2012 GROUNDWATER MONITORING REPORT
MONTROSE SUPERFUND SITE
20201 South Normandie Avenue
Los Angeles, California

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ACRONYMS AND ABBREVIATIONS

Abbreviation	**Term**
AMSL	Above Mean Sea Level
BFS	Bellflower Sand Aquifer
bgs	Below ground surface
BHC	Benzene Hexachloride
C	Centigrade
CF	Chloroform
DNAPL	Dense Non-Aqueous Phase Liquid
DDT	Dichlorodiphenyltrichloroethane
1,4-DCB	1,4-Dichlorobenzene
1,2-DCA	1,2-Dichloroethane
1,1-DCE	1,1-Dichloroethene
c-1,2-DCE	Cis-1,2-Dichloroethene
DO	Dissolved Oxygen
ft/ft	Feet per foot
FSP	Field Sampling Plan
Gage	Gage Aquifer
gpm	Gallons per minute
IDW	Investigation Derived Waste
ISGS	In-Situ Groundwater Standards
Lynwood	Lynwood Aquifer
MS/MSD	Matrix Spike/Matrix Spike Duplicate
MCL	Maximum Contaminant Level
MBFB	Middle Bellflower B Sand
MBFC	Middle Bellflower C Sand
mg/L	Milligrams per liter
mS/cm	Milli-Siemens per centimeter
mV	Millivolts
MCB	Monochlorobenzene
Montrose	Montrose Chemical Corporation of California
NGVD	National Geodetic Vertical Datum
NPL	National Priorities List
NTUs	Nephelometric Turbidity Units
NAVD	North American Vertical Datum
ORP	Oxygen Reduction Potential
pCBSA	Para-Chlorobenzene Sulfonic Acid
PCE	Tetrachloroethene
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
%R	Percent Recovery
RPD	Relative Percent Difference

ACRONYMS AND ABBREVIATIONS

Abbreviation	Term
SDG	Sample Delivery Group
Site	Montrose Superfund Site
TCE	Trichloroethene
1,2,4-TMB	1,2,4-Trimethylbenzene
TGRS	Torrance Groundwater Remediation System
ug/L	Micrograms per liter
USEPA	United States Environmental Protection Agency
UBA	Upper Bellflower Aquitard
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

A comprehensive groundwater monitoring event was last conducted at the Site in October 2006 (H+A, 2007), and a supplemental groundwater monitoring event was last conducted at the Site in April 2009 (H+A, 2009). At the direction of USEPA Region 9, groundwater monitoring was conducted at the Montrose Site in 2012 to evaluate changes in the hydraulic gradients and dissolved chemical concentrations since the last comprehensive monitoring events in 2006 and 2009.

Although concentrations have increased or decreased in a small number of wells, the overall extent of MCB and pCBSA in the UBA, BFS, and Gage Aquifers has not appreciably changed since the prior groundwater monitoring events in 2006 and 2009. The dissolved MCB and pCBSA plumes have not grown in extent including at the toe of the plume. Indeed, the toe of the MCB plume in the BFS has withdrawn by approximately 200 feet.

The horizontal hydraulic gradients have not increased in any of aquifer units since the prior comprehensive monitoring event. The horizontal hydraulic gradients remain relatively small between 0.0002 and 0.0005 ft/ft in all aquifer units. Similarly, the vertical hydraulic gradients between aquifer units have not increased since the prior monitoring event. The vertical hydraulic gradients between the UBA/BFS and BFS/Gage remain relatively low between 0.005 and 0.07 ft/ft (i.e., less than 2 feet vertical difference between aquifer units). Consistent with prior monitoring events, the vertical hydraulic gradient between the Gage and Lynwood Aquifers remain approximately 0.14 to 0.21 ft/ft with 11 feet vertical difference between aquifer units. Groundwater levels have risen by approximately 0.5 feet since 2009 and 2 feet since 2006 in all water-bearing units.

The estimated influent concentrations to the groundwater treatment system were updated based on the 2012 groundwater monitoring data as described in Section 3.8. The majority of estimated influent concentrations decreased or stayed the same as prior estimates including MCB and pCBSA. The estimated influent concentrations of two constituents increased slightly including 1,2-DCA and b-BHC. A total of 13 constituents were identified as having estimated influent concentrations above regulatory standards.

1 INTRODUCTION

On behalf of Montrose Chemical Corporation of California (Montrose), this report documents groundwater sampling activities conducted in 2012 at the Montrose Superfund Site (Site) in Los Angeles, California (**Figure 1**). Montrose manufactured technical grade dichlorodiphenyltrichloroethane (DDT) at this location from 1947 to 1982, and the United States Environmental Protection Agency (USEPA) proposed the Site for the Superfund National Priorities List (NPL) in 1984. Remedial investigations conducted at the Montrose Site have documented chemical impacts to groundwater including monochlorobenzene (MCB), a volatile organic compound (VOC) and raw material used in the DDT manufacturing process (USEPA, 1998).

A comprehensive groundwater monitoring event was last conducted at the Site in October 2006 (H+A, 2007), and a supplemental groundwater monitoring event was last conducted at the Site in April 2009 (H+A, 2009). At the direction of USEPA Region 9, groundwater monitoring was conducted at the Montrose Site in 2012 to evaluate changes in the hydraulic gradients and dissolved chemical concentrations since the last comprehensive monitoring events in 2006 and 2009. Montrose submitted a groundwater sampling workplan to USEPA on January 3, 2012 (Sundberg, 2011), which was subsequently approved by USEPA in a letter dated January 24 (USEPA, 2012).

The 2012 groundwater monitoring activities were conducted in accordance with the above-referenced workplan and previously established Final Field Sampling Plan (FSP; H+A, 2003a) and Final Quality Assurance Project Plan (QAPP; H+A, 2003b). The 2012 groundwater monitoring event was additionally coordinated with Shell Oil Company in order to obtain one comprehensive groundwater data set to support the Dual-Site Groundwater Operable Unit composed of the Montrose and Del Amo Superfund Sites.

1.1 Investigation Objectives

The objectives of the 2012 groundwater monitoring event were as follows:

1. Update the existing groundwater characterization data to support future assessment of chemical concentration trends, flow directions, and gradients as first recommended in EPA's April 1, 2010 letter entitled "Dual Site Groundwater Operable Unit, Montrose and Del Amo Superfund Sites - 2010 Groundwater Monitoring Recommendations".
2. Acquire specific groundwater characterization information for verification of influent parameters for the currently on-going design program for the Torrance Groundwater Remediation System (TGRS).
3. Generate an updated site-wide data set of groundwater level measurements to supplement the scope of work envisioned by the 2010 EPA recommendation letter.

A fourth objective established in the above-referenced workplan was not carried forward to the monitoring event as Montrose elected to not conduct an arsenic treatability study.

1.2 Hydrogeology

The hydrologic units under investigation in 2012 are briefly summarized below (from shallowest to deepest):

Upper Bellflower Aquitard (UBA): This water-bearing unit typically occurs from approximately 60 to 105 feet below ground surface (bgs) at the Site. The unit is characterized by interbedded layers of fine-grained sand and silt/clay. The lower portion of the UBA, from approximately 95 to 105 feet bgs, is predominantly composed of silty sand. The horizontal hydraulic gradient across the UBA at the Site is typically less than 0.001 vertical feet per horizontal foot (ft/ft) and in a southerly direction.

The UBA is the uppermost water-bearing unit and is also called the Water Table Unit. The UBA is also hydraulically consistent with the Middle Bellflower B Sand (MBFB) as defined at the Del Amo Superfund Site.

Bellflower Sand Aquifer (BFS): The BFS directly underlies the UBA and typically occurs from approximately 105 to 130 feet bgs. The BFS is predominantly composed of fine-grained sand with increasing grain size towards the bottom of the unit. The BFS is a confined aquifer with water levels only slightly deeper than in the UBA. The horizontal hydraulic gradient in the BFS is also typically less than 0.001 ft/ft and in a southeasterly direction.

The BFS is hydraulically consistent with the Middle Bellflower C Sand (MBFC) as defined at the Del Amo Superfund Site.

Gage Aquifer (Gage): The Gage is the aquifer unit underlying the BFS and typically occurs from approximately 140 to 200 feet bgs at the Montrose property. The Lower Bellflower Aquitard separates the two aquifer units. The Gage is predominantly composed of fine-grained sand with decreasing grain size towards the bottom of the unit and is relatively homogeneous at the Site. The Gage is a confined aquifer unit with water levels typically 1 to 2 feet deeper than in the BFS. The horizontal hydraulic gradient in the Gage is also typically less than 0.001 ft/ft and in a southeasterly direction.

Lynwood Aquifer (Lynwood): The Lynwood is the aquifer unit underlying the Gage and typically occurs beginning at a depth of approximately 230 feet bgs. The Gage-Lynwood Aquitard separates the two aquifer units. The upper portion of the Lynwood is predominantly composed of fine to medium-grained sand, while underlying portions are predominantly composed of well-graded sands, gravelly sands, and sandy gravels. The Lynwood is a confined aquifer with water levels approximately 10 feet deeper than in the Gage. The horizontal hydraulic gradient in the Lynwood is typically only 0.0002 ft/ft and in a northeasterly direction.

1.3 Extent of Dissolved-Phase Chemicals

MCB and para-chlorobenzenesulfonic acid (pCBSA) are the two primary chemicals of concern for groundwater beneath and downgradient from the Montrose property. DDT is insoluble in water and has been infrequently detected at low concentrations in wells, located at or near the Montrose property, containing elevated concentrations of MCB (see Final Remedial Investigation Report, EPA, 1998 for details). The extent of MCB and pCBSA in groundwater at the Site was last documented in 2006 and 2009 and is briefly summarized as follows:

UBA: MCB has been detected in the UBA in concentrations up to 380,000 micrograms per liter (ug/L) at the Montrose property, which is approximately 95% of the solubility limit and substantially higher than the concentrations observed in the underlying water-bearing units. This water-bearing unit contains dense non-aqueous phase liquid (DNAPL), which is the primary source of MCB to the saturated zone at the site. Under EPA oversight, an extensive DNAPL investigation was conducted at the site in 2003 and 2004 (H+A, 2004). Multiple lines of evidence were used to distinguish the presence of DNAPL at the site, and based on the results of that investigation, the lateral extent of DNAPL in the UBA was determined to be approximately 500 feet wide (see Figure 2.27 of the Revised DNAPL Feasibility Study, AECOM, 2011). However, due to the low horizontal hydraulic conductivity of the UBA, dissolved MCB concentrations above the in-situ groundwater standards (ISGS; see Record of Decision, EPA, 1999) of 70 ug/L extend a limited distance of approximately 1,000 feet downgradient from the Montrose property.

pCBSA has been detected in the UBA in concentrations up to 470,000 ug/L at the Montrose property. The extent of pCBSA in the UBA is similar to the extent of MCB. No ISGS was established for pCBSA, which is not a common environmental contaminant, but EPA established an injection limit of 25,000 ug/L for pCBSA as part of the Record of Decision for the Montrose Superfund Site (EPA, 1999).

BFS: MCB has been detected in the BFS in concentrations up to 87,000 ug/L at the Montrose property. While these concentrations are in excess of the 1% of solubility "rule of thumb" established by EPA and ITRC for investigation of potential DNAPL-impacted sites (EPA, 1992; ITRC, 2002), there is no direct evidence that DNAPL is present in the underlying BFS. If there was a significant source of DNAPL in the BFS, then multiple lines of evidence would have indicated the presence of DNAPL in the BFS during prior investigations. EPA and Montrose agree that, if DNAPL is present in the BFS, it would be significantly less than observed in the overlying UBA. The BFS has a higher hydraulic conductivity than the UBA, and consequently, MCB concentrations above the ISGS extend a distance of approximately 4,700 feet downgradient from the Montrose property.

pCBSA has been detected in the BFS in concentrations up to 130,000 ug/L downgradient from the Montrose property. Due to its high solubility (relative to MCB), pCBSA extends up to a distance of approximately 5,400 feet downgradient from the Montrose property.

Gage: MCB has been detected in the Gage in concentrations up to 16,000 ug/L and at a distance of approximately 4,300 feet downgradient from the Montrose property. There has been no evidence of DNAPL occurring in the Gage Aquifer. pCBSA has been detected in the Gage in concentrations up to 49,000 ug/L and at a distance of approximately 8,200 feet downgradient from the Montrose property.

Lynwood: MCB has only been detected in 1 of 7 Lynwood monitoring wells (LW-1) at a concentration below the ISGS (H+A, 2007). pCBSA was also only detected in 1 of 7 Lynwood wells (LW-1) at a concentration of 390 ug/L (H+A, 2007). Well LW-1 was installed in 1989 and is located near the center of the Montrose property.

2 GROUNDWATER SAMPLING ACTIVITIES

A total of 77 groundwater wells were sampled between January 24 and March 28, 2012 as shown in **Figure 2**. The groundwater wells were sampled by multiple parties as follows:

- 43 groundwater wells were sampled by AECOM on behalf of Montrose;
- 34 groundwater wells were sampled by other consultants on behalf of Shell and Boeing, 12 of which were used to characterize groundwater impacts associated with the Montrose Superfund Site.

A groundwater sampling matrix is provided as **Table 2** and summarizes the wells sampled by AECOM, the sampling dates, and the requested analyses. Wells sampled by water-bearing unit are summarized as follows:

- UBA: AECOM collected 4 groundwater samples from the UBA during the 2012 groundwater monitoring event. URS collected 24 groundwater samples from the UBA, 3 of which were from Montrose-owned wells. URS sample results are mapped in this report but are not otherwise tabulated or discussed except where appropriate for delineating dissolved contaminants associated with the Montrose Superfund Site (URS, 2012).
- BFS: A total of 26 groundwater samples were collected from the BFS including 18 samples collected by AECOM, 2 by Avocet on behalf of Boeing, and 6 by URS on behalf of Shell.
- Gage Aquifer: A total of 23 groundwater samples were collected from the Gage Aquifer including 21 by AECOM and 2 by URS. 2 of the 23 samples were not analyzed for VOCs (pesticides only).
- Lynwood Aquifer: In 2006, MCB was only detected in one Lynwood monitoring well (LW-1) at a concentration below the ISGS. Therefore, none of the Lynwood Aquifer monitoring wells were sampled for VOCs or other dissolved chemicals. During the 2012 monitoring event, the Lynwood Aquifer monitoring wells were only gauged to evaluate changes in horizontal and vertical hydraulic gradients.

2.1 Water Level Measurements

Groundwater levels were measured from a total of 215 wells during the 2012 monitoring event including:

- 95 UBA wells
- 61 BFS wells
- 52 Gage Aquifer wells
- 7 Lynwood Aquifer wells

Groundwater levels were measured using a Solinst Model 102 electronic water level meter. All water level meters used by AECOM and URS were checked and calibrated prior to the start of gauging on February 13, 2012. Gauging of the wells was subsequently conducted by both AECOM and URS between February 13 and 21. Water levels from two BFS wells, CMW001 and CMW002, were collected by Avocet on March 20. The depth to groundwater was measured from the surveyed top of casing. Groundwater elevations were determined by subtracting the depth to water from the top of casing

elevation. Groundwater levels and elevations are provided in **Table 1** and are based on the National Geodetic Vertical Datum (NGVD) 29. Groundwater elevation results for each water-bearing unit are discussed in Section 3.

The surveyed top of casing elevations for the two Boeing wells, CMW001 and CMW002, are based on the North American Vertical Datum (NAVD) 88. The difference in the two survey datums is approximately 2.45 feet. Consequently, the groundwater elevations reported for the two Boeing wells was corrected by subtracting 2.45 feet. The elevations shown for these two wells in Table 1 are the corrected values for NGVD 29.

2.2 Groundwater Sampling Methods

Groundwater samples were collected in accordance with the site-specific Field Sampling Plan (H+A, 2003a) using macro-purge methods. Dedicated electric submersible pumps were used, where available and functional, to purge a minimum of 3 well volumes from the monitoring wells. Functional dedicated submersible pumps were found in five wells (BF-11, BF-12, BF-25, BF-26, and BF-29). For all other wells, a non-dedicated electric submersible pump was used to macro-purge the wells prior to sampling. The non-dedicated submersible pump and associated piping was decontaminated prior to use and following each well using low pressure steam. Water Development Corporation provided the non-dedicated macro-purge sampling equipment and conducted the well purging.

Field parameters were monitored during well purging using a Horiba U-52 water quality meter and Hanna oxidation reduction potential (ORP) meter. Field parameters monitored during well purging included water temperature, pH, electric conductivity, dissolved oxygen (DO), ORP, and turbidity. Groundwater was purged until a minimum of 3 well volumes had been removed and temperature, pH, and electrical conductivity had stabilized within ±10% over three consecutive readings. The range of field parameters exhibited within each of the aquifers by the end of macro-purging are summarized as follows:

<u>UBA</u>

- Groundwater was purged at rates between 1.5 and 5 gallons per minute (gpm)
- Temperature ranged from 23 to 25° Centigrade (°C)
- pH ranged from 6.6 to 6.8
- Conductivity ranged from 3 to 14 milliSiemens per centimeter (mS/cm)
- DO ranged from 1.2 to 1.5 milligrams per liter (mg/L)
- ORP ranged from -79 to +122 millivolts (mV)
- Turbidity ranged from <1 to 3 Nephelometric Turbidity Units (NTUs)

<u>BFS</u>

- Groundwater was purged at rates between 2 and 10 gpm
- Temperature ranged from 20 to 24°C
- pH ranged from 6.8 to 7.7
- Conductivity ranged from 0.9 to 3 mS/cm
- DO ranged from <0.1 to 1.8 mg/L
- ORP ranged from -141 to +131 mV
- Turbidity ranged from <1 to 30 NTUs

Gage Aquifer

- Groundwater was purged at rates between 5 and 10 gpm
- Temperature ranged from 22 to 25°C
- pH ranged from 7.3 to 8.9
- Conductivity ranged from 0.4 to 1.2 mS/cm
- DO ranged from <0.1 to 1.4 mg/L
- ORP ranged from -154 to +148 mV
- Turbidity ranged from <1 to 7 NTUs

Following purging and where available, groundwater samples were collected using dedicated low flow bladder pumps. Functional dedicated bladder pumps were found in only three wells (BF-11, BF-25, and BF-26) and were used to collect groundwater samples after purging a minimum of one tubing volume at a low flow rate less than 400 milliliters per minute. For all other macro-purged monitoring wells, groundwater samples were collected using a disposable polypropylene bailer. Wells CMW001 and CMW002 were purged and sampled by Avocet on behalf of Boeing using low flow sampling techniques (no macro-purge) at a rate of approximately 200 milliliters per minute. Well purge logs are provided in **Appendix A**.

2.2.1 Re-Sampling Activities

Although the planned sampling activities were completed on March 21, 2012, a small number of the laboratory results were not consistent with prior sampling events. To confirm the anomalous results, five groundwater monitoring wells were re-sampled between March 26 and 28 including BF-12, BF-EW-1, G-6, G-9, and SWL0026.

The five groundwater wells were re-sampled using the same methods as described in Section 2.2, except that a low flow bladder pump and Teflon™ tubing was used to collect the sample from the middle of the well screen in lieu of using a disposable bailer. Prior to sampling, a minimum of one tubing volume of groundwater was purged at a rate less than 400 milliliters per minute. Re-sampling results are reported in addition to the original sample results. 3 of the 5 wells re-sampled in March (BF-12, G-6, and G-9) exhibited similar results as the original sample, indicating a change in concentration from prior monitoring events (although result for G-9 is within historical concentration range). However, 2 of the 5 wells re-sampled in March (BF-EW-1 and SWL0026) exhibited differing results (from the original samples) which were more consistent with prior monitoring results (although result for SWL0026 is still above the historical concentration range).

2.3 Analytical Methods

Groundwater samples collected during the 2012 monitoring event were analyzed as follows:

- VOCs: A total of 41 samples were collected by AECOM and submitted for VOC analysis by EPA Method 8260B. An additional 34 samples were collected by other consultants and submitted for VOC analysis by EPA 8260B, 12 of which were used to characterize groundwater associated with the Montrose Site.

- pCBSA: A total of 30 groundwater samples were submitted for analysis of pCBSA by EPA Method 314.0 Modified.
- Pesticides: A total of 12 groundwater samples were analyzed for pesticides by EPA Method 8081A.
- Arsenic: A total of 7 groundwater samples were analyzed for total arsenic by EPA Method 6020, and 5 of the 7 samples were additionally analyzed for arsenic ion (III and V) by EPA Method 200.8.

The majority of groundwater samples were analyzed by Calscience Environmental Laboratories, Inc. in Garden Grove, California. The arsenic ion speciation by EPA Method 200.8 was subcontracted to Weck Laboratories, Inc. in the City of Industry, California. Split samples were submitted to Test America Laboratories, Inc. in Irvine, California. Copies of laboratory reports and electronic data deliverables are provided in **Appendix B**.

2.4 Investigation-Derived Waste

Purged groundwater and decontamination water was temporarily stored at the Montrose property in two Baker tanks. A composite of the investigation-derived waste (IDW) was collected on February 16, 2012 and analyzed for:

- VOCs by EPA Method 8260B
- pCBSA by EPA Method 314.0 modified
- Metals by EPA Methods 6020 and 7470A
- Pesticides by EPA Method 8081A
- Methylene Blue Active Substances by Standard Method 5540C

Based on the laboratory results, the IDW was characterized as a non-hazardous waste. Approximately 16,000 gallons of wastewater was transported by NRC Environmental Services to the Crosby & Overton facility in Long Beach, California between March 7 and April 16, 2012 (5 loads). A copy of the IDW laboratory results and associated waste manifests are provided in **Appendix D**.

3 GROUNDWATER MONITORING RESULTS

This section presents the results of the 2012 groundwater monitoring event including both hydraulic and laboratory data. The results are presented by water-bearing unit in the following sections.

3.1 Upper Bellflower Aquitard

UBA samples were selectively analyzed for VOCs, pesticides, and arsenic as indicated in Table 2.

3.1.1 Groundwater Elevations and Horizontal Gradient

The depth to groundwater in the UBA monitoring wells ranged from 27 to 65 feet. The associated groundwater elevations ranged from -3.87 feet above mean sea level (AMSL) at PZL0005 to -10.78 ft AMSL at SWL0042. At the Montrose property, groundwater elevations ranged from -9.24 ft AMSL at UBE-2 to -9.85 ft AMSL at UBE-3. Groundwater elevations are provided in **Table 1** and mapped in **Figure 3**.

The horizontal hydraulic gradient in the UBA across the Montrose property is relatively small at approximately 0.0003 ft/ft in a generally southerly direction. Horizontal hydraulic gradients in the UBA increase to the east, at the eastern boundary of the Del Amo Superfund Site, and are up to 0.0019 ft/ft in a south/southwesterly direction. The horizontal gradient is slightly below the gradient range previously measured in 2006 (i.e., 0.0004 to 0.0008 ft/ft).

Groundwater elevations in the UBA have risen by less than 0.5 feet since 2009 and by approximately 2 feet since 2006. A hydrograph of groundwater elevations in the UBA is provided as **Figure 4**.

3.1.2 MCB

A total of 4 groundwater samples were collected by AECOM from UBA monitoring wells and analyzed for VOCs by EPA Method 8260B. URS collected an additional 24 groundwater samples from UBA monitoring wells and analyzed them for VOCs by EPA Method 8260B. This sample total excludes well G-02WC, which was previously identified by URS as a MBFB well but is screened deeper than a typical UBA well (82 to 92 feet bgs) and is hydraulically consistent with the BFS (i.e., groundwater elevations virtually identical to well BF-14). MCB concentrations in the UBA varied from <1 ug/L at multiple wells to 130,000 ug/L at MW-1. Concentrations exceeding the ISGS of 70 ug/L were detected at 5 wells. MCB results are provided in **Table 3**, and MCB results for all 28 wells are mapped in **Figure 5**.

MCB concentrations in the UBA were generally consistent with historical results with the exception of the following:

- MW-6: MCB concentration of 26 ug/L is below the historical range (130 to 13,000 ug/L).
- SWL0049: MCB concentration of 2,900 ug/L is above the historical range (8 to 2,100 ug/L). The prior result from November 2006 (8 ug/L) was anomalously low relative the rest of the historical data for this well (520 to 2,100 ug/L).

With the exception of the above wells, the overall distribution of MCB in the UBA remains relatively unchanged from the prior groundwater monitoring events.

3.1.3 Other VOCs

Other than MCB, a total of 21 VOCs were detected in the 4 groundwater samples collected from UBA wells during the 2012 monitoring event. VOC results are provided in Table 3. 12 of the 21 detected VOCs exceeded their respective ISGS in at least one sample including (in declining concentration order):

- Tetrachloroethene (PCE): 3 of 4 samples at concentrations up to 17,000 ug/L at MW-6. The PCE concentration of 580 ug/L at MW-13 is above the historical range for this well (<100 to 400 ug/L). All other PCE concentrations are consistent with historical results.
- Chloroform (CF): 3 of 4 samples at concentrations up to 14,000 ug/L at MW-1, which is consistent with historical results.
- Benzene: All 4 samples at concentrations up to 7,000 ug/L at MBFB-EW-1. The benzene concentrations at MBFB-EW-1, MW-6, and MW-13 are all below their respective historical ranges. The benzene concentration at MW-1 is consistent with historical results.
- Ethylbenzene: 2 of 4 samples at concentrations up to 920 ug/L at MBFB-EW-1. The ethylbenzene concentration of 450 ug/L at MW-13 is below the historical range for this well (680 to 2,200 ug/L). All other ethylbenzene concentrations are consistent with historical results.
- Trichloroethene (TCE): 3 of 4 samples at concentrations up to 810 ug/L at MW-13. The TCE concentration of 810 ug/L at MW-13 is above the historical range for this well (410 to 510 ug/L). All other TCE concentrations are consistent with historical results.
- 1,2,4-Trimethylbenzene (1,2,4-TMB): 2 of 4 samples at concentrations up to 550 ug/L at MBFB-EW-1. The 1,2,4-TMB concentration of 550 ug/L at MBFB-EW-1 is slightly above the historical result for this well (370 ug/L). The 1,2,4-TMB concentration of 360 ug/L at MW-13 is below the historical range for this well (530 to 1,000 ug/L).
- Toluene: 1 of 4 samples at a concentration of 400 ug/L at MW-13, which is consistent with historical results.
- 1,2-Dichloroethane (1,2-DCA): 2 of 4 samples at concentrations up to 280 ug/L at MBFB-EW-1. The 1,2-DCA concentration of <20 ug/L at MW-13 is below the historical range for this well (36 to 500 ug/L). All other 1,2-DCA concentrations are consistent with historical results.
- Naphthalene: 2 of 4 samples at concentrations up to 180(J) ug/L at MBFB-EW-1. The naphthalene concentration of 180J ug/L at MBFB-EW-1 is above the historical result (69 ug/L). The naphthalene concentration of 160 ug/L at MW-13 is below the historical range for this well (260 to 500 ug/L).
- 1,1-Dichloroethene (1,1-DCE): 1 of 4 samples at a concentration of 110 ug/L at MW-6, which is consistent with historical results.
- cis-1,2-Dichloroethene (c-1,2-DCE): 2 of 4 samples at concentrations up to 57 ug/L at MW-6, which is consistent with historical results.
- 1,1-Dichloroethane: 1 of 4 samples at a concentration of 39 ug/L at MW-6, which is below the historical range for this well (<50 to 130 ug/L).

- 1,1,2-Trichloroethane: 1 of 4 samples at a concentration of 15 ug/L at MW-6, which is below the historical range for this well (37J to 85 ug/L).
- 1,4-Dichlorobenzene (1,4-DCB): 1 of 4 samples at a concentration of 11 ug/L at MW-6, which is consistent with historical results.

Several of the above VOCs were detected at well MW-6 which is located downgradient of the Jones Chemical Inc. property and at the extents of the dissolved MCB plume associated with the Montrose Superfund Site (i.e., MCB is below the ISGS at MW-6).

3.1.4 Pesticides

A total of 4 groundwater samples from UBA monitoring wells were analyzed for pesticides by EPA Method 8081A during the 2012 monitoring event. Pesticide results are provided in **Table 5**. Five pesticides were detected in at least one groundwater sample, three of which exceeded its respective ISGS as follows:

- alpha-BHC: 3 of 4 samples in concentrations up to 20(J) ug/L at MW-1;
- beta-BHC: All 4 samples in concentrations up to 19(J) ug/L at MW-1;
- gamma-BHC: 2 of 4 samples in concentrations up to 27 ug/L at MW-1.

3.1.5 Arsenic

Three groundwater samples from wells MW-1, MW-13, and MBFB-EW-1 were analyzed for total arsenic by EPA Method 6020 and arsenic III and V by EPA Method 200.8. Arsenic results are provided in **Table 6**.

Total arsenic was detected at all three wells in concentrations between 14 and 285 ug/L. There is no ISGS for arsenic, but the federal maximum contaminant level (MCL) is 10 ug/L. The majority of the arsenic appears to be arsenic III which was detected in concentrations between 8 and 300 ug/L. By comparison, arsenic V was detected in concentrations between 8 and 110 ug/L.

Total arsenic concentrations in these three UBA wells are similar or slightly higher than prior results as follows:

- The total arsenic concentration of 215 ug/L at MBFB-EW-1 is slightly above the historical result (200 ug/L).
- The total arsenic concentration of 14 ug/L at MW-1 is consistent with the historical range (11 to 14 ug/L).
- The total arsenic concentration of 285 ug/L at MW-13 is slightly above the historical result (260 ug/L).

3.2 Bellflower Sand Aquifer

BFS samples were selectively analyzed for VOCs, pCBSA, pesticides, and arsenic as indicated in Table 2. The following sections summarize laboratory results in addition to groundwater elevation monitoring data.

3.2.1 Groundwater Elevations and Horizontal Gradient

The depth to groundwater in the BFS monitoring wells ranged from 22 to 66 feet. The associated groundwater elevations ranged from -9.03 ft AMSL at SWL0030 to –13.22 ft AMSL at BF-36. At the Montrose property, groundwater elevations ranged from -9.80 ft AMSL at BF-02 to -11.01 ft AMSL at BF-09. Groundwater elevations in the BFS are provided in Table 1 and mapped in **Figure 6**.

The horizontal hydraulic gradient in the BFS downgradient from the Montrose property is approximately 0.0003 to 0.0005 ft/ft in a south/southeasterly direction. The hydraulic gradient increases slightly to the southeast (i.e., from 0.0003 to 0.0005 ft/ft). The horizontal gradient is consistent with the gradient previously measure in 2006 (i.e., 0.0004 to 0.0007 ft/ft).

Groundwater elevations in the BFS have risen by slightly less than 1 foot since 2009 and by approximately 2.5 feet since 2006. A hydrograph of groundwater elevations in the BFS is provided as **Figure 7**.

3.2.2 MCB

A total of 26 groundwater samples were collected from BFS monitoring wells and analyzed for VOCs by EPA Method 8260B (including 18 samples collected by AECOM, 2 by Avocet, and 6 by URS). This sample total includes well G-02WC, which was previously identified by URS as a MBFB well but is screened deeper than a typical UBA well and is hydraulically consistent with the BFS. MCB concentrations in the BFS varied from <0.5 ug/L at multiple wells to 77,000 ug/L at BF-2. Concentrations exceeding the ISGS of 70 ug/L were detected at 11 wells. MCB results are provided in Table 3 and mapped in **Figure 8**.

MCB concentrations in the BFS were generally consistent with historical results with the exception of the following:

- BF-12: MCB concentration of 1,500 ug/L is above the historical range (<1 to 580 ug/L).
- BF-25: MCB concentration of <0.5 ug/L is below the historical range (21 to 320 ug/L).
- BF-28: MCB concentration of <0.5 ug/L is below the historical range (<1 to 58 ug/L).
- BF-OW-3: MCB concentration of 14,000 ug/L is below the historical range (19,000 to 32,000 ug/L).
- CMW002: MCB concentration of 30,000 ug/L is above the historical range (<100 to 25,000 ug/L).
- G-02WC: MCB concentration of 1,200 ug/L is above the historical range (<1 to 540 ug/L).

With the exception of the above wells, the overall distribution of MCB in the BFS remains relatively unchanged from the prior groundwater monitoring events. Based on the results of BF-25 and BF-28, the downgradient toe of the dissolved MCB plume has withdrawn by approximately 200 feet (i.e., plume is 200 feet shorter in length).

3.2.3 Other VOCs

Other than MCB, a total of 10 VOCs were detected in the 21 groundwater samples collected during the 2012 monitoring event for purposes of characterizing the Montrose site (5 samples were collected by URS for characterizing the Del Amo Superfund Site and are excluded from this evaluation). VOC results are provided in Table 3. 9 of the 10 detected VOCs exceeded their respective ISGS in at least one sample including (in declining concentration order):

- TCE: 4 of 21 samples at concentrations up to 1,100 ug/L at SWL0054, which is consistent with historical results.
- CF: 2 of 21 samples at concentrations up to 930 ug/L at CMW002. The CF concentration of <25 ug/L at BF-EW-1 is below the historical result for this well (1,800 ug/L). The CF concentration of 930 ug/L at CMW002 is slightly above the historical range for this well (<40 to 780 ug/L).
- PCE: 2 of 21 samples at concentrations up to 190 ug/L PCE at SWL0054. The PCE concentration of 190 ug/L at SWL0054 is below the historical range for this well (340 to 8,700 ug/L). The PCE concentration of 90 ug/L at BF-15 is consistent with historical results.
- Benzene: 6 of 21 samples at concentrations up to 190 ug/L at BF-EW-1. The benzene concentration of 190 ug/L at BF-EW-1 is below the historical result (580 ug/L). All other benzene concentrations are consistent with historical results.
- c-1,2-DCE: 1 of 21 samples at a concentration of 190 ug/L at SWL0054, which is consistent with historical results.
- 1,2-DCA: 5 of 21 samples at concentrations up to 110 ug/L at BF-15. The 1,2-DCA concentration of 110 ug/L at BF-15 is above the historical result for this well (25 ug/L). All other 1,2-DCA concentrations are consistent with historical results.
- 1,4-DCB: 2 of 21 samples at concentrations up to 53 ug/L at BF-EW-1, which is consistent with historical results.
- 1,1-DCE: 1 of 21 samples at a concentration of 18 ug/L at SWL0054, which is consistent with historical results.
- Vinyl Chloride: 1 of 21 samples at a concentration of 1.9 ug/L at SWL0054, which is consistent with historical results.

Several of the above VOCs were detected at well SWL0054 which is located at the Del Amo Superfund Site and outside the extents of the dissolved MCB plume associated with the Montrose Superfund Site. VOC impacts to groundwater at well SWL0054 are not associated with former Montrose operations.

3.2.4 pCBSA

A total of 13 groundwater samples were collected from BFS monitoring wells and analyzed for pCBSA by EPA Method 314.0 Modified. pCBSA concentrations in the BFS varied from <5 ug/L at multiple wells to 64,000 ug/L at CMW002. pCBSA results are provided in **Table 4** and mapped in **Figure 9**.

pCBSA concentrations in the BFS were generally consistent with historical results with the exception of the following:

- BF-12: pCBSA concentration of 24,000 ug/L is above the historical range (<1,000 to 14,000 ug/L).
- BF-25: pCBSA concentration of 79 ug/L is below the historical range (430 to 8,000 ug/L).
- BF-28: pCBSA concentration of 190 ug/L is below the historical range (1,100 to 2,600 ug/L).
- BF-29: pCBSA concentration of 7,400 ug/L is above the historical range (790 to 4,400 ug/L).
- CMW001 and CMW002: pCBSA concentrations of 31,000 and 64,000 ug/L, respectively, were not previously measured.

With the exception of the above wells, the overall distribution of pCBSA in the BFS remains relatively unchanged from the prior groundwater monitoring events.

3.2.5 Pesticides

A total of 5 groundwater samples from BFS monitoring wells were analyzed for pesticides by EPA Method 8081A during the 2012 monitoring event. Pesticide results are provided in Table 5. Nine pesticides were detected in at least one groundwater sample, eight of which exceeded its respective ISGS as follows:

- alpha-BHC: 3 of 5 samples at concentrations up to 0.90(J) ug/Lat BF-15
- beta-BHC: 2 of 5 samples at concentrations up to 2 ug/L at BF-EW-1
- gamma-BHC: 2 of 5 samples at concentrations up to 0.89(J) ug/L at BF-15
- 2,4'- and 4,4'-DDD: 1 of 5 samples at a combined concentration of 10.7 ug/L at BF-2
- 2,4'- and 4,4'-DDE: 1 of 5 samples at a combined concentration of 0.30(J) ug/L at BF-2
- 2,4'-DDT: 1 of 5 samples at a concentration of 0.35(J) ug/L at BF-2

3.2.6 Arsenic

Two groundwater samples from wells BF-EW-2 and BF-OW-3 were analyzed for total arsenic by EPA Method 6020 and arsenic III and V by EPA Method 200.8. Arsenic results are provided in Table 6.

Total arsenic was detected at concentrations of 9 and 82 ug/L in wells BF-EW-2 and BF-OW-3, respectively. There is no ISGS for arsenic, but the total arsenic concentration at BF-OW-3 exceeds the federal MCL of 10 ug/L and has increased from 43 ug/L in April 2009 to 82 ug/L in January 2012. Well BF-EW-2 has not previously been tested for arsenic.

The majority of the arsenic detected at BF-OW-3 is arsenic III (76 ug/L), with only 3 ug/L of arsenic V detected at this well. In contrast, arsenic III and V were detected at concentrations of 9 and 19 ug/L respectively at well BF-EW-2.

These two wells are located in close proximity to each other along Royal Boulevard (roughly 150 feet apart). Previously, the arsenic results from monitoring well BF-OW-3 had been used to estimate the arsenic levels in groundwater extracted from pilot extraction well BF-EW-2. However, given the increase in total arsenic concentrations observed at BF-OW-3, pilot well BF-EW-2 was sampled and tested for arsenic in March 2012. The difference in concentrations between these two nearby wells indicates some variability in the arsenic levels in the BFS.

3.3 Gage Aquifer

Gage Aquifer samples were selectively analyzed for VOCs, pCBSA, and pesticides as indicated in Table 2. None of the groundwater samples collected from the Gage Aquifer were tested for arsenic. Although not part of the 2012 groundwater monitoring scope, pilot injection well G-IW-3 was sampled and tested for the presence of VOCs in March 2012 as part of on-going hydraulic testing activities. Therefore, the MCB result from G-IW-3 was mapped along with the other Gage monitoring well results.

3.3.1 Groundwater Elevations and Horizontal Gradient

The depth to groundwater in the Gage monitoring wells ranged from 35 to 66 feet. The associated groundwater elevations ranged from -10.80 ft AMSL at G-IW-1 to –17.75 ft AMSL at G-32. At the Montrose property, groundwater elevations ranged from -11.16 ft AMSL at G-01 to -11.67 ft AMSL at G-02. Groundwater elevations in the Gage Aquifer are provided in Table 1 and mapped in **Figure 10**.

The horizontal hydraulic gradient in the Gage Aquifer downgradient from the Montrose property is approximately 0.0004 to 0.002 ft/ft in a southeast/easterly direction. The hydraulic gradient increases to the southeast (i.e., from 0.0004 to 0.002 ft/ft). This horizontal gradient is consistent with the gradient previously measure in 2006 (0.0005 ft/ft).

Groundwater elevations in the Gage Aquifer have risen by less than 0.5 feet since 2009 and by slightly less than 2 feet since 2006. A hydrograph of groundwater elevations in the Gage Aquifer is provided as **Figure 11**.

3.3.2 MCB

A total of 21 groundwater samples were collected from Gage Aquifer monitoring wells and analyzed for VOCs by EPA Method 8260B (including 17 samples collected by AECOM and 2 samples collected by URS). MCB concentrations in the Gage Aquifer varied from <0.5 ug/L at multiple wells to 1,500 ug/L at G-6. Concentrations exceeding the ISGS of 70 ug/L were detected at 6 wells. MCB results are provided in Table 3 and mapped in **Figure 12**.

MCB concentrations in the Gage Aquifer were generally consistent with historical results with the exception of the following:

- G-6: MCB concentration of 1,500 ug/L is below the historical range (2,000 to 4,600 ug/L).

- G-24: MCB concentration of 750 ug/L is below the historical range (1,700 to 2,300 ug/L).
- SWL0026: MCB concentration of 17 ug/L is above the historical concentration (<1 ug/L).

With the exception of the above wells, the overall distribution of MCB in the Gage remains relatively unchanged from the prior groundwater monitoring events.

3.3.3 Other VOCs

Other than MCB, a total of 14 VOCs were detected in the 21 groundwater samples collected during the 2012 monitoring event. VOC results are provided in Table 3. 7 of the 14 detected VOCs exceeded their respective ISGS in at least one sample including (in declining concentration order):

- TCE: 2 of 21 samples at concentrations up to 470 ug/L at SWL0067, which is slightly above historical results (up to 310 ug/L).
- Benzene: 3 of 21 samples at concentrations up to 460 ug/L at SWL0063. The benzene concentration of <0.5 ug/L at G-33 is lower than the historical result (160 ug/L). All other benzene concentrations are consistent with historical results.
- PCE: 1 of 21 samples at a concentration of 18 ug/L PCE at SWL0063, which is consistent with historical results.
- c-1,2-DCE: 2 of 21 samples at concentrations up to 16 ug/L at SWL0067, which is consistent with historical results.
- Vinyl Chloride: 1 of 21 samples at a concentration of 12 ug/L at G-6, which is above historical results (not previously detected).
- 1,2-DCA: 9 of 21 samples at concentrations up to 10(J) ug/L at G-35, which is consistent with historical results.
- 1,4-DCB: 1 of 21 samples at a concentration of 5.8 ug/L at G-24, which is consistent with historical results.

Several of the above VOCs were detected at wells SWL0063 and SWL0067 which are located at the Del Amo Superfund Site and outside the extents of the dissolved MCB plume associated with the Montrose Superfund Site. VOC impacts to groundwater at wells SWL0063 and SWL0067 are not associated with former Montrose operations.

3.3.4 pCBSA

A total of 17 groundwater samples were collected from Gage Aquifer monitoring wells and analyzed for pCBSA by EPA Method 314.0 Modified. pCBSA concentrations in the Gage Aquifer varied from <5 ug/L at several wells to 16,000 ug/L at G-24. pCBSA results are provided in Table 4 and mapped in **Figure 13**.

pCBSA concentrations in the Gage Aquifer were generally consistent with historical results with the exception of the following:

- G-9: pCBSA concentration of 12,000 ug/L is above historical range (7,500 to 7,600 ug/L).

- G-22: pCBSA concentration of 13,000 ug/L is above the historical range (6,100 to 8,200 ug/L).
- G-23: pCBSA concentration of 250 ug/L is above the historical range (22 to 82 ug/L).
- G-25: pCBSA concentration of 1,600 ug/L is below the historical range (3,600 to 14,000 ug/L).
- G-28: pCBSA concentration of 1,100 ug/L is below the historical range (2,400 to 4,500 ug/L).
- G-35: pCBSA concentration of 13,000(J) ug/L is above the historical range (7,400 to 7,900 ug/L).
- SWL0026: pCBSA concentration of 190 ug/L is above the historical concentration (<100 ug/L).

With the exception of the above wells, the overall distribution of pCBSA in the Gage remains relatively unchanged from the prior groundwater monitoring events.

3.3.5 Pesticides

A total of 3 groundwater samples from Gage Aquifer monitoring wells were analyzed for pesticides by EPA Method 8081A during the 2012 monitoring event. Pesticide results are provided in Table 5. Three pesticides were detected in at least one groundwater sample, only one of which exceeded its respective ISGS as follows:

- 4,4'-DDT: 1 of 3 samples at a concentration of 0.64 ug/L at G-06.

3.3.6 Arsenic

Two groundwater samples from wells G-06 and G-24 were analyzed for total arsenic by EPA Method 6020. Arsenic results are provided in Table 6.

Total arsenic was detected at concentrations of 2.3 and 4.7 ug/L in wells G-24 and G-06, respectively. There is no ISGS for arsenic, but the total arsenic concentrations at these two wells are below the federal MCL of 10 ug/L. The arsenic concentration of 4.7 ug/L at G-06 is above the historical result (1.3 ug/L) but below the concentration previously measured at adjacent well G-EW-1 in 2005 (11 ug/L). The arsenic concentration of 2.3 ug/L at G-24 is above the historical result (<1 ug/L) but below the concentration previously measured at nearby well G-EW-3 in 2006.

3.4 Lynwood Aquifer

In 2006, MCB was only detected in one Lynwood monitoring well (LW-1) at a concentration below the ISGS. Therefore, none of the Lynwood Aquifer monitoring wells were sampled for VOCs or other dissolved chemicals. During the 2012 monitoring event, the Lynwood Aquifer monitoring wells were only gauged to evaluate changes in horizontal and vertical hydraulic gradients.

3.4.1 Groundwater Elevations and Horizontal Gradient

The depth to groundwater in the 7 Lynwood monitoring wells ranged from 63 to 71 feet. The associated groundwater elevations ranged from -22.69 ft AMSL at LW-07 to –23.00 ft AMSL at LW-03. Groundwater elevations in the Lynwood Aquifer are mapped in **Figure 14**.

The horizontal hydraulic gradient in the Lynwood Aquifer at the Montrose property is approximately 0.0002 ft/ft in a northeasterly direction, although there are only 7 monitoring wells screened in this aquifer unit, all located at or within 800 feet of the Montrose property. This horizontal hydraulic gradient is identical to the gradient previously measured in 2006.

3.5 Vertical Gradients

The vertical hydraulic gradient between aquifer units was calculated by dividing the difference in groundwater elevations with the difference in screened intervals at paired or co-located wells. The vertical hydraulic gradients between aquifer units at the site are downward and increase with increasing depth as follows:

> UBA to BFS: The vertical hydraulic gradient between the UBA and BFS is downward and relatively small at approximately 0.005 to 0.02 ft/ft. The vertical head difference between water elevations is approximately 0.1 to 0.6 feet, which is consistent or slightly below the head difference reported previously (i.e., 0.2 to 1.0 feet in 2006).
>
> BFS to Gage Aquifer: The vertical hydraulic gradient between the BFS and Gage Aquifer is downward at approximately 0.04 to 0.07 ft/ft. The vertical head difference between water elevations is approximately 1.5 to 2.0 feet, which is consistent with the head difference previously reported (i.e., 1.0 feet in 2006 and 1.5 feet prior to that).
>
> Gage to Lynwood Aquifer: The vertical hydraulic gradient between the Gage and Lynwood Aquifers is downward at approximately 0.14 to 0.21 ft/ft. The vertical head difference between water elevations is approximately 11 feet, which is consistent with the head difference previously reported (i.e., 10 feet in 2006).

3.6 QA/QC Sample Results

Laboratory results for QA/QC samples are provided in the following sections including trip blanks, equipment blanks, field duplicates, split samples, and matrix spike/matrix spike duplicate samples.

3.6.1 Trip Blanks

To test for potential cross-contamination occurring during sample transport, one trip blank was placed in each cooler containing groundwater samples for VOC analysis. A total of 15 trip blanks were collected by AECOM during the 2012 sampling event. Trip blank samples collected by AECOM were identified with a prefix of “TB” and a suffix matching the sample date (e.g., TB020112). The trip blanks were analyzed for VOCs by EPA Method 8260B in the same manner as the primary groundwater samples.

No VOCs were detected in any of the 15 trip blanks collected during the 2012 groundwater sampling event. Trip blank results are provided in **Table 7**.

3.6.2 Equipment Blanks

To test for potential cross-contamination from the sampling equipment, an equipment blank was collected daily when sampling with a non-dedicated pump. Distilled water was poured across the decontaminated sampling pump and collected in laboratory supplied containers. A total of 14 equipment blank samples

were collected by AECOM during the 2012 groundwater sampling event. Equipment blank samples were identified with a prefix of "EB" and a suffix matching the sample date (e.g., EB020112). The equipment blanks were analyzed by the same analytical methodologies as the primary samples. Equipment blank results are provided in Table 7 and summarized as follows:

- No VOCs were detected in any of the equipment blank samples.
- pCBSA was detected in only one equipment blank sample (EB032712) at a concentration of 16 ug/L. However, none of the associated primary sample results were qualified since pCBSA was detected in these samples at concentrations more than 5 times the blank contamination.
- No pesticides were detected in any of the equipment blank samples.
- No total arsenic, arsenic III, or arsenic V were detected in the equipment blank samples.

