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January 29, 2010

Mr. Jerry Wickham  
Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
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**Subject: Fuel Leak Case No. RO0000092 and Geotracker Global ID T0600100065 Semi-Annual Monitoring and Pilot Study Progress Report, AB&I Foundry, 7825 San Leandro Street, Oakland California 94621**

Dear Mr. Wickham:

AB&I respectfully submits the attached Semi-Annual Monitoring and Pilot Study Progress Report for the AB&I Foundry Site located at 7825 San Leandro Street, Oakland, California.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document are true and correct to the best of my knowledge.

Sincerely,

A handwritten signature in black ink, appearing to read 'Dave Robinson', written in a cursive style.

Dave Robinson  
Engineering Manager

Attachment: Semi-Annual Monitoring and Pilot Study Progress Report, AB&I Foundry, 7825 San Leandro Street, Oakland, California

**December 2009 Semi-Annual Monitoring and Pilot  
Study Progress Report**

**AB&I Foundry  
7825 San Leandro Street  
Oakland, California**

01-ABI.001

Prepared For:



AB&I Foundry  
7825 San Leandro Street  
Oakland, California

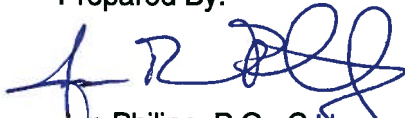
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3451-C Vincent Road  
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January 29, 2010

Prepared By:



Jon Philipp, P.G., C.Hg.  
Senior Hydrogeologist

Reviewed By:



Kent R. Reynolds  
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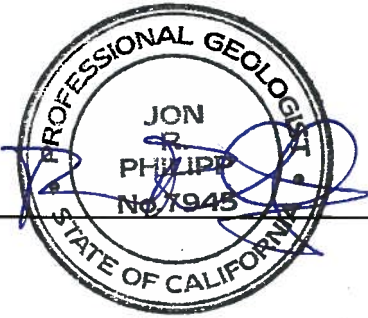
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### CERTIFICATION

All hydrogeologic and geologic information in this document regarding the AB&I Foundry Site have been prepared under the supervision of and reviewed by the certified professional whose signature appears below.

Jon Philipp, P.G., C.H.G.  
Senior Hydrogeologist  
**The Source Group, Inc.**

## 1.0 INTRODUCTION

On behalf of AB&I Foundry (AB&I), The Source Group, Inc. (SGI) has prepared this December 2009 Semi-Annual Monitoring and Pilot Study Progress Report (Report) for the AB&I Foundry Site located at 7825 San Leandro Street in Oakland, California (Figure 1; Site). This Report presents the following:

1. The detailed results of semi-annual monitoring activities conducted in December 2009.
2. The progress and latest data related to the implementation of the pilot study outlined in SGI's "Work Plan for Enhanced Anaerobic Biodegradation Pilot Study – Parking Lot Area and Former 8,000-Gallon Mineral Spirits/1,1,1-TCA UST", dated March 12, 2009 (SGI 2009).
3. The progress and latest data related to the implementation of the pilot study outlined in SGI's "Work Plan for Enhanced Aerobic Biodegradation Pilot Study – Former Three 10,000-Gallon USTs Area", dated March 12, 2009 (SGI 2009).

This Report was prepared for submittal to the Alameda County Environmental Health Department (ACEH).

## 2.0 BACKGROUND

### 2.1 Site Description and History

The Site is located at 7825 San Leandro Street, east of the intersection with 77<sup>th</sup> Avenue, in a light industrial area of Oakland (Figures 1 and 2). The Site is bounded by commercial/industrial properties to the north, south, east, and west. Union Pacific Railroad is located immediately adjacent to and west of the Site. Oakland Truck Stop is located immediately adjacent to and east of the Site. Elmhurst Creek is located along the southeast corner of the property (Figure 2). San Leandro Bay is located approximately one mile west of the Site.

AB&I have been operating at the Site location since at least 1930 (BSK Associates [BSK], 1993). Business activities include the manufacture of cast pipe and fittings. The facility accepts scrap iron and steel, which it stockpiles on-site, and uses during manufacturing activities. The Site encompasses an area of approximately 11.8 acres. The Site contains various warehouses, manufacturing and office buildings. The entire Site is covered with buildings and asphalt/concrete pavement. Seven underground storage tanks (USTs) were previously located on the Site, including one 8,000-gallon UST used for storing unleaded gasoline, one 8,000-gallon UST used for the storage of mineral spirits and later 1,1,1-trichloroethane (1,1,1-TCA), one 550-gallon UST used for storing regular leaded gasoline, one 10,000-gallon UST used for storing diesel, and three 10,000-gallon USTs used for storing gasoline. All UST have been removed from the Site. UST removal activities were initiated in 1982 and completed in the early 1990s.

Following the removal of the seven USTs, various investigations were conducted at the Site to characterize the presence and extent of contaminated soil and groundwater associated with the former USTs. In July 2006, a soil and groundwater assessment was conducted by BSK as part of a property transfer. Groundwater samples were collected from each of the existing monitoring wells (MW-1, MW-3, and MW-4) and submitted for chemical analysis for polycyclic aromatic hydrocarbons (PAHs) using U.S. Environmental Protection Agency (EPA) Method 8270C, total petroleum hydrocarbons as gasoline (TPHg) and total petroleum hydrocarbons as diesel (TPHd) using EPA Method 8015M as well as benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Method 8020. All samples were also analyzed for volatile organic compounds (VOCs) including fuel oxygenates, using EPA Method 8260B. Well MW-2 was found to be damaged beyond repair, and therefore was not sampled. On August 13, 2006 monitoring well MW-2, was abandoned (BSK, 2007).

On August 12, 13, and 18, 2006, six new groundwater monitoring wells (MW-2R, and MW-5 through MW-9) were installed. Between August 17 and August 23, 2006, water levels were measured and groundwater samples were collected from the three existing and six new monitoring wells. One groundwater sample from each of the previously existing wells (MW-1, MW-3, and MW-4) was analyzed

for PAHs. Groundwater samples from the six newly installed wells (MW-2R, MW-5, MW-6, MW-7, MW-8 and MW-9) were submitted for chemical analysis for TPHg, TPHd, BTEX, VOCs including fuel oxygenates, and PAHs. In addition, soil samples were collected at various depth intervals during the installation of monitoring wells MW-5, MW-6, MW-7, and MW-8 and were analyzed for metals and VOCs using EPA Methods 6020 and EPA Method 8260B, respectively.

Results of the July/August 2006 sampling event indicated that five of the nine wells had concentrations of at least one compound that exceeded their respective EPA maximum contaminant level (MCL) or California Regional Water Quality Control Board – San Francisco Bay Region (CRWQCB-SF) Environmental Screening Levels (ESLs) for groundwater that is a current or potential source of drinking water (BSK, 2007).

In 2007 and 2008, SGI conducted soil and groundwater investigations on the Site. These investigations included the investigation of both shallow groundwater (less than 30 feet below ground surface [bgs]) and deep groundwater (greater than 30 feet bgs), and the collection of soil vapor samples. The results of these investigations indicated that shallow groundwater in the vicinity of the Parking Lot Area (located in the vicinity and northwest of well MW-8; Figure 2) is impacted with chlorinated VOCs, including 1,1,1-TCA, 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), chloroethane, cis and trans 1,2-dichloroethene (1,2-DCE), and vinyl chloride. Shallow groundwater in the vicinity of the Former Three 10,000 Gallon USTs Area (located in the vicinity of well MW-9 and downgradient of the three former 10,000 gallon USTs) is impacted with petroleum fuels (TPH) including BTEX, TPHg, and TPHd. Of the compounds detected, only vinyl chloride exceeded its respective ESL for vapor intrusion from groundwater into indoor air under the commercial land use scenario. Results of the soil vapor analysis indicated that two soil gas samples had ESL exceedences for indoor air vapor intrusion for vinyl chloride and tetrachloroethene (PCE) under the commercial land use scenario. In addition, two soil gas samples had ESL exceedences for indoor air vapor intrusion for benzene and ethylbenzene (one location) under the commercial land use scenario. Further details can be found in SGI's reports titled, "Site Investigation Report" and "Additional Site Investigation Report" (SGI 2008a; SGI 2008b).

On November 4, 2008, ACEH submitted a letter to AB&I stating that "the mass of residual fuel hydrocarbons present below the water table constitutes an ongoing source of groundwater contamination" in the area of the former three 10,000-gallon USTs. Therefore, ACEH requested that AB&I "implement cleanup to reduce the mass of residual fuel hydrocarbons in the source area." In addition, ACEH expressed concern regarding the apparent recalcitrance of chlorinated VOCs in groundwater, associated with releases from the former 8,000-gallon mineral spirits/1,1,1-TCA UST, to further breakdown, which could promote the accumulation of vinyl chloride. To address these issues, ACEH requested that AB&I submit work plans to conduct pilot test studies of remediation technologies to remediate chlorinated VOCs associated with releases from the former 8,000-gallon mineral spirits/1,1,1-TCA UST and petroleum hydrocarbons in the area of the former three 10,000-gallon USTs (ACEH 2008).



On March 26, 2009, ACEH approved two work plans submitted by SGI for pilot studies addressing ACEH's concerns. These two work plans including "Work Plan for Enhanced Anaerobic Biodegradation Pilot Study – Parking Lot Area and Former 8,000-Gallon Mineral Spirits/1,1,1-TCA UST", designed to address the residual VOCs, and "Work Plan for Enhanced Aerobic Biodegradation Pilot Study – Former Three 10,000-Gallon USTs Area", designed to address the residual hydrocarbons.

## **2.2 Hydrogeological Setting**

The Site is located near the San Francisco Bay within an area identified as the East Bay Plain. The East Bay Plain is situated on the east side of the San Francisco Bay depression. The alluvial sediments of the East Bay Plain consist of a mixture of gravel, sand and clay deposited by coalescing alluvial fans. In the vicinity of the Site, fluvial and near shore deposits have been mapped (Helley et. al., 1979). The fluvial deposits are described as unconsolidated, moderately sorted, fine sand and silt, with clayey silt and occasional thin beds of coarse sand (Muir, 1993). The near-shore deposits are described as a well-sorted, fine to medium grained sand and silt, with lenses of sandy clay and clay. Regional groundwater flow in the vicinity of the Site is interpreted to be towards the west - southwest toward San Leandro Bay.

The Site is underlain by a mixture of sandy/silty clay to a depth of at least 20-feet below ground surface (bgs). Groundwater has been encountered in borings and excavations at depths ranging from 8 to 12-feet bgs at the Site. Based on December 2008 groundwater monitoring data from on-site monitoring wells, groundwater generally flows to the northwest at a gradient of approximately 0.006 feet per foot (ft/ft; SGI 2009).

Based on the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) (RWQCB, 1995), groundwater beneath the site is part of the East Bay Plain basin, which has beneficial uses for municipal and domestic drinking water supply, industrial process and service water supply, and agricultural water supply. That said, East Bay Municipal Utility District (EBMUD) provides water for these uses to the site and vicinity from Sierra-fed surface-water sources. Development of the shallow water-bearing zones beneath the site for beneficial uses is remote due to uneconomically low, sustainable well yields, and the presence of regional contamination (e.g., coliform from leaking sanitary sewer lines, unrelated chemical plumes), and presence of more productive water-bearing zones at depth (RWQCB, 1999). In addition, State regulations require sealing of at least the upper 50 feet of subsurface for public/industrial water supply wells (Department of Water Resources, 1991).

### **3.0 SEMI-ANNUAL MONITORING ACTIVITIES**

Sampling of all nine wells (MW-1, MW-2R, and MW-3 through MW-9) was conducted on December 9 and 10, 2009 as part of the December 2009 semi-annual monitoring event and for the purpose of collecting concentrations from select wells in order to monitor the progress of the two pilot studies. Monitoring activities included water level gauging and groundwater sampling.

#### **3.1 Monitoring Well Inspection and Gauging**

Upon arrival at the Site, all nine wells (MW-1, MW-2R, and MW-3 through MW-9) were located, inspected, and judged to be secure and in good condition. The wells were then gauged for depth to water and total well depth using an electronic water level meter. The water level meter was properly decontaminated between successive wells. Well gauging data are provided in Table 1.

#### **3.2 Groundwater Sampling**

Prior to sampling, the wells were purged using low-flow (i.e., low stress) procedures. Purging and sampling was performed using a peristaltic pump with dedicated tubing. Flow rates were generally maintained in the range of 100-200 milliliters per minute. During purging, water quality parameters including pH, temperature, electric conductivity (EC), oxidation-reduction potential (ORP), and dissolved oxygen (DO) were monitored to ensure that groundwater representative of the aquifer was entering the well. Convergence of these parameters on successive measurements was used as an indicator that the wells had been adequately purged. Copies of the Monitoring Well Purging/Sampling Field Forms are included in Appendix A.

All nine wells were sampled during the December 2009 semi-annual monitoring event. Groundwater samples were collected in laboratory-supplied containers, appropriate for the specified analysis. All containers were capped, labeled, placed on ice, and transported under chain-of-custody to Advanced Technology Laboratories (ATL), located in Signal Hill, California, for analysis of VOCs using EPA Method 8260B and TPHg and TPHd using EPA Method 8015M. In addition, samples collected from wells MW-3 and MW-8 were analyzed for total organic carbon (TOC) using method SM5310B and methane, ethane, and ethene using method RSK-175. A field duplicate sample was collected from MW-8. An equipment blank and trip blank, analyzed for VOCs as a quality control measure, were also submitted to ATL. A copy of the laboratory analytical report is included as Appendix B.

### **3.3 Decontamination and Disposal Procedures**

All non-dedicated or non-disposable sampling equipment was decontaminated using a triple-rinse method consisting of successive rinses of Alconox soap and de-ionized water. Rinsate and purge water were staged on-site in properly labeled Department of Transportation approved 55-gallon drums pending waste characterization and appropriate disposal.

### **3.4 December 2009 Semi-Annual Monitoring Results**

#### **3.4.1 Groundwater Flow**

Groundwater elevation measurements were calculated by measuring the depth to water in the wells relative to the top of the well casing then subtracting the depth to water from the elevation of the well. Groundwater elevations in wells during the December 2009 semi-annual monitoring event ranged from 0.40 feet above mean sea level (msl) in well MW-6 to 2.14 feet above msl in well MW-7 (Table 1). As shown on Figure 3, estimated groundwater flow direction during the semi-annual monitoring event was generally to the northwest at a hydraulic gradient ranging between 0.002 to 0.006 feet/foot. The groundwater flow direction and gradient are generally consistent with past monitoring events.

#### **3.4.2 Groundwater Analytical Results**

Concentrations of chlorinated VOCs and TPH detected during the December 2009 semi-annual monitoring event were generally within historic ranges. Wells MW-8 and MW-9 continue to contain the highest concentrations of chlorinated VOCs and TPH, respectively. Wells MW-6, and MW-7 did not have concentrations of any compound above laboratory practical quantitation limits (PQLs). Figure 4 shows the groundwater analytical results for TPHg, TPHd, and BTEX for all site wells. Figure 5 shows the groundwater analytical results for chlorinated VOC for all site wells. A summary of analytical results is included in Table 2. A summary of historical concentrations is included as Appendix C.

## 4.0 ENHANCED ANAEROBIC BIODEGRADATION ACTIVITIES

The primary purpose of the pilot study was to evaluate the ability to reduce the concentration of chlorinated VOCs (i.e., 1,1,1-TCA, 1,1-DCA, 1,1-DCE, cis and trans 1,2-DCE, vinyl chloride, and chloroethane) in the Parking Lot Area through Enhanced Anaerobic Biodegradation (EAnB). EAnB is promoted through the in-situ addition of an emulsified oil substrate (EOS<sup>®</sup>), a carbon-donating substance, into the affected groundwater unit. The EAnB pilot study workplan prepared by SGI was approved by ACEH with the following comments:

- “The proposed short-term cleanup goal for vinyl chloride of 10 micrograms per liter (µg/L), which is based on the vapor intrusion to indoor air pathway, is acceptable.”
- “For all other chemicals, with the exception of vinyl chloride, ACEH defers comment or approval of the short-term clean-up goals at this time.”

The collection of baseline samples occurred during the May 2009 semi-annual monitoring with the EAnB injection event following in June 2009. Subsequent to the injection of EAnB into the subsurface, groundwater samples were collected from monitoring wells MW-3 and MW-8 at regular intervals in order to track the effectiveness of the EAnB on VOC concentrations.

### 4.1 Effectiveness Monitoring

To monitor the effectiveness of the EAnB injection activities, groundwater samples were collected to assess reduction of chlorinated VOC concentrations and changes in other natural attenuation indicator parameters (e.g., TOC, methane, ethane, and ethene). Prior to the injection event, baseline samples were collected from wells MW-2R, MW-3, MW-5, MW-6, and MW-8 as part of the May 2009 semi-annual monitoring event. Wells MW-3 and MW-8 were used to monitor the effectiveness of EAnB injection activities. Both wells are located directly downgradient of EAnB injection locations, and therefore were most reflective of groundwater conditions. Following the injection event, post-injection samples were collected from wells MW-3 and MW-8 on July 1, August 7, September 10, and December 9, 2009. Baseline and post-injection groundwater samples were analyzed for the following:

- Chlorinated VOCs using EPA Method 8260B,
- TOC using EPA Method 415.1, and
- Methane, ethane, and ethene concentrations using method RSK-175.

In addition, field measurements were taken for DO, water temperature, pH, EC, and ORP. Groundwater monitoring wells were sampled in accordance with the procedures and methodologies outlined in SGI's work plan titled, “Revised Site Investigation Work Plan”, dated September 17, 2007 (SGI 2007). Results

for each sampling event (including the baseline event) are discussed below. Copies of the laboratory analytical reports are included as Appendix B and summarized in Table 3.

#### **4.1.1 Pre-Injection Baseline Sample Results – May 21, 2009**

##### MW-3

Concentrations of chlorinated VOCs detected during the May 2009 sampling event were generally within historic ranges with the exception of 1,1-DCE. Concentrations of 1,1-DCE decreased from a concentration of 2,000 µg/L detected during the December 2008 sampling event, to 1,000 µg/L (May 2009). 1,1-DCE continues to be the highest compound detected, followed by 1,1-DCA (220 µg/L), cis-1,2-DCE (10 µg/L), vinyl chloride (8.4 µg/L), and trans-1,2-DCE (1.2 µg/L).

Methane and ethane were detected at concentrations of 300 and 16 µg/L, respectively. Ethene was not detected at or above the laboratory practical quantitation limit (PQL) of 3 µg/L. TOC was detected at a concentration of 7.4 milligrams per liter (mg/L).

##### MW-8

Concentrations of chlorinated VOCs detected during the May 2009 sampling event were generally within historic ranges and continue to be the highest concentration of chlorinated VOCs at the site. 1,1,1-TCA and 1,1-DCE were detected at the highest concentrations, both at a concentration of 1,900 µg/L. Other chlorinated VOCs detected include 1,1-DCA (1,500 µg/L), chloroethane (320 µg/L), and vinyl chloride (16 µg/L).

Methane, ethane, and ethene were detected at concentrations of 1,100, 19, and 9.6 µg/L, respectively. TOC was not detected at or above the laboratory PQL of 3 mg/L.

#### **4.1.2 Post-Injection Sample Results – July 1, 2009**

##### MW-3

Concentrations of chlorinated VOCs detected during the July 2009 sampling event were generally similar to concentrations detected during the May 2009 sampling event with the exception of 1,1-DCA and 1,1-DCE. Concentrations of 1,1-DCA decreased from 220 µg/L (May 2009) to 160 µg/L. Concentrations of 1,1-DCE decreased from 1,000 µg/L (May 2009) to 620 µg/L (July 2009).

Methane concentrations increased slightly from 300 to 450 µg/L and ethane concentrations decreased from 19 to 16 µg/L. Ethene was not detected at or above laboratory PQLs. TOC concentrations increased from 7.4 to 320 mg/L.

### MW-8

Chlorinated VOC concentrations decreased slightly for all detected compounds from the May 2009 sampling event with the exception of chloroethane. Chloroethane concentrations increased from 320 µg/L (May 2009) to 350 µg/L.

Methane, ethane, and ethene concentrations remained fairly similar to concentrations detected during the May 2009 sampling event with slight decreases in methane concentrations (1,100 to 1,400 µg/L). TOC concentrations increased from PQLs to 260 mg/L.

#### **4.1.3 Post-Injection Sample Results – August 7, 2009**

### MW-3

Reductions in all chlorinated VOCs, with the exception of chloroethane and vinyl chloride, were observed during the August 2009 sampling event. Concentrations of 1,1-DCA, 1,1-DCE, and cis-1,2-DCE decreased from 160, 620, and 7.5 µg/L, respectively (July 2009) to 110, 94, and 1.2 µg/L, respectively. Chloroethane and vinyl chloride concentrations increased from less than PQLs and 6.7 µg/L, respectively (July 2009) to 61 and 29 µg/L, respectively.

Methane and ethane concentrations decreased during this sampling event to 63 and 2.7 µg/L, respectively. Ethene concentrations increased to 16 µg/L. TOC concentrations decreased from 320 mg/L to 260 mg/L.

### MW-8

Overall concentrations of chlorinated VOCs increased slightly compared to concentrations reported during the July 2009 sampling event with the exception of vinyl chloride. Concentrations of chloroethane, 1,1-DCA, 1,1-DCE, and 1,1,1-TCA increased slightly while vinyl chloride concentrations decreased.

Methane and ethane concentrations decreased to 460 and 5.9 µg/L, respectively, and ethene concentrations decreased to below PQLs. TOC concentrations decreased from 260 (July 2009) to 200 mg/L.

#### **4.1.4 Post-Injection Sample Results – September 10, 2009**

### MW-3

Concentrations of all chlorinated VOCs decreased during the September 2009 sampling event with the exception of chloroethane. 1,1-DCA, 1,1-DCE, cis-1,2-DCE, and vinyl chloride concentrations decreased

from 110, 94, 7.5, and 29 µg/L, respectively (August 2009) to 5.6, 11, 0.20, and 3.6 µg/L, respectively. Chloroethane concentrations increased from 61 µg/L (August 2009) to 150 µg/L.

Methane concentrations increased sharply compared to concentrations detected during the August 2009 sampling event, while ethane and ethene concentrations remained fairly similar to previous sampling events. Methane concentrations increased from 63 µg/L to 6,000 µg/L. Ethane and ethene concentrations increased from 2.7 and 16 µg/L, respectively (August 2009) to 4.1 and 41 µg/L, respectively. TOC concentrations decreased from 260 mg/L (August 2009) to 170 mg/L.

#### MW-8

Concentrations of all chlorinated VOC decreased during the September 2009 sampling event with the exception of vinyl chloride and 1,1-DCA. 1,1,1-TCA, 1,1-DCE, and chloroethane concentrations decreased from 1,700, 1,300, and 370 µg/L, respectively (August 2009) to 45, 1,100, and 340 µg/L, respectively. Vinyl chloride and 1,1-DCA concentrations increased from 9.6 and 1,600 µg/L, respectively (August 2009) to 50 and 2,600 µg/L, respectively.

Methane, ethane, and ethene concentrations remain fairly similar to concentrations detected during the August 2009 sampling event. TOC concentrations decreased from 200 mg/L (August 2009) to 160 µg/L.

#### **4.1.5 Post-Injection Sample Results – December 9, 2009**

##### MW-3

Concentrations of chloroethane and 1,1-DCE decreased from 150 and 11 µg/L to 78 and 6.4 µg/L, respectively, during the December 2009 sampling event. Concentrations of 1,1-DCA and vinyl chloride increased moderately from 5.6 and 3.6 µg/L to 16 and 17 µg/L, respectively. Concentrations of cis-1,2-DCE remained steady at 0.25 µg/L, on par with the 0.20 µg/L recorded in September 2009.

Methane and Ethane concentrations were up moderately from the previous sampling event, increasing from 6,000 and 4.1 µg/L to 7,400 and 4.8 µg/L, respectively. Ethene and TOC concentrations were down from the previous sampling event, decreasing from 41 to 11 µg/L and from 170 to 120 mg/L, respectively.

##### MW-8

December concentrations of 1,1-DCA and 1,1-DCE dropped sharply from those recorded during the September sampling event. 1,1-DCA concentrations decreased from 2,600 µg/L to 94 µg/L, while 1,1-DCE concentrations decreased from 1,100 µg/L to 58 µg/L. As would be expected, concentrations of chloroethane and vinyl chloride increased over the same period. Chloroethane concentrations increased from 340 µg/L to 2,400 µg/L while vinyl chloride concentrations increased from 50 µg/L to 85 µg/L.

Methane, ethane, ethane and TOC concentrations all increased in December relative to September. Methane increased from 370 µg/L to 5,600 µg/L while ethane increased from less than 2 µg/L to 180 µg/L. Ethane and TOC had smaller gains, increasing from 4.6 to 14 µg/L and from 160 and 170 mg/L, respectively.

#### 4.2 Enhanced Anaerobic Biodegradation Pilot Study Evaluation

Carbon-donating substances are typically food-grade vegetable oils and work by acting as a food source to promote microbial activity and growth. In the subsurface, the oil slowly degrades and provides a long-term source of dissolved organic carbon for microbial cell growth. As the carbon source is consumed, molecular hydrogen is produced, which serves as an electron donor for reductive dechlorination of chlorinated VOCs. Under anaerobic (oxygen deficient) conditions, the organic contaminants will be ultimately metabolized to ethane, ethene, limited amounts of carbon dioxide, and trace amounts of hydrogen. Illustrations of the pathways are included below.

1,1,1-TCA → 1,1-DCA → Chloroethane → Ethane/Methane

1,1,1-TCA → 1,1-DCE → Vinyl Chloride → Ethene

To evaluate the effectiveness of EAnB activities, concentrations of chlorinated VOCs were monitored for a decrease in parent product concentrations (1,1,1-TCA) along with a subsequent increase in the daughter product concentrations (1,1-DCA, 1,1-DCE, chloroethane, vinyl chloride and methane). In order to determine whether the pathway is moving towards completion, an increase in methane, ethane, or ethene is expected.

Data collected during the six-month monitoring program indicates that EAnB is effective and is actively reducing concentrations of VOCs such as 1,1,1-TCA, 1,1-DCA, and 1,1-DCE, transforming them into daughter products such as chloroethane, vinyl chloride and ultimately methane, ethane and ethene. In well MW-3, the concentrations of 1,1-DCE and 1,1-DCA have been reduced from 1,000 µg/L to less than 10 µg/L and from 220 µg/L to 16 µg/L. In response, concentrations of chloroethane and methane have risen as part of the dechlorination process. Concentrations of vinyl chloride have generally remained low (less than 10 µg/L) with occasional increases up to 29 µg/L. In well MW-8, concentrations of 1,1,1-TCA, 1,1-DCA, and 1,1-DCE have all been reduced from greater than 1,500 µg/L to less than 100 µg/L for all three compounds. Similar to well MW-3, concentrations of chloroethane and methane have increased as part of the dechlorination process. Additionally, concentrations of vinyl chloride have also increase, though is still less than 100 µg/L. Graphs illustrating select VOC and methane concentration during the pilot study for wells MW-3 and MW-8 are included as Figures 6 and 7.

The results indicate that the reductive dechlorination process is still quite active in the areas around wells MW-3 and MW-8. As a daughter product, it was expected that concentrations of vinyl chloride would



increase as the higher chlorinated compounds are transformed. TOC concentration remain elevated (above 100 mg/L) indicating that adequate carbon remains to maintain the dechlorination process. Continued monitoring is recommended and long term should show a reduction in vinyl chloride and chloroethane concentrations and continued high concentrations of methane as the reductive dechlorination process evolves.

## 5.0 ENHANCED AEROBIC BIODEGRADATION ACTIVITIES

The primary purpose of the pilot study was to evaluate the ability to reduce the mass of petroleum hydrocarbons in the Former Three 10,000-Gallon USTs Area through the use of Enhanced Aerobic Biodegradation (EAB). EAB was promoted through the in-situ addition of Oxygen Releasing Compound (ORC) and Regenox solution (ORC/Regenox), both of which were manufactured by Regenesis, into the affected groundwater unit. The EAB pilot study workplan prepared by SGI was approved by ACEH with the following comment:

- “The proposed groundwater monitoring is generally acceptable. However, it should be noted that evaluation of the effectiveness of the enhanced aerobic biodegradation pilot study depends almost exclusively upon results from well MW-9. Depending on the initial results of the pilot study, additional monitoring may be necessary to evaluate the effectiveness of the proposed remedial method” (ACEH 2009).

The collection of baseline samples occurred during the May 2009 semi-annual monitoring with the EAB injection event following in June 2009. Subsequent to the injection of EAB into the subsurface, groundwater samples were collected from monitoring well MW-9 at regular intervals in order to track the effectiveness of the EAB on petroleum hydrocarbon concentrations.

### 5.1 Effectiveness Monitoring

The effectiveness of the treatment was monitored by analyzing groundwater samples for reductions in TPH and VOCs concentrations in well MW-9. Well MW-9 is located downgradient of EAB injection locations and is therefore most reflective of groundwater conditions. Prior to the injection event, baseline samples were collected from well MW-9 on May 21, 2009 as part of the May 2009 semi-annual monitoring event. Following the injection event, post-injection samples were collected from well MW-9 on July 1, August 7, September 10, and December 9, 2009. Baseline and post-injection groundwater samples were analyzed for the following:

- TPHg and TPHd using EPA Method 8015M; and
- VOCs using EPA Method 8260B.

In addition, field measurements were taken for dissolved oxygen (DO), water temperature, pH, electric conductivity (EC), and oxidation-reduction potential (ORP). Groundwater monitoring wells were sampled in accordance with the procedures and methodologies outlined in SGI’s work plan titled, “Revised Site Investigation Work Plan”, dated September 17, 2007 (SGI 2007). Results for each sampling event are discussed below. Copies of the laboratory analytical reports are included as Appendix C and summarized in Table 4.

### **5.1.1 Pre-Injection Baseline Sample Results – May 21, 2009**

TPHg, TPHd, and BTEX concentrations were similar to historical results. TPHg and TPHd were detected at concentrations of 3,500 and 250 micrograms per liter (ug/L), respectively. Benzene, toluene, ethylbenzene, and xylene were detected at concentrations of 180, 2.9, 3.9, and 1.7 ug/L, respectively.

### **5.1.2 Post-Injection Sample Results – July 1, 2009**

TPH concentrations were generally similar to May 2009 concentrations with the exception of benzene. Benzene concentrations decreased from 180 ug/L (May 2009) to 53 ug/L.

### **5.1.3 Post-Injection Sample Results – August 7, 2009**

TPH concentrations were generally similar to July 2009 concentrations with the exception of TPHg, benzene, and toluene. TPHg concentrations decreased from 3,400 ug/L (July 2009) to 2,400 ug/L. Benzene concentrations decreased from 53 ug/L (July 2009) to 9.1 ug/L, and toluene concentrations decreased from 2 ug/L (July 2009) to 0.5 ug/L.

### **5.1.4 Post-Injection Sample Results – September 10, 2009**

TPH concentrations were generally similar to August 2009 concentrations with the exception of TPHg, benzene, and toluene. TPHg concentrations increased from 2,400 ug/L (August 2009) to 3,100 ug/L. Benzene concentrations decreased from 9.1 ug/L (August 2009) to 5.7 ug/L, and toluene concentrations increased from 0.5 ug/L (August 2009) to 0.63 ug/L.

### **5.1.5 Post-Injection Sample Results – December 9, 2009**

TPH concentrations were generally similar to September 2009 concentrations with the exception of TPHg and benzene. TPHg concentrations decreased from 3,100 µg/L to 2,700 µg/L. Benzene concentrations increased from 5.7 µg/L to 36 µg/L.

## **5.2 Enhanced Aerobic Biodegradation Pilot Study Evaluation**

Data collected during the three-month monitoring period suggest that ORC/Regenox is effective in reducing benzene and toluene concentrations at the Site, but further monitoring is needed to determine its effectiveness in reducing TPHd and TPHg concentrations. Benzene and toluene decreased from pre-injection concentrations of 180 ug/L and 2.9 ug/L, respectively (May 2009) to 36 and 0.87 ug/L, respectively (December 2009). TPHg and TPHd concentrations have decreased marginally during the post-injection monitoring period. Continued elevated levels of dissolved oxygen indicate that aerobic

biodegradation is still taking place, but with decreased vigor as dissolved oxygen concentrations fall. A graph illustrating TPH concentrations for well MW-9 is included as Figure 8.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

EAnB activities in the Parking Lot Area have been effective in reducing chlorinated VOC in groundwater in the vicinity of wells MW-3 and MW-8, both of which have had the highest concentrations of chlorinated VOCs on the Site. There have been significant decreases in the concentrations of chlorinated VOCs such as 1,1,1-TCA, 1,1-DCA, and 1,1-DCE. Groundwater conditions in the vicinity of both wells show that the reductive dechlorination process is still very active. As part of the reductive dechlorination process, concentrations of daughter products, such as vinyl chloride, were expected to show temporary increases as have been seen in the data from wells MW-3 and MW-8. As the dechlorination process progresses, concentrations of vinyl chloride will decrease as it is reduced to ethene.

EAB activities have shown significant reductions in BTEX concentrations in the vicinity of well MW-9, and have been incrementally decreasing the concentrations of TPHg and TPHd. All compounds are expected to follow the continuing trend of incremental reductions in concentration.

