0.001	<0.001	<0.002	<0.0025	<0.0061	
1st Quarter 2010	Week of 3/08/10	5.83	NPP	16.09	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
4th Quarter 2009	Week of 10/05/09	5.85	NPP	16.09	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	NR ¹	
3rd Quarter 2009	Week of 9/10/09	5.80	NPP	16.09	336	1.21	269	6.87	64.3	<0.001	<0.001	<0.002	<0.0025	<0.0090	
2nd Quarter 2009	Week of 4/20/09	5.98	NPP	16.09	460	1.08	234	6.97	51.2	<0.001	<0.001	<0.002	<0.0025	<0.005	
1st Quarter 2009	Week of 3/02/09	5.66	NPP	16.09	471	1.61	261	7.07	46.7	<0.001	<0.001	<0.002	<0.0025	<0.005	
4th Quarter 2008	Week of 11/10/08	5.72	NPP	16.09	422	1.21	228	6.96	57.2	<0.001	<0.001	<0.002	<0.0025	<0.0070	
3rd Quarter 2008	Week of 7/14/08	5.97	NPP	16.09	584	0.53	240	7.02	56.7	<0.001	<0.001	<0.002	<0.0025	<0.005	
2nd Quarter 2008	Week of 5/12/08	4.69	NPP	16.09	500	0.77	122	6.88	52.8	<0.001	<0.001	<0.002	<0.0025	<0.006	
1st Quarter 2008	Week of 03/10/08	3.92	NPP	16.09	478	4.58	257	6.89	45.6	<0.001	<0.001	<0.002	<0.0025	<0.005	
4th Quarter 2007	Week of 10/29/07	5.80	NPP	16.09	342	0.74	237	6.99	58.6	<0.001	<0.001	<0.002	<0.0025	<0.005	
3rd Quarter 2007	Week of 8/20/07	6.17	NPP	16.09	472	1.29	220	7.04	58.3	<0.001	<0.001	<0.002	<0.0025	<0.0120	
2nd Quarter 2007	Week of 6/18/07	5.63	NPP	16.09	563	1.43	207	6.86	56.3	<0.001	<0.001	<0.002	<0.0025	<0.0110	
1st Quarter 2007	Week of 2/26/07	6.16	NPP	16.09	449	1.86	236	6.97	46.7	<0.001	<0.001	<0.002	<0.0025	<0.0100	
4th Quarter 2006	Week of 12/04/06	6.51	NPP	16.09	515	0.97	251	7.08	53.9	<0.001	<0.001	<0.003	<0.0025	<0.005	
3rd Quarter 2006	Week of 9/11/06	6.33	NPP	16.09	554	0.54	244	6.98	63.9	<0.001	<0.001	<0.003	<0.0025	<0.005	
2nd Quarter 2006	Week of 6/17/06	6.35	NPP	16.09	526	0.28	240	7.02	58.6	<0.001	<0.001	<0.003	<0.0025	<0.005	
1st Quarter 2006	Week of 3/06/06	6.78	NPP	16.09	508	0.28	242	6.90	46.3	<0.001	<0.001	<0.003	<0.0025	<0.005	
Baseline	Week of 8/15/05	6.27	NPP	16.09	1226	NR	6.97	58.4	<0.005	<0.005	<0.004	<0.0025	<0.005	NR	

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TABLE 2
2012 Groundwater Monitoring Data Summary