3.6.3 Field Duplicates

A total of 5 field duplicates were collected during the 2012 groundwater monitoring event, representing approximately 10% of the primary samples. Field duplicates were identified with a suffix of "00", e.g., the field duplicate for MW-6 was MW-600. The field duplicates were collected immediately following the primary samples and were analyzed in an identical manner. Field duplicate results are reported along with the primary sample results in Tables 3 through 6.

The field duplicates were evaluated against the site-specific precision criterion of ≤30% relative percent difference (RPD) specified in the QAPP. Results of the evaluation are shown in **Table C-2** of Appendix C and summarized as follows:

- VOCs: Only 1 of 350 results exceeded the 30% RPD criterion (total xylenes in MW-6).
- pCBSA: None of the results exceeded the 30% RPD criterion.
- Pesticides: None of the results exceeded the 30% RPD criterion.
- Arsenic: None of the results exceeded the 30% RPD criterion.

In accordance with the QAPP, field duplicate results exceeding the 30% RPD criterion were qualified as estimated (J).

3.6.4 Split Samples

A total of 5 split samples were collected during the 2012 groundwater monitoring event, representing approximately 10% of the primary samples. The split samples were collected immediately following the primary samples and were submitted to Test America Laboratories in Irvine, California for comparison with the primary results reported by Calscience Environmental Laboratories. The split sample results were evaluated against the site-specific precision criterion of ≤30% RPD specified in the QAPP. Results of the evaluation are shown in **Table C-3** of Appendix C and summarized as follows:

- VOCs: None of the results exceeded the 30% RPD criterion.
- pCBSA: 1 of 3 results exceeded the 30% RPD criterion (SWL0026).

- Pesticides: 4 of 46 results exceeded the 30% RPD criterion (alpha, beta, delta, and gamma-BHC in BF-15).
- Arsenic: None of the results exceeded the 30% RPD criterion.

In accordance with the QAPP, split sample results exceeding the 30% RPD criterion were qualified as estimated (J).

3.6.5 Matrix Spike/Matrix Spike Duplicates

A total of 5 matrix spike/matrix spike duplicate (MS/MSD) samples were collected during the 2012 groundwater monitoring event, representing approximately 10% of the primary samples. The analytical laboratories supplemented these 5 samples as necessary to comply with laboratory requirements for MS/MSD analysis (i.e., minimum 1 in 20 samples analyzed). The MS/MSD samples were spiked with known concentrations of target compounds and analyzed along with the primary samples. The MS/MSD results were evaluated against the control limits for detection of the target compounds as shown in the laboratory reports provided in Appendix B, including percent recoveries (%R) for the MS and MSD samples and RPD for the MS/MSD sample pairs. Results of the evaluation are shown in **Table C-4** of Appendix C and summarized as follows:

- VOCs: 16 of the 323 MS/MSD results exceeded the %R control limits and/or RPD criterion.
- pCBSA: 2 of 10 results exceeded the %R control limits.
- Pesticides: None of the results exceeded the %R control limits or RPD criterion.
- Arsenic: None of the results exceeded the %R control limits or RPD criterion.

Where MS/MSD results exceeded the acceptance criteria, the primary sample results were qualified as estimated (J) if detected.

3.7 Data Validation

The groundwater data was validated in accordance with the site-specific *Quality Assurance Project Plan* (QAPP), the *National Functional Guidelines for Superfund Organic Methods Data Review* (USEPA, 2008), and the *National Functional Guidelines for Inorganic Data Review* (USEPA, 2004), as applicable to the analytical methods used during the project. Data validation qualifiers were assigned to all definitive-level data that did not meet analytical and quality control criteria.

The groundwater data subjected to validation included 16 sample delivery groups (SDGs) from Calscience and 5 SDGs from Test America. Full raw data packages were provided for 100% of the groundwater samples. Level III or Tier 2 validation review was performed on 100% of the 2012 groundwater samples. Level IV or Tier 3 validation review was performed on a minimum of 10% of the 2012 groundwater samples. The validation level associated with each groundwater sample and SDG is provided in **Table C-1** of **Appendix C**. None of the analytical data collected by URS or Avocet was validated by AECOM (i.e., validated separately).

A technical completeness of 99.9% was achieved for this project. Approximately 0.1% of the data or 7 samples (3 VOC results and 4 pesticides results) were qualified as rejected (R) due to exceeded

continuing calibration verification criteria. However, the rejected data does not affect project objectives as the affected chemicals (bromomethane, chlordane, and toxaphene) were not detected in any of the groundwater samples and are unrelated to the Montrose Site. Approximately 1.6% of the data was qualified as estimated (J/UJ) for exceeding quality assurance objectives specified for precision, accuracy, representativeness, comparability, and completeness. None of the analytical data was qualified as non-detected (U). The data validation and data usability assessment results indicate the overall acceptable quality, accuracy, and precision of the definitive-level data for this project. Copies of the Data Quality Assessment and Data Validation Report are provided in Appendix C.

3.8 Flow-Weighted Average Influent Concentrations

The 2012 groundwater monitoring results were used to update the estimated average influent concentrations to the groundwater treatment system. The concentrations reported or assumed for each groundwater remediation extraction well were weighted based on their relative flow contribution to the treatment system, i.e., higher flow wells have a greater impact on the average influent concentration. The updated estimated average influent concentrations to the treatment system are provided in **Appendix E** (**Table E-1**). The estimated average influent concentration exceeded its respective ISGS for 13 constituents as follows (in declining concentration order):

Constituent	**ISGS Standard or Reinjection Limit (ug/L)**	**Estimated Influent Concentration (ug/L)**	
		Current Estimate (Year 2012)	**Prior Estimate (Year 2009)**
pCBSA*	25,000	39,600	39,600
MCB	70	10,850	13,900
Benzene	1	192	248
PCE	5	164	168
CF	100	156	336
TCE	5	28	38
1,2-DCA	0.5	20	9
1,4-DCB	5	12	17
Methylene Chloride	5	0.0	16
Carbon Tetrachloride	0.5	0.7	1.5
b-BHC	0.037	0.4	0.3
g-BHC	0.2	0.4	0.6
a-BHC	0.011	0.3	0.4

* There is no ISGS for pCBSA, but a reinjection limit of 25,000 ug/L was established in the ROD (EPA, 1999).

Based on the 2012 groundwater monitoring data, the estimated influent concentration of one constituent (arsenic) dropped below its regulatory standard and is excluded from the above table. The estimated influent concentration of arsenic is 8.9 ug/L, which is below the federal MCL of 10 ug/L (there is no ISGS for arsenic). The changes to the estimated influent concentrations reflected in the above table do not have a material impact on the remedial design of the TGRS, which will effectively treat the dissolved concentrations to meet the ISGS and re-injection requirements.

4 CONCLUSIONS

Changes in the hydraulic gradients and distribution of dissolved-phase chemicals were evaluated by the 2012 groundwater monitoring event. Although concentrations have increased or decreased in a small number of wells, the overall extent of MCB and pCBSA in the UBA, BFS, and Gage Aquifers has not appreciably changed since the prior groundwater monitoring events in 2006 and 2009. The dissolved MCB and pCBSA plumes have not grown in extent including at the toe of the plume. Indeed, the toe of the MCB plume in the BFS has withdrawn by approximately 200 feet.

The horizontal hydraulic gradients have not increased in any of aquifer units since the prior comprehensive monitoring event. The horizontal hydraulic gradients remain relatively small between 0.0002 and 0.0005 ft/ft in all aquifer units. Similarly, the vertical hydraulic gradients between aquifer units have not increased since the prior monitoring event. The vertical hydraulic gradients between the UBA/BFS and BFS/Gage remain relatively low between 0.005 and 0.07 ft/ft (i.e., less than 2 feet vertical difference between aquifer units). Consistent with prior monitoring events, the vertical hydraulic gradient between the Gage and Lynwood Aquifers remain approximately 0.14 to 0.21 ft/ft with 11 feet vertical difference between aquifer units. Groundwater levels have risen by approximately 0.5 feet since 2009 and 2 feet since 2006 in all water-bearing units.

The estimated influent concentrations to the groundwater treatment system were updated based on the 2012 groundwater monitoring data as described in Section 3.8. The majority of estimated influent concentrations decreased or stayed the same as prior estimates including MCB and pCBSA. The estimated influent concentrations of two constituents increased slightly including 1,2-DCA and b-BHC. A total of 13 constituents were identified as having estimated influent concentrations above regulatory standards.

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TABLES

TABLE 1
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Well	Northing	Easting	Date Measured	Screened Interval (feet bgs)	Depth to Groundwater from Reference Elevation (feet bgs)	Reference Elevation (feet bgs)	Water Level Elevation (feet msl)
Upper Bellflower Aquitard Montrose-Owned Wells							
MW-1	1767001.0	6470666.0	02/15/2012	63 - 73	52.10	42.77	-9.33
MW-2	1767431.0	6470241.0	02/16/2012	66.7 - 76.7	58.25	48.73	-9.52
MW-3	1767425.0	6469733.0	02/14/2012	64.4 - 74.4	57.10	47.41	-9.69
MW-4	1767689.0	6470127.0	02/14/2012	64.9 - 74.9	56.22	46.69	-9.53
MW-5	1767602.0	6470682.0	02/14/2012	61.5 - 72.5	54.30	44.95	-9.35
MW-6	1766917.0	6470220.0	02/14/2012	65 - 80	55.20	45.68	-9.52
MW-7	1766911.0	6469647.0	02/14/2012	65 - 80	57.22	47.42	-9.80
MW-8	1767946.0	6469440.0	02/14/2012	65 - 80	64.60	55.29	-9.31
MW-9	1767929.0	6470407.0	02/15/2012	66 - 81	59.95	50.76	-9.19
MW-10	1768042.0	6470937.0	02/15/2012	62 - 77	52.41	43.20	-9.21
MW-11	1767320.0	6470889.0	02/16/2012	62 - 77	52.07	42.69	-9.38
MW-12	1767319.0	6471289.0	02/15/2012	61 - 76	49.60	40.17	-9.43
MW-13	1766908.0	6471218.0	02/14/2012	62 - 77	52.00	42.34	-9.66
MW-14	1766629.0	6470964.0	02/14/2012	58 - 73	52.81	43.12	-9.69
MW-16	1765848.0	6469761.0	02/14/2012	59 - 76	51.02	41.31	-9.71
MW-17	1766685.0	6469336.0	02/14/2012	65 - 81	57.85	48.18	-9.67
MW-19	1768538.0	6470722.0	02/21/2012	63 - 79	55.72	46.65	-9.07
MW-20**	1768459.0	6471636.0	02/13/2012	57 - 73	53.85	43.06	-9.15 *
MW-21**	1767907.0	6471985.0	02/13/2012	54 - 70	46.09	36.56	-9.53
MW-22	1765594.0	6470230.0	02/16/2012	57 - 73	51.68	41.85	-9.83
MW-23	1765783.0	6472078.0	02/13/2012	60 - 75	46.02	36.35	-9.67
MW-24	1765641.0	6471430.0	02/14/2012	49 - 64	32.28	22.40	-9.88
MW-25	1764840.0	6471681.0	02/14/2012	56 - 71	42.68	31.98	-10.70
MW-26	1765603.0	6470880.0	02/14/2012	59 - 74	48.81	39.17	-9.64
MW-27	1768047.0	6471344.0	02/15/2012	59 - 75	49.77	40.50	-9.27
MW-28**	1767659.0	6471854.0	02/13/2012	54 - 71	39.82	49.58	-9.76
MW-29**	1766922.0	6471830.0	02/13/2012	57 - 73	48.67	38.87	-9.80
MW-30	1766267.0	6471695.0	02/14/2012	54 - 70	47.30	37.59	-9.71
MW-31	1767149.0	6469128.0	02/16/2012	64.5 - 79.5	64.40	54.67	-9.73
UBE-1	1767467.0	6470255.0	02/16/2012	60.7 - 90.7	59.12	49.35	-9.77
UBE-2	1767535.0	6470398.0	02/15/2012	72 - 82	55.02	45.78	-9.24
UBE-3	1767304.0	6470373.0	02/15/2012	68 - 88	54.71	44.86	-9.85
UBE-4	1767629.0	6470371.0	02/15/2012	62 - 92	55.91	46.56	-9.35
UBE-5	1767347.0	6470514.0	02/15/2012	75 - 85	56.96	47.42	-9.54
UBT-1	1767444.0	6470232.0	02/16/2012	60 - 91	58.88	49.05	-9.83
UBT-2	1767437.0	6470246.0	02/15/2012	50 - 91	59.04	49.19	-9.85
UBT-3	1767473.0	6470262.0	02/16/2012	60 - 91	59.17	49.31	-9.86
UBI-1	1767598.0	6470093.0	02/15/2012	45 - 90	55.87	46.47	-9.40
UBI-2	1767666.0	6470165.0	02/15/2012	45 - 90	56.11	46.69	-9.42
MBFB-EW-1	1766649.0	6470904.0	02/14/2012	62 - 77	52.39	41.98	-10.41
MBFB-OW-1	1767110.0	6468135.0	02/15/2012	80 - 96	64.18	54.71	-9.47

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Upper Bellflower Aquitard Del Amo-Owned Wells							
PZL0001	1766647.2	6474812.5	02/13/2012	50 - 60	34.67	24.63	-10.04
PZL0002	1770675.5	6473299.7	02/13/2012	62 - 72	43.26	37.03	-6.23
PZL0003	1770885.4	6471517.3	02/13/2012	52 - 72	49.24	41.90	-7.34
PZL0004	1767874.1	6473353.5	02/13/2012	45 - 65	40.73	32.07	-8.66
PZL0005	1769199.5	6474789.9	02/13/2012	38 - 58	27.30	23.43	-3.87
PZL0006	1768396.2	6472738.2	02/13/2012	49 - 69	43.14	34.55	-8.59
PZL0007	1767933.4	6474785.7	02/13/2012	47 - 62	28.89	19.50	-9.39
PZL0008	1769525.8	6473195.9	02/13/2012	45 - 60	40.88	34.00	-6.88
PZL0009	1768810.7	6472296.5	02/13/2012	54 - 69	48.89	40.82	-8.07
PZL0010	1768861.3	6473318.7	02/13/2012	49.5 - 69.5	43.75	34.84	-8.91
PZL0011	1767667.6	6474432.8	02/13/2012	35 - 55	30.90	23.61	-7.29
PZL0012	1767297.6	6474123.6	02/13/2012	37.2 - 57.2	38.19	29.69	-8.50
PZL0013	1766865.5	6474133.2	02/13/2012	41 - 61	40.71	31.94	-8.77
PZL0014	1769549.4	6472078.0	02/13/2012	51 - 66	43.00	35.26	-7.74
PZL0015	1769842.4	6472103.9	02/13/2012	55.5 - 70.5	45.24	37.81	-7.43
PZL0016	1768908.3	6471505.8	02/13/2012	47 - 67	46.40	37.52	-8.88
PZL0017	1770454.3	6472448.0	02/13/2012	54 - 69	46.33	39.33	-7.00
PZL0018	1766933.6	6472903.3	02/13/2012	48 - 68	43.18	34.30	-8.88
PZL0019	1766812.9	6472188.9	02/13/2012	46.7 - 66.7	49.45	40.90	-8.55
PZL0020	1766681.4	6472348.5	02/13/2012	47 - 67	45.62	36.87	-8.75
PZL0022	1766626.1	6473048.3	02/13/2012	42 - 62	43.18	34.40	-8.78
PZL0024	1766626.8	6472818.3	02/13/2012	44.4 - 64.4	45.12	36.65	-8.47
PZL0025	1766637.2	6472096.3	02/13/2012	43.5 - 63.5	47.68	38.68	-9.00
PZL0026	1766978.5	6474446.6	02/13/2012	33 - 53	37.02	28.69	-8.33
SWL0001**	1768412.7	6471665.2	02/13/2012	52.5 - 77.5	49.66	40.51	-9.15*
SWL0002**	1768404.0	6471585.1	02/13/2012	52 - 77	48.88	39.82	-9.06
SWL0003**	1768530.9	6471608.6	02/13/2012	50 - 77	50.02	40.98	-9.04
SWL0004**	1768373.6	6471694.0	02/13/2012	53 - 80	51.01	41.87	-9.14
SWL0005	1766525.9	6473389.0	02/13/2012	38 - 61	38.11	28.95	-9.16
SWL0006	1766124.0	6472438.6	02/13/2012	43.5 - 59.5	36.49	26.50	-9.99
SWL0007	1769884.3	6471523.0	02/13/2012	50.4 - 71.2	49.24	41.11	-8.13
SWL0008	1766566.4	6472338.1	02/13/2012	41.4 - 62	41.11	32.36	-8.75
SWL0009	1767137.4	6475377.1	02/13/2012	37.3 - 58.3	29.45	22.57	-6.88
SWL0012	1769758.2	6473377.7	02/13/2012	41.2 - 62.5	40.45	34.57	-5.88
SWL0015	1765963.1	6474546.2	02/13/2012	33 - 54	34.34	23.91	-10.43
SWL0016	1767811.2	6473034.2	02/13/2012	40.8 - 62	41.65	33.21	-8.44
SWL0017	1768832.1	6473077.6	02/13/2012	47 - 68.5	45.29	36.54	-8.75
SWL0021	1766180.1	6474227.9	02/13/2012	46 - 62	38.90	28.52	-10.38
SWL0024	1766517.2	6474511.0	02/13/2012	45 - 61.5	37.32	27.57	-9.75
SWL0028	1765080.7	6473742.3	02/13/2012	34 - 54	32.91	22.35	-10.56
SWL0032	1768384.5	6471747.1	02/13/2012	79 - 89	50.86	41.67	-9.19
SWL0038	1769863.4	6471800.0	02/13/2012	49.5 - 70.5	46.41	38.64	-7.77

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Upper Bellflower Aquitard Del Amo-Owned Wells Continued							
SWL0039	1769886.5	6472368.1	02/13/2012	43.5 - 64.5	44.73	37.39	-7.34
SWL0042	1765566.5	6474699.9	02/13/2012	34 - 55	35.08	24.30	-10.78
SWL0044	1766866.1	6472744.1	02/13/2012	45 - 65	46.25	37.76	-8.49
SWL0046	1767994.6	6474119.9	02/13/2012	37.8 - 57.8	36.00	28.90	-7.10
SWL0047	1768136.4	6472355.3	02/13/2012	82 - 92	45.57	36.04	-9.53
SWL0048	1767340.6	6472581.7	02/13/2012	83 - 93	46.11	36.29	-9.82
SWL0049**	1766313.8	6470999.2	02/13/2012	42 - 62	42.25	32.50	-9.75
SWL0051	1766320.9	6472472.3	02/13/2012	35 - 55	36.78	28.15	-8.63
SWL0052	1766246.7	6473455.1	02/13/2012	78.3 - 93.7	34.02	23.44	-10.58
SWL0057	1765604.9	6473091.0	02/13/2012	38.5 - 58.5	36.22	28.31	-7.91
SWL0059	1769705.3	6477375.0	02/13/2012	46.5 - 66.5	50.88	42.19	-8.69
SWL0068	1767504.3	6474527.5	02/13/2012	23 - 48	30.30	24.71	-5.59
Bellflower Sand Montrose-Owned Wells							
BF-1	1767593.7	6469829.4	02/14/2012	113.5 - 124	58.38	48.33	-10.05
BF-2	1767168.5	6470195.0	02/15/2012	114 - 124.5	59.30	49.50	-9.80
BF-3	1767474.6	6470477.0	02/15/2012	113.5 - 124	58.26	48.27	-9.99
BF-4	1767209.5	6470494.1	02/15/2012	112 - 123	57.48	47.64	-9.84
BF-5	1767330.9	6471297.6	02/15/2012	122 - 132	49.30	39.37	-9.93
BF-6	1766907.2	6471204.2	02/14/2012	115 - 125	51.70	41.70	-10.00
BF-7	1766629.0	6470946.2	02/14/2012	106 - 116	52.79	42.59	-10.20
BF-9	1767440.4	6470241.9	02/16/2012	107 - 128	59.70	48.69	-11.01
BF-10	1765561.9	6473090.8	02/14/2012	120 - 130	39.78	28.67	-11.11
BF-11	1763515.1	6472386.0	02/13/2012	104 - 124	45.22	33.66	-11.56
BF-12	1764101.9	6473358.0	02/13/2012	110 - 120	34.20	22.20	-12.00
BF-13	1766578.6	6473187.2	02/13/2012	117 - 137	39.87	29.52	-10.35
BF-14	1765763.3	6472054.4	02/13/2012	111 - 121	46.86	36.30	-10.56
BF-15	1765641.3	6471441.0	02/14/2012	98 - 113	33.25	22.82	-10.43
BF-16	1763461.8	6471860.8	02/13/2012	103 - 124	46.57	35.31	-11.26
BF-17	1763817.0	6473002.0	02/14/2012	100 - 120	34.51	22.67	-11.84
BF-19	1768046.8	6471330.9	02/15/2012	128 - 133	50.12	40.44	-9.68
BF-20	1766707.3	6469336.4	02/14/2012	110 - 129	58.60	48.33	-10.27
BF-21	1764784.8	6470681.1	02/14/2012	96 - 121	50.31	39.67	-10.64
BF-22	1763265.1	6471470.1	02/13/2012	87 - 117	45.49	34.29	-11.20
BF-23	1766107.0	6472439.6	02/14/2012	101 - 116	36.30	25.93	-10.37
BF-24	1764492.8	6472165.2	02/13/2012	96 - 121	42.19	31.18	-11.01
BF-25	1762675.8	6473358.3	02/13/2012	94 - 104	35.90	23.70	-12.20
BF-26	1762187.8	6473650.7	02/13/2012	90 - 105	48.02	35.48	-12.54
BF-27	1762195.6	6473093.7	02/13/2012	101 - 121	36.32	24.18	-12.14
BF-28	1762866.4	6474076.9	02/13/2012	92 - 110	46.27	33.84	-12.43
BF-29	1764267.9	6470038.4	02/14/2012	100 - 120	50.64	39.62	-11.02

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Bellflower Sand Montrose-Owned Wells Continued							
BF-30	1762874.7	6470961.8	02/13/2012	82 - 113	35.80	24.58	-11.22
BF-31	1763812.0	6469369.8	02/14/2012	105 - 135	48.40	37.55	-10.85
BF-32A**	1765704.0	6468400.0	02/14/2012	65 - 115	60.33	50.81	-9.52
BF-33**	1763047.0	6468187.0	02/14/2012	60 - 100	46.66	35.98	-10.68
BF-34	1767699.0	6469469.0	02/16/2012	106 - 126	65.72	55.54	-10.18
BF-35	1768012.0	6470273.0	02/14/2012	105.5 - 126	60.29	50.34	-9.95
BF-36	1762458.0	6475580.0	02/13/2012	111 - 126	47.87	34.58	-13.29
BF-EW-1	1766639.0	6470929.0	02/14/2012	85 - 128	52.20	41.83	-10.37
BF-EW-2	1764200.0	6472153.0	02/13/2012	69.1 - 125	39.29	30.61	-8.68
BF-IW-1	1767145.0	6468136.0	02/15/2012	106.9 - 125	65.66	55.13	-10.53
BF-IW-2	1765087.0	6473751.0	02/15/2012	61.5 - 144	34.45	21.43	-13.02
BF-OW-1	1767110.0	6468135.0	02/15/2012	110 - 122	65.17	54.63	-10.54
BF-OW-3	1764310.0	6472153.0	02/13/2012	70 - 120	40.26	29.32	-10.94
BF-OW-4	1764290.0	6470639.0	02/14/2012	138 - 173	52.05	41.20	-10.85
LBF-OW-2	1766656.0	6470924.0	02/14/2012	135 - 137	52.43	41.80	-10.63
LBF-OW-3	1764310.0	6472153.0	02/13/2012	134 - 136	41.97	29.34	-12.63
PZ-1	1763312.0	6471533.0	02/13/2012	75 - 115	46.20	34.95	-11.25
PZ-2	1762195.0	6473139.0	02/13/2012	65 - 115	36.84	24.72	-12.12
PZ-3	1762924.0	6474023.0	02/13/2012	40 - 70	46.31	33.93	-12.38
Bellflower Sand Boeing-Owned Wells							
CMW001	1769756.0	6470700.0	03/20/2012	99 - 124	51.92	62.04	-10.12
CMW002	1767936.0	6470554.0	03/20/2012	99 - 124	50.36	60.48	-10.12
Bellflower Sand Del Amo-Owned Wells							
SWL0013	1766959.3	6473586.5	02/13/2012	131.8 - 147.6	51.58	42.52	-9.06
SWL0018	1766967.6	6472889.5	02/13/2012	122 - 139	44.25	34.12	-10.13
SWL0027	1765075.7	6473730.2	02/13/2012	119.3 - 135	33.77	33.77	-11.70
SWL0030	1768948.5	6471441.9	02/13/2012	104 - 119.8	51.51	42.48	-9.03
SWL0033	1766277.4	6472042.1	02/13/2012	124.3 - 140	25.40	35.75	-10.35
SWL0035	1767801.1	6473054.2	02/13/2012	121 - 136	22.45	32.18	-9.73
SWL0040	1766626.1	6473036.3	02/13/2012	118.5 - 135	23.41	33.85	-10.44
SWL0053	1766234.7	6473455.1	02/13/2012	118.3 - 127.8	33.97	23.19	-10.78
SWL0054	1767829.1	6471852.3	02/13/2012	120.2 - 129.7	49.60	39.92	-9.68
SWL0055	1766635.9	6472496.3	02/13/2012	120.3 - 129.8	47.55	37.15	-10.40
SWL0058	1767036.5	6472006.6	02/13/2012	118.1 - 127.7	50.50	40.67	-9.83
SWL0061	1768418.6	6471530.1	02/13/2012	125 - 135	50.38	40.64	-9.74
SWL0064	1767757.0	6471514.9	02/13/2012	114.2 - 129.2	49.33	39.47	-9.86
SWL0065	1767778.9	6472234.3	02/13/2012	115 - 130	27.29	36.65	-9.36

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Gage Aquifer	**Montrose-Owned Wells**						
G-1	1767682.9	6470099.7	02/15/2012	140.5 - 161	57.82	46.66	-11.16
G-2	1767087.9	6470673.7	02/15/2012	155 - 175.5	54.93	43.26	-11.67
G-3	1767168.6	6470158.0	02/15/2012	145.5 - 166	60.94	49.70	-11.24
G-4	1767331.8	6471310.6	02/15/2012	154 - 194	51.45	39.70	-11.75
G-5	1766906.2	6471186.2	02/14/2012	151 - 190	53.41	41.71	-11.70
G-6	1766628.9	6470964.2	02/14/2012	149 - 190	54.21	42.53	-11.68
G-8	1765641.3	6471451.0	02/14/2012	140 - 180	34.77	22.52	-12.25
G-9	1765575.9	6473090.9	02/14/2012	171 - 213	41.68	28.58	-13.10
G-11	1766578.6	6473197.2	02/13/2012	177 - 217	42.67	29.48	-13.19
G-12	1766143.1	6472427.7	02/14/2012	158 - 198	38.50	25.85	-12.65
G-13	1765787.3	6472054.5	02/13/2012	157 - 197	48.65	36.09	-12.56
G-14	1768040.9	6471292.9	02/15/2012	155 - 195	52.19	40.62	-11.57
G-15	1766763.1	6469998.6	02/14/2012	142 - 182	59.88	48.71	-11.17
G-16	1765629.6	6471049.9	02/14/2012	145 - 185	49.25	37.10	-12.15
G-17	1766922.5	6472314.3	02/13/2012	172 - 212	48.21	35.99	-12.22
G-18	1764836.3	6473238.4	02/14/2012	161 - 201	34.83	21.70	-13.13
G-19A	1764749.0	6472438.1	02/14/2012	160 - 200	47.60	35.23	-12.37
G-20	1767698.0	6469488.0	02/16/2012	155 - 175	66.33	55.33	-11.00
G-21	1768012.0	6470519.0	02/14/2012	149 - 169	59.32	47.67	-11.65
G-22	1763886.0	6473268.0	02/13/2012	152 - 192	36.81	24.22	-12.59
G-23	1763657.0	6472398.0	02/13/2012	148 - 178	47.28	34.83	-12.45
G-24	1764757.0	6470681.0	02/15/2012	138.3 - 178.3	52.18	40.40	-11.78
G-25	1765603.0	6469340.0	02/14/2012	124 - 164	56.82	46.06	-10.76
G-26	1763544.0	6470301.0	02/14/2012	132 - 172	46.87	35.72	-11.15
G-27	1762885.0	6471795.0	02/13/2012	124 - 164	36.56	24.52	-12.04
G-28	1762189.0	6473638.0	02/13/2012	148 - 188	48.99	35.54	-13.45
G-29	1762931.0	6474905.0	02/13/2012	157 - 197	50.24	35.42	-14.82
G-30	1763761.0	6468585.0	02/17/2012	135 - 165	55.92	44.96	-10.96
G-31	1760760.0	6476041.0	02/13/2012	145 - 175	53.72	36.60	-17.12
G-32	1762108.0	6476388.0	02/13/2012	160 - 190	50.43	32.68	-17.75
G-33	1765698.0	6468401.0	02/14/2012	143 - 173	60.96	50.14	-10.82
G-34	1760638.0	6473574.0	02/13/2012	147 - 187	52.80	39.44	-13.36
G-35	1763463.0	6473727.9	02/13/2012	150 - 190	44.50	32.07	-12.43
G-EW-1	1766669.0	6470895.0	02/14/2012	144 - 198	53.97	42.29	-11.68
G-EW-2	1763875.0	6473281.0	02/13/2012	146 - 176	36.45	23.83	-12.62
G-EW-3	1764290.0	6470596.0	02/14/2012	135 - 173	52.67	41.03	-11.64
G-IW-1	1767186.0	6468136.0	02/15/2012	138 - 163	65.92	55.12	-10.80
G-IW-2	1766760.0	6473365.0	02/15/2012	173 - 214	48.74	35.48	-13.26
G-OW-1	1767110.0	6468135.0	02/15/2012	140 - 185	65.62	54.80	-10.82
G-OW-3	1764310.0	6472153.0	02/13/2012	145 - 155	42.03	29.32	-12.71
G-OW-4	1764290.0	6470639.0	02/14/2012	138 - 173	52.85	41.20	-11.65
LG-1	1767038.0	6470673.0	02/15/2012	88.5 - 209	54.74	43.26	-11.48
LG-2	1767319.0	6470380.0	02/16/2012	185 - 205	55.88	44.61	-11.27

TABLE 1
Groundwater Level Measurements and Elevations
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Well	Northing	Easting	Date Measured	Screened Interval (feet bgs)	Depth to Groundwater from Reference Elevation (feet bgs)	Reference Elevation (feet bgs)	Water Level Elevation (feet msl)
Gage Aquifer Del Amo-Owned Wells							
SWL0020	1765953.2	6474518.2	02/13/2012	108.6 - 196.4	52.23	37.98	-14.25
SWL0022	1766959.3	6473599.5	02/13/2012	179.5 - 195.3	59.03	45.63	-13.40
SWL0025	1767155.4	6475377.2	02/13/2012	195 - 210.8	49.06	35.70	-13.36
SWL0026	1765084.7	6473735.3	02/14/2012	195 - 210.8	35.72	22.47	-13.25
SWL0031	1768960.5	6471442.0	02/13/2012	164.3 - 180	65.61	54.02	-11.59
SWL0036	1767789.2	6473037.2	02/13/2012	178 - 194	58.52	45.53	-12.99
SWL0063	1767683.3	6472309.2	02/13/2012	172.7 - 187.7	63.06	50.80	-12.26
SWL0066	1767826.1	6471833.0	02/13/2012	172 - 187	64.05	52.17	-11.88
SWL0067	1768621.2	6471504.9	02/13/2012	170 - 185	61.96	50.16	-11.80
Lynwood Aquifer Montrose-Owned Wells							
LW-01	1767335.0	6470378.0	02/15/2012	230 - 250	67.80	45.02	-22.78
LW-02	1766910.0	6471266.0	02/14/2012	232 - 252	64.98	42.07	-22.91
LW-03	1768041.0	6471311.0	02/15/2012	238 - 259	63.33	40.33	-23.00
LW-04	1766629.0	6470913.0	02/14/2012	225 - 245	65.38	42.64	-22.74
LW-05	1767675.0	6470116.0	02/14/2012	230 - 250	69.09	46.25	-22.84
LW-06	1767580.0	6470682.0	02/14/2012	235 - 255	67.09	44.25	-22.84
LW-07	1767188.0	6470176.0	02/15/2012	230 - 250	71.37	48.68	-22.69

Notes:
*corrected for LNAPL
** Wells screened across more than one aquifer
Well screened only in the Bellflower "B" Sands not shown in table.
bgs below ground surface
msl mean sea level
TOC = Top of Casing
Horizontal Datum: North American Datum of 1983 (NAD83)
Vertical Datum: National Geodetic Vertical Datum of 1929 (NGVD29)

Table 2
Sampling Matrix
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Well and Sample Analysis Information								
Schedule	**Well ID**	**Sample ID**	**Well Location**	**VOCs**	**pCBSA**	**Pesticides including DDT isomers**	**Arsenic Total**	**Arsenic III & Arsenic V**
Laboratory Analysis				**(8260B)**	**(Modified 314.0)**	**(8081A)**	**(6020)**	**(200.8)**
Day 1 Tuesday January 24, 2012	Trip Blank 1	TB012412	-	1	--	--	--	--
	Equip Blank 1	EB012412	-	1	1	1	--	--
	G-30	G-30	Public	1	1	--	--	--
	BF-33	BF-33	Public	1	1	--	--	--
	BF-31	BF-31	Public	1	1	--	--	--
	MW-6	MW-6	LADWP-W	1	--	1	--	--
	Duplicate 1	MW-600		1	--	1	--	--
Day 2 Wednesday January 25, 2012	Trip Blank 2	TB012512	-	1	--	--	--	--
	Equip Blank 2	EB012512	-	1	1	--	--	--
	G-32	G-32	Public	1	1	--	--	--
	G-23	G-23	Public	1	1	--	--	--
	BF-36	BF-36	Public	1	1	--	--	--
	MS/MSD 1	BF-36		1	1	--	--	--
	BF-30	BF-30	Public	1	1	--	--	--
Day 3 Thursday January 26, 2012	Trip Blank 3	TB012612	-	1	--	--	--	--
	Equip Blank 3	EB012612	-	1	1	--	--	--
	G-28	G-28	Public	1	1	--	--	--
	G-27	G-27	Public	1	1	--	--	--
	MS/MSD 2	G-27		1	1	--	--	--
	BF-27	BF-27	Public	1	1	--	--	--
	BF-26	BF-26	Public	1	1	--	--	--
Day 4 Friday January 27, 2012	Trip Blank 4	TB012712	-	1	--	--	--	--
	Equip Blank 4	EB012712	-	1	1	--	--	--
	BF-28	BF-28	Public	1	1	--	--	--
	G-22	G-22	Public	1	1	--	--	--
	G-25	G-25	Public	1	1	--	--	--
Day 5 Monday January 30, 2012	Trip Blank 5	TB013012	-	1	--	--	--	--
	Equip Blank 5	EB013012	-	1	1	1	1	1
	G-35	G-35	Public	1	1	--	--	--
	MS/MSD 3	G-35		1	1	--	--	--
	G-31	G-31	Public	1	1	--	--	--
	G-OW-3	G-OW-3	Public	--	--	1	--	--
	BF-OW-3	BF-OW-3	Public	1	--	--	1	1
	Duplicate 2	BF-OW-300		1	--	--	1	1
Day 6 Tuesday January 31, 2012	Trip Blank 6	TB013112	-	1	--	--	--	--
	G-26	G-26	Public	1	1	--	--	--
	G-24	G-24	Public	1	1	--	1	--
	Duplicate 3	G-2400		1	1	--	--	--
	Equip Blank 6	EB013112	-	--	--	1	--	--
	G-13	G-13	Public	--	--	1	--	--
	BF-15	BF-15	Public	1	--	1	--	--
	SPLIT 1	BF-15		1	--	1	--	--

AECOM

Table 2
Sampling Matrix
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Well and Sample Analysis Information								
Schedule	**Well ID**	**Sample ID**	**Well Location**	**VOCs**	**pCBSA**	**Pesticides including DDT isomers**	**Arsenic Total**	**Arsenic III & Arsenic V**
Laboratory Analysis				**(8260B)**	**(Modified 314.0)**	**(8081A)**	**(6020)**	**(200.8)**
Day 7 Wednesday February 1, 2012	Trip Blank 7	TB020112	-	1	--	--	--	--
	Equip Blank 7	EB020112	-	1	1	--	--	--
	G-33	G-33	Public	1	1	--	--	--
	MS/MSD 4	G-33		1	1	--	--	--
	Equip Blank 8	EB021212P	-	--	--	1	--	--
	G-06	G-06	WM	1	--	1	1	--
	Duplicate 4	G-0600		1	--	1	--	--
	SWL0033	SWL0033	Public	1	--	--	--	--
	G-09	G-09	Public	1	1	--	--	--
	SPLIT 2	G-09		1	1	--	--	--
Day 8 Thursday February 2, 2012	Trip Blank 8	TB020212	-	1	--	--	--	--
	Equip Blank 9	EB020212	-	--	--	1	1	1
	Equip Blank 10	EB020212V	-	1	1	--	--	--
	G-18	G-18	Public	1	1	--	--	--
	MW-13	MW-13	LADWP-E	1	--	1	1	1
	BF-6	BF-6	LADWP-E	1	--	1	--	--
	MW-1	MW-1	Montrose	1	--	1	1	1
Day 9 Friday February 3, 2012	Trip Blank 9	TB020312	-	1	--	--	--	--
	Equip Blank 11	EB020312	-	1	1	--	--	--
	G-29	G-29	Solt Vermont	1	1	--	--	--
	MS/MSD 5	G-29		1	1	--	--	--
	G-34	G-34	Church	1	1	--	--	--
Day 10 Monday February 6, 2012	Trip Blank 10	TB020612	-	1	--	--	--	--
	G-EW-2	G-EW-2	Public	1	--	--	--	--
	SPLIT 3	G-EW-2		1	--	--	--	--
	Equip Blank 12	EB020612	-	--	--	1	1	1
	MBFB-EW-1	MBFB-EW-1	WM	1	--	1	1	1
Day 11 Tuesday February 7, 2012	Trip Blank 11	TB020712	-	1	--	--	--	--
	Equip Blank 13	EB020712	-	--	--	1	--	--
	SWL0026	SWL0026	Alpine Village	1	1	--	--	--
	SPLIT 4	SWL0026		1	1	--	--	--
	BF-11	BF-11	Public	1	--	1	--	--
	BF-EW-1	BF-EW-1	WM	1	--	1	--	--
	BF-2	BF-2	Montrose	1	--	1	--	--
Day 12 Wednesday February 8, 2012	Trip Blank 12	TB020812	-	1	--	--	--	--
	BF-25	BF-25	Public	1	1	--	--	--
	BF-29	BF-29	Public	1	1	--	--	--
	SPLIT 5	BF-29		1	1	--	--	--
	BF-12	BF-12	Public	1	1	--	--	--
	BF-22	BF-22	Public	1	1	--	--	--
	Duplicate 5	BF-2200		1	1	--	--	--

Table 2
Sampling Matrix
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Well and Sample Analysis Information								
Schedule	**Well ID**	**Sample ID**	**Well Location**	**VOCs**	**pCBSA**	**Pesticides including DDT isomers**	**Arsenic Total**	**Arsenic III & Arsenic V**
Laboratory Analysis				**(8260B)**	**(Modified 314.0)**	**(8081A)**	**(6020)**	**(200.8)**
Day 13	SAMPLES COLLECTED BY URS ON BEHALF OF SHELL OIL COMPANY							
Friday	Trip Blank D1	FBS02003	-	1[B]	--	--	--	--
February 21, 2012	SWL0067	GWS02374	PACCAR	1[B]	--	--	--	--
Day 14	SAMPLES COLLECTED BY URS ON BEHALF OF SHELL OIL COMPANY							
Wednesday	Trip Blank D2	FBS02002	-	1[B]	--	--	--	--
February 22, 2012	SWL0063	GWS02372	Prologis	1[B]	--	--	--	--
	SWL0054	GWS02367	CocaCola	1[B]	--	--	--	--
Day 15	SPLIT SAMPLES COLLECTED FROM AVOCET ON BEHALF OF BOEING							
Tuesday	CMW001	CMW001	Sunrider	1[A]	1	--	--	--
March 20, 2012	CMW002	CMW002	Sunrider	1[A]	1	--	--	--
Day 16	Trip Blank 13	TB032612	-	1	--	--	--	--
Monday	BF-EW-1	BF-EW-1	WM	1	--	--	--	--
March 26, 2012	BF-EW-2	BF-EW-2	Public	--	--	--	1	1
Day 17	Trip Blank 14	TB032712	-	1	--	--	--	--
Tuesday	Equip Blank 14	EB032712	-	1	1	--	--	--
March 27, 2012	SWL0026	SWL0026	Alpine Village	1	1	--	--	--
	G-09	G-09	Public	1	1	--	--	--
	BF-12	BF-12	Public	1	1	--	--	--
Day 18	Trip Blank 15	TB032812	-	1	--	--	--	--
March 28, 2012	G-06	G-06	WM	1	--	--	--	--

Notes:
A = VOCs collected and analyzed by Avocet on behalf of Boeing. Split sample only collected and analyzed for pCBSA.
B = VOCs collected and analyzed by URS on behalf of Shell Oil Company.
VOCs = volitile organic compounds
pCBSAs = 4-chlorobenzenesulfonic acid
DDT = dichlorodiphenyltrichloroethane
-- = well was not sampled for analysis
- = not applicable
Public = public access areas
WM = Waste Management property
LADWP-W = Los Angeles Department of Water and Power property west of Normandie Avenue
LADWP-E = Los Angeles Department of Water and Power property east of Normandie Avenue
SPLIT # = sample submitted to secondary laboratory to confirm results
Samples collected and analyzed by URS and previously submitted on June 28, 2012 as part of the *Groundwater Monitoring Report* for Shell Oil Company

TABLE 3
Summary of VOC Laboratory Results
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Well	Date	chlorobenzene	tetrachloroethene (PCE)	trichloroethene (TCE)	1,4-dichlorobenzene	benzene	bromodichloromethane	chloroform	trihalomethanes, total	methylene chloride	tert-butanol (TBA)	1,2-dichlorobenzene	1,3-dichlorobenzene	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	cis-1,2-dichloroethene	1,2-dichloropropane	ethylbenzene	naphthalene	toluene	1,1,2-trichloroethane	1,2,3-trichloropropane	1,2,4-trimethylbenzene	vinyl chloride	xylenes, total
	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	µg/L	µg/L	µg/L
	ISGS	70	5	5	5	1	NP	100	NP	5[a]	NP	600	17	5	0.5	6	6	5	700	6.2	150	5	NP	12	0.5	1750
Upper Bellflower Aquitard																										
MBFB-EW-1	02/06/2012	**820**	<25	**82**	<25	**7,000**	<25	<25	<25	<50	<500	<25	<25	<25	**280**	<25	<25	<25	**920**	**180** (J)	**30**	<25	<50	**550**	<25	**710**
MW-1	02/02/2012	**130,000**	**1,500**	<1,000	<1,000	**2,900**	<1,000	**14,000**	**14,000**	<2,000	<20,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<2,000	<1,000	<1,000	<2,000	<1,000	<1,000	<1,000
MW-6	01/24/2012	**26**	**17,000**	**530**	**11**	**17**	**0.87**	**2,400**	**2,401**	**3.9**	**220**	**7.9**	**0.75**	**35**	**37**	**100**	**57**	**1.1**	<0.50	<1.0 (UJ)	<0.50	**15**	**4.1**	<0.50	<0.50	**1.6** (J)
	01/24/2012[a]	**26**	**16,000**	**530**	**11**	**17**	**0.9**	**2,400**	**2,401**	**3.6**	**260**	**7.9**	**0.78**	**39**	**38**	**110**	**55**	**1.1**	<0.50	<1.0 (UJ)	<0.50	**15**	**4.3**	<0.50	<0.50	**2.2** (J)
MW-13	02/02/2012	**4,500**	**580**	**810**	<20	**5,200**	<20	**99**	**99**	<40	<400	<20	<20	<20	<20	<20	**54**	<20	**450**	**160**	**400**	<20	<40	**360**	<20	**380**
Bellflower Sand Aquifer																										
BF-2	02/07/2012	**77,000**	<250	<250	<250	<250	<250	**680**	**680**	<500	<5,000	<250	<250	<250	<250	<250	<250	<250	<250	<500	<250	<250	<500	<250	<250	<250
BF-6	02/02/2012	**9,100**	<120	<120	<120	<120	<120	<120	<120	<250	<2,500	<120	<120	<120	<120	<120	<120	<120	<120	<250	<120	<120	<250	<120	<120	<120
BF-11	02/07/2012	**5,600**	<100	<100	<100	<100	<100	<100	<100	<200	<2,000	<100	<100	<100	<100	<100	<100	<100	<100	<200	<100	<100	<200	<100	<100	<100
BF-12	02/08/2012	**1,500**	<20	<20	<20	<20	<20	<20	<20	<40	<400	<20	<20	<20	<20	<20	<20	<20	<20	<40	<20	<20	<40	<20	<20	<20
	03/27/2012	**1,500**	<20	<20	<20	<20	<20	<20	<20	<40	<400	<20	<20	<20	<20	<20	<20	<20	<20	<40 (UJ)	<20	<20	<40	<20	<20	<20
BF-15	01/31/2012	**9,900**	**80**	<50	<50	<50	<50	<50	<50	<100	<1,000	<50	<50	<50	**89**	<50	<50	<50	<50	<100 (UJ)	<50	<50	<100	<50	<50	<50
	01/31/2012[b]	**10,000**	**90**	**19** J	**35**	**36**	<20	<20	<20	<80	<400	<20	<20	<20	**110**	<20	<20	<20	<20	<20	<20	<20	<80	<20	<20	<40
BF-22	02/08/2012	**45**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
	02/08/2012[a]	**44**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
BF-25	02/08/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
BF-26	01/26/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
BF-27	01/26/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
BF-28	01/27/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
BF-29	02/08/2012	**200**	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<8.0	<80	<4.0	<4.0	<4.0	**18**	<4.0	<4.0	<4.0	<4.0	<8.0	<4.0	<4.0	<8.0	<4.0	<4.0	<4.0
	02/08/2012[b]	**180**	<0.50	<0.50	**1.3**	**0.73**	<0.50	<0.50	<0.5	<2.0	<10	<0.50	<0.50	<0.50	**20**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	**0.26** J	<0.50	<1.0
BF-30	01/25/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
BF-31	01/24/2012	**1**	<0.50	<0.50	**0.58**	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	**0.66**	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
BF-33	01/24/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	**14**	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
BF-36	01/25/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
BF-EW-1	02/07/2012	**4,000**	<100	<100	<100	<100	<100	<100	<100	<200	<2,000	<100	<100	<100	<100	<100	<100	<100	<100	<200	<100	<100	<200	<100	<100	<100
	03/26/2012	**26,000**	<25 (UJ)	**68**	**53**	**190**	<25	<25	<25	<50	<500	<25	<25	<25	<25	<25	<25	<25	<25	<50 (UJ)	<25	<25	<50	<25	<25	<25
BF-OW-3	01/30/2012	**14,000**	<50	<50	<50	**110**	<50	<50	<50	<100	<1,000	<50	<50	<50	**72**	<50	<50	<50	<50	<100 (UJ)	<50	<50	<100	<50	<50	<50
	01/30/2012[a]	**14,000**	<50	<50	<50	**110**	<50	<50	<50	<100	<1,000	<50	<50	<50	**70**	<50	<50	<50	<50	<100 (UJ)	<50	<50	<100	<50	<50	<50
CMW001	03/20/2012	**8,000**	<40	<40	<40	**24**	<40	<40	<40	<40	<1,000	<40	<40	<40	<20	<40	<40	<40	<40	N/A	<40	<40	<40	<40	<20	<40
CMW002	03/20/2012	**30,000**	<100	**150**	<100	**120**	<100	**930**	**930**	<100	<2,500	<100	<100	<100	<50	<100	<100	<100	<100	N/A	<100	<100	<100	<100	<50	<100
SWL0033	02/01/2012	**4,400**	<100	<100	<100	<100	<100	<100	<100	<200	<2,000	<100	<100	<100	<100	<100	<100	<100	<100	<200 (UJ)	<100	<100	<200	<100	<100	<100
SWL0054	02/21/2012	<1.0	**190**	**1,100**	<1.0	**1.3**	<1.0	**1**	**1**	<10	<10	<1.0	<1.0	<1.0	<0.50	**18**	**190**	<1.0	<1.0	<10	<1.0	<1.0	<5.0	<1.0	**1.9**	<1.0
Gage Aquifer																										
G-06	02/01/2012	**620**	<10	<10	<10	<10	<10	<10	<10	<20	<200	<10	<10	<10	<10	<10	<10	<10	<10	<20 (UJ)	<10	<10	<20	<10	<10	<10
	02/01/2012[a]	**640**	<10	<10	<10	<10	<10	<10	<10	<20	<200	<10	<10	<10	<10	<10	<10	<10	<10	<20 (UJ)	<10	<10	<20	<10	**12**	<10

TABLE 3
Summary of VOC Laboratory Results
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Well	Date	chlorobenzene	tetrachloroethene (PCE)	trichloroethene (TCE)	1,4-dichlorobenzene	benzene	bromodichloromethane	chloroform	trihalomethanes, total	methylene chloride	tert-butanol (TBA)	1,2-dichlorobenzene	1,3-dichlorobenzene	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	cis-1,2-dichloroethene	1,2-dichloropropane	ethylbenzene	naphthalene	toluene	1,1,2-trichloroethane	1,2,3-trichloropropane	1,2,4-trimethylbenzene	vinyl chloride	xylenes, total
	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	µg/L	µg/L	µg/L
	ISGS	70	5	5	5	1	NP	100	NP	5[a]	NP	600	17	5	0.5	6	6	5	700	6.2	150	5	NP	12	0.5	1750
	03/28/2012	**1,500**	<10	<10	<10	<10	<10	<10	<10	<20	<200	<10	<10	<10	<10	<10	<10	<10	<10	<20	<10	<10	<20	<10	<10	<10
G-09	02/01/2012	**73**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0 (UJ)	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0
	02/01/2012[b]	**68**	<0.50	<0.50	<0.50	**0.30** J	<0.50	<0.50	<0.5	<2.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	<1.0
	03/27/2012	**66**	<0.50	<0.50	<0.50	**0.94**	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	**0.6**	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
G-18	02/02/2012	**2.9** (J)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
G-22	01/27/2012	**700**	<0.50	<0.50	**1.7**	**2**	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	**8.1**	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
G-23	01/25/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	**0.59**	<0.50	<1.0	<0.50	<0.50	<0.50
G-24	01/31/2012	**740**	<0.50	<0.50	**5.7**	**0.87**	<0.50	<0.50	<0.5	<1.0	<10	**0.96**	<0.50	<0.50	**0.86**	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	**0.65**	<0.50	<1.0	<0.50	<0.50	<0.50
	01/31/2012[a]	**750**	<0.50	<0.50	**5.8**	**0.85**	<0.50	<0.50	<0.5	<1.0	<10	**1.1**	<0.50	<0.50	**0.88**	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	**0.63**	<0.50	<1.0	<0.50	<0.50	<0.50
G-25	01/27/2012	**30**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	**8.8**	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
G-26	01/31/2012	**120**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
G-27	01/26/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	**0.54**	<0.50	<1.0	<0.50	<0.50	<0.50
G-28	01/26/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	**0.51**	<0.50	<1.0	<0.50	<0.50	<0.50
G-29	02/03/2012	**1.5**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
G-30	01/24/2012	<0.50	<0.50	**0.9**	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	**3.1**	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	**1.1**	<0.50	<1.0	<0.50	<0.50	<0.50
G-31	01/30/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
G-32	01/25/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
G-33	02/01/2012	**2.5**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	**0.51**	<0.50	<0.50	<0.50	**8.2**	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	**0.52**
G-34	02/03/2012	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
G-35	01/30/2012	**0.51**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	**10** (J)	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
G-EW-2	02/06/2012	**790**	<0.50	<0.50	**1.7**	**2.3**	<0.50	<0.50	<0.5	<1.0	<10	<0.50	<0.50	<0.50	**7.1**	<0.50	<0.50	<0.50	<0.50	<1.0 (UJ)	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
	02/06/2012[b]	**760**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<20	<100	<5.0	<5.0	<5.0	**7.5**	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<20	**2.6** J	<5.0	<10
SWL0026	02/07/2012	**110**	<0.50	<0.50	<0.50	**0.67**	<0.50	**0.82**	**0.82**	<1.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
	02/07/2012[b]	**89**	<0.50	<0.50	<0.50	**0.65**	<0.50	**0.7**	**0.7**	<2.0	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<0.50	<0.50	<1.0
	03/27/2012	**17**	<0.50	<0.50	<0.50	**0.56**	<0.50	**0.84**	**0.84**	<1.0	<10	<0.50	<0.50	<0.50	**1.2**	<0.50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
SWL0063	02/20/2012	<1.0	**18**	**190**	<1.0	**460**	<1.0	<1.0	<1.0	<10	<10	<1.0	<1.0	<1.0	<0.50	**3**	**13**	<1.0	**34**	<10	<1.0	<1.0	<5.0	<1.0	<0.50	<1.0
SWL0067	02/17/2012	<1.0	<1.0	**470**	<1.0	<0.50	<1.0	<1.0	<1.0	<10	<10	<1.0	<1.0	<1.0	<0.50	**1.8**	**16**	<1.0	<1.0	<10	<1.0	<1.0	<5.0	<1.0	<0.50	<1.0

Notes:
Analytes not shown here were not detected in wells at concentrations greater than laboratory reporting limits unless noted below.
Samples were analyzed using EPA Method 8260B.
[a] Duplicate Sample
[b] Confirmation Sample
= Exceeds ISGS
Total Trihalomethanes are Bromoform, Chloroform, Dibromochloromethane, and Bromodichloromethane.