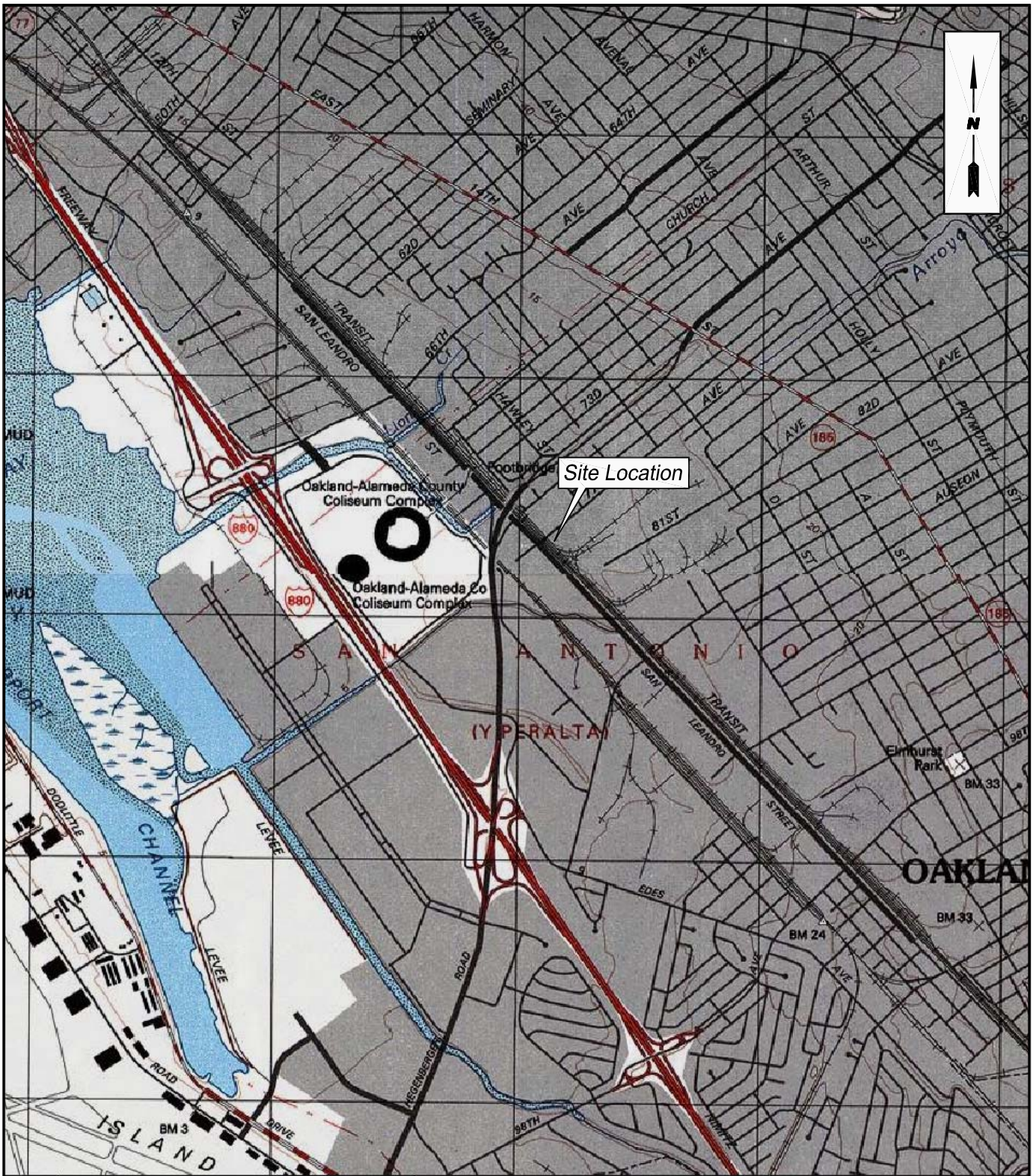
On an ongoing basis, SGI recommends the continued monitoring of wells MW-3, MW-8 and MW-9 to track the progress of the chlorinated VOC and petroleum hydrocarbon concentration reductions related to active remediation efforts. In the long term, SGI does not recommend any additional active remediation for the Site. For the VOC plume in the vicinity of wells MW-3 and MW-8, the source has been removed and active attenuation of the various chlorinated compounds is taking place. For the petroleum hydrocarbon plume in the vicinity of well MW-9, the source has been removed and the data show stable to decreasing trends for TPHg, TPHd and BTEX compounds. To address both plumes in the long term, SGI recommends the following:

- Continued monitoring of wells MW-3, MW-8 and MW-9 to track the progress of the chlorinated VOC and petroleum hydrocarbon concentration reductions related to active remediation efforts;
- The development of a risk management plan to address human health risks associated with the hypothetical indoor/outdoor commercial/industrial worker receptor under the future exposure scenario and the hypothetical onsite construction worker receptor under the current and future exposure scenarios; and
- An administrative control in the form of a deed restriction be implemented as part of Site closure. The deed restriction would specify that the area of soil and groundwater impact would limit the Site to commercial use. The deed restriction would follow a format acceptable to ACEH and run with the land indefinitely.

## 7.0 REFERENCES

- Alameda County Department of Environmental Health (ACEH 2008). Letter regarding, "Fuel Leak Case No. RO0000092, American Brass & Iron Foundry, 7825 San Leandro Street, Oakland, California", November 4.
- Alameda County Department of Environmental Health (ACEH 2009). Letter regarding, "Fuel Leak Case No. RO0000092, American Brass & Iron Foundry, 7825 San Leandro Street, Oakland, California", March 26.
- BSK Associates, Inc. (BSK). 1993. "Report Shallow Soil and Groundwater Investigation American Brass & Iron Foundry", April 30.
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- California Department of Water Resources, 1991. California Well Standards. Bulletin 74-90. June.
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- The Source Group, Inc. (SGI 2008b). "Report for Additional Site Investigation", AB&I Foundry, 7825 San Leandro Street, Oakland, California, September 25.
- The Source Group, Inc. (SGI 2009b). "Work Plan for Enhanced Anaerobic Biodegradation Pilot Study – Parking Lot Area & Former 8,000-Gallon Mineral Spirits/1,1,1-TCA UST", AB&I Foundry, 7825 San Leandro Street, Oakland, California, March 12.
- USEPA, 1989. Risk Assessment Guidance for Superfund, Human Health Evaluation Manual, Part A. Interim Final. Solid Waste and Emergency Response. December.

## FIGURES



**SGI** THE SOURCE GROUP, INC.  
environmental

3451-C VINCENT ROAD  
 PLEASANT HILL, CA 94523

SOURCE: U.S.G.S. 7.5' QUAD SHEET  
 OAKLAND EAST, CALIFORNIA  
 PHOTOREVISED 1997

SCALE:



**SITE LOCATION MAP**

CLIENT:

AB&I FOUNDRY

DATE:

6/27/07

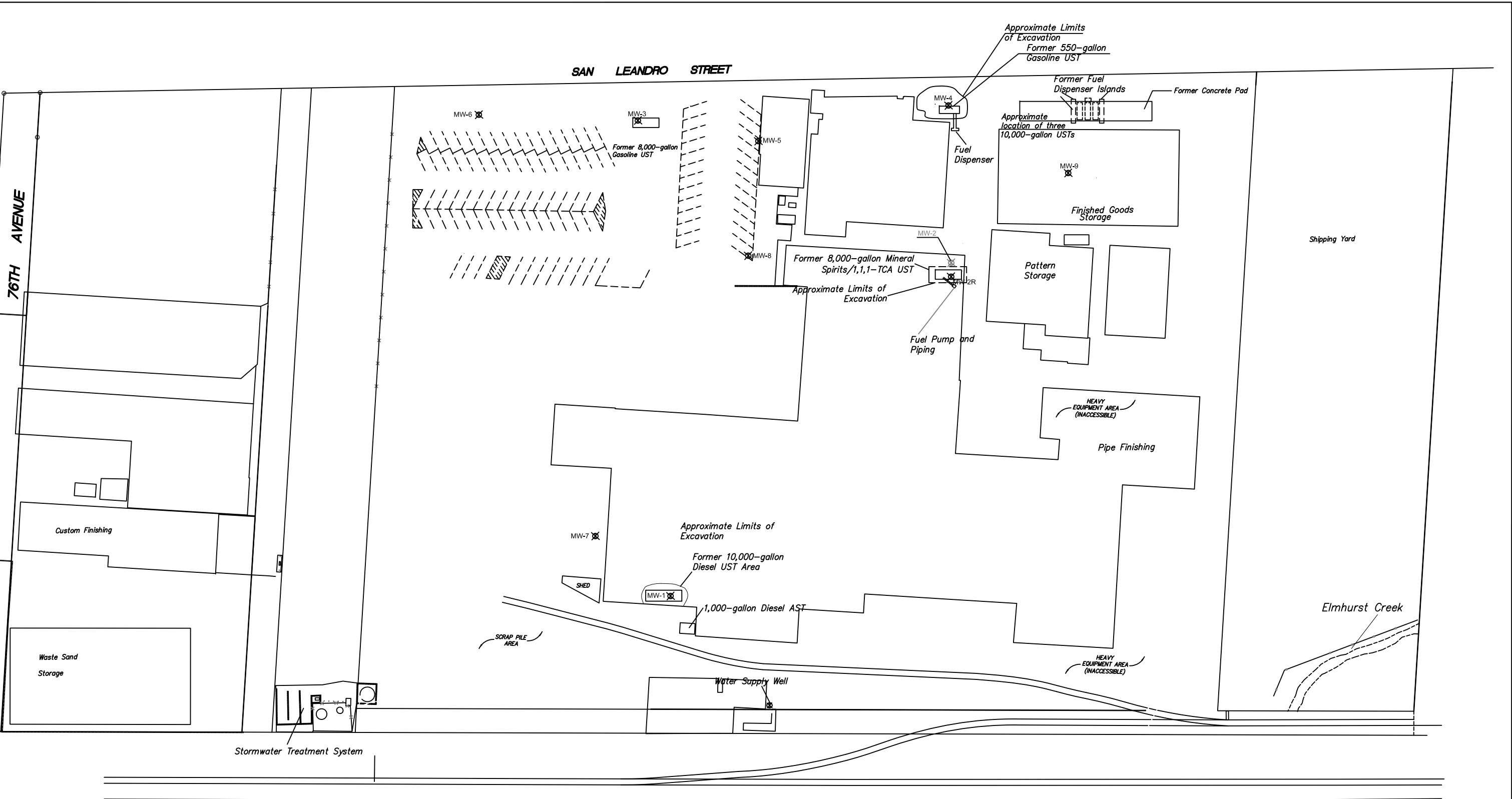
LOCATION:

7825 San Leandro Street  
 Oakland, California

FIGURE:

**1**





**Legend**

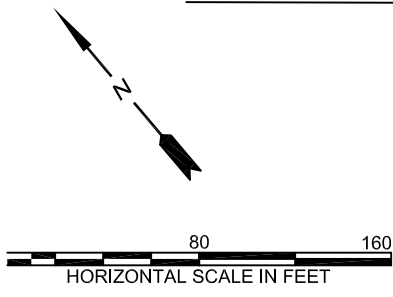
- MW-1 ☒ Existing Monitoring Well Location (BSK, 1993, 2006)
- MW-1 ☒ Abandoned Monitoring Well (BSK, 2006)
- UST Undergruond Storage Tank
- 1,1,1-TCA 1,1,1-trichloroethane

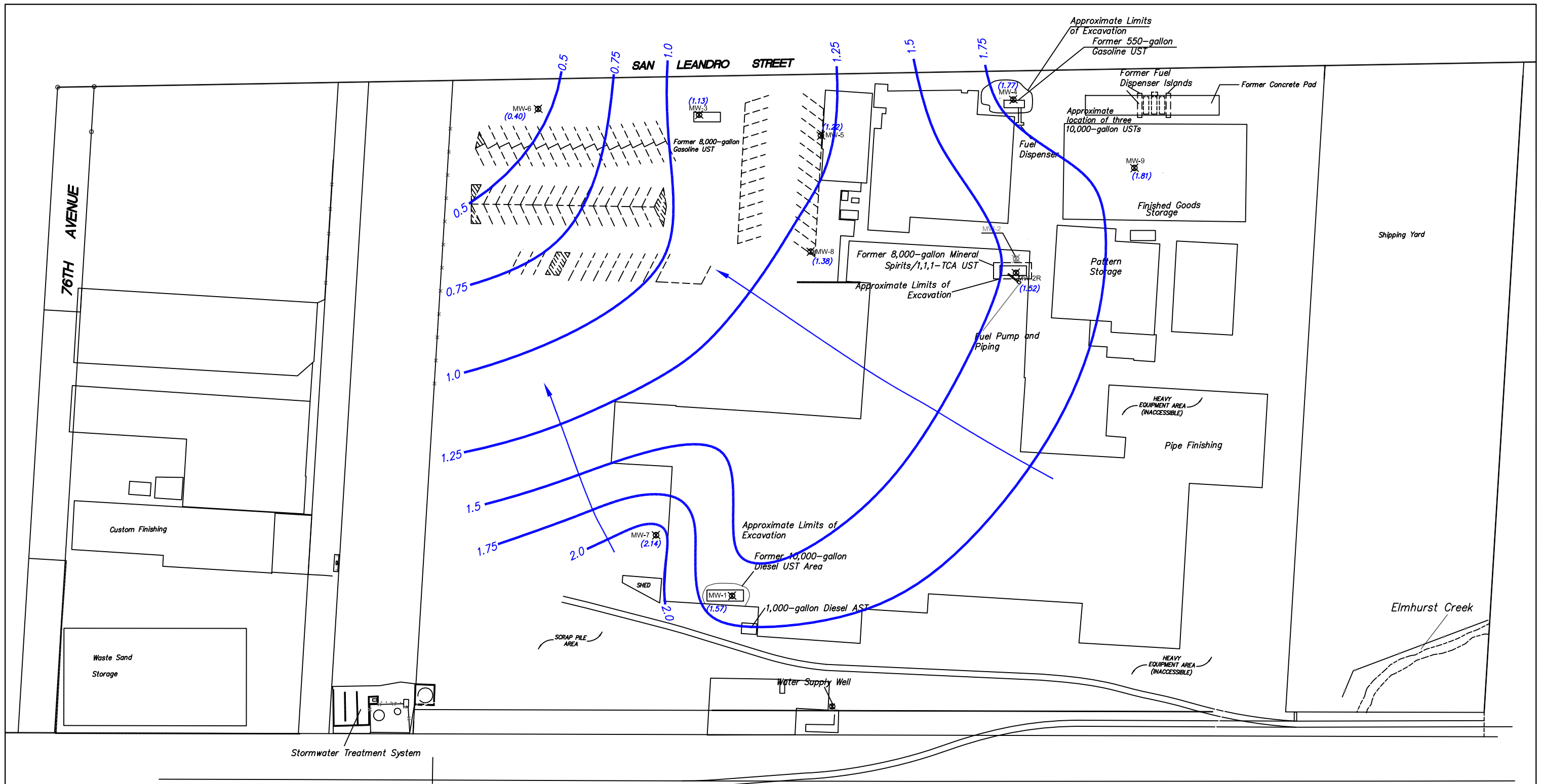
**SITE PLAN**

AB&I FOUNDRY  
7825 SAN LEANDRO STREET  
OAKLAND, CALIFORNIA

Date: 1/19/08	Figure: 2
All figures.dwg	

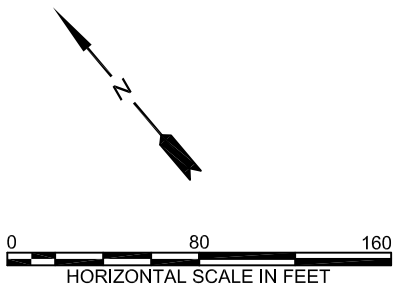
**SGI** THE SOURCE GROUP, INC.  
environmental  
3451-C VINCENT ROAD  
PLEASANT HILL, CA 94523





Stormwater Treatment System

UNION PACIFIC RAILROAD



**Legend**

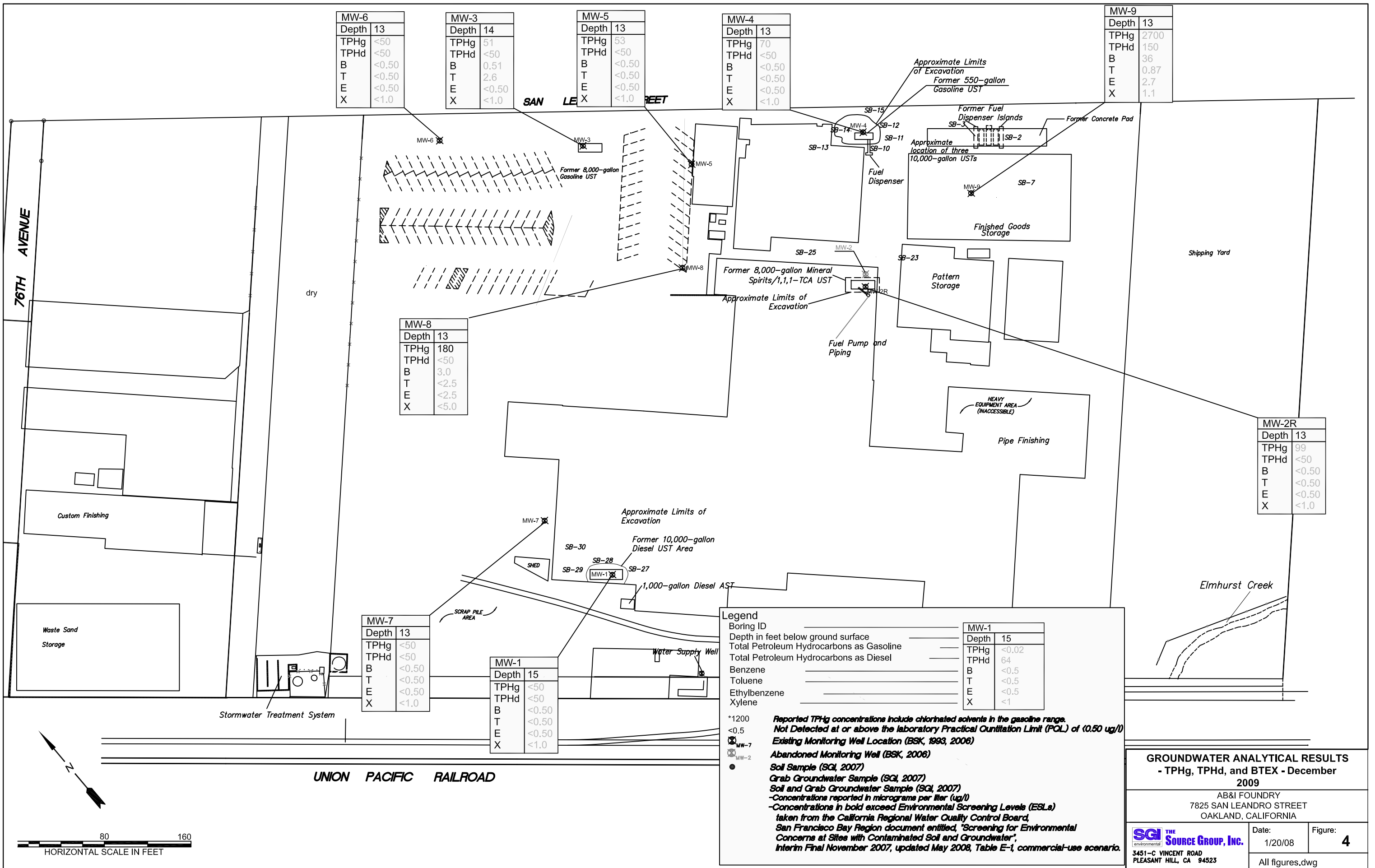
- Existing Monitoring Well Location (BSK, 1993, 2006)
- Abandoned Monitoring Well (BSK, 2006)
- UST** *1,1,1-TCA* **1,1,1-trichloroethane**
- Groundwater Elevation Contour (in feet above mean sea level)
- Groundwater Flow Direction

**POTENTIOMETRIC SURFACE MAP**  
December 9, 2009

AB&I FOUNDRY  
7825 SAN LEANDRO STREET  
OAKLAND, CALIFORNIA

	Date: 11/21/08
3451-C VINCENT ROAD PLEASANT HILL, CA 94523	Figure: <b>3</b>

All figures.dwg



MW-6	
Depth	13
TPHg	<50
TPHd	<50
B	<0.50
T	<0.50
E	<0.50
X	<1.0

MW-3	
Depth	14
TPHg	51
TPHd	<50
B	0.51
T	2.6
E	<0.50
X	<1.0

MW-5	
Depth	13
TPHg	53
TPHd	<50
B	<0.50
T	<0.50
E	<0.50
X	<1.0

MW-4	
Depth	13
TPHg	70
TPHd	<50
B	<0.50
T	<0.50
E	<0.50
X	<1.0

MW-9	
Depth	13
TPHg	2700
TPHd	150
B	36
T	0.87
E	2.7
X	1.1

MW-8	
Depth	13
TPHg	180
TPHd	<50
B	3.0
T	<2.5
E	<2.5
X	<5.0

MW-2R	
Depth	13
TPHg	99
TPHd	<50
B	<0.50
T	<0.50
E	<0.50
X	<1.0

MW-7	
Depth	13
TPHg	<50
TPHd	<50
B	<0.50
T	<0.50
E	<0.50
X	<1.0

MW-1	
Depth	15
TPHg	<50
TPHd	<50
B	<0.50
T	<0.50
E	<0.50
X	<1.0

MW-1	
Depth	15
TPHg	<0.02
TPHd	64
B	<0.5
T	<0.5
E	<0.5
X	<1

**Legend**

- Boring ID
- Depth in feet below ground surface
- Total Petroleum Hydrocarbons as Gasoline
- Total Petroleum Hydrocarbons as Diesel
- Benzene
- Toluene
- Ethylbenzene
- Xylene

\*1200  
<0.5  
MW-7  
MW-2

**Reported TPHg concentrations include chlorinated solvents in the gasoline range. Not Detected at or above the laboratory Practical Quantitation Limit (PQL) of (0.50 ug/l)**

**Existing Monitoring Well Location (BSK, 1993, 2006)**

**Abandoned Monitoring Well (BSK, 2006)**

**Soil Sample (SQI, 2007)**

**Grab Groundwater Sample (SQI, 2007)**

**Soil and Grab Groundwater Sample (SQI, 2007)**

-Concentrations reported in micrograms per liter (ug/l)

-Concentrations in bold exceed Environmental Screening Levels (ESLs) taken from the California Regional Water Quality Control Board, San Francisco Bay Region document entitled, "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater", Interim Final November 2007, updated May 2008, Table E-1, commercial-use scenario.

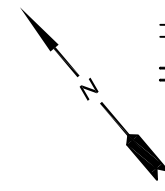
**GROUNDWATER ANALYTICAL RESULTS**  
- TPHg, TPHd, and BTEX - December 2009

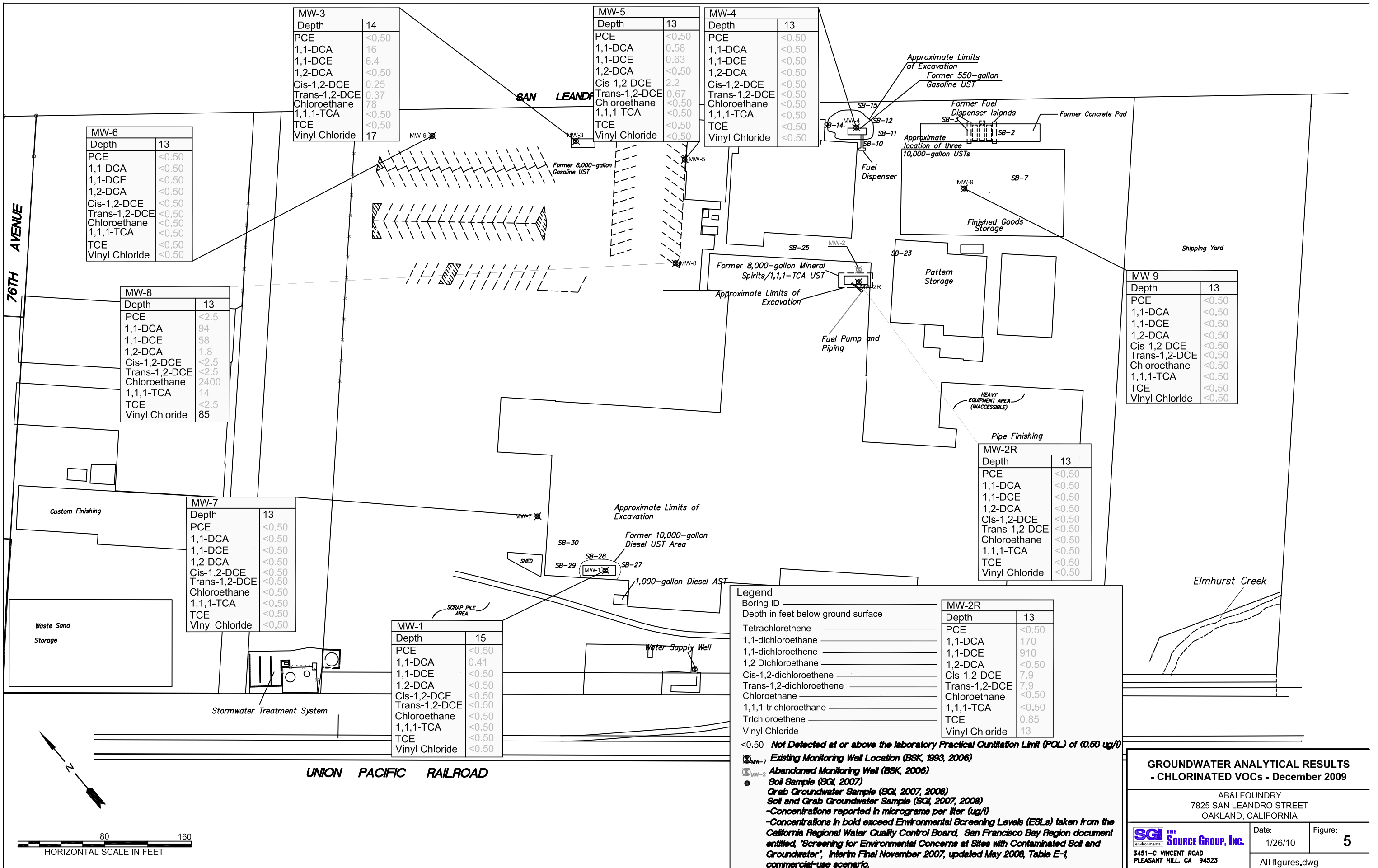
AB&I FOUNDRY  
7825 SAN LEANDRO STREET  
OAKLAND, CALIFORNIA

**SGI THE SOURCE GROUP, INC.**  
3451-C VINCENT ROAD  
PLEASANT HILL, CA 94523

Date: 1/20/08  
Figure: 4

All figures.dwg





MW-3	
Depth	14
PCE	<0.50
1,1-DCA	16
1,1-DCE	6.4
1,2-DCA	<0.50
Cis-1,2-DCE	0.25
Trans-1,2-DCE	0.37
Chloroethane	78
1,1,1-TCA	<0.50
TCE	<0.50
Vinyl Chloride	17

MW-5	
Depth	13
PCE	<0.50
1,1-DCA	0.58
1,1-DCE	0.63
1,2-DCA	<0.50
Cis-1,2-DCE	2.2
Trans-1,2-DCE	0.67
Chloroethane	<0.50
1,1,1-TCA	<0.50
TCE	<0.50
Vinyl Chloride	<0.50

MW-4	
Depth	13
PCE	<0.50
1,1-DCA	<0.50
1,1-DCE	<0.50
1,2-DCA	<0.50
Cis-1,2-DCE	<0.50
Trans-1,2-DCE	<0.50
Chloroethane	<0.50
1,1,1-TCA	<0.50
TCE	<0.50
Vinyl Chloride	<0.50

MW-6	
Depth	13
PCE	<0.50
1,1-DCA	<0.50
1,1-DCE	<0.50
1,2-DCA	<0.50
Cis-1,2-DCE	<0.50
Trans-1,2-DCE	<0.50
Chloroethane	<0.50
1,1,1-TCA	<0.50
TCE	<0.50
Vinyl Chloride	<0.50

MW-8	
Depth	13
PCE	<2.5
1,1-DCA	94
1,1-DCE	58
1,2-DCA	1.8
Cis-1,2-DCE	<2.5
Trans-1,2-DCE	<2.5
Chloroethane	2400
1,1,1-TCA	14
TCE	<2.5
Vinyl Chloride	85

MW-7	
Depth	13
PCE	<0.50
1,1-DCA	<0.50
1,1-DCE	<0.50
1,2-DCA	<0.50
Cis-1,2-DCE	<0.50
Trans-1,2-DCE	<0.50
Chloroethane	<0.50
1,1,1-TCA	<0.50
TCE	<0.50
Vinyl Chloride	<0.50

MW-1	
Depth	15
PCE	<0.50
1,1-DCA	0.41
1,1-DCE	<0.50
1,2-DCA	<0.50
Cis-1,2-DCE	<0.50
Trans-1,2-DCE	<0.50
Chloroethane	<0.50
1,1,1-TCA	<0.50
TCE	<0.50
Vinyl Chloride	<0.50

MW-9	
Depth	13
PCE	<0.50
1,1-DCA	<0.50
1,1-DCE	<0.50
1,2-DCA	<0.50
Cis-1,2-DCE	<0.50
Trans-1,2-DCE	<0.50
Chloroethane	<0.50
1,1,1-TCA	<0.50
TCE	<0.50
Vinyl Chloride	<0.50

MW-2R	
Depth	13
PCE	<0.50
1,1-DCA	<0.50
1,1-DCE	<0.50
1,2-DCA	<0.50
Cis-1,2-DCE	<0.50
Trans-1,2-DCE	<0.50
Chloroethane	<0.50
1,1,1-TCA	<0.50
TCE	<0.50
Vinyl Chloride	<0.50

MW-2R	
Depth	13
PCE	<0.50
1,1-DCA	170
1,1-DCE	910
1,2-DCA	<0.50
Cis-1,2-DCE	7.9
Trans-1,2-DCE	7.9
Chloroethane	<0.50
1,1,1-TCA	<0.50
TCE	0.85
Vinyl Chloride	13

**Legend**  
 Boring ID \_\_\_\_\_  
 Depth in feet below ground surface \_\_\_\_\_  
 Tetrachlorethene \_\_\_\_\_  
 1,1-dichloroethane \_\_\_\_\_  
 1,1-dichloroethene \_\_\_\_\_  
 1,2 Dichloroethane \_\_\_\_\_  
 Cis-1,2-dichloroethene \_\_\_\_\_  
 Trans-1,2-dichloroethene \_\_\_\_\_  
 Chloroethane \_\_\_\_\_  
 1,1,1-trichloroethane \_\_\_\_\_  
 Trichloroethene \_\_\_\_\_  
 Vinyl Chloride \_\_\_\_\_  
 <0.50 **Not Detected at or above the laboratory Practical Quantitation Limit (POL) of (0.50 ug/l)**

● MW-7 Existing Monitoring Well Location (BSK, 1993, 2006)  
 ● MW-2 Abandoned Monitoring Well (BSK, 2006)  
 ● Soil Sample (SGI, 2007)  
 ● Grab Groundwater Sample (SGI, 2007, 2008)  
 ● Soil and Grab Groundwater Sample (SGI, 2007, 2008)  
 -Concentrations reported in micrograms per liter (ug/l)  
 -Concentrations in bold exceed Environmental Screening Levels (ESLs) taken from the California Regional Water Quality Control Board, San Francisco Bay Region document entitled, "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater", Interim Final November 2007, updated May 2008, Table E-1, commercial-use scenario.