Sample Location	Sampling Event	Date	Depth to Water (ft below TOC)	Depth to Product (ft below TOC)	Total Well Depth (ft below TOC)	Conductivity (mhos/cm)	D.O. (mg/L)	ORP (mV)	PH	TEMP (°F)	Benzene (mg/L)	MTBE (mg/L)	Xylene (mg/L)	Ethybenzene (mg/L)	Barium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Mercury (mg/L)	TPH Screening Guidelines Table 2a		WQCC 20MAC 6.2.3103		40 CFR 141.62 (MCL) 0.002				
																			0.005	0.75	0.700	0.620	0.012	0.2	1.00	0.05	0.0150
High Flow 2012	Week of 5/29/12	3.99	NPP	15.62	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²
Low Flow 2012	Week of 4/9/12	6.41	NPP	15.62	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	
Low Flow 2011	Week of 7/26/11	6.68	NPP	15.62	3116	2.67	156	6.70	68.1	<0.001	<0.001	<0.002	<0.0025	<0.20	<0.05	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	<0.0050	<0.0002	
High Flow 2011	Week of 6/13/11	4.54	NPP	15.62	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	NR ²	
4th Quarter 2010	Week of 10/18/10	6.17	NPP	15.62	2352	2.35	263	7.13	66.5	<0.001	<0.001	<0.002	<0.0025	<0.20	<0.05	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.005	No Analysis	
3rd Quarter 2010	Week of 7/20/10	5.82	NPP	15.62	2836	1.31	-16	6.81	68.0	<0.001	<0.001	<0.002	<0.0025	<0.20	<0.05	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.0063	<0.0002	
2nd Quarter 2010	Week of 4/19/10	6.24	NPP	15.62	2546	0.86	270	7.03	52.1	<0.001	<0.001	<0.002	<0.0025	<0.20	<0.05	0.1	<0.006	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0002	
1st Quarter 2010	Week of 3/08/10	5.62	NPP	15.62	2625	0.36	286	6.93	47.7	<0.001	<0.001	<0.002	<0.0025	<0.20	<0.05	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.005	<0.0002	
4th Quarter 2009	Week of 10/05/09	5.85	NPP	15.62	2409	1.67	-12	6.89	67.4	<0.001	<0.001	<0.002	<0.0025	*<1.00	<0.05	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.0057	<0.0002	
3rd Quarter 2009	Week of 9/10/09	5.82	NPP	15.62	2443	1.96	281	6.86	69.2	<0.005	<0.01	<0.02	<0.025	*<1.00	<0.05	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.005	No Analysis	
2nd Quarter 2009	Week of 4/20/09	6.02	NPP	15.62	2512	0.85	261	6.83	51.9	<0.005	<0.01	<0.02	<0.025	*<1.00	<0.05	0.61	<0.006	<0.005	0.61	<0.006	<0.005	0.61	<0.006	<0.005	0.0008		
1st Quarter 2009	Week of 3/02/09	5.69	NPP	15.62	2558	1.56	242	67.40	49.9	<0.001	<0.001	<0.002	<0.0025	*<1.00	<0.05	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.005	<0.001	
4th Quarter 2008	Week of 11/10/08	5.72	NPP	15.62	2462	2.06	159	6.76	59.4	<0.001	<0.001	<0.002	<0.0025	*<1.00	<0.05	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.005	No Analysis	
3rd Quarter 2008	Week of 7/14/08	5.89	NPP	15.62	2443	0.59	160	6.93	65.5	<0.001	<0.001	<0.002	<0.0025	*<1.00	<0.05	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.005	No Analysis	
2nd Quarter 2008	Week of 5/12/08	4.66	NPP	15.62	2568	2.98	204	6.87	54.7	<0.001	<0.001	<0.002	<0.0025	*<1.00	<0.05	0.12	<0.006	<0.005	0.12	<0.006	<0.005	0.12	<0.006	<0.005	<0.001		
1st Quarter 2008	Week of 03/10/08	4.11	NPP	15.62	2804	1.58	239	6.73	44.5	<0.001	<0.001	<0.002	<0.0025	*<1.00	<0.05	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.005	<0.0002	
4th Quarter 2007	Week of 10/29/07	5.80	NPP	15.62	1990	0.62	294	6.88	62.9	<0.001	<0.001	<0.001	<0.002	*<1.00	0.06	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.005	<0.0002	
3rd Quarter 2007	Week of 8/20/07	6.71	NPP	15.62	1928	0.27	155	7.05	65.7	<0.001	<0.001	<0.007	<0.0025	*<1.00	0.29	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.0089	<0.0002	
2nd Quarter 2007	Week of 6/18/07	5.81	NPP	15.62	2548	4.59	257	6.75	58.6	<0.001	<0.001	<0.003	<0.0025	*<1.00	0.15	0.93	<0.03	<0.025	0.15	0.93	<0.03	<0.025	<0.025	<0.0002			
1st Quarter 2007	Week of 2/26/07	6.11	NPP	15.62	3126	0.65	235	6.88	48.1	<0.001	<0.001	<0.002	<0.0025	*<1.00	0.29	NR	NR	NR	NR	NR	NR	NR	NR	NR	<0.005	0.002	
4th Quarter 2006	Week of 12/04/06	5.58	NPP	15.62	2789	1.24	281	7.01	52.7	<0.001	<0.001	<0.003	<0.0025	*<1.00	0.09	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
3rd Quarter 2006	Week of 9/11/06	6.39	NPP	15.62	2067	0.30	258	7.04	66.2	<0.005	<0.005	<0.015	<0.015	<0.012	1.20	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
2nd Quarter 2006	Week of 6/17/06	6.49	NPP	15.62	2329	0.42	143	6.96	58.0	<0.001	<0.001	0.016	0.120	<0.0025	1.60	0.90	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
1st Quarter 2006	Week of 3/06/06	7.91	NPP	15.62	2118	0.75	-64	6.95	50.2	<0.005	<0.005	0.041	0.230														

TABLE 2
2012 Groundwater Monitoring Data Summary

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NR = Not Required (Voluntary Corrective Measures - Revised Monitoring Plan - October 2005)

NB! = Not Required (Annotate With Direction - June 2008)

NR = Not Required (Approval With Direction - June 2009)

NR = Not Required (Approval With Direction - May 2011)
* Per NMED Letter Approval with Direction 2008 Groundwater Remediation and Monitoring Annual Report (Comment 9) dated Sept. 1, 2009 all future DRO analysis will be analyzed at a

TABLE 3
2012 Air Pressure and Velocity Summary

Sample Location	Sampling Event	Sample Date	Velocity (scfm)	Pressure (psi)
BV - 1	Low Flow	04/04/11	NW	2.9
	High Flow	05/30/12	NW	2.9
BV - 2	Low Flow	04/04/11	NW	2.9
	High Flow	05/30/12	NW	2.9
BV - 3	Low Flow	04/04/11	10.0	2.9
	High Flow	05/30/12	10.0	2.9
BV - 4	Low Flow	04/04/11	NW	2.9
	High Flow	05/30/12	NW	2.9
BV - 5	Low Flow	04/04/11	10.0	2.9
	High Flow	05/30/12	10.0	2.9
BV - 6	Low Flow	04/05/12	10.0	2.9
	High Flow	05/30/12	10.0	2.9
BV - 7	Low Flow	04/05/12	NW	2.9
	High Flow	05/30/12	NW	2.9
BV - 8	Low Flow	04/05/12	NW	2.9
	High Flow	05/30/12	NW	2.9
BV - 9	Low Flow	04/05/12	10.0	2.9
	High Flow	05/30/12	10.0	2.9
BV - 10	Low Flow	04/05/12	10.0	2.9
	High Flow	05/30/12	10.0	2.9
BV - 11	Low Flow	04/05/12	10.0	2.9
	High Flow	05/30/12	10.0	2.9
BV - 12	Low Flow	04/05/12	10.0	2.9
	High Flow	05/30/12	10.0	2.9
BV - 13	Low Flow	04/05/12	10.0	2.9
	High Flow	05/30/12	10.0	2.9
Main Blower	Low Flow	04/05/12	10.0	3.2
	High Flow	05/30/12	10.0	3.2