<	less than
µg/L	micrograms per liter
CDPH	California Department of Public Health
ISGS	In Situ Groundwater Standard as listed as Table 9-1 in the *Record of Decision for the Dual Groundwater Operable Unit, Montrose and Del Amo Superfund Sites* (EPA, 1999)
MDL	method detection limit
NP	none promulgated

AECOM

TABLE 3
Summary of VOC Laboratory Results
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Well	Date	chlorobenzene	tetrachloroethene (PCE)	trichloroethene (TCE)	1,4-dichlorobenzene	benzene	bromodichloromethane	chloroform	trihalomethanes, total	methylene chloride	tert-butanol (TBA)	1,2-dichlorobenzene	1,3-dichlorobenzene	1,1-dichloroethane	1,2-dichloroethane	1,1-dichloroethene	cis-1,2-dichloroethene	1,2-dichloropropane	ethylbenzene	naphthalene	toluene	1,1,2-trichloroethane	1,2,3-trichloropropane	1,2,4-trimethylbenzene	vinyl chloride	xylenes, total
	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	µg/L	µg/L	µg/L
	ISGS	70	5	5	5	1	NP	100	NP	5[a]	NP	600	17	5	0.5	6	6	5	700	6.2	150	5	NP	12	0.5	1750

RL reporting limit
EPA United States Environmental Protection Agency

Laboratory-Assigned Qualifier
J Estimated value. Analyte detected at a level less than the RL and greater than or equal to the MDL. The user of this data should be aware that this data is of limited reliability.

Data Validation Qualifiers
(J) Estimated value.
(UJ) Reporting limit estimated.

Table 4
Summary of pCBSA Laboratory Results
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Well	Date	pCBSA
	Units	µg/L
Bellflower Sand Aquifer		
BF-12	02/08/2012	**23,000**
	03/27/2012	**24,000**
BF-22	02/08/2012	**7,700**
	02/08/2012[a]	**7,500**
BF-25	02/08/2012	**79**
BF-26	01/26/2012	<5.0
BF-27	01/26/2012	<5.0
BF-28	01/27/2012	**190**
BF-29	02/08/2012	**7,400**
	02/08/2012[b]	**5,700**
BF-30	01/25/2012	<5.0
BF-31	01/24/2012	**94**
BF-33	01/24/2012	<5.0
BF-36	01/25/2012	<5.0
CMW001	03/20/2012	**31,000**
CMW002	03/20/2012	**64,000**
Gage Aquifer		
SWL0026	02/07/2012	**130** (J)
	02/07/2012[b]	**75** (J)
	03/27/2012	**190**
G-09	02/01/2012	**2,500**
	02/01/2012[b]	**3,000**
	03/27/2012	**12,000**
G-18	02/02/2012	**49**
G-22	01/27/2012	**13,000**
G-23	01/25/2012	**250**
G-24	01/31/2012	**15,000**
	01/31/2012[a]	**16,000**
G-25	01/27/2012	**1,600**
G-26	01/31/2012	**1,000**
G-27	01/26/2012	<5.0
G-28	01/26/2012	**1,100**
G-29	02/03/2012	**7,800**
G-30	01/24/2012	<5.0
G-31	01/30/2012	**350**
G-32	01/25/2012	**28**
G-33	02/01/2012	**160** (J)
G-34	02/03/2012	<5.0
G-35	01/30/2012	**13,000** (J)

Notes:
[a] Duplicate Sample
[b] Confirmation Sample
pCBSA = 4-chlorobenzenesulfonic acid
No Upper Bellflower Aquitard wells were sampled for pCBSA.

Samples were analyzed using EPA Method 314.0 Modified.

No In Situ Groundwater Standard (ISGS) exists for pCBSAs, however, there is an injection limitation of 25,000 µg/L established in the *Record of Decision for the Dual Groundwater Operable Unit, Montrose and Del Amo Superfund Sites* (EPA, 1999)

µg/L micrograms per liter

Data Validation Qualifier
(J) Estimated value.

TABLE 5
Summary of Pesticide Laboratory Results
2012 Groundwater Monitoring Report
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20201 S. Normandie Avenue, Los Angeles, California

Well	Date	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC	2,4'-DDD	4,4'-DDD	Total DDD	2,4'-DDE	4,4'-DDE	Total DDE	2,4'-DDT	4,4'-DDT	Total DDT	All DDT Isomers
	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
	ISGS	0.011	0.037	NP	0.2	NP	NP	0.28	NP	NP	0.20	NP	NP	0.20	NP
Upper Bellflower Aquitard															
MBFB-EW-1	02/06/2012	<0.0050	**0.43**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
MW-1	02/02/2012	**20 (J)**	**19 (J)**	**15 (J)**	**27**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-6	01/24/2012	**1.6**	<0.50	**2.9**	**3.4**	**0.048**	<0.50	**0.048**	<0.0050	<0.50	<0.50	<0.0050	<0.50	<0.50	**0.048**
	01/24/2012[a]	**1.8**	**0.64**	**3.5**	**3.9**	**0.052**	<0.50	**0.052**	<0.0050	<0.50	<0.50	<0.0050	<0.50	<0.50	**0.052**
MW-13	02/02/2012	**0.17**	**0.054**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Bellflower Sand Aquifer															
BF-2	02/07/2012	<0.050	<0.050	<0.050	<0.050	**4.8**	**5.9**	**10.7**	**0.12 (J)**	**0.18 (J)**	**0.30 (J)**	**0.35 (J)**	<0.050	**0.35 (J)**	**11.35**
BF-6	02/02/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
BF-11	02/07/2012	**0.024**	<0.0050	<0.0050	**0.011**	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
BF-15	01/31/2012	**0.90 (J)**	**1.7 (J)**	**0.33 (J)**	**0.89 (J)**	<0.0050	<0.25	<0.25	<0.0050	<0.25	<0.25	<0.0050	<0.25	<0.25	<0.25
	01/31/2012[b]	**0.65 (J)**	**1.1 (J)**	<0.0047 (J)	**0.62 (J)**	<0.094	<0.0047	<0.094	<0.094	<0.0047(J)	<0.094	<0.094	<0.0094	<0.094	<0.094
BF-EW-1	02/07/2012	**0.43**	**2.0**	<0.050	**0.84**	<0.0050	<0.050	<0.050	<0.0050	<0.050	<0.094	<0.0050	<0.050	<0.050	<0.050
Gage Aquifer															
G-06	02/01/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**0.028**	**0.028**	<0.0050	**0.0072**	**0.0072**	<0.0050	**0.61**	**0.61**	**0.65**
	02/01/2012[a]	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**0.030**	**0.030**	<0.0050	**0.0057**	**0.0057**	<0.0050	**0.64**	**0.64**	**0.68**
G-13	01/31/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	**0.0071**	**0.0071**	<0.0050	**0.018**	**0.018**	<0.0050	**0.042**	**0.042**	**0.067**
G-OW-3	01/30/2012	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

Notes:
Analytes not shown here were not detected in wells at concentrations greater than laboratory reporting limits unless noted below.
Samples were analyzed using EPA Method 8081.
[a] Duplicate Sample
[b] Confirmation Sample
= Exceeds ISGS
Total DDT concentrations are the sum of 2,4' and 4,4' isomers for DDD, DDE, and DDT

<	less than
µg/L	micrograms per liter
NP	none promulgated
EPA	United States Environmental Protection Agency
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethylene
DDT	dichlorodiphenyltrichloroethane
BHC	benzene hexachloride
ISGS	In Situ Groundwater Standard as listed as Table 9-1 in the *Record of Decision for the Dual Groundwater Operable Unit, Montrose and Del Amo Superfund Sites* (EPA, 1999)

Data Validation Qualifiers

(J)	Estimated value.

TABLE 6
Summary of Arsenic Laboratory Results
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Well	Date	arsenic	arsenic III	arsenic V
	Units	µg/L	µg/L	µg/L
	MCL[b]	10	NP	NP
Upper Bellflower Aquitard				
MBFB-EW-1	02/06/2012	**215**	**260**	**100**
MW-1	02/02/2012	**14.1**	**8.1**	**8.0**
MW-13	02/02/2012	**285**	**300**	**110**
Bellflower Sand Aquifer				
BF-EW-2	03/26/2012	**8.92**	**8.5**	**19**
BF-OW-3	01/30/2012	**77.6**	**76**	**3.2**
	01/30/2012[a]	**82.0**	**76**	**3.4**
Gage Aquifer				
G-06	02/01/2012	**4.7**	**--**	**--**
G-24	01/31/2012	**2.31**	**--**	**--**

Notes:
[a] Duplicate Sample
[b] Federal (U.S. EPA – 04/2012) - primary MCL only
Samples were analyzed using EPA Method 6020 for total arsenic and EPA 200.8 for Arsenic III and V.

No In Situ Groundwater Standard (ISGS) exists for arsenic (EPA, 1999). Arsenic detections have been compared against federal MCLs.

Exceeds primary MCL

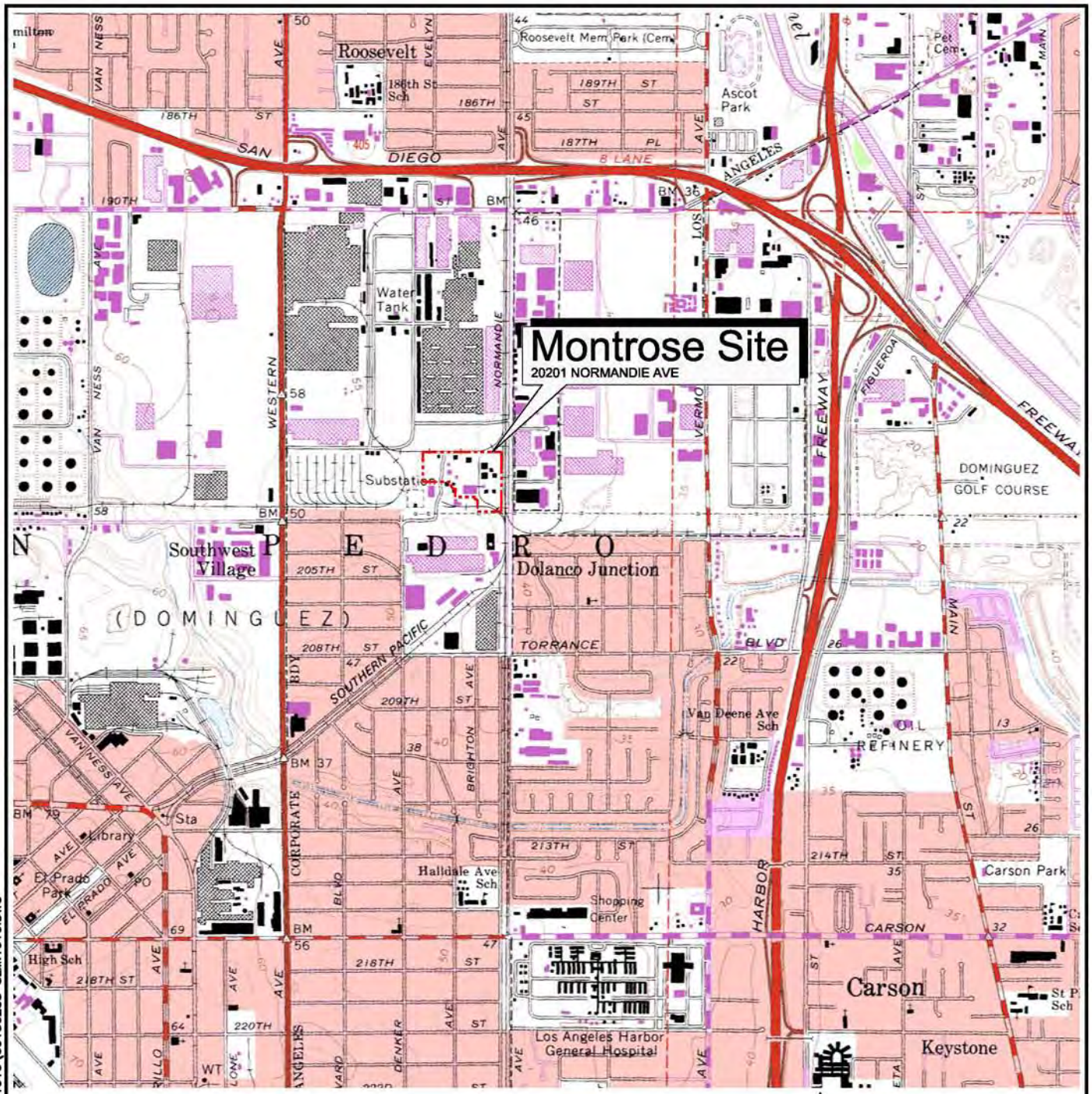
MCL maximum contaminant level
NP none promulgated
µg/L micrograms per liter
-- not analyzed

TABLE 7
Summary of QA/QC Sample Laboratory Results
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Field Sample	Laboratory Sample	Sampling Date	VOCs	pCBSAs	Pesticides	Arsenic Total	Arsenic III & Arsenic V
Laboratory Method			**(8260B)**	**(314.0 Modified)**	**(8081A)**	**(6020)**	**(200.8)**
Units			(µg/L)	(µg/L)	(µg/L)	(mg/L)	(µg/L)
TRIP BLANKS							
TB012412	12-01-1418-01	01/24/2012	ND	--	--	--	--
TB012512	12-01-1513-01	01/25/2012	ND	--	--	--	--
TB012612	12-01-1596-01	01/26/2012	ND	--	--	--	--
TB012712	12-01-1667-01	01/27/2012	ND	--	--	--	--
TB013012	12-01-1748-01	01/30/2012	ND	--	--	--	--
TB013112	12-01-1815-01	01/31/2012	ND	--	--	--	--
TB020112	12-02-0067-01	02/01/2012	ND	--	--	--	--
TB020212	12-02-0169-01	02/02/2012	ND	--	--	--	--
TB020312	12-02-0275-01	02/03/2012	ND	--	--	--	--
TB020612	12-02-0378-01	02/06/2012	ND	--	--	--	--
TB020712	12-02-0447-01	02/07/2012	ND	--	--	--	--
TB020812	12-02-0533-01	02/08/2012	ND	--	--	--	--
TB032612	12-03-1751-01	03/26/2012	ND	--	--	--	--
TB032712	12-03-1828-01	03/27/2012	ND	--	--	--	--
TB032812	12-03-1906-01	03/28/2012	ND	--	--	--	--
EQUIPMENT BLANKS							
EB012412	12-01-1418-02	01/24/2012	ND	<5	<0.005 to <0.062	--	--
EB012512	12-01-1513-02	01/25/2012	ND	<5	--	--	--
EB012612	12-01-1596-02	01/26/2012	ND	<5	--	--	--
EB012712	12-01-1667-02	01/27/2012	ND	<5	--	--	--
EB013012	12-01-1748-02	01/30/2012	ND	<5	<0.005 to <0.062	<0.001	<0.4
EB013112	12-01-1815-05	01/31/2012	--	--	<0.005 to <0.062	--	--
EB020112	12-02-0067-02	02/01/2012	ND	<5	--	--	--
EB020112P	12-02-0067-05	02/01/2012	--	--	<0.005 to <0.062	--	--
EB020212	12-02-0169-02	02/02/2012	--	--	<0.005 to <0.062	<0.001	<0.4
EB020212V	12-02-0169-03	02/02/2012	ND	<5	--	--	--
EB020312	12-02-0275-02	02/03/2012	ND	<5	--	--	--
EB020612	12-02-0378-03	02/06/2012	--	--	<0.005 to <0.062	<0.001	<0.4
EB020712	12-02-0447-02	02/07/2012	--	--	<0.005 to <0.062	--	--
EB032712	12-03-1828-02	03/27/2012	ND	16	--	--	--

Notes:
QA/QC = quality assurance/quality control
ND = Analytes listed as part of EPA Method 8260B were not detected above 1X dilution factor
µg/L = micrograms per liter
pCBSA = 4-chlorobenzenesulfonic acid
Sample IDs with "FBS" are associated with samples collected by URS and previously submitted on June 28, 2012 as part of the *Groundwater Monitoring Report* for Shell Oil Company
-- = sample not submitted for analysis by laboratory method

FIGURES



Reference:

1. U.S.G.S. Topographic Map, Torrance, California 7.5 Minute Quadrangle. Georeferenced using the State of California's CASIL On-line GIS Database, Copyright 2010.

Montrose Chemical Corporation

Site Location Map

Date: 10-10	Montrose Superfund Site	Figure
Project No. 60150255	AECOM	1

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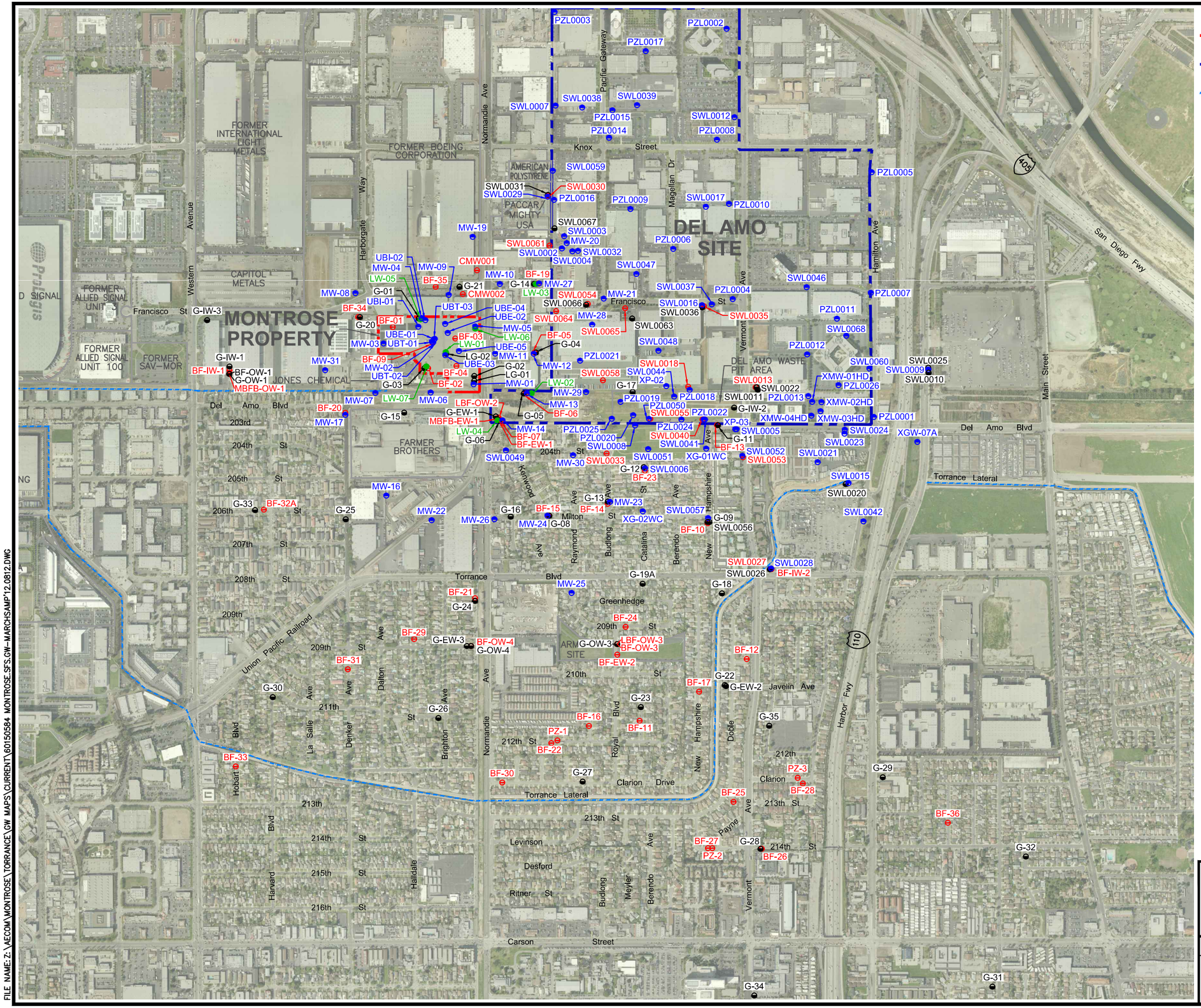

Legend:

- Location of Montrose Property Boundary
- Location of Del Amo Superfund Site Boundary
- Approximate City of Torrance Owned Torrance Lateral

Well Legend:

- PZL0007 — Upper Bellflower Aquitard Groundwater Monitoring Wells
- SWL0018 — Bellflower Sand Aquifer Groundwater Monitoring Wells
- G-IW-2 — Gage Aquifer Groundwater Monitoring Wells
- LW-01 — Lynwood Aquifer Groundwater Monitoring Wells

References:

1. Parcel Boundary Information from Los Angeles, CA, Department of Public Works Bureau of Engineering Online ArcInfo GIS database, Copyright 2012. Montrose Chemical Corporation Boundary Survey conducted August 13, 2001 by Dulin–Boynton Land Surveyors.
2. Satellite/Aerial Photos Reference: U.S.G.S Orthorectified Image, Dated July 29, 2009.
3. Well Locations are based and from Hargis & Associates maps dated March 2008, file names 220–1909, 1910, 1911, 1912.dwgs.

NORTH

0 500 1,000 FEET

SCALE: 1"= 1,000'

Montrose Chemical Corporation

Groundwater Monitoring Well Location Map - 2012

Date: 08-12	Montrose Superfund Site	Figure
Project No. 60250584	AECOM	2

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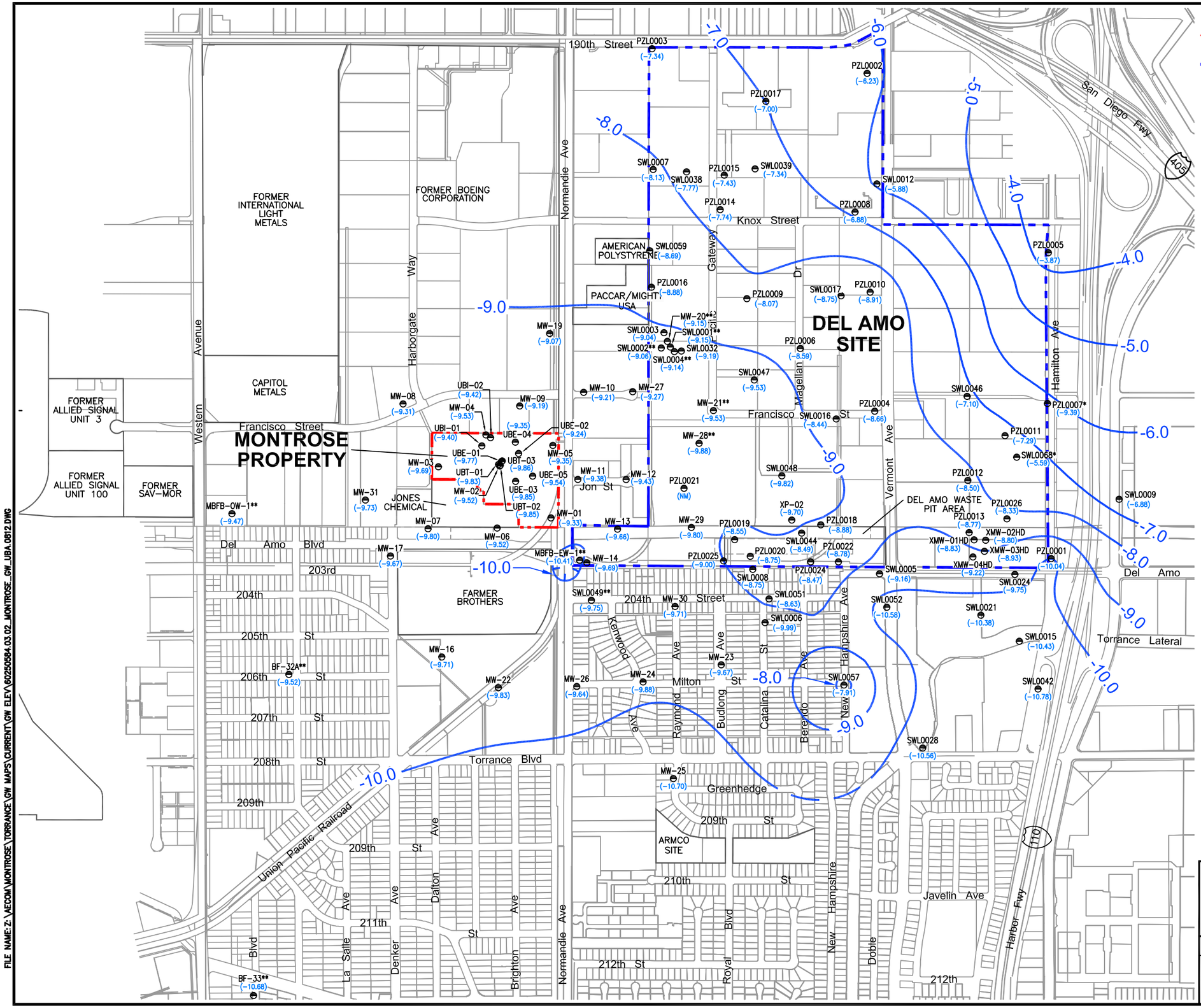

Legend:

- Location of Montrose Property Boundary
- Location of Del Amo Superfund Site Boundary

Well Legend:

- SWL0012 — Upper Bellflower Aquitard (UBA) Groundwater Monitoring Well Location
- (-5.88) — Groundwater Elevation in Feet Mean Sea Level (MSL.) measured first quarter 2012
- -10.0 — Interpreted Groundwater Elevation Contours in Feet (MSL.) Contour Intervals are 1.00 Feet

Well Identifier Notes:

MW	=	Montrose Monitoring Wells
MWFB	=	Montrose Observation Wells
G, GW, PZL SWL, MWOHD MW-2T, P	=	Del Amo Monitoring Wells
UBA	=	Upper Bellflower Aquitard
*	=	Groundwater Elevation not used for contouring purposes.
**	=	Well is screened from the UBA to the Middle Bellflower "B" Sands

References:

1. Parcel Boundary Information from Los Angeles, CA, Department of Public Works Bureau of Engineering Online ArcInfo GIS database, Copyright 2012. Montrose Chemical Corporation Boundary Survey conducted August 13, 2001 by Dulin-Boynton Land Surveyors.
2. Satellite/Aerial Photos Reference: U.S.G.S Orthorectified Image, Dated July 29, 2009.
3. Well Locations are based and from Hargis & Associates maps dated March 2008, file names 220-1909, 1910, 1911, 1912.dwgs.

NORTH

0 400 800 FEET

SCALE: 1"= 800'

Montrose Chemical Corporation

2012 Groundwater Elevation Map Upper Bellflower Aquitard

Date: 08-12	Montrose Superfund Site	Figure 3
Project No. 60250584	AECOM	

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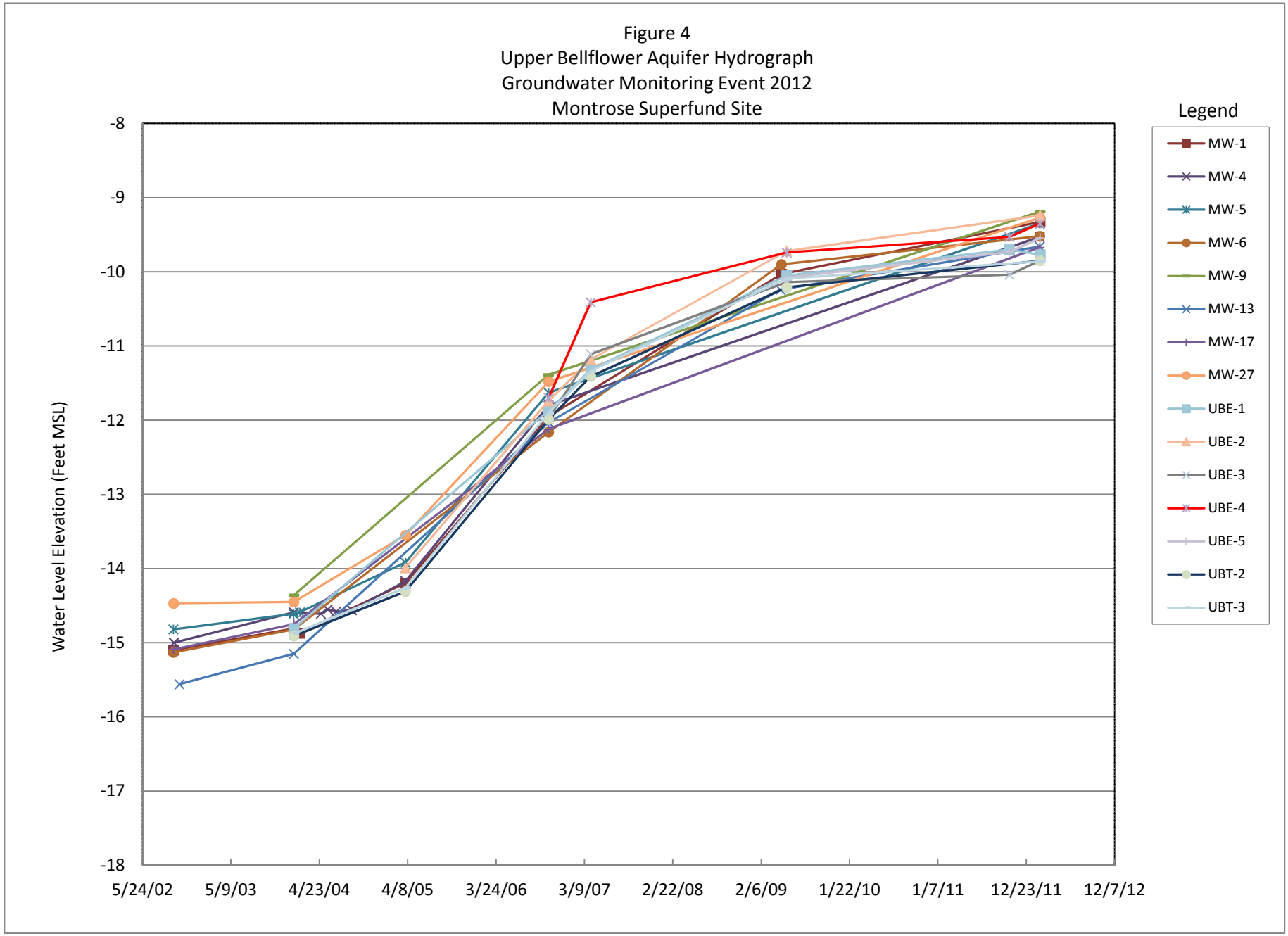
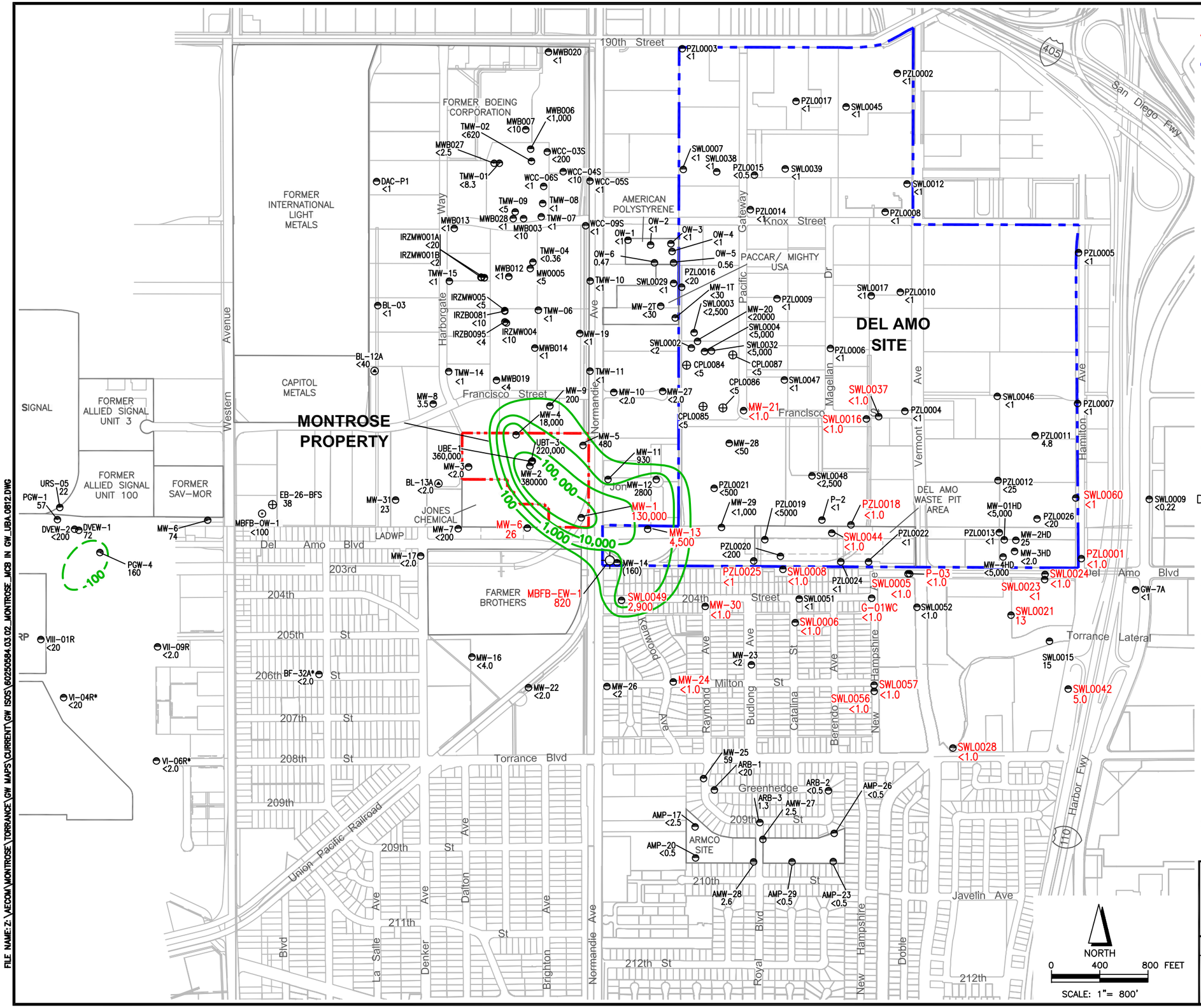


Figure 4
Upper Bellflower Aquifer Hydrograph
Groundwater Monitoring Event 2012
Montrose Superfund Site
Water Level Elevation (Feet MSL)
-8
-9
-10
-11
-12
-13
-14
-15
-16
-17
-18
5/24/02
5/9/03
4/23/04
4/8/05
3/24/06
3/9/07
2/22/08
2/6/09
1/22/10
1/7/11
12/23/11
12/7/12
Legend
MW-1
MW-4
MW-5
MW-6
MW-9
MW-13
MW-17
MW-27
UBE-1
UBE-2
UBE-3
UBE-4
UBE-5
UBT-2
UBT-3



Legend:

- Location of Montrose Property Boundary
- Location of Del Amo Superfund Site Boundary

Well Legend:

- SWL0012 — Upper Bellflower Aquitard (UBA) Groundwater Monitoring Well Location
- BL-12A — Cluster Well
- EB-26-BFS — Exploratory Boring and Temporary Upper Bellflower Aquitard Observation Well
- MBFB-EW-1 — Middle Bellflower 'B' Extraction Well
- MBFB-OW-1 — Middle Bellflower 'B' Observation Well
- <1 — Less than; Numerical value is the limit of detection for this analysis.
- * — Well screened from the water table zone into the Middle Bellflower 'C' sand.
- MW-1 130,000 — MCB concentration in micrograms per liter, Sampled December 2011 – March 2012
- 0.1 — MCB concentration in micrograms per liter, Sample Prior to 2012
- MCB — Monochlorobenzene
- 100 — Contour line of equal concentration of MCB in micrograms per liter dashed where approximate, dashed where inferred

Well Identifier Notes:

MW = Montrose Monitor Wells
G, GW, SWL, PZL, GW, P, MW-2T, MW-xHD = Del Amo Monitor Wells
OW = American Polystyrene Monitor Wells
AMW, AMP, ARB = Armco Monitor Wells
DAC, TMW, WCC, MWB = Boeing Monitor Wells
BL = International Light Metals Monitor Wells
IRZB, IRZMW = Boeing Bioremediation Wells

References:

1. Avocet Environmental, 2011. Annual Groundwater Monitoring Report, Boeing Former C-6 Facility, 19503 South Normandie Avenue, Los Angeles, California. November 27.
2. H+A, 2009. Supplemental Groundwater Sampling and Analysis Results, April 2009, Montrose Superfund Site, Los Angeles, California. July 13.
3. H+A, 2007. 2006 Groundwater Monitoring Results Report, Montrose Site, Torrance, California. February 28.
4. The Upper Bellflower Aquitard is equivalent to the Water Table and Bellflower "B" Sand.

Notes:

1. In the area West of Western Avenue, not all historical data are shown. Details are provided in: H+A Technical Memorandum Results of West of Western Avenue Groundwater Assessment Montrose Site Torrance, California, April 24, 2009.
2. For MCB, the Federal Maximum Contaminant Level (MCL) is 100 $\mu g/L$, and the California MCL is 70 $\mu g/L$.

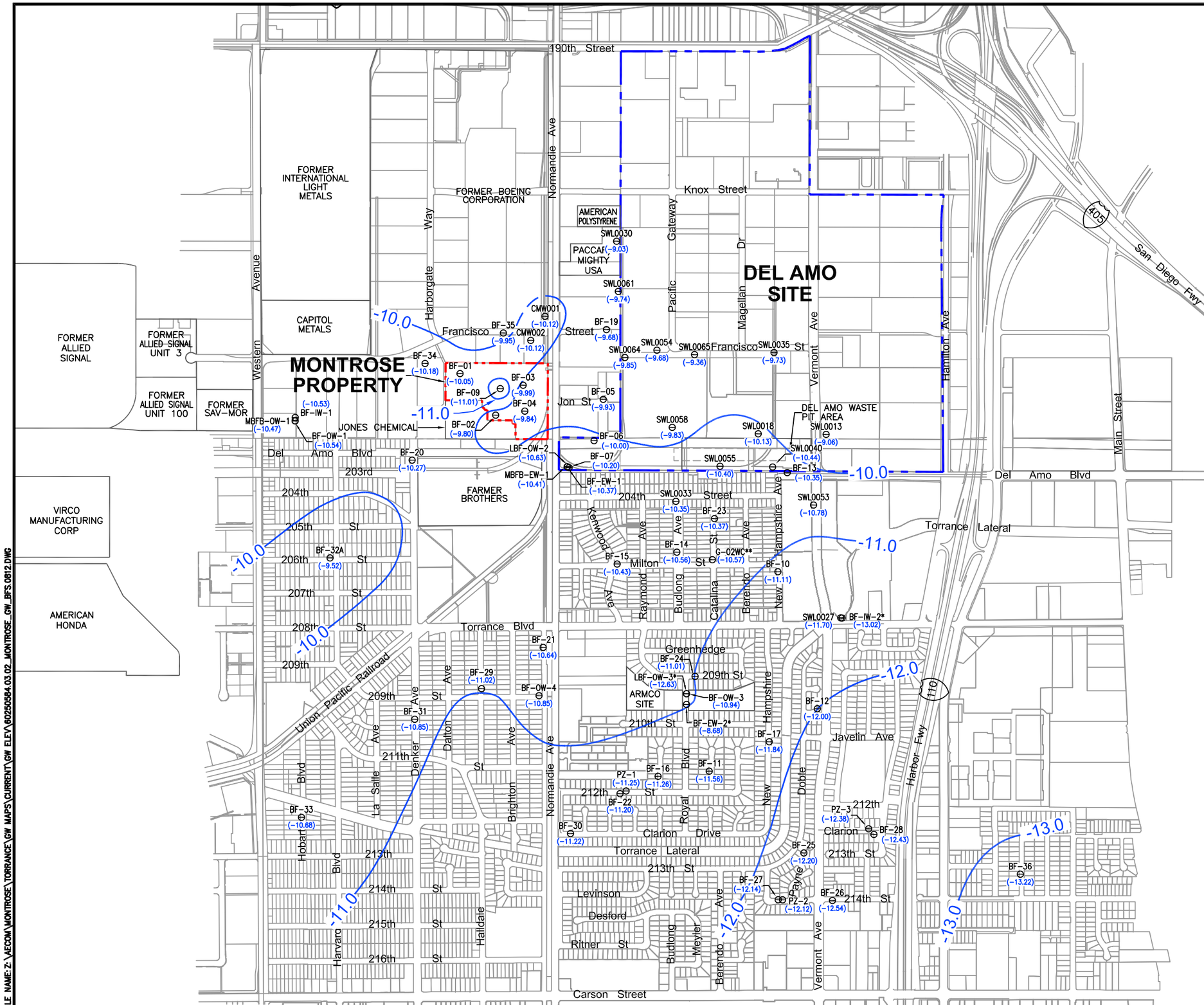
Montrose Chemical Corporation

2012 MCB in Groundwater Upper Bellflower Aquitard

Date: 08-12	Montrose Superfund Site	Figure
Project No. 60250584	AECOM	5

NORTH
0 400 800 FEET
SCALE: 1"= 800'

FILE NAME: Z:\AECOM\MONTROSE\TORRANCE\GW MAPS\CURRENT\GW ISOS\60250584.03.02_MONTROSE_MCB IN GW_UBA.0812.DWG



Legend:

- Location of Montrose Property Boundary
- Location of Del Amo Superfund Site Boundary

Well Legend:

- ⊖SWL0013 — Bellflower Sands (BFS) Groundwater Monitoring Well Location
- (-9.06) — Groundwater Elevation in Feet Mean Sea Level (MSL.) measured first quarter 2012
- * — Groundwater Elevation not used for Contouring Purposes
- -4.0 — Interpreted Groundwater Elevation Contours in Feet (MSL.) Contour Intervals are 1.00 Feet

Well Identifier Notes:
BF, BFS–WOW = Montrose Monitoring Wells
SWL = Del Amo Monitoring Wells

BFS = Bellflower Sands

Bellflower Sand is equivalent to Middle Bellflower "C" Sand

** G–02WC is hydraulically consistent with the BFS, although it is screened 82–92 ft bgs and characterized as a MBFB sand well by Shell.

References:

1. Parcel Boundary Information from Los Angeles, CA, Department of Public Works Bureau of Engineering Online ArcInfo GIS database, Copyright 2012. Montrose Chemical Corporation Boundary Survey conducted August 13, 2001 by Dulin–Boynton Land Surveyors.
2. Satellite/Aerial Photos Reference: U.S.G.S Orthorectified Image, Dated July 29, 2009.
3. Well Locations are based and from Hargis & Associates maps dated March 2008, file names 220–1909, 1910, 1911, 1912.dwgs.