**GROUNDWATER ANALYTICAL RESULTS  
 - CHLORINATED VOCs - December 2009**

AB&I FOUNDRY  
 7825 SAN LEANDRO STREET  
 OAKLAND, CALIFORNIA

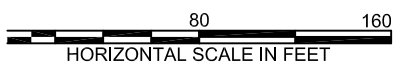
SGI THE SOURCE GROUP, INC.  
 3451-C VINCENT ROAD  
 PLEASANT HILL, CA 94523  
 Date: 1/26/10  
 Figure: 5  
 All figures.dwg

76TH AVENUE

SAN LEANDRO

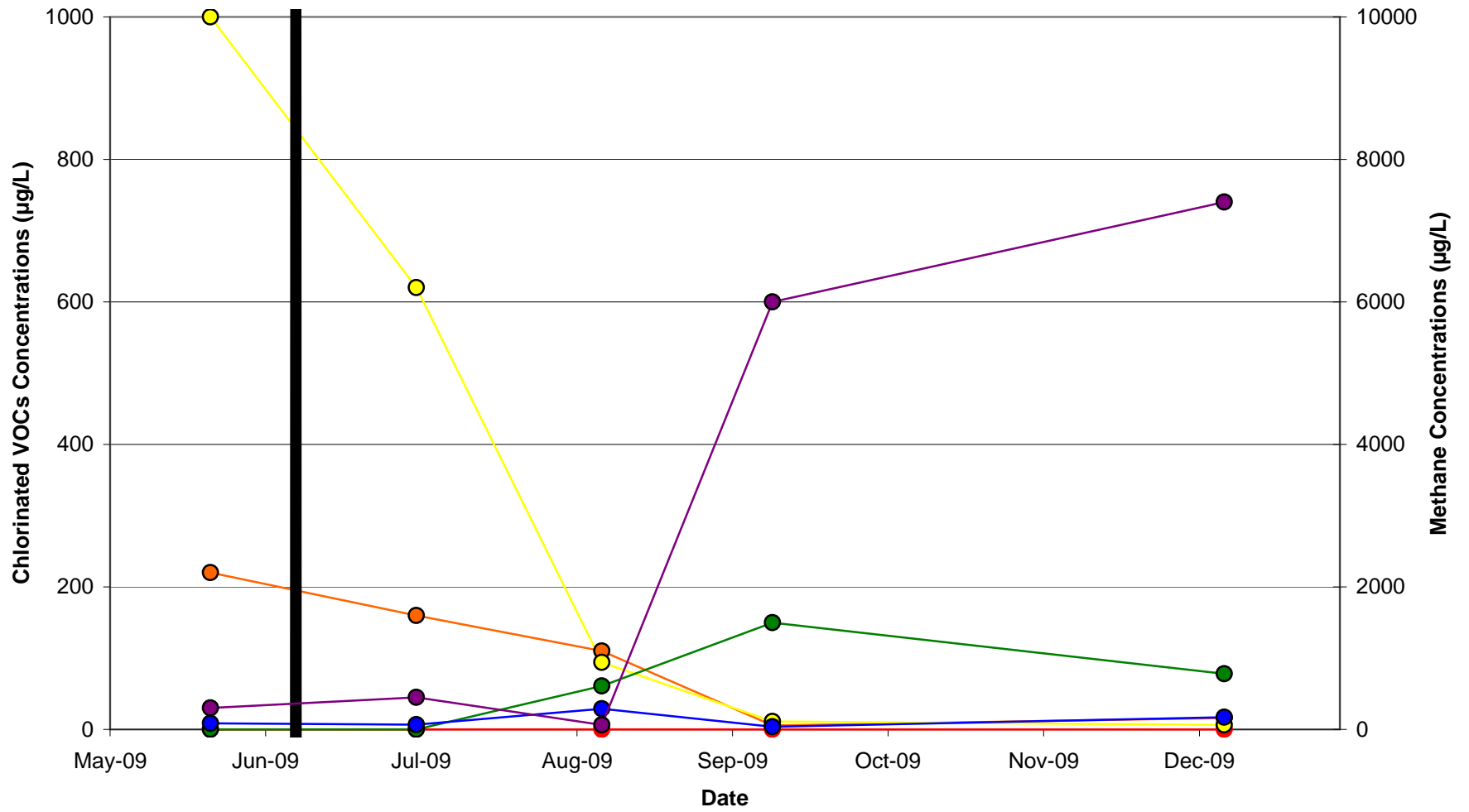
UNION PACIFIC RAILROAD

Elmhurst Creek



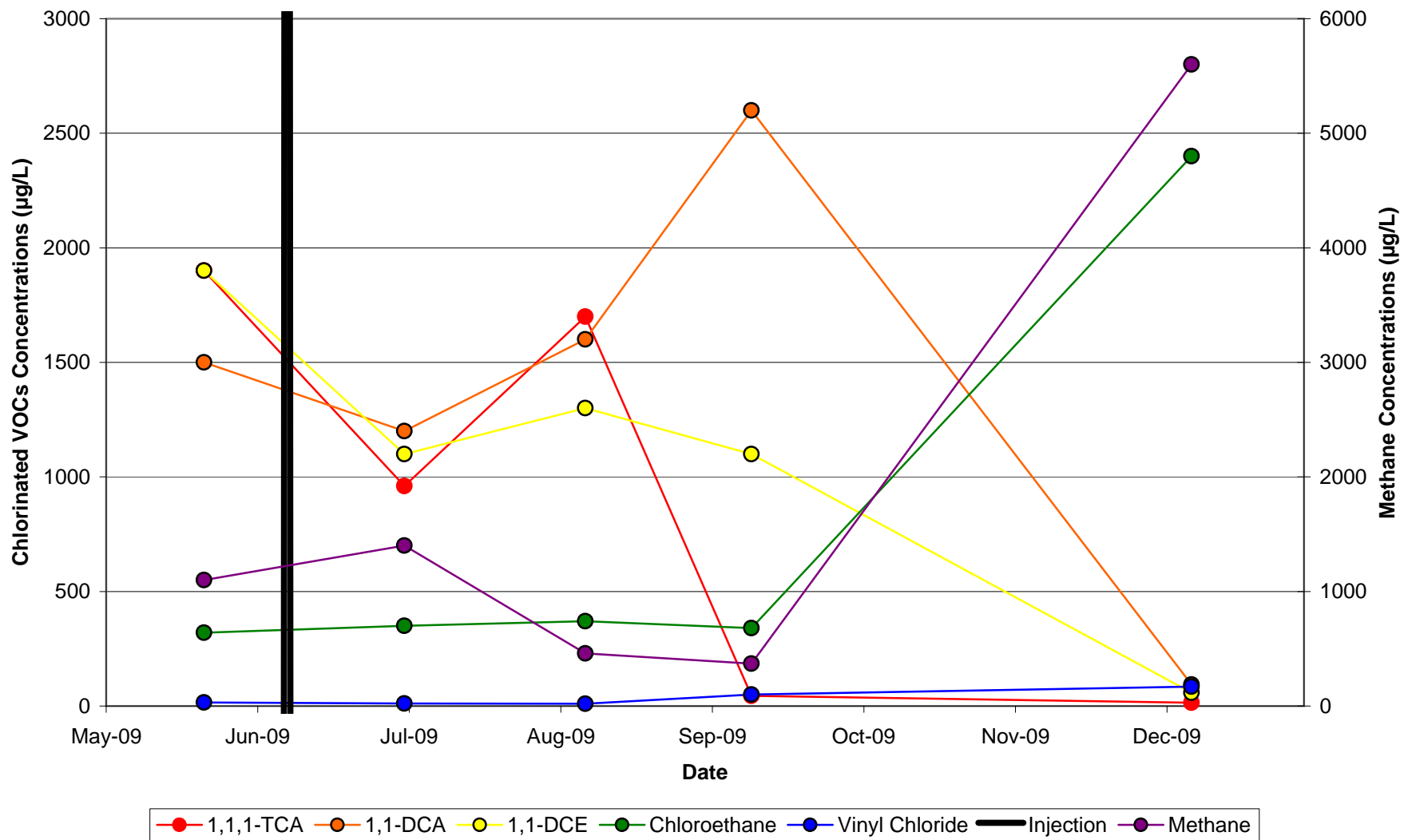
HORIZONTAL SCALE IN FEET

**Figure 6**  
**Chlorinated VOC and Methane Concentrations in MW-3**

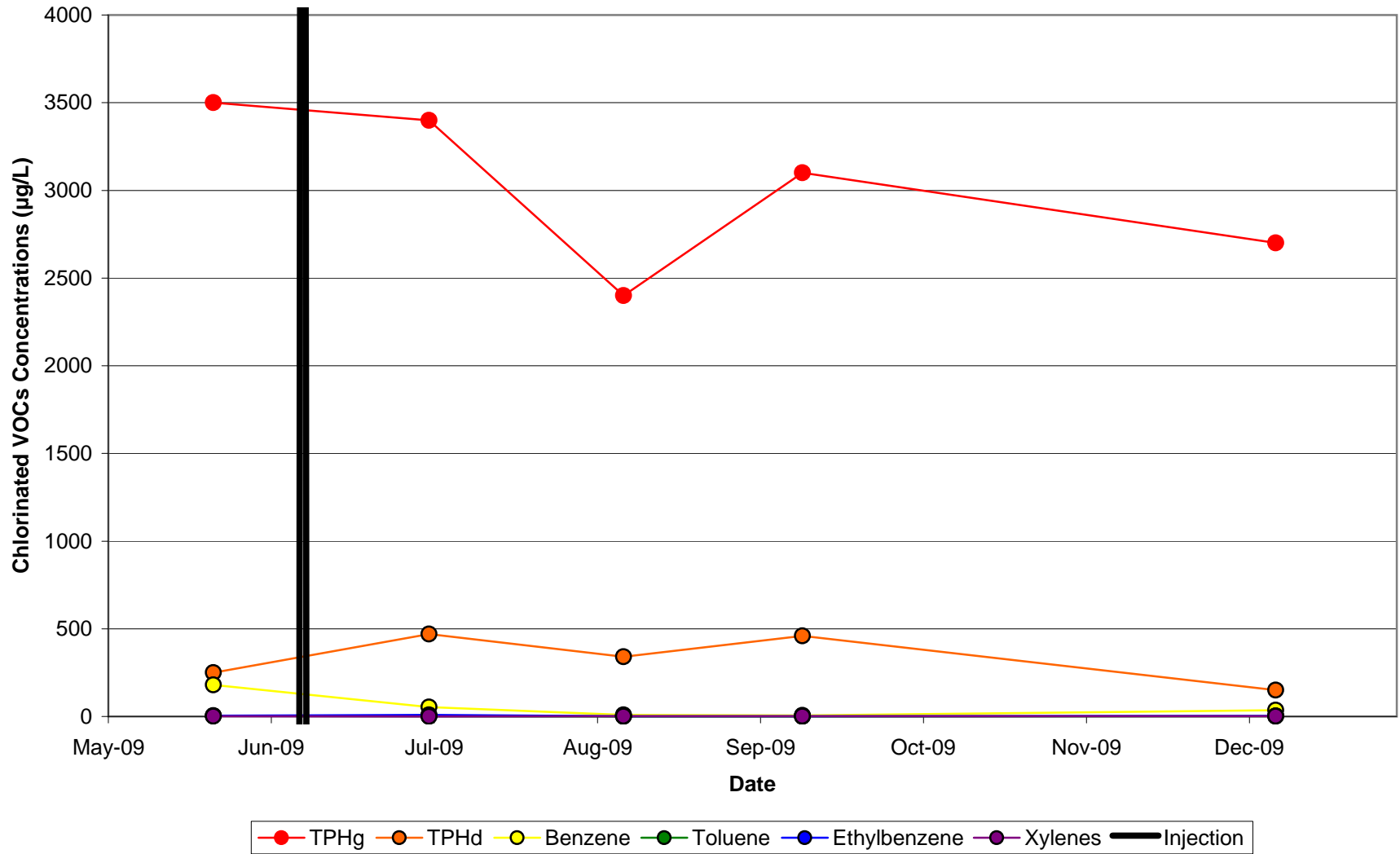


—●— 1,1,1-TCA —●— 1,1-DCA —●— 1,1-DCE —●— Chloroethane —●— Vinyl Chloride —●— Injection —●— Methane

**Figure 7**  
**Chlorinated VOC and Methane Concentrations in MW-8**



**Figure 8**  
**TPH and BTEX Concentrations in MW-9**



## TABLES



**Table 1**  
**Well Construction Details and Groundwater Elevation - December 2009**

AB&I Foundry  
7825 San Leandro Street  
Oakland, California

<b>Well Number</b>	<b>Total Depth<sup>1</sup></b>	<b>Solid Casing<sup>2</sup></b>	<b>Screened Interval<sup>3</sup></b>	<b>Top of Casing</b> <i>(feet, msl<sup>4</sup>)</i>	<b>Depth to Water</b> <i>(feet, btoc<sup>5</sup>)</i>	<b>Groundwater Elevation</b> <i>(feet, msl<sup>6</sup>)</i>
MW-1	23	0-10	10-20	9.60	6.14	1.57
MW-2	17	0-8	8-17	NM	NM	Destroyed
MW-2R	20.5	0-5	5-20	7.49	4.01	1.52
MW-3	19.5	0-9	9-19	9.90	6.87	1.13
MW-4	26.5	0-10	10-25	10.49	6.82	1.77
MW-5	20.5	0-5	5-20	10.92	7.77	1.22
MW-6	20.5	0-5	5-20	10.19	7.89	0.40
MW-7	20.5	0-5	5-20	10.61	6.56	2.14
MW-8	20.5	0-5	5-20	11.19	7.92	1.38
MW-9	20.5	0-5	5-20	7.95	4.26	1.81

**Notes:**

- 1) All values describe construction details in feet below ground surface
- 2) All monitoring wells constructed with 2" I.D. schedule 40 PVC; monitoring well MW-2 constructed with 4" I.D. schedule 40 PVC
- 3) All well casing includes .02" slotted screen
- 4) Top of casing elevation in feet above mean sea level (msl)
- 5) Depth to water below top of casing (btoc) measured on December 9, 2009
- 6) Groundwater elevation in feet above mean sea level (msl)

**Table 2**  
**Summary of Semi-Annual Groundwater Monitoring Results - December 2009**  
 AB&I Foundry  
 7825 San Leandro Street  
 Oakland, California

Sample ID	Date	TPHg	TPHd	1,1 - DCA	1,1 - DCE	1,2-DCA	trans 1,2-DCE	cis 1,2-DCE	n-Butylbenzene	n-Propylbenzene	sec-Butylbenzene	Benzene	Chloroethane	Ethylbenzene	1,2,3-Trichloropropane	Tert-Butylbenzene	Isopropylbenzene	4-Isopropyltoluene	Toluene	1,1,1-TCA	Vinyl chloride	m,p-Xylene	Naphthalene
Units		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
RWQCB ESLs <sup>1</sup>		NE	NE	3,400	18,000	690	19,000	17,000	NE	NE	NE	1,800	2,700	170,000	NE	NE	NE	NE	530,000	360,000	13.0	NE	11,000
RWQCB ESLs <sup>2</sup>		NE	NE	1,000	6,300	200	6,700	6,200	NE	NE	NE	540	820	170,000	NE	NE	NE	NE	350,000	130,000	3.8	NE	3,200
<b>MISC</b>																							
MW-1	12/10/2009	<50	<50	0.41	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50
MW-2R	12/10/2009	99	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50
MW-3	12/9/2009	51	<50	16	6.4	<0.50	0.37	0.25	<0.50	<0.50	<0.50	0.51	78	<0.50	<0.50	<0.50	<0.50	<0.50	2.6	<0.50	17	<1.0	<0.50
MW-4	12/9/2009	70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50
MW-5	12/10/2009	53	<50	0.58	0.63	<0.50	0.67	2.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50
MW-6	12/9/2009	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50
MW-7	12/10/2009	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50
MW-8	12/9/2009	180	<50	94	58	1.8	<2.5	<2.5	<2.5	<2.5	<2.5	3.0	<b>2,400</b>	<2.5	<2.5	<2.5	4.1	<2.5	<2.5	14	<b>85</b>	<5.0	<2.5
MW-8 (D)	12/9/2009	190	<50	92	60	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	2.8	<b>2,400</b>	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	14	<b>82</b>	<10	<5.0
MW-9	12/9/2009	2,700	150	<0.50	<0.50	<0.50	<0.50	<0.50	0.74	5.0	1.1	36	<0.50	2.7	<0.50	0.36	5.5	1.6	0.87	<0.50	<0.50	1.1	1.3

**Notes:**

- NE - value not established
- feet bgs - feet below ground surface
- (D) - Duplicate sample
- \*500 - Reported due to the presence of discrete peaks
- 1,1,2-TCA - 1,1,2-Trichloroethane
- TPHg - Total Petroleum Hydrocarbons as Gasoline
- TPHd - Total Petroleum Hydrocarbons as Diesel
- 1,1 - DCE - 1,1 - Dichloroethene
- 1,1 - DCA - 1,1 - Dichloroethane
- 1,1,1-TCA - 1,1,1-Trichloroethane
- 1,2 - DCA - 1,2-Dichloroethane
- trans-1,2-DCE - Trans-1,2-dichloroethene
- cis-1,2-DCE - Cis-1,2-dichloroethene
- <0.50 - all concentrations expressed in micrograms per liter (µg/l)
- Not reported at or above laboratory's reporting limit of 0.50 µg/L
- TPHg, TPHd, and VOCs analyzed using EPA Methods 8015B(M) and 8260B by Advanced Technology Laboratories (ATL), Signal Hill, California

RWQCB ESLs<sup>1</sup> - Environmental Screening Levels taken from the California Regional Water Quality Control Board, San Francisco Bay Region document entitled "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater," Interim Final November 2007, updated May 2008, Table E-1, commercial land use scenario.

RWQCB ESLs<sup>2</sup> - Environmental Screening Levels taken from the California Regional Water Quality Control Board, San Francisco Bay Region document entitled "Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater," Interim Final November 2007, updated May 2008, Table E-1, residential land use scenario.

**Table 3**  
**Enhanced Anaerobic Biodegradation Monitoring Results**  
 AB&I Foundry  
 7825 San Leandro Street  
 Oakland, California

Well/Sample ID Number	Date	Chlorinated VOCs (µg/L)							Volatile Gases (µg/L)			Carbon Substrate (mg/L)
		Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1 Trichloroethane	Vinyl Chloride	Methane	Ethane	Ethene	TOC
MW-1	12/10/09	<0.50	0.41	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA
MW-2R	05/22/09	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	180	<2.0	<3.0	<3.0
	12/10/09	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA
MW-3	05/21/09	<2.5	220	1,000	10	1.2	<2.5	8.4	300	19	<3.0	7.4
	07/01/09	<2.5	160	620	7.5	<2.5	<2.5	6.7	450	16	<3.0	320
	08/07/09	61	110	94	1.2	<0.50	<0.50	29	63	2.7	16	260
	09/10/09	150	5.6	11	0.20	0.47	<0.50	3.6	6000	4.1	41	170
	12/09/09	78	16	6.4	0.25	0.37	<0.50	17	7400	4.8	11	120
MW-4	12/09/09	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA
MW-5	05/21/09	<0.50	0.7	0.71	3.3	1.1	<0.50	<0.50	15	<2.0	<3.0	<3.0
	12/10/10	<0.50	0.58	0.63	2.2	0.67	<0.50	<0.50	NA	NA	NA	NA
MW-6	05/21/09	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	5.2	<2.0	<3.0	11
	12/09/09	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA
MW-7	05/22/09	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA
	12/10/09	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA
MW-8 Dup	05/21/09	320	1500	1900	<5.0	<5.0	1900	16	1100	19	9.6	<3.0
	05/21/09	410	1700	2000	<5.0	<5.0	1900	16	-	-	-	-
	07/01/09	350	1200	1100	<2.5	<2.5	960	11	1400	13	5.3	260
	08/07/09	370	1600	1300	<5.0	<5.0	1700	9.6	460	5.9	<3.0	200
	09/10/09	340	2600	1100	<2.5	<2.5	45	50	370	4.6	<2.0	160
	12/09/09	2400	94	58	<2.5	<2.5	14	85	5600	14	180	170
	Dup	12/09/09	2400	92	60	<5.0	<5.0	14	82	NA	NA	NA

**Table 3**  
**Enhanced Anaerobic Biodegradation Monitoring Results**  
 AB&I Foundry  
 7825 San Leandro Street  
 Oakland, California

Well/Sample ID Number	Date	Chlorinated VOCs (µg/L)							Volatile Gases (µg/L)			Carbon Substrate (mg/L)
		Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1 Trichloroethane	Vinyl Chloride	Methane	Ethane	Ethene	TOC
SB-53-GW20	06/04/09	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	-	-	-
MW-9	05/22/09	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA
	07/01/09	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA
	08/07/09	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA
	09/10/09	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA
	12/09/09	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA	NA	NA

**Notes:**

- ▣ Sample SB-53-GW20 collected 16-20 feet below ground surface (bgs)
- mg/L - Milligrams per liter
- ug/L - Micrograms per liter
- <5.0 - Not detected at or above laboratory practical quantitation limit of 5.0 ug/L.
- Dup - Duplicate Sample
- - Not Analyzed
- TOC - Total Organic Carbon

**Table 4**  
**Enhanced Aerobic Biodegradation Monitoring Results**  
 AB&I Foundry  
 7825 San Leandro Street  
 Oakland, California

Well Number	Date	TPH-Diesel	Naphthalene	TPH-Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes
MW-9	05/22/09	250	2.2	3,500	180	2.9	3.9	1.7
	07/01/09	470	3.3	3,400	53	2.0	9.5	0.28
	08/07/09	340	0.82	2,400	9.1	0.51	2.2	1.5
	09/10/09	460	0.87	3,100	5.7	0.36	1.4	1.7
	12/09/09	150	1.3	2,700	36	0.87	2.7	1.1

**Notes:**

- TPH - Total Petroleum Hydrocarbons
- All concentrations reported in micrograms per liter (µg/L)

**APPENDIX A**

**FIELD SAMPLING SHEETS**

# Groundwater Monitoring Well Field Sampling Form

**The Source Group, Inc.**

PROJECT NAME: AB&I Foundry

PROJECT NO.: 01-ABI.001

TASK NO.: \_\_\_\_\_

WELL ID: Mw-1

PURGE DATE: 12/10/09

SAMPLE TIME: 1030

SAMPLE DATE: 12/10/09

PERSONNEL: N. C. H. M.

INITIAL DTW (ft): 6.11

DEPTH TO BOTTOM (ft): \_\_\_\_\_

WELL DIAM. (in): 2

PUMP INTAKE DEPTH (ft): \_\_\_\_\_

3 VOLUMES (gals): \_\_\_\_\_

h\*3\*0.064 (1.25"); h\*3\*0.16 (2"); h\*3\*0.26 (2.5");  
h\*3\*0.38 (3"); h\*3\*0.65 (4"); h\*3\*1.5 (6")

**PURGE LOG:**

(circle)

(check units!)

DTW	Time (24 hr)	Flow Rate (ml/min)	pH	EC (mS/cm)	Temp. (C)	Disolved Oxygen (mg/L)	REDOX (mV)	Color	Turbidity	Other Observations
6.14	1004	200	5.87	1496	16.80	2.33	-124.1	clear	14.7	-
6.14	1009	200	6.48	1484	16.17	0.58	-154.6	clear	2.8	-
6.14	1014	200	6.60	1472	16.21	0.47	-162.1	clear	1.7	-
6.14	1023	200	6.71	1454	15.68	0.67	-165.1	clear	6.0	-
6.14	1028	200	6.75	1450	15.65	0.63	-168.1	clear	3.3	-

Total Gallons Purged: 2.0

Purging Method: 2" Submersible Bladder Pump  
 12 Volt Pump  
 Peristaltic Pump  
 Bailer

**WELL SAMPLING:**

DTW at Time of Sampling: 6.14

Sampling Method: 2" Submersible Bladder Pump  
 12 Volt Pump  
 Peristaltic Pump  
 Bailer

SAMPLE ID: Mw-1

**QA/QC SAMPLING:**

WAS QA/QC SAMPLE COLLECTED AFTER THIS WELL? YES /  NO

IF SO, SAMPLE ID: \_\_\_\_\_ TYPE: Rinsate Blank Duplicate Field Blank

**COMMENTS:**

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# Groundwater Monitoring Well Field Sampling Form

**The Source Group, Inc.**

PROJECT NAME: AB&I Foundry

PROJECT NO.: 01-ABI.001

TASK NO.: \_\_\_\_\_

WELL ID: MW-2R

PURGE DATE: 12/10/09

SAMPLE TIME: 1330

SAMPLE DATE: 12/10/09

PERSONNEL: N. C. Iton

INITIAL DTW (ft): 3.81

DEPTH TO BOTTOM (ft): \_\_\_\_\_

WELL DIAM. (in): 2

PUMP INTAKE DEPTH (ft): \_\_\_\_\_

3 VOLUMES (gals): \_\_\_\_\_

h\*3\*0.064 (1.25"); h\*3\*0.16 (2"); h\*3\*0.26 (2.5");  
h\*3\*0.38 (3"); h\*3\*0.65 (4"); h\*3\*1.5 (6")

**PURGE LOG:**

(circle)

(check units!)

DTW	Time (24 hr)	Flow Rate (ml/min)	pH	EC (mS/cm)	Temp. (C)	Disolved Oxygen (mg/L)	REDOX (mV)	Color	Turbidity	Other Observations
3.83	1303	200	6.86	1654	17.42	1.36	-136.3	clear	60.4	-
3.86	1313	200	6.73	1661	18.23	0.46	-143.1	clear	45.7	-
3.87	1314	200	6.70	1598	18.39	0.37	-149.6	clear	28.9	-
3.87	1323	200	6.66	1458	18.41	0.33	-148.2	clear	13.9	-
3.87	1328	200	6.63	1425	18.45	0.32	-145.9	clear	7.9	-

Total Gallons Purged: 2

Purging Method: 2" Submersible Bladder Pump, 12 Volt Pump, Peristaltic Pump, Bailer

**WELL SAMPLING:**

DTW at Time of Sampling: 3.87

Sampling Method: 2" Submersible Bladder Pump, 12 Volt Pump, Peristaltic Pump, Bailer

SAMPLE ID: MW-2R

**QA/QC SAMPLING:**

WAS QA/QC SAMPLE COLLECTED AFTER THIS WELL? YES / NO

IF SO, SAMPLE ID: \_\_\_\_\_ TYPE: Rinsate Blank Duplicate Field Blank

**COMMENTS:**

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# Groundwater Monitoring Well Field Sampling Form

**The Source Group, Inc.**

PROJECT NAME: AB&I Foundry

PROJECT NO.: 01-ABI.001

TASK NO.: \_\_\_\_\_

WELL ID: MW-3

PURGE DATE: 12/9/09

SAMPLE TIME: 1530

SAMPLE DATE: 12/9/09

PERSONNEL: N. L. Khan

INITIAL DTW (ft): 6.87

DEPTH TO BOTTOM (ft): \_\_\_\_\_

WELL DIAM. (in): 2

PUMP INTAKE DEPTH (ft): \_\_\_\_\_

3 VOLUMES (gals): \_\_\_\_\_

h\*3\*0.064 (1.25"); h\*3\*0.16 (2"); h\*3\*0.26 (2.5");  
h\*3\*0.38 (3"); h\*3\*0.65 (4"); h\*3\*1.5 (6")

**PURGE LOG:**

(circle)

(check units!)

DTW	Time (24 hr)	Flow Rate (ml/min)	pH	EC (mS/cm)	Temp. (C)	Disolved Oxygen (mg/L)	REDOX (mV)	Color	Turbidity	Other Observations
7.47	1457	200	6.47	3400	19.18	1.42	-133.3	grey	140.3	-
7.39	1504	200	6.38	3289	18.95	0.56	-146.9	milky	51.2	-
7.38	1509	200	6.34	3259	18.94	0.45	-156.5	milky	27.3	-
7.39	1517	200	6.34	3245	19.00	0.38	-165.9	"	15.8	-
7.39	1528	200	6.33	3210	19.00	0.33	-172.9	milky	12.0	-

Total Gallons Purged: 2.0

2"

Purging Method

Submersible Bladder Pump

12 Volt Pump

Peristaltic Pump

Bailer

**WELL SAMPLING:**

DTW at Time of Sampling: 7.39

2"

Sampling Method

Submersible Bladder Pump

12 Volt Pump

Peristaltic Pump

Bailer

SAMPLE ID: MW-3

**QA/QC SAMPLING:**

WAS QA/QC SAMPLE COLLECTED AFTER THIS WELL?

YES / NO

IF SO, SAMPLE ID: \_\_\_\_\_

TYPE: Rinsate Blank

Duplicate Field Blank

**COMMENTS:**

- Purge H<sub>2</sub>O appears milky white - p. most likely EoS.

# Groundwater Monitoring Well Field Sampling Form

**The Source Group, Inc.**

PROJECT NAME: AB&I Foundry  
 PROJECT NO.: 01-ABI.001  
 TASK NO.: \_\_\_\_\_  
 WELL ID: MW-4  
 PURGE DATE: 12/9/09  
 SAMPLE TIME: 1320  
 SAMPLE DATE: 12/9/09  
 PERSONNEL: N. Ribon

INITIAL DTW (ft): 683  
 DEPTH TO BOTTOM (ft): \_\_\_\_\_  
 WELL DIAM. (in): 2  
 PUMP INTAKE DEPTH (ft): \_\_\_\_\_  
 3 VOLUMES (gals): \_\_\_\_\_  
h\*3\*0.064 (1.25"); h\*3\*0.16 (2"); h\*3\*0.26 (2.5");  
 h\*3\*0.38 (3"); h\*3\*0.65 (4"); h\*3\*1.5 (6")

**PURGE LOG:**

(circle)

(check units!)

DTW	Time (24 hr)	Flow Rate (ml/min)	pH	EC (mS/cm)	Temp. (C)	Disolved Oxygen (mg/L)	REDOX (mV)	Color	Turbidity	Other Observations
7.20	1247	220	7.81	852	15.57	6.03	-206.4	clear	22.1	-
7.23	1255	220	7.34	766	17.51	0.91	-211.4	clear	10.3	-
7.23	1300	220	7.25	752	17.72	0.68	-212.4	clear	7.4	-
7.23	1308	220	7.16	747	17.62	0.35	-213.4	clear	5.7	-
7.23	1313	220	7.12	745	17.58	0.34	-214.5	clear	4.4	-
7.23	1318	220	7.10	745	15.58	0.30	-215.1	clear	3.6	-

Total Gallons Purged: 2.5

Purging Method: 2" Submersible Bladder Pump  
 12 Volt Pump  
 Peristaltic Pump  
 Bailer

**WELL SAMPLING:**

DTW at Time of Sampling: 7.23

Sampling Method: 2" Submersible Bladder Pump  
 12 Volt Pump  
 Peristaltic Pump  
 Bailer

SAMPLE ID: MW-4

**QA/QC SAMPLING:**

WAS QA/QC SAMPLE COLLECTED AFTER THIS WELL? YES /  NO

IF SO, SAMPLE ID: \_\_\_\_\_ TYPE: Rinsate Blank Duplicate Field Blank

**COMMENTS:**

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# Groundwater Monitoring Well Field Sampling Form

**The Source Group, Inc.**

PROJECT NAME: AB&I Foundry  
 PROJECT NO.: 01-ABI.001  
 TASK NO.: \_\_\_\_\_  
 WELL ID: MW-6  
 PURGE DATE: 12/9/09  
 SAMPLE TIME: 1425  
 SAMPLE DATE: 12/9/09  
 PERSONNEL: N. L. Han

INITIAL DTW (ft): 7.77  
 DEPTH TO BOTTOM (ft): \_\_\_\_\_  
 WELL DIAM. (in): 2  
 PUMP INTAKE DEPTH (ft): \_\_\_\_\_  
 3 VOLUMES (gals): -  
h\*3\*0.064 (1.25"); h\*3\*0.16 (2"); h\*3\*0.26 (2.5");  
 h\*3\*0.38 (3"); h\*3\*0.65 (4"); h\*3\*1.5 (6")

**PURGE LOG:** \_\_\_\_\_ (circle) \_\_\_\_\_ (check units!)

DTW	Time (24 hr)	Flow Rate (ml/min)	pH	EC (mS/cm)	Temp. (C)	Disolved Oxygen (mg/L)	REDOX (mV)	Color	Turbidity	Other Observations
7.88	1355	200	7.03	3076	19.19	1.70	-157.1	gray	129.3	-
7.88	1401	200	6.92	3168	19.41	1.02	-158.6	gray	65.5	-
7.88	1407	200	6.79	3019	19.62	0.77	-159.4	"	31.4	-
7.88	1412	200	6.74	2917	19.69	0.64	-160.6	gray	19.4	-
7.89	1417	200	6.73	2910	20.17	0.51	-162.8	gray	13.8	-
7.90	1422									

Total Gallons Purged: 2.0  
 2"

Purging Method: Submersible Bladder Pump  
 12 Volt Pump  
 Peristaltic Pump  
 Bailer

**WELL SAMPLING:**

DTW at Time of Sampling: 7.90

2"  
 Sampling Method: Submersible Bladder Pump  
 12 Volt Pump  
 Peristaltic Pump  
 Bailer

SAMPLE ID: MW-6

**QA/QC SAMPLING:**

WAS QA/QC SAMPLE COLLECTED AFTER THIS WELL? YES /  NO

IF SO, SAMPLE ID: \_\_\_\_\_ TYPE: Rinsate Blank Duplicate Field Blank

**COMMENTS:**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

# Groundwater Monitoring Well Field Sampling Form

**The Source Group, Inc.**

PROJECT NAME: AB&I Foundry

PROJECT NO.: 01-ABI.001

TASK NO.: \_\_\_\_\_

WELL ID: MW-9

PURGE DATE: 12/9/09

SAMPLE TIME: 1131

SAMPLE DATE: 12/9/09

PERSONNEL: N. C. Khan

INITIAL DTW (ft): 4.26

DEPTH TO BOTTOM (ft): \_\_\_\_\_

WELL DIAM. (in): 2

PUMP INTAKE DEPTH (ft): \_\_\_\_\_

3 VOLUMES (gals): —

h\*3\*0.064 (1.25"); h\*3\*0.16 (2"); h\*3\*0.26 (2.5");  
h\*3\*0.38 (3"); h\*3\*0.65 (4"); h\*3\*1.5 (6")

**PURGE LOG:** \_\_\_\_\_ (circle)

(check units!)