NW=velocity meter not working

scfm = standard cubic feet per minute

psi = pounds per square inch

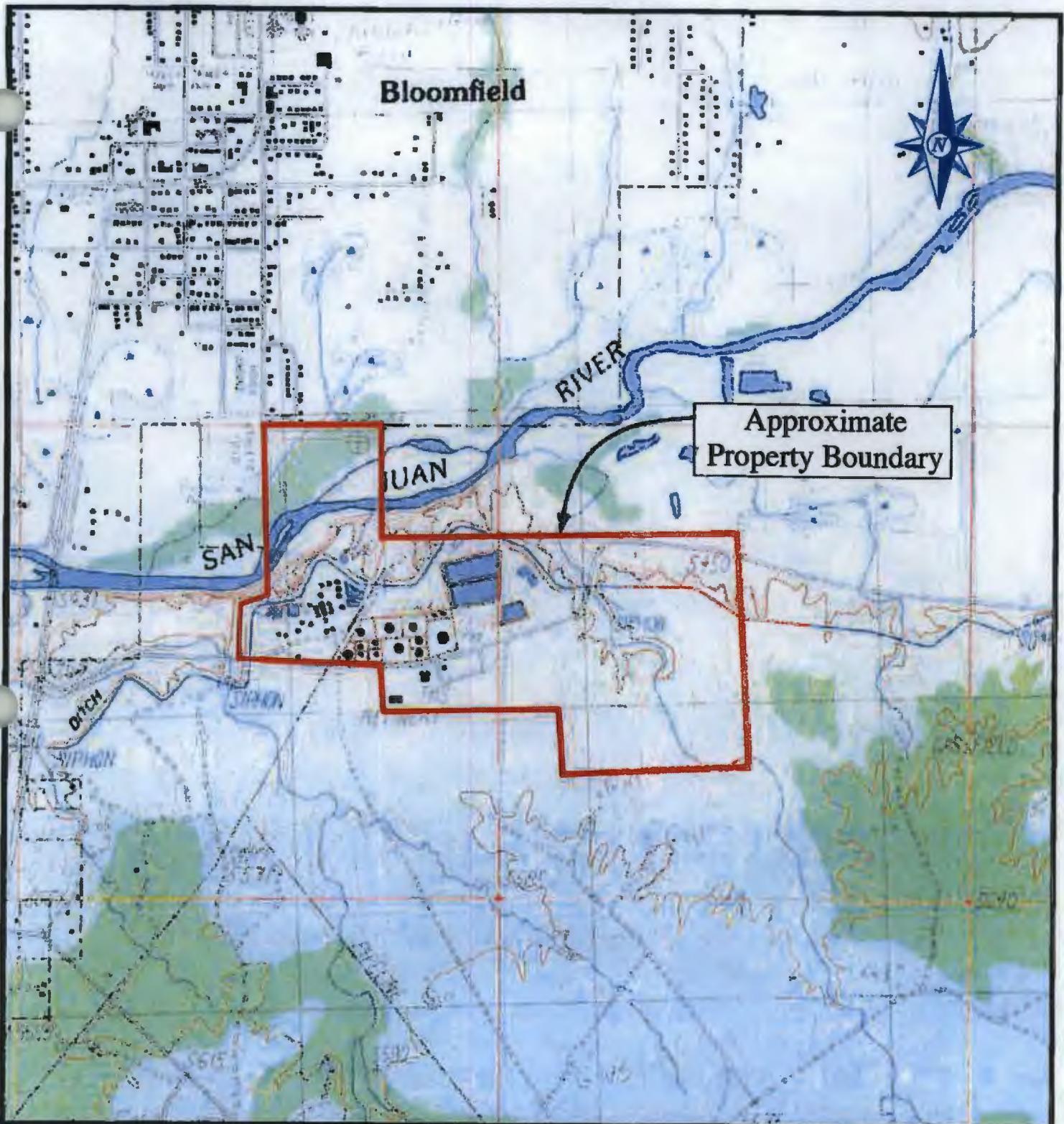
TABLE 4
2012 GAC Filter Analytical Summary

GAC Filter Monitoring 2012 Annual Report			MCL	WQCC 20NMAC 6.2.3103	MCL	WQCC 20NMAC 6.2.3103	TPH Screening Guidelines Table 2a	
Sample Location	Sampling Event	DATE	Benzene (mg/L)	Toluene (mg/L)	Ethybenzene (mg/L)	Xylene (mg/L)	TPH-DRO (mg/L)	TPH-GRO (mg/L)
			0.005	0.750	0.700	0.620	0.2	
GAC-INLET	4th Quarter	10/01/12	0.034	<0.010	0.560	2.60	0.41	2.40
	3rd Quarter	07/10/12	0.051	<0.010	0.620	2.40	2.00	9.00
	2nd Quarter	04/03/12	0.100	<0.010	0.950	2.40	1.60	12.00
	1st Quarter	01/31/12	NA	NA	NA	NA	0.57	2.10
GAC - LEAD		12/03/12	<0.001	<0.001	<0.001	<0.002	<0.20	<0.050
	4th Quarter	11/05/12	<0.001	<0.001	<0.001	<0.002	<0.20	<0.050
		10/01/12	<0.001	<0.001	<0.001	<0.002	<0.20	<0.050
		09/05/12	<0.001	<0.001	<0.001	<0.002	<0.20	<0.050
	3rd Quarter	08/01/12	<0.001	<0.001	<0.001	<0.002	<0.20	NA
		07/10/12	<0.001	<0.001	<0.001	<0.002	<0.20	<0.050
		06/04/12	0.011	<0.001	<0.001	<0.002	<0.20	0.073
	2nd Quarter	05/08/12	0.0085	<0.001	<0.001	<0.002	<0.20	0.057
		04/03/12	0.068	<0.001	<0.001	<0.002	<0.20	0.074
		03/08/12	0.007	<0.001	<0.001	<0.002	<0.20	0.051
	1st Quarter	02/14/12	0.0059	<0.001	<0.001	<0.002	<0.20	0.052
		01/31/12	NA	NA	NA	NA	<0.20	<0.050
GAC - LAG	4th Quarter	10/01/12	<0.001	<0.001	<0.001	<0.002	<0.20	<0.050
	3rd Quarter	07/10/12	<0.001	<0.001	<0.001	<0.002	<0.20	<0.050
	2nd Quarter	04/03/12	<0.001	<0.001	<0.001	<0.002	<0.20	<0.050
	1st Quarter	01/31/12	NA	NA	NA	NA	<0.20	<0.050