NORTH

0 500 1,000 FEET

SCALE: 1"= 1,000'

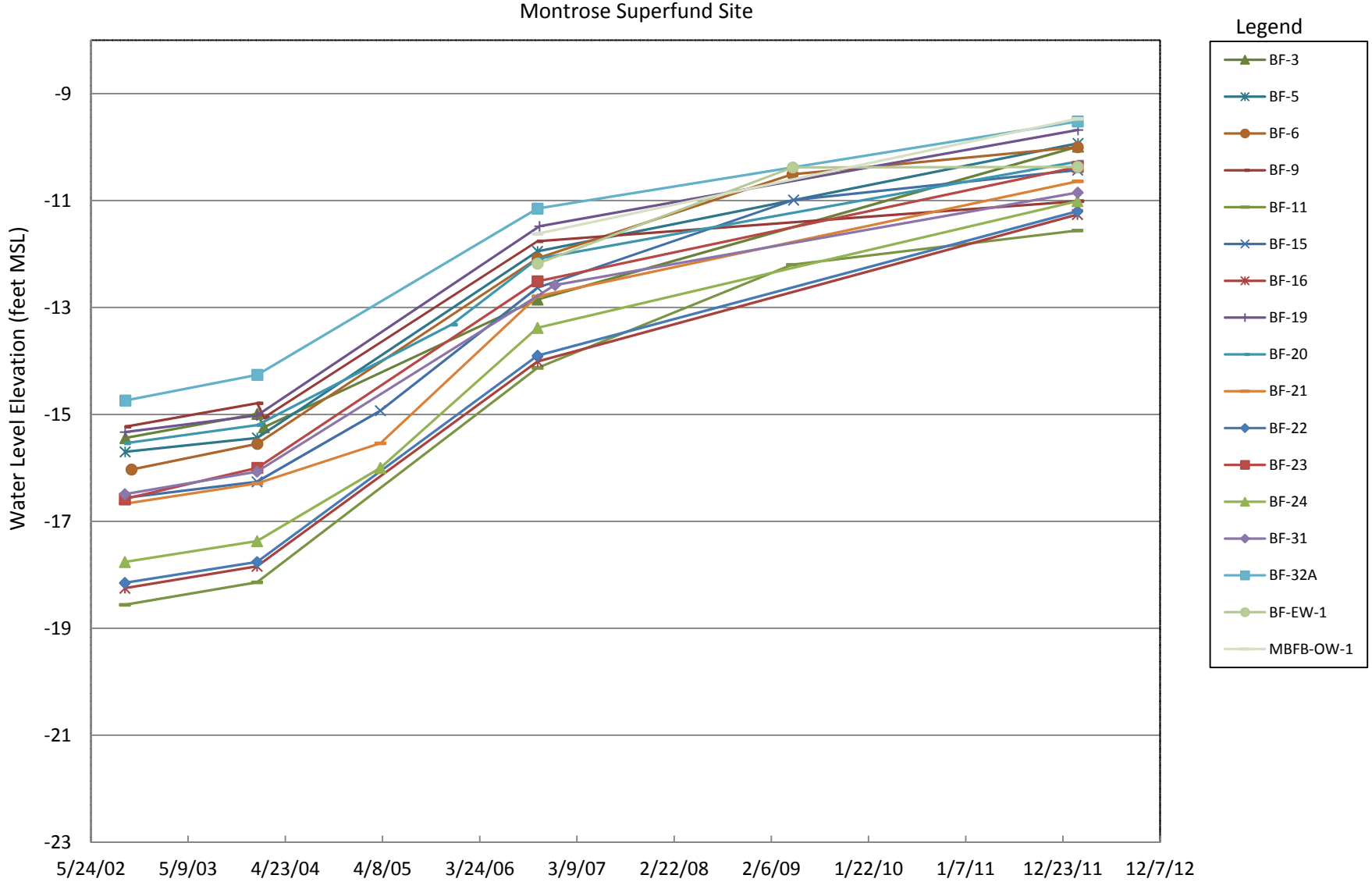
Montrose Chemical Corporation

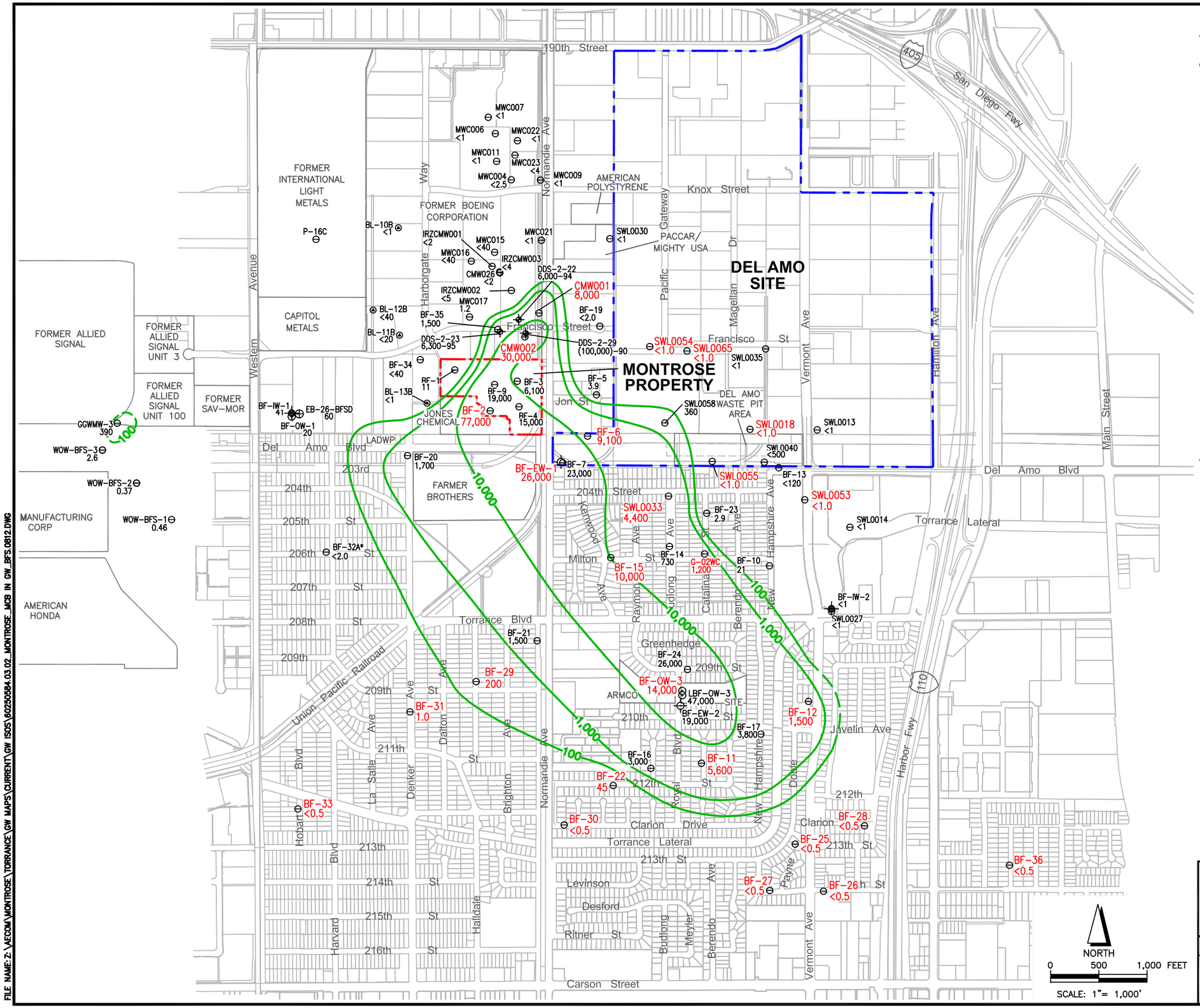
2012 Groundwater Elevation Map Bellflower Sand Aquifer

Date: 08-12	Montrose Superfund Site	Figure
Project No. 60250584	AECOM	6

FILE NAME:Z:\AECOM\MONTROSE\TORRANCE\GW MAPS\CURRENT\GW ELEV\60250584.03.02_MONTROSE_GW_BFS.0812.DWG

Figure 7
Bellflower Sand Aquifer Hydrograph
Groundwater Monitoring Event 2012
Montrose Superfund Site





Legend:

- Location of Montrose Property Boundary
- Location of Del Amo Superfund Site Boundary

Well Legend:

SWL0013	Bellflower Sands (BFS) Groundwater Monitoring Well Location
BL-11B	Cluster Well
EB-26-BFSD	Exploratory Boring and Temporary Bellflower Sand Observation Well
DDS-2-22 6,000-94	Boeing Hydropunch sample location Concentration – Collection Depth Sampled prior to September 2006
BF-EW-2	Bellflower 'B' Extraction Well
BF-IW-2	Bellflower 'B' Injection Well
BF-OW-1	Middle Bellflower 'B' Observation Well
<1.0	Less than; Numerical value is the limit of detection for this analysis.
BF-2 77,000	MCB concentration in micrograms per liter, Sampled January–March, 2012
15,000	MCB concentration in micrograms per liter, Sampled Prior to 2012
*	Well screened from the water table zone into the Middle Bellflower 'C' sand.
MCB	Monochlorobenzene
(100,000)	Concentration not contoured
100	Contour line of equal concentration of MCB in micrograms per liter dashed where approximate, dashed where inferred

Well Identifier Notes:

BF, WOW–BFS	=	Montrose Monitoring Wells
SWL	=	Del Amo Monitoring Wells
WCC, MWC, CMW	=	Boeing Monitor Wells
BL	=	International Light Metals Monitoring Wells
IRZCMW	=	Boeing Bioremediation Wells

References:

1. Avocet Environmental, 2011. Annual Groundwater Monitoring Report, Boeing Former C–6 Facility, 19503 South Normandie Avenue, Los Angeles, California. November 27.
2. H+A, 2009. Supplemental Groundwater Sampling and Analysis Results, April 2009, Montrose Superfund Site, Los Angeles, California. July 13.
3. H+A, 2007. 2006 Groundwater Monitoring Results Report, Montrose Site, Torrance, California. February 28.
4. 2010, AECOM. Supplemental Groundwater Investigation Report, West of Western Avenue Investigation, Montrose Superfund Site, Los Angeles, California. November 10.

Notes:

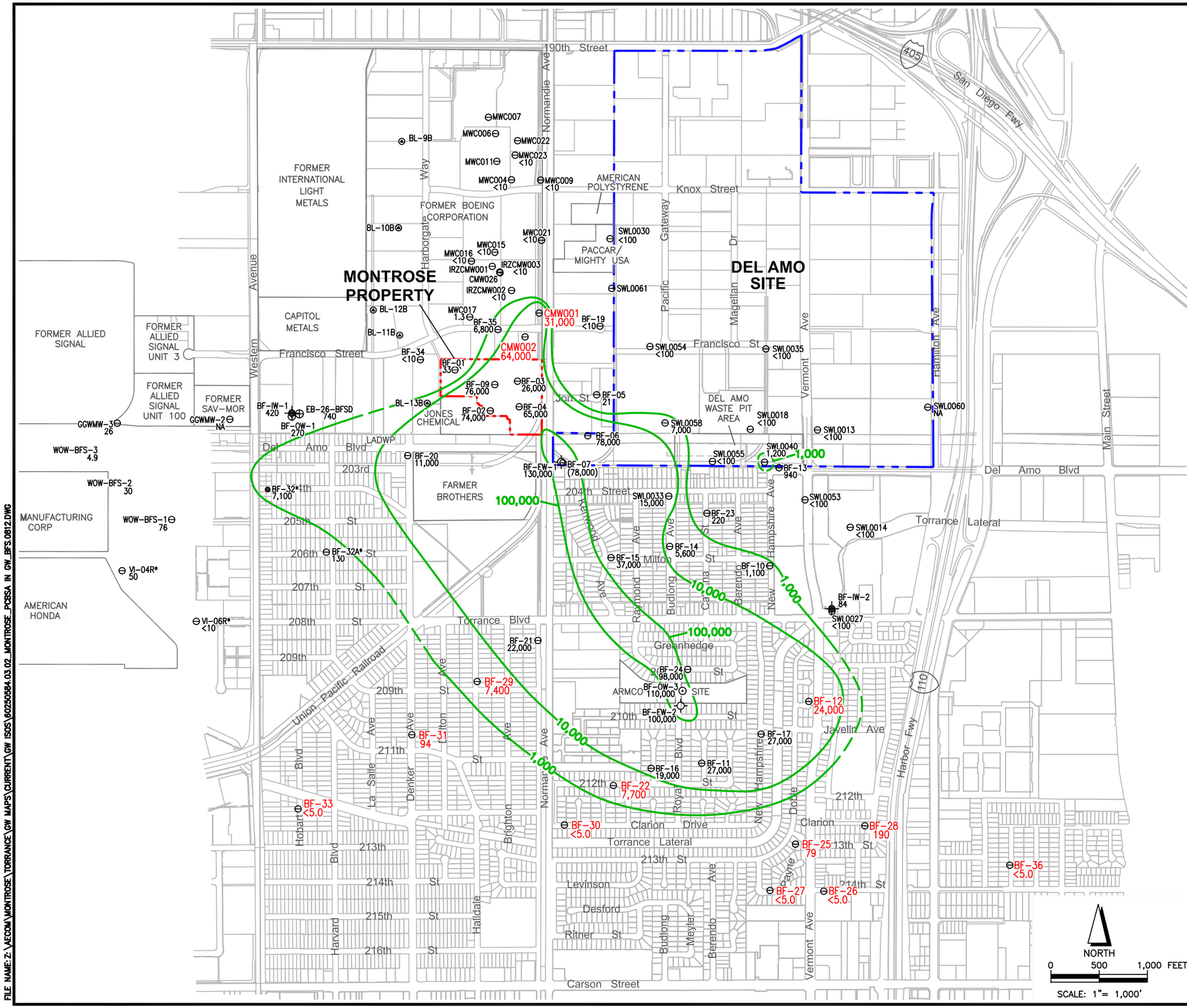
1. In the area West of Western Avenue, not all historical data are shown. Details are provided in: H+A Technical Memorandum Results of West of Western Avenue Groundwater Assessment Montrose Site Torrance, California, April 24, 2009.
2. For MCB, the Federal Maximum Contaminant Level (MCL) is 100 $\mu g/L$, and the California MCL is 70 $\mu g/L$.

Montrose Chemical Corporation

2012 MCB in Groundwater Bellflower Sand Aquifer

Date: 08-12	Montrose Superfund Site	Figure 8
Project No. 60250584	AECOM	

FILE NAME: Z:\AECOM\MONTROSE\TORRANCE\GW MAPS\CURRENT\GW ISOS\60250584.03.02_MONTROSE_MCB IN GW_BFS.0812.DWG



Legend:

- Location of Montrose Property Boundary
- Location of Del Amo Superfund Site Boundary

Well Legend:

SWL0013	Bellflower Sands (BFS) Groundwater Monitoring Well Location
BL-11B	Cluster Well
EB-26-BFSD	Exploratory Boring and Temporary Bellflower Sand Observation Well
DDS-2-22 6,000-94	Boeing Hydropunch sample location Concentration – Collection Depth Sampled prior to September 2006
BF-EW-2	Bellflower 'B' Extraction Well
BF-IW-2	Bellflower 'B' Injection Well
BF-OW-1	Middle Bellflower 'B' Observation Well
NA	Not Analyzed
<1.0	Less than; Numerical value is the limit of detection for this analysis.
BF-12 24,000	pCBSA concentration in micrograms per liter, Sampled January–March, 2012
22,000	pCBSA concentration in micrograms per liter, Sampled Prior to 2012
*	Well screened from the water table zone into the Middle Bellflower 'C' sand.
pCBSA	4–Chlorobenzenesulfonic Acid
100	Contour line of equal concentration of pCBSA in micrograms per liter dashed where approximate, dashed where inferred

Well Identifier Notes:

BF, WOW–BFS	=	Montrose Monitoring Wells
SWL	=	Del Amo Monitoring Wells
WCC, MWC, CMW	=	Boeing Monitor Wells
BL	=	Industrial Light Metals Monitoring Wells
IRZCMW	=	Boeing Bioremediation Wells

References:

1. Avocet Environmental, 2011. Annual Groundwater Monitoring Report, Boeing Former C–6 Facility, 19503 South Normandie Avenue, Los Angeles, California. November 27.
2. H+A, 2009. Supplemental Groundwater Sampling and Analysis Results, April 2009, Montrose Superfund Site, Los Angeles, California. July 13.
3. H+A, 2007. 2006 Groundwater Monitoring Results Report, Montrose Site, Torrance, California. February 28.
4. 2010, AECOM. Supplemental Groundwater Investigation Report, West of Western Avenue Investigation, Montrose Superfund Site, Los Angeles, California. November 10.

Notes:

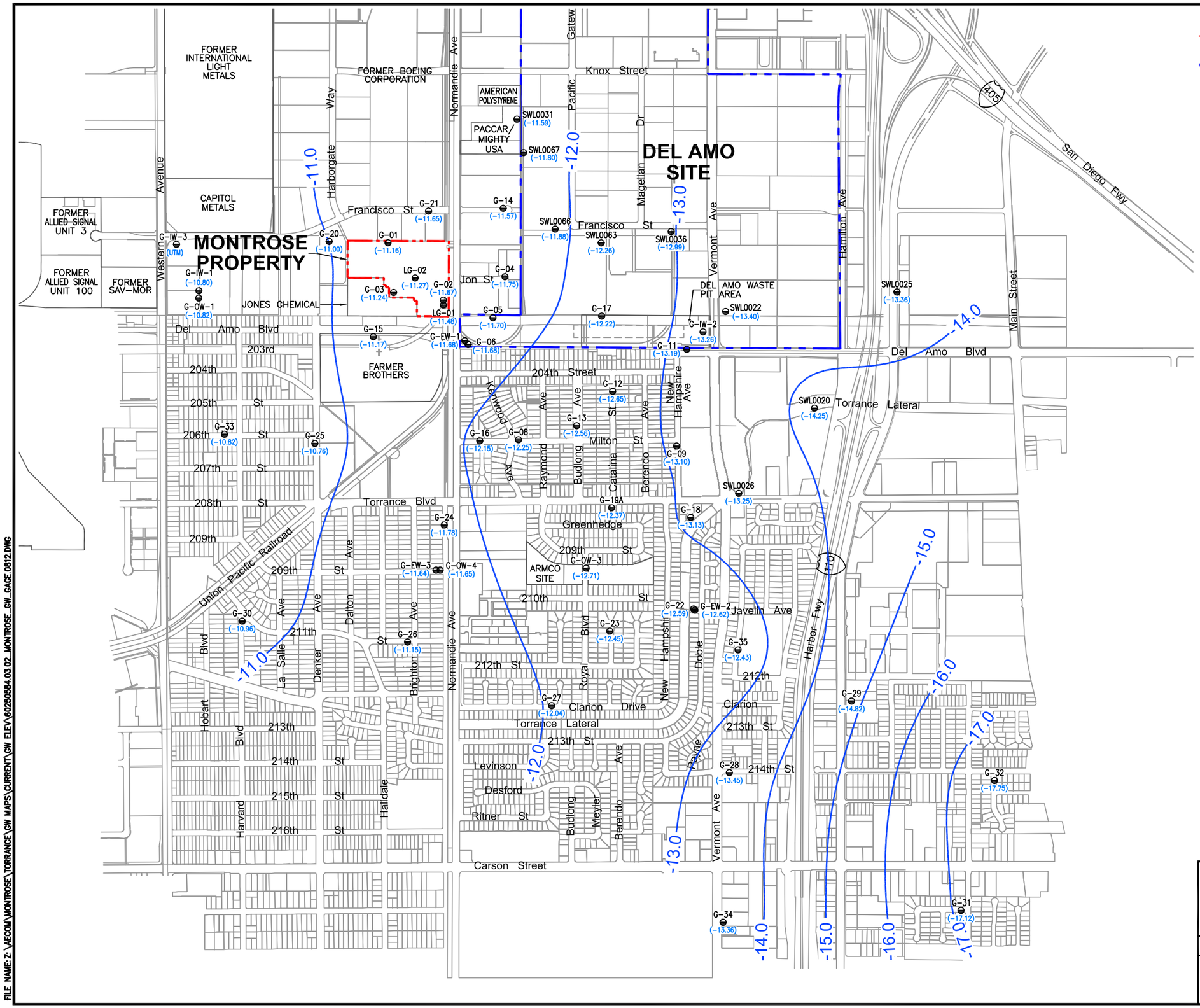
1. In the area West of Western Avenue, not all historical data are shown. Details are provided in: H+A Technical Memorandum Results of West of Western Avenue Groundwater Assessment Montrose Site Torrance, California, April 24, 2009.
2. For pCBSA, there has been no Federal or California Maximum Contaminant Level (MCL) established.

Montrose Chemical Corporation

2012 pCBSA in Groundwater Bellflower Sand Aquifer

Date: 08-12	Montrose Superfund Site	Figure 9
Project No. 60250584	AECOM	

FILE NAME: Z:\AECOM\MONTROSE\TORRANCE\GW MAPS\CURRENT\GW ISOS\60250584.03.02_MONTROSE_PCBSA IN GW_BFS.0812.DWG



Legend:

- Location of Montrose Property Boundary
- Location of Del Amo Superfund Site Boundary

Well Legend:

- SML0013 — Gage Groundwater Monitoring Well Location
- (-9.06) — Groundwater Elevation in Feet Mean Sea Level (MSL.) measured first quarter 2012
- (UTM) — Unable to Measure
- -17.0 — Interpreted Groundwater Elevation Contours in Feet (MSL.) Contour Intervals are 1.00 Feet

Well Identifier Notes:
G = Montrose Monitoring Wells
DA, SWL = Del Amo Monitoring Wells

References:

1. Parcel Boundary Information from Los Angeles, CA, Department of Public Works Bureau of Engineering Online ArcInfo GIS database, Copyright 2012. Montrose Chemical Corporation Boundary Survey conducted August 13, 2001 by Dulin–Boynton Land Surveyors.
2. Satellite/Aerial Photos Reference: U.S.G.S Orthorectified Image, Dated July 29, 2009.
3. Well Locations are based and from Hargis & Associates maps dated March 2008, file names 220–1909, 1910, 1911, 1912.dwgs.

NORTH

0 500 1,000 FEET

SCALE: 1"= 1,000'

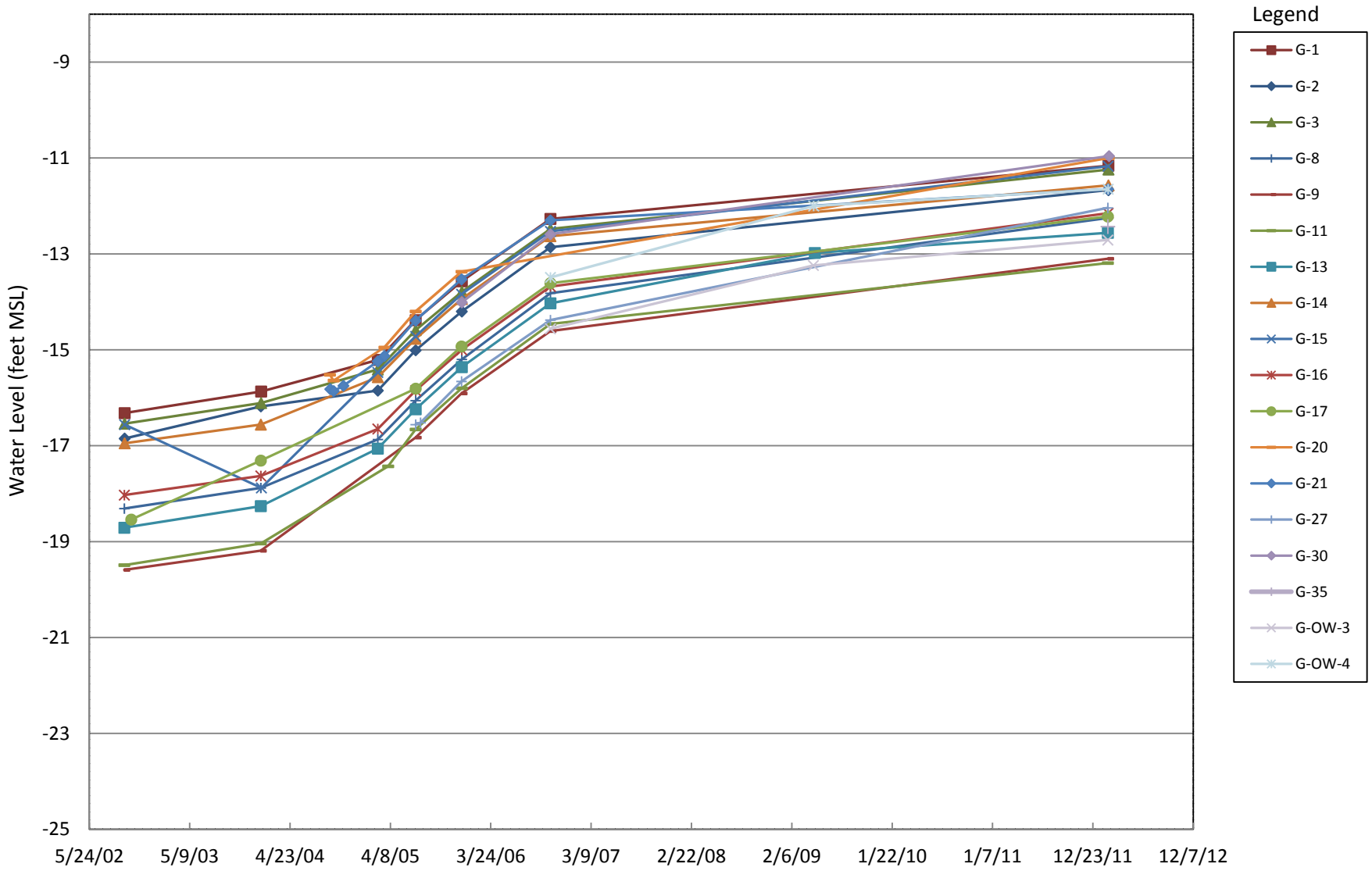
Montrose Chemical Corporation

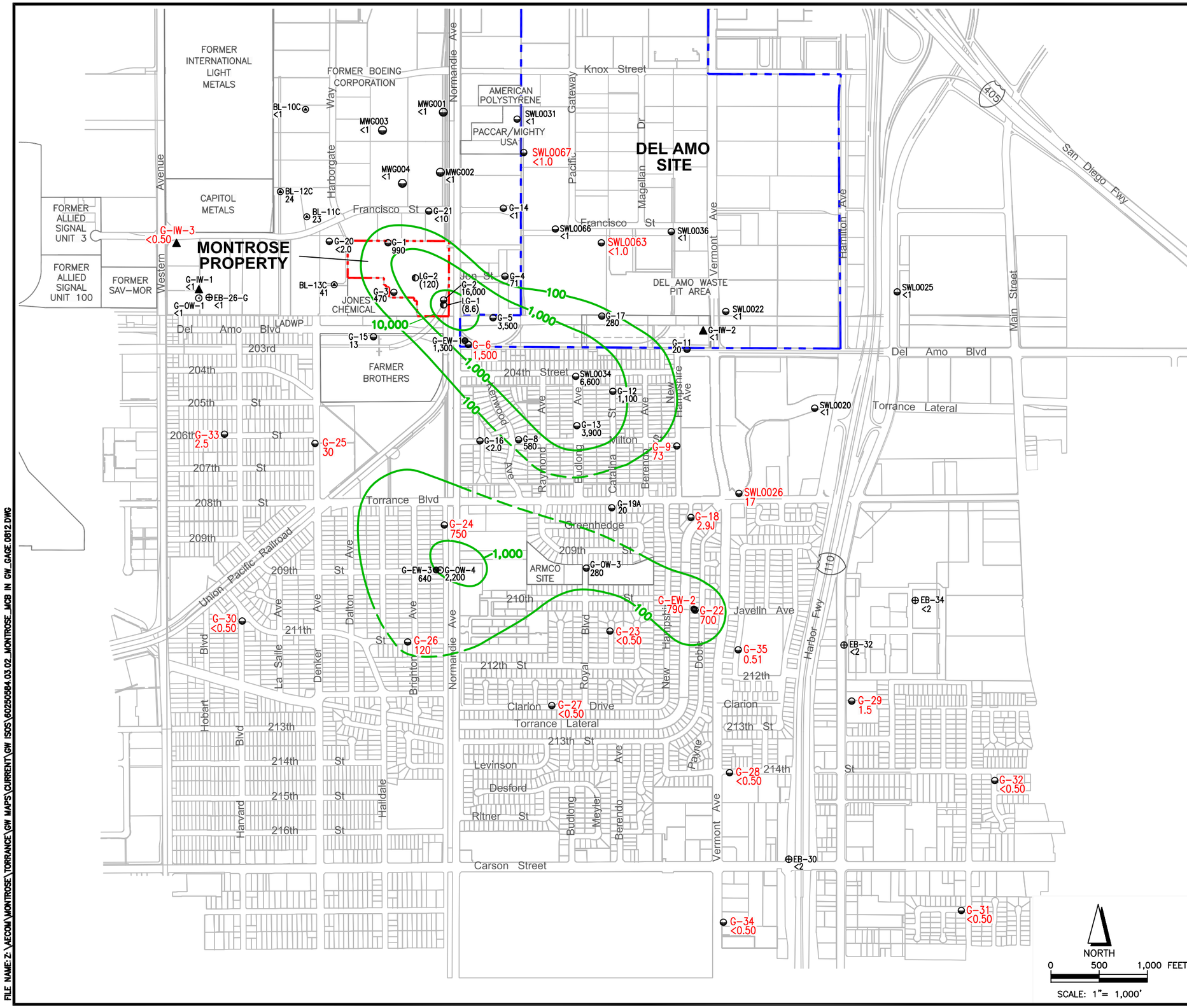
2012 Groundwater Elevation Map Gage Aquifer

Date: 08-12	Montrose Superfund Site	Figure
Project No. 60250584	AECOM	10

FILE NAME:Z:\AECOM\MONTROSE\TORRANCE\GW MAPS\CURRENT\GW ELEV\60250584.03.02_MONTROSE_GW_GAGE.0812.DWG

Figure 11
Gage Aquifer Hydrograph
Groundwater Monitoring Event 2012
Montrose Superfund Site





Legend:

- Location of Montrose Property Boundary
- Location of Del Amo Superfund Site Boundary

Well Legend:

G-13	Gage Aquifer Groundwater Monitoring Well Location
EB-34	Exploratory Boring and Temporary Gage Aquifer Monitoring Well Location
LG-2	Lower Gage Aquifer Monitoring Well
G-EW-1	Gage Aquifer Extraction Well
G-IW-2	Gage Aquifer Injection Well
G-OW-3	Gage Aquifer Observation Well
<1.0	Less than; Numerical value is the limit of detection for this analysis.
G-EW-2 790	MCB concentration in micrograms per liter, Sampled January–March, 2012
16,000	MCB concentration in micrograms per liter, Sampled Prior to 2012
MCB	Monochlorobenzene
(8.6)	Concentration not contoured
J	Estimated Value
100	Contour line of equal concentration of MCB in micrograms per liter dashed where approximate, dashed where inferred

Well Identifier Notes:
G = Montrose Monitoring Wells
DA, SWL = Del Amo Monitoring Wells

References:

1. Avocet Environmental, 2011. Annual Groundwater Monitoring Report, Boeing Former C–6 Facility, 19503 South Normandie Avenue, Los Angeles, California. November 27.
2. H+A, 2009. Supplemental Groundwater Sampling and Analysis Results, April 2009, Montrose Superfund Site, Los Angeles, California. July 13.
3. H+A, 2007. 2006 Groundwater Monitoring Results Report, Montrose Site, Torrance, California. February 28.

Notes:

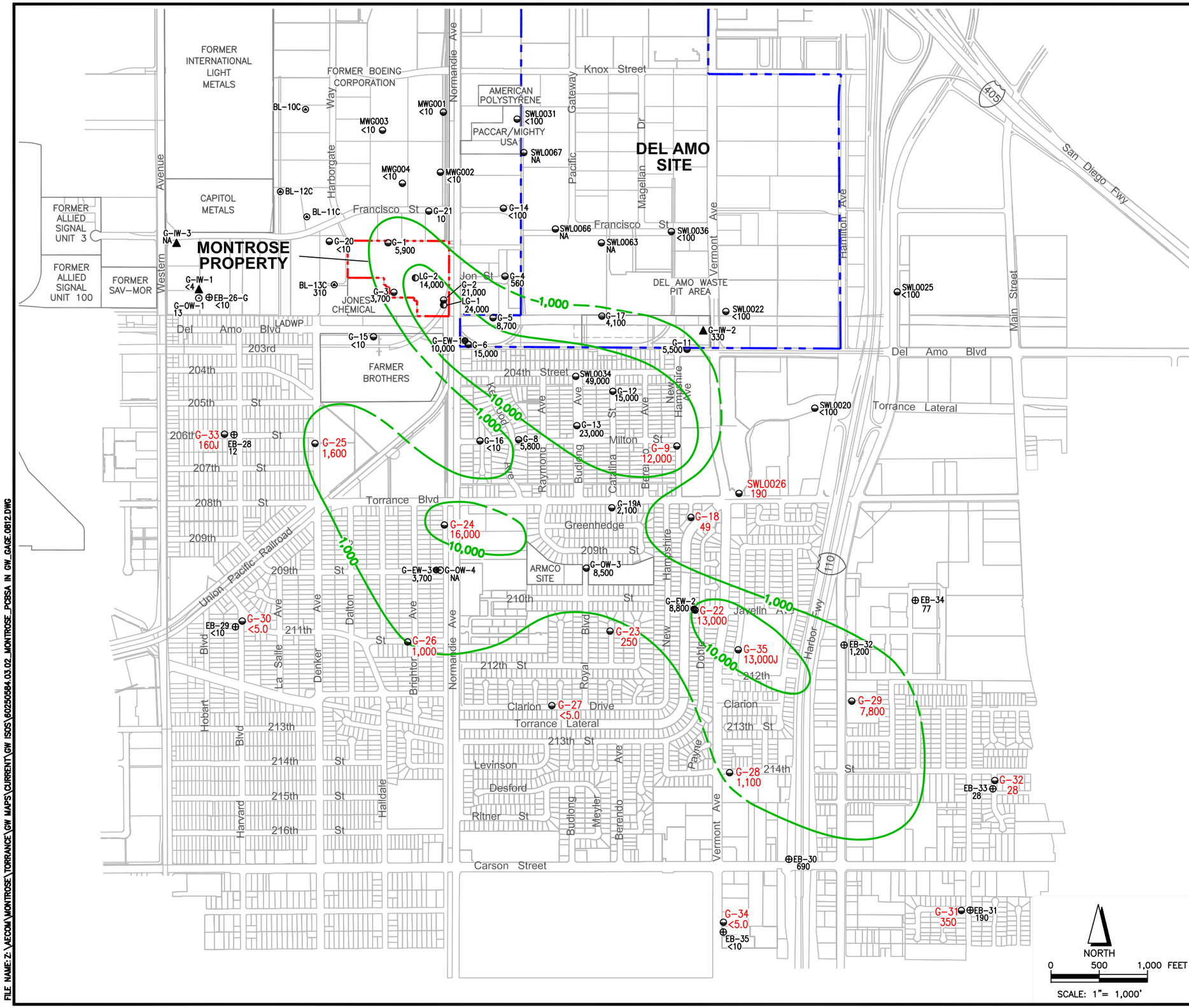
1. For MCB, the Federal Maximum Contaminant Level (MCL) is 100 µg/L, and the California MCL is 70 µg/L.

Montrose Chemical Corporation

2012 MCB in Groundwater Gage Aquifer

Date: 08-12	Montrose Superfund Site	Figure 12
Project No. 60250584	AECOM	

FILE NAME: Z:\AECOM\MONTROSE\TORRANCE\GW MAPS\CURRENT\GW ISOS\60250584.03.02_MONTROSE_MCB IN GW_GAGE.0812.DWG



Legend:

- Location of Montrose Property Boundary
- Location of Del Amo Superfund Site Boundary

Well Legend:

G-13	Gage Aquifer Groundwater Monitoring Well Location
EB-34	Exploratory Boring and Temporary Gage Aquifer Monitoring Well Location
LG-2	Lower Gage Aquifer Monitoring Well
G-EW-1	Gage Aquifer Extraction Well
G-IW-2	Gage Aquifer Injection Well
G-OW-3	Gage Aquifer Observation Well
NA	Not Analyzed
<10	Less than; Numerical value is the limit of detection for this analysis.
G-24 16,000	pCBSA concentration in micrograms per liter, Sampled January–March, 2012
23,000	pCBSA concentration in micrograms per liter, Sampled Prior to 2012
J	Estimated Value
pCBSA	4–Chlorobenzenesulfonic Acid
100	Contour line of equal concentration of pCBSA in micrograms per liter dashed where approximate, dashed where inferred

Well Identifier Notes:
G = Montrose Monitoring Wells
DA, SWL = Del Amo Monitoring Wells

References:

1. Avocet Environmental, 2011. Annual Groundwater Monitoring Report, Boeing Former C–6 Facility, 19503 South Normandie Avenue, Los Angeles, California. November 27.
2. H+A, 2009. Supplemental Groundwater Sampling and Analysis Results, April 2009, Montrose Superfund Site, Los Angeles, California. July 13.
3. H+A, 2007. 2006 Groundwater Monitoring Results Report, Montrose Site, Torrance, California. February 28.

Notes:

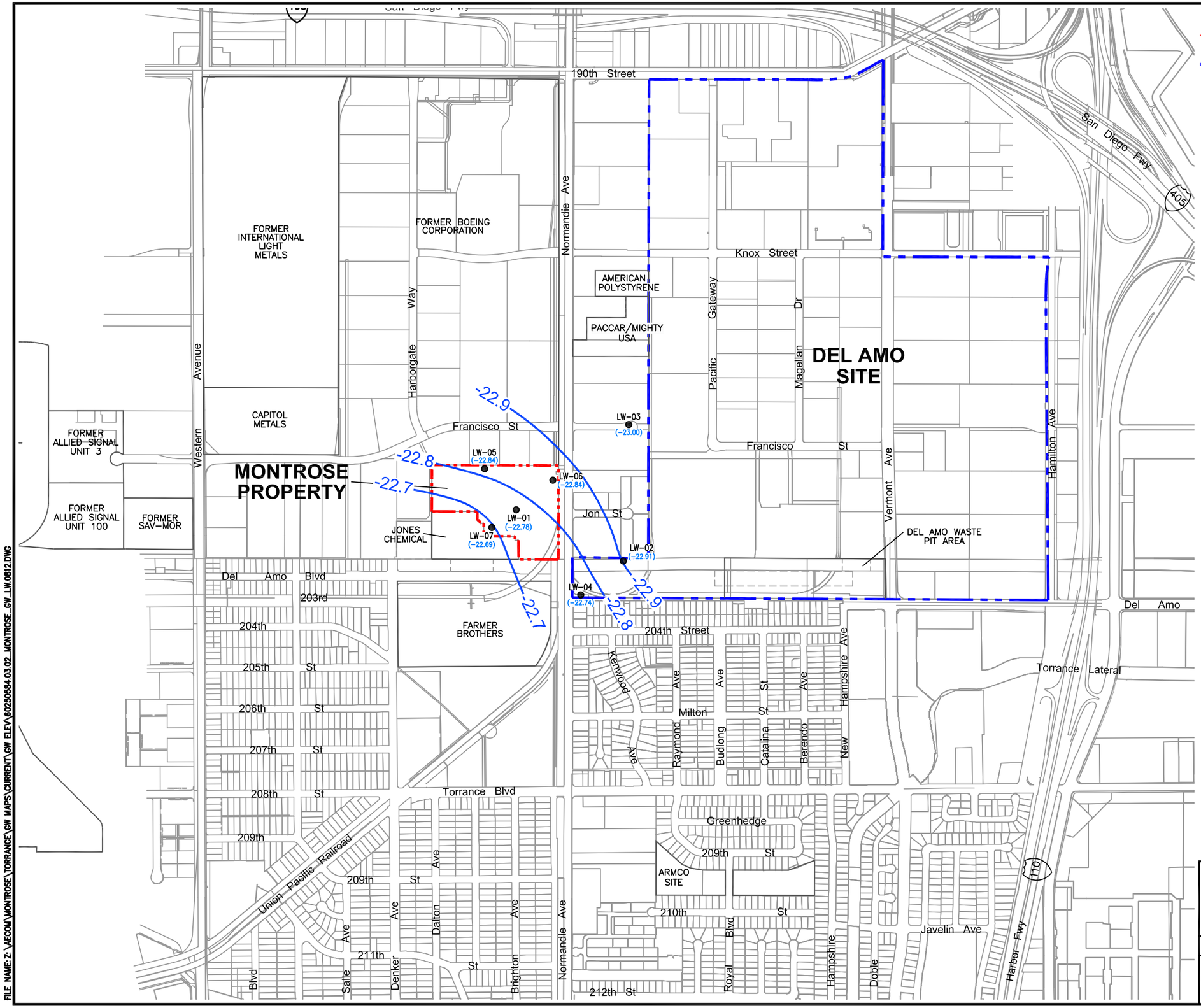
1. For pCBSA, there has been no Federal or California Maximum Contaminant Level (MCL) established.

Montrose Chemical Corporation

2012 pCBSA in Groundwater
Gage Aquifer

Date: 08-12	Montrose Superfund Site	Figure 13
Project No. 60250584	AECOM	

FILE NAME: Z:\AECOM\MONTROSE\TORRANCE\GW MAPS\CURRENT\GW ISOS\60250584.03.02_MONTROSE_PCBSA IN GW_GAGE.0812.DWG



Legend:

Location of Montrose Property Boundary

Location of Del Amo Superfund Site Boundary

Well Legend:

LW-03 — Groundwater Monitoring Well Location

(-23.00) — Groundwater Elevation in Feet Mean Sea Level (MSL.) measured first quarter 2012

-22.9 — Interpreted Groundwater Elevation Contours in Feet (MSL.) Contour Intervals are 0.10 Feet

Well Identifier Notes:
LW = Montrose Monitoring Wells

References:

1. Parcel Boundary Information from Los Angeles, CA, Department of Public Works Bureau of Engineering Online ArcInfo GIS database, Copyright 2012. Montrose Chemical Corporation Boundary Survey conducted August 13, 2001 by Dulin–Boynton Land Surveyors.
2. Satellite/Aerial Photos Reference: U.S.G.S Orthorectified Image, Dated July 29, 2009.
3. Well Locations are based and from Hargis & Associates maps dated March 2008, file names 220–1909, 1910, 1911, 1912.dwgs.

NORTH

0 400 800 FEET

SCALE: 1"= 800'

Montrose Chemical Corporation

2012 Groundwater Elevation Map Lynwood Aquifer

Date: 08-12	Montrose Superfund Site	Figure
Project No. 60250584	AECOM	14

FILE NAME: Z:\AECOM\MONTROSE\TORRANCE\GW MAPS\CURRENT\GW ELEV\60250584.03.02_MONTROSE_GW_LW.0812.DWG

APPENDIX A

PURGE FORMS

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**52.11**	(water)
Sampling Depth:	NA				
Water Column Length:	**20.99**	(ft) X 0.65	(gal/ft) =	**13.64**	(gal - One Well Volume)
Well Volumes Extracted:	**3.66**				
Pump ■ /Bail ☐	Avg. Rate:	**2.00**	Total Gallons Extracted:	**50**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**MW-1**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**42.77**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**73.1**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**63-73**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
10:31	0	--	--	--	--	--	--	--	0	52.11	Total depth = 73.10 feet TOC.
10:41	2	--	--	--	--	--	--	--	0	52.11	Set pump at 60 feet TOC. Begin purge.
10:45	2	23.85	6.61	4.91	2.90	5.2	-51	--	8	52.58	Clear. Strong chemical odor.
10:49	2	24.45	6.62	6.25	1.89	<1	-40	--	16	52.59	Clear. Strong chemical odor.
10:53	2	24.75	6.61	6.36	1.30	<1	-33	--	24	52.51	Clear. Strong chemical odor.
10:57	2	24.86	6.61	6.36	1.25	<1	-34	--	32	52.45	Clear. Strong chemical odor.
11:01	2	24.89	6.61	6.33	1.26	<1	-29	--	40	52.44	Clear. Strong chemical odor.
11:05	2	--	--	--	--	--	--	--	50	52.44	Stop purge.
11:10	--	--	--	--	--	--	--	--	--	52.14	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 2/2/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**55.28**	(water)
Sampling Depth:	NA				
Water Column Length:	**24.47**	(ft) X 0.65	(gal/ft) =	**15.91**	(gal - One Well Volume)
Well Volumes Extracted:	**3.39**				
Pump ■ /Bail ☐	Avg. Rate:	**1.86**	Total Gallons Extracted:	**54**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**MW-6**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**45.68**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**79.75**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**65-85**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
16:10	0	--	--	--	--	--	--	--	0	55.28	Total Depth = 79.75 feet TOC.
16:13	4	--	--	--	--	--	--	--	0	65.00	Pump set at 70 feet TOC. Begin Purge.
16:17	1.5	23.54	6.79	6.27	10.00	54.8	+96	--	13	61.10	Clear with brown tint. Slight chemical odor.
16:23	1.5	23.56	6.73	9.83	4.82	22.7	+117	--	21	61.51	Clear with yellow tint. Slight chemical odor.
16:30	1.5	23.69	6.74	13.50	1.75	7.2	+119	--	32	61.86	Clear. Slight chemical odor.
16:37	1.5	23.78	6.71	14.20	1.29	2.0	+124	--	42	61.86	Clear. Slight chemical odor.
16:40	1.5	23.70	6.71	14.40	1.29	2.9	+122	--	47	61.86	Clear. Slight chemical odor.
16:45	1.5	--	--	--	--	--	--	--	54	61.90	Stop pumping.
16:48	--	--	--	--	--	--	--	--	--	59.43	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 1/24/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**50.87**	(water)
Sampling Depth:	NA				
Water Column Length:	**25.08**	(ft) X 0.65	(gal/ft) =	**16.30**	(gal - One Well Volume)
Well Volumes Extracted:	**3.44**				
Pump ■ /Bail ☐	Avg. Rate:	**2.00**	Total Gallons Extracted:	**56**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**MW-13**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**42.34**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**75.95**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**62-77**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
8:53	0	--	--	--	--	--	--	--	0	50.87	Total Depth = 75.95 feet TOC.
9:02	2	--	--	--	--	--	--	--	0	51.05	Begin purge. Pump set at 68 feet TOC.
9:05	2	22.46	6.69	2.83	1.82	2.4	-82	--	6	51.10	Clear. Strong chemical odor.
9:15	2	22.05	6.70	2.98	1.96	1.7	-79	--	16	52.29	Clear. Strong chemical odor.
9:21	2	22.96	6.71	3.00	1.72	<1	-76	--	28	52.40	Clear. Strong chemical odor.
9:27	2	22.93	6.71	2.99	1.80	<1	-74	--	40	52.30	Clear. Strong chemical odor.
9:33	2	23.08	6.71	3.00	1.45	<1	-75	--	52	52.52	Clear. Strong chemical odor.
9:35	2	--	--	--	--	--	--	--	56	51.31	Stop purge.
9:40	--	--	--	--	--	--	--	--	--	--	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine CarrGreen Date 2/2/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**51.26**	(water)
Sampling Depth:	NA				
Water Column Length:	**25.44**	(ft) X 2.60	(gal/ft) =	**66.14**	(gal - One Well Volume)
Well Volumes Extracted:	**3.48**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**230**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**MBFB-EW-1**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**42.98**	pH Meter No.: **Horiba U-52**
Well Diameter:	**8-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**76.7**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**62-70**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
14:45	0	--	--	--	--	--	--	--	0	51.26	Total Depth = 76.70 feet TOC.
15:05	5	--	--	--	--	--	--	--	0	51.26	Pump set at 65 feet TOC. Begin Purge.
15:11	5	23.07	6.91	3.25	3.11	<1	-85	--	30	55.55	Clear. Strong chemical odor.
15:21	5	23.20	6.84	3.42	1.70	<1	-89	--	80	58.15	Clear. Moderate chemical odor.
15:34	5	23.12	6.81	3.57	1.69	<1	-87	--	150	56.50	Clear. Moderate chemical odor.
15:40	5	23.16	6.82	3.55	1.86	<1	-83	--	180	56.59	Clear. Strong chemical odor.
15:46	5	23.19	6.80	3.56	1.49	<1	-79	--	210	56.68	Clear. Strong chemical odor.
15:50	5	--	--	--	--	--	--	--	230	56.71	Stop pumping.
16:00	--	--	--	--	--	--	--	--	--	51.96	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine CarrGreen Date 2/6/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**59.22**	(water)
Sampling Depth:	NA				
Water Column Length:	**64.58**	(ft) X 0.65	(gal/ft) =	**41.98**	(gal - One Well Volume)
Well Volumes Extracted:	**3.45**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**145**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-2**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**49.5**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**123.8**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**114-124**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
15:49	0	--	--	--	--	--	--	--	0	59.22	Total Depth = 123.80 feet TOC.
16:04	5	--	--	--	--	--	--	--	0	60.10	Pump set at 115 feet TOC. Begin purge.
16:11	5	22.03	7.09	2.02	2.61	4.6	-32	--	35	61.10	Clear. Strong chemcial odor.
16:19	5	22.48	7.07	2.04	1.80	<1	-33	--	75	61.18	Clear. Strong chemcial odor.
16:27	5	22.46	7.09	2.05	1.42	<1	-29	--	110	61.20	Clear. Strong chemcial odor.
16:31	5	22.61	7.07	2.08	1.49	<1	-28	--	130	61.21	Clear. Strong chemcial odor.
16:34	5	--	--	--	--	--	--	--	145	59.25	Stop purge.
16:40	--	--	--	--	--	--	--	--	--	59.36	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine CarrGreen Date 2/7/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**51.69**	(water)
Sampling Depth:	NA				
Water Column Length:	**72.58**	(ft) X 0.65	(gal/ft) =	**47.18**	(gal - One Well Volume)
Well Volumes Extracted:	**3.05**				
Pump ■ /Bail ☐	Avg. Rate:	**4.00**	Total Gallons Extracted:	**144**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-6**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**41.7**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**124.27**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**115-125**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
7:40	0	--	--	--	--	--	--	--	0	51.69	Total depth = 124.27 feet TOC.
7:57	4	--	--	--	--	--	--	--	0	51.70	Set pump at 119 feet TOC. Begin pump.
8:01	4	20.68	7.60	0.737	2.40	4.1	-17	--	16	52.53	Clear. Moderate chemical odor.
8:11	4	21.68	7.55	0.839	1.42	<1	-31	--	56	52.60	Clear. Moderate chemical odor.
8:21	4	22.25	7.53	0.858	1.45	<1	-24	--	96	52.71	Clear. Moderate chemical odor.
8:26	4	22.51	7.53	0.873	1.50	<1	-24	--	116	52.68	Clear. Moderate chemical odor.
8:31	4	22.57	7.53	0.866	1.39	<1	-20	--	136	52.65	Clear. Moderate chemical odor.
8:37	4	--	--	--	--	--	--	--	144	52.60	Stop purge.
8:40	--	--	--	--	--	--	--	--	--	51.92	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 2/2/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**45.18**	(water)
Sampling Depth:					
Water Column Length:	**78.82**	(ft) X 0.65	(gal/ft) =	**51.23**	(gal - One Well Volume)
Well Volumes Extracted:	**3.40**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**174**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-11**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **Dual Dedicated Pumps**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst**
Top Of Casing Elev.:	**33.66**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**124**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**104-124**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
14:16	0	--	--	--	--	--	--	--	0	45.18	Dedicated electrical submersible pump. 1/2 HP
14:39	5	--	--	--	--	--	--	--	0	46.19	Begin Purge.
14:49	5	20.82	7.10	1.76	2.42	13.6	+74	--	50	46.15	Clear. Moderate odor.
14:59	5	20.78	7.10	1.77	2.11	2.4	+68	--	95	46.27	Clear. Moderate odor.
15:04	5	20.85	7.08	1.78	1.77	1.3	+74	--	120	46.29	Clear. Moderate odor.
15:09	5	20.80	7.08	1.78	1.80	<1	+78	--	143	46.29	Clear. Moderate odor.
15:12	5	20.81	7.09	1.78	1.61	<1	+81	--	169	46.29	Clear. Moderate odor.
15:13	--	--	--	--	--	--	--	--	174	45.30	Stop Pump. Purge 2 liters using bladder pump.
15:18	--	--	--	--	--	--	--	--	--	--	Sample well with dedicated bladder pump.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 2/7/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**34.35**	(water)
Sampling Depth:	NA				
Water Column Length:	**85.65**	(ft) X 0.65	(gal/ft) =	**55.67**	(gal - One Well Volume)
Well Volumes Extracted:	**3.68**				
Pump ■ /Bail ☐	Avg. Rate:	**4.36**	Total Gallons Extracted:	**205**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-12**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **Dual Dedicated Pumps**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**22.2**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**120**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**110-120**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
12:01	0	--	--	--	--	--	--	--	--	34.35	Dedicated electrical submersible pump. 1/3HP
12:15	5	--	--	--	--	--	--	--	0	35.15	Begin purge.
12:23	5	22.36	7.36	1.09	2.47	<1	+127	--	40	35.10	Clear. No odor.
12:30	5	22.97	7.39	1.08	2.51	<1	+95	--	80	35.05	Clear. Slight chemical odor.
12:38	5	23.28	7.40	1.07	1.54	<1	+84	--	120	35.05	Clear. Slight chemical odor.
12:48	5	23.58	7.50	1.07	1.70	<1	+69	--	170	35.05	Clear. Slight chemical odor.
12:55	5	23.31	7.46	1.07	1.49	<1	+67	--	205	35.02	Clear. Slight chemical odor.
12:56	0.5	--	--	--	--	--	--	--	--	35.02	Slow rate to sample well.
13:00	--	--	--	--	--	--	--	--		34.36	Sample well.