DTW	Time (24 hr)	Flow Rate (ml/min)	pH	EC (mS/cm)	Temp. (C)	Disolved Oxygen (mg/L)	REDOX (mV)	Color	Turbidity	Other Observations
5.02	1103	220	7.47	2244	16.30	3.37	-39.4	grey	11.7	—
5.06	1108	220	8.02	2180	16.57	3.45	-57.2	grey	10.4	petroleum odor
5.06	1113	220	8.12	2163	16.67	3.22	-61.8	grey	8.8	" "
5.06	1118	220	8.08	2141	16.77	3.46	-69.7	grey	6.2	" "
5.06	1124	220	8.05	2110	16.75	3.53	-79.3	grey	4.8	" "
5.06	1129	220	8.03	2091	16.66	3.46	-86.6	grey	4.4	" "

Total Gallons Purged: 2.5

Purging Method: 2" Submersible Bladder Pump    12 Volt Pump    Peristaltic Pump    Bailer

**WELL SAMPLING:**

DTW at Time of Sampling: 5.06

Sampling Method: 2" Submersible Bladder Pump    12 Volt Pump    Peristaltic Pump    Bailer

SAMPLE ID: MW-9

**QA/QC SAMPLING:**

WAS QA/QC SAMPLE COLLECTED AFTER THIS WELL?    YES / NO

IF SO, SAMPLE ID: \_\_\_\_\_    TYPE:    Rinsate Blank    Duplicate    Field Blank

**COMMENTS:**

Min flow rate 200 ml/min. pump @ 0 speed

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# Groundwater Monitoring Well Field Sampling Form

**The Source Group, Inc.**

PROJECT NAME: AB&I Foundry \_\_\_\_\_

PROJECT NO.: 01-ABI.001 \_\_\_\_\_

TASK NO.: \_\_\_\_\_

WELL ID: mw-8

PURGE DATE: 12/9/09

SAMPLE TIME: 1645 1650

SAMPLE DATE: 12/9/09

PERSONNEL: N.C. ILM

INITIAL DTW (ft): 7.85

DEPTH TO BOTTOM (ft): \_\_\_\_\_

WELL DIAM. (in): 2

PUMP INTAKE DEPTH (ft): \_\_\_\_\_

3 VOLUMES (gals): \_\_\_\_\_

h\*3\*0.064 (1.25"); h\*3\*0.16 (2"); h\*3\*0.26 (2.5");  
h\*3\*0.38 (3"); h\*3\*0.65 (4"); h\*3\*1.5 (6")

**PURGE LOG:**

(circle)

(check units!)

DTW	Time (24 hr)	Flow Rate (ml/min)	pH	EC (mS/cm)	Temp. (C)	Disolved Oxygen (mg/L)	REDOX (mV)	Color	Turbidity	Other Observations
8.14	1624	200	6.02	2675	16.33	0.88	-127.6	milky	37.2	-
8.17	1629	200	5.94	2714	17.18	0.48	-145.1	"	30.0	-
8.17	1637	200	5.90	2728	17.48	0.35	-152.1	"	15.3	-
8.17	1643	200	5.89	2733	17.48	0.34	-157.1	"	9.0	-
8.18	1648	200	5.88	2729	17.52	0.33	-159.1	"	6.2	-

Total Gallons Purged: 20

2"

Purging Method: Submersible Bladder Pump    12 Volt Pump    Peristaltic Pump    Bailer

**WELL SAMPLING:**

DTW at Time of Sampling: 8.18

2"

Sampling Method: Submersible Bladder Pump    12 Volt Pump    Peristaltic Pump    Bailer

SAMPLE ID: mw-8

**QA/QC SAMPLING:**

WAS QA/QC SAMPLE COLLECTED AFTER THIS WELL? YES / NO

IF SO, SAMPLE ID: MW-98    TYPE: Rinsate Blank    Duplicate Field Blank

**COMMENTS:**

- groundwater observed to be milky white in color - possibly FeS.

**APPENDIX B**

**LABORATORY REPORTS AND CHAIN OF CUSTODY RECORDS**

December 21, 2009



Kent Reynolds  
The Source Group Inc.  
3451 Vincent Dr., Suite C  
Pleasant Hill, CA 94523  
TEL: (925) 944-2856  
FAX: (925) 944-2859

ELAP No.: 1838  
NELAP No.: 02107CA  
NEVADA.: CA-401  
CSDLAC No.: 10196  
Workorder No.: 109135

RE: AB&I Foundry, 01-ABI.001

Attention: Kent Reynolds

Enclosed are the results for sample(s) received on December 12, 2009 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

A handwritten signature in black ink, appearing to read "Eddie F. Rodriguez".

Eddie F. Rodriguez  
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.



**CLIENT:** The Source Group Inc.  
**Project:** AB&I Foundry, 01-ABI.001  
**Lab Order:** 109135

**CASE NARRATIVE**

Sample Receiving / General Comments

Headspace <5-6mm was noted on the following samples: MW-6 (2 voa vials), MW-3 (3 voa vials), MW-8 (2 voa vials), MW-98 (2 voa vials).

Headspace >5-6mm was noted on one of the voa vial of sample MW-6.

Silica Gel Cleanup was performed on sample prior to the analysis, per client request.

Analytical Comments for EPA 8260B

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.





# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-9

**Lab Order:** 109135

**Collection Date:** 12/9/2009 11:31:00 AM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-001A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS2_091215A	QC Batch: Q09VW247	PrepDate:	Analyst: SLL			
1,1,1,2-Tetrachloroethane	ND	0.45	0.50	µg/L	1	12/15/2009 05:47 PM
1,1,1-Trichloroethane	ND	0.27	0.50	µg/L	1	12/15/2009 05:47 PM
1,1,2,2-Tetrachloroethane	ND	0.35	0.50	µg/L	1	12/15/2009 05:47 PM
1,1,2-Trichloroethane	ND	0.43	0.50	µg/L	1	12/15/2009 05:47 PM
1,1-Dichloroethane	ND	0.17	0.50	µg/L	1	12/15/2009 05:47 PM
1,1-Dichloroethene	ND	0.19	0.50	µg/L	1	12/15/2009 05:47 PM
1,1-Dichloropropene	ND	0.30	0.50	µg/L	1	12/15/2009 05:47 PM
1,2,3-Trichlorobenzene	ND	0.48	0.50	µg/L	1	12/15/2009 05:47 PM
1,2,3-Trichloropropane	ND	0.24	0.50	µg/L	1	12/15/2009 05:47 PM
1,2,4-Trichlorobenzene	ND	0.43	0.50	µg/L	1	12/15/2009 05:47 PM
1,2,4-Trimethylbenzene	ND	0.44	0.50	µg/L	1	12/15/2009 05:47 PM
1,2-Dibromo-3-chloropropane	ND	0.35	0.50	µg/L	1	12/15/2009 05:47 PM
1,2-Dibromoethane	ND	0.37	0.50	µg/L	1	12/15/2009 05:47 PM
1,2-Dichlorobenzene	ND	0.27	0.50	µg/L	1	12/15/2009 05:47 PM
1,2-Dichloroethane	ND	0.16	0.50	µg/L	1	12/15/2009 05:47 PM
1,2-Dichloropropane	ND	0.20	0.50	µg/L	1	12/15/2009 05:47 PM
1,3,5-Trimethylbenzene	ND	0.36	0.50	µg/L	1	12/15/2009 05:47 PM
1,3-Dichlorobenzene	ND	0.28	0.50	µg/L	1	12/15/2009 05:47 PM
1,3-Dichloropropane	ND	0.32	0.50	µg/L	1	12/15/2009 05:47 PM
1,4-Dichlorobenzene	ND	0.24	0.50	µg/L	1	12/15/2009 05:47 PM
2,2-Dichloropropane	ND	0.32	0.50	µg/L	1	12/15/2009 05:47 PM
2-Chlorotoluene	ND	0.31	0.50	µg/L	1	12/15/2009 05:47 PM
4-Chlorotoluene	ND	0.23	0.50	µg/L	1	12/15/2009 05:47 PM
4-Isopropyltoluene	1.6	0.36	0.50	µg/L	1	12/15/2009 05:47 PM
Benzene	36	0.17	0.50	µg/L	1	12/15/2009 05:47 PM
Bromobenzene	ND	0.21	0.50	µg/L	1	12/15/2009 05:47 PM
Bromodichloromethane	ND	0.39	0.50	µg/L	1	12/15/2009 05:47 PM
Bromoform	ND	0.30	0.50	µg/L	1	12/15/2009 05:47 PM
Bromomethane	ND	0.32	0.50	µg/L	1	12/15/2009 05:47 PM
Carbon tetrachloride	ND	0.38	0.50	µg/L	1	12/15/2009 05:47 PM
Chlorobenzene	ND	0.28	0.50	µg/L	1	12/15/2009 05:47 PM
Chloroethane	ND	0.35	0.50	µg/L	1	12/15/2009 05:47 PM
Chloroform	ND	0.23	0.50	µg/L	1	12/15/2009 05:47 PM
Chloromethane	ND	0.32	0.50	µg/L	1	12/15/2009 05:47 PM
cis-1,2-Dichloroethene	ND	0.15	0.50	µg/L	1	12/15/2009 05:47 PM

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	S Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO Surrogate Diluted Out



Advanced Technology  
Laboratories

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-9

**Lab Order:** 109135

**Collection Date:** 12/9/2009 11:31:00 AM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-001A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS2_091215A	QC Batch: Q09VW247	PrepDate:	Analyst: SLL			
cis-1,3-Dichloropropene	ND	0.29	0.50	µg/L	1	12/15/2009 05:47 PM
Dibromochloromethane	ND	0.40	0.50	µg/L	1	12/15/2009 05:47 PM
Dibromomethane	ND	0.19	0.50	µg/L	1	12/15/2009 05:47 PM
Dichlorodifluoromethane	ND	0.33	0.50	µg/L	1	12/15/2009 05:47 PM
Ethylbenzene	2.7	0.22	0.50	µg/L	1	12/15/2009 05:47 PM
Hexachlorobutadiene	ND	0.28	0.50	µg/L	1	12/15/2009 05:47 PM
Isopropylbenzene	5.5	0.30	0.50	µg/L	1	12/15/2009 05:47 PM
m,p-Xylene	1.1	0.49	1.0	µg/L	1	12/15/2009 05:47 PM
Methylene chloride	ND	1.0	1.0	µg/L	1	12/15/2009 05:47 PM
n-Butylbenzene	0.74	0.30	0.50	µg/L	1	12/15/2009 05:47 PM
n-Propylbenzene	5.0	0.36	0.50	µg/L	1	12/15/2009 05:47 PM
Naphthalene	1.3	0.35	0.50	µg/L	1	12/15/2009 05:47 PM
o-Xylene	ND	0.27	0.50	µg/L	1	12/15/2009 05:47 PM
sec-Butylbenzene	1.1	0.33	0.50	µg/L	1	12/15/2009 05:47 PM
Styrene	ND	0.38	0.50	µg/L	1	12/15/2009 05:47 PM
tert-Butylbenzene	0.36	0.35	0.50	µg/L	1	12/15/2009 05:47 PM
Tetrachloroethene	ND	0.19	0.50	µg/L	1	12/15/2009 05:47 PM
Toluene	0.87	0.22	0.50	µg/L	1	12/15/2009 05:47 PM
trans-1,2-Dichloroethene	ND	0.22	0.50	µg/L	1	12/15/2009 05:47 PM
Trichloroethene	ND	0.15	0.50	µg/L	1	12/15/2009 05:47 PM
Trichlorofluoromethane	ND	0.26	0.50	µg/L	1	12/15/2009 05:47 PM
Vinyl chloride	ND	0.34	0.50	µg/L	1	12/15/2009 05:47 PM
Surr: 1,2-Dichloroethane-d4	99.9	0	70-130	%REC	1	12/15/2009 05:47 PM
Surr: 4-Bromofluorobenzene	106	0	70-130	%REC	1	12/15/2009 05:47 PM
Surr: Dibromofluoromethane	102	0	70-130	%REC	1	12/15/2009 05:47 PM
Surr: Toluene-d8	110	0	70-130	%REC	1	12/15/2009 05:47 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-4

**Lab Order:** 109135

**Collection Date:** 12/9/2009 1:20:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-002A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS2_091215A	QC Batch: Q09VW247	PrepDate:	Analyst: SLL			
1,1,1,2-Tetrachloroethane	ND	0.45	0.50	µg/L	1	12/15/2009 04:51 PM
1,1,1-Trichloroethane	ND	0.27	0.50	µg/L	1	12/15/2009 04:51 PM
1,1,2,2-Tetrachloroethane	ND	0.35	0.50	µg/L	1	12/15/2009 04:51 PM
1,1,2-Trichloroethane	ND	0.43	0.50	µg/L	1	12/15/2009 04:51 PM
1,1-Dichloroethane	ND	0.17	0.50	µg/L	1	12/15/2009 04:51 PM
1,1-Dichloroethene	ND	0.19	0.50	µg/L	1	12/15/2009 04:51 PM
1,1-Dichloropropene	ND	0.30	0.50	µg/L	1	12/15/2009 04:51 PM
1,2,3-Trichlorobenzene	ND	0.48	0.50	µg/L	1	12/15/2009 04:51 PM
1,2,3-Trichloropropane	ND	0.24	0.50	µg/L	1	12/15/2009 04:51 PM
1,2,4-Trichlorobenzene	ND	0.43	0.50	µg/L	1	12/15/2009 04:51 PM
1,2,4-Trimethylbenzene	ND	0.44	0.50	µg/L	1	12/15/2009 04:51 PM
1,2-Dibromo-3-chloropropane	ND	0.35	0.50	µg/L	1	12/15/2009 04:51 PM
1,2-Dibromoethane	ND	0.37	0.50	µg/L	1	12/15/2009 04:51 PM
1,2-Dichlorobenzene	ND	0.27	0.50	µg/L	1	12/15/2009 04:51 PM
1,2-Dichloroethane	ND	0.16	0.50	µg/L	1	12/15/2009 04:51 PM
1,2-Dichloropropane	ND	0.20	0.50	µg/L	1	12/15/2009 04:51 PM
1,3,5-Trimethylbenzene	ND	0.36	0.50	µg/L	1	12/15/2009 04:51 PM
1,3-Dichlorobenzene	ND	0.28	0.50	µg/L	1	12/15/2009 04:51 PM
1,3-Dichloropropane	ND	0.32	0.50	µg/L	1	12/15/2009 04:51 PM
1,4-Dichlorobenzene	ND	0.24	0.50	µg/L	1	12/15/2009 04:51 PM
2,2-Dichloropropane	ND	0.32	0.50	µg/L	1	12/15/2009 04:51 PM
2-Chlorotoluene	ND	0.31	0.50	µg/L	1	12/15/2009 04:51 PM
4-Chlorotoluene	ND	0.23	0.50	µg/L	1	12/15/2009 04:51 PM
4-Isopropyltoluene	ND	0.36	0.50	µg/L	1	12/15/2009 04:51 PM
Benzene	ND	0.17	0.50	µg/L	1	12/15/2009 04:51 PM
Bromobenzene	ND	0.21	0.50	µg/L	1	12/15/2009 04:51 PM
Bromodichloromethane	ND	0.39	0.50	µg/L	1	12/15/2009 04:51 PM
Bromoform	ND	0.30	0.50	µg/L	1	12/15/2009 04:51 PM
Bromomethane	ND	0.32	0.50	µg/L	1	12/15/2009 04:51 PM
Carbon tetrachloride	ND	0.38	0.50	µg/L	1	12/15/2009 04:51 PM
Chlorobenzene	ND	0.28	0.50	µg/L	1	12/15/2009 04:51 PM
Chloroethane	ND	0.35	0.50	µg/L	1	12/15/2009 04:51 PM
Chloroform	ND	0.23	0.50	µg/L	1	12/15/2009 04:51 PM
Chloromethane	ND	0.32	0.50	µg/L	1	12/15/2009 04:51 PM
cis-1,2-Dichloroethene	ND	0.15	0.50	µg/L	1	12/15/2009 04:51 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit S Spike/Surrogate outside of limits due to matrix interference  
Results are wet unless otherwise specified DO Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-4

**Lab Order:** 109135

**Collection Date:** 12/9/2009 1:20:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-002A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS2_091215A	QC Batch: Q09VW247	PrepDate:	Analyst: SLL			
cis-1,3-Dichloropropene	ND	0.29	0.50	µg/L	1	12/15/2009 04:51 PM
Dibromochloromethane	ND	0.40	0.50	µg/L	1	12/15/2009 04:51 PM
Dibromomethane	ND	0.19	0.50	µg/L	1	12/15/2009 04:51 PM
Dichlorodifluoromethane	ND	0.33	0.50	µg/L	1	12/15/2009 04:51 PM
Ethylbenzene	ND	0.22	0.50	µg/L	1	12/15/2009 04:51 PM
Hexachlorobutadiene	ND	0.28	0.50	µg/L	1	12/15/2009 04:51 PM
Isopropylbenzene	ND	0.30	0.50	µg/L	1	12/15/2009 04:51 PM
m,p-Xylene	ND	0.49	1.0	µg/L	1	12/15/2009 04:51 PM
Methylene chloride	ND	1.0	1.0	µg/L	1	12/15/2009 04:51 PM
n-Butylbenzene	ND	0.30	0.50	µg/L	1	12/15/2009 04:51 PM
n-Propylbenzene	ND	0.36	0.50	µg/L	1	12/15/2009 04:51 PM
Naphthalene	ND	0.35	0.50	µg/L	1	12/15/2009 04:51 PM
o-Xylene	ND	0.27	0.50	µg/L	1	12/15/2009 04:51 PM
sec-Butylbenzene	ND	0.33	0.50	µg/L	1	12/15/2009 04:51 PM
Styrene	ND	0.38	0.50	µg/L	1	12/15/2009 04:51 PM
tert-Butylbenzene	ND	0.35	0.50	µg/L	1	12/15/2009 04:51 PM
Tetrachloroethene	ND	0.19	0.50	µg/L	1	12/15/2009 04:51 PM
Toluene	ND	0.22	0.50	µg/L	1	12/15/2009 04:51 PM
trans-1,2-Dichloroethene	ND	0.22	0.50	µg/L	1	12/15/2009 04:51 PM
Trichloroethene	ND	0.15	0.50	µg/L	1	12/15/2009 04:51 PM
Trichlorofluoromethane	ND	0.26	0.50	µg/L	1	12/15/2009 04:51 PM
Vinyl chloride	ND	0.34	0.50	µg/L	1	12/15/2009 04:51 PM
Surr: 1,2-Dichloroethane-d4	98.5	0	70-130	%REC	1	12/15/2009 04:51 PM
Surr: 4-Bromofluorobenzene	96.6	0	70-130	%REC	1	12/15/2009 04:51 PM
Surr: Dibromofluoromethane	99.3	0	70-130	%REC	1	12/15/2009 04:51 PM
Surr: Toluene-d8	97.7	0	70-130	%REC	1	12/15/2009 04:51 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-6

**Lab Order:** 109135

**Collection Date:** 12/9/2009 2:25:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-003A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS2_091215A	QC Batch: Q09VW247	PrepDate:	Analyst: SLL			
1,1,1,2-Tetrachloroethane	ND	0.45	0.50	µg/L	1	12/15/2009 05:14 PM
1,1,1-Trichloroethane	ND	0.27	0.50	µg/L	1	12/15/2009 05:14 PM
1,1,2,2-Tetrachloroethane	ND	0.35	0.50	µg/L	1	12/15/2009 05:14 PM
1,1,2-Trichloroethane	ND	0.43	0.50	µg/L	1	12/15/2009 05:14 PM
1,1-Dichloroethane	ND	0.17	0.50	µg/L	1	12/15/2009 05:14 PM
1,1-Dichloroethene	ND	0.19	0.50	µg/L	1	12/15/2009 05:14 PM
1,1-Dichloropropene	ND	0.30	0.50	µg/L	1	12/15/2009 05:14 PM
1,2,3-Trichlorobenzene	ND	0.48	0.50	µg/L	1	12/15/2009 05:14 PM
1,2,3-Trichloropropane	ND	0.24	0.50	µg/L	1	12/15/2009 05:14 PM
1,2,4-Trichlorobenzene	ND	0.43	0.50	µg/L	1	12/15/2009 05:14 PM
1,2,4-Trimethylbenzene	ND	0.44	0.50	µg/L	1	12/15/2009 05:14 PM
1,2-Dibromo-3-chloropropane	ND	0.35	0.50	µg/L	1	12/15/2009 05:14 PM
1,2-Dibromoethane	ND	0.37	0.50	µg/L	1	12/15/2009 05:14 PM
1,2-Dichlorobenzene	ND	0.27	0.50	µg/L	1	12/15/2009 05:14 PM
1,2-Dichloroethane	ND	0.16	0.50	µg/L	1	12/15/2009 05:14 PM
1,2-Dichloropropane	ND	0.20	0.50	µg/L	1	12/15/2009 05:14 PM
1,3,5-Trimethylbenzene	ND	0.36	0.50	µg/L	1	12/15/2009 05:14 PM
1,3-Dichlorobenzene	ND	0.28	0.50	µg/L	1	12/15/2009 05:14 PM
1,3-Dichloropropane	ND	0.32	0.50	µg/L	1	12/15/2009 05:14 PM
1,4-Dichlorobenzene	ND	0.24	0.50	µg/L	1	12/15/2009 05:14 PM
2,2-Dichloropropane	ND	0.32	0.50	µg/L	1	12/15/2009 05:14 PM
2-Chlorotoluene	ND	0.31	0.50	µg/L	1	12/15/2009 05:14 PM
4-Chlorotoluene	ND	0.23	0.50	µg/L	1	12/15/2009 05:14 PM
4-Isopropyltoluene	ND	0.36	0.50	µg/L	1	12/15/2009 05:14 PM
Benzene	ND	0.17	0.50	µg/L	1	12/15/2009 05:14 PM
Bromobenzene	ND	0.21	0.50	µg/L	1	12/15/2009 05:14 PM
Bromodichloromethane	ND	0.39	0.50	µg/L	1	12/15/2009 05:14 PM
Bromoform	ND	0.30	0.50	µg/L	1	12/15/2009 05:14 PM
Bromomethane	ND	0.32	0.50	µg/L	1	12/15/2009 05:14 PM
Carbon tetrachloride	ND	0.38	0.50	µg/L	1	12/15/2009 05:14 PM
Chlorobenzene	ND	0.28	0.50	µg/L	1	12/15/2009 05:14 PM
Chloroethane	ND	0.35	0.50	µg/L	1	12/15/2009 05:14 PM
Chloroform	ND	0.23	0.50	µg/L	1	12/15/2009 05:14 PM
Chloromethane	ND	0.32	0.50	µg/L	1	12/15/2009 05:14 PM
cis-1,2-Dichloroethene	ND	0.15	0.50	µg/L	1	12/15/2009 05:14 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
	Results are wet unless otherwise specified	DO	Surrogate Diluted Out



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# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-6

**Lab Order:** 109135

**Collection Date:** 12/9/2009 2:25:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-003A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID:	MS2_091215A	QC Batch:	Q09VW247	PrepDate:	Analyst:	SLL
cis-1,3-Dichloropropene	ND	0.29	0.50	µg/L	1	12/15/2009 05:14 PM
Dibromochloromethane	ND	0.40	0.50	µg/L	1	12/15/2009 05:14 PM
Dibromomethane	ND	0.19	0.50	µg/L	1	12/15/2009 05:14 PM
Dichlorodifluoromethane	ND	0.33	0.50	µg/L	1	12/15/2009 05:14 PM
Ethylbenzene	ND	0.22	0.50	µg/L	1	12/15/2009 05:14 PM
Hexachlorobutadiene	ND	0.28	0.50	µg/L	1	12/15/2009 05:14 PM
Isopropylbenzene	ND	0.30	0.50	µg/L	1	12/15/2009 05:14 PM
m,p-Xylene	ND	0.49	1.0	µg/L	1	12/15/2009 05:14 PM
Methylene chloride	ND	1.0	1.0	µg/L	1	12/15/2009 05:14 PM
n-Butylbenzene	ND	0.30	0.50	µg/L	1	12/15/2009 05:14 PM
n-Propylbenzene	ND	0.36	0.50	µg/L	1	12/15/2009 05:14 PM
Naphthalene	ND	0.35	0.50	µg/L	1	12/15/2009 05:14 PM
o-Xylene	ND	0.27	0.50	µg/L	1	12/15/2009 05:14 PM
sec-Butylbenzene	ND	0.33	0.50	µg/L	1	12/15/2009 05:14 PM
Styrene	ND	0.38	0.50	µg/L	1	12/15/2009 05:14 PM
tert-Butylbenzene	ND	0.35	0.50	µg/L	1	12/15/2009 05:14 PM
Tetrachloroethene	ND	0.19	0.50	µg/L	1	12/15/2009 05:14 PM
Toluene	ND	0.22	0.50	µg/L	1	12/15/2009 05:14 PM
trans-1,2-Dichloroethene	ND	0.22	0.50	µg/L	1	12/15/2009 05:14 PM
Trichloroethene	ND	0.15	0.50	µg/L	1	12/15/2009 05:14 PM
Trichlorofluoromethane	ND	0.26	0.50	µg/L	1	12/15/2009 05:14 PM
Vinyl chloride	ND	0.34	0.50	µg/L	1	12/15/2009 05:14 PM
Surr: 1,2-Dichloroethane-d4	103	0	70-130	%REC	1	12/15/2009 05:14 PM
Surr: 4-Bromofluorobenzene	95.3	0	70-130	%REC	1	12/15/2009 05:14 PM
Surr: Dibromofluoromethane	102	0	70-130	%REC	1	12/15/2009 05:14 PM
Surr: Toluene-d8	97.6	0	70-130	%REC	1	12/15/2009 05:14 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out



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# ANALYTICAL RESULTS

Print Date: 21-Dec-09

CLIENT: The Source Group Inc.

Client Sample ID: MW-3

Lab Order: 109135

Collection Date: 12/9/2009 3:30:00 PM

Project: AB&I Foundry, 01-ABI.001

Matrix: GROUNDWATER

Lab ID: 109135-004A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS11_091216A	QC Batch: A09VW220	PrepDate:	Analyst: SLL			
1,1,1,2-Tetrachloroethane	ND	0.45	0.50	µg/L	1	12/16/2009 11:26 AM
1,1,1-Trichloroethane	ND	0.27	0.50	µg/L	1	12/16/2009 11:26 AM
1,1,2,2-Tetrachloroethane	ND	0.35	0.50	µg/L	1	12/16/2009 11:26 AM
1,1,2-Trichloroethane	ND	0.43	0.50	µg/L	1	12/16/2009 11:26 AM
1,1-Dichloroethane	16	0.17	0.50	µg/L	1	12/16/2009 11:26 AM
1,1-Dichloroethene	6.4	0.19	0.50	µg/L	1	12/16/2009 11:26 AM
1,1-Dichloropropene	ND	0.30	0.50	µg/L	1	12/16/2009 11:26 AM
1,2,3-Trichlorobenzene	ND	0.48	0.50	µg/L	1	12/16/2009 11:26 AM
1,2,3-Trichloropropane	ND	0.24	0.50	µg/L	1	12/16/2009 11:26 AM
1,2,4-Trichlorobenzene	ND	0.43	0.50	µg/L	1	12/16/2009 11:26 AM
1,2,4-Trimethylbenzene	ND	0.44	0.50	µg/L	1	12/16/2009 11:26 AM
1,2-Dibromo-3-chloropropane	ND	0.35	0.50	µg/L	1	12/16/2009 11:26 AM
1,2-Dibromoethane	ND	0.37	0.50	µg/L	1	12/16/2009 11:26 AM
1,2-Dichlorobenzene	ND	0.27	0.50	µg/L	1	12/16/2009 11:26 AM
1,2-Dichloroethane	ND	0.16	0.50	µg/L	1	12/16/2009 11:26 AM
1,2-Dichloropropane	ND	0.20	0.50	µg/L	1	12/16/2009 11:26 AM
1,3,5-Trimethylbenzene	ND	0.36	0.50	µg/L	1	12/16/2009 11:26 AM
1,3-Dichlorobenzene	ND	0.28	0.50	µg/L	1	12/16/2009 11:26 AM
1,3-Dichloropropane	ND	0.32	0.50	µg/L	1	12/16/2009 11:26 AM
1,4-Dichlorobenzene	ND	0.24	0.50	µg/L	1	12/16/2009 11:26 AM
2,2-Dichloropropane	ND	0.32	0.50	µg/L	1	12/16/2009 11:26 AM
2-Chlorotoluene	ND	0.31	0.50	µg/L	1	12/16/2009 11:26 AM
4-Chlorotoluene	ND	0.23	0.50	µg/L	1	12/16/2009 11:26 AM
4-Isopropyltoluene	ND	0.36	0.50	µg/L	1	12/16/2009 11:26 AM
Benzene	0.51	0.17	0.50	µg/L	1	12/16/2009 11:26 AM
Bromobenzene	ND	0.21	0.50	µg/L	1	12/16/2009 11:26 AM
Bromodichloromethane	ND	0.39	0.50	µg/L	1	12/16/2009 11:26 AM
Bromoform	ND	0.30	0.50	µg/L	1	12/16/2009 11:26 AM
Bromomethane	ND	0.32	0.50	µg/L	1	12/16/2009 11:26 AM
Carbon tetrachloride	ND	0.38	0.50	µg/L	1	12/16/2009 11:26 AM
Chlorobenzene	ND	0.28	0.50	µg/L	1	12/16/2009 11:26 AM
Chloroethane	78	0.35	0.50	µg/L	1	12/16/2009 11:26 AM
Chloroform	ND	0.23	0.50	µg/L	1	12/16/2009 11:26 AM
Chloromethane	ND	0.32	0.50	µg/L	1	12/16/2009 11:26 AM
cis-1,2-Dichloroethene	0.25	0.15	0.50	J µg/L	1	12/16/2009 11:26 AM

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 Results are wet unless otherwise specified  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike/Surrogate outside of limits due to matrix interference  
 DO Surrogate Diluted Out



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# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-3

**Lab Order:** 109135

**Collection Date:** 12/9/2009 3:30:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-004A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID:	MS11_091216A	QC Batch:	A09VW220	PrepDate:	Analyst:	SLL
cis-1,3-Dichloropropene	ND	0.29	0.50	µg/L	1	12/16/2009 11:26 AM
Dibromochloromethane	ND	0.40	0.50	µg/L	1	12/16/2009 11:26 AM
Dibromomethane	ND	0.19	0.50	µg/L	1	12/16/2009 11:26 AM
Dichlorodifluoromethane	ND	0.33	0.50	µg/L	1	12/16/2009 11:26 AM
Ethylbenzene	ND	0.22	0.50	µg/L	1	12/16/2009 11:26 AM
Hexachlorobutadiene	ND	0.28	0.50	µg/L	1	12/16/2009 11:26 AM
Isopropylbenzene	ND	0.30	0.50	µg/L	1	12/16/2009 11:26 AM
m,p-Xylene	ND	0.49	1.0	µg/L	1	12/16/2009 11:26 AM
Methylene chloride	ND	1.0	1.0	µg/L	1	12/16/2009 11:26 AM
n-Butylbenzene	ND	0.30	0.50	µg/L	1	12/16/2009 11:26 AM
n-Propylbenzene	ND	0.36	0.50	µg/L	1	12/16/2009 11:26 AM
Naphthalene	ND	0.35	0.50	µg/L	1	12/16/2009 11:26 AM
o-Xylene	ND	0.27	0.50	µg/L	1	12/16/2009 11:26 AM
sec-Butylbenzene	ND	0.33	0.50	µg/L	1	12/16/2009 11:26 AM
Styrene	ND	0.38	0.50	µg/L	1	12/16/2009 11:26 AM
tert-Butylbenzene	ND	0.35	0.50	µg/L	1	12/16/2009 11:26 AM
Tetrachloroethene	ND	0.19	0.50	µg/L	1	12/16/2009 11:26 AM
Toluene	2.6	0.22	0.50	µg/L	1	12/16/2009 11:26 AM
trans-1,2-Dichloroethene	0.37	0.22	0.50	J µg/L	1	12/16/2009 11:26 AM
Trichloroethene	ND	0.15	0.50	µg/L	1	12/16/2009 11:26 AM
Trichlorofluoromethane	ND	0.26	0.50	µg/L	1	12/16/2009 11:26 AM
Vinyl chloride	17	0.34	0.50	µg/L	1	12/16/2009 11:26 AM
Surr: 1,2-Dichloroethane-d4	109	0	70-130	%REC	1	12/16/2009 11:26 AM
Surr: 4-Bromofluorobenzene	103	0	70-130	%REC	1	12/16/2009 11:26 AM
Surr: Dibromofluoromethane	106	0	70-130	%REC	1	12/16/2009 11:26 AM
Surr: Toluene-d8	100	0	70-130	%REC	1	12/16/2009 11:26 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out



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# ANALYTICAL RESULTS

Print Date: 21-Dec-09

CLIENT: The Source Group Inc.