Notes:

1. Lead GAC changed-out June 2012.

NA = Inadvertantly not analyzed



Map Source: USGS 7.5 Min. Quad Sheet Bloomfield, NM., 1985.



0 500 1000 1500 2000
Feet

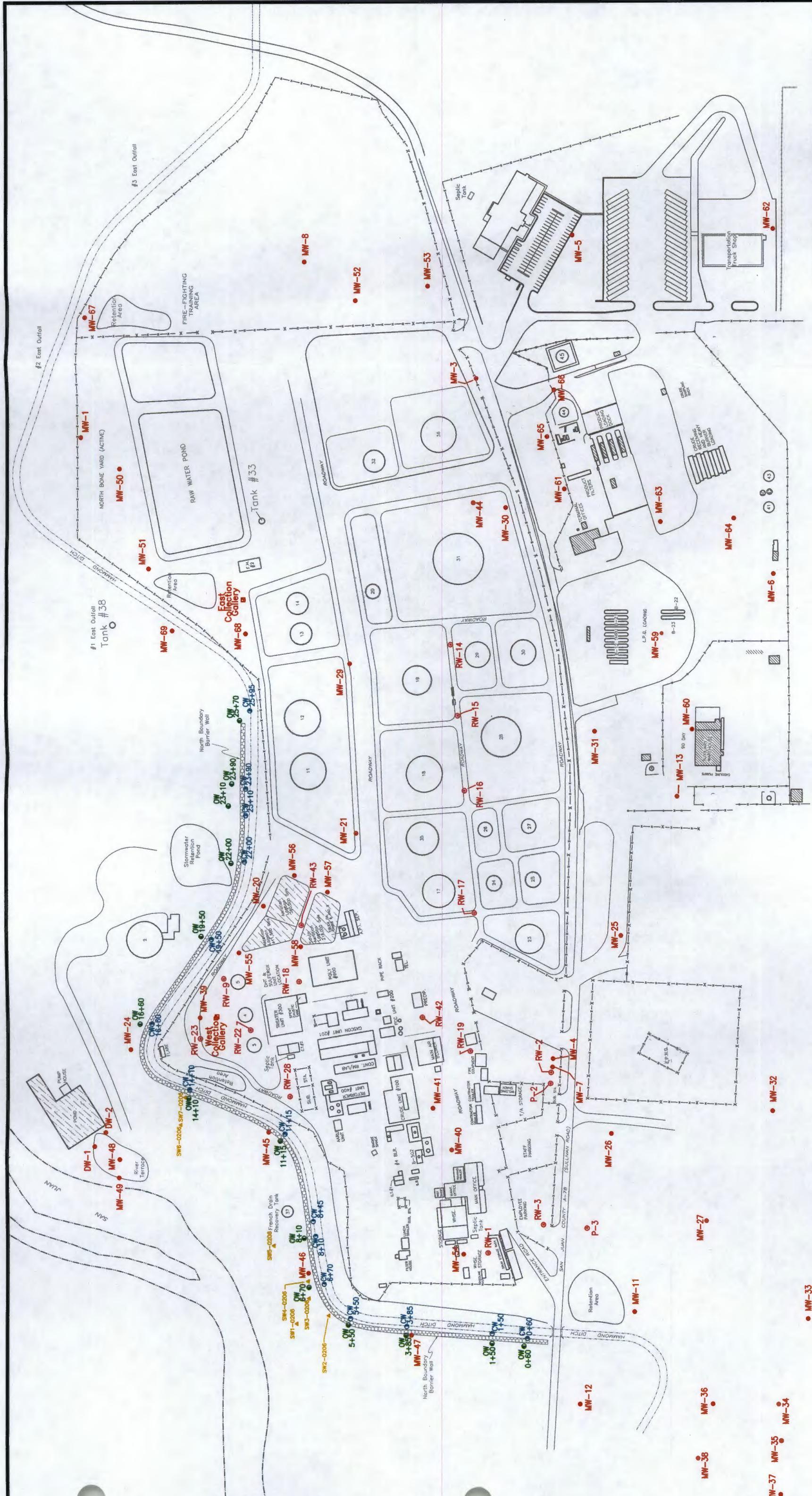
Western
Refining

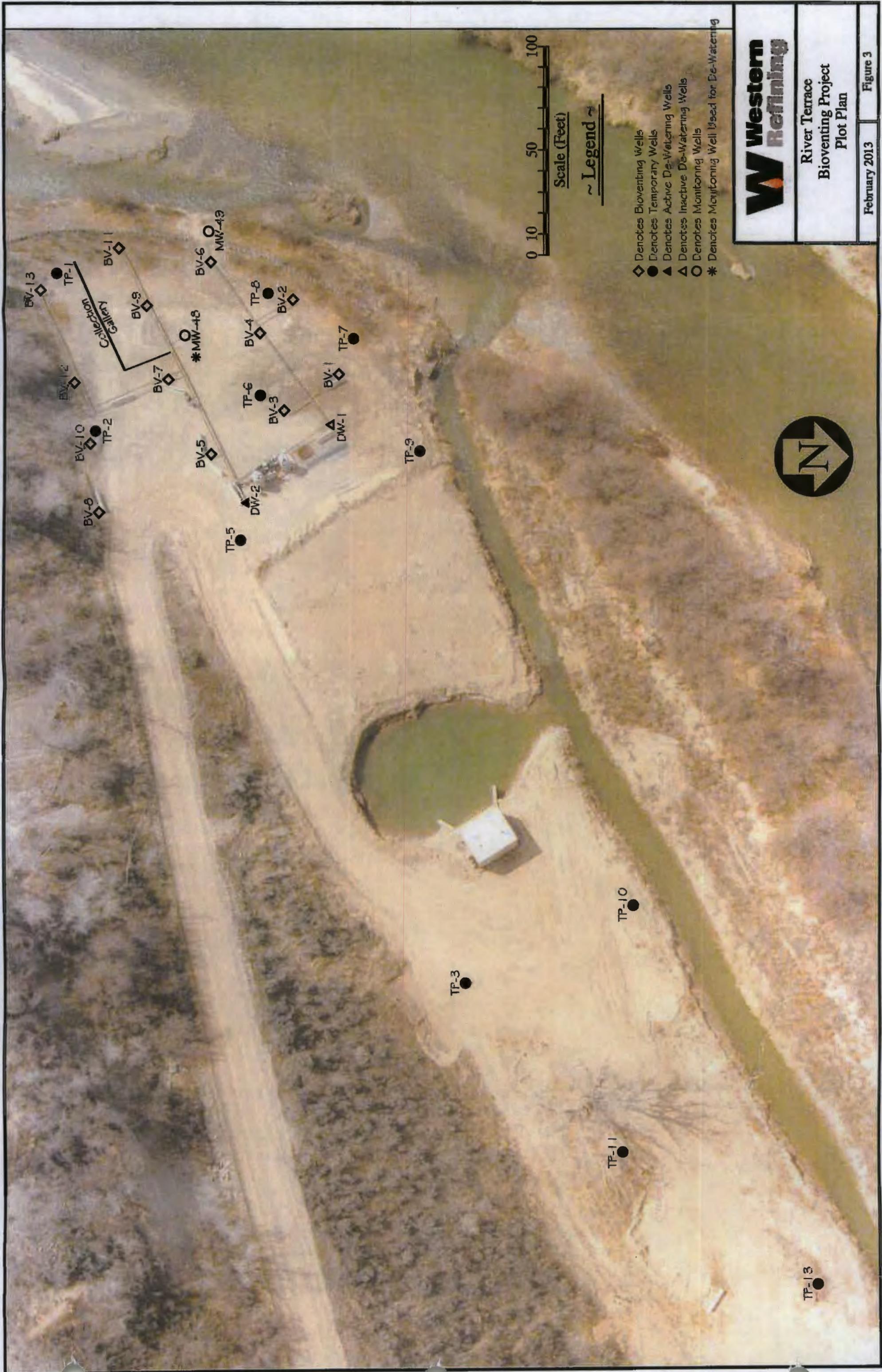
Site Location Map
Bloomfield Refinery