Notes:
NA = Non-applicable
bgs - below grade surface
Dedicated bladder pump has not worked since 2006.

Recorded By: Katharine Carr Green — Date: 2/8/2012
Checked By: Patrick Vandenberg — Date: 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**34.30**	(water)
Sampling Depth:	NA				
Water Column Length:	**85.70**	(ft) X 0.65	(gal/ft) =	**55.71**	(gal - One Well Volume)
Well Volumes Extracted:	**3.57**				
Pump ■ /Bail ☐	Avg. Rate:	**5.29**	Total Gallons Extracted:	**199**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-12**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **Dual Dedicated Pumps**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst**
Top Of Casing Elev.:	**22.2**	pH Meter No.: **Horiba U-10**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-10**
Well Depth:	**120**	Thermometer No.: **Horiba U-10**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-10**
Screen Interval:	**110-120**	Turbidity Meter No.: **Horiba U-10**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
8:01	0	--	--	--	--	--	--	--	0	34.30	Dedicated electrical submersible pump. 1/3HP
8:12	6	--	--	--	--	--	--	--	0	--	Begin purge.
8:18	6	19.80	7.45	1.12	0.44	<1	--	--	55	--	Clear. No odor.
8:25	6	20.20	7.49	1.12	0.45	<1	+167	--	80	--	Clear. No odor.
8:32	6	20.50	7.50	1.12	0.40	<1	+106	--	119	--	Clear. Slight chemical odor.
8:39	6	20.60	7.51	1.12	0.39	<1	+82	--	159	--	Clear. Slight chemical odor.
8:45	6	20.60	7.51	1.12	0.39	<1	+77	--	199	--	Clear. Slight chemical odor.
8:55	1	--	--	--	--	--	--	--	--	--	Slow rate to sample well.

Notes:
NA = Non-applicable
bgs - below grade surface
Dedicated bladder pump has not worked since 2006.

Recorded By	Katharine Carr Green	Date	03/26/2012
Checked By	Patrick Vandenberg	Date	05/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**33.25**	(water)
Sampling Depth:	NA				
Water Column Length:	**79.75**	(ft) X 0.65	(gal/ft) =	**51.84**	(gal - One Well Volume)
Well Volumes Extracted:	**3.20**				
Pump ■ /Bail ☐	Avg. Rate:	**4.00**	Total Gallons Extracted:	**166**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-15**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**22.82**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**113**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**78-113**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
15:48	0	--	--	--	--	--	--	--	0	33.25	Total depth = 113 feet TOC.
16:04	4	--	--	--	--	--	--	--	0	33.25	Pump set at 105 feet TOC. Begin purge.
16:09	4	21.40	6.24	2.32	2.99	6.2	-29	--	20	34.28	Clear. Moderate chemical odor.
16:19	4	21.63	6.42	2.51	1.70	<1	-13	--	60	34.32	Clear. Strong chemical odor.
16:29	4	21.71	6.57	2.51	1.56	<1	-7	--	100	34.32	Clear. Moderate chemical odor.
16:34	4	21.70	6.72	2.50	1.41	<1	-9	--	125	34.45	Clear. Moderate chemical odor.
16:39	4	21.69	6.78	2.46	1.22	<1	-4	--	150	34.45	Clear. Moderate chemical odor.
16:42	4	--	--	--	--	--	--	--	166	34.45	Stop pump.
16:48	--	--	--	--	--	--	--	--	--	33.20	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 1/31/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**45.69**	(water)
Sampling Depth:	NA				
Water Column Length:	**69.81**	(ft) X 0.65	(gal/ft) =	**45.38**	(gal - One Well Volume)
Well Volumes Extracted:	**3.64**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**165**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-22**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst**
Top Of Casing Elev.:	**34.29**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**115.5**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**87-117**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
09:45	0	--	--	--	--	--	--	--	0	45.69	Total Depth = 115.5 feet TOC.
10:00	5	--	--	--	--	--	--	--	0	45.70	Set pump at 95 feet TOC. Begin purge.
10:03	5	22.17	7.69	0.838	1.88	15.8	+37	--	15	46.40	Clear. No odor.
10:10	5	22.26	7.63	1.03	1.49	<1	-28	--	50	46.41	Clear. Slight chemical odor.
10:17	5	22.34	7.60	1.10	1.30	<1	-33	--	85	46.43	Clear. Slight chemical odor.
10:24	5	22.42	7.58	1.16	1.60	<1	-34	--	120	46.42	Clear. Slight chemical odor.
10:30	5	22.56	7.58	1.19	1.55	<1	-36	--	155	46.42	Clear. Slight chemical odor.
10:32	5	--	--	--	--	--	--	--	165	46.43	Stop purge.
10:40	--	--	--	--	--	--	--	--	--	45.70	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 2/8/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**36.00**	(water)
Sampling Depth:	NA				
Water Column Length:	**79.00**	(ft) X 0.65	(gal/ft) =	**51.35**	(gal - One Well Volume)
Well Volumes Extracted:	**3.41**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**175**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-25**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **Dual Dedicated Pumps**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**23.7**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**115**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**94-104**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (^oC)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
14:16	0	--	--	--	--	--	--	--	0	36.00	Dedicated electrical submersible pump. 1/3HP
14:22	5	--	--	--	--	--	--	--	0	36.00	Begin Purge.
14:28	5	24.49	7.40	1.50	1.89	<1	-28	--	30	37.87	Clear. No odor.
14:36	5	23.20	7.37	1.52	1.87	<1	-31	--	70	37.87	Clear. No odor.
14:40	5	22.76	7.33	1.57	1.43	<1	-28	--	90	37.87	Clear. No odor.
14:47	5	22.88	7.29	1.53	1.32	<1	-29	--	125	37.90	Clear. No odor.
14:54	5	22.78	7.27	1.53	--	<1	-26	--	160	37.92	Clear. No odor.
14:57	--	--	--	--	--	--	--	--	175	36.10	Stop Pump. Purge 1.8 liters using bladder pump.
15:08	--	--	--	--	--	--	--	--	--	36.00	Sample well with dedicated bladder pump.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 2/8/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**48.40**	(water)
Sampling Depth:	NA				
Water Column Length:	**61.60**	(ft) X 0.65	(gal/ft) =	**40.04**	(gal - One Well Volume)
Well Volumes Extracted:	**3.60**				
Pump ■ /Bail ☐	Avg. Rate:	**8.00**	Total Gallons Extracted:	**144**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-26**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **Dual Dedicated Pumps**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**35.48**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**110**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**90-105**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
10:03	0	--	--	--	--	--	--	--	0	48.40	Dedicated electrical submersible pump. 1/2HP
11:06	8	--	--	--	--	--	--	--	0	48.06	Begin Purge.
11:09	8	23.92	7.34	1.55	3.49	10.2	+14	--	24	53.02	Clear. No odor.
11:12	8	23.10	7.33	1.64	2.12	2.9	-32	--	48	53.00	Clear. No odor.
11:15	8	22.73	7.33	1.68	2.50	1.9	-27	--	62	53.05	Clear. No odor.
11:18	8	22.71	7.31	1.68	1.51	<1	-27	--	96	53.06	Clear. No odor.
11:21	8	22.69	7.30	1.70	1.36	<1	-19	--	120	53.10	Clear. No odor.
11:24	8	--	--	--	--	--	--	--	144	53.11	Stop Pump. Purge 1.2 liters using bladder pump.
11:43	--	--	--	--	--	--	--	--	--	48.10	Sample well with dedicated bladder pump.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By: Katharine Carr Green — Date: 1/26/2012
Checked By: Patrick Vandenberg — Date: 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**36.40**	(water)
Sampling Depth:	NA				
Water Column Length:	**82.60**	(ft) X 0.65	(gal/ft) =	**53.69**	(gal - One Well Volume)
Well Volumes Extracted:	**3.28**				
Pump ■ /Bail ☐	Avg. Rate:	**4.00**	Total Gallons Extracted:	**176**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-27**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**24.18**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**119**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**101-121**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
15:30	0	--	--	--	--	--	--	--	0	36.40	Total Depth = 119 feet TOC.
15:40	4	--	--	--	--	--	--	--	0	36.40	Set pump at 105 feet TOC. Begin Purge.
15:44	4	23.15	7.27	2.50	2.33	4.0	+106	--	16	39.30	Clear. No odor.
15:52	4	22.22	7.08	2.66	2.20	<1	+85	--	48	39.30	Clear. No odor.
16:01	4	22.33	7.03	2.69	1.97	<1	+87	--	88	39.30	Clear. No odor.
16:12	4	22.11	7.03	2.71	1.38	<1	+92	--	128	39.30	Clear. No odor.
16:22	4	22.02	7.04	2.69	1.22	<1	+91	--	168	39.30	Clear. No odor.
16:24	4	--	--	--	--	--	--	--	176	39.30	Stop purge.
16:30	--	--	--	--	--	--	--	--	--	36.40	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	1/26/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**46.45**	(water)
Sampling Depth:	NA				
Water Column Length:	**62.05**	(ft) X 0.65	(gal/ft) =	**40.33**	(gal - One Well Volume)
Well Volumes Extracted:	**3.17**				
Pump ■ /Bail ☐	Avg. Rate:	**4.00**	Total Gallons Extracted:	**128**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-28**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**33.84**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**108.5**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**95-110**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
9:18	0	--	--	--	--	--	--	--	0	46.45	Total Depth = 108.5 feet TOC.
9:23	4	--	--	--	--	--	--	--	0	46.61	Pump set at 95 feet TOC. Begin Purge.
9:26	4	20.46	7.53	2.38	4.78	<1	+199	--	12	46.61	Clear. No odor.
9:32	4	20.89	7.22	2.66	2.10	4.0	+194	--	36	46.62	Clear. No odor.
9:40	4	21.10	7.14	2.71	1.94	<1	+166	--	68	46.66	Clear. No odor.
9:49	4	21.23	7.13	2.72	1.54	<1	+131	--	104	46.66	Clear. No odor.
9:52	4	21.30	7.12	2.71	1.30	<1	+131	--	116	46.70	Clear. No odor.
9:55	4	--	--	--	--	--	--	--	128	46.70	Stop Pumping.
10:00	--	--	--	--	--	--	--	--	--	46.30	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 1/27/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**50.72**	(water)
Sampling Depth:	NA				
Water Column Length:	**75.28**	(ft) X 0.65	(gal/ft) =	**48.93**	(gal - One Well Volume)
Well Volumes Extracted:	**3.68**				
Pump ■ /Bail ☐	Avg. Rate:		Total Gallons Extracted:	**180**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-29**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **Dual Dedicated Pumps**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**39.62**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**126**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**100-120**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
8:09	0	--	--	--	--	--	--	--	0	50.72	Dedicated electrical submersible pump. 1/2HP
8:25	5	--	--	--	--	--	--	--	0	50.72	Begin purge.
8:32	5	20.24	7.63	1.27	2.39	<1	-100	--	35	52.25	Clear. No odor.
8:40	5	20.79	7.68	1.27	1.51	<1	-108	--	75	52.25	Clear. No odor.
8:48	5	21.23	7.63	1.27	1.83	<1	-109	--	115	52.28	Clear. No odor.
8:56	5	21.65	7.69	1.27	1.62	<1	-117	--	155	52.29	Clear. Slight chemical odor.
9:00	5	21.70	7.69	1.26	1.60	<1	-121	--	175	52.30	Clear. Slight chemical odor.
9:10	0.5	--	--	--	--	--	--	--	180	51.60	Slow rate to sample well. Sample Well.

Notes:
NA = Non-applicable
bgs - below grade surface
Dedicated bladder pump was not operating.

Recorded By: Katharine Carr Green — Date: 2/8/2012
Checked By: Patrick Vandenberg — Date: 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**35.95**	(water)
Sampling Depth:	NA				
Water Column Length:	**75.15**	(ft) X 0.65	(gal/ft) =	**48.85**	(gal - One Well Volume)
Well Volumes Extracted:	**3.28**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**160**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-30**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**24.58**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**111.1**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**82-113**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
13:49	0	--	--	--	--	--	--	--	0	35.95	Total Depth = 111.1 feet TOC.
14:00	5	--	--	--	--	--	--	--	0	35.95	Pump set at 100 feet TOC. Begin Purge.
14:02	5	24.87	7.89	0.78	3.74	13.9	+2	--	10	40.80	Clear. No odor.
14:06	5	23.94	7.74	0.89	3.11	1.0	-12	--	30	41.39	Clear. No odor.
14:17	5	23.83	7.61	0.90	1.90	<1	-13	--	85	41.40	Clear. No odor.
14:22	5	23.43	7.54	0.91	1.46	<1	-15	--	110	41.45	Clear. No odor.
14:30	5	23.38	7.47	0.92	1.39	<1	-13	--	150	41.45	Clear. No odor.
14:32	--	--	--	--	--	--	--	--	160	41.45	Stop Pump.
14:37	--	--	--	--	--	--	--	--	--	36.15	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 1/25/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**48.40**	(water)
Sampling Depth:	NA				
Water Column Length:	**84.90**	(ft) X 0.65	(gal/ft) =	**55.19**	(gal - One Well Volume)
Well Volumes Extracted:	**3.08**				
Pump ■ /Bail ☐	Avg. Rate:	**3.00**	Total Gallons Extracted:	**170**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		**Equipment Information**
Number:	**BF-31**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**37.55**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**133.3**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**105-135**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
14:27	0	--	--	--	--	--	--	--	0	48.40	Total Depth: 133.30 feet TOC.
14:37	4	--	--	--	--	--	--	--	0	48.40	Pump set at 110 feet TOC. Begin Purge.
14:39	4	22.82	8.14	1.71	2.90	10.0	-225	--	8	50.45	Clear. Slight sulfur odor.
14:49	4	22.16	7.68	1.97	2.55	6.6	-166	--	48	50.45	Clear. Slight sulfur odor.
14:59	4	22.2	7.58	1.99	1.99	<1	-151	--	88	50.57	Clear. Slight sulfur odor.
15:09	2	22.01	7.54	2.00	1.52	<1	-126	--	120	49.54	Clear. No odor.
15:19	2	21.83	7.53	2.01	1.60	<1	-123	--	140	49.21	Clear. Slight sulfur odor.
15:29	2	21.99	7.56	1.99	1.49	<1	-125	--	160	49.19	Clear. Slight sulfur odor.
15:34	2	--	--	--	--	--	--	--	170	49.19	Clear. Slight sulfur odor.
15:40	--	--	--	--	--	--	--	--	--	48.44	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 01/24/2012
Checked By Patrick Vandenberg Date 05/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**46.78**	(water)
Sampling Depth:	NA				
Water Column Length:	**52.00**	(ft) X 0.65	(gal/ft) =	**33.80**	(gal - One Well Volume)
Well Volumes Extracted:	**3.49**				
Pump ■ /Bail ☐	Avg. Rate:	**3.71**	Total Gallons Extracted:	**118**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-33**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**35.98**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**98.78**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**60-100**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
12:00	0	--	--	--	--	--	--	--	0	46.78	Total Depth: 98.78 feet TOC.
12:25	3	--	--	--	--	--	--	--	0	47.17	Pump set at 70 feet TOC. Begin Purge.
12:27	3	23.04	6.95	2.39	3.80	9.0	-172	--	6	47.20	Clear. No odor.
12:32	4	23.14	6.95	2.36	3.60	16.2	-153	--	23	47.40	Clear. No odor.
12:38	4	23.25	6.91	2.34	2.80	8.7	-164	--	43	47.40	Clear. No odor.
12:49	4	23.17	6.96	2.26	1.97	3.9	-160	--	67	47.42	Clear. No odor.
12:50	4	23.20	6.94	2.26	1.90	3.3	-146	--	91	47.42	Clear. No odor.
12:56	4	23.23	6.96	2.24	1.80	1.6	-141	--	115	47.42	Clear. No odor.
13:00	--	--	--	--	--	--	--	--	118	46.76	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface
TOC = Top of Casing

Recorded By: Katharine Carr Green — Date: 1/24/2012
Checked By: Patrick Vandenberg — Date: 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**47.90**	(water)
Sampling Depth:	NA				
Water Column Length:	**77.70**	(ft) X 0.65	(gal/ft) =	**50.51**	(gal - One Well Volume)
Well Volumes Extracted:	**3.13**				
Pump ■ /Bail ☐	Avg. Rate:		Total Gallons Extracted:		**158**
Disposition of Discharge Water:					

Well Information		Equipment Information
Number:	**BF-36**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**34.65**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**125.6**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**111-126**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
11:00	0	--	--	--	--	--	--	--	0	47.90	Total Depth = 125 feet TOC
11:15	4	--	--	--	--	--	--	--	0	47.60	Begin Purge. Pump set at 115 feet TOC.
11:18	4	23.06	7.71	0.75	2.83	8.2	-148	--	12	68.35	Slight Sulfur Odor. Clear.
11:28	4	23.35	7.74	0.84	2.06	7.0	-119	--	52	74.00	Slight Sulfur Odor. Clear.
11:38	3	23.79	7.74	0.87	1.65	3.4	-60	--	92	70.57	Slight Sulfur Odor. Clear.
11:48	3	23.56	7.72	0.92	1.50	1.5	-25	--	122	65.55	Slight Sulfur Odor. Clear.
11:56	3	23.17	7.69	0.94	1.34	1.3	-4	--	146	65.27	Slight Sulfur Odor. Clear.
12:00	3	--	--	--	--	--	--	--	158	64.42	Stop Pump.
12:05	--	--	--	--	--	--	--	--	--	51.95	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 1/25/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**52.16**	(water)
Sampling Depth:	NA				
Water Column Length:	**75.09**	(ft) X 4.00	(gal/ft) =	**300.36**	(gal - One Well Volume)
Well Volumes Extracted:	**3.13**				
Pump ■ /Bail ☐	Avg. Rate:	**10.00**	Total Gallons Extracted:	**940**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-EW-1**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**41.83**	pH Meter No.: **Horiba U-52**
Well Diameter:	**10-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**127.25**	Thermometer No.: **Horiba U-52**
Well Material:	**Sch. 80 PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**85-125**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
7:45	0	--	--	--	--	--	--	--	0	52.16	Total Depth: 127.25 feet TOC.
8:24	10	--	--	--	--	--	--	--	0	52.16	Pump set at 115 feet TOC. Begin Purge.
8:30	10	22.07	7.06	2.78	1.80	<1	-97	--	60	61.00	Strong odor. Clear.
8:48	10	22.64	7.12	2.09	1.60	<1	-85	--	210	62.60	Strong odor. Clear.
9:06	10	22.65	7.17	1.85	1.30	<1	-78	--	383	63.50	Strong chemical odor. Clear
9:27	10	22.74	7.18	1.72	1.23	<1	-70	--	505	63.39	Strong chemical odor. Clear
9:47	10	22.78	7.20	1.65	1.21	<1	-67	--	751	63.23	Strong chemical odor. Clear
10:00	10	23.01	7.20	1.61	1.22	<1	-63	--	863	63.20	Strong chemical odor.
10:10	--	--	--	--	--	--	--	--	940	63.20	Stop purge.
10:20	--	--	--	--	--	--	--	--	--	56.15	Sampled well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine CarrGreen Date 2/7/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**52.85**	(water)
Sampling Depth:	**105**				
Water Column Length:	**74.40**	(ft) X 4.00	(gal/ft) =	**297.60**	(gal - One Well Volume)
Well Volumes Extracted:	**3.04**				
Pump ■ /Bail ☐	Avg. Rate:	**10.00**	Total Gallons Extracted:	**906**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		**Equipment Information**
Number:	**BF-EW-1**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos/Portable QED**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 101**
Top Of Casing Elev.:	**41.83**	pH Meter No.: **Horiba U-10**
Well Diameter:	**10-inches**	Conductivity Meter No.: **Horiba U-10**
Well Depth:	**127.25**	Thermometer No.: **Horiba U-10**
Well Material:	**Sch. 80 PVC**	D.O. Meter No.: **Horiba U-10**
Screen Interval:	**85-125**	Turbidity Meter No.: **Horiba U-10**
		ORP Meter No.: **Hanna**

Time (24 hr.)	**Flow rate (gpm)**	**Water Temp (^oC)**	**pH**	**Cond. (mS/cm)**	**Dissolved Oxygen (mg/l)**	**Turbidity (NTU)**	**ORP (mV) +/-**	**Settleable Solids (ml/L)**	**Gallons Dev./Purge Before Meas.**	**Water Level (feet)**	**Remarks (e.g. water clarity)**
12:51	0	--	--	--	--	--	--	--	0	52.85	Total Depth = 127.25 feet TOC.
13:10	10	--	--	--	--	--	--	--	0	52.40	Grundfos Pump set at 105 feet TOC. Begin purge.
13:20	10	23.00	7.29	2.07	0.05	23.0	-95	--	73	61.20	Clear. Strong chemical odor.
13:40	10	23.60	7.36	1.69	0.07	28.0	-87	--	246	63.75	Clear. Strong chemical odor.
14:00	10	23.50	7.39	1.63	0.09	28.0	-88	--	425	63.41	Clear. Moderate chemical odor.
14:20	10	23.70	7.42	1.56	0.05	17.0	-83	--	635	63.56	Clear. Moderate chemical odor.
14:40	10	23.70	7.42	1.53	0.06	17.0	-79	--	797	63.64	Clear. Moderate chemical odor.
14:53	10	--	--	--	--	--	--	--	906	--	Stop purge. Set QED pump at 105 feet TOC.
15:00	--	--	--	--	--	--	--	--	--	52.95	Sample well after purging 3 liters with QED pump.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	03/26/2012
Checked By	Patrick Vandenberg	Date	05/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**39.80**	(water)
Sampling Depth:	**105**				
Water Column Length:	**84.50**	(ft) X 5.81	(gal/ft) =	**490.95**	(gal - One Well Volume)
Well Volumes Extracted:	**3.19**				
Pump ■ /Bail ☐	Avg. Rate:	**9.09**	Total Gallons Extracted:	**1,565**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		**Equipment Information**
Number:	**BF-EW-2**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos/Portable QED**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**30.61**	pH Meter No.: **Horiba U-10**
Well Diameter:	**12-inches**	Conductivity Meter No.: **Horiba U-10**
Well Depth:	**124.3**	Thermometer No.: **Horiba U-10**
Well Material:	**Schedule 80 PVC**	D.O. Meter No.: **Horiba U-10**
Screen Interval:	**69-125**	Turbidity Meter No.: **Horiba U-10**
		ORP Meter No.: **Hanna**

Time (24 hr.)	**Flow rate (gpm)**	**Water Temp (^oC)**	**pH**	**Cond. (mS/cm)**	**Dissolved Oxygen (mg/l)**	**Turbidity (NTU)**	**ORP (mV) +/-**	**Settleable Solids (ml/L)**	**Gallons Dev./Purge Before Meas.**	**Water Level (feet)**	**Remarks (e.g. water clarity)**
7:40	0	--	--	--	--	--	--	--	0	39.80	Total Depth : 124.3 feet TOC.
8:32	10	--	--	--	--	--	--	--	0	39.54	Set Grundfos pump at 105 feet TOC. Begin Purge.
8:48	10	20.70	7.49	1.37	<0.01	4.0	-86	--	138	41.46	Clear. Moderate chemical odor.
9:00	10	20.90	7.56	1.36	<0.01	<1	-87	--	250	42.59	Clear. Moderate chemical odor.
9:30	10	20.90	7.57	1.37	<0.01	10.0	-88	--	560	42.70	Clear. Moderate chemical odor.
9:45	5	--	--	--	--	--	--	--	--	--	Slowed flow rate.
10:00	5	21.30	7.57	1.37	<0.01	<1	-99	--	810	40.52	Clear. Moderate chemical odor.
10:04	10	--	--	--	--	--	--	--	--	--	Increased flow rate.
10:30	10	21.30	7.57	1.37	<0.01	2.0	-103	--	1,057	41.55	Clear. Moderate chemical odor.
10:45	10	21.20	7.57	1.37	<0.01	<1	-105	--	1,214	41.51	Clear. Moderate chemical odor.
11:00	10	21.30	7.59	1.37	<0.01	<1	-104	--	1,342	41.51	Clear. Moderate chemical odor.
11:15	10	--	--	--	--	--	--	--	1,565	41.51	Stop pump. Set QED pump at 105 feet TOC.
11:30	--	--	--	--	--	--	--	--	--	40.10	Sample well after purging 3 liters with QED pump.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	03/26/2012
Checked By	Patrick Vandenberg	Date	05/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**40.25**	(water)
Sampling Depth:	NA				
Water Column Length:	**79.35**	(ft) X 0.16	(gal/ft) =	**12.70**	(gal - One Well Volume)
Well Volumes Extracted:	**4.73**				
Pump ■ /Bail ☐	Avg. Rate:	**2.00**	Total Gallons Extracted:	**60**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**BF-OW-3**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**29.32**	pH Meter No.: **Horiba U-52**
Well Diameter:	**2-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**119.6**	Thermometer No.: **Horiba U-52**
Well Material:	**Stainless Steel**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**70-120**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
14:56	0	--	--	--	--	--	--	--	0	40.25	Total depth = 119.6 feet TOC.
15:10	2	--	--	--	--	--	--	--	0	40.30	Begin purge. Pump set at 95 feet TOC.
15:15	2	21.16	6.90	1.80	2.60	141	-86	--	10	51.40	Clear with gray tint. Strong chemical odor.
15:20	2	21.56	7.13	1.78	1.93	90	-111	--	20	53.75	Clear with gray tint. Moderate chemical odor.
15:25	2	21.84	7.31	1.74	1.39	49.3	-118	--	30	55.05	Clear with gray tint. Moderate chemical odor.
15:30	2	21.97	7.36	1.71	1.47	32.9	-117	--	40	55.50	Clear with gray tint. Moderate chemical odor.
15:35	2	21.99	7.37	1.68	1.40	30.2	-114	--	50	55.70	Clear with gray tint. Moderate chemical odor.
15:40	--	--	--	--	--	--	--	--	60	53.20	Stop purge.
15:45	--	--	--	--	--	--	--	--	--	40.70	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 1/31/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**45.90**	(water)
Sampling Depth:	NA				
Water Column Length:	**93.96**	(ft) X 0.65	(gal/ft) =	**61.07**	(gal - One Well Volume)
Well Volumes Extracted:	**3.08**				
Pump ■ /Bail ☐	Avg. Rate:	**4.00**	Total Gallons Extracted:	**188**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		**Equipment Information**
Number:	**SWL0033**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst**
Top Of Casing Elev.:	**35.72**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**139.86**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**------**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (^oC)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
13:28	0	--	--	--	--	--	--	--	0	45.90	Total depth = 139.86 feet TOC.
13:50	4	--	--	--	--	--	--	--	0	45.90	Pump set at 90 feet TOC. Begin purge.
13:53	4	22.33	7.55	0.517	3.12	1.2	+32	--	12	46.46	Clear with yellow tint. No odor.
14:05	4	21.89	7.20	1.26	2.71	<1	-25	--	60	46.48	Clear. No odor.
14:15	4	21.82	7.19	1.34	1.47	<1	-31	--	100	46.49	Clear. No odor.
14:25	4	21.63	7.20	1.34	1.20	<1	-30	--	140	46.47	Clear. No odor.
14:35	4	21.65	7.21	1.35	1.13	<1	-29	--	180	46.49	Clear. No odor.
14:37	4	--	--	--	--	--	--	--	188	46.47	Stop pumping.
14:45	--	--	--	--	--	--	--	--	--	45.90	Sample well.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	02/01/2012
Checked By	Patrick Vandenberg	Date	05/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**54.80**	(water)
Sampling Depth:	NA				
Water Column Length:	**134.00**	(ft) X 0.65	(gal/ft) =	**87.10**	(gal - One Well Volume)
Well Volumes Extracted:	**3.38**				
Pump ■ /Bail ☐	Avg. Rate:	**6.00**	Total Gallons Extracted:	**294**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		**Equipment Information**
Number:	**G-06**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos.**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**42.53**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**188.8**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**149-190**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	**Flow rate (gpm)**	**Water Temp (^oC)**	**pH**	**Cond. (mS/cm)**	**Dissolved Oxygen (mg/l)**	**Turbidity (NTU)**	**ORP (mV) +/-**	**Settleable Solids (ml/L)**	**Gallons Dev./Purge Before Meas.**	**Water Level (feet)**	**Remarks (e.g. water clarity)**
15:28	0	--	--	--	--	--	--	--	0	54.80	Total depth = 198.80 feet TOC.
15:52	6	--	--	--	--	--	--	--	0	54.80	Pump set at 168 feet TOC. Begin purge
15:58	6	23.02	7.73	0.652	2.16	1.2	-33	--	36	56.90	Clear. No odor.
16:08	6	23.56	7.82	0.631	1.50	2.2	-62	--	96	56.91	Clear. No odor.
16:18	6	23.26	7.83	0.625	1.40	1.3	-76	--	156	56.89	Clear. Slight chemical odor.
16:28	6	23.58	7.82	0.628	1.30	1.9	-81	--	216	56.90	Clear. Slight chemical odor.
16:38	6	23.50	7.83	0.641	1.31	2.1	-84	--	276	56.90	Clear. Slight chemical odor.
16:41	6	--	--	--	--	--	--	--	294	56.90	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	02/01/2012
Checked By	Patrick Vandenberg	Date	05/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**54.38**	(water)
Sampling Depth:	**168**				
Water Column Length:	**135.32**	(ft) X 0.65	(gal/ft) =	**87.96**	(gal - One Well Volume)
Well Volumes Extracted:	**3.41**				
Pump ■ /Bail ☐	Avg. Rate:	**6.00**	Total Gallons Extracted:	**300**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		**Equipment Information**
Number:	**G-06**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos/QED bladder pump**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**42.53**	pH Meter No.: **Horiba U-10**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-10**
Well Depth:	**189.7**	Thermometer No.: **Horiba U-10**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-10**
Screen Interval:	**149-190**	Turbidity Meter No.: **Horiba U-10**
		ORP Meter No.: **Hanna**

Time (24 hr.)	**Flow rate (gpm)**	**Water Temp (^oC)**	**pH**	**Cond. (mS/cm)**	**Dissolved Oxygen (mg/l)**	**Turbidity (NTU)**	**ORP (mV) +/-**	**Settleable Solids (ml/L)**	**Gallons Dev./Purge Before Meas.**	**Water Level (feet)**	**Remarks (e.g. water clarity)**
8:17	0	--	--	--	--	--	--	--	0	54.38	Total depth = 198.80 feet TOC.
8:52	6	--	--	--	--	--	--	--	0	54.40	Begin purging. Set pump at 168 feet TOC.
9:02	6	23.00	7.74	0.682	<0.01	<1	-80	--	58	56.98	Clear. No odor.
9:12	6	23.30	7.79	0.682	<0.01	<1	-91	--	114	56.94	Clear. Slight chemical odor.
9:24	6	23.30	7.81	0.684	<0.01	<1	-98	--	179	56.98	Clear. No odor.
9:34	6	23.70	7.83	0.681	<0.01	<1	-103	--	236	57.00	Clear. No odor.
9:40	6	23.80	7.83	0.680	<0.01	<1	-106	--	277	56.98	Clear. No odor.
9:44	6	--	--	--	--	--	--	--	300	--	Stop purging. Set QED pump at 168 feet TOC.
10:30	--	--	--	--	--	--	--	--	--	54.40	Sample well after purging 2 liters with QED pump.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By: Katharine Carr Green — Date: 03/28/2012
Checked By: Patrick Vandenberg — Date: 05/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**41.74**	(water)
Sampling Depth:	NA				
Water Column Length:	**168.74**	(ft) X 0.65	(gal/ft) =	**109.68**	(gal - One Well Volume)
Well Volumes Extracted:	**3.23**				
Pump ■ /Bail ☐	Avg. Rate:	**6.00**	Total Gallons Extracted:	**354**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		**Equipment Information**
Number:	**G-09**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**28.58**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**210.48**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**171-213**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	**Flow rate (gpm)**	**Water Temp (^oC)**	**pH**	**Cond. (mS/cm)**	**Dissolved Oxygen (mg/l)**	**Turbidity (NTU)**	**ORP (mV) +/-**	**Settleable Solids (ml/L)**	**Gallons Dev./Purge Before Meas.**	**Water Level (feet)**	**Remarks (e.g. water clarity)**
10:00	0	--	--	--	--	--	--	--	0	41.74	Total depth = 210.48 feet TOC.
10:16	6	--	--	--	--	--	--	--	0	41.77	Pump set at 189 feet TOC. Begin purge.
10:26	6	22.40	8.04	0.760	2.20	3.5	-181	--	60	44.89	Clear. No odor.
10:40	6	23.06	7.97	0.788	2.18	1.1	-149	--	144	44.75	Clear. No odor.
10:50	6	23.34	7.96	0.790	1.40	4.2	-158	--	204	44.83	Clear. No odor.
11:10	6	23.59	7.94	0.788	1.26	1.3	-137	--	324	44.83	Clear. No odor.
11:15	6	--	--	--	--	--	--	--	354	44.89	Stop purge.
11:30	--	--	--	--	--	--	--	--	--	41.80	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	02/01/2012
Checked By	Patrick Vandenberg	Date	05/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**41.80**	(water)
Sampling Depth:	180.00				
Water Column Length:	**168.68**	(ft) X 0.65	(gal/ft) =	**109.64**	(gal - One Well Volume)
Well Volumes Extracted:	**3.10**				
Pump ■ /Bail ☐	Avg. Rate:	**6.00**	Total Gallons Extracted:	**340**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-09**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos/QED bladder pump**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**28.58**	pH Meter No.: **Horiba U-10**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-10**
Well Depth:	**210.48**	Thermometer No.: **Horiba U-10**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-10**
Screen Interval:	**171-213**	Turbidity Meter No.: **Horiba U-10**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (^oC)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
14:02	0	--	--	--	--	--	--	--	0	41.80	Total depth = 210.48 feet TOC.
14:27	6	--	--	--	--	--	--	--	0	41.75	Begin purge. Pump set at 189 feet TOC.
14:40	6	22.10	7.97	0.859	0.37	8.0	-167	--	74	44.73	Clear, slight odor.
14:52	6	22.20	7.91	0.868	0.25	6.0	-156	--	140	44.73	Clear, slight chemical odor.
15:00	6	22.20	7.94	0.871	0.26	<1	-151	--	188	44.74	Clear, slight chemical odor.
15:12	6	22.20	7.97	0.871	0.15	<1	-154	--	255	44.79	Clear, slight chemical odor.
15:24	6	22.20	7.99	0.872	0.09	<1	-154	--	321	44.80	Clear, slight chemical odor.
15:27	6	--	--	--	--	--	--	--	340	--	Stop purge. Set QED pump at 180 feet TOC.
16:00	--	--	--	--	--	--	--	--	--	--	Sample well after purging 2 liters with QED pump.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	03/27/2012
Checked By	Patrick Vandenberg	Date	05/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**48.66**	(water)
Sampling Depth:	NA				
Water Column Length:	**145.89**	(ft) X 0.65	(gal/ft) =	**94.83**	(gal - One Well Volume)
Well Volumes Extracted:	**3.16**				
Pump ■ /Bail ☐	Avg. Rate:	**6.00**	Total Gallons Extracted:	**300**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-13**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst**
Top Of Casing Elev.:	**36.09**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**194.55**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**157-197**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (^oC)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
13:47	0	--	--	--	--	--	--	--	0	48.66	Total Depth: 194.55 feet TOC.
14:12	6	--	--	--	--	--	--	--	0	48.66	Begin Purge. Set pump at 178 feet TOC.
14:16	6	22.01	7.52	0.630	2.40	4.9	-75	--	24	51.75	Clear. No odor.
14:26	6	22.93	7.95	0.639	2.38	4.7	-101	--	84	52.00	Clear. No odor.
14:36	6	22.99	7.99	0.643	2.04	<1	-96	--	144	51.98	Clear. No odor.
14:46	6	23.37	7.98	0.645	1.39	<1	-110	--	204	51.98	Clear. Slight chemical odor.
14:56	6	23.49	7.96	0.644	1.20	<1	-115	--	264	52.00	Clear. Slight chlemical odor.
15:02	6	--	--	--	--	--	--	--	300	52.01	Stop pumping.
15:15	--	--	--	--	--	--	--	--	--	48.75	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	1/31/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**34.81**	(water)
Sampling Depth:	NA				
Water Column Length:	**164.69**	(ft) X 0.65	(gal/ft) =	**107.05**	(gal - One Well Volume)
Well Volumes Extracted:	**3.14**				
Pump ■ /Bail ☐	Avg. Rate:	**6.00**	Total Gallons Extracted:	**336**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		**Equipment Information**
Number:	**G-18**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 101**
Top Of Casing Elev.:	**21.7**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**199.5**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**161-201**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	**Flow rate (gpm)**	**Water Temp (°C)**	**pH**	**Cond. (mS/cm)**	**Dissolved Oxygen (mg/l)**	**Turbidity (NTU)**	**ORP (mV) +/-**	**Settleable Solids (ml/L)**	**Gallons Dev./Purge Before Meas.**	**Water Level (feet)**	**Remarks (e.g. water clarity) Dedicated Pump**
13:30	0	--	--	--	--	--	--	--	0	34.81	Total depth = 199.5 feet TOC.
13:58	6	--	--	--	--	--	--	--	0	37.40	Set pump at 178 feet TOC. Begin Purge.
14:04	6	23.64	7.72	0.540	2.73	5.8	+104	--	36	37.45	Clear. No odor.
14:14	6	23.69	7.64	0.492	2.45	3.8	+83	--	96	37.25	Clear. No odor.
14:26	6	23.56	7.81	0.491	1.30	4.7	+52	--	168	37.00	Clear. No odor.
14:38	6	23.36	7.88	0.492	1.35	4.7	+35	--	240	37.00	Clear. No odor.
14:49	6	23.22	7.84	0.491	1.30	5.0	+37	--	306	37.00	Clear. No odor.
14:54	6	--	--	--	--	--	--	--	336	36.99	Stop purge.
15:10	--	--	--	--	--	--	--	--	--	34.05	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface
* Dedicated pump was not operable. Pulled dual pump system.