Client Sample ID: MW-8

Lab Order: 109135

Collection Date: 12/9/2009 4:50:00 PM

Project: AB&I Foundry, 01-ABI.001

Matrix: GROUNDWATER

Lab ID: 109135-005A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS11_091215B	QC Batch: A09VW219	PrepDate:	Analyst: SLL			
1,1,1,2-Tetrachloroethane	ND	2.3	2.5	µg/L	5	12/16/2009 01:54 AM
1,1,1-Trichloroethane	14	1.3	2.5	µg/L	5	12/16/2009 01:54 AM
1,1,2,2-Tetrachloroethane	ND	1.7	2.5	µg/L	5	12/16/2009 01:54 AM
1,1,2-Trichloroethane	ND	2.2	2.5	µg/L	5	12/16/2009 01:54 AM
1,1-Dichloroethane	94	0.83	2.5	µg/L	5	12/16/2009 01:54 AM
1,1-Dichloroethene	58	0.95	2.5	µg/L	5	12/16/2009 01:54 AM
1,1-Dichloropropene	ND	1.5	2.5	µg/L	5	12/16/2009 01:54 AM
1,2,3-Trichlorobenzene	ND	2.4	2.5	µg/L	5	12/16/2009 01:54 AM
1,2,3-Trichloropropane	ND	1.2	2.5	µg/L	5	12/16/2009 01:54 AM
1,2,4-Trichlorobenzene	ND	2.2	2.5	µg/L	5	12/16/2009 01:54 AM
1,2,4-Trimethylbenzene	ND	2.2	2.5	µg/L	5	12/16/2009 01:54 AM
1,2-Dibromo-3-chloropropane	ND	1.8	2.5	µg/L	5	12/16/2009 01:54 AM
1,2-Dibromoethane	ND	1.9	2.5	µg/L	5	12/16/2009 01:54 AM
1,2-Dichlorobenzene	ND	1.4	2.5	µg/L	5	12/16/2009 01:54 AM
1,2-Dichloroethane	1.8	0.82	2.5	µg/L	5	12/16/2009 01:54 AM
1,2-Dichloropropane	ND	1.0	2.5	µg/L	5	12/16/2009 01:54 AM
1,3,5-Trimethylbenzene	ND	1.8	2.5	µg/L	5	12/16/2009 01:54 AM
1,3-Dichlorobenzene	ND	1.4	2.5	µg/L	5	12/16/2009 01:54 AM
1,3-Dichloropropane	ND	1.6	2.5	µg/L	5	12/16/2009 01:54 AM
1,4-Dichlorobenzene	ND	1.2	2.5	µg/L	5	12/16/2009 01:54 AM
2,2-Dichloropropane	ND	1.6	2.5	µg/L	5	12/16/2009 01:54 AM
2-Chlorotoluene	ND	1.5	2.5	µg/L	5	12/16/2009 01:54 AM
4-Chlorotoluene	ND	1.2	2.5	µg/L	5	12/16/2009 01:54 AM
4-Isopropyltoluene	ND	1.8	2.5	µg/L	5	12/16/2009 01:54 AM
Benzene	3.0	0.85	2.5	µg/L	5	12/16/2009 01:54 AM
Bromobenzene	ND	1.1	2.5	µg/L	5	12/16/2009 01:54 AM
Bromodichloromethane	ND	1.9	2.5	µg/L	5	12/16/2009 01:54 AM
Bromoform	ND	1.5	2.5	µg/L	5	12/16/2009 01:54 AM
Bromomethane	ND	1.6	2.5	µg/L	5	12/16/2009 01:54 AM
Carbon tetrachloride	ND	1.9	2.5	µg/L	5	12/16/2009 01:54 AM
Chlorobenzene	ND	1.4	2.5	µg/L	5	12/16/2009 01:54 AM
Chloroethane	2400	18	25	µg/L	50	12/16/2009 02:15 AM
Chloroform	ND	1.2	2.5	µg/L	5	12/16/2009 01:54 AM
Chloromethane	ND	1.6	2.5	µg/L	5	12/16/2009 01:54 AM
cis-1,2-Dichloroethene	ND	0.74	2.5	µg/L	5	12/16/2009 01:54 AM

Qualifiers: B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-8

**Lab Order:** 109135

**Collection Date:** 12/9/2009 4:50:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-005A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID:	MS11_091215B	QC Batch:	A09VW219	PrepDate:	Analyst:	SLL
cis-1,3-Dichloropropene	ND	1.4	2.5	µg/L	5	12/16/2009 01:54 AM
Dibromochloromethane	ND	2.0	2.5	µg/L	5	12/16/2009 01:54 AM
Dibromomethane	ND	0.93	2.5	µg/L	5	12/16/2009 01:54 AM
Dichlorodifluoromethane	ND	1.6	2.5	µg/L	5	12/16/2009 01:54 AM
Ethylbenzene	ND	1.1	2.5	µg/L	5	12/16/2009 01:54 AM
Hexachlorobutadiene	ND	1.4	2.5	µg/L	5	12/16/2009 01:54 AM
Isopropylbenzene	4.1	1.5	2.5	µg/L	5	12/16/2009 01:54 AM
m,p-Xylene	ND	2.5	5.0	µg/L	5	12/16/2009 01:54 AM
Methylene chloride	ND	5.0	5.0	µg/L	5	12/16/2009 01:54 AM
n-Butylbenzene	ND	1.5	2.5	µg/L	5	12/16/2009 01:54 AM
n-Propylbenzene	ND	1.8	2.5	µg/L	5	12/16/2009 01:54 AM
Naphthalene	ND	1.8	2.5	µg/L	5	12/16/2009 01:54 AM
o-Xylene	ND	1.3	2.5	µg/L	5	12/16/2009 01:54 AM
sec-Butylbenzene	ND	1.6	2.5	µg/L	5	12/16/2009 01:54 AM
Styrene	ND	1.9	2.5	µg/L	5	12/16/2009 01:54 AM
tert-Butylbenzene	ND	1.8	2.5	µg/L	5	12/16/2009 01:54 AM
Tetrachloroethene	ND	0.97	2.5	µg/L	5	12/16/2009 01:54 AM
Toluene	ND	1.1	2.5	µg/L	5	12/16/2009 01:54 AM
trans-1,2-Dichloroethene	ND	1.1	2.5	µg/L	5	12/16/2009 01:54 AM
Trichloroethene	ND	0.74	2.5	µg/L	5	12/16/2009 01:54 AM
Trichlorofluoromethane	ND	1.3	2.5	µg/L	5	12/16/2009 01:54 AM
Vinyl chloride	85	1.7	2.5	µg/L	5	12/16/2009 01:54 AM
Surr: 1,2-Dichloroethane-d4	112	0	70-130	%REC	5	12/16/2009 01:54 AM
Surr: 1,2-Dichloroethane-d4	114	0	70-130	%REC	50	12/16/2009 02:15 AM
Surr: 4-Bromofluorobenzene	113	0	70-130	%REC	5	12/16/2009 01:54 AM
Surr: 4-Bromofluorobenzene	112	0	70-130	%REC	50	12/16/2009 02:15 AM
Surr: Dibromofluoromethane	112	0	70-130	%REC	5	12/16/2009 01:54 AM
Surr: Dibromofluoromethane	113	0	70-130	%REC	50	12/16/2009 02:15 AM
Surr: Toluene-d8	108	0	70-130	%REC	50	12/16/2009 02:15 AM
Surr: Toluene-d8	108	0	70-130	%REC	5	12/16/2009 01:54 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-98

**Lab Order:** 109135

**Collection Date:** 12/9/2009 4:50:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-006A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS11_091215B	QC Batch: A09VW219	PrepDate:	Analyst: SLL			
1,1,1,2-Tetrachloroethane	ND	4.5	5.0	µg/L	10	12/16/2009 02:36 AM
1,1,1-Trichloroethane	14	2.7	5.0	µg/L	10	12/16/2009 02:36 AM
1,1,2,2-Tetrachloroethane	ND	3.5	5.0	µg/L	10	12/16/2009 02:36 AM
1,1,2-Trichloroethane	ND	4.3	5.0	µg/L	10	12/16/2009 02:36 AM
1,1-Dichloroethane	92	1.7	5.0	µg/L	10	12/16/2009 02:36 AM
1,1-Dichloroethene	60	1.9	5.0	µg/L	10	12/16/2009 02:36 AM
1,1-Dichloropropene	ND	3.0	5.0	µg/L	10	12/16/2009 02:36 AM
1,2,3-Trichlorobenzene	ND	4.8	5.0	µg/L	10	12/16/2009 02:36 AM
1,2,3-Trichloropropane	ND	2.4	5.0	µg/L	10	12/16/2009 02:36 AM
1,2,4-Trichlorobenzene	ND	4.3	5.0	µg/L	10	12/16/2009 02:36 AM
1,2,4-Trimethylbenzene	ND	4.4	5.0	µg/L	10	12/16/2009 02:36 AM
1,2-Dibromo-3-chloropropane	ND	3.5	5.0	µg/L	10	12/16/2009 02:36 AM
1,2-Dibromoethane	ND	3.7	5.0	µg/L	10	12/16/2009 02:36 AM
1,2-Dichlorobenzene	ND	2.7	5.0	µg/L	10	12/16/2009 02:36 AM
1,2-Dichloroethane	ND	1.6	5.0	µg/L	10	12/16/2009 02:36 AM
1,2-Dichloropropane	ND	2.0	5.0	µg/L	10	12/16/2009 02:36 AM
1,3,5-Trimethylbenzene	ND	3.6	5.0	µg/L	10	12/16/2009 02:36 AM
1,3-Dichlorobenzene	ND	2.8	5.0	µg/L	10	12/16/2009 02:36 AM
1,3-Dichloropropane	ND	3.2	5.0	µg/L	10	12/16/2009 02:36 AM
1,4-Dichlorobenzene	ND	2.4	5.0	µg/L	10	12/16/2009 02:36 AM
2,2-Dichloropropane	ND	3.2	5.0	µg/L	10	12/16/2009 02:36 AM
2-Chlorotoluene	ND	3.1	5.0	µg/L	10	12/16/2009 02:36 AM
4-Chlorotoluene	ND	2.3	5.0	µg/L	10	12/16/2009 02:36 AM
4-Isopropyltoluene	ND	3.6	5.0	µg/L	10	12/16/2009 02:36 AM
Benzene	2.8	1.7	5.0	J µg/L	10	12/16/2009 02:36 AM
Bromobenzene	ND	2.1	5.0	µg/L	10	12/16/2009 02:36 AM
Bromodichloromethane	ND	3.9	5.0	µg/L	10	12/16/2009 02:36 AM
Bromoform	ND	3.0	5.0	µg/L	10	12/16/2009 02:36 AM
Bromomethane	ND	3.2	5.0	µg/L	10	12/16/2009 02:36 AM
Carbon tetrachloride	ND	3.8	5.0	µg/L	10	12/16/2009 02:36 AM
Chlorobenzene	ND	2.8	5.0	µg/L	10	12/16/2009 02:36 AM
Chloroethane	2400	35	50	µg/L	100	12/16/2009 02:57 AM
Chloroform	ND	2.3	5.0	µg/L	10	12/16/2009 02:36 AM
Chloromethane	ND	3.2	5.0	µg/L	10	12/16/2009 02:36 AM
cis-1,2-Dichloroethene	ND	1.5	5.0	µg/L	10	12/16/2009 02:36 AM

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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Laboratories

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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-98

**Lab Order:** 109135

**Collection Date:** 12/9/2009 4:50:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-006A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID:	MS11_091215B	QC Batch:	A09VW219	PrepDate:	Analyst:	SLL
cis-1,3-Dichloropropene	ND	2.9	5.0	µg/L	10	12/16/2009 02:36 AM
Dibromochloromethane	ND	4.0	5.0	µg/L	10	12/16/2009 02:36 AM
Dibromomethane	ND	1.9	5.0	µg/L	10	12/16/2009 02:36 AM
Dichlorodifluoromethane	ND	3.3	5.0	µg/L	10	12/16/2009 02:36 AM
Ethylbenzene	ND	2.2	5.0	µg/L	10	12/16/2009 02:36 AM
Hexachlorobutadiene	ND	2.8	5.0	µg/L	10	12/16/2009 02:36 AM
Isopropylbenzene	3.9	3.0	5.0	J µg/L	10	12/16/2009 02:36 AM
m,p-Xylene	ND	4.9	10	µg/L	10	12/16/2009 02:36 AM
Methylene chloride	ND	10	10	µg/L	10	12/16/2009 02:36 AM
n-Butylbenzene	ND	3.0	5.0	µg/L	10	12/16/2009 02:36 AM
n-Propylbenzene	ND	3.6	5.0	µg/L	10	12/16/2009 02:36 AM
Naphthalene	ND	3.5	5.0	µg/L	10	12/16/2009 02:36 AM
o-Xylene	ND	2.7	5.0	µg/L	10	12/16/2009 02:36 AM
sec-Butylbenzene	ND	3.3	5.0	µg/L	10	12/16/2009 02:36 AM
Styrene	ND	3.8	5.0	µg/L	10	12/16/2009 02:36 AM
tert-Butylbenzene	ND	3.5	5.0	µg/L	10	12/16/2009 02:36 AM
Tetrachloroethene	ND	1.9	5.0	µg/L	10	12/16/2009 02:36 AM
Toluene	ND	2.2	5.0	µg/L	10	12/16/2009 02:36 AM
trans-1,2-Dichloroethene	ND	2.2	5.0	µg/L	10	12/16/2009 02:36 AM
Trichloroethene	ND	1.5	5.0	µg/L	10	12/16/2009 02:36 AM
Trichlorofluoromethane	ND	2.6	5.0	µg/L	10	12/16/2009 02:36 AM
Vinyl chloride	82	3.4	5.0	µg/L	10	12/16/2009 02:36 AM
Surr: 1,2-Dichloroethane-d4	108	0	70-130	%REC	10	12/16/2009 02:36 AM
Surr: 1,2-Dichloroethane-d4	109	0	70-130	%REC	100	12/16/2009 02:57 AM
Surr: 4-Bromofluorobenzene	107	0	70-130	%REC	10	12/16/2009 02:36 AM
Surr: 4-Bromofluorobenzene	104	0	70-130	%REC	100	12/16/2009 02:57 AM
Surr: Dibromofluoromethane	109	0	70-130	%REC	10	12/16/2009 02:36 AM
Surr: Dibromofluoromethane	106	0	70-130	%REC	100	12/16/2009 02:57 AM
Surr: Toluene-d8	101	0	70-130	%REC	100	12/16/2009 02:57 AM
Surr: Toluene-d8	104	0	70-130	%REC	10	12/16/2009 02:36 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

CLIENT: The Source Group Inc.

Client Sample ID: MW-1

Lab Order: 109135

Collection Date: 12/10/2009 10:30:00 AM

Project: AB&I Foundry, 01-ABI.001

Matrix: GROUNDWATER

Lab ID: 109135-007A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS11_091215B	QC Batch: A09VW219	PrepDate:	Analyst: SLL			
1,1,1,2-Tetrachloroethane	ND	0.45	0.50	µg/L	1	12/16/2009 12:29 AM
1,1,1-Trichloroethane	ND	0.27	0.50	µg/L	1	12/16/2009 12:29 AM
1,1,2,2-Tetrachloroethane	ND	0.35	0.50	µg/L	1	12/16/2009 12:29 AM
1,1,2-Trichloroethane	ND	0.43	0.50	µg/L	1	12/16/2009 12:29 AM
1,1-Dichloroethane	0.41	0.17	0.50	J µg/L	1	12/16/2009 12:29 AM
1,1-Dichloroethene	ND	0.19	0.50	µg/L	1	12/16/2009 12:29 AM
1,1-Dichloropropene	ND	0.30	0.50	µg/L	1	12/16/2009 12:29 AM
1,2,3-Trichlorobenzene	ND	0.48	0.50	µg/L	1	12/16/2009 12:29 AM
1,2,3-Trichloropropane	ND	0.24	0.50	µg/L	1	12/16/2009 12:29 AM
1,2,4-Trichlorobenzene	ND	0.43	0.50	µg/L	1	12/16/2009 12:29 AM
1,2,4-Trimethylbenzene	ND	0.44	0.50	µg/L	1	12/16/2009 12:29 AM
1,2-Dibromo-3-chloropropane	ND	0.35	0.50	µg/L	1	12/16/2009 12:29 AM
1,2-Dibromoethane	ND	0.37	0.50	µg/L	1	12/16/2009 12:29 AM
1,2-Dichlorobenzene	ND	0.27	0.50	µg/L	1	12/16/2009 12:29 AM
1,2-Dichloroethane	ND	0.16	0.50	µg/L	1	12/16/2009 12:29 AM
1,2-Dichloropropane	ND	0.20	0.50	µg/L	1	12/16/2009 12:29 AM
1,3,5-Trimethylbenzene	ND	0.36	0.50	µg/L	1	12/16/2009 12:29 AM
1,3-Dichlorobenzene	ND	0.28	0.50	µg/L	1	12/16/2009 12:29 AM
1,3-Dichloropropane	ND	0.32	0.50	µg/L	1	12/16/2009 12:29 AM
1,4-Dichlorobenzene	ND	0.24	0.50	µg/L	1	12/16/2009 12:29 AM
2,2-Dichloropropane	ND	0.32	0.50	µg/L	1	12/16/2009 12:29 AM
2-Chlorotoluene	ND	0.31	0.50	µg/L	1	12/16/2009 12:29 AM
4-Chlorotoluene	ND	0.23	0.50	µg/L	1	12/16/2009 12:29 AM
4-Isopropyltoluene	ND	0.36	0.50	µg/L	1	12/16/2009 12:29 AM
Benzene	ND	0.17	0.50	µg/L	1	12/16/2009 12:29 AM
Bromobenzene	ND	0.21	0.50	µg/L	1	12/16/2009 12:29 AM
Bromodichloromethane	ND	0.39	0.50	µg/L	1	12/16/2009 12:29 AM
Bromoform	ND	0.30	0.50	µg/L	1	12/16/2009 12:29 AM
Bromomethane	ND	0.32	0.50	µg/L	1	12/16/2009 12:29 AM
Carbon tetrachloride	ND	0.38	0.50	µg/L	1	12/16/2009 12:29 AM
Chlorobenzene	ND	0.28	0.50	µg/L	1	12/16/2009 12:29 AM
Chloroethane	ND	0.35	0.50	µg/L	1	12/16/2009 12:29 AM
Chloroform	ND	0.23	0.50	µg/L	1	12/16/2009 12:29 AM
Chloromethane	ND	0.32	0.50	µg/L	1	12/16/2009 12:29 AM
cis-1,2-Dichloroethene	ND	0.15	0.50	µg/L	1	12/16/2009 12:29 AM

Qualifiers: B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 Results are wet unless otherwise specified  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike/Surrogate outside of limits due to matrix interference  
 DO Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-1

**Lab Order:** 109135

**Collection Date:** 12/10/2009 10:30:00 AM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-007A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID:	MS11_091215B	QC Batch:	A09VW219	PrepDate:	Analyst:	SLL
cis-1,3-Dichloropropene	ND	0.29	0.50	µg/L	1	12/16/2009 12:29 AM
Dibromochloromethane	ND	0.40	0.50	µg/L	1	12/16/2009 12:29 AM
Dibromomethane	ND	0.19	0.50	µg/L	1	12/16/2009 12:29 AM
Dichlorodifluoromethane	ND	0.33	0.50	µg/L	1	12/16/2009 12:29 AM
Ethylbenzene	ND	0.22	0.50	µg/L	1	12/16/2009 12:29 AM
Hexachlorobutadiene	ND	0.28	0.50	µg/L	1	12/16/2009 12:29 AM
Isopropylbenzene	ND	0.30	0.50	µg/L	1	12/16/2009 12:29 AM
m,p-Xylene	ND	0.49	1.0	µg/L	1	12/16/2009 12:29 AM
Methylene chloride	ND	1.0	1.0	µg/L	1	12/16/2009 12:29 AM
n-Butylbenzene	ND	0.30	0.50	µg/L	1	12/16/2009 12:29 AM
n-Propylbenzene	ND	0.36	0.50	µg/L	1	12/16/2009 12:29 AM
Naphthalene	ND	0.35	0.50	µg/L	1	12/16/2009 12:29 AM
o-Xylene	ND	0.27	0.50	µg/L	1	12/16/2009 12:29 AM
sec-Butylbenzene	ND	0.33	0.50	µg/L	1	12/16/2009 12:29 AM
Styrene	ND	0.38	0.50	µg/L	1	12/16/2009 12:29 AM
tert-Butylbenzene	ND	0.35	0.50	µg/L	1	12/16/2009 12:29 AM
Tetrachloroethene	ND	0.19	0.50	µg/L	1	12/16/2009 12:29 AM
Toluene	ND	0.22	0.50	µg/L	1	12/16/2009 12:29 AM
trans-1,2-Dichloroethene	ND	0.22	0.50	µg/L	1	12/16/2009 12:29 AM
Trichloroethene	ND	0.15	0.50	µg/L	1	12/16/2009 12:29 AM
Trichlorofluoromethane	ND	0.26	0.50	µg/L	1	12/16/2009 12:29 AM
Vinyl chloride	ND	0.34	0.50	µg/L	1	12/16/2009 12:29 AM
Surr: 1,2-Dichloroethane-d4	106	0	70-130	%REC	1	12/16/2009 12:29 AM
Surr: 4-Bromofluorobenzene	107	0	70-130	%REC	1	12/16/2009 12:29 AM
Surr: Dibromofluoromethane	103	0	70-130	%REC	1	12/16/2009 12:29 AM
Surr: Toluene-d8	103	0	70-130	%REC	1	12/16/2009 12:29 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-7

**Lab Order:** 109135

**Collection Date:** 12/10/2009 11:45:00 AM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-008A

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS11_091215B	QC Batch: A09VW219	PrepDate:	Analyst: SLL
1,1,1,2-Tetrachloroethane	ND 0.45	0.50	µg/L 1 12/16/2009 12:50 AM
1,1,1-Trichloroethane	ND 0.27	0.50	µg/L 1 12/16/2009 12:50 AM
1,1,2,2-Tetrachloroethane	ND 0.35	0.50	µg/L 1 12/16/2009 12:50 AM
1,1,2-Trichloroethane	ND 0.43	0.50	µg/L 1 12/16/2009 12:50 AM
1,1-Dichloroethane	ND 0.17	0.50	µg/L 1 12/16/2009 12:50 AM
1,1-Dichloroethene	ND 0.19	0.50	µg/L 1 12/16/2009 12:50 AM
1,1-Dichloropropene	ND 0.30	0.50	µg/L 1 12/16/2009 12:50 AM
1,2,3-Trichlorobenzene	ND 0.48	0.50	µg/L 1 12/16/2009 12:50 AM
1,2,3-Trichloropropane	ND 0.24	0.50	µg/L 1 12/16/2009 12:50 AM
1,2,4-Trichlorobenzene	ND 0.43	0.50	µg/L 1 12/16/2009 12:50 AM
1,2,4-Trimethylbenzene	ND 0.44	0.50	µg/L 1 12/16/2009 12:50 AM
1,2-Dibromo-3-chloropropane	ND 0.35	0.50	µg/L 1 12/16/2009 12:50 AM
1,2-Dibromoethane	ND 0.37	0.50	µg/L 1 12/16/2009 12:50 AM
1,2-Dichlorobenzene	ND 0.27	0.50	µg/L 1 12/16/2009 12:50 AM
1,2-Dichloroethane	ND 0.16	0.50	µg/L 1 12/16/2009 12:50 AM
1,2-Dichloropropane	ND 0.20	0.50	µg/L 1 12/16/2009 12:50 AM
1,3,5-Trimethylbenzene	ND 0.36	0.50	µg/L 1 12/16/2009 12:50 AM
1,3-Dichlorobenzene	ND 0.28	0.50	µg/L 1 12/16/2009 12:50 AM
1,3-Dichloropropane	ND 0.32	0.50	µg/L 1 12/16/2009 12:50 AM
1,4-Dichlorobenzene	ND 0.24	0.50	µg/L 1 12/16/2009 12:50 AM
2,2-Dichloropropane	ND 0.32	0.50	µg/L 1 12/16/2009 12:50 AM
2-Chlorotoluene	ND 0.31	0.50	µg/L 1 12/16/2009 12:50 AM
4-Chlorotoluene	ND 0.23	0.50	µg/L 1 12/16/2009 12:50 AM
4-Isopropyltoluene	ND 0.36	0.50	µg/L 1 12/16/2009 12:50 AM
Benzene	ND 0.17	0.50	µg/L 1 12/16/2009 12:50 AM
Bromobenzene	ND 0.21	0.50	µg/L 1 12/16/2009 12:50 AM
Bromodichloromethane	ND 0.39	0.50	µg/L 1 12/16/2009 12:50 AM
Bromoform	ND 0.30	0.50	µg/L 1 12/16/2009 12:50 AM
Bromomethane	ND 0.32	0.50	µg/L 1 12/16/2009 12:50 AM
Carbon tetrachloride	ND 0.38	0.50	µg/L 1 12/16/2009 12:50 AM
Chlorobenzene	ND 0.28	0.50	µg/L 1 12/16/2009 12:50 AM
Chloroethane	ND 0.35	0.50	µg/L 1 12/16/2009 12:50 AM
Chloroform	ND 0.23	0.50	µg/L 1 12/16/2009 12:50 AM
Chloromethane	ND 0.32	0.50	µg/L 1 12/16/2009 12:50 AM
cis-1,2-Dichloroethene	ND 0.15	0.50	µg/L 1 12/16/2009 12:50 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit S Spike/Surrogate outside of limits due to matrix interference  
Results are wet unless otherwise specified DO Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-7

**Lab Order:** 109135

**Collection Date:** 12/10/2009 11:45:00 AM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-008A

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID:	MS11_091215B	QC Batch:	A09VW219	PrepDate:	Analyst:	SLL
cis-1,3-Dichloropropene	ND	0.29	0.50	µg/L	1	12/16/2009 12:50 AM
Dibromochloromethane	ND	0.40	0.50	µg/L	1	12/16/2009 12:50 AM
Dibromomethane	ND	0.19	0.50	µg/L	1	12/16/2009 12:50 AM
Dichlorodifluoromethane	ND	0.33	0.50	µg/L	1	12/16/2009 12:50 AM
Ethylbenzene	ND	0.22	0.50	µg/L	1	12/16/2009 12:50 AM
Hexachlorobutadiene	ND	0.28	0.50	µg/L	1	12/16/2009 12:50 AM
Isopropylbenzene	ND	0.30	0.50	µg/L	1	12/16/2009 12:50 AM
m,p-Xylene	ND	0.49	1.0	µg/L	1	12/16/2009 12:50 AM
Methylene chloride	ND	1.0	1.0	µg/L	1	12/16/2009 12:50 AM
n-Butylbenzene	ND	0.30	0.50	µg/L	1	12/16/2009 12:50 AM
n-Propylbenzene	ND	0.36	0.50	µg/L	1	12/16/2009 12:50 AM
Naphthalene	ND	0.35	0.50	µg/L	1	12/16/2009 12:50 AM
o-Xylene	ND	0.27	0.50	µg/L	1	12/16/2009 12:50 AM
sec-Butylbenzene	ND	0.33	0.50	µg/L	1	12/16/2009 12:50 AM
Styrene	ND	0.38	0.50	µg/L	1	12/16/2009 12:50 AM
tert-Butylbenzene	ND	0.35	0.50	µg/L	1	12/16/2009 12:50 AM
Tetrachloroethene	ND	0.19	0.50	µg/L	1	12/16/2009 12:50 AM
Toluene	ND	0.22	0.50	µg/L	1	12/16/2009 12:50 AM
trans-1,2-Dichloroethene	ND	0.22	0.50	µg/L	1	12/16/2009 12:50 AM
Trichloroethene	ND	0.15	0.50	µg/L	1	12/16/2009 12:50 AM
Trichlorofluoromethane	ND	0.26	0.50	µg/L	1	12/16/2009 12:50 AM
Vinyl chloride	ND	0.34	0.50	µg/L	1	12/16/2009 12:50 AM
Surr: 1,2-Dichloroethane-d4	106	0	70-130	%REC	1	12/16/2009 12:50 AM
Surr: 4-Bromofluorobenzene	105	0	70-130	%REC	1	12/16/2009 12:50 AM
Surr: Dibromofluoromethane	106	0	70-130	%REC	1	12/16/2009 12:50 AM
Surr: Toluene-d8	102	0	70-130	%REC	1	12/16/2009 12:50 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out



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Laboratories

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040



# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-5

**Lab Order:** 109135

**Collection Date:** 12/10/2009 12:40:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-009A

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS11_091215B	QC Batch: A09VW219	PrepDate:	Analyst: SLL			
1,1,1,2-Tetrachloroethane	ND	0.45	0.50	µg/L	1	12/16/2009 01:11 AM
1,1,1-Trichloroethane	ND	0.27	0.50	µg/L	1	12/16/2009 01:11 AM
1,1,2,2-Tetrachloroethane	ND	0.35	0.50	µg/L	1	12/16/2009 01:11 AM
1,1,2-Trichloroethane	ND	0.43	0.50	µg/L	1	12/16/2009 01:11 AM
1,1-Dichloroethane	0.58	0.17	0.50	µg/L	1	12/16/2009 01:11 AM
1,1-Dichloroethene	0.63	0.19	0.50	µg/L	1	12/16/2009 01:11 AM
1,1-Dichloropropene	ND	0.30	0.50	µg/L	1	12/16/2009 01:11 AM
1,2,3-Trichlorobenzene	ND	0.48	0.50	µg/L	1	12/16/2009 01:11 AM
1,2,3-Trichloropropane	ND	0.24	0.50	µg/L	1	12/16/2009 01:11 AM
1,2,4-Trichlorobenzene	ND	0.43	0.50	µg/L	1	12/16/2009 01:11 AM
1,2,4-Trimethylbenzene	ND	0.44	0.50	µg/L	1	12/16/2009 01:11 AM
1,2-Dibromo-3-chloropropane	ND	0.35	0.50	µg/L	1	12/16/2009 01:11 AM
1,2-Dibromoethane	ND	0.37	0.50	µg/L	1	12/16/2009 01:11 AM
1,2-Dichlorobenzene	ND	0.27	0.50	µg/L	1	12/16/2009 01:11 AM
1,2-Dichloroethane	ND	0.16	0.50	µg/L	1	12/16/2009 01:11 AM
1,2-Dichloropropane	ND	0.20	0.50	µg/L	1	12/16/2009 01:11 AM
1,3,5-Trimethylbenzene	ND	0.36	0.50	µg/L	1	12/16/2009 01:11 AM
1,3-Dichlorobenzene	ND	0.28	0.50	µg/L	1	12/16/2009 01:11 AM
1,3-Dichloropropane	ND	0.32	0.50	µg/L	1	12/16/2009 01:11 AM
1,4-Dichlorobenzene	ND	0.24	0.50	µg/L	1	12/16/2009 01:11 AM
2,2-Dichloropropane	ND	0.32	0.50	µg/L	1	12/16/2009 01:11 AM
2-Chlorotoluene	ND	0.31	0.50	µg/L	1	12/16/2009 01:11 AM
4-Chlorotoluene	ND	0.23	0.50	µg/L	1	12/16/2009 01:11 AM
4-Isopropyltoluene	ND	0.36	0.50	µg/L	1	12/16/2009 01:11 AM
Benzene	ND	0.17	0.50	µg/L	1	12/16/2009 01:11 AM
Bromobenzene	ND	0.21	0.50	µg/L	1	12/16/2009 01:11 AM
Bromodichloromethane	ND	0.39	0.50	µg/L	1	12/16/2009 01:11 AM
Bromoform	ND	0.30	0.50	µg/L	1	12/16/2009 01:11 AM
Bromomethane	ND	0.32	0.50	µg/L	1	12/16/2009 01:11 AM
Carbon tetrachloride	ND	0.38	0.50	µg/L	1	12/16/2009 01:11 AM
Chlorobenzene	ND	0.28	0.50	µg/L	1	12/16/2009 01:11 AM
Chloroethane	ND	0.35	0.50	µg/L	1	12/16/2009 01:11 AM
Chloroform	ND	0.23	0.50	µg/L	1	12/16/2009 01:11 AM
Chloromethane	ND	0.32	0.50	µg/L	1	12/16/2009 01:11 AM
cis-1,2-Dichloroethene	2.2	0.15	0.50	µg/L	1	12/16/2009 01:11 AM

**Qualifiers:** B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 Results are wet unless otherwise specified

E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike/Surrogate outside of limits due to matrix interference  
 DO Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-5

**Lab Order:** 109135

**Collection Date:** 12/10/2009 12:40:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-009A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID:	MS11_091215B	QC Batch:	A09VW219	PrepDate:	Analyst:	SLL
cis-1,3-Dichloropropene	ND	0.29	0.50	µg/L	1	12/16/2009 01:11 AM
Dibromochloromethane	ND	0.40	0.50	µg/L	1	12/16/2009 01:11 AM
Dibromomethane	ND	0.19	0.50	µg/L	1	12/16/2009 01:11 AM
Dichlorodifluoromethane	ND	0.33	0.50	µg/L	1	12/16/2009 01:11 AM
Ethylbenzene	ND	0.22	0.50	µg/L	1	12/16/2009 01:11 AM
Hexachlorobutadiene	ND	0.28	0.50	µg/L	1	12/16/2009 01:11 AM
Isopropylbenzene	ND	0.30	0.50	µg/L	1	12/16/2009 01:11 AM
m,p-Xylene	ND	0.49	1.0	µg/L	1	12/16/2009 01:11 AM
Methylene chloride	ND	1.0	1.0	µg/L	1	12/16/2009 01:11 AM
n-Butylbenzene	ND	0.30	0.50	µg/L	1	12/16/2009 01:11 AM
n-Propylbenzene	ND	0.36	0.50	µg/L	1	12/16/2009 01:11 AM
Naphthalene	ND	0.35	0.50	µg/L	1	12/16/2009 01:11 AM
o-Xylene	ND	0.27	0.50	µg/L	1	12/16/2009 01:11 AM
sec-Butylbenzene	ND	0.33	0.50	µg/L	1	12/16/2009 01:11 AM
Styrene	ND	0.38	0.50	µg/L	1	12/16/2009 01:11 AM
tert-Butylbenzene	ND	0.35	0.50	µg/L	1	12/16/2009 01:11 AM
Tetrachloroethene	ND	0.19	0.50	µg/L	1	12/16/2009 01:11 AM
Toluene	ND	0.22	0.50	µg/L	1	12/16/2009 01:11 AM
trans-1,2-Dichloroethene	0.67	0.22	0.50	µg/L	1	12/16/2009 01:11 AM
Trichloroethene	ND	0.15	0.50	µg/L	1	12/16/2009 01:11 AM
Trichlorofluoromethane	ND	0.26	0.50	µg/L	1	12/16/2009 01:11 AM
Vinyl chloride	ND	0.34	0.50	µg/L	1	12/16/2009 01:11 AM
Surr: 1,2-Dichloroethane-d4	111	0	70-130	%REC	1	12/16/2009 01:11 AM
Surr: 4-Bromofluorobenzene	107	0	70-130	%REC	1	12/16/2009 01:11 AM
Surr: Dibromofluoromethane	110	0	70-130	%REC	1	12/16/2009 01:11 AM
Surr: Toluene-d8	105	0	70-130	%REC	1	12/16/2009 01:11 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-2R