**FACILITY SITE PLAN
BLOOMFIELD REFINERY**

February 2013 Figure 2





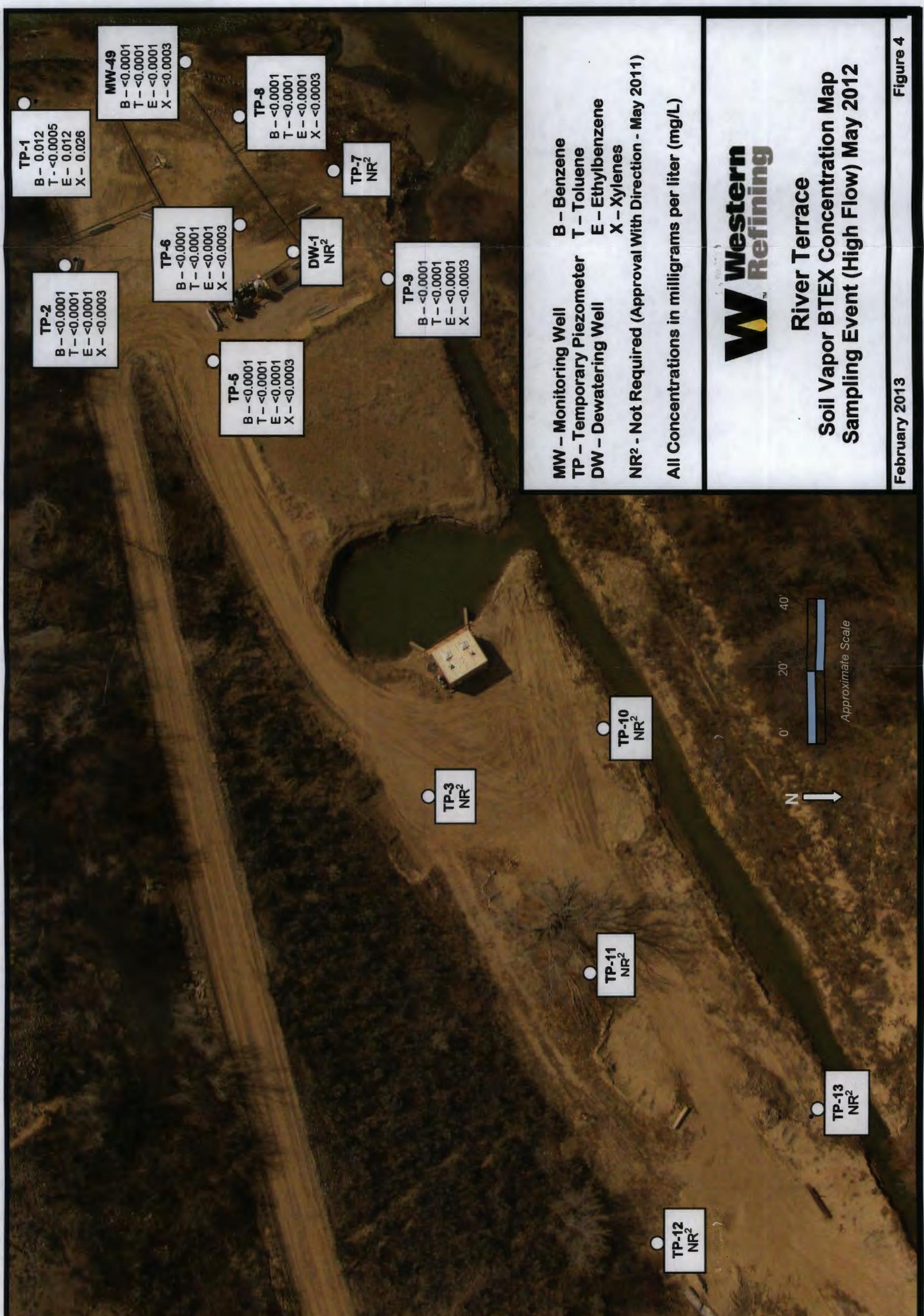


Figure 4