Recorded By	Katharine Carr Green	Date	2/2/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**36.80**	(water)
Sampling Depth:	NA				
Water Column Length:	**155.20**	(ft) X 0.65	(gal/ft) =	**100.88**	(gal - One Well Volume)
Well Volumes Extracted:	**3.09**				
Pump ■ /Bail ☐	Avg. Rate:	**6.00**	Total Gallons Extracted:	**312**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-22**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**24.22**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**192**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**152-192**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (^oC)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
10:50	0	--	--	--	--	--	--	--	0	36.80	Total Depth 192 feet TOC.
11:26	6	--	--	--	--	--	--	--	0	47.20	Set Pump at 170 feet TOC. Begin Purge.
11:36	6	23.73	9.27	0.712	2.50	1.2	-150	--	60	65.45	Clear. No odor.
11:46	6	24.05	8.62	0.766	1.85	<1	-109	--	120	64.61	Clear. No odor.
11:56	6	24.12	8.39	0.774	1.32	<1	-52	--	180	63.60	Clear. No odor.
12:06	6	24.00	8.31	0.782	1.32	<1	-39	--	240	63.30	Clear. No odor.
12:16	6	23.98	8.29	0.781	1.30	<1	-43	--	300	63.20	Clear. No odor.
12:18	6	--	--	--	--	--	--	--	312	62.40	Stop Pumping.
12:30	--	--	--	--	--	--	--	--	--	37.20	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	1/27/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**47.46**	(water)
Sampling Depth:	NA				
Water Column Length:	**130.29**	(ft) X 0.65	(gal/ft) =	**84.69**	(gal - One Well Volume)
Well Volumes Extracted:	**3.13**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**265**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-23**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**34.83**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**177.75**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**148-178**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
15:03	0	--	--	--	--	--	--	--	0	47.46	Total Depth 177.75 feet TOC.
15:20	5	--	--	--	--	--	--	--	0	47.47	Pump Set at 157 feet TOC. Begin Purge.
15:22	5	23.92	10.15	0.372	2.85	9.2	+43	--	10	55.38	Clear. No odor.
15:33	5	23.13	9.59	0.401	2.75	5.7	-34	--	65	55.30	Clear. No odor.
15:45	5	22.78	9.14	0.431	1.63	6.6	-54	--	125	55.26	Clear. No odor.
15:55	5	22.72	9.00	0.444	1.52	1.9	-45	--	175	55.20	Clear. No odor.
16:06	5	22.72	8.40	0.453	1.20	1.9	-50	--	230	55.18	Clear. No odor.
16:12	5	22.71	8.90	0.448	1.27	1.2	-54	--	260	55.17	Clear. No odor.
16:13	5	--	--	--	--	--	--	--	265	--	Stop Purge.
16:30	--	--	--	--	--	--	--	--	--	47.56	Sample well.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	1/27/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**52.00**	(water)
Sampling Depth:	NA				
Water Column Length:	**126.00**	(ft) X 0.65	(gal/ft) =	**81.90**	(gal - One Well Volume)
Well Volumes Extracted:	**3.11**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**255**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-24**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**40.4**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**178**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**138-178**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (^oC)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
8:30	0	--	--	--	--	--	--	--	0	52.00	Total depth = 178 feet TOC.
8:50	5	--	--	--	--	--	--	--	0	52.03	Set pump at 157 feet TOC. Begin Purge.
8:54	5	19.56	7.22	0.817	2.88	4.4	-104	--	2	57.03	Clear. No odor.
9:04	5	21.35	7.96	0.880	2.04	1.5	-154	--	70	57.00	Clear. Slight odor.
9:14	5	22.34	8.00	0.882	1.74	<1	-160	--	120	57.00	Clear. Slight chemical odor.
9:24	5	23.05	8.00	0.876	1.14	<1	-164	--	170	57.10	Clear. Moderate chemical odor.
9:34	5	23.34	8.02	0.868	0.94	<1	-149	--	220	57.12	Clear. Moderate chemical odor.
9:39	5	--	--	--	--	--	--	--	255	57.11	Stop pump.
9:57	--	--	--	--	--	--	--	--	--	52.05	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	1/31/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**56.60**	(water)
Sampling Depth:	NA				
Water Column Length:	**107.40**	(ft) X 0.65	(gal/ft) =	**69.81**	(gal - One Well Volume)
Well Volumes Extracted:	**3.09**				
Pump ■ /Bail ☐	Avg. Rate:	**6.00**	Total Gallons Extracted:	**216**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-25**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**46.06**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**164**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**124-164**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
13:47	0	--	--	--	--	--	--	--	0	56.60	Total Depth 164 feet TOC.
14:02	6	--	--	--	--	--	--	--	0	55.70	Pump set at 140 feet TOC. Begin Purge.
14:06	6	24.03	7.96	0.853	2.65	13.2	-66	--	24	59.79	Clear. No odor.
14:13	6	23.86	7.73	1.12	2.57	7.3	-79	--	66	59.55	Clear. Slight Chemical Odor.
14:20	6	23.66	7.73	1.17	2.09	<1	-85	--	108	59.60	Clear. Slight Chemical Odor.
14:27	6	23.57	7.68	1.17	1.89	<1	-83	--	150	59.70	Clear. Slight Chemical Odor.
14:35	6	23.57	7.66	1.18	1.27	<1	-82	--	198	59.67	Clear. Slight Chemical Odor.
14:28	6	--	--	--	--	--	--	--	216	59.68	Stop Pumping.
14:55	--	--	--	--	--	--	--	--	--	56.90	Sample well with disposable odor.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	1/27/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**46.98**	(water)
Sampling Depth:	NA				
Water Column Length:	**125.47**	(ft) X 0.65	(gal/ft) =	**81.56**	(gal - One Well Volume)
Well Volumes Extracted:	**3.07**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**250**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-26**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**35.72**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**172.45**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**131.5-172**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
10:30	0	--	--	--	--	--	--	--	0	46.98	Total Depth = 172.45 feet TOC.
10:50	5	--	--	--	--	--	--	--	0	46.90	Set pump at 150 feet TOC. Begin purge.
10:55	5	21.20	7.08	0.825	2.55	1.6	-20	--	25	52.16	Clear. No odor.
11:05	5	22.95	7.95	0.866	1.97	<1	-122	--	75	52.25	Clear. Slight chemical odor.
11:15	5	23.38	7.96	0.871	1.49	<1	-131	--	125	52.30	Clear. Slight chemical odor.
11:25	5	22.57	7.96	0.874	1.20	<1	-128	--	170	52.35	Clear. Slight chemical odor.
11:35	5	22.32	7.96	0.870	1.10	<1	-125	--	220	52.35	Clear. Slight chemical odor.
11:40	5	22.25	7.96	0.888	1.19	<1	-125	--	245	52.35	Clear. Slight chemical odor.
11:41	5	--	--	--	--	--	--	--	250	52.35	Stop pumping.
11:50	--	--	--	--	--	--	--	--	--	47.01	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	1/31/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**36.62**	(water)
Sampling Depth:	NA				
Water Column Length:	**128.18**	(ft) X 0.65	(gal/ft) =	**83.32**	(gal - One Well Volume)
Well Volumes Extracted:	**3.18**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**265**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-27**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst**
Top Of Casing Elev.:	**24.52**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**164.8**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**124-164**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
13:40	0	--	--	--	--	--	--	--	0	36.62	Total Depth = 164.8 feet TOC.
13:54	5	--	--	--	--	--	--	--	0	36.70	Pump set at 147 feet TOC. Begin Purge.
13:56	5	23.41	8.00	0.722	2.78	6.7	+62	--	10	38.56	Clear. No odor.
14:06	5	24.04	8.03	0.695	2.46	4.9	-29	--	60	38.82	Clear. No odor.
14:16	5	24.51	8.05	0.677	2.05	<1	-43	--	110	38.80	Clear. No odor.
14:28	5	24.92	8.05	0.682	1.48	<1	-64	--	170	38.80	Clear. No odor.
14:38	5	24.63	8.05	0.658	1.25	<1	-57	--	220	38.80	Clear. No odor.
14:44	5	24.72	8.06	0.654	1.23	<1	-69	--	250	38.82	Clear. No odor.
14:47	5	--	--	--	--	--	--	--	265	38.82	Stopped purge.
15:02	--	--	--	--	--	--	--	--	--	36.61	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	1/26/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**49.08**	(water)
Sampling Depth:	NA				
Water Column Length:	**138.12**	(ft) X 0.65	(gal/ft) =	**89.78**	(gal - One Well Volume)
Well Volumes Extracted:	**3.12**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**280**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-28**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**35.54**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**187.2**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**148-188**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (^oC)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
8:01	0	--	--	--	--	--	--	--	0	49.08	Total Depth = 187.2 feet TOC.
8:32	5	--	--	--	--	--	--	--	0	49.10	Pump set at 170 feet TOC. Begin Purge.
8:35	5	19.50	7.85	0.918	3.46	7.9	-52	--	15	51.35	Clear. No odor.
8:48	5	21.54	7.81	0.912	2.33	1.3	-53	--	80	51.42	Clear. No odor.
9:00	5	22.32	7.81	0.904	1.92	<1	-56	--	140	51.42	Clear. No odor.
9:12	5	23.04	7.82	0.895	1.60	<1	-61	--	200	51.40	Clear. No odor.
9:22	5	23.04	7.80	0.893	1.42	<1	-56	--	250	51.52	Clear. No odor.
9:28	5	--	--	--	--	--	--	--	280	49.90	Stop Pump.
9:42	--	--	--	--	--	--	--	--	--	49.10	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	1/26/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**50.20**	(water)
Sampling Depth:	NA				
Water Column Length:	**146.64**	(ft) X 0.65	(gal/ft) =	**95.32**	(gal - One Well Volume)
Well Volumes Extracted:	**3.15**				
Pump ■ /Bail ☐	Avg. Rate:	**6.00**	Total Gallons Extracted:	**300**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-29**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**35.42**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**196.84**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**157-197**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
7:48	0	--	--	--	--	--	--	--	0	50.20	Total depth = 196.04 feet TOC.
8:18	6	--	--	--	--	--	--	--	0	50.25	Pump set at 168 feet TOC. Begin Purge.
8:26	6	19.83	7.62	1.08	2.30	4.7	-38	--	48	51.50	Clear. No odor.
8:36	6	21.34	7.64	1.04	1.79	1.1	-57	--	108	54.75	Clear. No odor.
8:46	6	22.06	7.63	1.03	1.75	4.0	-50	--	168	54.70	Clear. No odor.
8:56	6	22.37	7.62	1.02	1.36	2.7	-50	--	228	54.70	Clear. No odor.
9:06	6	22.51	7.65	1.01	1.24	<1	-55	--	288	54.70	Clear. No odor.
9:08	6	--	--	--	--	--	--	--	300	54.70	Stop purge.
9:20	--	--	--	--	--	--	--	--	--	50.30	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	2/3/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**55.85**	(water)
Sampling Depth:	NA				
Water Column Length:	**103.15**	(ft) X 0.65	(gal/ft) =	**67.04**	(gal - One Well Volume)
Well Volumes Extracted:	**3.43**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**230**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-30**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**44.96**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**159**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**135-165 feet**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. mS/cm	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
8:39	0	--	--	--	--	--	--	--	0	55.85	Total Depth = 159 feet TOC.
10:00	5	--	--	--	--	--	--	--	0	60.90	Pump set at 147 feet TOC. Begin purge.
10:03	5	21.14	6.78	1.71	12.48	42.6	+250	--	15	60.50	Clear. No odor.
10:07	5	21.84	7.35	1.27	12.50	116.1	+219	--	40	59.29	Clear. No odor.
10:17	5	22.25	7.37	1.23	2.10	2	+193	--	90	58.98	Clear. No odor.
10:27	5	22.45	7.36	1.22	2.45	<1	+171	--	140	58.95	Clear. No odor.
10:37	5	22.65	7.36	1.19	1.62	<1	+159	--	190	58.90	Clear. No odor.
10:44	5	22.77	7.38	1.20	1.41	<1	+148	--	225	58.90	Clear. No odor.
10:45	5	--	--	--	--	--	--	--	230	--	Stop purge.
11:00	--	--	--	--	--	--	--	--	--	55.86	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface
TOC = Top of Casing

Recorded By	Katharine Carr Green	Date	1/24/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**53.70**	(water)
Sampling Depth:	NA				
Water Column Length:	**120.00**	(ft) X 0.65	(gal/ft) =	**78.00**	(gal - One Well Volume)
Well Volumes Extracted:	**3.46**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**270**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-31**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**36.6**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**173.7**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**145-175'**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
11:07	0	--	--	--	--	--	--	--	0	53.70	Total Depth = 173.70 feet TOC.
11:31	5	--	--	--	--	--	--	--	0	56.80	Pump set at 157 feet TOC. Begin purge.
11:35	5	21.85	7.29	0.956	2.60	36.9	+223	--	20	56.02	Clear, slight gray tint. No odor.
11:45	5	22.59	7.63	0.961	1.50	10.9	+186	--	70	55.85	Clear. No odor.
11:54	5	23.32	7.68	0.935	1.49	88.2	+157	--	115	55.90	Clear with light gray tint. No odor.
12:04	5	23.33	7.68	0.934	1.35	62.0	+155	--	170	55.85	Clear, with light gray tint. No odor.
12:14	5	23.54	7.67	0.932	1.37	16.0	+131	--	220	55.80	Clear. No odor.
12:19	5	23.70	7.69	0.926	1.33	9.5	+116	--	245	55.85	Clear. No odor.
12:24	5	23.72	7.67	0.926	1.28	6.6	+104	--	260	55.89	Clear. No odor.
12:26	5	--	--	--	--	--	--	--	270	55.80	Stop Pumping.
12:42	--	--	--	--	--	--	--	--	--	53.76	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	1/30/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**50.50**	(water)
Sampling Depth:	NA				
Water Column Length:	**138.70**	(ft) X 0.65	(gal/ft) =	**90.16**	(gal - One Well Volume)
Well Volumes Extracted:	**3.13**				
Pump ■ /Bail □	Avg. Rate:	**5.00**	Total Gallons Extracted:	**282**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		**Equipment Information**
Number:	**G-32**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**32.68**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**189.2**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**160-190'**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	**Flow rate (gpm)**	**Water Temp (°C)**	**pH**	**Cond. mS/cm**	**Dissolved Oxygen (mg/l)**	**Turbidity (NTU)**	**ORP (mV) +/-**	**Settleable Solids (ml/L)**	**Gallons Dev./Purge Before Meas.**	**Water Level (feet)**	**Remarks (e.g. water clarity)**
8:13	0	--	--	--	--	--	--	--	0	50.50	Total Depth = 189.2 feet TOC.
9:02	5.5	--	--	--	--	--	--	--	0	50.50	Pump at 170 feet TOC. Begin Purge.
9:05	5.5	20.58	7.98	0.594	6.35	19.1	+180	--	17	52.71	Clear. No odor.
9:10	5.5	21.73	8.00	0.605	4.09	7.4	+152	--	44	52.71	Clear. No odor.
9:20	5.5	22.04	8.04	0.600	2.89	4.2	+82	--	99	52.71	Clear. No odor.
9:30	5.5	23.35	7.99	0.580	1.89	1.1	+38	--	154	52.73	Clear. No odor.
9:40	--	--	Stopped Pump to Tighten Leak			--	--	--	209	52.73	--
9:42	5.5	--	Started Pumping Again at same flow rate			--	--	--	--	--	--
9:43	5.5	23.29	7.99	0.587	1.57	1.3	+38	--	214	52.75	Clear. No odor.
9:48	5.5	23.48	7.99	0.584	1.58	<1	+41	--	241.5	52.75	Clear. No odor.
9:50	3	--	--	--	--	--	--	--	--	--	--
9:58	3	23.38	7.98	0.584	1.38	<1	+34	--	276	51.47	Clear. No odor.
10:00	--	--	--	--	--	--	--	--	282	51.47	Stopped pumping.
10:15	--	--	--	--	--	--	--	--	--	50.55	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	1/25/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**61.05**	(water)
Sampling Depth:	NA				
Water Column Length:	**111.75**	(ft) X 0.65	(gal/ft) =	**72.64**	(gal - One Well Volume)
Well Volumes Extracted:	**3.30**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**240**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		**Equipment Information**
Number:	**G-33**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2- inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**50.14**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inches**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**172.8**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**143-173**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	**Flow rate (gpm)**	**Water Temp (^oC)**	**pH**	**Cond. (mS/cm)**	**Dissolved Oxygen (mg/l)**	**Turbidity (NTU)**	**ORP (mV) +/-**	**Settleable Solids (ml/L)**	**Gallons Dev./Purge Before Meas.**	**Water Level (feet)**	**Remarks (e.g. water clarity)**
7:58	0	--	--	--	--	--	--	--	0	61.05	Total depth = 172.8 feet TOC.
8:22	5	--	--	--	--	--	--	--	0	61.02	Pump set at 150 feet TOC. Begin purge.
8:26	5	20.29	7.32	0.760	2.83	7.7	-124	--	20	61.50	Clear. No odor.
8:36	5	21.38	7.53	0.735	2.76	1.0	-115	--	70	61.52	Clear. No odor.
8:46	5	21.81	7.53	0.725	1.60	<1	-107	--	120	61.52	Clear. No odor.
8:56	5	21.87	7.45	0.721	1.52	<1	-96	--	170	61.55	Clear. No odor.
9:06	5	21.95	7.52	0.711	1.33	<1	-93	--	220	61.56	Clear. Slight chemical odor.
9:10	5	--	--	--	--	--	--	--	240	61.52	Stop pump.
9:15	--	--	--	--	--	--	--	--	--	61.02	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	02/01/2012
Checked By	Patrick Vandenberg	Date	05/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**52.89**	(water)
Sampling Depth:	NA				
Water Column Length:	**133.61**	(ft) X 0.65	(gal/ft) =	**86.85**	(gal - One Well Volume)
Well Volumes Extracted:	**3.11**				
Pump ■ /Bail ☐	Avg. Rate:	**5.00**	Total Gallons Extracted:	**270**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-34**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**39.44**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**186.5**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**147-187**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
12:15	0	--	--	--	--	--	--	--	0	52.89	Total depth = 186.50 feet TOC.
12:33	5	--	--	--	--	--	--	--	0	52.70	Pump Set at 160 feet TOC. Begin Purge.
12:43	5	23.45	7.68	0.747	1.83	<1	-16	--	50	57.30	Clear. No odor.
12:53	5	23.15	7.80	0.748	1.56	<1	-74	--	100	57.40	Clear. No odor.
13:03	5	23.56	7.68	0.745	1.52	1.1	-60	--	150	57.46	Clear. No odor.
13:13	5	23.45	7.74	0.742	1.50	<1	-78	--	200	57.50	Clear. No odor.
13:23	5	23.67	7.78	0.745	1.23	<1	-79	--	250	57.54	Clear. No odor.
13:27	5	--	--	--	--	--	--	--	270	57.55	Stop purge.
13:30	--	--	--	--	--	--	--	--	--	53.15	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	2/3/2012
Checked By	Patrick Vandenberg	Date	5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**44.50**	(water)
Sampling Depth:	NA				
Water Column Length:	**145.70**	(ft) X 0.65	(gal/ft) =	**94.71**	(gal - One Well Volume)
Well Volumes Extracted:	**3.23**				
Pump ■ /Bail ☐	Avg. Rate:	**6.00**	Total Gallons Extracted:	**306**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**G-35**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **3-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**32.07**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**190.2**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**150-190**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (^oC)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
8:15	0	--	--	--	--	--	--	--	0	44.50	Total Depth = 190.2 feet TOC.
8:53	6	--	--	--	--	--	--	--	0	44.50	Pump set at 170 feet TOC. Begin Purge.
8:58	6	19.56	6.78	1.25	2.30	21.9	+175	--	30	45.79	Clear. No odor.
9:08	6	20.99	7.31	1.22	2.28	1.2	+78	--	90	45.75	Clear. No odor.
9:18	6	21.56	7.32	1.22	1.86	<1	+81	--	150	45.71	Clear. No odor.
9:29	6	22.27	7.32	1.22	1.41	<1	+66	--	210	45.71	Clear. No odor.
9:34	6	22.50	7.32	1.21	1.39	<1	+53	--	246	45.66	Clear. No odor.
9:40	6	22.57	7.32	1.20	1.23	<1	+50	--	282	45.66	Clear. No odor.
9:44	6	--	--	--	--	--	--	--	306	45.65	Stop pump.
10:00	--	--	--	--	--	--	--	--	--	44.51	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By: Katharine Carr Green — Date: 1/30/2012
Checked By: Patrick Vandenberg — Date: 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**42.02**	(water)
Sampling Depth:	NA				
Water Column Length:	**112.98**	(ft) X 0.16	(gal/ft) =	**18.08**	(gal - One Well Volume)
Well Volumes Extracted:	**3.43**				
Pump ■ /Bail ☐	Avg. Rate:	**2.00**	Total Gallons Extracted:	**62**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		**Equipment Information**
Number:	**G-OW-3**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**29.32**	pH Meter No.: **Horiba U-52**
Well Diameter:	**2-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**155**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**145-155**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	**Flow rate (gpm)**	**Water Temp (°C)**	**pH**	**Cond. (mS/cm)**	**Dissolved Oxygen (mg/l)**	**Turbidity (NTU)**	**ORP (mV) +/-**	**Settleable Solids (ml/L)**	**Gallons Dev./Purge Before Meas.**	**Water Level (feet)**	**Remarks (e.g. water clarity)**
13:40	0	--	--	--	--	--	--	--	0	42.02	Total depth = 155 feet TOC.
13:57	2	--	--	--	--	--	--	--	0	41.60	Pump set at 150 feet TOC. Begin purge.
14:02	2	21.24	7.20	0.596	2.52	80.4	-23	--	10	54.33	Clear with gray tint. Slight odor.
14:08	2	21.73	7.78	0.655	1.90	4.3	-80	--	22	54.61	Clear. Slight chemical odor.
14:14	2	22.05	8.01	0.658	1.62	<1	-81	--	34	54.66	Clear. Slight chemical odor.
14:20	2	22.06	8.05	0.658	1.25	<1	-84	--	46	54.75	Clear. Slight chemical odor.
14:26	2	22.04	8.06	0.657	1.24	<1	-75	--	58	54.88	Clear. Slight chemical odor.
14:28	2	--	--	--	--	--	--	--	62	54.87	Stop pumping.
14:36	--	--	--	--	--	--	--	--	--	42.90	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	01/30/2012
Checked By	Patrick Vandenberg	Date	05/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**36.59**	(water)
Sampling Depth:	NA				
Water Column Length:	**140.01**	(ft) X 4.08	(gal/ft) =	**571.24**	(gal - One Well Volume)
Well Volumes Extracted:	**3.02**				
Pump ■ /Bail ☐	Avg. Rate:	**9.09**	Total Gallons Extracted:	**1,723**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information	
Number:	**G-EW-2**
Location:	**Torrance, Ca**
Datum:	**NAD83**
Elev. Datum Point:	**NAVD29**
Top Of Casing Elev.:	**23.83**
Well Diameter:	**10-inch**
Well Depth:	**176.6**
Well Material:	**Stainless Steel**
Screen Interval:	**146.6-176.6**

Equipment Information
Bailer No.: **NA**
Pump No.: **3-inch Grundfos**
Interface Probe No.: NA
Sounder No.: **Solinst 102**
pH Meter No.: **Horiba U-52**
Conductivity Meter No.: **Horiba U-52**
Thermometer No.: **Horiba U-52**
D.O. Meter No.: **Horiba U-52**
Turbidity Meter No.: **Horiba U-52**
ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
8:35	0	--	--	--	--	--	--	--	0	36.59	Total Depth = 176.60 feet TOC
9:20	10	--	--	--	--	--	--	--	0	36.50	Pump set at 157 feet TOC. Begin purge.
9:36	10	20.90	7.63	0.811	3.85	9.0	-60	--	160	46.09	Clear. No odor.
9:51	10	21.75	7.73	0.785	2.20	1.9	-77	--	300	47.87	Clear. No odor.
10:06	10	21.80	7.75	0.772	1.70	<1	-70	--	450	48.25	Clear. No odor.
10:34	10	22.35	7.77	0.778	1.40	<1	-79	--	725	47.01	Clear. Slight chemical odor.
10:38	5	--	--	--	--	--	--	--	740	--	--
11:06	5	22.40	7.79	0.790	--	<1	--	--	915	41.20	Clear. Slight chemical odor.
11:20	10	--	--	--	--	--	--	--	--	--	--
11:30	10	23.25	7.82	0.774	1.44	<1	-70	--	1,000	46.65	Clear. Slight chemical odor.
12:00	10	23.21	7.79	0.774	1.32	<1	-52	--	1,300	46.79	Clear. Slight chemical odor.
12:35	10	23.25	7.75	0.772	1.20	<1	-52	--	1,590	47.31	Clear. Slight chemical odor.
12:52	--	--	--	--	--	--	--	--	1,723	47.42	Stop purge.
13:09	--	--	--	--	--	--	--	--	--	39.00	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By	Katharine Carr Green	Date	02/06/2012
Checked By	Patrick Vandenberg	Date	05/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**35.31**	(water)
Sampling Depth:	NA				
Water Column Length:	**139.89**	(ft) X 0.65	(gal/ft) =	**90.93**	(gal - One Well Volume)
Well Volumes Extracted:	**3.13**				
Pump ■ /Bail ☐	Avg. Rate:	**6.00**	Total Gallons Extracted:	**285**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		Equipment Information
Number:	**SWL0026**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst**
Top Of Casing Elev.:	**22.47**	pH Meter No.: **Horiba U-52**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-52**
Well Depth:	**175.2**	Thermometer No.: **Horiba U-52**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-52**
Screen Interval:	**159-175**	Turbidity Meter No.: **Horiba U-52**
		ORP Meter No.: **Hanna**

Time (24 hr.)	Flow rate (gpm)	Water Temp (°C)	pH	Cond. (mS/cm)	Dissolved Oxygen (mg/l)	Turbidity (NTU)	ORP (mV) +/-	Settleable Solids (ml/L)	Gallons Dev./Purge Before Meas.	Water Level (feet)	Remarks (e.g. water clarity)
11:18	0	--	--	--	--	--	--	--	0	35.31	Total Depth: 175.20 feet TOC.
11:44	6	--	--	--	--	--	--	--	0	35.31	Pump set at 168 feet TOC. Begin Purge.
11:54	6	21.28	7.88	0.643	2.19	<1	-29	--	42	36.47	Clear. Moderate chemical odor.
12:06	6	21.75	7.93	0.616	1.70	<1	-57	--	88	37.25	Clear. Moderate chemical odor.
12:20	6	22.07	7.94	0.616	1.56	<1	-63	--	158	36.47	Clear. Moderate chemical odor.
12:34	6	22.47	7.95	0.614	1.60	<1	-73	--	215	36.50	Clear. Moderate chemical odor.
12:44	6	22.64	7.97	0.615	1.43	<1	-73	--	262	36.50	Clear. Moderate chemical odor.
12:49	6	--	--	--	--	--	--	--	285	36.50	Stop Purge.
13:10	--	--	--	--	--	--	--	--	--	35.36	Sample well with disposable bailer.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 2/7/2012
Checked By Patrick Vandenberg Date 5/11/2012

AECOM

Well Development/Purge Log

Project Name:	**Montrose Q1 2012**		Project No.:	**60212541**	
PID/FID Readings:	NA	(ambient)		NA	(well mouth)
Static Levels:	NA	(product)		**35.42**	(water)
Sampling Depth:	160.00				
Water Column Length:	**139.78**	(ft) X 0.65	(gal/ft) =	**90.86**	(gal - One Well Volume)
Well Volumes Extracted:	**3.48**				
Pump ■ /Bail ☐	Avg. Rate:	**6.00**	Total Gallons Extracted:	**316**	
Disposition of Discharge Water:		Temporary on-site storage in 6,500 gallon tank prior to off-site treatment.			

Well Information		**Equipment Information**
Number:	**SWL0026**	Bailer No.: **NA**
Location:	**Torrance, Ca**	Pump No.: **2-inch Grundfos/ QED bladder**
Datum:	**NAD83**	Interface Probe No.: NA
Elev. Datum Point:	**NAVD29**	Sounder No.: **Solinst 102**
Top Of Casing Elev.:	**22.47**	pH Meter No.: **Horiba U-10**
Well Diameter:	**4-inch**	Conductivity Meter No.: **Horiba U-10**
Well Depth:	**175.2**	Thermometer No.: **Horiba U-10**
Well Material:	**PVC**	D.O. Meter No.: **Horiba U-10**
Screen Interval:	**159-175**	Turbidity Meter No.: **Horiba U-10**
		ORP Meter No.: **Hanna**

Time (24 hr.)	**Flow rate (gpm)**	**Water Temp (^oC)**	**pH**	**Cond. (mS/cm)**	**Dissolved Oxygen (mg/l)**	**Turbidity (NTU)**	**ORP (mV) +/-**	**Settleable Solids (ml/L)**	**Gallons Dev./Purge Before Meas.**	**Water Level (feet)**	**Remarks (e.g. water clarity)**
10:35	0	--	--	--	--	--	--	--	0	35.42	Total Depth = 175.2 feet TOC.
11:22	6	--	--	--	--	--	--	--	0	35.40	Pump set at 168 feet TOC. Begin Purge.
11:32	6	21.80	7.68	0.678	0.10	7.0	-41	--	61	36.89	Clear. No odor.
11:42	6	21.90	7.97	0.679	<0.01	<1	-65	--	124	36.91	Clear. No odor.
11:52	6	21.90	8.00	0.681	<0.01	<1	-70	--	188	36.96	Clear. No odor.
12:02	6	22.10	8.00	0.682	<0.01	<1	-70	--	235	36.96	Clear. No odor.
12:12	6	22.10	8.02	0.682	<0.01	<1	-70	--	299	36.99	Clear. No odor.
12:15	--	--	--	--	--	--	--	--	316	36.99	Stop purge. Set QED pump at 160 feet TOC.
12:40	--	--	--	--	--	--	--	--	--	35.47	Sample well after purging 3 liters with QED pump.

Notes:
NA = Non-applicable
bgs - below grade surface

Recorded By Katharine Carr Green Date 03/26/2012
Checked By Patrick Vandenberg Date 05/11/2012

AECOM

APPENDIX B

LABORATORY RESULTS AND ELECTRONIC DATA DELIVERABLES

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-01-1418

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 02/20/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 12-01-1418

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-01-1418
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	01/24/12 18:35
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
G-30						
1,2-Dichloroethane	**3.1**		0.50	ug/L	EPA 8260B	EPA 5030C
Toluene	**1.1**		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	**0.90**		0.50	ug/L	EPA 8260B	EPA 5030C
BF-33						
1,2-Dichloroethane	**14**		0.50	ug/L	EPA 8260B	EPA 5030C
BF-31						
p-Chlorobenzenesulfonic Acid	**94**		10	ug/L	EPA 314.0 (M) pCBS	N/A
Chlorobenzene	**1.0**		0.50	ug/L	EPA 8260B	EPA 5030C
1,4-Dichlorobenzene	**0.58**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**0.66**		0.50	ug/L	EPA 8260B	EPA 5030C

Return to Contents

*MDL is shown.

Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-01-1418
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	01/24/12 18:35
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
MW-6						
2,4'-DDD	**0.048**		0.0050	ug/L	EPA 8081A	EPA 3510C
Alpha-BHC	**1.6**		0.50	ug/L	EPA 8081A	EPA 3510C
Gamma-BHC	**3.4**		0.50	ug/L	EPA 8081A	EPA 3510C
Delta-BHC	**2.9**		0.50	ug/L	EPA 8081A	EPA 3510C
Benzene	**17**		0.50	ug/L	EPA 8260B	EPA 5030C
Bromodichloromethane	**0.87**		0.50	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	**79**		10	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**26**		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	**2400**		400	ug/L	EPA 8260B	EPA 5030C
1,2-Dichlorobenzene	**7.9**		0.50	ug/L	EPA 8260B	EPA 5030C
1,3-Dichlorobenzene	**0.75**		0.50	ug/L	EPA 8260B	EPA 5030C
1,4-Dichlorobenzene	**11**		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethane	**35**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**37**		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	**100**		10	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	**57**		10	ug/L	EPA 8260B	EPA 5030C
t-1,2-Dichloroethene	**2.6**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloropropane	**1.1**		0.50	ug/L	EPA 8260B	EPA 5030C
Methylene Chloride	**3.9**		1.0	ug/L	EPA 8260B	EPA 5030C
1,1,1,2-Tetrachloroethane	**6.1**		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	**17000**		400	ug/L	EPA 8260B	EPA 5030C
1,2,4-Trichlorobenzene	**3.3**		0.50	ug/L	EPA 8260B	EPA 5030C
1,1,2-Trichloro-1,2,2-Trifluoroethane	**11**		0.50	ug/L	EPA 8260B	EPA 5030C
1,1,2-Trichloroethane	**15**		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	**530**		10	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	**4.1**		1.0	ug/L	EPA 8260B	EPA 5030C
Xylenes (total)	**1.6**		0.50	ug/L	EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	**220**		200	ug/L	EPA 8260B	EPA 5030C
Diisopropyl Ether (DIPE)	**3.8**		0.50	ug/L	EPA 8260B	EPA 5030C

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*MDL is shown.

Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-01-1418
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	01/24/12 18:35
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
MW-600						
2,4'-DDD	**0.052**		0.0050	ug/L	EPA 8081A	EPA 3510C
Alpha-BHC	**1.8**		0.50	ug/L	EPA 8081A	EPA 3510C
Gamma-BHC	**3.9**		0.50	ug/L	EPA 8081A	EPA 3510C
Beta-BHC	**0.64**		0.50	ug/L	EPA 8081A	EPA 3510C
Delta-BHC	**3.5**		0.50	ug/L	EPA 8081A	EPA 3510C
Benzene	**17**		0.50	ug/L	EPA 8260B	EPA 5030C
Bromodichloromethane	**0.90**		0.50	ug/L	EPA 8260B	EPA 5030C
Carbon Tetrachloride	**81**		10	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**26**		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	**2400**		400	ug/L	EPA 8260B	EPA 5030C
1,2-Dichlorobenzene	**7.9**		0.50	ug/L	EPA 8260B	EPA 5030C
1,3-Dichlorobenzene	**0.78**		0.50	ug/L	EPA 8260B	EPA 5030C
1,4-Dichlorobenzene	**11**		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethane	**39**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**38**		0.50	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	**110**		10	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	**55**		10	ug/L	EPA 8260B	EPA 5030C
t-1,2-Dichloroethene	**2.1**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloropropane	**1.1**		0.50	ug/L	EPA 8260B	EPA 5030C
Methylene Chloride	**3.6**		1.0	ug/L	EPA 8260B	EPA 5030C
1,1,1,2-Tetrachloroethane	**6.2**		0.50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	**16000**		400	ug/L	EPA 8260B	EPA 5030C
1,2,4-Trichlorobenzene	**3.7**		0.50	ug/L	EPA 8260B	EPA 5030C
1,1,2-Trichloro-1,2,2-Trifluoroethane	**11**		0.50	ug/L	EPA 8260B	EPA 5030C
1,1,2-Trichloroethane	**15**		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	**530**		10	ug/L	EPA 8260B	EPA 5030C
1,2,3-Trichloropropane	**4.3**		1.0	ug/L	EPA 8260B	EPA 5030C
Xylenes (total)	**2.2**		0.50	ug/L	EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	**260**		200	ug/L	EPA 8260B	EPA 5030C
Diisopropyl Ether (DIPE)	**4.3**		0.50	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB012412	**12-01-1418-2-D**	**01/24/12 08:47**	**Aqueous**	**IC 8**	**N/A**	**01/27/12 20:29**	**120127L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

G-30	**12-01-1418-3-D**	**01/24/12 11:00**	**Aqueous**	**IC 8**	**N/A**	**01/27/12 20:48**	**120127L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

BF-33	**12-01-1418-4-D**	**01/24/12 13:00**	**Aqueous**	**IC 8**	**N/A**	**01/27/12 21:06**	**120127L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

BF-31	**12-01-1418-5-D**	**01/24/12 15:40**	**Aqueous**	**IC 8**	**N/A**	**01/27/12 21:24**	**120127L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	94	10	2		ug/L

Method Blank	**099-15-080-1**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**01/27/12 19:34**	**120127L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB012412	**12-01-1418-2-E**	**01/24/12 08:47**	**Aqueous**	**GC 44**	**01/27/12**	**01/31/12 16:40**	**120127L11**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	82	50-150		2,4,5,6-Tetrachloro-m-Xylene	88	50-150	

MW-6	**12-01-1418-6-D**	**01/24/12 16:48**	**Aqueous**	**GC 44**	**01/27/12**	**01/31/12 17:24**	**120127L11**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.50	50		Endosulfan I	ND	0.50	50	
Alpha-BHC	1.6	0.50	50		Endosulfan II	ND	0.50	50	
Beta-BHC	ND	0.50	50		Endosulfan Sulfate	ND	0.50	50	
Chlordane	ND	1.2	50		Endrin	ND	0.50	50	
2,4'-DDD	0.048	0.0050	0.5		Endrin Aldehyde	ND	0.50	50	
4,4'-DDD	ND	0.50	50		Endrin Ketone	ND	0.50	50	
4,4'-DDE	ND	0.50	50		Gamma-BHC	3.4	0.50	50	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.50	50	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.50	50	
4,4'-DDT	ND	0.50	50		Methoxychlor	ND	0.50	50	
Delta-BHC	2.9	0.50	50		Toxaphene	ND	6.2	50	
Dieldrin	ND	0.50	50						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	85	50-150		2,4,5,6-Tetrachloro-m-Xylene	119	50-150	

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-600	**12-01-1418-7-D**	**01/24/12 16:48**	**Aqueous**	**GC 44**	**01/27/12**	**01/31/12 17:38**	**120127L11**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.50	50		Endosulfan I	ND	0.50	50	
Alpha-BHC	1.8	0.50	50		Endosulfan II	ND	0.50	50	
Beta-BHC	0.64	0.50	50		Endosulfan Sulfate	ND	0.50	50	
Chlordane	ND	1.2	50		Endrin	ND	0.50	50	
2,4'-DDD	0.052	0.0050	0.5		Endrin Aldehyde	ND	0.50	50	
4,4'-DDD	ND	0.50	50		Endrin Ketone	ND	0.50	50	
4,4'-DDE	ND	0.50	50		Gamma-BHC	3.9	0.50	50	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.50	50	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.50	50	
4,4'-DDT	ND	0.50	50		Methoxychlor	ND	0.50	50	
Delta-BHC	3.5	0.50	50		Toxaphene	ND	6.2	50	
Dieldrin	ND	0.50	50						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	125	50-150		2,4,5,6-Tetrachloro-m-Xylene	81	50-150	

Method Blank	**099-14-435-22**	**N/A**	**Aqueous**	**GC 44**	**01/27/12**	**01/31/12 16:26**	**120127L11**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	86	50-150		2,4,5,6-Tetrachloro-m-Xylene	82	50-150	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB012412	**12-01-1418-1-A**	**01/24/12 07:30**	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/26/12 03:56**	**120125L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	68-120		Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	101	80-128		Toluene-d8	101	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB012412	**12-01-1418-2-A**	**01/24/12 08:47**	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/26/12 04:26**	**120125L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	91	68-120		Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	90	80-128		Toluene-d8	103	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-30	**12-01-1418-3-A**	**01/24/12 11:00**	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/26/12 04:55**	**120125L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	1.1	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	0.90	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	3.1	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	89	68-120		Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	104	80-128		Toluene-d8	101	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-33	**12-01-1418-4-A**	**01/24/12 13:00**	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/26/12 08:50**	**120125L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	14	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	68-120		Dibromofluoromethane	93	80-127	
1,2-Dichloroethane-d4	100	80-128		Toluene-d8	87	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-31	**12-01-1418-5-A**	**01/24/12 15:40**	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/26/12 09:20**	**120125L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	1.0	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	0.58	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	0.66	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	68-120		Dibromofluoromethane	102	80-127	
1,2-Dichloroethane-d4	101	80-128		Toluene-d8	89	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	**12-01-1418-6-A**	**01/24/12 16:48**	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/26/12 09:49**	**120125L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	17	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	0.87	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	3.9	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	79	10	20		1,1,1,2-Tetrachloroethane	6.1	0.50	1	
Chlorobenzene	26	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	17000	400	800	
Chloroform	2400	400	800		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	3.3	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	11	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	15	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	530	10	20	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	7.9	0.50	1		1,2,3-Trichloropropane	4.1	1.0	1	
1,3-Dichlorobenzene	0.75	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	11	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	35	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	37	0.50	1		Xylenes (total)	1.6	0.50	1	
1,1-Dichloroethene	100	10	20		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	57	10	20		Tert-Butyl Alcohol (TBA)	220	200	20	
t-1,2-Dichloroethene	2.6	0.50	1		Diisopropyl Ether (DIPE)	3.8	0.50	1	
1,2-Dichloropropane	1.1	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	93	68-120		Dibromofluoromethane	104	80-127	
1,2-Dichloroethane-d4	102	80-128		Toluene-d8	102	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-600	**12-01-1418-7-A**	**01/24/12 16:48**	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/26/12 10:19**	**120125L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	17	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	0.90	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	3.6	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	81	10	20		1,1,1,2-Tetrachloroethane	6.2	0.50	1	
Chlorobenzene	26	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	16000	400	800	
Chloroform	2400	400	800		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	3.7	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	11	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	15	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	530	10	20	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	7.9	0.50	1		1,2,3-Trichloropropane	4.3	1.0	1	
1,3-Dichlorobenzene	0.78	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	11	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	39	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	38	0.50	1		Xylenes (total)	2.2	0.50	1	
1,1-Dichloroethene	110	10	20		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	55	10	20		Tert-Butyl Alcohol (TBA)	260	200	20	
t-1,2-Dichloroethene	2.1	0.50	1		Diisopropyl Ether (DIPE)	4.3	0.50	1	
1,2-Dichloropropane	1.1	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	96	68-120		Dibromofluoromethane	104	80-127	
1,2-Dichloroethane-d4	102	80-128		Toluene-d8	105	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,242**	**N/A**	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/26/12 02:28**	**120125L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	68-120		Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	99	80-128		Toluene-d8	92	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,246**	**N/A**	**Aqueous**	**GC/MS BB**	**01/27/12**	**01/27/12 14:28**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	96	80-128		Toluene-d8	98	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-01-1513-5	**Aqueous**	**IC 8**	**N/A**	**01/27/12**	**120127S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	96	98	70-130	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 01/24/12
Work Order No: 12-01-1418
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-30	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/26/12**	**120125S02**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	98	100	76-124	2	0-20	
Carbon Tetrachloride	10.00	93	103	74-134	11	0-20	
Chlorobenzene	10.00	104	104	80-120	0	0-20	
1,2-Dibromoethane	10.00	103	104	80-120	2	0-20	
1,2-Dichlorobenzene	10.00	100	104	80-120	4	0-20	
1,2-Dichloroethane	10.00	103	106	80-120	2	0-20	
1,1-Dichloroethene	10.00	92	105	73-127	14	0-20	
Ethylbenzene	10.00	107	105	78-126	1	0-20	
Toluene	10.00	109	111	80-120	1	0-20	
Trichloroethene	10.00	104	106	77-120	1	0-20	
Vinyl Chloride	10.00	101	116	72-126	14	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	91	104	67-121	13	0-49	
Tert-Butyl Alcohol (TBA)	50.00	206	119	36-162	54	0-30	3,4
Diisopropyl Ether (DIPE)	10.00	114	128	60-138	11	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	102	114	69-123	11	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	95	96	65-120	1	0-20	
Ethanol	100.0	130	136	30-180	5	0-72	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	01/24/12
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-01-1513-5	**Aqueous**	**GC/MS BB**	**01/27/12**	**01/27/12**	**120127S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	113	97	76-124	15	0-20	
Carbon Tetrachloride	10.00	103	101	74-134	1	0-20	
Chlorobenzene	10.00	103	101	80-120	2	0-20	
1,2-Dibromoethane	10.00	100	96	80-120	3	0-20	
1,2-Dichlorobenzene	10.00	102	101	80-120	1	0-20	
1,2-Dichloroethane	10.00	114	100	80-120	13	0-20	
1,1-Dichloroethene	10.00	95	108	73-127	13	0-20	
Ethylbenzene	10.00	106	106	78-126	0	0-20	
Toluene	10.00	108	106	80-120	2	0-20	
Trichloroethene	10.00	105	104	77-120	1	0-20	
Vinyl Chloride	10.00	98	109	72-126	11	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	94	109	67-121	15	0-49	
Tert-Butyl Alcohol (TBA)	50.00	235	129	36-162	58	0-30	3,4
Diisopropyl Ether (DIPE)	10.00	107	107	60-138	0	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	90	97	69-123	7	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	104	93	65-120	11	0-20	
Ethanol	100.0	120	112	30-180	7	0-72	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-1	**Aqueous**	**IC 8**	**N/A**	**01/27/12**	**120127L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	109	112	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-435-22	**Aqueous**	**GC 44**	**01/27/12**	**01/31/12**	**120127L11**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Aldrin	0.1250	87	87	50-150	33-167	1	0-25	
Alpha-BHC	0.1250	88	89	50-150	33-167	1	0-25	
Beta-BHC	0.1250	90	91	50-150	33-167	2	0-25	
4,4'-DDD	0.1250	93	93	50-150	33-167	0	0-25	
4,4'-DDE	0.1250	94	94	50-150	33-167	0	0-25	
4,4'-DDT	0.1250	99	98	50-150	33-167	1	0-25	
Delta-BHC	0.1250	88	87	50-150	33-167	1	0-25	
Dieldrin	0.1250	92	92	50-150	33-167	1	0-25	
Endosulfan I	0.1250	90	90	50-150	33-167	1	0-25	
Endosulfan II	0.1250	98	98	50-150	33-167	1	0-25	
Endosulfan Sulfate	0.1250	89	88	50-150	33-167	1	0-25	
Endrin	0.1250	92	92	50-150	33-167	1	0-25	
Endrin Aldehyde	0.1250	86	88	50-150	33-167	2	0-25	
Gamma-BHC	0.1250	90	91	50-150	33-167	0	0-25	
Heptachlor	0.1250	85	84	50-150	33-167	2	0-25	
Heptachlor Epoxide	0.1250	89	89	50-150	33-167	0	0-25	
Methoxychlor	0.1250	92	92	50-150	33-167	0	0-25	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,242	**Aqueous**	**GC/MS BB**	**01/25/12**	**01/26/12**	**120125L02**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	103	101	80-120	73-127	1	0-20	
Carbon Tetrachloride	10.00	105	105	74-134	64-144	0	0-20	
Chlorobenzene	10.00	105	106	80-120	73-127	1	0-20	
1,2-Dibromoethane	10.00	102	106	79-121	72-128	3	0-20	
1,2-Dichlorobenzene	10.00	105	104	80-120	73-127	1	0-20	
1,2-Dichloroethane	10.00	104	104	80-120	73-127	1	0-20	
1,1-Dichloroethene	10.00	104	106	78-126	70-134	1	0-28	
Ethylbenzene	10.00	107	108	80-120	73-127	1	0-20	
Toluene	10.00	113	112	80-120	73-127	0	0-20	
Trichloroethene	10.00	112	109	79-127	71-135	3	0-20	
Vinyl Chloride	10.00	116	115	72-132	62-142	2	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	101	110	69-123	60-132	8	0-20	
Tert-Butyl Alcohol (TBA)	50.00	94	100	63-123	53-133	7	0-20	
Diisopropyl Ether (DIPE)	10.00	124	112	59-137	46-150	10	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	111	121	69-123	60-132	8	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	100	103	70-120	62-128	3	0-20	
Ethanol	100.0	112	116	28-160	6-182	4	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1418
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,246	**Aqueous**	**GC/MS BB**	**01/27/12**	**01/27/12**	**120127L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	98	101	80-120	73-127	3	0-20	
Carbon Tetrachloride	10.00	101	103	74-134	64-144	2	0-20	
Chlorobenzene	10.00	100	102	80-120	73-127	2	0-20	
1,2-Dibromoethane	10.00	96	101	79-121	72-128	5	0-20	
1,2-Dichlorobenzene	10.00	104	103	80-120	73-127	1	0-20	
1,2-Dichloroethane	10.00	95	99	80-120	73-127	4	0-20	
1,1-Dichloroethene	10.00	97	96	78-126	70-134	1	0-28	
Ethylbenzene	10.00	106	104	80-120	73-127	1	0-20	
Toluene	10.00	93	95	80-120	73-127	2	0-20	
Trichloroethene	10.00	105	104	79-127	71-135	1	0-20	
Vinyl Chloride	10.00	96	97	72-132	62-142	1	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	82	99	69-123	60-132	19	0-20	
Tert-Butyl Alcohol (TBA)	50.00	96	100	63-123	53-133	4	0-20	
Diisopropyl Ether (DIPE)	10.00	92	96	59-137	46-150	4	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	94	89	69-123	60-132	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	91	97	70-120	62-128	6	0-20	
Ethanol	100.0	134	118	28-160	6-182	13	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-01-1418

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494

☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

Date 1-24-12

Page 1 of 2

WO # / LAB USE ONLY **12-01-1418**

LABORATORY CLIENT: AECOM Technical Services

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9045 E-MAIL: KATHARINE.CARR-GREEN@AECOM.COM

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: KATHARINE CARR GREEN

SAMPLER(S): (PRINT) K. Carr Green

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	~~SVOCs (8270)~~ PCBs 3,4 mod	Pesticides (8081) DDT+ 2,4-4,4 isomers	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
1	TB012412	1-24-12	0730	H2O	2		X						X													
2	EB012412		0847	H2O	3		X						X													
3	EB012412		0847	H2O	1	X											X									
4	EB012412		0847	H2O	1	X										X										
5	G-30		1100	H2O	3		X						X													
6	G-30		1100	H2O	1	X										X										
7	BF-33		1300	H2O	1	X										X										
8	BF-33		1300	H2O	3		X						X													
9	BF-31		1540	H2O	3		X						X													
10	BF-31	1-24-12	1540	H2O	1	X										X										

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
[signature] 1/24/2012 1700	[signature] CEL	1/24/12	1700
[signature]	[signature] CEL	1/24/12	1835

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

06/01/10 Revision

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5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

Date 1-24-2012

Page 2 of 2

WO # / LAB USE ONLY: 0 1 - 1 4 1 8

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: KATHARINE.CARR.GREEN@AECOM.COM

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: Katharine Carr Green

SAMPLER(S): (PRINT) K. CARR GREEN

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081) + OPT + Homers	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
11	MW-6	1-24-12	1648	H2O	3		X						X													
12	MW-6	↑	1648	H2O	1	X											X									
13	MW-600	↓	1648	H2O	1	X											X									
14	MW-600	1-24-12	1649	H2O	3		X						X													
1/24/12																										

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
1-24-2012 1700		1/24/12	1700
	CEL	1/24/12	1835

DISTRIBUTION: White with final report, Green and Yellow to Client.
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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-01-1 4 1 8

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 01/24/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.6 °C - 0.3 °C (CF) = 2.3 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: AM

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: AM

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: NS

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOAh ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120117B **Labeled/Checked by:** NS/AM

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** DL/DL

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** DL

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-01-1513

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 02/20/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: Montrose Superfund Site / 60212541.03.01
Work Order Number: 12-01-1513

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-01-1513
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	01/25/12 18:00
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	**Result**	Qualifiers	Reporting Limit	Units	Method	Extraction
G-32						
p-Chlorobenzenesulfonic Acid	**28**		5.0	ug/L	EPA 314.0 (M) pCBS	N/A
G-23						
p-Chlorobenzenesulfonic Acid	**250**		25	ug/L	EPA 314.0 (M) pCBS	N/A
Toluene	**0.59**		0.50	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	01/25/12
3995 Via Oro Ave		Work Order No:	12-01-1513
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB012512	**12-01-1513-2-D**	**01/25/12 08:22**	**Aqueous**	**IC 8**	**N/A**	**01/27/12 22:01**	**120127L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

G-32	**12-01-1513-3-D**	**01/25/12 10:15**	**Aqueous**	**IC 8**	**N/A**	**01/27/12 22:20**	**120127L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	28	5.0	1		ug/L

G-23	**12-01-1513-4-D**	**01/25/12 16:30**	**Aqueous**	**IC 8**	**N/A**	**01/27/12 22:38**	**120127L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	250	25	5		ug/L

BF-36	**12-01-1513-5-G**	**01/25/12 12:05**	**Aqueous**	**IC 8**	**N/A**	**01/27/12 22:56**	**120127L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

BF-30	**12-01-1513-6-D**	**01/25/12 14:35**	**Aqueous**	**IC 8**	**N/A**	**01/27/12 23:15**	**120127L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

Method Blank	**099-15-080-1**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**01/27/12 19:34**	**120127L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/25/12
3995 Via Oro Ave		Work Order No:	12-01-1513
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB012512	**12-01-1513-1-B**	**01/25/12 08:00**	**Aqueous**	**GC/MS BB**	**01/27/12**	**01/27/12 18:23**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	89	68-120		Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	96	80-128		Toluene-d8	101	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/25/12
3995 Via Oro Ave		Work Order No:	12-01-1513
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB012512	**12-01-1513-2-B**	**01/25/12 08:22**	**Aqueous**	**GC/MS BB**	**01/27/12**	**01/27/12 18:53**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	101	80-128		Toluene-d8	92	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/25/12
3995 Via Oro Ave		Work Order No:	12-01-1513
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-32	**12-01-1513-3-B**	**01/25/12 10:15**	**Aqueous**	**GC/MS BB**	**01/27/12**	**01/27/12 19:22**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	91	68-120		Dibromofluoromethane	93	80-127	
1,2-Dichloroethane-d4	99	80-128		Toluene-d8	102	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/25/12
3995 Via Oro Ave		Work Order No:	12-01-1513
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-23	**12-01-1513-4-B**	**01/25/12 16:30**	**Aqueous**	**GC/MS BB**	**01/27/12**	**01/27/12 19:51**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	0.59	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	93	68-120		Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	104	80-128		Toluene-d8	101	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/25/12
3995 Via Oro Ave		Work Order No:	12-01-1513
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-36	**12-01-1513-5-C**	**01/25/12 12:05**	**Aqueous**	**GC/MS BB**	**01/27/12**	**01/27/12 15:27**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	68-120		Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	101	80-128		Toluene-d8	98	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/25/12
3995 Via Oro Ave		Work Order No:	12-01-1513
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-30	**12-01-1513-6-B**	**01/25/12 14:35**	**Aqueous**	**GC/MS BB**	**01/27/12**	**01/27/12 20:21**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	68-120		Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	101	80-128		Toluene-d8	89	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/25/12
3995 Via Oro Ave		Work Order No:	12-01-1513
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,246**	**N/A**	**Aqueous**	**GC/MS BB**	**01/27/12**	**01/27/12 14:28**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	96	80-128		Toluene-d8	98	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	01/25/12
3995 Via Oro Ave		Work Order No:	12-01-1513
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BF-36	**Aqueous**	**IC 8**	**N/A**	**01/27/12**	**120127S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	96	98	70-130	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 01/25/12
Work Order No: 12-01-1513
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BF-36	**Aqueous**	**GC/MS BB**	**01/27/12**	**01/27/12**	**120127S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	113	97	76-124	15	0-20	
Carbon Tetrachloride	10.00	103	101	74-134	1	0-20	
Chlorobenzene	10.00	103	101	80-120	2	0-20	
1,2-Dibromoethane	10.00	100	96	80-120	3	0-20	
1,2-Dichlorobenzene	10.00	102	101	80-120	1	0-20	
1,2-Dichloroethane	10.00	114	100	80-120	13	0-20	
1,1-Dichloroethene	10.00	95	108	73-127	13	0-20	
Ethylbenzene	10.00	106	106	78-126	0	0-20	
Toluene	10.00	108	106	80-120	2	0-20	
Trichloroethene	10.00	105	104	77-120	1	0-20	
Vinyl Chloride	10.00	98	109	72-126	11	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	94	109	67-121	15	0-49	
Tert-Butyl Alcohol (TBA)	50.00	235	129	36-162	58	0-30	3,4
Diisopropyl Ether (DIPE)	10.00	107	107	60-138	0	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	90	97	69-123	7	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	104	93	65-120	11	0-20	
Ethanol	100.0	120	112	30-180	7	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1513
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-1	**Aqueous**	**IC 8**	**N/A**	**01/27/12**	**120127L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	109	112	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1513
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,246	**Aqueous**	**GC/MS BB**	**01/27/12**	**01/27/12**	**120127L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	98	101	80-120	73-127	3	0-20	
Carbon Tetrachloride	10.00	101	103	74-134	64-144	2	0-20	
Chlorobenzene	10.00	100	102	80-120	73-127	2	0-20	
1,2-Dibromoethane	10.00	96	101	79-121	72-128	5	0-20	
1,2-Dichlorobenzene	10.00	104	103	80-120	73-127	1	0-20	
1,2-Dichloroethane	10.00	95	99	80-120	73-127	4	0-20	
1,1-Dichloroethene	10.00	97	96	78-126	70-134	1	0-28	
Ethylbenzene	10.00	106	104	80-120	73-127	1	0-20	
Toluene	10.00	93	95	80-120	73-127	2	0-20	
Trichloroethene	10.00	105	104	79-127	71-135	1	0-20	
Vinyl Chloride	10.00	96	97	72-132	62-142	1	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	82	99	69-123	60-132	19	0-20	
Tert-Butyl Alcohol (TBA)	50.00	96	100	63-123	53-133	4	0-20	
Diisopropyl Ether (DIPE)	10.00	92	96	59-137	46-150	4	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	94	89	69-123	60-132	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	91	97	70-120	62-128	6	0-20	
Ethanol	100.0	134	118	28-160	6-182	13	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-01-1513

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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☒ SoCal Laboratory
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494

☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 12-01-1513

Date 1-25-2012

Page 1 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: KATHARINE.CARR.GREEN@AECOM.COM

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: KATHARINE CARR GREEN

SAMPLER(S): (PRINT) K. Carr Green

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS: MS/MSD for BF-36 - VOCs + PCBs/A

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	~~SVOCs (8270)~~ PCBs/A mod 317	Pesticides (8081) + ODT isomers	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
1	TB012512	1-25-12	0800	H2O	2		X						X													
2	EB012512		0822		3		X						X													
	EB012512		0822		1	X										X										
3	G-32		1015		1	X										X										
	G-32		1015		3		X						X													
4	G-23		1630		3		X						X													
	G-23		1630		1	X										X										
5	BF-36		1205		1	X										X	MS/MSD									
	BF-36		1205		3		X						X	MS/MSD												
6	BF-30	1-25-12	1435	H2O	3		X						X													

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
1-25-12 1050	CEL	1/25/12	16.50
	CEL	1/25/12	1800

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

06/01/10 Revision

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5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

Date 1-25-2012

Page 2 of 2

WO # / LAB USE ONLY: 0 1 - 1 5 1 3

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG Beach STATE: CA ZIP: 90810

TEL: 562-755-9046

E-MAIL: KATHARINE.CARRGREEN@AECOM.COM

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF

GLOBAL ID

LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: KATHARINE CARR GREEN

SAMPLER(S): (PRINT) K. CARR GREEN

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	~~SVOCs (8270)~~ PCBs 8082 mod. 3/14	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
6	BF-30	1/25/12	1435	H2O	1	X										X										

Relinquished by: (Signature)	1-25-2012 1650	Received by: (Signature/Affiliation) CEL	Date: 1/25/12 Time: 16.50
Relinquished by: (Signature)		Received by: (Signature/Affiliation) CEL	Date: 1/25/12 Time: 1800
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	Date: Time:

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-01-1513

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 01/25/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.6 °C - 0.3 °C (CF) = 2.3 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: DEE

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: DEE

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: NS

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☑ YC 1/25/12	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑ YC 1/25/12	☑	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120117B **Labeled/Checked by:** NS

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** YC

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** YC

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-01-1513

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☑ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☑ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

Comments:

(-5) received 6 vials with HCl and 2 250 mL plastic bottles.