**Lab Order:** 109135

**Collection Date:** 12/10/2009 1:30:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-010A

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS11_091215B	QC Batch: A09VW219	PrepDate:	Analyst: SLL			
1,1,1,2-Tetrachloroethane	ND	0.45	0.50	µg/L	1	12/16/2009 01:33 AM
1,1,1-Trichloroethane	ND	0.27	0.50	µg/L	1	12/16/2009 01:33 AM
1,1,2,2-Tetrachloroethane	ND	0.35	0.50	µg/L	1	12/16/2009 01:33 AM
1,1,2-Trichloroethane	ND	0.43	0.50	µg/L	1	12/16/2009 01:33 AM
1,1-Dichloroethane	ND	0.17	0.50	µg/L	1	12/16/2009 01:33 AM
1,1-Dichloroethene	ND	0.19	0.50	µg/L	1	12/16/2009 01:33 AM
1,1-Dichloropropene	ND	0.30	0.50	µg/L	1	12/16/2009 01:33 AM
1,2,3-Trichlorobenzene	ND	0.48	0.50	µg/L	1	12/16/2009 01:33 AM
1,2,3-Trichloropropane	ND	0.24	0.50	µg/L	1	12/16/2009 01:33 AM
1,2,4-Trichlorobenzene	ND	0.43	0.50	µg/L	1	12/16/2009 01:33 AM
1,2,4-Trimethylbenzene	ND	0.44	0.50	µg/L	1	12/16/2009 01:33 AM
1,2-Dibromo-3-chloropropane	ND	0.35	0.50	µg/L	1	12/16/2009 01:33 AM
1,2-Dibromoethane	ND	0.37	0.50	µg/L	1	12/16/2009 01:33 AM
1,2-Dichlorobenzene	ND	0.27	0.50	µg/L	1	12/16/2009 01:33 AM
1,2-Dichloroethane	ND	0.16	0.50	µg/L	1	12/16/2009 01:33 AM
1,2-Dichloropropane	ND	0.20	0.50	µg/L	1	12/16/2009 01:33 AM
1,3,5-Trimethylbenzene	ND	0.36	0.50	µg/L	1	12/16/2009 01:33 AM
1,3-Dichlorobenzene	ND	0.28	0.50	µg/L	1	12/16/2009 01:33 AM
1,3-Dichloropropane	ND	0.32	0.50	µg/L	1	12/16/2009 01:33 AM
1,4-Dichlorobenzene	ND	0.24	0.50	µg/L	1	12/16/2009 01:33 AM
2,2-Dichloropropane	ND	0.32	0.50	µg/L	1	12/16/2009 01:33 AM
2-Chlorotoluene	ND	0.31	0.50	µg/L	1	12/16/2009 01:33 AM
4-Chlorotoluene	ND	0.23	0.50	µg/L	1	12/16/2009 01:33 AM
4-Isopropyltoluene	ND	0.36	0.50	µg/L	1	12/16/2009 01:33 AM
Benzene	ND	0.17	0.50	µg/L	1	12/16/2009 01:33 AM
Bromobenzene	ND	0.21	0.50	µg/L	1	12/16/2009 01:33 AM
Bromodichloromethane	ND	0.39	0.50	µg/L	1	12/16/2009 01:33 AM
Bromoform	ND	0.30	0.50	µg/L	1	12/16/2009 01:33 AM
Bromomethane	ND	0.32	0.50	µg/L	1	12/16/2009 01:33 AM
Carbon tetrachloride	ND	0.38	0.50	µg/L	1	12/16/2009 01:33 AM
Chlorobenzene	ND	0.28	0.50	µg/L	1	12/16/2009 01:33 AM
Chloroethane	ND	0.35	0.50	µg/L	1	12/16/2009 01:33 AM
Chloroform	ND	0.23	0.50	µg/L	1	12/16/2009 01:33 AM
Chloromethane	ND	0.32	0.50	µg/L	1	12/16/2009 01:33 AM
cis-1,2-Dichloroethene	ND	0.15	0.50	µg/L	1	12/16/2009 01:33 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit S Spike/Surrogate outside of limits due to matrix interference  
Results are wet unless otherwise specified DO Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-2R

**Lab Order:** 109135

**Collection Date:** 12/10/2009 1:30:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-010A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID:	MS11_091215B	QC Batch:	A09VW219	PrepDate:	Analyst:	SLL
cis-1,3-Dichloropropene	ND	0.29	0.50	µg/L	1	12/16/2009 01:33 AM
Dibromochloromethane	ND	0.40	0.50	µg/L	1	12/16/2009 01:33 AM
Dibromomethane	ND	0.19	0.50	µg/L	1	12/16/2009 01:33 AM
Dichlorodifluoromethane	ND	0.33	0.50	µg/L	1	12/16/2009 01:33 AM
Ethylbenzene	ND	0.22	0.50	µg/L	1	12/16/2009 01:33 AM
Hexachlorobutadiene	ND	0.28	0.50	µg/L	1	12/16/2009 01:33 AM
Isopropylbenzene	ND	0.30	0.50	µg/L	1	12/16/2009 01:33 AM
m,p-Xylene	ND	0.49	1.0	µg/L	1	12/16/2009 01:33 AM
Methylene chloride	ND	1.0	1.0	µg/L	1	12/16/2009 01:33 AM
n-Butylbenzene	ND	0.30	0.50	µg/L	1	12/16/2009 01:33 AM
n-Propylbenzene	ND	0.36	0.50	µg/L	1	12/16/2009 01:33 AM
Naphthalene	ND	0.35	0.50	µg/L	1	12/16/2009 01:33 AM
o-Xylene	ND	0.27	0.50	µg/L	1	12/16/2009 01:33 AM
sec-Butylbenzene	ND	0.33	0.50	µg/L	1	12/16/2009 01:33 AM
Styrene	ND	0.38	0.50	µg/L	1	12/16/2009 01:33 AM
tert-Butylbenzene	ND	0.35	0.50	µg/L	1	12/16/2009 01:33 AM
Tetrachloroethene	ND	0.19	0.50	µg/L	1	12/16/2009 01:33 AM
Toluene	ND	0.22	0.50	µg/L	1	12/16/2009 01:33 AM
trans-1,2-Dichloroethene	ND	0.22	0.50	µg/L	1	12/16/2009 01:33 AM
Trichloroethene	ND	0.15	0.50	µg/L	1	12/16/2009 01:33 AM
Trichlorofluoromethane	ND	0.26	0.50	µg/L	1	12/16/2009 01:33 AM
Vinyl chloride	ND	0.34	0.50	µg/L	1	12/16/2009 01:33 AM
Surr: 1,2-Dichloroethane-d4	114	0	70-130	%REC	1	12/16/2009 01:33 AM
Surr: 4-Bromofluorobenzene	111	0	70-130	%REC	1	12/16/2009 01:33 AM
Surr: Dibromofluoromethane	113	0	70-130	%REC	1	12/16/2009 01:33 AM
Surr: Toluene-d8	109	0	70-130	%REC	1	12/16/2009 01:33 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** Equipment Blank

**Lab Order:** 109135

**Collection Date:** 12/10/2009 1:50:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** WATER

**Lab ID:** 109135-011A

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS11_091215B	QC Batch: A09VW219	PrepDate:	Analyst: SLL			
1,1,1,2-Tetrachloroethane	ND	0.45	0.50	µg/L	1	12/16/2009 12:08 AM
1,1,1-Trichloroethane	ND	0.27	0.50	µg/L	1	12/16/2009 12:08 AM
1,1,2,2-Tetrachloroethane	ND	0.35	0.50	µg/L	1	12/16/2009 12:08 AM
1,1,2-Trichloroethane	ND	0.43	0.50	µg/L	1	12/16/2009 12:08 AM
1,1-Dichloroethane	ND	0.17	0.50	µg/L	1	12/16/2009 12:08 AM
1,1-Dichloroethene	ND	0.19	0.50	µg/L	1	12/16/2009 12:08 AM
1,1-Dichloropropene	ND	0.30	0.50	µg/L	1	12/16/2009 12:08 AM
1,2,3-Trichlorobenzene	ND	0.48	0.50	µg/L	1	12/16/2009 12:08 AM
1,2,3-Trichloropropane	ND	0.24	0.50	µg/L	1	12/16/2009 12:08 AM
1,2,4-Trichlorobenzene	ND	0.43	0.50	µg/L	1	12/16/2009 12:08 AM
1,2,4-Trimethylbenzene	ND	0.44	0.50	µg/L	1	12/16/2009 12:08 AM
1,2-Dibromo-3-chloropropane	ND	0.35	0.50	µg/L	1	12/16/2009 12:08 AM
1,2-Dibromoethane	ND	0.37	0.50	µg/L	1	12/16/2009 12:08 AM
1,2-Dichlorobenzene	ND	0.27	0.50	µg/L	1	12/16/2009 12:08 AM
1,2-Dichloroethane	ND	0.16	0.50	µg/L	1	12/16/2009 12:08 AM
1,2-Dichloropropane	ND	0.20	0.50	µg/L	1	12/16/2009 12:08 AM
1,3,5-Trimethylbenzene	ND	0.36	0.50	µg/L	1	12/16/2009 12:08 AM
1,3-Dichlorobenzene	ND	0.28	0.50	µg/L	1	12/16/2009 12:08 AM
1,3-Dichloropropane	ND	0.32	0.50	µg/L	1	12/16/2009 12:08 AM
1,4-Dichlorobenzene	ND	0.24	0.50	µg/L	1	12/16/2009 12:08 AM
2,2-Dichloropropane	ND	0.32	0.50	µg/L	1	12/16/2009 12:08 AM
2-Chlorotoluene	ND	0.31	0.50	µg/L	1	12/16/2009 12:08 AM
4-Chlorotoluene	ND	0.23	0.50	µg/L	1	12/16/2009 12:08 AM
4-Isopropyltoluene	ND	0.36	0.50	µg/L	1	12/16/2009 12:08 AM
Benzene	ND	0.17	0.50	µg/L	1	12/16/2009 12:08 AM
Bromobenzene	ND	0.21	0.50	µg/L	1	12/16/2009 12:08 AM
Bromodichloromethane	ND	0.39	0.50	µg/L	1	12/16/2009 12:08 AM
Bromoform	ND	0.30	0.50	µg/L	1	12/16/2009 12:08 AM
Bromomethane	ND	0.32	0.50	µg/L	1	12/16/2009 12:08 AM
Carbon tetrachloride	ND	0.38	0.50	µg/L	1	12/16/2009 12:08 AM
Chlorobenzene	ND	0.28	0.50	µg/L	1	12/16/2009 12:08 AM
Chloroethane	ND	0.35	0.50	µg/L	1	12/16/2009 12:08 AM
Chloroform	ND	0.23	0.50	µg/L	1	12/16/2009 12:08 AM
Chloromethane	ND	0.32	0.50	µg/L	1	12/16/2009 12:08 AM
cis-1,2-Dichloroethene	ND	0.15	0.50	µg/L	1	12/16/2009 12:08 AM

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** Equipment Blank

**Lab Order:** 109135

**Collection Date:** 12/10/2009 1:50:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** WATER

**Lab ID:** 109135-011A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID:	MS11_091215B	QC Batch:	A09VW219	PrepDate:	Analyst:	SLL
cis-1,3-Dichloropropene	ND	0.29	0.50	µg/L	1	12/16/2009 12:08 AM
Dibromochloromethane	ND	0.40	0.50	µg/L	1	12/16/2009 12:08 AM
Dibromomethane	ND	0.19	0.50	µg/L	1	12/16/2009 12:08 AM
Dichlorodifluoromethane	ND	0.33	0.50	µg/L	1	12/16/2009 12:08 AM
Ethylbenzene	ND	0.22	0.50	µg/L	1	12/16/2009 12:08 AM
Hexachlorobutadiene	ND	0.28	0.50	µg/L	1	12/16/2009 12:08 AM
Isopropylbenzene	ND	0.30	0.50	µg/L	1	12/16/2009 12:08 AM
m,p-Xylene	ND	0.49	1.0	µg/L	1	12/16/2009 12:08 AM
Methylene chloride	ND	1.0	1.0	µg/L	1	12/16/2009 12:08 AM
n-Butylbenzene	ND	0.30	0.50	µg/L	1	12/16/2009 12:08 AM
n-Propylbenzene	ND	0.36	0.50	µg/L	1	12/16/2009 12:08 AM
Naphthalene	ND	0.35	0.50	µg/L	1	12/16/2009 12:08 AM
o-Xylene	ND	0.27	0.50	µg/L	1	12/16/2009 12:08 AM
sec-Butylbenzene	ND	0.33	0.50	µg/L	1	12/16/2009 12:08 AM
Styrene	ND	0.38	0.50	µg/L	1	12/16/2009 12:08 AM
tert-Butylbenzene	ND	0.35	0.50	µg/L	1	12/16/2009 12:08 AM
Tetrachloroethene	ND	0.19	0.50	µg/L	1	12/16/2009 12:08 AM
Toluene	ND	0.22	0.50	µg/L	1	12/16/2009 12:08 AM
trans-1,2-Dichloroethene	ND	0.22	0.50	µg/L	1	12/16/2009 12:08 AM
Trichloroethene	ND	0.15	0.50	µg/L	1	12/16/2009 12:08 AM
Trichlorofluoromethane	ND	0.26	0.50	µg/L	1	12/16/2009 12:08 AM
Vinyl chloride	ND	0.34	0.50	µg/L	1	12/16/2009 12:08 AM
Surr: 1,2-Dichloroethane-d4	110	0	70-130	%REC	1	12/16/2009 12:08 AM
Surr: 4-Bromofluorobenzene	106	0	70-130	%REC	1	12/16/2009 12:08 AM
Surr: Dibromofluoromethane	109	0	70-130	%REC	1	12/16/2009 12:08 AM
Surr: Toluene-d8	102	0	70-130	%REC	1	12/16/2009 12:08 AM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** Trip Blank

**Lab Order:** 109135

**Collection Date:**

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** WATER

**Lab ID:** 109135-012A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS2_091215A	QC Batch: Q09VW247	PrepDate:	Analyst: SLL			
1,1,1,2-Tetrachloroethane	ND	0.45	0.50	µg/L	1	12/15/2009 04:25 PM
1,1,1-Trichloroethane	ND	0.27	0.50	µg/L	1	12/15/2009 04:25 PM
1,1,2,2-Tetrachloroethane	ND	0.35	0.50	µg/L	1	12/15/2009 04:25 PM
1,1,2-Trichloroethane	ND	0.43	0.50	µg/L	1	12/15/2009 04:25 PM
1,1-Dichloroethane	ND	0.17	0.50	µg/L	1	12/15/2009 04:25 PM
1,1-Dichloroethene	ND	0.19	0.50	µg/L	1	12/15/2009 04:25 PM
1,1-Dichloropropene	ND	0.30	0.50	µg/L	1	12/15/2009 04:25 PM
1,2,3-Trichlorobenzene	ND	0.48	0.50	µg/L	1	12/15/2009 04:25 PM
1,2,3-Trichloropropane	ND	0.24	0.50	µg/L	1	12/15/2009 04:25 PM
1,2,4-Trichlorobenzene	ND	0.43	0.50	µg/L	1	12/15/2009 04:25 PM
1,2,4-Trimethylbenzene	ND	0.44	0.50	µg/L	1	12/15/2009 04:25 PM
1,2-Dibromo-3-chloropropane	ND	0.35	0.50	µg/L	1	12/15/2009 04:25 PM
1,2-Dibromoethane	ND	0.37	0.50	µg/L	1	12/15/2009 04:25 PM
1,2-Dichlorobenzene	ND	0.27	0.50	µg/L	1	12/15/2009 04:25 PM
1,2-Dichloroethane	ND	0.16	0.50	µg/L	1	12/15/2009 04:25 PM
1,2-Dichloropropane	ND	0.20	0.50	µg/L	1	12/15/2009 04:25 PM
1,3,5-Trimethylbenzene	ND	0.36	0.50	µg/L	1	12/15/2009 04:25 PM
1,3-Dichlorobenzene	ND	0.28	0.50	µg/L	1	12/15/2009 04:25 PM
1,3-Dichloropropane	ND	0.32	0.50	µg/L	1	12/15/2009 04:25 PM
1,4-Dichlorobenzene	ND	0.24	0.50	µg/L	1	12/15/2009 04:25 PM
2,2-Dichloropropane	ND	0.32	0.50	µg/L	1	12/15/2009 04:25 PM
2-Chlorotoluene	ND	0.31	0.50	µg/L	1	12/15/2009 04:25 PM
4-Chlorotoluene	ND	0.23	0.50	µg/L	1	12/15/2009 04:25 PM
4-Isopropyltoluene	ND	0.36	0.50	µg/L	1	12/15/2009 04:25 PM
Benzene	ND	0.17	0.50	µg/L	1	12/15/2009 04:25 PM
Bromobenzene	ND	0.21	0.50	µg/L	1	12/15/2009 04:25 PM
Bromodichloromethane	ND	0.39	0.50	µg/L	1	12/15/2009 04:25 PM
Bromoform	ND	0.30	0.50	µg/L	1	12/15/2009 04:25 PM
Bromomethane	ND	0.32	0.50	µg/L	1	12/15/2009 04:25 PM
Carbon tetrachloride	ND	0.38	0.50	µg/L	1	12/15/2009 04:25 PM
Chlorobenzene	ND	0.28	0.50	µg/L	1	12/15/2009 04:25 PM
Chloroethane	ND	0.35	0.50	µg/L	1	12/15/2009 04:25 PM
Chloroform	ND	0.23	0.50	µg/L	1	12/15/2009 04:25 PM
Chloromethane	ND	0.32	0.50	µg/L	1	12/15/2009 04:25 PM
cis-1,2-Dichloroethene	ND	0.15	0.50	µg/L	1	12/15/2009 04:25 PM

**Qualifiers:** B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
Results are wet unless otherwise specified  
E Value above quantitation range  
J Analyte detected below quantitation limits  
S Spike/Surrogate outside of limits due to matrix interference  
DO Surrogate Diluted Out



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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** Trip Blank

**Lab Order:** 109135

**Collection Date:**

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** WATER

**Lab ID:** 109135-012A

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS2_091215A	QC Batch: Q09VW247	PrepDate:	Analyst: SLL			
cis-1,3-Dichloropropene	ND	0.29	0.50	µg/L	1	12/15/2009 04:25 PM
Dibromochloromethane	ND	0.40	0.50	µg/L	1	12/15/2009 04:25 PM
Dibromomethane	ND	0.19	0.50	µg/L	1	12/15/2009 04:25 PM
Dichlorodifluoromethane	ND	0.33	0.50	µg/L	1	12/15/2009 04:25 PM
Ethylbenzene	ND	0.22	0.50	µg/L	1	12/15/2009 04:25 PM
Hexachlorobutadiene	ND	0.28	0.50	µg/L	1	12/15/2009 04:25 PM
Isopropylbenzene	ND	0.30	0.50	µg/L	1	12/15/2009 04:25 PM
m,p-Xylene	ND	0.49	1.0	µg/L	1	12/15/2009 04:25 PM
Methylene chloride	ND	1.0	1.0	µg/L	1	12/15/2009 04:25 PM
n-Butylbenzene	ND	0.30	0.50	µg/L	1	12/15/2009 04:25 PM
n-Propylbenzene	ND	0.36	0.50	µg/L	1	12/15/2009 04:25 PM
Naphthalene	ND	0.35	0.50	µg/L	1	12/15/2009 04:25 PM
o-Xylene	ND	0.27	0.50	µg/L	1	12/15/2009 04:25 PM
sec-Butylbenzene	ND	0.33	0.50	µg/L	1	12/15/2009 04:25 PM
Styrene	ND	0.38	0.50	µg/L	1	12/15/2009 04:25 PM
tert-Butylbenzene	ND	0.35	0.50	µg/L	1	12/15/2009 04:25 PM
Tetrachloroethene	ND	0.19	0.50	µg/L	1	12/15/2009 04:25 PM
Toluene	ND	0.22	0.50	µg/L	1	12/15/2009 04:25 PM
trans-1,2-Dichloroethene	ND	0.22	0.50	µg/L	1	12/15/2009 04:25 PM
Trichloroethene	ND	0.15	0.50	µg/L	1	12/15/2009 04:25 PM
Trichlorofluoromethane	ND	0.26	0.50	µg/L	1	12/15/2009 04:25 PM
Vinyl chloride	ND	0.34	0.50	µg/L	1	12/15/2009 04:25 PM
Surr: 1,2-Dichloroethane-d4	103	0	70-130	%REC	1	12/15/2009 04:25 PM
Surr: 4-Bromofluorobenzene	95.1	0	70-130	%REC	1	12/15/2009 04:25 PM
Surr: Dibromofluoromethane	102	0	70-130	%REC	1	12/15/2009 04:25 PM
Surr: Toluene-d8	97.4	0	70-130	%REC	1	12/15/2009 04:25 PM

Qualifiers:	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	S	Spike/Surrogate outside of limits due to matrix interference
		Results are wet unless otherwise specified	DO	Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-9

**Lab Order:** 109135

**Collection Date:** 12/9/2009 11:31:00 AM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-001B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC6_091214A	QC Batch: I09VW0237	PrepDate:	Analyst: <b>BD</b>		
GRO	2.7	0.050	mg/L	1	12/14/2009 06:20 PM
Surr: Bromofluorobenzene (FID)	96.8	71-130	%REC	1	12/14/2009 06:20 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



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**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-9

**Lab Order:** 109135

**Collection Date:** 12/9/2009 11:31:00 AM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-001C

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>SILICA GEL CLEANUP DRO BY GC-FID</b>						
	<b>EPA 3510C</b>		<b>EPA 8015B</b>			
RunID: GC16_091218A	QC Batch: 60546				PrepDate: 12/16/2009	Analyst: <b>CBR</b>
DRO	0.15	0.050		mg/L	1	12/18/2009 06:36 PM
Surr: p-Terphenyl	69.0	35-131		%REC	1	12/18/2009 06:36 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



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**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-4

**Lab Order:** 109135

**Collection Date:** 12/9/2009 1:20:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-002B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC6_091214A	QC Batch: I09VW0237	PrepDate:	Analyst: <b>BD</b>		
GRO	0.070	0.050	mg/L	1	12/14/2009 03:10 PM
Surr: Bromofluorobenzene (FID)	92.6	71-130	%REC	1	12/14/2009 03:10 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



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**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-4

**Lab Order:** 109135

**Collection Date:** 12/9/2009 1:20:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-002C

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>SILICA GEL CLEANUP DRO BY GC-FID</b>						
	<b>EPA 3510C</b>		<b>EPA 8015B</b>			
RunID: GC16_091218A	QC Batch: 60546				PrepDate: 12/16/2009	Analyst: <b>CBR</b>
DRO	ND	0.050		mg/L	1	12/18/2009 06:45 PM
Surr: p-Terphenyl	51.6	35-131		%REC	1	12/18/2009 06:45 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



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**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-6

**Lab Order:** 109135

**Collection Date:** 12/9/2009 2:25:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-003B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC6_091214A	QC Batch: I09VW0237	PrepDate:	Analyst: <b>BD</b>		
GRO	ND	0.050	mg/L	1	12/14/2009 03:31 PM
Surr: Bromofluorobenzene (FID)	90.1	71-130	%REC	1	12/14/2009 03:31 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



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# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-6

**Lab Order:** 109135

**Collection Date:** 12/9/2009 2:25:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-003C

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**SILICA GEL CLEANUP DRO BY GC-FID**

**EPA 3510C**

**EPA 8015B**

RunID: GC16_091218A	QC Batch: 60546	PrepDate: 12/16/2009	Analyst: <b>CBR</b>			
DRO	ND	0.050	mg/L	1	12/18/2009 06:54 PM	
Surr: p-Terphenyl	61.9	35-131	%REC	1	12/18/2009 06:54 PM	

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



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**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-3

**Lab Order:** 109135

**Collection Date:** 12/9/2009 3:30:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-004B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC6_091214A	QC Batch: I09VW0237	PrepDate:	Analyst: <b>BD</b>		
GRO	0.051	0.050	mg/L	1	12/14/2009 05:17 PM
Surr: Bromofluorobenzene (FID)	89.3	71-130	%REC	1	12/14/2009 05:17 PM

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-3

**Lab Order:** 109135

**Collection Date:** 12/9/2009 3:30:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-004C

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**SILICA GEL CLEANUP DRO BY GC-FID**

**EPA 3510C**

**EPA 8015B**

RunID: GC16_091218A	QC Batch: 60546	PrepDate: 12/16/2009	Analyst: <b>CBR</b>			
DRO	ND	0.050	mg/L	1	12/18/2009 07:03 PM	
Surr: p-Terphenyl	58.8	35-131	%REC	1	12/18/2009 07:03 PM	

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



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**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-3

**Lab Order:** 109135

**Collection Date:** 12/9/2009 3:30:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-004D

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**DISSOLVED GASES IN WATER**

**RSK175**

RunID: GC18\_091216A

QC Batch: Z09A011

PrepDate:

Analyst: **BB**

Ethane	4.8	2.0		ug/L	1	12/16/2009 01:05 PM
Ethylene	11	3.0		ug/L	1	12/16/2009 01:05 PM
Methane	7400	50		ug/L	50	12/16/2009 01:17 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-3

**Lab Order:** 109135

**Collection Date:** 12/9/2009 3:30:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-004E

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>TOTAL ORGANIC CARBON</b>						
				<b>SM5310B</b>		
RunID: TOC1_091215A	QC Batch: R116085			PrepDate:		Analyst: <b>JSD</b>
Organic Carbon, Total	120	6.0		mg/L	2	12/15/2009 11:39 AM

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-8

**Lab Order:** 109135

**Collection Date:** 12/9/2009 4:50:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-005B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC6_091214A	QC Batch: I09VW0237	PrepDate:	Analyst: <b>BD</b>		
GRO	0.18	0.050	mg/L	1	12/14/2009 05:38 PM
Surr: Bromofluorobenzene (FID)	86.4	71-130	%REC	1	12/14/2009 05:38 PM

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-8

**Lab Order:** 109135

**Collection Date:** 12/9/2009 4:50:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-005C

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>SILICA GEL CLEANUP DRO BY GC-FID</b>						
	<b>EPA 3510C</b>		<b>EPA 8015B</b>			
RunID: GC16_091218A	QC Batch: 60546			PrepDate: 12/16/2009		Analyst: <b>CBR</b>
DRO	ND	0.050		mg/L	1	12/18/2009 07:12 PM
Surr: p-Terphenyl	67.5	35-131		%REC	1	12/18/2009 07:12 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



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**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-8

**Lab Order:** 109135

**Collection Date:** 12/9/2009 4:50:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-005D

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**DISSOLVED GASES IN WATER**

**RSK175**

RunID: GC18\_091216A

QC Batch: Z09A011

PrepDate:

Analyst: **BB**

Ethane	14	2.0		ug/L	1	12/16/2009 01:32 PM
Ethylene	180	3.0		ug/L	1	12/16/2009 01:32 PM
Methane	5600	10		ug/L	10	12/16/2009 01:51 PM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		



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3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-8

**Lab Order:** 109135

**Collection Date:** 12/9/2009 4:50:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-005E

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>TOTAL ORGANIC CARBON</b>						
						<b>SM5310B</b>
RunID: TOC1_091216B	QC Batch: R116160				PrepDate:	Analyst: <b>JSD</b>
Organic Carbon, Total	170	15		mg/L	5	12/17/2009 04:29 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-98

**Lab Order:** 109135

**Collection Date:** 12/9/2009 4:50:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-006B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC6_091214A	QC Batch: I09VW0237	PrepDate:	Analyst: <b>BD</b>		
GRO	0.19	0.050	mg/L	1	12/14/2009 05:59 PM
Surr: Bromofluorobenzene (FID)	88.4	71-130	%REC	1	12/14/2009 05:59 PM

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



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**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-98

**Lab Order:** 109135

**Collection Date:** 12/9/2009 4:50:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-006C

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>SILICA GEL CLEANUP DRO BY GC-FID</b>						
	<b>EPA 3510C</b>		<b>EPA 8015B</b>			
RunID: GC16_091218A	QC Batch: 60546				PrepDate: 12/16/2009	Analyst: <b>CBR</b>
DRO	ND	0.050		mg/L	1	12/18/2009 07:22 PM
Surr: p-Terphenyl	67.6	35-131		%REC	1	12/18/2009 07:22 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		





**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-1

**Lab Order:** 109135

**Collection Date:** 12/10/2009 10:30:00 AM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-007B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC6_091214A	QC Batch: I09VW0237	PrepDate:	Analyst: <b>BD</b>		
GRO	ND	0.050	mg/L	1	12/14/2009 03:53 PM
Surr: Bromofluorobenzene (FID)	88.5	71-130	%REC	1	12/14/2009 03:53 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-1

**Lab Order:** 109135

**Collection Date:** 12/10/2009 10:30:00 AM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-007C

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>SILICA GEL CLEANUP DRO BY GC-FID</b>						
	<b>EPA 3510C</b>		<b>EPA 8015B</b>			
RunID: GC16_091218A	QC Batch: 60546				PrepDate: 12/16/2009	Analyst: <b>CBR</b>
DRO	ND	0.050		mg/L	1	12/18/2009 07:31 PM
Surr: p-Terphenyl	61.7	35-131		%REC	1	12/18/2009 07:31 PM

- Qualifiers:**
- B Analyte detected in the associated Method Blank
  - H Holding times for preparation or analysis exceeded
  - S Spike/Surrogate outside of limits due to matrix interference
  - DO Surrogate Diluted Out
  - E Value above quantitation range
  - ND Not Detected at the Reporting Limit
  - Results are wet unless otherwise specified



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-7

**Lab Order:** 109135

**Collection Date:** 12/10/2009 11:45:00 AM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-008B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC6_091214A	QC Batch: I09VW0237	PrepDate:	Analyst: <b>BD</b>		
GRO	ND	0.050	mg/L	1	12/14/2009 04:14 PM
Surr: Bromofluorobenzene (FID)	89.6	71-130	%REC	1	12/14/2009 04:14 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-7

**Lab Order:** 109135

**Collection Date:** 12/10/2009 11:45:00 AM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-008C

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>SILICA GEL CLEANUP DRO BY GC-FID</b>						
	<b>EPA 3510C</b>		<b>EPA 8015B</b>			
RunID: GC16_091218A	QC Batch: 60546				PrepDate: 12/16/2009	Analyst: <b>CBR</b>
DRO	ND	0.050		mg/L	1	12/18/2009 07:41 PM
Surr: p-Terphenyl	72.4	35-131		%REC	1	12/18/2009 07:41 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-5

**Lab Order:** 109135

**Collection Date:** 12/10/2009 12:40:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-009B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC6_091214A	QC Batch: I09VW0237	PrepDate:	Analyst: <b>BD</b>		
GRO	0.053	0.050	mg/L	1	12/14/2009 04:35 PM
Surr: Bromofluorobenzene (FID)	94.5	71-130	%REC	1	12/14/2009 04:35 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-5

**Lab Order:** 109135

**Collection Date:** 12/10/2009 12:40:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-009C

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**SILICA GEL CLEANUP DRO BY GC-FID**

**EPA 3510C**

**EPA 8015B**

RunID: GC16_091218A	QC Batch: 60546	PrepDate: 12/16/2009	Analyst: <b>CBR</b>			
DRO	ND	0.050	mg/L	1	12/18/2009 07:50 PM	
Surr: p-Terphenyl	60.4	35-131	%REC	1	12/18/2009 07:50 PM	

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-2R

**Lab Order:** 109135

**Collection Date:** 12/10/2009 1:30:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-010B

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC6_091214A	QC Batch: I09VW0237	PrepDate:	Analyst: <b>BD</b>		
GRO	0.099	0.050	mg/L	1	12/14/2009 04:56 PM
Surr: Bromofluorobenzene (FID)	94.5	71-130	%REC	1	12/14/2009 04:56 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 21-Dec-09

**CLIENT:** The Source Group Inc.

**Client Sample ID:** MW-2R

**Lab Order:** 109135

**Collection Date:** 12/10/2009 1:30:00 PM

**Project:** AB&I Foundry, 01-ABI.001

**Matrix:** GROUNDWATER

**Lab ID:** 109135-010C

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>SILICA GEL CLEANUP DRO BY GC-FID</b>						
	<b>EPA 3510C</b>		<b>EPA 8015B</b>			
RunID: GC16_091218A	QC Batch: 60546				PrepDate: 12/16/2009	Analyst: <b>CBR</b>
DRO	ND	0.050		mg/L	1	12/18/2009 08:00 PM
Surr: p-Terphenyl	72.9	35-131		%REC	1	12/18/2009 08:00 PM

**Qualifiers:**

B	Analyte detected in the associated Method Blank	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		





**CLIENT:** The Source Group Inc.  
**Work Order:** 109135  
**Project:** AB&I Foundry, 01-ABI.001

**ANALYTICAL QC SUMMARY REPORT**

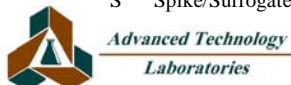
**TestCode: 8260\_WP\_LL**

Sample ID: <b>A091215LCS2</b>	SampType: <b>LCS</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116141</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>A09VW219</b>	TestNo: <b>EPA 8260B</b>	Analysis Date: <b>12/15/2009</b>	SeqNo: <b>1843277</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18.970	0.50	20.00	0	94.8	70	130				
Benzene	36.160	0.50	40.00	0	90.4	70	130				
Chlorobenzene	18.930	0.50	20.00	0	94.6	70	130				
MTBE	20.240	0.50	20.00	0	101	70	130				
Toluene	37.300	0.50	40.00	0	93.3	70	130				
Trichloroethene	19.050	0.50	20.00	0	95.2	70	130				
Surr: 1,2-Dichloroethane-d4	27.040		25.00		108	70	130				
Surr: 4-Bromofluorobenzene	26.440		25.00		106	70	130				
Surr: Dibromofluoromethane	25.920		25.00		104	70	130				
Surr: Toluene-d8	25.250		25.00		101	70	130				