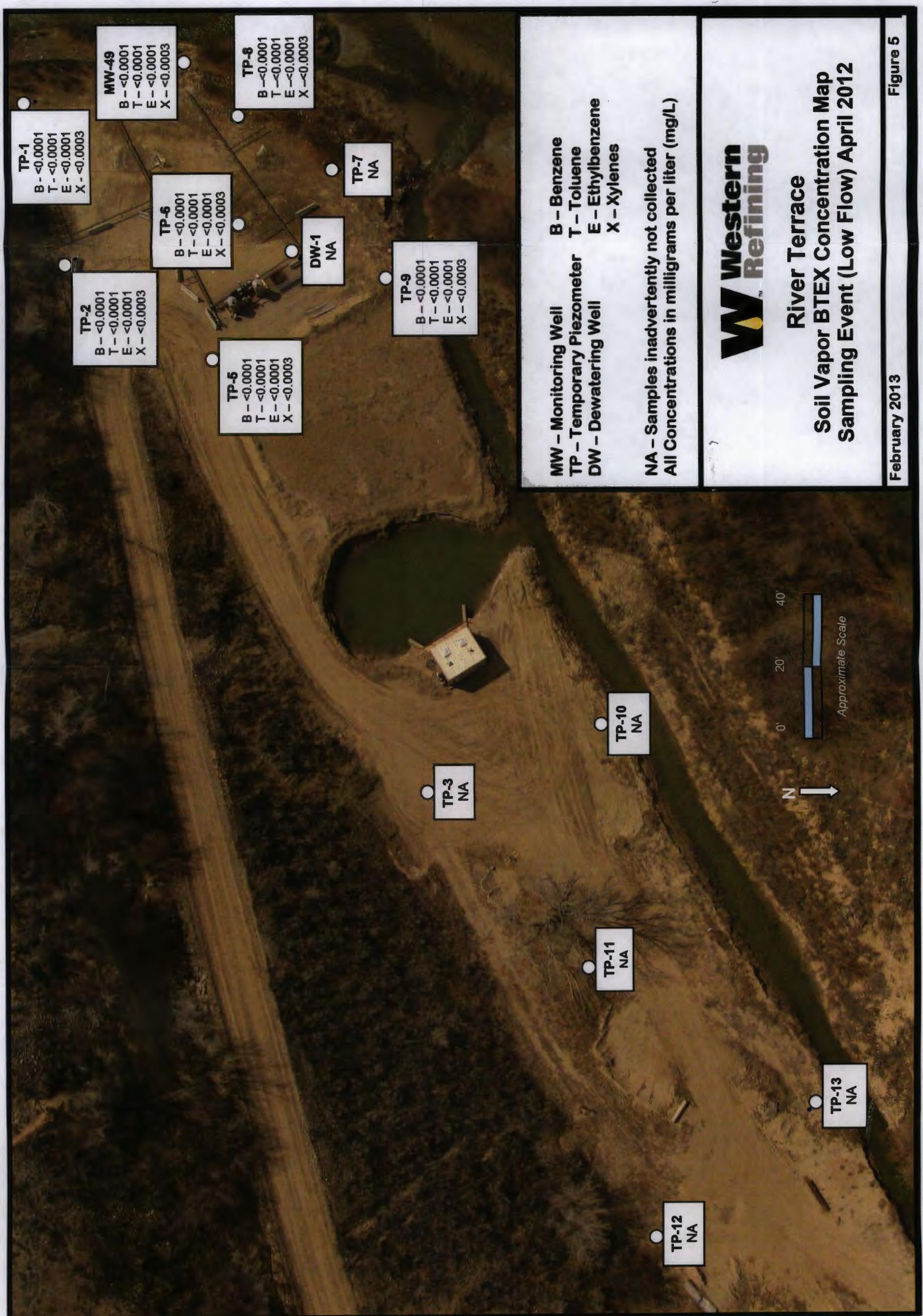


Figure 5

February 2013

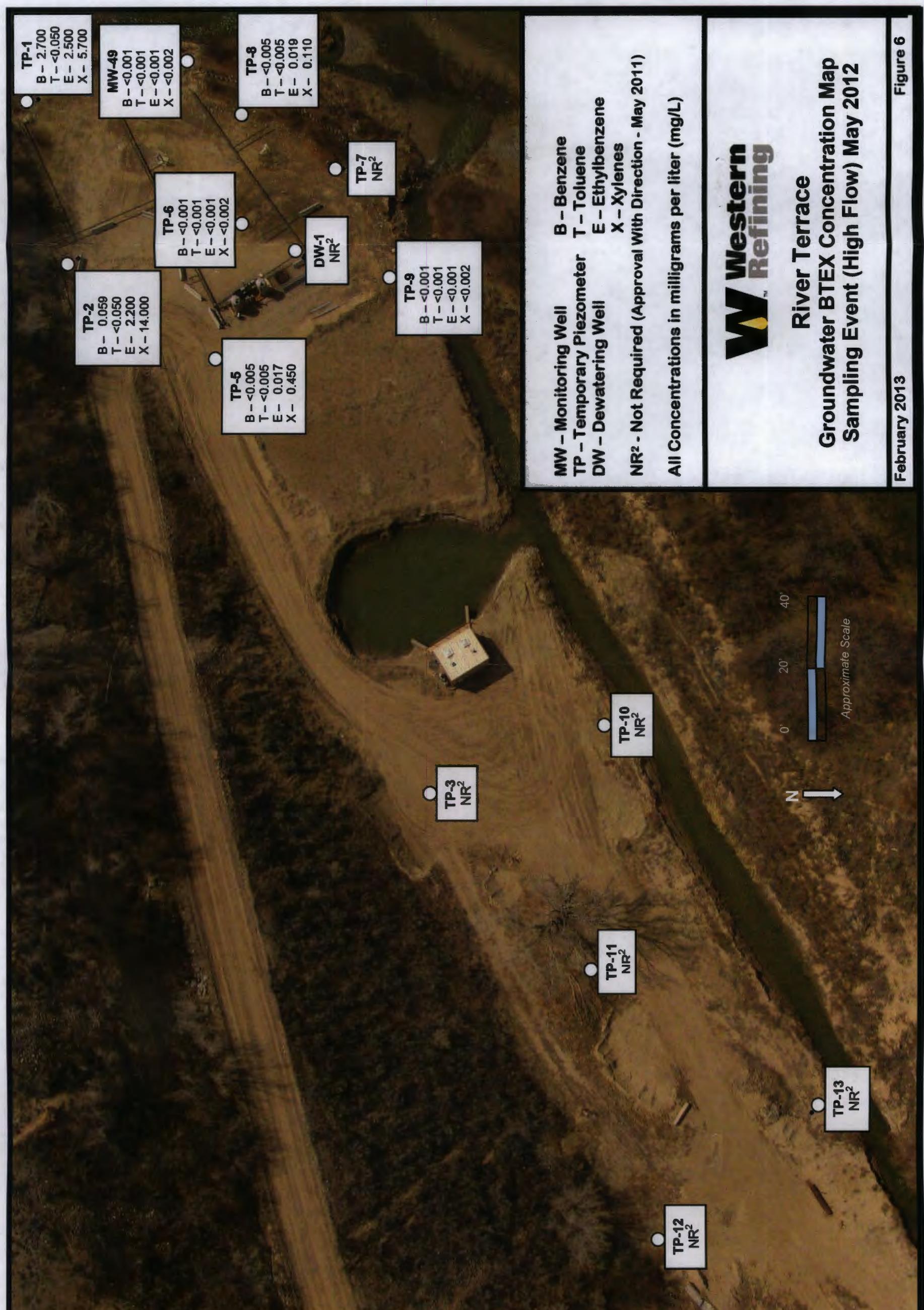
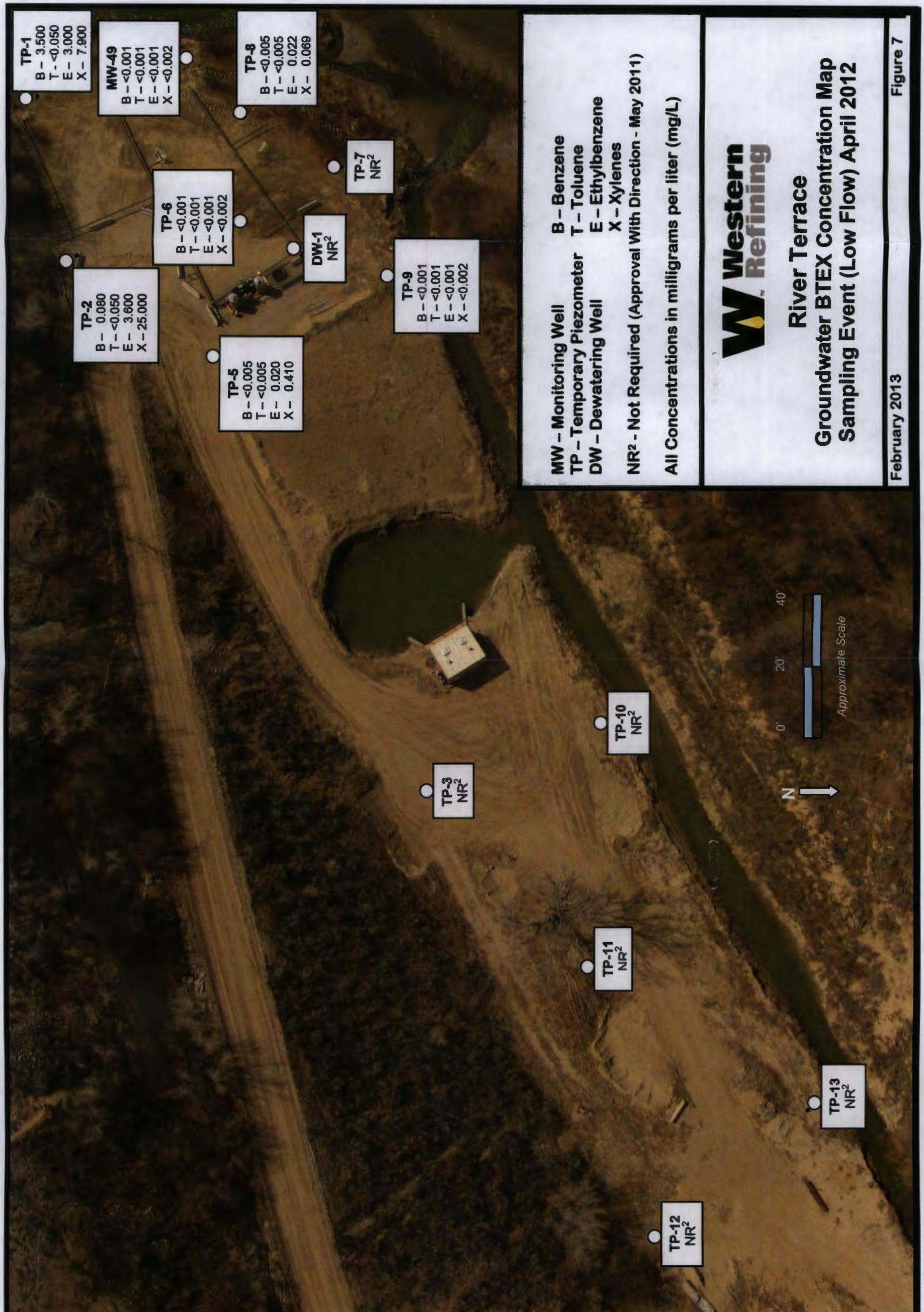