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: _____

*Transferred at Client's request.

Initial / Date: NS 01/25/12

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Vikas Patel

From: CarrGreen, Katharine [Katharine.CarrGreen@aecom.com]
Sent: Monday, January 30, 2012 6:06 PM
To: Vikas Patel
Subject: revised COCs and more bottles
Attachments: Calscience_1-26-12.pdf; Calscience_1-25-12.pdf

Good evening Vik –

Attached are the revised COCs for samples submitted on 1-25-12 and 1-26-12. Please make sure that these are included in the reports.

Also – our scope has increased since the initial bottle order – I will need

I need
***three more sets of bottles for Arsenic Speciation and Arsenic
**** 12 more sets of bottles for VOCs
**** 12 more sets of bottles for pCBSA
**** 6 more sets of bottles for pesticides.

If I could get these by Wednesday that would be good. I am scheduled to collect more Arsenic samples on Thursday.

Katharine Carr Green
Environment
562 755 9046 mobile

AECOM
3995 Via Oro Avenue, Long Beach, CA 90810 USA
T 562.420.2933 F 562.420.2915
www.aecom.com

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5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY

Date 1-25-2012

Page 1 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: KATHARINE.CARR.GREEN@AECOM.COM

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: KATHARINE CARR GREEN

SAMPLER(S): (PRINT) K. Carr Green

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS: MS/MSD for BF-36 - VOCs + PCBs/A

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270) PCBs/A mod 3/4	Pesticides (8081) + ODCX 1 Sample	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
	TB012512	1-25-12	0800	H2O	2		X						X													
	EB012512	↑	0822	↑	3		X						X													
	EB012512		0822		1	X										X										
	G-32		1015		1	X										X										
	G-32		1015		3		X						X													
	G-23		1630		3		X						X													
	G-23		1630		1	X										X										
	BF-36		1205		2	X										X	MS/MSD									
	BF-36	↓	1205	↓	3		X						X	MS/MSD												
	BF-30	1-25-12	1435	H2O	3		X						X													

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
1-25-12 1650	CEL	1/25/12	16:50
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
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Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

Date 1-25-2012

Page 2 of 2

WO # / LAB USE ONLY

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG Beach STATE: CA ZIP: 90810

TEL: 562-755-9046

E-MAIL: KATHARINE.CARRGREEN@AECOM.COM

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPER FUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: KATHARINE CARR GREEN

SAMPLER(S): (PRINT) K. CARR GREEN

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF

GLOBAL ID

LOG CODE

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270) PCBs 314 mod.	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/7470)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
	BF-30	1/25/12	1435	H2O	1	X										X										

Relinquished by: (Signature)	Date:	Received by: (Signature/Affiliation)	Date:	Time:
	1-25-2012 1050	CEL	1/25/12	16.50
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	Date:	Time:

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-01-1596

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 02/20/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: Montrose Superfund Site / 60212541.03.01
Work Order Number: 12-01-1596

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-01-1596
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	01/26/12 18:30
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	**Result**	Qualifiers	Reporting Limit	Units	Method	Extraction
G-28						
p-Chlorobenzenesulfonic Acid	**1100**		250	ug/L	EPA 314.0 (M) pCBS	N/A
Toluene	**0.51**		0.50	ug/L	EPA 8260B	EPA 5030C
G-27						
Toluene	**0.54**		0.50	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/26/12
3995 Via Oro Ave		Work Order No:	12-01-1596
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB012612	**12-01-1596-2-D**	**01/26/12 07:55**	**Aqueous**	**IC 8**	**N/A**	**01/30/12 11:35**	**120130L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

G-28	**12-01-1596-3-D**	**01/26/12 09:42**	**Aqueous**	**IC 8**	**N/A**	**01/30/12 11:53**	**120130L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	1100	250	50		ug/L

G-27	**12-01-1596-4-G**	**01/26/12 15:02**	**Aqueous**	**IC 8**	**N/A**	**01/30/12 12:12**	**120130L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

BF-27	**12-01-1596-5-D**	**01/26/12 16:30**	**Aqueous**	**IC 8**	**N/A**	**01/30/12 12:30**	**120130L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

BF-26	**12-01-1596-6-D**	**01/26/12 11:42**	**Aqueous**	**IC 8**	**N/A**	**01/30/12 12:49**	**120130L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

Method Blank	**099-15-080-4**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**01/30/12 10:40**	**120130L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/26/12
3995 Via Oro Ave		Work Order No:	12-01-1596
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB012612	**12-01-1596-1-A**	**01/26/12 07:30**	**Aqueous**	**GC/MS FFF**	**01/27/12**	**01/27/12 18:43**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	98	68-120		Dibromofluoromethane	115	80-127	
1,2-Dichloroethane-d4	117	80-128		Toluene-d8	101	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/26/12
3995 Via Oro Ave		Work Order No:	12-01-1596
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB012612	**12-01-1596-2-A**	**01/26/12 07:55**	**Aqueous**	**GC/MS FFF**	**01/27/12**	**01/27/12 17:48**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	99	68-120		Dibromofluoromethane	114	80-127	
1,2-Dichloroethane-d4	115	80-128		Toluene-d8	101	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/26/12
3995 Via Oro Ave		Work Order No:	12-01-1596
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-28	**12-01-1596-3-B**	**01/26/12 09:42**	**Aqueous**	**GC/MS BB**	**01/30/12**	**01/30/12 19:11**	**120130L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	0.51	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	93	68-120		Dibromofluoromethane	102	80-127	
1,2-Dichloroethane-d4	102	80-128		Toluene-d8	97	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/26/12
3995 Via Oro Ave		Work Order No:	12-01-1596
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-27	**12-01-1596-4-A**	**01/26/12 15:02**	**Aqueous**	**GC/MS FFF**	**01/27/12**	**01/27/12 14:35**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	0.54	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	98	68-120		Dibromofluoromethane	111	80-127	
1,2-Dichloroethane-d4	110	80-128		Toluene-d8	102	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/26/12
3995 Via Oro Ave		Work Order No:	12-01-1596
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-27	**12-01-1596-5-A**	**01/26/12 16:30**	**Aqueous**	**GC/MS FFF**	**01/27/12**	**01/27/12 19:11**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	99	68-120		Dibromofluoromethane	115	80-127	
1,2-Dichloroethane-d4	119	80-128		Toluene-d8	103	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/26/12
3995 Via Oro Ave		Work Order No:	12-01-1596
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-26	**12-01-1596-6-A**	**01/26/12 11:42**	**Aqueous**	**GC/MS FFF**	**01/27/12**	**01/27/12 19:39**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	100	68-120		Dibromofluoromethane	116	80-127	
1,2-Dichloroethane-d4	120	80-128		Toluene-d8	101	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/26/12
3995 Via Oro Ave		Work Order No:	12-01-1596
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,245**	**N/A**	**Aqueous**	**GC/MS FFF**	**01/27/12**	**01/27/12 14:08**	**120127L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	98	68-120		Dibromofluoromethane	111	80-127	
1,2-Dichloroethane-d4	112	80-128		Toluene-d8	101	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/26/12
3995 Via Oro Ave		Work Order No:	12-01-1596
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,248**	**N/A**	**Aqueous**	**GC/MS BB**	**01/30/12**	**01/30/12 14:47**	**120130L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	104	80-128		Toluene-d8	105	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	01/26/12
3995 Via Oro Ave		Work Order No:	12-01-1596
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-27	**Aqueous**	**IC 8**	**N/A**	**01/30/12**	**120130S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	122	119	70-130	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	01/26/12
3995 Via Oro Ave		Work Order No:	12-01-1596
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-27	**Aqueous**	**GC/MS FFF**	**01/27/12**	**01/27/12**	**120127S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	105	109	76-124	3	0-20	
Carbon Tetrachloride	10.00	119	122	74-134	3	0-20	
Chlorobenzene	10.00	104	107	80-120	3	0-20	
1,2-Dibromoethane	10.00	104	108	80-120	4	0-20	
1,2-Dichlorobenzene	10.00	105	106	80-120	0	0-20	
1,2-Dichloroethane	10.00	109	114	80-120	4	0-20	
1,1-Dichloroethene	10.00	114	115	73-127	1	0-20	
Ethylbenzene	10.00	105	107	78-126	2	0-20	
Toluene	10.00	105	108	80-120	2	0-20	
Trichloroethene	10.00	107	109	77-120	2	0-20	
Vinyl Chloride	10.00	114	119	72-126	4	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	114	121	67-121	6	0-49	
Tert-Butyl Alcohol (TBA)	50.00	195	205	36-162	5	0-30	3
Diisopropyl Ether (DIPE)	10.00	113	117	60-138	4	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	113	118	69-123	4	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	104	109	65-120	5	0-20	
Ethanol	100.0	101	101	30-180	0	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 01/26/12
Work Order No: 12-01-1596
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-01-1667-5	**Aqueous**	**GC/MS BB**	**01/30/12**	**01/30/12**	**120130S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	105	110	76-124	5	0-20	
Carbon Tetrachloride	10.00	109	109	74-134	0	0-20	
Chlorobenzene	10.00	103	86	80-120	4	0-20	
1,2-Dibromoethane	10.00	96	101	80-120	5	0-20	
1,2-Dichlorobenzene	10.00	100	101	80-120	1	0-20	
1,2-Dichloroethane	10.00	99	112	80-120	7	0-20	
1,1-Dichloroethene	10.00	106	108	73-127	2	0-20	
Ethylbenzene	10.00	106	106	78-126	0	0-20	
Toluene	10.00	109	111	80-120	2	0-20	
Trichloroethene	10.00	106	108	77-120	1	0-20	
Vinyl Chloride	10.00	109	112	72-126	3	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	100	105	67-121	5	0-49	
Tert-Butyl Alcohol (TBA)	50.00	99	150	36-162	41	0-30	4
Diisopropyl Ether (DIPE)	10.00	108	104	60-138	4	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	104	105	69-123	1	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	94	104	65-120	10	0-20	
Ethanol	100.0	98	109	30-180	11	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1596
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-4	**Aqueous**	**IC 8**	**N/A**	**01/30/12**	**120130L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	109	111	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1596
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,245	**Aqueous**	**GC/MS FFF**	**01/27/12**	**01/27/12**	**120127L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	107	109	80-120	73-127	2	0-20	
Carbon Tetrachloride	10.00	122	119	74-134	64-144	2	0-20	
Chlorobenzene	10.00	104	107	80-120	73-127	3	0-20	
1,2-Dibromoethane	10.00	105	107	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	10.00	104	109	80-120	73-127	5	0-20	
1,2-Dichloroethane	10.00	108	109	80-120	73-127	1	0-20	
1,1-Dichloroethene	10.00	107	102	78-126	70-134	5	0-28	
Ethylbenzene	10.00	105	108	80-120	73-127	3	0-20	
Toluene	10.00	107	108	80-120	73-127	1	0-20	
Trichloroethene	10.00	107	108	79-127	71-135	1	0-20	
Vinyl Chloride	10.00	124	120	72-132	62-142	3	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	107	118	69-123	60-132	10	0-20	
Tert-Butyl Alcohol (TBA)	50.00	102	103	63-123	53-133	1	0-20	
Diisopropyl Ether (DIPE)	10.00	107	122	59-137	46-150	13	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	112	118	69-123	60-132	6	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	105	107	70-120	62-128	2	0-20	
Ethanol	100.0	105	94	28-160	6-182	11	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: N/A
Work Order No: 12-01-1596
Preparation: EPA 5030C
Method: EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,248	**Aqueous**	**GC/MS BB**	**01/30/12**	**01/30/12**	**120130L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	94	92	80-120	73-127	2	0-20	
Carbon Tetrachloride	10.00	103	97	74-134	64-144	6	0-20	
Chlorobenzene	10.00	85	93	80-120	73-127	9	0-20	
1,2-Dibromoethane	10.00	80	87	79-121	72-128	9	0-20	
1,2-Dichlorobenzene	10.00	84	91	80-120	73-127	9	0-20	
1,2-Dichloroethane	10.00	97	96	80-120	73-127	1	0-20	
1,1-Dichloroethene	10.00	97	91	78-126	70-134	6	0-28	
Ethylbenzene	10.00	88	98	80-120	73-127	10	0-20	
Toluene	10.00	93	97	80-120	73-127	5	0-20	
Trichloroethene	10.00	92	98	79-127	71-135	7	0-20	
Vinyl Chloride	10.00	105	93	72-132	62-142	13	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	94	83	69-123	60-132	12	0-20	
Tert-Butyl Alcohol (TBA)	50.00	88	76	63-123	53-133	15	0-20	
Diisopropyl Ether (DIPE)	10.00	99	87	59-137	46-150	13	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	95	82	69-123	60-132	15	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	88	83	70-120	62-128	6	0-20	
Ethanol	100.0	96	83	28-160	6-182	14	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-01-1596

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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☒ SoCal Laboratory
7440 Lincoln Way
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(714) 895-5494

☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 12-01-1596

Date: 1-26-2012

Page 1 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: KATHARINE.CARRGREEN@AECOM.COM

CLIENT PROJECT NAME / NUMBER: Montrose Superfund Site

P.O. NO.: 60212541.03.01

PROJECT CONTACT: KATHARINE CARRGREEN

SAMPLER(S): (PRINT) K. Carr Green

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS: MS/MSD for G-27, VOCs & PCBSA

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
1	TB012612	1-26-12	0730	H2O	2		X						X													
2	EB012612	↑	0755	↑	3		X						X													
	EB012612		0755		1	X								X												
3	G-28		0942		1	X								X												
	G-28		0942		3		X						X													
4	G-27		1502		3		X						X			MS/MSD										
	G-27		1502		1	X								X		MS/MSD										
5	BF-27		1630		1	X								X												
	BF-27		1630		3		X						X													
6	BF-26	1-26-12	1142	H2O	3		X						X													

PCBSA 314 mod

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
1-26-12 1713	COEL	1/26/12	17.13
	COEL	1/26/12	1830

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

06/01/10 Revision

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Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 0 1 - 1 5 9 6

Date: 1-26-2012

Page 2 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: KATHARINE.CARRGREEN@AECOM.COM

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: KATHARINE CARR GREEN

SAMPLER(S): (PRINT) K. CARR GREEN

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ KLB PCBSA 314 mod	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
6	BF-26	1-26-12	1142	H2O	1	X								X												

Relinquished by: (Signature) 1/26/12 17:13	Received by: (Signature/Affiliation) CEL	Date: 1/26/12	Time: 17.13
Relinquished by: (Signature)	Received by: (Signature/Affiliation) CEL	Date: 1/26/12	Time: 1830
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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06/01/10 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-01-1596

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 01/26/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.3 °C - 0.3 °C (CF) = 2.0 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: DCC

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: DCC

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: PS

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑ YL 1/26/12	☑	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 1201173 **Labeled/Checked by:** PS

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** YL

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** PS

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-01-1596

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☑ **Sample label(s) do not match COC** – Note in comments
  - ☐ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☑ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

Comments:

(C-4) RECEIVED 8 CONTAINERS INSTEAD OF 4.

– 2X 250 ML PLASTIC CONTAINER
– 6X VIALS / HCL.

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: _____

*Transferred at Client's request.

Initial / Date: PS 01/26/12

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Vikas Patel

From: CarrGreen, Katharine [Katharine.CarrGreen@aecom.com]
Sent: Monday, January 30, 2012 6:06 PM
To: Vikas Patel
Subject: revised COCs and more bottles
Attachments: Calscience_1-26-12.pdf; Calscience_1-25-12.pdf

Good evening Vik –

Attached are the revised COCs for samples submitted on 1-25-12 and 1-26-12. Please make sure that these are included in the reports.

Also – our scope has increased since the initial bottle order – I will need

I need
***three more sets of bottles for Arsenic Speciation and Arsenic
**** 12 more sets of bottles for VOCs
**** 12 more sets of bottles for pCBSA
**** 6 more sets of bottles for pesticides.

If I could get these by Wednesday that would be good. I am scheduled to collect more Arsenic samples on Thursday.

Katharine Carr Green
Environment
562 755 9046 mobile

AECOM
3995 Via Oro Avenue, Long Beach, CA 90810 USA
T 562.420.2933 F 562.420.2915
www.aecom.com

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(714) 895-5494

☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY

Date 1-26-2012

Page 1 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: KATHARINE.CARLGREEN@AECOM.COM

CLIENT PROJECT NAME / NUMBER: Montrose Superfund Site

P.O. NO.: 60212541 1.03.01

PROJECT CONTACT: KATHARINE CARLGREEN

SAMPLER(S): (PRINT) K. Carl Green

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS: MS/MSD for G-27, VOCs & PCBSA

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ PCBSA 3640 mod	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
	TB012612	1-26-12	0730	H2O	2		X						X													
	EB012612	↑	0755	↑	3		X						X													
	EB012612		0755		1	X								X												
	G-28		0942		1	X								X												
	G-28		0942		3		X						X													
	G-27		1502		~~6~~ 2	X	X						X			MS/MSD										
	G-27		1502		2	X								X		MS/MSD										
	BF-27		1630		1	X								X												
	BF-27		1630		3		X						X													
	BF-26	1-26-12	1142	H2O	3		X						X													

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
1-26-12 1713	CEL	1/26/12	17:13
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
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5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

Date 1-26-2012

Page 2 of 2

WO # / LAB USE ONLY

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: KATHARINE.CARRGREEN@AECOM.COM

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: KATHARINE CARR GREEN

SAMPLER(S): (PRINT) K. CARR GREEN

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ PCBs 8141 mod	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
	BF-26	1-26-12	1142	H2O	1	X								X												

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
1/26/12 17:13	CEL	1/26/12	17.13
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-01-1667

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 02/21/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: Montrose Superfund Site / 60212541.03.01
Work Order Number: 12-01-1667

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-01-1667
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	01/27/12 16:30
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
BF-28						
p-Chlorobenzenesulfonic Acid	**190**		25	ug/L	EPA 314.0 (M) pCBS	N/A
G-22						
p-Chlorobenzenesulfonic Acid	**13000**		2000	ug/L	EPA 314.0 (M) pCBS	N/A
Benzene	**2.0**		0.50	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**700**		20	ug/L	EPA 8260B	EPA 5030C
1,4-Dichlorobenzene	**1.7**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**8.1**		0.50	ug/L	EPA 8260B	EPA 5030C
G-25						
p-Chlorobenzenesulfonic Acid	**1600**		250	ug/L	EPA 314.0 (M) pCBS	N/A
Chlorobenzene	**30**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**8.8**		0.50	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

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*MDL is shown.

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/27/12
3995 Via Oro Ave		Work Order No:	12-01-1667
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB012712	**12-01-1667-2-D**	**01/27/12 09:02**	**Aqueous**	**IC 8**	**N/A**	**01/30/12 14:39**	**120130L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

BF-28	**12-01-1667-3-D**	**01/27/12 10:00**	**Aqueous**	**IC 8**	**N/A**	**01/30/12 14:57**	**120130L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	190	25	5		ug/L

G-22	**12-01-1667-4-D**	**01/27/12 12:30**	**Aqueous**	**IC 8**	**N/A**	**01/30/12 15:16**	**120130L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	13000	2000	400		ug/L

G-25	**12-01-1667-5-D**	**01/27/12 14:55**	**Aqueous**	**IC 8**	**N/A**	**01/30/12 15:34**	**120130L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	1600	250	50		ug/L

Method Blank	**099-15-080-4**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**01/30/12 10:40**	**120130L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/27/12
3995 Via Oro Ave		Work Order No:	12-01-1667
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB012712	**12-01-1667-1-A**	**01/27/12 07:45**	**Aqueous**	**GC/MS BB**	**01/28/12**	**01/28/12 13:36**	**120128L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	93	80-127	
1,2-Dichloroethane-d4	101	80-128		Toluene-d8	104	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/27/12
3995 Via Oro Ave		Work Order No:	12-01-1667
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB012712	**12-01-1667-2-A**	**01/27/12 09:02**	**Aqueous**	**GC/MS BB**	**01/28/12**	**01/28/12 14:05**	**120128L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	91	68-120		Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	101	80-128		Toluene-d8	101	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/27/12
3995 Via Oro Ave		Work Order No:	12-01-1667
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-28	**12-01-1667-3-B**	**01/27/12 10:00**	**Aqueous**	**GC/MS BB**	**01/28/12**	**01/28/12 14:35**	**120128L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	95	68-120		Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	99	80-128		Toluene-d8	101	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/27/12
3995 Via Oro Ave		Work Order No:	12-01-1667
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-22	**12-01-1667-4-B**	**01/27/12 12:30**	**Aqueous**	**GC/MS BB**	**01/30/12**	**01/30/12 16:14**	**120130L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	2.0	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	700	20	40		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	1.7	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	8.1	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	93	68-120		Dibromofluoromethane	105	80-127	
1,2-Dichloroethane-d4	110	80-128		Toluene-d8	105	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/27/12
3995 Via Oro Ave		Work Order No:	12-01-1667
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-25	**12-01-1667-5-B**	**01/27/12 14:55**	**Aqueous**	**GC/MS BB**	**01/30/12**	**01/30/12 15:45**	**120130L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	30	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	8.8	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	93	68-120		Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	100	80-128		Toluene-d8	104	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/27/12
3995 Via Oro Ave		Work Order No:	12-01-1667
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,247**	**N/A**	**Aqueous**	**GC/MS BB**	**01/28/12**	**01/28/12 13:06**	**120128L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	95	80-127	
1,2-Dichloroethane-d4	90	80-128		Toluene-d8	98	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/27/12
3995 Via Oro Ave		Work Order No:	12-01-1667
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,248**	**N/A**	**Aqueous**	**GC/MS BB**	**01/30/12**	**01/30/12 14:47**	**120130L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	104	80-128		Toluene-d8	105	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	01/27/12
3995 Via Oro Ave		Work Order No:	12-01-1667
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-01-1596-4	**Aqueous**	**IC 8**	**N/A**	**01/30/12**	**120130S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	122	119	70-130	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	01/27/12
3995 Via Oro Ave		Work Order No:	12-01-1667
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BF-28	**Aqueous**	**GC/MS BB**	**01/28/12**	**01/28/12**	**120128S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	100	96	76-124	3	0-20	
Carbon Tetrachloride	10.00	105	107	74-134	2	0-20	
Chlorobenzene	10.00	103	105	80-120	1	0-20	
1,2-Dibromoethane	10.00	100	100	80-120	0	0-20	
1,2-Dichlorobenzene	10.00	102	102	80-120	0	0-20	
1,2-Dichloroethane	10.00	107	105	80-120	2	0-20	
1,1-Dichloroethene	10.00	100	102	73-127	2	0-20	
Ethylbenzene	10.00	108	109	78-126	1	0-20	
Toluene	10.00	109	104	80-120	4	0-20	
Trichloroethene	10.00	107	105	77-120	2	0-20	
Vinyl Chloride	10.00	113	123	72-126	8	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	106	101	67-121	4	0-49	
Tert-Butyl Alcohol (TBA)	50.00	127	106	36-162	18	0-30	
Diisopropyl Ether (DIPE)	10.00	118	109	60-138	8	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	112	110	69-123	2	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	99	96	65-120	3	0-20	
Ethanol	100.0	105	115	30-180	9	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 01/27/12
Work Order No: 12-01-1667
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-25	**Aqueous**	**GC/MS BB**	**01/30/12**	**01/30/12**	**120130S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	105	110	76-124	5	0-20	
Carbon Tetrachloride	10.00	109	109	74-134	0	0-20	
Chlorobenzene	10.00	103	86	80-120	4	0-20	
1,2-Dibromoethane	10.00	96	101	80-120	5	0-20	
1,2-Dichlorobenzene	10.00	100	101	80-120	1	0-20	
1,2-Dichloroethane	10.00	99	112	80-120	7	0-20	
1,1-Dichloroethene	10.00	106	108	73-127	2	0-20	
Ethylbenzene	10.00	106	106	78-126	0	0-20	
Toluene	10.00	109	111	80-120	2	0-20	
Trichloroethene	10.00	106	108	77-120	1	0-20	
Vinyl Chloride	10.00	109	112	72-126	3	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	100	105	67-121	5	0-49	
Tert-Butyl Alcohol (TBA)	50.00	99	150	36-162	41	0-30	4
Diisopropyl Ether (DIPE)	10.00	108	104	60-138	4	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	104	105	69-123	1	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	94	104	65-120	10	0-20	
Ethanol	100.0	98	109	30-180	11	0-72	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1667
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-4	**Aqueous**	**IC 8**	**N/A**	**01/30/12**	**120130L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	109	111	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1667
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,247	**Aqueous**	**GC/MS BB**	**01/28/12**	**01/27/12**	**120128L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	98	101	80-120	73-127	3	0-20	
Carbon Tetrachloride	10.00	101	103	74-134	64-144	2	0-20	
Chlorobenzene	10.00	100	102	80-120	73-127	2	0-20	
1,2-Dibromoethane	10.00	96	101	79-121	72-128	5	0-20	
1,2-Dichlorobenzene	10.00	104	103	80-120	73-127	1	0-20	
1,2-Dichloroethane	10.00	95	99	80-120	73-127	4	0-20	
1,1-Dichloroethene	10.00	97	96	78-126	70-134	1	0-28	
Ethylbenzene	10.00	106	104	80-120	73-127	1	0-20	
Toluene	10.00	93	95	80-120	73-127	2	0-20	
Trichloroethene	10.00	105	104	79-127	71-135	1	0-20	
Vinyl Chloride	10.00	96	97	72-132	62-142	1	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	82	99	69-123	60-132	19	0-20	
Tert-Butyl Alcohol (TBA)	50.00	96	100	63-123	53-133	4	0-20	
Diisopropyl Ether (DIPE)	10.00	92	96	59-137	46-150	4	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	94	89	69-123	60-132	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	91	97	70-120	62-128	6	0-20	
Ethanol	100.0	134	118	28-160	6-182	13	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1667
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,248	**Aqueous**	**GC/MS BB**	**01/30/12**	**01/30/12**	**120130L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	94	92	80-120	73-127	2	0-20	
Carbon Tetrachloride	10.00	103	97	74-134	64-144	6	0-20	
Chlorobenzene	10.00	85	93	80-120	73-127	9	0-20	
1,2-Dibromoethane	10.00	80	87	79-121	72-128	9	0-20	
1,2-Dichlorobenzene	10.00	84	91	80-120	73-127	9	0-20	
1,2-Dichloroethane	10.00	97	96	80-120	73-127	1	0-20	
1,1-Dichloroethene	10.00	97	91	78-126	70-134	6	0-28	
Ethylbenzene	10.00	88	98	80-120	73-127	10	0-20	
Toluene	10.00	93	97	80-120	73-127	5	0-20	
Trichloroethene	10.00	92	98	79-127	71-135	7	0-20	
Vinyl Chloride	10.00	105	93	72-132	62-142	13	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	94	83	69-123	60-132	12	0-20	
Tert-Butyl Alcohol (TBA)	50.00	88	76	63-123	53-133	15	0-20	
Diisopropyl Ether (DIPE)	10.00	99	87	59-137	46-150	13	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	95	82	69-123	60-132	15	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	88	83	70-120	62-128	6	0-20	
Ethanol	100.0	96	83	28-160	6-182	14	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-01-1667

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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Calscience Environmental Laboratories, Inc.

☒ SoCal Laboratory
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494

☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 12-01-1667

Date 1-27-2012

Page 1 of 1

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG Beach STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: Katharine.CarrGreen@AECOM.com

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: Katharine Carr Green

SAMPLER(S): (PRINT) K. CARR GREEN

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ PCBSA mod. 314	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
1	TB012712	1-27-12	0745	H2O	2		X						X													
	EB012712		0902	H2O	3		X						X													
2	EB012712		0902		1	X								X												
	BF-28		1000		1	X								X												
3	BF-28		1000		3		X						X													
	G-22		1230		3		X						X													
4	G-22		1230		1	X								X												
	G-25		1455		1	X								X												
5	G-25	1-27-12	1455	H2O	3		X						X													

Relinquished by: (Signature)	Date/Time	Received by: (Signature/Affiliation)	Date	Time
K. Carr Green	1-27-2012 1530	CEL	1/27/12	15.30
		K. Carr Green	1/27/12	1630

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

06/01/10 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-01-1667

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 01/27/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.5 °C - 0.3 °C (CF) = 2.2 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: DEE

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: DEE

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: NS

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑3VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120117B **Labeled/Checked by:** NS

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** DL

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** DL

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-01-1667

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ **Sample(s) NOT RECEIVED but listed on COC**
- ☐ **Sample(s) received but NOT LISTED on COC**
- ☐ **Holding time expired** – list sample ID(s) and test
- ☐ **Insufficient quantities for analysis** – list test
- ☐ **Improper container(s) used** – list test
- ☐ **Improper preservative used** – list test
- ☐ **No preservative noted on COC or label** – list test & notify lab
- ☐ **Sample labels illegible** – note test/container type
- ☑ **Sample label(s) do not match COC** – Note in comments
  - ☑ **Sample ID**
  - ☐ **Date and/or Time Collected**
  - ☐ **Project Information**
  - ☐ **# of Container(s)**
  - ☐ **Analysis**
- ☐ **Sample container(s) compromised** – Note in comments
  - ☐ **Water present in sample container**
  - ☐ **Broken**
- ☐ **Sample container(s) not labeled**
- ☐ **Air sample container(s) compromised** – Note in comments
  - ☐ **Flat**
  - ☐ **Very low in volume**
  - ☐ **Leaking (Not transferred - duplicate bag submitted)**
  - ☐ **Leaking (transferred into Calscience Tedlar® Bag*)**
  - ☐ **Leaking (transferred into Client's Tedlar® Bag*)**
- ☐ **Other:** _____

Comments:

(-1) labeled as
EB012712 per label
1/27/12 @ 7:45

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: _____

*Transferred at Client's request.

Initial / Date: NS 01/27/12

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Vikas Patel

From: CarrGreen, Katharine [Katharine.CarrGreen@aecom.com]
Sent: Monday, January 30, 2012 10:49 AM
To: Vikas Patel
Subject: Re: Montrose Superfund Site / 60212541.03.01 / CEL 12-01-1667

If it is a set of two voa vials then it should be TB012712(the trip blank) sample time 0745 . 3 vials for VOCs are for EB012712 and should be 0902 for the sample time.

From: Vikas Patel [mailto:vipatel@calscience.com]
Sent: Monday, January 30, 2012 10:46 AM
To: CarrGreen, Katharine
Cc: Vikas Patel <vipatel@calscience.com>
Subject: RE: Montrose Superfund Site / 60212541.03.01 / CEL 12-01-1667

Looks like I misread the sample anomaly. The vials for sample TB012712 are labeled as EB012712? The collection time is 07:45.

Vik Patel
Project Manager
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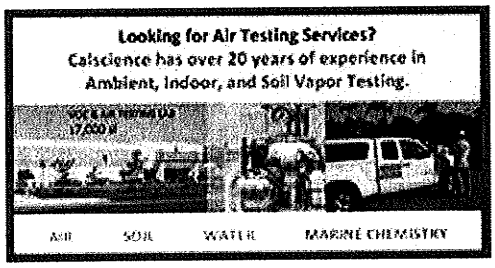

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-01-1748

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 02/29/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 12-01-1748

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-01-1748
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	01/30/12 17:27
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
G-35						
p-Chlorobenzenesulfonic Acid	**13000**		2000	ug/L	EPA 314.0 (M) pCBS	N/A
Chlorobenzene	**0.51**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**10**		0.50	ug/L	EPA 8260B	EPA 5030C
G-31						
p-Chlorobenzenesulfonic Acid	**350**		50	ug/L	EPA 314.0 (M) pCBS	N/A
BF-OW-3						
Arsenic	**0.0776**		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Benzene	**110**		50	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**14000**		250	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**72**		50	ug/L	EPA 8260B	EPA 5030C
BF-OW-300						
Arsenic	**0.0820**		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Benzene	**110**		50	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**14000**		250	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**70**		50	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

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*MDL is shown.

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB013012	**12-01-1748-2-D**	**01/30/12 08:07**	**Aqueous**	**IC 8**	**N/A**	**01/31/12 13:40**	**120131L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

G-35	**12-01-1748-3-F**	**01/30/12 10:00**	**Aqueous**	**IC 8**	**N/A**	**01/31/12 13:58**	**120131L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	13000	2000	400		ug/L

G-31	**12-01-1748-4-D**	**01/30/12 12:42**	**Aqueous**	**IC 8**	**N/A**	**01/31/12 14:16**	**120131L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	350	50	10		ug/L

Method Blank	**099-15-080-5**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**01/31/12 12:44**	**120131L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB013012	**12-01-1748-2-G**	**01/30/12 08:07**	**Aqueous**	**GC 44**	**02/01/12**	**02/03/12 14:05**	**120201L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	89	50-150		2,4,5,6-Tetrachloro-m-Xylene	68	50-150	

G-OW-3	**12-01-1748-5-A**	**01/30/12 14:36**	**Aqueous**	**GC 44**	**02/01/12**	**02/03/12 14:19**	**120201L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	84	50-150		2,4,5,6-Tetrachloro-m-Xylene	75	50-150	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-435-23**	**N/A**	**Aqueous**	**GC 44**	**02/01/12**	**02/03/12 13:51**	**120201L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	83	50-150		2,4,5,6-Tetrachloro-m-Xylene	61	50-150	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB013012	**12-01-1748-1-A**	**01/30/12 07:30**	**Aqueous**	**GC/MS BB**	**01/31/12**	**02/01/12 03:14**	**120131L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	68-120		Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	101	80-128		Toluene-d8	87	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB013012	**12-01-1748-2-A**	**01/30/12 08:07**	**Aqueous**	**GC/MS BB**	**01/31/12**	**02/01/12 03:43**	**120131L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	89	68-120		Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	100	80-128		Toluene-d8	99	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-35	**12-01-1748-3-A**	**01/30/12 10:00**	**Aqueous**	**GC/MS BB**	**01/31/12**	**02/01/12 04:12**	**120131L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	0.51	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	10	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	98	80-128		Toluene-d8	87	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-31	**12-01-1748-4-A**	**01/30/12 12:42**	**Aqueous**	**GC/MS BB**	**01/31/12**	**02/01/12 08:35**	**120131L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	91	68-120		Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	101	80-128		Toluene-d8	85	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-OW-3	**12-01-1748-6-B**	**01/30/12 15:45**	**Aqueous**	**GC/MS BB**	**02/02/12**	**02/02/12 17:49**	**120202L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	1000	100		c-1,3-Dichloropropene	ND	50	100	
Benzene	110	50	100		t-1,3-Dichloropropene	ND	50	100	
Bromobenzene	ND	50	100		Ethylbenzene	ND	50	100	
Bromochloromethane	ND	100	100		2-Hexanone	ND	1000	100	
Bromodichloromethane	ND	50	100		Isopropylbenzene	ND	50	100	
Bromoform	ND	50	100		p-Isopropyltoluene	ND	50	100	
Bromomethane	ND	100	100		Methylene Chloride	ND	100	100	
2-Butanone	ND	500	100		4-Methyl-2-Pentanone	ND	500	100	
n-Butylbenzene	ND	50	100		Naphthalene	ND	100	100	
sec-Butylbenzene	ND	50	100		n-Propylbenzene	ND	50	100	
tert-Butylbenzene	ND	50	100		Styrene	ND	50	100	
Carbon Disulfide	ND	100	100		1,1,1,2-Tetrachloroethane	ND	50	100	
Carbon Tetrachloride	ND	50	100		1,1,2,2-Tetrachloroethane	ND	50	100	
Chlorobenzene	14000	250	500		Tetrachloroethene	ND	50	100	
Chloroethane	ND	50	100		Toluene	ND	50	100	
Chloroform	ND	50	100		1,2,3-Trichlorobenzene	ND	50	100	
Chloromethane	ND	50	100		1,2,4-Trichlorobenzene	ND	50	100	
2-Chlorotoluene	ND	50	100		1,1,1-Trichloroethane	ND	50	100	
4-Chlorotoluene	ND	50	100		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	100	
Dibromochloromethane	ND	50	100		1,1,2-Trichloroethane	ND	50	100	
1,2-Dibromo-3-Chloropropane	ND	500	100		Trichloroethene	ND	50	100	
1,2-Dibromoethane	ND	50	100		Trichlorofluoromethane	ND	50	100	
Dibromomethane	ND	50	100		1,2,3-Trichloropropane	ND	100	100	
1,2-Dichlorobenzene	ND	50	100		1,2,4-Trimethylbenzene	ND	50	100	
1,3-Dichlorobenzene	ND	50	100		1,3,5-Trimethylbenzene	ND	50	100	
1,4-Dichlorobenzene	ND	50	100		Vinyl Acetate	ND	500	100	
Dichlorodifluoromethane	ND	100	100		Vinyl Chloride	ND	50	100	
1,1-Dichloroethane	ND	50	100		p/m-Xylene	ND	50	100	
1,2-Dichloroethane	72	50	100		o-Xylene	ND	50	100	
1,1-Dichloroethene	ND	50	100		Methyl-t-Butyl Ether (MTBE)	ND	50	100	
c-1,2-Dichloroethene	ND	50	100		Tert-Butyl Alcohol (TBA)	ND	1000	100	
t-1,2-Dichloroethene	ND	50	100		Diisopropyl Ether (DIPE)	ND	50	100	
1,2-Dichloropropane	ND	50	100		Ethyl-t-Butyl Ether (ETBE)	ND	50	100	
1,3-Dichloropropane	ND	100	100		Tert-Amyl-Methyl Ether (TAME)	ND	50	100	
2,2-Dichloropropane	ND	100	100		Ethanol	ND	5000	100	
1,1-Dichloropropene	ND	50	100						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	99	80-128		Toluene-d8	96	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-OW-300	**12-01-1748-7-B**	**01/30/12 15:45**	**Aqueous**	**GC/MS BB**	**02/02/12**	**02/02/12 18:18**	**120202L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	1000	100		c-1,3-Dichloropropene	ND	50	100	
Benzene	110	50	100		t-1,3-Dichloropropene	ND	50	100	
Bromobenzene	ND	50	100		Ethylbenzene	ND	50	100	
Bromochloromethane	ND	100	100		2-Hexanone	ND	1000	100	
Bromodichloromethane	ND	50	100		Isopropylbenzene	ND	50	100	
Bromoform	ND	50	100		p-Isopropyltoluene	ND	50	100	
Bromomethane	ND	100	100		Methylene Chloride	ND	100	100	
2-Butanone	ND	500	100		4-Methyl-2-Pentanone	ND	500	100	
n-Butylbenzene	ND	50	100		Naphthalene	ND	100	100	
sec-Butylbenzene	ND	50	100		n-Propylbenzene	ND	50	100	
tert-Butylbenzene	ND	50	100		Styrene	ND	50	100	
Carbon Disulfide	ND	100	100		1,1,1,2-Tetrachloroethane	ND	50	100	
Carbon Tetrachloride	ND	50	100		1,1,2,2-Tetrachloroethane	ND	50	100	
Chlorobenzene	14000	250	500		Tetrachloroethene	ND	50	100	
Chloroethane	ND	50	100		Toluene	ND	50	100	
Chloroform	ND	50	100		1,2,3-Trichlorobenzene	ND	50	100	
Chloromethane	ND	50	100		1,2,4-Trichlorobenzene	ND	50	100	
2-Chlorotoluene	ND	50	100		1,1,1-Trichloroethane	ND	50	100	
4-Chlorotoluene	ND	50	100		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	100	
Dibromochloromethane	ND	50	100		1,1,2-Trichloroethane	ND	50	100	
1,2-Dibromo-3-Chloropropane	ND	500	100		Trichloroethene	ND	50	100	
1,2-Dibromoethane	ND	50	100		Trichlorofluoromethane	ND	50	100	
Dibromomethane	ND	50	100		1,2,3-Trichloropropane	ND	100	100	
1,2-Dichlorobenzene	ND	50	100		1,2,4-Trimethylbenzene	ND	50	100	
1,3-Dichlorobenzene	ND	50	100		1,3,5-Trimethylbenzene	ND	50	100	
1,4-Dichlorobenzene	ND	50	100		Vinyl Acetate	ND	500	100	
Dichlorodifluoromethane	ND	100	100		Vinyl Chloride	ND	50	100	
1,1-Dichloroethane	ND	50	100		p/m-Xylene	ND	50	100	
1,2-Dichloroethane	70	50	100		o-Xylene	ND	50	100	
1,1-Dichloroethene	ND	50	100		Methyl-t-Butyl Ether (MTBE)	ND	50	100	
c-1,2-Dichloroethene	ND	50	100		Tert-Butyl Alcohol (TBA)	ND	1000	100	
t-1,2-Dichloroethene	ND	50	100		Diisopropyl Ether (DIPE)	ND	50	100	
1,2-Dichloropropane	ND	50	100		Ethyl-t-Butyl Ether (ETBE)	ND	50	100	
1,3-Dichloropropane	ND	100	100		Tert-Amyl-Methyl Ether (TAME)	ND	50	100	
2,2-Dichloropropane	ND	100	100		Ethanol	ND	5000	100	
1,1-Dichloropropene	ND	50	100						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	95	80-127	
1,2-Dichloroethane-d4	97	80-128		Toluene-d8	85	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,251**	**N/A**	**Aqueous**	**GC/MS BB**	**01/31/12**	**02/01/12 02:15**	**120131L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	93	68-120		Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	96	80-128		Toluene-d8	95	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,252**	**N/A**	**Aqueous**	**GC/MS BB**	**02/02/12**	**02/02/12 13:53**	**120202L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	68-120		Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	97	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB013012	**12-01-1748-2-E**	**01/30/12 08:07**	**Aqueous**	**ICP/MS 04**	**01/31/12**	**01/31/12 20:41**	**120131L02F**

Parameter	Result	RL	DF	Qual	Units
Arsenic	ND	0.00100	1		mg/L

BF-OW-3	**12-01-1748-6-E**	**01/30/12 15:45**	**Aqueous**	**ICP/MS 04**	**01/31/12**	**01/31/12 20:44**	**120131L02F**

Parameter	Result	RL	DF	Qual	Units
Arsenic	0.0776	0.00100	1		mg/L

BF-OW-300	**12-01-1748-7-E**	**01/30/12 15:45**	**Aqueous**	**ICP/MS 04**	**01/31/12**	**01/31/12 20:48**	**120131L02F**