Sample ID: <b>A091215MB4MS</b>	SampType: <b>MS</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116141</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>A09VW219</b>	TestNo: <b>EPA 8260B</b>	Analysis Date: <b>12/15/2009</b>	SeqNo: <b>1843278</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19.810	0.50	20.00	0	99.0	70	130				
Benzene	36.580	0.50	40.00	0	91.4	70	130				
Chlorobenzene	18.670	0.50	20.00	0	93.4	70	130				
Toluene	37.630	0.50	40.00	0	94.1	70	130				
Trichloroethene	18.910	0.50	20.00	0	94.6	70	130				
Surr: 1,2-Dichloroethane-d4	26.860		25.00		107	70	130				
Surr: 4-Bromofluorobenzene	26.380		25.00		106	70	130				
Surr: Dibromofluoromethane	26.140		25.00		105	70	130				
Surr: Toluene-d8	25.620		25.00		102	70	130				

**Qualifiers:**

- B Analyte detected in the associated Method Blank
  - J Analyte detected below quantitation limits
  - S Spike/Surrogate outside of limits due to matrix interference
  - E Value above quantitation range
  - ND Not Detected at the Reporting Limit
  - DO Surrogate Diluted Out
  - H Holding times for preparation or analysis exceeded
  - R RPD outside accepted recovery limits
- Calculations are based on raw values



**CLIENT:** The Source Group Inc.  
**Work Order:** 109135  
**Project:** AB&I Foundry, 01-ABI.001

## ANALYTICAL QC SUMMARY REPORT

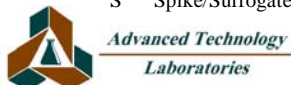
**TestCode: 8260\_WP\_LL**

Sample ID: <b>A091215MB4MSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>116141</b>	
Client ID: <b>ZZZZZ</b>		Batch ID: <b>A09VW219</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/15/2009</b>				SeqNo: <b>1843279</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19.430	0.50	20.00	0	97.2	70	130	19.81	1.94	20	
Benzene	36.340	0.50	40.00	0	90.9	70	130	36.58	0.658	20	
Chlorobenzene	18.730	0.50	20.00	0	93.6	70	130	18.67	0.321	20	
Toluene	37.130	0.50	40.00	0	92.8	70	130	37.63	1.34	20	
Trichloroethene	18.820	0.50	20.00	0	94.1	70	130	18.91	0.477	20	
Surr: 1,2-Dichloroethane-d4	27.270		25.00		109	70	130		0	20	
Surr: 4-Bromofluorobenzene	26.020		25.00		104	70	130		0	20	
Surr: Dibromofluoromethane	26.430		25.00		106	70	130		0	20	
Surr: Toluene-d8	25.510		25.00		102	70	130		0	20	

Sample ID: <b>A091215MB4</b>		SampType: <b>MBLK</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>116141</b>	
Client ID: <b>PBW</b>		Batch ID: <b>A09VW219</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/15/2009</b>				SeqNo: <b>1843280</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



**CLIENT:** The Source Group Inc.  
**Work Order:** 109135  
**Project:** AB&I Foundry, 01-ABI.001

## ANALYTICAL QC SUMMARY REPORT

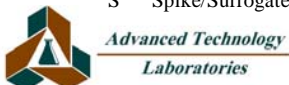
**TestCode: 8260\_WP\_LL**

Sample ID: <b>A091215MB4</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116141</b>
Client ID: <b>PBW</b>	Batch ID: <b>A09VW219</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/15/2009</b>	SeqNo: <b>1843280</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	1.0									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



**CLIENT:** The Source Group Inc.  
**Work Order:** 109135  
**Project:** AB&I Foundry, 01-ABI.001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_LL**

Sample ID: <b>A091215MB4</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116141</b>						
Client ID: <b>PBW</b>	Batch ID: <b>A09VW219</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/15/2009</b>	SeqNo: <b>1843280</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	26.620		25.00		106	70	130				
Surr: 4-Bromofluorobenzene	25.820		25.00		103	70	130				
Surr: Dibromofluoromethane	26.810		25.00		107	70	130				
Surr: Toluene-d8	25.500		25.00		102	70	130				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



*Advanced Technology  
Laboratories*

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

**CLIENT:** The Source Group Inc.  
**Work Order:** 109135  
**Project:** AB&I Foundry, 01-ABI.001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_LL**

Sample ID: <b>A091216LCS1</b>	SampType: <b>LCS</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116146</b>
Client ID: <b>LCSW</b>	Batch ID: <b>A09VW220</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/16/2009</b>	SeqNo: <b>1844088</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20.160	0.50	20.00	0	101	70	130				
Benzene	36.340	0.50	40.00	0	90.9	70	130				
Chlorobenzene	19.200	0.50	20.00	0	96.0	70	130				
MTBE	19.220	0.50	20.00	0	96.1	70	130				
Toluene	37.800	0.50	40.00	0	94.5	70	130				
Trichloroethene	19.090	0.50	20.00	0	95.4	70	130				
Surr: 1,2-Dichloroethane-d4	26.110		25.00		104	70	130				
Surr: 4-Bromofluorobenzene	26.440		25.00		106	70	130				
Surr: Dibromofluoromethane	26.020		25.00		104	70	130				
Surr: Toluene-d8	25.360		25.00		101	70	130				

Sample ID: <b>A091216MB2MS</b>	SampType: <b>MS</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116146</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>A09VW220</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/16/2009</b>	SeqNo: <b>1844088</b>

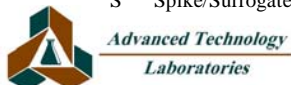
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20.520	0.50	20.00	0	103	70	130				
Benzene	36.970	0.50	40.00	0	92.4	70	130				
Chlorobenzene	19.080	0.50	20.00	0	95.4	70	130				
Toluene	38.420	0.50	40.00	0	96.0	70	130				
Trichloroethene	19.650	0.50	20.00	0	98.2	70	130				
Surr: 1,2-Dichloroethane-d4	27.050		25.00		108	70	130				
Surr: 4-Bromofluorobenzene	26.300		25.00		105	70	130				
Surr: Dibromofluoromethane	26.410		25.00		106	70	130				
Surr: Toluene-d8	25.290		25.00		101	70	130				

Sample ID: <b>A091216MB2MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116146</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>A09VW220</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/16/2009</b>	SeqNo: <b>1844089</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19.340	0.50	20.00	0	96.7	70	130	20.52	5.92	20	

**Qualifiers:**

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|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



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**Work Order:** 109135  
**Project:** AB&I Foundry, 01-ABI.001

## ANALYTICAL QC SUMMARY REPORT

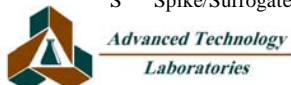
**TestCode: 8260\_WP\_LL**

Sample ID: <b>A091216MB2MSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>116146</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>A09VW220</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/16/2009</b>				SeqNo: <b>1844089</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	36.570	0.50	40.00	0	91.4	70	130	36.97	1.09	20	
Chlorobenzene	19.030	0.50	20.00	0	95.2	70	130	19.08	0.262	20	
Toluene	37.820	0.50	40.00	0	94.6	70	130	38.42	1.57	20	
Trichloroethene	19.060	0.50	20.00	0	95.3	70	130	19.65	3.05	20	
Surr: 1,2-Dichloroethane-d4	26.540		25.00		106	70	130		0	20	
Surr: 4-Bromofluorobenzene	26.340		25.00		105	70	130		0	20	
Surr: Dibromofluoromethane	25.880		25.00		104	70	130		0	20	
Surr: Toluene-d8	25.180		25.00		101	70	130		0	20	

Sample ID: <b>A091216MB2</b>		SampType: <b>MBLK</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>116146</b>	
Client ID: <b>PBW</b>		Batch ID: <b>A09VW220</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/16/2009</b>				SeqNo: <b>1844090</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									

**Qualifiers:**

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|--|--|--|
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## ANALYTICAL QC SUMMARY REPORT

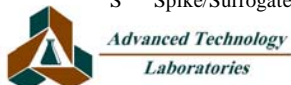
**TestCode: 8260\_WP\_LL**

Sample ID: <b>A091216MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116146</b>
Client ID: <b>PBW</b>	Batch ID: <b>A09VW220</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/16/2009</b>	SeqNo: <b>1844090</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	1.0									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									

**Qualifiers:**

- |  |  |  |
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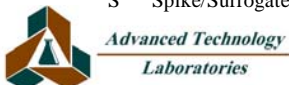
## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_LL**

Sample ID: <b>A091216MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116146</b>						
Client ID: <b>PBW</b>	Batch ID: <b>A09VW220</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/16/2009</b>	SeqNo: <b>1844090</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	27.360		25.00		109	70	130				
Surr: 4-Bromofluorobenzene	26.420		25.00		106	70	130				
Surr: Dibromofluoromethane	27.220		25.00		109	70	130				
Surr: Toluene-d8	25.380		25.00		102	70	130				

**Qualifiers:**

- |  |  |  |
|--|--|--|
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## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_LL**

Sample ID: <b>Q091215LCS1</b>	SampType: <b>LCS</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116054</b>
Client ID: <b>LCSW</b>	Batch ID: <b>Q09VW247</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/15/2009</b>	SeqNo: <b>1842177</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18.010	0.50	20.00	0	90.1	70	130				
Benzene	37.310	0.50	40.00	0	93.3	70	130				
Chlorobenzene	19.560	0.50	20.00	0	97.8	70	130				
MTBE	18.780	0.50	20.00	0	93.9	70	130				
Toluene	38.500	0.50	40.00	0	96.2	70	130				
Trichloroethene	18.220	0.50	20.00	0	91.1	70	130				
Surr: 1,2-Dichloroethane-d4	21.040		25.00		84.2	70	130				
Surr: 4-Bromofluorobenzene	24.800		25.00		99.2	70	130				
Surr: Dibromofluoromethane	24.070		25.00		96.3	70	130				
Surr: Toluene-d8	24.970		25.00		99.9	70	130				

Sample ID: <b>Q091215MB2MS</b>	SampType: <b>MS</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116054</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>Q09VW247</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/15/2009</b>	SeqNo: <b>1842178</b>

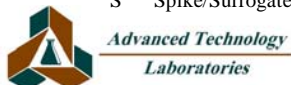
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18.220	0.50	20.00	0	91.1	70	130				
Benzene	38.050	0.50	40.00	0	95.1	70	130				
Chlorobenzene	20.040	0.50	20.00	0	100	70	130				
Toluene	39.380	0.50	40.00	0	98.4	70	130				
Trichloroethene	18.550	0.50	20.00	0	92.8	70	130				
Surr: 1,2-Dichloroethane-d4	22.310		25.00		89.2	70	130				
Surr: 4-Bromofluorobenzene	25.800		25.00		103	70	130				
Surr: Dibromofluoromethane	25.130		25.00		101	70	130				
Surr: Toluene-d8	25.910		25.00		104	70	130				

Sample ID: <b>Q091215MB2MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116054</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>Q09VW247</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/15/2009</b>	SeqNo: <b>1842179</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	17.690	0.50	20.00	0	88.4	70	130	18.22	2.95	20	

**Qualifiers:**

- |  |  |  |
|--|--|--|
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| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



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**Work Order:** 109135  
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## ANALYTICAL QC SUMMARY REPORT

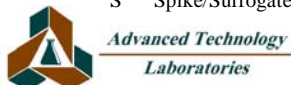
**TestCode: 8260\_WP\_LL**

Sample ID: <b>Q091215MB2MSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>116054</b>	
Client ID: <b>ZZZZZ</b>		Batch ID: <b>Q09VW247</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/15/2009</b>				SeqNo: <b>1842179</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.310	0.50	40.00	0	93.3	70	130	38.05	1.96	20	
Chlorobenzene	19.430	0.50	20.00	0	97.2	70	130	20.04	3.09	20	
Toluene	38.860	0.50	40.00	0	97.2	70	130	39.38	1.33	20	
Trichloroethene	18.240	0.50	20.00	0	91.2	70	130	18.55	1.69	20	
Surr: 1,2-Dichloroethane-d4	21.280		25.00		85.1	70	130		0	20	
Surr: 4-Bromofluorobenzene	25.080		25.00		100	70	130		0	20	
Surr: Dibromofluoromethane	24.380		25.00		97.5	70	130		0	20	
Surr: Toluene-d8	25.680		25.00		103	70	130		0	20	

Sample ID: <b>Q091215MB2</b>		SampType: <b>MBLK</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>116054</b>	
Client ID: <b>PBW</b>		Batch ID: <b>Q09VW247</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/15/2009</b>				SeqNo: <b>1842180</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3,5-Trimethylbenzene	ND	0.50									

**Qualifiers:**

- |  |  |  |
|--|--|--|
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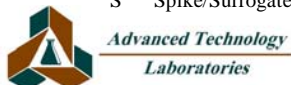
**TestCode: 8260\_WP\_LL**

Sample ID: <b>Q091215MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116054</b>
Client ID: <b>PBW</b>	Batch ID: <b>Q09VW247</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/15/2009</b>	SeqNo: <b>1842180</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	1.0									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									

**Qualifiers:**

- |  |  |  |
|--|--|--|
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| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



**CLIENT:** The Source Group Inc.  
**Work Order:** 109135  
**Project:** AB&I Foundry, 01-ABI.001

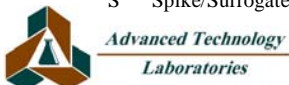
## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_LL**

Sample ID: <b>Q091215MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>116054</b>						
Client ID: <b>PBW</b>	Batch ID: <b>Q09VW247</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>12/15/2009</b>	SeqNo: <b>1842180</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	23.920		25.00		95.7	70	130				
Surr: 4-Bromofluorobenzene	24.980		25.00		99.9	70	130				
Surr: Dibromofluoromethane	25.650		25.00		103	70	130				
Surr: Toluene-d8	24.600		25.00		98.4	70	130				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
| S Spike/Surrogate outside of limits due to matrix interference | DO Surrogate Diluted Out               | Calculations are based on raw values                 |



**CLIENT:** The Source Group Inc.  
**Work Order:** 109135  
**Project:** AB&I Foundry, 01-ABI.001

**ANALYTICAL QC SUMMARY REPORT**

**TestCode: 415.1\_5310B\_W**

Sample ID: <b>MB-R116085</b>	SampType: <b>MBLK</b>	TestCode: <b>415.1_5310B</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>116085</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R116085</b>	TestNo: <b>SM5310B</b>	Analysis Date: <b>12/15/2009</b>	SeqNo: <b>1842165</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Organic Carbon, Total	0.198	3.0									
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Sample ID: <b>LCS-R116085</b>	SampType: <b>LCS</b>	TestCode: <b>415.1_5310B</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>116085</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R116085</b>	TestNo: <b>SM5310B</b>	Analysis Date: <b>12/15/2009</b>	SeqNo: <b>1842166</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Organic Carbon, Total	23.110	3.0	20.00	0.1977	115	80	120				
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Sample ID: <b>109156-001B-MS</b>	SampType: <b>MS</b>	TestCode: <b>415.1_5310B</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>116085</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R116085</b>	TestNo: <b>SM5310B</b>	Analysis Date: <b>12/15/2009</b>	SeqNo: <b>1842169</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

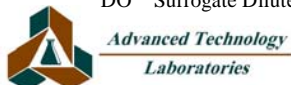
Organic Carbon, Total	31.980	3.0	20.00	10.27	109	70	130				
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Sample ID: <b>109156-001B-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>415.1_5310B</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>116085</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R116085</b>	TestNo: <b>SM5310B</b>	Analysis Date: <b>12/15/2009</b>	SeqNo: <b>1842170</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Organic Carbon, Total	32.020	3.0	20.00	10.27	109	70	130	31.98	0.125	20	
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**Qualifiers:**

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



**CLIENT:** The Source Group Inc.  
**Work Order:** 109135  
**Project:** AB&I Foundry, 01-ABI.001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 415.1\_5310B\_W**

Sample ID: <b>MB-R116160</b>	SampType: <b>MBLK</b>	TestCode: <b>415.1_5310B</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>116160</b>
Client ID: <b>PBW</b>	Batch ID: <b>R116160</b>	TestNo: <b>SM5310B</b>		Analysis Date: <b>12/17/2009</b>	SeqNo: <b>1843617</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Organic Carbon, Total

0.199 3.0

Sample ID: <b>LCS-R116160</b>	SampType: <b>LCS</b>	TestCode: <b>415.1_5310B</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>116160</b>
Client ID: <b>LCSW</b>	Batch ID: <b>R116160</b>	TestNo: <b>SM5310B</b>		Analysis Date: <b>12/17/2009</b>	SeqNo: <b>1843618</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Organic Carbon, Total

20.410 3.0 20.00 0.1990 101 80 120

Sample ID: <b>109177-001B-MS</b>	SampType: <b>MS</b>	TestCode: <b>415.1_5310B</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>116160</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R116160</b>	TestNo: <b>SM5310B</b>		Analysis Date: <b>12/17/2009</b>	SeqNo: <b>1843622</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Organic Carbon, Total

142.100 3.0 20.00 122.8 96.5 70 130

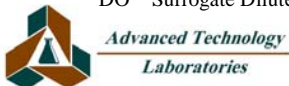
Sample ID: <b>109177-001B-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>415.1_5310B</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>116160</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R116160</b>	TestNo: <b>SM5310B</b>		Analysis Date: <b>12/17/2009</b>	SeqNo: <b>1843623</b>
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Organic Carbon, Total

142.700 3.0 20.00 122.8 99.5 70 130 142.1 0.421 20

**Qualifiers:**

- |   |  |  |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range       | H Holding times for preparation or analysis exceeded           |
| ND Not Detected at the Reporting Limit            | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out                          | Calculations are based on raw values   |  |



**CLIENT:** The Source Group Inc.  
**Work Order:** 109135  
**Project:** AB&I Foundry, 01-ABI.001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_W\_DSL\_LLSGT**

Sample ID: <b>MB-60546</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_DSL</b>	Units: <b>mg/L</b>	Prep Date: <b>12/16/2009</b>	RunNo: <b>116226</b>						
Client ID: <b>PBW</b>	Batch ID: <b>60546</b>	TestNo: <b>EPA 8015B</b>	<b>EPA 3510C</b>	Analysis Date: <b>12/18/2009</b>	SeqNo: <b>1844766</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	ND	0.050									
Surr: p-Terphenyl	0.036		0.08000		44.5	35	131				

Sample ID: <b>LCS-60546</b>	SampType: <b>LCS</b>	TestCode: <b>8015_W_DSL</b>	Units: <b>mg/L</b>	Prep Date: <b>12/16/2009</b>	RunNo: <b>116226</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>60546</b>	TestNo: <b>EPA 8015B</b>	<b>EPA 3510C</b>	Analysis Date: <b>12/18/2009</b>	SeqNo: <b>1844767</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.684	0.050	1.000	0	68.4	42	118				
Surr: p-Terphenyl	0.035		0.08000		44.0	35	131				

Sample ID: <b>MB-60546-MS</b>	SampType: <b>MS</b>	TestCode: <b>8015_W_DSL</b>	Units: <b>mg/L</b>	Prep Date: <b>12/16/2009</b>	RunNo: <b>116226</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>60546</b>	TestNo: <b>EPA 8015B</b>	<b>EPA 3510C</b>	Analysis Date: <b>12/18/2009</b>	SeqNo: <b>1844768</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

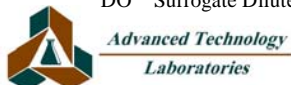
DRO	0.733	0.050	1.000	0	73.3	42	118				
Surr: p-Terphenyl	0.040		0.08000		50.4	35	131				

Sample ID: <b>MB-60546-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_W_DSL</b>	Units: <b>mg/L</b>	Prep Date: <b>12/16/2009</b>	RunNo: <b>116226</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>60546</b>	TestNo: <b>EPA 8015B</b>	<b>EPA 3510C</b>	Analysis Date: <b>12/18/2009</b>	SeqNo: <b>1844769</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.681	0.050	1.000	0	68.1	42	118	0.7331	7.33	20	
Surr: p-Terphenyl	0.034		0.08000		42.8	35	131		0	0	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range       | H Holding times for preparation or analysis exceeded           |
| ND Not Detected at the Reporting Limit            | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out                          | Calculations are based on raw values   |  |



**CLIENT:** The Source Group Inc.  
**Work Order:** 109135  
**Project:** AB&I Foundry, 01-ABI.001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_W\_GP LL**

Sample ID: <b>I091214LCS2</b>	SampType: <b>LCS</b>	TestCode: <b>8015_W_GP</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>115999</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>I09VW0237</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>12/14/2009</b>	SeqNo: <b>1840822</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.872	0.050	1.000	0	87.2	69	125				
Surr: Bromofluorobenzene (FID)	94.788		100.0		94.8	71	130				

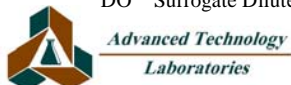
Sample ID: <b>I091214MB2MS</b>	SampType: <b>MS</b>	TestCode: <b>8015_W_GP</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>115999</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>I09VW0237</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>12/14/2009</b>	SeqNo: <b>1840823</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.926	0.050	1.000	0	92.6	69	125				
Surr: Bromofluorobenzene (FID)	95.071		100.0		95.1	71	130				

Sample ID: <b>I091214MB2MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_W_GP</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>115999</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>I09VW0237</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>12/14/2009</b>	SeqNo: <b>1840824</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.922	0.050	1.000	0	92.2	69	125	0.9260	0.433	20	
Surr: Bromofluorobenzene (FID)	95.558		100.0		95.6	71	130		0	0	

Sample ID: <b>I091214MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_GP</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>115999</b>						
Client ID: <b>PBW</b>	Batch ID: <b>I09VW0237</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>12/14/2009</b>	SeqNo: <b>1840825</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	0.050									
Surr: Bromofluorobenzene (FID)	92.204		100.0		92.2	71	130				

**Qualifiers:**

- |   |  |  |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range       | H Holding times for preparation or analysis exceeded           |
| ND Not Detected at the Reporting Limit            | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out                          | Calculations are based on raw values   |  |





**CLIENT:** The Source Group Inc.  
**Work Order:** 109135  
**Project:** AB&I Foundry, 01-ABI.001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: RSK175\_ATL**

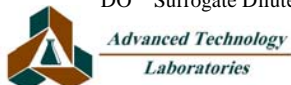
Sample ID: <b>MB-Z09A011</b>		SampType: <b>MBLK</b>		TestCode: <b>RSK175_ATL</b> Units: <b>ug/L</b>		Prep Date:		RunNo: <b>116179</b>			
Client ID: <b>PBW</b>		Batch ID: <b>Z09A011</b>		TestNo: <b>RSK175</b>		Analysis Date: <b>12/16/2009</b>		SeqNo: <b>1843981</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	ND	2.0									
Ethylene	ND	3.0									
Methane	ND	1.0									

Sample ID: <b>LCS-Z09A011</b>		SampType: <b>LCS</b>		TestCode: <b>RSK175_ATL</b> Units: <b>ug/L</b>		Prep Date:		RunNo: <b>116179</b>			
Client ID: <b>LCSW</b>		Batch ID: <b>Z09A011</b>		TestNo: <b>RSK175</b>		Analysis Date: <b>12/16/2009</b>		SeqNo: <b>1843982</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	788.240	2.0	851.0	0	92.6	70	130				
Ethylene	1004.190	3.0	1050	0	95.6	70	130				
Methane	431.070	1.0	486.0	0	88.7	70	130				

Sample ID: <b>LCSD-Z09A011</b>		SampType: <b>LCSD</b>		TestCode: <b>RSK175_ATL</b> Units: <b>ug/L</b>		Prep Date:		RunNo: <b>116179</b>			
Client ID: <b>LCSS02</b>		Batch ID: <b>Z09A011</b>		TestNo: <b>RSK175</b>		Analysis Date: <b>12/16/2009</b>		SeqNo: <b>1843983</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethane	818.670	2.0	851.0	0	96.2	70	130	788.2	3.79	20	
Ethylene	1055.300	3.0	1050	0	101	70	130	1004	4.96	20	
Methane	453.960	1.0	486.0	0	93.4	70	130	431.1	5.17	20	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range       | H Holding times for preparation or analysis exceeded           |
| ND Not Detected at the Reporting Limit            | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |
| DO Surrogate Diluted Out                          | Calculations are based on raw values   |  |



# CHAIN OF CUSTODY RECORD

<b>Advanced Technology Laboratories</b> 3275 Walnut Avenue Signal Hill, CA 90755 (562) 989-4045 • Fax (562) 989-4040	<b>FOR LABORATORY USE ONLY:</b>			
	P.O.#: _____  Logged By: _____ Date: <u>12/12/09</u>	Method of Transport Client <input type="checkbox"/> ATL <input type="checkbox"/> CA OverN <input checked="" type="checkbox"/> FEDEX <input type="checkbox"/> Other: _____	40, 5-8 1. CHILLED Y <input checked="" type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) Y <input checked="" type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Sample Condition Upon Receipt 4. SEALED Y <input type="checkbox"/> N <input checked="" type="checkbox"/> 5. # OF SPLS MATCH COC Y <input type="checkbox"/> N <input checked="" type="checkbox"/> 6. PRESERVED Y <input checked="" type="checkbox"/> N <input type="checkbox"/>

Client: <u>The Sande Graphics</u> Attn: <u>Kent Reynolds</u>	Address: <u>3451-C Vincent Rd</u> City: <u>Pleasant Hill</u> State: <u>CA</u> Zip Code: <u>94523</u>	TEL: <u>(925) 944-2856</u> FAX: <u>(925) 944-2859</u>
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Project Name: <u>AB+I Foundry</u>	Project #: <u>01-ABI.001</u>	Sampler: (Printed Name) <u>Nathan C. Khan</u> (Signature) <u>[Signature]</u>
Relinquished by: (Signature and Printed Name) <u>[Signature] Nathan C. Khan</u>	Date: <u>12/12/09</u> Time: <u>1630</u>	Received by: (Signature and Printed Name) <u>[Signature] Mary</u> Date: <u>12/12/09</u> Time: <u>10:14</u>
Relinquished by: (Signature and Printed Name)	Date: _____ Time: _____	Received by: (Signature and Printed Name) Date: _____ Time: _____
Relinquished by: (Signature and Printed Name)	Date: _____ Time: _____	Received by: (Signature and Printed Name) Date: _____ Time: _____

I hereby authorize ATL to perform the work indicated below: Project Mgr /Submitter: <u>Nathan C. Khan</u> <u>12/12/09</u> Print Name Date <u>[Signature]</u> Signature	Send Report To: Attn: <u>Kent Reynolds</u> Co: <u>SGI</u> Address: <u>3451-C Vincent Rd</u> City: <u>Pleasant Hill</u> State: <u>CA</u> Zip: <u>94523</u>	Bill To: Attn: _____ Co: <u>SAME</u> Address: _____ City: _____ State: _____ Zip: _____	Special Instructions/Comments: -0.5 gpb reporting Dimms -include EDFs EDD reports ID: <u>T0600100065</u>
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Sample/Records - Archival & Disposal					SPECIFY APPROPRIATE MATRIX												PRESERVATION	QA/QC			
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.  Storage Fees (applies when storage is requested): • Sample : \$2.00 / sample / mo (after 45 days) • Records : \$1.00 / ATL workorder / mo (after 1 year)					Circle or Add Analysis(es) Requested														Container(s) # Type	RTNE <input type="checkbox"/> CT <input type="checkbox"/>  SWRCB <input type="checkbox"/> Logcode _____  OTHER _____  REMARKS	
I T E M	LAB USE ONLY: Batch #:	Sample Description			8091A (Pesticides)	8092 (PCB)	8260B (Volatiles)	8270C (ENV4)	8010B (Total Metal)	8015B (GRO) / 8015C (Pb)	8015B (DRO)	TITLE 22 / CAM 17 (6010, 7000)	Soil	Water	GROUND WATER	WASTEWATER	TAT	#			Type
	109135-001	<u>MW-9 <del>AB+I</del></u>				X			X	X	X								E	7	
	2	<u>MW-4</u>				X			X	X	X									7	
	3	<u>MW-6</u>				X			X	X	X									7	
	4	<u>MW-3</u>				X			X	X	X									13	
	5	<u>MW-8</u>				X			X	X	X									13	
	6	<u>MW-98</u>				X			X	X	X									7	
	7	<u>MW-1</u>				X			X	X	X									7	
	8	<u>MW-7</u>				X			X	X	X									7	
	9	<u>MW-5</u>				X			X	X	X									7	
	10	<u>MW-2B</u>				X			X	X	X									7	

• TAT starts 8 a.m. following day if samples received after 3 p.m.	TAT: A= <input type="checkbox"/> Overnight ≤ 24 hr B= <input type="checkbox"/> Emergency Next workday C= <input type="checkbox"/> Critical 2 Workdays D= <input type="checkbox"/> Urgent 3 Workdays E= <input type="checkbox"/> Routine 7 Workdays	Preservatives: H=HCl N=HNO <sub>3</sub> S=H <sub>2</sub> SO <sub>4</sub> C=4°C Z=Zn(AC) <sub>2</sub> O=NaOH T=Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal
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# CHAIN OF CUSTODY RECORD



**Advanced Technology  
Laboratories**

3275 Walnut Avenue  
Signal Hill, CA 90755  
(562) 989-4045 • Fax (562) 989-4040

**FOR LABORATORY USE ONLY:**

P.O.#: _____	Method of Transport Client <input type="checkbox"/> ATL <input type="checkbox"/> CA OverN <input type="checkbox"/> FEDEX <input type="checkbox"/> Other: _____	Sample Condition Upon Receipt 1. CHILLED Y <input type="checkbox"/> N <input type="checkbox"/> 4. SEALED Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) Y <input type="checkbox"/> N <input type="checkbox"/> 5. # OF SPLS MATCH COC Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT Y <input type="checkbox"/> N <input type="checkbox"/> 6. PRESERVED Y <input type="checkbox"/> N <input type="checkbox"/>
Logged By: _____ Date: _____		

Client: <u>The Sunde Corp. Inc.</u>	Address: <u>3451-C Vincent Ad.</u>	TEL: <u>(925) 944-2856</u>
Attn: <u>Kent Reynolds</u>	City: <u>Pleasant Hill</u> State: <u>CA</u> Zip Code: <u>94523</u>	FAX: <u>(925) 944-2859</u>

Project Name: <u>AB+ I Fenndy</u>	Project #: <u>01-ABI-001</u>	Sampler: <u>Nathan C. Chen</u> (Printed Name) <u>[Signature]</u> (Signature)
Relinquished by: <u>[Signature]</u> (Signature and Printed Name)	Date: <u>12/10/09</u>	Time: <u>1630</u>
Received by: <u>Mary [Signature]</u> (Signature and Printed Name)	Date: <u>12/12/09</u>	Time: <u>10:14</u>

I hereby authorize ATL to perform the work indicated below: Project Mgr./Submitter: <u>Nathan Chen</u> <u>12/10/09</u> Print Name Date <u>[Signature]</u> Signature	Send Report To: Attn: <u>Kent Reynolds</u> Co: <u>SGI</u> Address: <u>3451-C Vincent Ad.</u> City: <u>Pleasant Hill</u> State: <u>CA</u> Zip: <u>94523</u>	Bill To: Attn: _____ Co: <u>SGI</u> Address: _____ City: _____ State: _____ Zip: _____	Special Instructions/Comments: <u>-0.5 ppb reporting limits</u> <u>-include EPTs &amp; EDD reports</u> <u>ID: T0600100065</u>
--	--	--	--

**Sample/Records - Archival & Disposal**  
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

**Storage Fees (applies when storage is requested):**

- Sample : \$2.00 / sample / mo (after 45 days)
- Records : \$1.00 / ATL workorder / mo (after 1 year)

I T E M	LAB USE ONLY:		Sample Description				SPECIFY APPROPRIATE MATRIX										PRESERVATION	REMARKS			
	Batch #:	Sample I.D. / Location	Date	Time																	
	Lab No.	Sample I.D. / Location	Date	Time	8091A (Pesticides)	8082 (PCB)	8280B (Volatiles)	8270C (BVA)	8010B (Total Metal)	8015B (GRO) / 8020 (BTX)	8015R (DRO)	8021 (BTX)	TITLE 22 / CAM 17 (6010 / 7000)	SOIL	WATER	GROUND WATER			WASTEWATER	TAT	#
	<u>109135</u>	<u>11</u>	<u>Equipment Blank</u>	<u>12/10/09</u>	<u>1350</u>		<u>X</u>												<u>E</u>	<u>3</u>	
	<u>1</u>	<u>12</u>	<u>Trip Blank</u>				<u>X</u>												<u>↓</u>	<u>2</u>	

• TAT starts 8 a.m. following day if samples received after 3 p.m.	TAT: A= <u>Overnight ≤ 24 hr</u>	B= <u>Emergency Next workday</u>	C= <u>Critical 2 Workdays</u>	D= <u>Urgent 3 Workdays</u>	E= <u>Routine 7 Workdays</u>	Preservatives: H=HCl N=HNO <sub>3</sub> S=H <sub>2</sub> SO <sub>4</sub> C=4°C Z=Zn(AC) <sub>2</sub> O=NaOH T=Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>
Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal						