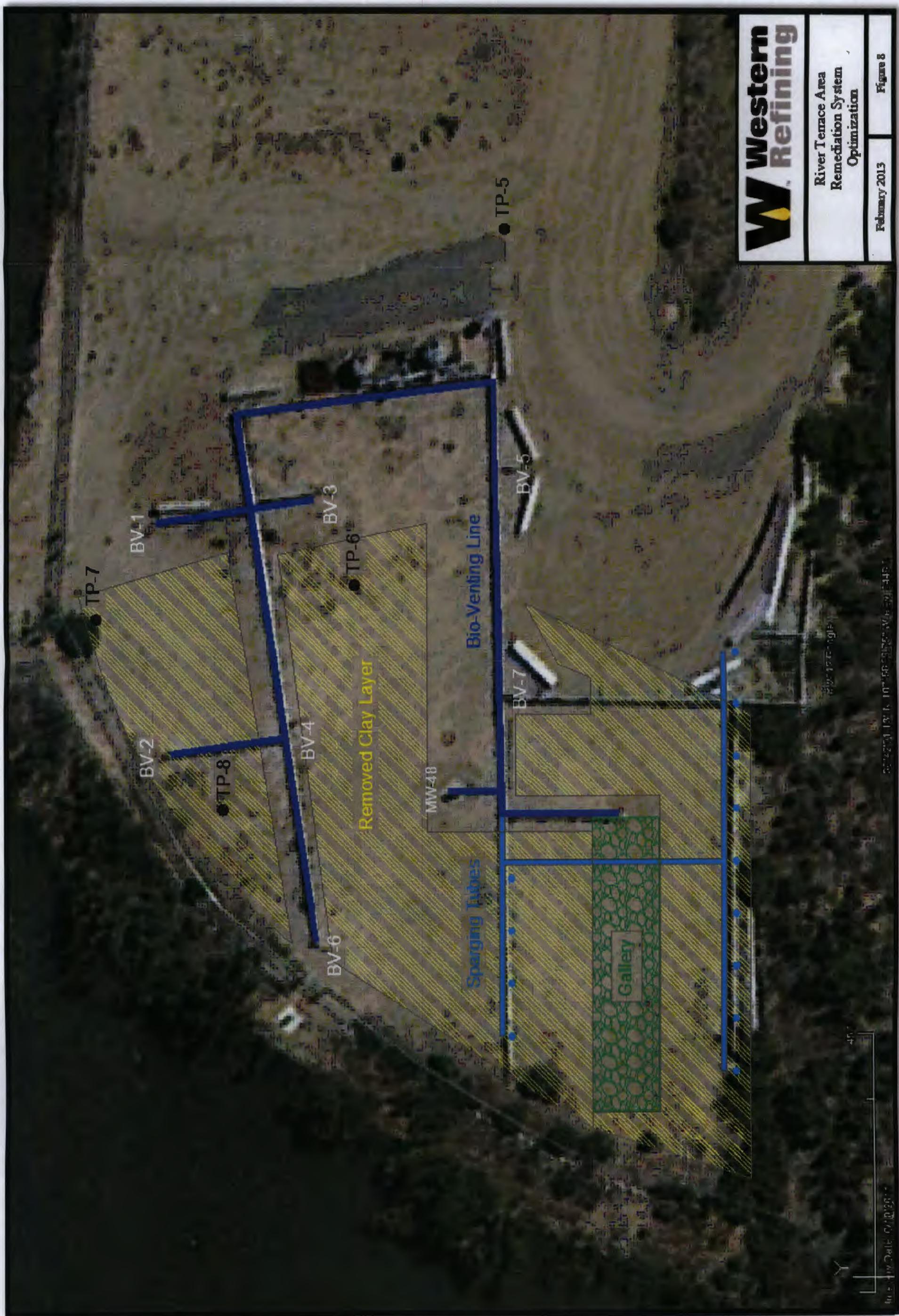


Figure 6

February 2013





Western Refining

River Terrace Area
Remediation System
Optimization

February 2013

Figure 8