**APPENDIX C**

**HISTORICAL GROUNDWATER DATA**

**Table C-1**  
**Historical Water Level**  
 AB&I Foundry  
 7825 San Leandro Street  
 Oakland, California

Well ID	Date	Groundwater Elevation (ft, msl)
MW-1	03/10/93	2.29
	08/20/93	2.05
	12/03/93	2.04
	03/04/94	1.29
	06/10/94	2.55
	09/09/94	2.14
	12/16/95	3.65
	07/14/06	3.43
	08/17/06	1.50
	10/24/07	4.14
	02/21/08	4.14
	06/12/08	3.68
	10/02/08	3.00
	12/12/08	3.28
	05/21/09	1.78
12/09/09	1.57	
MW-2	03/10/93	3.41
	08/20/93	2.30
	12/03/93	2.39
	03/04/94	3.14
	06/10/94	2.73
	09/09/94	2.38
	03/17/95	3.79
	06/23/95	3.05
	09/06/95	2.80
	12/16/95	3.30
	01/18/96	3.56
	04/26/96	3.56
	02/03/97	2.85
	10/24/07	Removed
MW-2R	08/18/06	-2.50
	10/24/07	3.70
	02/21/08	3.70
	06/12/08	3.20
	10/02/08	3.02
	12/12/08	3.42
	05/21/09	1.73
	12/09/09	1.52
MW-3	03/10/93	2.53
	08/20/93	1.55
	12/03/93	1.72
	03/04/94	2.54
	06/10/94	2.12
	09/09/94	1.74
	12/16/95	2.69
	03/17/95	3.05
	06/23/95	2.31
	09/06/95	1.85
	01/18/96	2.46
	04/26/96	2.46
	02/03/97	2.86
	07/14/06	2.77
08/17/06	1.13	

**Table C-1**  
**Historical Water Level**  
 AB&I Foundry  
 7825 San Leandro Street  
 Oakland, California

Well ID	Date	Groundwater Elevation (ft, msl)
MW-3	10/24/07	2.71
	02/21/08	2.71
	06/12/08	2.30
	10/02/08	2.30
	12/11/08	3.07
	05/21/09	1.32
	12/09/09	1.13
MW-4	03/10/93	3.45
	08/20/93	1.29
	12/03/93	1.47
	03/04/94	2.25
	06/10/94	1.78
	09/09/94	1.43
	03/17/95	2.93
	06/23/95	2.04
	09/06/95	1.60
	12/16/95	2.48
	01/18/96	2.37
	04/26/96	2.37
	02/03/97	2.69
	07/14/06	1.76
	08/18/06	NS
	10/24/07	3.77
	02/21/08	3.77
	06/12/08	3.12
10/02/08	3.01	
12/11/08	3.51	
05/21/09	1.81	
12/09/09	1.77	
MW-5	08/17/06	1.31
	10/24/07	2.87
	02/21/08	2.87
	06/12/08	2.46
	10/02/08	2.47
	12/11/08	3.17
	05/21/09	1.40
12/09/09	1.22	
MW-6	08/17/06	0.26
	10/24/07	2.14
	02/21/08	2.14
	06/12/08	1.52
	10/02/08	1.58
	12/11/08	2.27
	05/21/09	0.60
12/09/09	0.40	
MW-7	08/17/06	0.60
	10/24/07	4.80
	02/21/08	4.80
	06/12/08	3.84
	10/02/08	3.52
	12/12/08	3.61
	05/21/09	2.39
12/09/09	2.14	

**Table C-1**  
**Historical Water Level**  
 AB&I Foundry  
 7825 San Leandro Street  
 Oakland, California

Well ID	Date	Groundwater Elevation (ft, msl)
MW-8	08/17/06	1.36
	10/24/07	3.28
	02/21/08	3.28
	06/12/08	2.77
	10/02/08	2.66
	12/11/08	3.27
	05/21/09	1.60
	12/09/09	1.38
MW-9	08/23/06	1.86
	10/24/07	4.21
	02/21/08	4.21
	06/12/08	3.58
	10/02/08	3.39
	12/11/08	3.65
	05/21/09	2.01
	12/09/09	1.81
<b>Notes:</b>		
NS	-not sampled	
msl	-mean sea level	
ft	-feet	

**Table C-2**  
**Summary of Analytical Results**  
**Petroleum Hydrocarbon Related Constituents (ug/L)**

AB&I Foundry  
7825 San Leandro Street  
Oakland, California

Well Number	Date	Total Oil & Grease	Hydrocarbon Oil & Grease	TPH-Diesel	Naphthalene	TPH-Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	ETBE	TAME	DIPE	TBA	1,2-DCA	
MW-1	03/10/93	--	--	830	--	--	0.6	ND	ND	ND	--	--	--	--	--	--	
	08/20/93	--	--	2,100	--	--	2.2	3.7	4.5	17	--	--	--	--	--	--	
	12/03/93	--	--	3,200	--	--	ND	ND	ND	ND	--	--	--	--	--	--	
	03/04/94	--	--	710	--	--	1.1	ND	ND	ND	--	--	--	--	--	--	
	06/10/94	--	--	490	--	--	ND	ND	ND	ND	--	--	--	--	--	--	
	09/09/94	--	--	ND	--	--	ND	ND	ND	ND	--	--	--	--	--	--	
	12/16/94	--	--	180	--	--	0.6	ND	ND	ND	--	--	--	--	--	--	
	03/17/95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	06/23/95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	09/06/95	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	01/18/96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	04/26/96	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	02/03/97	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	07/14/06	--	--	160	--	<50	<0.3	<0.3	<0.3	<0.3	<0.3	<1.0	<1.0	<1.0	<1.0	<50	<1.0
	10/25/07	--	--	450	<1.0	<50	<5.0	<5.0	<5.0	<5.0	<1.0	<0.50	<0.50	<0.50	<1.0	<5.0	<0.50
	02/22/08	--	--	560	<1.0	<50	<0.5	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--	<0.5
	02/22/08	--	--	560	<1.0	<50	<0.5	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--	<0.5
	06/13/08	--	--	160	<0.50	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	10/03/08	--	--	140	<0.50	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	12/12/08	--	--	100	<0.50	<50	<5.0	<5.0	<5.0	<5.0	<10	--	--	--	--	--	<5.0
05/22/09	--	--	--	<0.50	--	<0.50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50	
12/10/09	--	--	<50	<0.50	<50	<50	<50	<50	<50	<10	--	--	--	--	--	<0.50	
MW-2	03/10/93	1.0	ND	--	--	920	ND	0.8	ND	ND	--	--	--	--	--	--	
	08/20/93	ND	ND	--	--	720	2.9	4.2	6.3	25	--	--	--	--	--	--	
	12/03/93	ND	ND	--	--	900	ND	250	19	5.1	--	--	--	--	--	--	
	03/04/94	ND	ND	--	--	420	ND	ND	ND	3.6	--	--	--	--	--	--	
	06/10/94	2,000	2,000	--	--	920	ND	ND	ND	ND	--	--	--	--	--	--	
	09/09/94	2.0	2.0	--	--	830	ND	ND	ND	ND	--	--	--	--	--	--	
	12/16/94	ND	ND	--	--	130	ND	0.2	ND	ND	--	--	--	--	--	--	
	03/17/95	--	1.0	--	--	320	4.9	ND	ND	ND	--	--	--	--	--	--	
	06/23/95	ND	ND	--	--	190	ND	ND	ND	ND	--	--	--	--	--	--	
	09/06/95	ND	ND	--	--	110	ND	ND	ND	ND	--	--	--	--	--	--	
	01/18/96	ND	ND	--	--	120	ND	ND	ND	ND	--	--	--	--	--	--	



**Table C-2**  
**Summary of Analytical Results**  
**Petroleum Hydrocarbon Related Constituents (ug/L)**

AB&I Foundry  
7825 San Leandro Street  
Oakland, California

Well Number	Date	Total Oil & Grease	Hydrocarbon Oil & Grease	TPH-Diesel	Naphthalene	TPH-Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	ETBE	TAME	DIPE	TBA	1,2-DCA
MW-2	04/26/96	ND	ND	--	--	500	ND	ND	ND	ND	--	--	--	--	--	--
	02/03/97	ND	ND	--	--	250	ND	ND	ND	1.7	--	--	--	--	--	--
	07/14/06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	06/13/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-2R	08/18/06	--	--	260	--	510	0.62	2.6	0.53	0.85	<0.5	<0.5	<0.5	<0.5	<20	<2.5
	10/25/07	--	--	<50	<1.0	*150	<5.0	<5.0	<5.0	<1.0	<0.50	<0.50	<0.50	<1.0	<5.0	<0.50
	02/22/08	--	--	200	<1.0	*120	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--	<0.5
	02/22/08	--	--	200	<1.0	*120	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--	<0.5
	06/13/08	--	--	<50	<0.50	*98	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	10/03/08	--	--	<50	<0.50	*71	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	12/12/08	--	--	52	<0.50	*81	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	05/22/09	--	--	<0.050	<0.50	110	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	12/10/09	--	--	<50	<0.50	99	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
MW-3	03/10/93	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
	08/20/93	--	--	--	--	190	7.2	9.3	8.6	31	--	--	--	--	--	--
	12/03/93	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
	03/04/94	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
	06/10/94	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
	09/09/94	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
	12/16/94	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
	03/17/95	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
	06/23/95	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
	09/06/95	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
	01/18/96	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
	04/26/96	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
	02/03/97	--	--	--	--	--	ND	ND	ND	ND	--	--	--	--	--	--
	07/14/06	--	--	<50	<5.0	93	1.2	<0.3	<0.3	<0.3	<1.0	<1.0	<1.0	<1.0	<50	<1.0
	10/24/07	--	--	<50	<1.0	*540	<5.0	<5.0	<5.0	<1.0	<5.0	<0.50	<0.50	<1.0	<5.0	<5.0
	02/21/08	--	--	110	<20	*660	<5.0	<5.0	<5.0	<1.0	<50	--	--	--	--	<10
	02/21/08	--	--	110	<20	*660	<5.0	<5.0	<5.0	<1.0	<50	--	--	--	--	<10
06/13/08	--	--	<50	<0.50	*510	0.65	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50	
10/02/08	--	--	<50	<0.50	*500	<2.5	<2.5	<2.5	<5	--	--	--	--	--	<2.5	

**Table C-2**  
**Summary of Analytical Results**  
**Petroleum Hydrocarbon Related Constituents (ug/L)**

AB&I Foundry  
7825 San Leandro Street  
Oakland, California

Well Number	Date	Total Oil & Grease	Hydrocarbon Oil & Grease	TPH-Diesel	Naphthalene	TPH-Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	ETBE	TAME	DIPE	TBA	1,2-DCA
MW-3	12/11/08	--	--	<50	<2.5	*410	<2.5	<2.5	<2.5	9.5	--	--	--	--	--	<2.5
	05/21/09	--	--	<0.050	<2.5	0.55	<2.5	1.8	<2.5	<5.0	--	--	--	--	--	<2.5
	07/01/09	--	--		<2.5		<2.5	8.4	<2.5	<5.0	--	--	--	--	--	<2.5
	08/07/09	--	--		<0.50		0.67	7.1	<0.50	<1.0	--	--	--	--	--	<0.50
	09/10/09	--	--	--	<0.50	--	0.72	9.8	<0.50	<1.0	--	--	--	--	--	<0.50
	12/09/09	--	--	<0.50	<0.50	51	0.51	2.6	<0.50	<1.0	--	--	--	--	--	<0.50
MW-4	03/10/93	--	--	--	--	1,800	1.0	2.0	7.6	19	--	--	--	--	--	--
	08/20/93	--	--	--	--	350	5.6	4.9	7.5	22	--	--	--	--	--	--
	12/03/93	--	--	--	--	1,100	ND	ND	1.4	2.8	--	--	--	--	--	--
	03/04/94	--	--	--	--	50	ND	0.9	ND	1.1	--	--	--	--	--	--
	06/10/94	--	--	--	--	460	4.3	ND	1.8	4.3	--	--	--	--	--	--
	09/09/94	--	--	--	--	150	0.4	ND	0.7	1.3	--	--	--	--	--	--
	12/16/94	--	--	--	--	100	0.4	0.4	ND	1.2	--	--	--	--	--	--
	03/17/95	--	--	--	--	62	ND	ND	ND	ND	--	--	--	--	--	--
	06/23/95	--	--	--	--	180	ND	ND	0.9	1.7	--	--	--	--	--	--
	09/06/95	--	--	--	--	420	9.4	1.4	6.3	6.2	--	--	--	--	--	--
	01/18/96	--	--	--	--	90	0.8	ND	1.2	0.9	--	--	--	--	--	--
	04/26/96	--	--	--	--	ND	ND	ND	ND	ND	--	--	--	--	--	--
	02/03/97	--	--	--	--	110	ND	ND	0.53	ND	--	--	--	--	--	--
	07/14/06	--	--	82	9.9	1,200	11	2.8	18	9.3	<1.0	<1.0	<1.0	<1.0	<50	<1.0
	10/24/07	--	--	<50	<1.0	<50	<5.0	<5.0	<5.0	<1.0	<0.50	<0.50	<0.50	<1.0	<5.0	<0.50
	02/21/08	--	--	95	<1.0	<50	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--	<0.5
	02/21/08	--	--	95	<1.0	<50	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--	<0.5
	06/13/08	--	--	<50	<0.50	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	10/02/08	--	--	<50	<0.50	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	12/11/08	--	--	<50	<0.50	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
05/21/09	--	--	<0.050	<0.50	<0.050	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50	
12/09/09	--	--	<0.50	<0.50	70	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50	
MW-5	08/17/06	--	--	80	<1.0	<50	0.56	0.7	<0.3	<0.3	<0.5	<0.5	<0.5	<0.5	<20	<2.5
	10/25/07	--	--	<50	<1.0	<50	<5.0	<5.0	<5.0	<1.0	<0.50	<0.50	<0.50	<1.0	<5.0	<0.50
	02/22/08	--	--	130	<1.0	<50	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--	<0.5
	02/22/08	--	--	130	<1.0	<50	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--	<0.5

**Table C-2**  
**Summary of Analytical Results**  
**Petroleum Hydrocarbon Related Constituents (ug/L)**

AB&I Foundry  
7825 San Leandro Street  
Oakland, California

Well Number	Date	Total Oil & Grease	Hydrocarbon Oil & Grease	TPH-Diesel	Naphthalene	TPH-Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	ETBE	TAME	DIPE	TBA	1,2-DCA
MW-5	06/13/08	--	--	<50	<0.50	<50	0.65	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	10/02/08	--	--	<50	<0.50	*54	<0.5	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	12/11/08	--	--	51	<0.50	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	05/21/09	--	--	<0.050	<0.50	<0.050	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	12/10/09	--	--	<50	<0.50	53	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
MW-6	08/17/06	--	--	110	<1.0	<50	<0.3	<0.3	<0.3	<0.3	<0.5	<0.5	<0.5	<0.5	<20	<2.5
	10/24/07	--	--	110	<1.0	<50	<5.0	<5.0	<5.0	<1.0	<0.50	<0.50	<0.50	<1.0	<5.0	<0.50
	02/21/08	--	--	150	<1.0	<50	<0.5	<0.5	<0.5	1.5	<5.0	--	--	--	--	<0.5
	02/21/08	--	--	150	<1.0	<50	<0.5	<0.5	<0.5	1.5	<5.0	--	--	--	--	<0.5
	06/13/08	--	--	54	<0.50	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	10/02/08	--	--	56	<0.50	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	12/11/08	--	--	<50	<5.0	<50	<5.0	<5.0	<5.0	<10	--	--	--	--	--	<5.0
	05/21/09	--	--	<0.050	<0.50	<0.050	<0.50	<0.50	<0.50	<10	--	--	--	--	--	<0.50
	12/09/09	--	--	<50	<0.50	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
MW-7	08/17/06	--	--	520	<1.0	<50	<0.3	0.35	<0.3	<0.3	<0.5	<0.5	<0.5	<0.5	<20	<2.5
	10/25/07	--	--	370	<1.0	<50	<5.0	<5.0	<5.0	<1.0	<0.50	<0.50	<0.50	<1.0	<5.0	<0.50
	02/21/08	--	--	180	<1.0	<50	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--	<0.5
	02/21/08	--	--	180	<1.0	<50	<0.5	<0.5	<0.5	<1.0	<5.0	--	--	--	--	<0.5
	06/13/08	--	--	59	<0.50	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	10/02/08	--	--	120	<0.50	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	12/12/08	--	--	78	<5.0	<50	<5.0	<5.0	<5.0	<10	--	--	--	--	--	<5.0
	05/22/09	--	--	<0.050	<0.50	<0.050	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
	12/10/09	--	--	<50	<0.50	<50	<0.50	<0.50	<0.50	<1.0	--	--	--	--	--	<0.50
MW-8	08/17/06	--	--	78	<5.0	640	1.9	<0.3	<0.3	<0.3	<2.5	<2.5	<2.5	<2.5	<100	<2.5
	10/25/07	--	--	<50	<1.0	*1200	<5.0	<5.0	<5.0	<1.0	<0.50	<0.50	<0.50	<1.0	<5.0	<25
	02/21/08	--	--	140	<50	*2500	<25	<25	<25	<50	<250	--	--	--	--	<25
	02/21/08	--	--	140	<50	*2500	<25	<25	<25	<25	<250	--	--	--	--	<25
	06/13/08	--	--	<50	<10	*2100	<10	<10	<10	<20	--	--	--	--	--	<10
	10/02/08	--	--	<50	<5.0	*2100	2.8	<5.0	<5.0	<10	--	--	--	--	--	<5.0
	12/11/08	--	--	<50	<5.0	*1900	3.0	<5.0	<5.0	<10	--	--	--	--	--	<5.0
	05/21/09	--	--	<0.050	<5.0	2.1	2.9	<5.0	<5.0	<10	--	--	--	--	--	<5.0
Dup	05/21/09	--	--	<0.050	<5.0	2.1	2.8	<5.0	<5.0	<10	--	--	--	--	--	<5.0

**Table C-2**  
**Summary of Analytical Results**  
**Petroleum Hydrocarbon Related Constituents (ug/L)**

AB&I Foundry  
7825 San Leandro Street  
Oakland, California

Well Number	Date	Total Oil & Grease	Hydrocarbon Oil & Grease	TPH-Diesel	Naphthalene	TPH-Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	ETBE	TAME	DIPE	TBA	1,2-DCA
MW-8	07/01/09	--	--		<2.5		2.6	<2.5	<2.5	<5.0	--	--	--	--	--	<2.5
	08/07/09	--	--		<5.0		3.2	<5.0	<5.0	<10	--	--	--	--	--	<5.0
	09/10/09	--	--	--	<2.5	--	3.4	<2.5	<2.5	<5.0	--	--	--	--	--	<2.5
	12/09/09	--	--	<50	<2.5	180	3.0	<2.5	<2.5	<5.0	--	--	--	--	--	1.8
	Dup 12/09/09	--	--	<50	<5.0	190	2.8	<5.0	<5.0	<10	--	--	--	--	--	<5.0
MW-9	08/17/06	--	--	440	<40	7,400	250	11	51	14	<50	<50	<50	<50	<500	<40
	10/25/07	--	--	120	<1	1,300	89.0	2.0	6.0	<1	<0.50	<0.50	<0.50	<1.0	15.0	<1.0
	02/21/08	--	--	190	<4.0	2,600	170.0	2.8	9.1	<4.0	<20	--	--	--	--	<2.0
	06/13/08	--	--	180	2.1	2,900	180	3.0	7.6	2.1	--	--	--	--	--	<0.50
	10/03/08	--	--	200	1.8	3,100	170	2.8	5.9	1.9	--	--	--	--	--	<0.50
	12/11/08	--	--	86	1.3	2,300	120	2.1	2.7	1.4	--	--	--	--	--	<0.50
	05/22/09	--	--	250	2.2	3,500	180	2.9	3.9	1.7	--	--	--	--	--	<0.50
	07/01/09	--	--	470	3.3	3,400	53	2.0	9.5	0.28	--	--	--	--	--	<0.50
	08/07/09	--	--	340	0.82	2,400	9.1	0.5	2.2	1.5	--	--	--	--	--	<0.50
	09/10/09	--	--	460	0.87	3,100	5.7	0.36	1.4	1.7	--	--	--	--	--	<0.50
	12/09/09	--	--	150	1.3	2,700	36	0.87	2.7	1.1	--	--	--	--	--	<0.50

**Notes:**

-Historical data for sampling events conducted prior to October 2007 obtained from Table 2, Preliminary Groundwater Investigation Report, AB&I Foundry, BSK Associates, Inc., dated June 11, 2007.

ug/L = All concentrations reported in micrograms per liter (ug/L).

TPH = Total Petroleum Hydrocarbons

MTBE = methyl tert butyl ether

ETBE = ethyl tert butyl ether

TAME = tert-amyl methyl ether

DIPE = diisopropyl ether

TBA = tributyl alcohol

DCA = dichloroethane

ND = Not detected at or above laboratory reporting limit.

<50 = Not detected at or above laboratory reporting limit of 50 ug/L.

NS = Not sampled.

-- = Not analyzed.

\*500 = Reported due to the presence of discrete peaks

**Table C-3**  
**Summary of Analytical Results**  
**Volatile Organic Compounds and PAHs (ug/L)**  
 AB&I Foundry  
 7825 San Leandro Street  
 Oakland, California

Well Number	Date	Bromoform	Chlorodibromomethane	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	Vinyl Chloride	Isopropylbenzene	n-Propylbenzene	Polycyclic Aromatic Hydrocarbons EPA 8270C	
MW-1	03/10/93	--	--	--	--	--	--	--	--	--	--	--	--	
	08/20/93	--	--	--	--	--	--	--	--	--	--	--	--	
	12/03/93	--	--	--	--	--	--	--	--	--	--	--	--	
	03/04/94	--	--	--	--	--	--	--	--	--	--	--	--	
	06/10/94	--	--	--	--	--	--	--	--	--	--	--	--	
	09/09/94	--	--	--	--	--	--	--	--	--	--	--	--	
	12/16/94	--	--	--	--	--	--	--	--	--	--	--	--	
	03/17/95	--	--	--	--	--	--	--	--	--	--	--	--	
	06/23/95	--	--	--	--	--	--	--	--	--	--	--	--	
	09/06/95	--	--	--	--	--	--	--	--	--	--	--	--	
	01/18/96	--	--	--	--	--	--	--	--	--	--	--	--	
	04/26/96	--	--	--	--	--	--	--	--	--	--	--	--	
	02/03/97	--	--	--	--	--	--	--	--	--	--	--	--	
	07/14/06	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--
	08/17/06	--	--	--	--	--	--	--	--	--	--	--	--	ND
	10/25/07	<1.0	<0.50	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	02/22/08	<1.0	<0.50	<1.0	0.56	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	06/13/08	<0.50	<0.50	<0.50	0.4	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
	10/03/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
12/12/08	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--	
05/22/09	<0.50	--	<0.50	0.41	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	
12/10/09	<0.50	--	<0.50	0.41	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	
MW-2	03/10/93	0.6	ND	5.0	1.7	ND	ND	ND	6.7	6.7	6.7	6.7	--	
	08/20/93	ND	ND	4.7	ND	ND	ND	ND	ND	ND	ND	ND	--	
	12/03/93	ND	ND	3.8	ND	ND	ND	ND	ND	ND	ND	ND	--	
	03/04/94	ND	ND	3.7	ND	ND	ND	ND	ND	ND	ND	3.6	--	
	06/10/94	ND	ND	4.2	0.6	ND	ND	ND	0.8	0.8	0.8	0.8	--	
	09/09/94	ND	ND	1.4	0.8	ND	ND	ND	ND	ND	ND	ND	--	
	12/16/94	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	
	03/17/95	ND	ND	2.4	ND	ND	ND	ND	ND	ND	ND	ND	--	
	06/23/95	ND	ND	0.9	ND	ND	ND	ND	ND	ND	ND	ND	--	
	09/06/95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	
	01/18/96	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	
	04/26/96	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	
	02/03/97	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	
07/14/06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	--		
Well Abandoned														

**Table C-3**  
**Summary of Analytical Results**  
**Volatile Organic Compounds and PAHs (ug/L)**  
 AB&I Foundry  
 7825 San Leandro Street  
 Oakland, California

Well Number	Date	Bromoform	Chlorodibromomethane	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	Vinyl Chloride	Isopropylbenzene	n-Propylbenzene	Polycyclic Aromatic Hydrocarbons EPA 8270C	
MW-2R	08/18/06	<2.5	<2.5	390.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	ND	
	10/25/07	<1.0	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	--	
	02/22/08	<1	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	--	
	06/13/08	<0.50	<0.50	<0.50	<0.50	0.68	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	
	10/03/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	
	12/12/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	
	05/22/09	<0.50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	
	12/10/09	<0.50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--	
	MW-3	03/10/93	--	--	--	--	--	--	--	--	--	--	--	--
08/20/93		--	--	--	--	--	--	--	--	--	--	--	--	
12/03/93		--	--	--	--	--	--	--	--	--	--	--	--	
03/04/94		--	--	--	--	--	--	--	--	--	--	--	--	
06/10/94		--	--	--	--	--	--	--	--	--	--	--	--	
09/09/94		--	--	--	--	--	--	--	--	--	--	--	--	
12/16/94		--	--	--	--	--	--	--	--	--	--	--	--	
03/17/95		--	--	--	--	--	--	--	--	--	--	--	--	
06/23/95		--	--	--	--	--	--	--	--	--	--	--	--	
09/06/95		--	--	--	--	--	--	--	--	--	--	--	--	
01/18/96		--	--	--	--	--	--	--	--	--	--	--	--	
04/26/96		--	--	--	--	--	--	--	--	--	--	--	--	
02/03/97		--	--	--	--	--	--	--	--	--	--	--	--	
07/14/06		<20	<20	<20	200	960	<20	<20	<20	<20	<20	<20	<20	ND
10/24/07		<10	<5.0	<10	180	680	5.0	<5	13.0	7.5	<5.0	<10	<10	--
02/21/08		<10	<5	<10	220	920	9.3	<5	<5	10.0	<5	<10	<10	--
06/12/08		<0.50	<0.50	<0.50	170	910	7.9	0.5	<0.50	13.0	<0.50	<0.50	<0.50	--
10/02/08	<2.5	<2.5	<2.5	190	1,000	7.6	1.5 J	<2.5	9.6	<2.5	<2.5	<2.5	--	
12/11/08	<2.5	<2.5	<2.5	200	2,000	9.4	<2.5	2.2	9.5	<2.5	<2.5	<2.5	--	
05/21/09	<2.5	--	<2.5	220	1,000	10	1.2	<2.5	8.4	<2.5	<2.5	<2.5	--	
07/01/09	<2.5	--	<2.5	160	620	7.5	<2.5	<2.5	6.7	<2.5	<2.5	<2.5	--	
08/07/09	<0.50	--	61	110	94	1.2	<0.50	<0.50	29	<0.50	<0.50	<0.50	--	
09/10/09	<0.50	--	150	5.6	11	0.20	0.47	<0.50	3.6	<0.50	<0.50	<0.50	--	
12/09/09	<0.50	--	78	16	6.4	0.25	0.37	<0.50	17	<0.50	<0.50	<0.50	--	
MW-4	03/10/93	--	--	--	--	--	--	--	--	--	--	--	--	
	08/20/93	--	--	--	--	--	--	--	--	--	--	--	--	
	12/03/93	--	--	--	--	--	--	--	--	--	--	--	--	
	03/04/94	--	--	--	--	--	--	--	--	--	--	--	--	
	06/10/94	--	--	--	--	--	--	--	--	--	--	--	--	

**Table C-3**  
**Summary of Analytical Results**  
**Volatile Organic Compounds and PAHs (ug/L)**  
 AB&I Foundry  
 7825 San Leandro Street  
 Oakland, California

Well Number	Date	Bromoform	Chlorodibromomethane	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	Vinyl Chloride	Isopropylbenzene	n-Propylbenzene	Polycyclic Aromatic Hydrocarbons EPA 8270C
MW-4	09/09/94	--	--	--	--	--	--	--	--	--	--	--	--
	12/16/94	--	--	--	--	--	--	--	--	--	--	--	--
	03/17/95	--	--	--	--	--	--	--	--	--	--	--	--
	06/23/95	--	--	--	--	--	--	--	--	--	--	--	--
	09/06/95	--	--	--	--	--	--	--	--	--	--	--	--
	01/18/96	--	--	--	--	--	--	--	--	--	--	--	--
	04/26/96	--	--	--	--	--	--	--	--	--	--	--	--
	02/03/97	--	--	--	--	--	--	--	--	--	--	--	--
	07/14/06	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<5.0	--
	10/24/07	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	02/21/08	<1.0	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	06/12/08	<0.50	<0.50	<0.50	<0.50	0.73	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
	10/02/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/11/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
	05/21/09	<0.50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/09/09	<0.50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
MW-5	08/17/06	2.2	1.0	4.8	4.8	1.2	3.1	1.0	<5.0	<5.0	<5.0	<5.0	ND
	10/25/07	<1.0	<0.5	<1.0	2	1.5	1.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	02/22/08	<1.0	<0.5	<1.0	1.4	1	3.3	1.1	<0.5	<0.5	<0.5	<1.0	--
	06/12/08	<0.50	<0.50	<0.50	1.1	1.5	5.1	2	<0.50	<0.50	<0.50	<0.50	--
	10/02/08	<0.50	<0.50	<0.50	1.2	0.81	3.9	1.7	<0.50	<0.50	<0.50	<0.50	--
	12/11/08	<0.50	<0.50	<0.50	1.6	0.76	3.4	1.2	<0.50	<0.50	<0.50	<0.50	--
	05/21/09	<0.50	--	<0.50	0.7	0.71	3.3	1.1	<0.50	<0.50	<0.50	<0.50	--
	12/10/09	<0.50	--	<0.50	0.58	0.63	2.2	0.67	<0.50	<0.50	<0.50	<0.50	--
MW-6	08/17/06	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND
	10/24/07	<1.0	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
	02/21/08	<1.0	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	06/12/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
	10/02/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/11/08	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--
	05/21/09	<0.50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/09/09	<0.50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
MW-7	08/17/06	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	ND
	10/25/07	<1.0	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	--
	02/21/08	<1.0	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	--
	06/13/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
	10/02/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--

**Table C-3**  
**Summary of Analytical Results**  
**Volatile Organic Compounds and PAHs (ug/L)**  
 AB&I Foundry  
 7825 San Leandro Street  
 Oakland, California

Well Number	Date	Bromoform	Chlorodibromomethane	Chloroethane	1,1-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,1,1-Trichloroethane	Vinyl Chloride	Isopropylbenzene	n-Propylbenzene	Polycyclic Aromatic Hydrocarbons EPA 8270C
MW-7	12/12/08	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	--
	05/22/09	<0.50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
	12/10/09	<0.50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	--
MW-8	08/17/06	<2.5	<2.5	100	560	900	<2.5	<2.5	1,000	7.4	1,000	7.4	ND
	10/25/07	<50	<25	290	1600	1600	<0.5	<25	1700	<25	<25	<50	--
	02/21/08	<50	<25	290	1800	2300	<25	<25	2500	<25	<25	<50	--
	06/12/08	<10	<10	300	1400	3200	<10	<10	2700	19	<10	<10	--
	10/02/08	<5.0	<5.0	320	1100	1900	<5	<5	1700	16	5.2	<5.0	--
	12/11/08	<5.0	<5.0	320	1300	2000	<5.0	<5.0	2000	15	6.2	<5.0	--
	05/21/09	<5.0	--	320	1500	1900	<5.0	<5.0	1900	16	5.3	<5.0	--
	07/01/09	<2.5	--	350	1200	1100	<2.5	<2.5	960	11	<2.5	<2.5	--
	08/07/09	<5.0	--	370	1600	1300	<5.0	<5.0	1700	9.6	<5.0	<5.0	--
	09/10/09	<2.5	--	340	2600	1100	<2.5	<2.5	45	50	4.0	<2.5	--
	12/09/09	<2.5	--	2400	94	58	<2.5	<2.5	14	85	4.1	<2.5	--
	12/09/09	<5.0	--	2400	92	60	<5.0	<5.0	14	82	<5.0	<5.0	--
MW-9	08/23/06	<40	<40	<40	<40	<40	<40	<40	<40	<40	53	62	ND
	10/25/07	<2.0	<1.0	<2.0	<1.0	<1.0	<0.5	<1.0	<1.0	<1.0	<1.0	<2.0	--
	02/21/08	<4.0	<2.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	23	24	--
	06/12/08	<0.50	<0.50	<0.50	<0.50	1.4	<0.50	<0.50	<0.50	<0.50	22	26	--
	10/03/08	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	29	--
	12/11/08	<0.50	<0.50	<0.50	<0.50	1.4	<0.50	<0.50	<0.50	<0.50	19	23	--
	05/22/09	<0.50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	21	26	--
	07/01/09	<0.50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	34	44	--
	08/07/09	<0.50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	8.8	9.9	--
	09/10/09	<0.50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	4.0	3.8	--
	12/09/09	<0.50	--	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	5.5	1.3	--

**Notes:**

-Historical data for sampling events conducted prior to October 2007 obtained from Table 3, Preliminary Groundwater Investigation Report, AB&I Foundry, BSK Associates, Inc., dated June 11, 2007.

ug/L = All concentrations reported in micrograms per liter (ug/L)

ND = Not detected at or above laboratory reporting limit.

<5.0 = Not detected at or above laboratory reporting limit of 5.0 ug/L.

NS = Not sampled.

-- = Not analyzed.