Parameter	Result	RL	DF	Qual	Units
Arsenic	0.0820	0.00100	1		mg/L

Method Blank	**096-06-003-3,634**	**N/A**	**Aqueous**	**ICP/MS 04**	**01/31/12**	**01/31/12 18:08**	**120131L02F**

Parameter	Result	RL	DF	Qual	Units
Arsenic	ND	0.00100	1		mg/L

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-01-1752-2	**Aqueous**	**ICP/MS 04**	**01/31/12**	**01/31/12**	**120131L02**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	101	107	73-127	6	0-11	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

AECOM		Date Received	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
12-01-1752-2	**Aqueous**	**ICP/MS 04**	**01/31/12**	**01/31/12**	**120131L02**

Parameter	SPIKE ADDED	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	103	105	75-125	2	0-11	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-35	**Aqueous**	**IC 8**	**N/A**	**01/31/12**	**120131S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	10000	140	134	70-130	2	0-20	3

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 01/30/12
Work Order No: 12-01-1748
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-35	**Aqueous**	**GC/MS BB**	**01/31/12**	**02/01/12**	**120131S02**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	100	107	76-124	7	0-20	
Carbon Tetrachloride	10.00	111	112	74-134	1	0-20	
Chlorobenzene	10.00	106	108	80-120	1	0-20	
1,2-Dibromoethane	10.00	102	102	80-120	0	0-20	
1,2-Dichlorobenzene	10.00	102	106	80-120	4	0-20	
1,2-Dichloroethane	10.00	101	124	80-120	11	0-20	3
1,1-Dichloroethene	10.00	109	107	73-127	2	0-20	
Ethylbenzene	10.00	109	112	78-126	4	0-20	
Toluene	10.00	99	115	80-120	16	0-20	
Trichloroethene	10.00	102	114	77-120	10	0-20	
Vinyl Chloride	10.00	119	117	72-126	2	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	104	100	67-121	4	0-49	
Tert-Butyl Alcohol (TBA)	50.00	243	144	36-162	51	0-30	3,4
Diisopropyl Ether (DIPE)	10.00	110	104	60-138	5	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	101	95	69-123	6	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	90	97	65-120	8	0-20	
Ethanol	100.0	118	114	30-180	4	0-72	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	01/30/12
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-01-1815-2	**Aqueous**	**GC/MS BB**	**02/02/12**	**02/02/12**	**120202S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	115	101	76-124	13	0-20	
Carbon Tetrachloride	10.00	107	113	74-134	5	0-20	
Chlorobenzene	10.00	0	0	80-120	0	0-20	3
1,2-Dibromoethane	10.00	96	111	80-120	15	0-20	
1,2-Dichlorobenzene	10.00	96	108	80-120	11	0-20	
1,2-Dichloroethane	10.00	117	104	80-120	12	0-20	
1,1-Dichloroethene	10.00	99	105	73-127	5	0-20	
Ethylbenzene	10.00	106	111	78-126	5	0-20	
Toluene	10.00	109	105	80-120	4	0-20	
Trichloroethene	10.00	107	104	77-120	3	0-20	
Vinyl Chloride	10.00	101	112	72-126	10	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	92	103	67-121	10	0-49	
Tert-Butyl Alcohol (TBA)	50.00	238	114	36-162	70	0-30	3,4
Diisopropyl Ether (DIPE)	10.00	97	102	60-138	5	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	91	100	69-123	10	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	100	93	65-120	7	0-20	
Ethanol	100.0	99	109	30-180	10	0-72	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-3,634	**Aqueous**	**ICP/MS 04**	**01/31/12**	**01/31/12**	**120131L02F**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	102	104	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-5	**Aqueous**	**IC 8**	**N/A**	**01/31/12**	**120131L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	112	112	80-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: N/A
Work Order No: 12-01-1748
Preparation: EPA 3510C
Method: EPA 8081A

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-435-23	**Aqueous**	**GC 44**	**02/01/12**	**02/03/12**	**120201L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Aldrin	0.1250	73	73	50-150	33-167	0	0-25	
Alpha-BHC	0.1250	80	81	50-150	33-167	1	0-25	
Beta-BHC	0.1250	87	88	50-150	33-167	0	0-25	
4,4'-DDD	0.1250	83	84	50-150	33-167	1	0-25	
4,4'-DDE	0.1250	85	86	50-150	33-167	2	0-25	
4,4'-DDT	0.1250	89	90	50-150	33-167	1	0-25	
Delta-BHC	0.1250	80	81	50-150	33-167	1	0-25	
Dieldrin	0.1250	83	83	50-150	33-167	0	0-25	
Endosulfan I	0.1250	79	80	50-150	33-167	1	0-25	
Endosulfan II	0.1250	90	88	50-150	33-167	2	0-25	
Endosulfan Sulfate	0.1250	79	80	50-150	33-167	2	0-25	
Endrin	0.1250	81	81	50-150	33-167	1	0-25	
Endrin Aldehyde	0.1250	77	78	50-150	33-167	0	0-25	
Gamma-BHC	0.1250	82	83	50-150	33-167	1	0-25	
Heptachlor	0.1250	76	76	50-150	33-167	1	0-25	
Heptachlor Epoxide	0.1250	80	79	50-150	33-167	1	0-25	
Methoxychlor	0.1250	82	82	50-150	33-167	0	0-25	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1748
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,251	**Aqueous**	**GC/MS BB**	**01/31/12**	**02/01/12**	**120131L02**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	107	102	80-120	73-127	5	0-20	
Carbon Tetrachloride	10.00	106	111	74-134	64-144	4	0-20	
Chlorobenzene	10.00	102	106	80-120	73-127	4	0-20	
1,2-Dibromoethane	10.00	98	103	79-121	72-128	5	0-20	
1,2-Dichlorobenzene	10.00	98	103	80-120	73-127	5	0-20	
1,2-Dichloroethane	10.00	111	104	80-120	73-127	6	0-20	
1,1-Dichloroethene	10.00	97	100	78-126	70-134	3	0-28	
Ethylbenzene	10.00	106	110	80-120	73-127	4	0-20	
Toluene	10.00	105	100	80-120	73-127	4	0-20	
Trichloroethene	10.00	104	109	79-127	71-135	5	0-20	
Vinyl Chloride	10.00	120	121	72-132	62-142	1	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	89	103	69-123	60-132	15	0-20	
Tert-Butyl Alcohol (TBA)	50.00	87	94	63-123	53-133	8	0-20	
Diisopropyl Ether (DIPE)	10.00	103	108	59-137	46-150	4	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	96	100	69-123	60-132	4	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	99	94	70-120	62-128	5	0-20	
Ethanol	100.0	111	107	28-160	6-182	3	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: N/A
Work Order No: 12-01-1748
Preparation: EPA 5030C
Method: EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,252	**Aqueous**	**GC/MS BB**	**02/02/12**	**02/02/12**	**120202L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	98	97	80-120	73-127	1	0-20	
Carbon Tetrachloride	10.00	109	105	74-134	64-144	5	0-20	
Chlorobenzene	10.00	107	106	80-120	73-127	1	0-20	
1,2-Dibromoethane	10.00	98	100	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	10.00	104	102	80-120	73-127	2	0-20	
1,2-Dichloroethane	10.00	102	106	80-120	73-127	4	0-20	
1,1-Dichloroethene	10.00	105	107	78-126	70-134	3	0-28	
Ethylbenzene	10.00	108	112	80-120	73-127	3	0-20	
Toluene	10.00	93	104	80-120	73-127	11	0-20	
Trichloroethene	10.00	96	108	79-127	71-135	12	0-20	
Vinyl Chloride	10.00	105	111	72-132	62-142	5	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	96	96	69-123	60-132	0	0-20	
Tert-Butyl Alcohol (TBA)	50.00	91	101	63-123	53-133	10	0-20	
Diisopropyl Ether (DIPE)	10.00	99	99	59-137	46-150	0	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	87	95	69-123	60-132	9	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	90	92	70-120	62-128	2	0-20	
Ethanol	100.0	121	129	28-160	6-182	6	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-01-1748

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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☒ SoCal Laboratory
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(714) 895-5494

☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 12-01-1748

Date: 1-30-2012

Page 1 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: Long Beach

STATE: CA

ZIP: 90810

TEL: 562-255-9046

E-MAIL: Katharine.Carr.Green@AECOM.com

CLIENT PROJECT NAME / NUMBER: MONTROSE

P.O. NO.: 60212541.0301

PROJECT CONTACT: Katharine Carr Green

SAMPLER(S): (PRINT) KATHARINE GREEN

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF

GLOBAL ID:

LOG CODE:

SPECIAL INSTRUCTIONS: MS/MSD all analyses for G-35

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ PCBSA 314	En Core / Terra Core Prep (5035)	~~SVOCs (8270)~~ As 6020	Pesticides (8081) DDT + 2,4,4,5 DDM	~~PCBs (8082)~~ As III As V 2000.8	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
1	TB013012	1-30-12	730	H2O	2		X						X													
	EB013012		807		3		X						X													
	EB013012		807		1	X								X												
2	EB013012		807		1	X										X										
	EB013012		807		1		X											X								
	EB013012		807		1	X											X									
3	G-35		1000		2	X								X		MS/MSD										
	G-35		1000		6		X						X			MS/MSD										
4	G-31		1242		3		X						X													
	G-31	1-30-12	1242	H2O	1	X								X												

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
1-30-2012 1620	CEL	1/30/12	1620
	Dannyle CEL	1/30/12	17:27

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

06/01/10 Revision

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(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 0 1 - 1 7 4 8

Date 1-30-2012

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LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: KATHARINE.CARLGREEN@AECOM.CO

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE

P.O. NO.: 60212541 03.01

PROJECT CONTACT: KATHARINE CARLGREEN

SAMPLER(S): (PRINT) K. CARLGREEN

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	~~SVOCs (8270)~~ AS 6020	Pesticides (8081) DDT + Isomers	~~PCBs (8082)~~ AS III AS V 2006	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
5	G-OW-3	1-30-12	1436	H2O	1	X											X									
	BF-OW-3	↑	1545	↑	3		X						X													
6	BF-OW-3		1545		1		X											X								
	BF-OW-3		1545		1	X										X										
	BF-OW-300		1545		1	X										X										
7	BF-OW-300	↓	1545	↓	3		X						X													
	BF-OW-300	1-30-12	1545	H2O	1		X											X								

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
1-30-2012 1620		1/30/12	1620
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
	Dannyle CCL	1/30/12	17:27
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

06/01/10 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-01-1748

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 01/30/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.3 °C - 0.3 °C (CF) = 2.0 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: RM

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: RM

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: SH

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☑250 APB EDTA ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120117B **Labeled/Checked by:** SH

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** TN

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** TN

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Calscience Environmental Laboratories, Inc.

Subcontractor Analysis Report

Work Order # 12-01-1748

One or more samples in this Work Order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1 Weck Laboratories, Inc. - City of Industry,CA NELAP 04229CA

Arsenic III and Arsenic IV

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Certificate of Analysis

Report Date: Wednesday, February 22, 2012
Received Date: Tuesday, February 7, 2012
Received Time: 11:00 am
Turnaround Time: Normal

Client: Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1432

Phones: (714) 895-5494
Fax: (714) 894-7501

Attn: Vikas Patel
Project: 12-01-1748

P.O. #: 12-01-1748

Lab Sample ID: 2B07014-01 **Sample ID: EB013012** **Matrix:** Water
Sampled by: Client **Sampled: 01/30/12 08:07**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Arsenic III	ND	0.014	0.40	ug/l	1	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	
Arsenic V	ND	0.014	0.40	ug/l	1	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	

Lab Sample ID: 2B07014-02 **Sample ID: BF-OW-3** **Matrix:** Water
Sampled by: Client **Sampled: 01/30/12 15:45**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Arsenic III	**76**	0.070	2.0	ug/l	5	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	
Arsenic V	**3.2**	0.070	2.0	ug/l	5	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	

Lab Sample ID: 2B07014-03 **Sample ID: BF-OW-300** **Matrix:** Water
Sampled by: Client **Sampled: 01/30/12 15:45**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Arsenic III	**76**	0.070	2.0	ug/l	5	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	
Arsenic V	**3.4**	0.070	2.0	ug/l	5	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634
www.wecklabs.com

Certificate of Analysis

Quality Control Section

Metals by EPA 200 Series Methods - Quality Control

Batch W2B0839 - IC-ICP/MS

Blank (W2B0839-BLK1) — **Prepared: 02/21/12 Analyzed: 02/22/12 11:39**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III		ND		ug/l					
Arsenic V		ND		ug/l					

LCS (W2B0839-BS1) — **Prepared: 02/21/12 Analyzed: 02/22/12 11:39**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III		9.95		ug/l	10.0	100	85-115		
Arsenic V		10.2		ug/l	10.0	102	85-115		

Matrix Spike (W2B0839-MS1) — **Source: 2B08014-01** — **Prepared: 02/21/12 Analyzed: 02/22/12 11:39**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III	ND	11.2		ug/l	10.0	112	70-130		

Matrix Spike Dup (W2B0839-MSD1) — **Source: 2B08014-01** — **Prepared: 02/21/12 Analyzed: 02/22/12 11:39**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III	ND	11.4		ug/l	10.0	114	70-130	2	200

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Certificate of Analysis

Notes:
The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature
Contact: Ana Carrera For Kim G Tu (Project Manager)

ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-01-1815

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 02/21/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 12-01-1815

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-01-1815
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	01/31/12 18:20
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
G-26						
p-Chlorobenzenesulfonic Acid	**1000**		100	ug/L	EPA 314.0 (M) pCBS	N/A
Chlorobenzene	**120**		2.5	ug/L	EPA 8260B	EPA 5030C
G-24						
p-Chlorobenzenesulfonic Acid	**15000**		1000	ug/L	EPA 314.0 (M) pCBS	N/A
Benzene	**0.87**		0.50	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**740**		10	ug/L	EPA 8260B	EPA 5030C
1,2-Dichlorobenzene	**0.96**		0.50	ug/L	EPA 8260B	EPA 5030C
1,4-Dichlorobenzene	**5.7**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**0.86**		0.50	ug/L	EPA 8260B	EPA 5030C
Toluene	**0.65**		0.50	ug/L	EPA 8260B	EPA 5030C
G-2400						
p-Chlorobenzenesulfonic Acid	**16000**		1000	ug/L	EPA 314.0 (M) pCBS	N/A
Benzene	**0.85**		0.50	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**750**		10	ug/L	EPA 8260B	EPA 5030C
1,2-Dichlorobenzene	**1.1**		0.50	ug/L	EPA 8260B	EPA 5030C
1,4-Dichlorobenzene	**5.8**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**0.88**		0.50	ug/L	EPA 8260B	EPA 5030C
Toluene	**0.63**		0.50	ug/L	EPA 8260B	EPA 5030C
G-13						
4,4'-DDE	**0.018**		0.0050	ug/L	EPA 8081A	EPA 3510C
4,4'-DDD	**0.0071**		0.0050	ug/L	EPA 8081A	EPA 3510C
4,4'-DDT	**0.042**		0.0050	ug/L	EPA 8081A	EPA 3510C
BF-15						
Alpha-BHC	**0.90**		0.25	ug/L	EPA 8081A	EPA 3510C
Gamma-BHC	**0.89**		0.25	ug/L	EPA 8081A	EPA 3510C
Beta-BHC	**1.7**		0.25	ug/L	EPA 8081A	EPA 3510C
Delta-BHC	**0.33**		0.25	ug/L	EPA 8081A	EPA 3510C
Chlorobenzene	**9900**		250	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**89**		50	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	**80**		50	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-26	**12-01-1815-2-D**	**01/31/12 11:50**	**Aqueous**	**IC 8**	**N/A**	**01/31/12 20:30**	**120131L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	1000	100	20		ug/L

G-24	**12-01-1815-3-D**	**01/31/12 09:57**	**Aqueous**	**IC 8**	**N/A**	**01/31/12 21:28**	**120131L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	15000	1000	200		ug/L

G-2400	**12-01-1815-4-D**	**01/31/12 09:57**	**Aqueous**	**IC 8**	**N/A**	**01/31/12 21:46**	**120131L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	16000	1000	200		ug/L

Method Blank	**099-15-080-5**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**01/31/12 12:44**	**120131L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB013112	**12-01-1815-5-A**	**01/31/12 14:00**	**Aqueous**	**GC 44**	**02/01/12**	**02/03/12 14:34**	**120201L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	67	50-150		2,4,5,6-Tetrachloro-m-Xylene	67	50-150	

G-13	**12-01-1815-6-A**	**01/31/12 15:15**	**Aqueous**	**GC 44**	**02/01/12**	**02/03/12 14:48**	**120201L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	0.0071	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	0.018	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	0.042	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	94	50-150		2,4,5,6-Tetrachloro-m-Xylene	64	50-150	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-15	**12-01-1815-7-D**	**01/31/12 16:48**	**Aqueous**	**GC 44**	**02/01/12**	**02/03/12 15:03**	**120201L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.25	25		Endosulfan I	ND	0.25	25	
Alpha-BHC	0.90	0.25	25		Endosulfan II	ND	0.25	25	
Beta-BHC	1.7	0.25	25		Endosulfan Sulfate	ND	0.25	25	
Chlordane	ND	0.62	25		Endrin	ND	0.25	25	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.25	25	
4,4'-DDD	ND	0.25	25		Endrin Ketone	ND	0.25	25	
4,4'-DDE	ND	0.25	25		Gamma-BHC	0.89	0.25	25	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.25	25	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.25	25	
4,4'-DDT	ND	0.25	25		Methoxychlor	ND	0.25	25	
Delta-BHC	0.33	0.25	25		Toxaphene	ND	3.1	25	
Dieldrin	ND	0.25	25						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	93	50-150		2,4,5,6-Tetrachloro-m-Xylene	55	50-150	

Method Blank	**099-14-435-23**	**N/A**	**Aqueous**	**GC 44**	**02/01/12**	**02/03/12 13:51**	**120201L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	83	50-150		2,4,5,6-Tetrachloro-m-Xylene	61	50-150	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB013112	**12-01-1815-1-A**	**01/31/12 07:30**	**Aqueous**	**GC/MS BB**	**02/02/12**	**02/02/12 14:52**	**120202L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	99	80-128		Toluene-d8	90	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-26	**12-01-1815-2-A**	**01/31/12 11:50**	**Aqueous**	**GC/MS BB**	**02/02/12**	**02/02/12 15:21**	**120202L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	120	2.5	5		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	91	68-120		Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	105	80-128		Toluene-d8	100	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-24	**12-01-1815-3-A**	**01/31/12 09:57**	**Aqueous**	**GC/MS BB**	**02/02/12**	**02/02/12 21:44**	**120202L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	0.87	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	740	10	20		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	0.65	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	0.96	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	5.7	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	0.86	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	87	68-120		Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	97	80-128		Toluene-d8	95	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-2400	**12-01-1815-4-A**	**01/31/12 09:57**	**Aqueous**	**GC/MS BB**	**02/02/12**	**02/02/12 22:13**	**120202L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	0.85	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	750	10	20		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	0.63	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	1.1	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	5.8	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	0.88	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	89	68-120		Dibromofluoromethane	103	80-127	
1,2-Dichloroethane-d4	96	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-15	**12-01-1815-7-B**	**01/31/12 16:48**	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12 18:20**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	1000	100		1,1-Dichloropropene	ND	50	100	
Benzene	ND	50	100		c-1,3-Dichloropropene	ND	50	100	
Bromobenzene	ND	50	100		t-1,3-Dichloropropene	ND	50	100	
Bromochloromethane	ND	100	100		Ethylbenzene	ND	50	100	
Bromodichloromethane	ND	50	100		2-Hexanone	ND	1000	100	
Bromoform	ND	50	100		Isopropylbenzene	ND	50	100	
Bromomethane	ND	100	100		p-Isopropyltoluene	ND	50	100	
2-Butanone	ND	500	100		Methylene Chloride	ND	100	100	
n-Butylbenzene	ND	50	100		4-Methyl-2-Pentanone	ND	500	100	
sec-Butylbenzene	ND	50	100		Naphthalene	ND	100	100	
tert-Butylbenzene	ND	50	100		n-Propylbenzene	ND	50	100	
Carbon Disulfide	ND	100	100		Styrene	ND	50	100	
Carbon Tetrachloride	ND	50	100		1,1,1,2-Tetrachloroethane	ND	50	100	
Chlorobenzene	9900	250	500		1,1,2,2-Tetrachloroethane	ND	50	100	
Chloroethane	ND	50	100		Tetrachloroethene	80	50	100	
Chloroform	ND	50	100		Toluene	ND	50	100	
Chloromethane	ND	50	100		1,2,3-Trichlorobenzene	ND	50	100	
2-Chlorotoluene	ND	50	100		1,2,4-Trichlorobenzene	ND	50	100	
4-Chlorotoluene	ND	50	100		1,1,1-Trichloroethane	ND	50	100	
Dibromochloromethane	ND	50	100		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	100	
1,2-Dibromo-3-Chloropropane	ND	500	100		1,1,2-Trichloroethane	ND	50	100	
1,2-Dibromoethane	ND	50	100		Trichloroethene	ND	50	100	
Dibromomethane	ND	50	100		Trichlorofluoromethane	ND	50	100	
1,2-Dichlorobenzene	ND	50	100		1,2,3-Trichloropropane	ND	100	100	
1,3-Dichlorobenzene	ND	50	100		1,2,4-Trimethylbenzene	ND	50	100	
1,4-Dichlorobenzene	ND	50	100		1,3,5-Trimethylbenzene	ND	50	100	
Dichlorodifluoromethane	ND	100	100		Vinyl Acetate	ND	500	100	
1,1-Dichloroethane	ND	50	100		Vinyl Chloride	ND	50	100	
1,2-Dichloroethane	89	50	100		Xylenes (total)	ND	50	100	
1,1-Dichloroethene	ND	50	100		Methyl-t-Butyl Ether (MTBE)	ND	50	100	
c-1,2-Dichloroethene	ND	50	100		Tert-Butyl Alcohol (TBA)	ND	1000	100	
t-1,2-Dichloroethene	ND	50	100		Diisopropyl Ether (DIPE)	ND	50	100	
1,2-Dichloropropane	ND	50	100		Ethyl-t-Butyl Ether (ETBE)	ND	50	100	
1,3-Dichloropropane	ND	100	100		Tert-Amyl-Methyl Ether (TAME)	ND	50	100	
2,2-Dichloropropane	ND	100	100		Ethanol	ND	5000	100	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	87	68-120		Dibromofluoromethane	93	80-127	
1,2-Dichloroethane-d4	86	80-128		Toluene-d8	96	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,252**	**N/A**	**Aqueous**	**GC/MS BB**	**02/02/12**	**02/02/12 13:53**	**120202L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	68-120		Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	97	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,254**	**N/A**	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12 13:56**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	68-120		Dibromofluoromethane	91	80-127	
1,2-Dichloroethane-d4	87	80-128		Toluene-d8	95	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-01-1748-3	**Aqueous**	**IC 8**	**N/A**	**01/31/12**	**120131S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	10000	140	134	70-130	2	0-20	3

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 01/31/12
Work Order No: 12-01-1815
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-26	**Aqueous**	**GC/MS BB**	**02/02/12**	**02/02/12**	**120202S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	115	101	76-124	13	0-20	
Carbon Tetrachloride	10.00	107	113	74-134	5	0-20	
Chlorobenzene	10.00	0	0	80-120	0	0-20	3
1,2-Dibromoethane	10.00	96	111	80-120	15	0-20	
1,2-Dichlorobenzene	10.00	96	108	80-120	11	0-20	
1,2-Dichloroethane	10.00	117	104	80-120	12	0-20	
1,1-Dichloroethene	10.00	99	105	73-127	5	0-20	
Ethylbenzene	10.00	106	111	78-126	5	0-20	
Toluene	10.00	109	105	80-120	4	0-20	
Trichloroethene	10.00	107	104	77-120	3	0-20	
Vinyl Chloride	10.00	101	112	72-126	10	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	92	103	67-121	10	0-49	
Tert-Butyl Alcohol (TBA)	50.00	238	114	36-162	70	0-30	3,4
Diisopropyl Ether (DIPE)	10.00	97	102	60-138	5	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	91	100	69-123	10	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	100	93	65-120	7	0-20	
Ethanol	100.0	99	109	30-180	10	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-02-0067-3	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12**	**120203S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	93	93	76-124	0	0-20	
Carbon Tetrachloride	10.00	99	101	74-134	2	0-20	
Chlorobenzene	10.00	102	101	80-120	1	0-20	
1,2-Dibromoethane	10.00	92	95	80-120	3	0-20	
1,2-Dichlorobenzene	10.00	95	99	80-120	4	0-20	
1,2-Dichloroethane	10.00	91	91	80-120	0	0-20	
1,1-Dichloroethene	10.00	93	98	73-127	6	0-20	
Ethylbenzene	10.00	102	96	78-126	3	0-20	
Toluene	10.00	106	105	80-120	0	0-20	
Trichloroethene	10.00	102	104	77-120	1	0-20	
Vinyl Chloride	10.00	96	102	72-126	6	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	83	86	67-121	4	0-49	
Tert-Butyl Alcohol (TBA)	50.00	111	165	36-162	39	0-30	4,3
Diisopropyl Ether (DIPE)	10.00	82	82	60-138	0	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	80	82	69-123	3	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	83	83	65-120	0	0-20	
Ethanol	100.0	73	97	30-180	27	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-5	**Aqueous**	**IC 8**	**N/A**	**01/31/12**	**120131L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	112	112	80-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: N/A
Work Order No: 12-01-1815
Preparation: EPA 3510C
Method: EPA 8081A

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-435-23	**Aqueous**	**GC 44**	**02/01/12**	**02/03/12**	**120201L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Aldrin	0.1250	73	73	50-150	33-167	0	0-25	
Alpha-BHC	0.1250	80	81	50-150	33-167	1	0-25	
Beta-BHC	0.1250	87	88	50-150	33-167	0	0-25	
4,4'-DDD	0.1250	83	84	50-150	33-167	1	0-25	
4,4'-DDE	0.1250	85	86	50-150	33-167	2	0-25	
4,4'-DDT	0.1250	89	90	50-150	33-167	1	0-25	
Delta-BHC	0.1250	80	81	50-150	33-167	1	0-25	
Dieldrin	0.1250	83	83	50-150	33-167	0	0-25	
Endosulfan I	0.1250	79	80	50-150	33-167	1	0-25	
Endosulfan II	0.1250	90	88	50-150	33-167	2	0-25	
Endosulfan Sulfate	0.1250	79	80	50-150	33-167	2	0-25	
Endrin	0.1250	81	81	50-150	33-167	1	0-25	
Endrin Aldehyde	0.1250	77	78	50-150	33-167	0	0-25	
Gamma-BHC	0.1250	82	83	50-150	33-167	1	0-25	
Heptachlor	0.1250	76	76	50-150	33-167	1	0-25	
Heptachlor Epoxide	0.1250	80	79	50-150	33-167	1	0-25	
Methoxychlor	0.1250	82	82	50-150	33-167	0	0-25	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,252	**Aqueous**	**GC/MS BB**	**02/02/12**	**02/02/12**	**120202L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	98	97	80-120	73-127	1	0-20	
Carbon Tetrachloride	10.00	109	105	74-134	64-144	5	0-20	
Chlorobenzene	10.00	107	106	80-120	73-127	1	0-20	
1,2-Dibromoethane	10.00	98	100	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	10.00	104	102	80-120	73-127	2	0-20	
1,2-Dichloroethane	10.00	102	106	80-120	73-127	4	0-20	
1,1-Dichloroethene	10.00	105	107	78-126	70-134	3	0-28	
Ethylbenzene	10.00	108	112	80-120	73-127	3	0-20	
Toluene	10.00	93	104	80-120	73-127	11	0-20	
Trichloroethene	10.00	96	108	79-127	71-135	12	0-20	
Vinyl Chloride	10.00	105	111	72-132	62-142	5	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	96	96	69-123	60-132	0	0-20	
Tert-Butyl Alcohol (TBA)	50.00	91	101	63-123	53-133	10	0-20	
Diisopropyl Ether (DIPE)	10.00	99	99	59-137	46-150	0	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	87	95	69-123	60-132	9	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	90	92	70-120	62-128	2	0-20	
Ethanol	100.0	121	129	28-160	6-182	6	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,254	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12**	**120203L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	92	96	80-120	73-127	5	0-20	
Carbon Tetrachloride	10.00	102	108	74-134	64-144	5	0-20	
Chlorobenzene	10.00	106	107	80-120	73-127	1	0-20	
1,2-Dibromoethane	10.00	96	99	79-121	72-128	3	0-20	
1,2-Dichlorobenzene	10.00	100	104	80-120	73-127	4	0-20	
1,2-Dichloroethane	10.00	92	96	80-120	73-127	5	0-20	
1,1-Dichloroethene	10.00	98	103	78-126	70-134	5	0-28	
Ethylbenzene	10.00	104	106	80-120	73-127	2	0-20	
Toluene	10.00	105	111	80-120	73-127	5	0-20	
Trichloroethene	10.00	104	109	79-127	71-135	5	0-20	
Vinyl Chloride	10.00	102	108	72-132	62-142	5	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	84	90	69-123	60-132	7	0-20	
Tert-Butyl Alcohol (TBA)	50.00	96	105	63-123	53-133	10	0-20	
Diisopropyl Ether (DIPE)	10.00	82	87	59-137	46-150	5	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	82	86	69-123	60-132	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	82	87	70-120	62-128	6	0-20	
Ethanol	100.0	105	124	28-160	6-182	17	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-01-1815

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 12-01-1815

Date 1-31-2012

Page 1 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: KATHARINE.CARRGREEN@AECOM.COM

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: Katharine Carr Green

SAMPLER(S): (PRINT) K Carr Green

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ PCBs4 mod 3.1	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081) DDT + isomers	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
1	TB013112	1-31-2012	0730	H2O	2		X						X													
2	G-26	↑	1150	↑	3		X						X													
	G-26		1150		1	X								X												
3	G-24		0957		1	X								X												
	G-24		0957		3		X						X													
4	G-2400		0957		3		X						X													
	G-2400		0957		1	X								X												
5	EB013112		1400		1	X											X									
6	G-13	↓	1515	↓	1	X											X									
7	BF-15	1-31-2012	1649	H2O	1	X											X									

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
[signature] 1-31-12 1710	[signature] CEL	1/31/12	0710
[signature]	[signature] CEL	1/31/12	18:20

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(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 01-1815

Date 1-31-2012

Page 2 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: KATHARINE.CARLGREEN@AECOM.COM

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: KATHARINE CARLGREEN

SAMPLER(S): (PRINT) K. CARLGREEN

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
7	BF-15	1-31-2012	1648	H2O	3		X						X													

Relinquished by: (Signature)	1-31-12 1710	Received by: (Signature/Affiliation)	Date: 1/31/12 Time: 1700
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	Date: 1/31/12 Time: 18:20
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	Date: Time:

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-01-1815

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 1/31/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.7 °C - 0.3 °C (CF) = 2.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: AM

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: AM

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: PT

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120117B **Labeled/Checked by:** YL/PT

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** [illegible]

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** [illegible]

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Calscience Environmental Laboratories, Inc.

Supplemental Report 1

Additional requested analyses are reported as a stand-alone report.

CALSCIENCE

WORK ORDER NUMBER: 12-01-1815

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 03/15/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

Contents

Client Project Name: Montrose Superfund Site / 60212541.03.01
Work Order Number: 12-01-1815

1 Detections Summary 3

2 Client Sample Data 4
2.1 EPA 6020 ICP/MS Metals (Aqueous) 4

3 Quality Control Sample Data 5
3.1 MS/MSD and/or Duplicate 5
3.2 LCS/LCSD 7

4 Glossary of Terms and Qualifiers 8

5 Chain of Custody/Sample Receipt Form 9

Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-01-1815
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	01/31/12 18:20
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	**Result**	Qualifiers	Reporting Limit	Units	Method	Extraction
G-24						
Arsenic	**0.00231**		0.00100	mg/L	EPA 6020	EPA 3020A Total

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 3020A Total
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-24	**12-01-1815-3-AB**	**01/31/12 09:57**	**Aqueous**	**ICP/MS 04**	**03/09/12**	**03/09/12 20:21**	**120309L02**

Parameter	Result	RL	DF	Qual	Units
Arsenic	0.00231	0.00100	1		mg/L

Method Blank	**096-06-003-3,683**	**N/A**	**Aqueous**	**ICP/MS 04**	**03/09/12**	**03/09/12 19:27**	**120309L02**

Parameter	Result	RL	DF	Qual	Units
Arsenic	ND	0.00100	1		mg/L

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 3020A Total
		Method:	EPA 6020

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-03-0499-1	**Aqueous**	**ICP/MS 04**	**03/09/12**	**03/09/12**	**120309S02**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	80	86	73-127	4	0-11	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

AECOM		Date Received	01/31/12
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 3020A Total
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
12-03-0499-1	**Aqueous**	**ICP/MS 04**	**03/09/12**	**03/09/12**	**120309S02**

Parameter	SPIKE ADDED	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	84	94	75-125	8	0-11	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-01-1815
Long Beach, CA 90810-1869		Preparation:	EPA 3020A Total
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-3,683	**Aqueous**	**ICP/MS 04**	**03/09/12**	**03/09/12**	**120309L02**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	100	98	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-01-1815

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 12-01-1815

Date 1-31-2012

Page 1 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: KATHARINE.CARRGREEN@AECOM.COM

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: Katharine Carr Green

SAMPLER(S): (PRINT) K Carr Green

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ PCBs4 mod 3.1	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081) DDT + isomers	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
1	TB013112	1-31-2012	0730	H2O	2		X						X													
2	G-26	↑	1150	↑	3		X						X													
	G-26		1150		1	X								X												
3	G-24		0957		1	X								X												
	G-24		0957		3		X						X													
4	G-2400		0957		3		X						X													
	G-2400		0957		1	X								X												
5	EB013112		1400		1	X											X									
6	G-13	↓	1515	↓	1	X											X									
7	BF-15	1-31-2012	1649	H2O	1	X											X									

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
[signature] 1-31-12 1710	[signature] CEL	1/31/12	0710
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CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 01-1815

Date 1-31-2012

Page 2 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: KATHARINE.CARLGREEN@AECOM.COM

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: KATHARINE CARLGREEN

SAMPLER(S): (PRINT) K. CARLGREEN

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
7	BF-15	1-31-2012	1648	H2O	3		X						X													

Relinquished by: (Signature)	1-31-12 1710	Received by: (Signature/Affiliation)	Date: 1/31/12 Time: 1700
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	Date: 1/31/12 Time: 18:20
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	Date: Time:

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WORK ORDER #: 12-01-1815

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 1/31/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.7 °C - 0.3 °C (CF) = 2.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: AM

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: AM

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: PT

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120117B **Labeled/Checked by:** YL/PT

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** [illegible]

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** [illegible]

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Vikas Patel

From: McCord, Alycia [Alycia.McCord@aecom.com]
Sent: Thursday, March 08, 2012 1:45 PM
To: Vikas Patel
Cc: CarrGreen, Katharine; McCord, Alycia
Subject: RE: Montrose (G-06 and G-24)

Vik –

Please add a Level IV data package to our request for the additional arsenic analyses. I have made everyone aware that the samples will be unfiltered.

Thank you,
Alycia

From: Vikas Patel [mailto:vipatel@calscience.com]
Sent: Thursday, March 08, 2012 11:39 AM
To: McCord, Alycia
Cc: CarrGreen, Katharine; Vikas Patel
Subject: RE: Montrose (G-06 and G-24)

Do you need a Level IV package for the additional Arsenic analyses?

We do not have any unpreserved sample left, so results will be reported as Total Arsenic (unfiltered).

Vik Patel
Project Manager
Calscience Environmental Laboratories, Inc.
714-895-5494 x211

From: McCord, Alycia [mailto:Alycia.McCord@aecom.com]
Sent: Thursday, March 08, 2012 11:24 AM
To: Vikas Patel
Cc: CarrGreen, Katharine; McCord, Alycia
Subject: RE: Montrose (G-06 and G-24)

Yes, the standard 5 day TAT will work for us.

Thanks,
Alycia

From: Vikas Patel [mailto:vipatel@calscience.com]
Sent: Thursday, March 08, 2012 11:14 AM
To: McCord, Alycia
Cc: CarrGreen, Katharine; Vikas Patel
Subject: RE: Montrose (G-06 and G-24)

Alycia – How soon do you need results. Standard 5 day TAT okay?

Vik Patel
Project Manager

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-02-0067

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 02/21/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 12-02-0067

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-02-0067
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	02/01/12 18:30
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
G-33						
p-Chlorobenzenesulfonic Acid	**160**		10	ug/L	EPA 314.0 (M) pCBS	N/A
Chlorobenzene	**2.5**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**0.51**		0.50	ug/L	EPA 8260B	EPA 5030C
Ethylbenzene	**8.2**		0.50	ug/L	EPA 8260B	EPA 5030C
Xylenes (total)	**0.52**		0.50	ug/L	EPA 8260B	EPA 5030C
G-09						
p-Chlorobenzenesulfonic Acid	**2500**		250	ug/L	EPA 314.0 (M) pCBS	N/A
Chlorobenzene	**73**		1.0	ug/L	EPA 8260B	EPA 5030C
G-06						
4,4'-DDE	**0.0072**		0.0050	ug/L	EPA 8081A	EPA 3510C
4,4'-DDD	**0.028**		0.0050	ug/L	EPA 8081A	EPA 3510C
4,4'-DDT	**0.61**		0.050	ug/L	EPA 8081A	EPA 3510C
Chlorobenzene	**620**		10	ug/L	EPA 8260B	EPA 5030C
Chloromethane	**10**		10	ug/L	EPA 8260B	EPA 5030C
G-0600						
4,4'-DDE	**0.0057**		0.0050	ug/L	EPA 8081A	EPA 3510C
4,4'-DDD	**0.030**		0.0050	ug/L	EPA 8081A	EPA 3510C
4,4'-DDT	**0.64**		0.050	ug/L	EPA 8081A	EPA 3510C
Chlorobenzene	**640**		10	ug/L	EPA 8260B	EPA 5030C
Chloroethane	**15**		10	ug/L	EPA 8260B	EPA 5030C
Chloromethane	**15**		10	ug/L	EPA 8260B	EPA 5030C
Vinyl Chloride	**12**		10	ug/L	EPA 8260B	EPA 5030C
SWL0033						
Chlorobenzene	**4400**		100	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB020112	**12-02-0067-2-D**	**02/01/12 08:02**	**Aqueous**	**IC 8**	**N/A**	**02/01/12 19:47**	**120201L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

G-33	**12-02-0067-3-G**	**02/01/12 09:15**	**Aqueous**	**IC 8**	**N/A**	**02/01/12 20:43**	**120201L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	160	10	2		ug/L

G-09	**12-02-0067-4-D**	**02/01/12 11:30**	**Aqueous**	**IC 8**	**N/A**	**02/01/12 21:38**	**120201L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	2500	250	50		ug/L

Method Blank	**099-15-080-6**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**02/01/12 14:32**	**120201L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB020112P	**12-02-0067-5-A**	**02/01/12 15:30**	**Aqueous**	**GC 44**	**02/06/12**	**02/07/12 16:08**	**120206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	80	50-150		2,4,5,6-Tetrachloro-m-Xylene	75	50-150	

G-06	**12-02-0067-6-D**	**02/01/12 17:00**	**Aqueous**	**GC 44**	**02/06/12**	**02/07/12 16:22**	**120206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	0.028	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	0.0072	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	0.61	0.050	5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	102	50-150		2,4,5,6-Tetrachloro-m-Xylene	94	50-150	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-0600	**12-02-0067-7-D**	**02/01/12 17:00**	**Aqueous**	**GC 44**	**02/06/12**	**02/07/12 16:37**	**120206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	0.030	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	0.0057	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	0.64	0.050	5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	96	50-150		2,4,5,6-Tetrachloro-m-Xylene	94	50-150	

Method Blank	**099-14-435-24**	**N/A**	**Aqueous**	**GC 44**	**02/06/12**	**02/07/12 15:53**	**120206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	93	50-150		2,4,5,6-Tetrachloro-m-Xylene	56	50-150	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB020112	**12-02-0067-1-B**	**02/01/12 07:45**	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12 14:54**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	85	68-120		Dibromofluoromethane	90	80-127	
1,2-Dichloroethane-d4	85	80-128		Toluene-d8	100	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB020112	**12-02-0067-2-B**	**02/01/12 08:02**	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12 15:24**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	86	68-120		Dibromofluoromethane	92	80-127	
1,2-Dichloroethane-d4	86	80-128		Toluene-d8	100	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-33	**12-02-0067-3-B**	**02/01/12 09:15**	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12 15:53**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	8.2	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	2.5	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	0.51	0.50	1		Xylenes (total)	0.52	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	68-120		Dibromofluoromethane	92	80-127	
1,2-Dichloroethane-d4	88	80-128		Toluene-d8	97	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-09	**12-02-0067-4-B**	**02/01/12 11:30**	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12 19:19**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	20	2		1,1-Dichloropropene	ND	1.0	2	
Benzene	ND	1.0	2		c-1,3-Dichloropropene	ND	1.0	2	
Bromobenzene	ND	1.0	2		t-1,3-Dichloropropene	ND	1.0	2	
Bromochloromethane	ND	2.0	2		Ethylbenzene	ND	1.0	2	
Bromodichloromethane	ND	1.0	2		2-Hexanone	ND	20	2	
Bromoform	ND	1.0	2		Isopropylbenzene	ND	1.0	2	
Bromomethane	ND	2.0	2		p-Isopropyltoluene	ND	1.0	2	
2-Butanone	ND	10	2		Methylene Chloride	ND	2.0	2	
n-Butylbenzene	ND	1.0	2		4-Methyl-2-Pentanone	ND	10	2	
sec-Butylbenzene	ND	1.0	2		Naphthalene	ND	2.0	2	
tert-Butylbenzene	ND	1.0	2		n-Propylbenzene	ND	1.0	2	
Carbon Disulfide	ND	2.0	2		Styrene	ND	1.0	2	
Carbon Tetrachloride	ND	1.0	2		1,1,1,2-Tetrachloroethane	ND	1.0	2	
Chlorobenzene	73	1.0	2		1,1,2,2-Tetrachloroethane	ND	1.0	2	
Chloroethane	ND	1.0	2		Tetrachloroethene	ND	1.0	2	
Chloroform	ND	1.0	2		Toluene	ND	1.0	2	
Chloromethane	ND	1.0	2		1,2,3-Trichlorobenzene	ND	1.0	2	
2-Chlorotoluene	ND	1.0	2		1,2,4-Trichlorobenzene	ND	1.0	2	
4-Chlorotoluene	ND	1.0	2		1,1,1-Trichloroethane	ND	1.0	2	
Dibromochloromethane	ND	1.0	2		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1.0	2	
1,2-Dibromo-3-Chloropropane	ND	10	2		1,1,2-Trichloroethane	ND	1.0	2	
1,2-Dibromoethane	ND	1.0	2		Trichloroethene	ND	1.0	2	
Dibromomethane	ND	1.0	2		Trichlorofluoromethane	ND	1.0	2	
1,2-Dichlorobenzene	ND	1.0	2		1,2,3-Trichloropropane	ND	2.0	2	
1,3-Dichlorobenzene	ND	1.0	2		1,2,4-Trimethylbenzene	ND	1.0	2	
1,4-Dichlorobenzene	ND	1.0	2		1,3,5-Trimethylbenzene	ND	1.0	2	
Dichlorodifluoromethane	ND	2.0	2		Vinyl Acetate	ND	10	2	
1,1-Dichloroethane	ND	1.0	2		Vinyl Chloride	ND	1.0	2	
1,2-Dichloroethane	ND	1.0	2		Xylenes (total)	ND	1.0	2	
1,1-Dichloroethene	ND	1.0	2		Methyl-t-Butyl Ether (MTBE)	ND	1.0	2	
c-1,2-Dichloroethene	ND	1.0	2		Tert-Butyl Alcohol (TBA)	ND	20	2	
t-1,2-Dichloroethene	ND	1.0	2		Diisopropyl Ether (DIPE)	ND	1.0	2	
1,2-Dichloropropane	ND	1.0	2		Ethyl-t-Butyl Ether (ETBE)	ND	1.0	2	
1,3-Dichloropropane	ND	2.0	2		Tert-Amyl-Methyl Ether (TAME)	ND	1.0	2	
2,2-Dichloropropane	ND	2.0	2		Ethanol	ND	100	2	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	87	68-120		Dibromofluoromethane	92	80-127	
1,2-Dichloroethane-d4	85	80-128		Toluene-d8	95	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-06	**12-02-0067-6-B**	**02/01/12 17:00**	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12 19:48**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	200	20		1,1-Dichloropropene	ND	10	20	
Benzene	ND	10	20		c-1,3-Dichloropropene	ND	10	20	
Bromobenzene	ND	10	20		t-1,3-Dichloropropene	ND	10	20	
Bromochloromethane	ND	20	20		Ethylbenzene	ND	10	20	
Bromodichloromethane	ND	10	20		2-Hexanone	ND	200	20	
Bromoform	ND	10	20		Isopropylbenzene	ND	10	20	
Bromomethane	ND	20	20		p-Isopropyltoluene	ND	10	20	
2-Butanone	ND	100	20		Methylene Chloride	ND	20	20	
n-Butylbenzene	ND	10	20		4-Methyl-2-Pentanone	ND	100	20	
sec-Butylbenzene	ND	10	20		Naphthalene	ND	20	20	
tert-Butylbenzene	ND	10	20		n-Propylbenzene	ND	10	20	
Carbon Disulfide	ND	20	20		Styrene	ND	10	20	
Carbon Tetrachloride	ND	10	20		1,1,1,2-Tetrachloroethane	ND	10	20	
Chlorobenzene	620	10	20		1,1,2,2-Tetrachloroethane	ND	10	20	
Chloroethane	ND	10	20		Tetrachloroethene	ND	10	20	
Chloroform	ND	10	20		Toluene	ND	10	20	
Chloromethane	10	10	20		1,2,3-Trichlorobenzene	ND	10	20	
2-Chlorotoluene	ND	10	20		1,2,4-Trichlorobenzene	ND	10	20	
4-Chlorotoluene	ND	10	20		1,1,1-Trichloroethane	ND	10	20	
Dibromochloromethane	ND	10	20		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	20	
1,2-Dibromo-3-Chloropropane	ND	100	20		1,1,2-Trichloroethane	ND	10	20	
1,2-Dibromoethane	ND	10	20		Trichloroethene	ND	10	20	
Dibromomethane	ND	10	20		Trichlorofluoromethane	ND	10	20	
1,2-Dichlorobenzene	ND	10	20		1,2,3-Trichloropropane	ND	20	20	
1,3-Dichlorobenzene	ND	10	20		1,2,4-Trimethylbenzene	ND	10	20	
1,4-Dichlorobenzene	ND	10	20		1,3,5-Trimethylbenzene	ND	10	20	
Dichlorodifluoromethane	ND	20	20		Vinyl Acetate	ND	100	20	
1,1-Dichloroethane	ND	10	20		Vinyl Chloride	ND	10	20	
1,2-Dichloroethane	ND	10	20		Xylenes (total)	ND	10	20	
1,1-Dichloroethene	ND	10	20		Methyl-t-Butyl Ether (MTBE)	ND	10	20	
c-1,2-Dichloroethene	ND	10	20		Tert-Butyl Alcohol (TBA)	ND	200	20	
t-1,2-Dichloroethene	ND	10	20		Diisopropyl Ether (DIPE)	ND	10	20	
1,2-Dichloropropane	ND	10	20		Ethyl-t-Butyl Ether (ETBE)	ND	10	20	
1,3-Dichloropropane	ND	20	20		Tert-Amyl-Methyl Ether (TAME)	ND	10	20	
2,2-Dichloropropane	ND	20	20		Ethanol	ND	1000	20	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	87	68-120		Dibromofluoromethane	93	80-127	
1,2-Dichloroethane-d4	87	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-0600	**12-02-0067-7-B**	**02/01/12 17:00**	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12 20:17**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	200	20		1,1-Dichloropropene	ND	10	20	
Benzene	ND	10	20		c-1,3-Dichloropropene	ND	10	20	
Bromobenzene	ND	10	20		t-1,3-Dichloropropene	ND	10	20	
Bromochloromethane	ND	20	20		Ethylbenzene	ND	10	20	
Bromodichloromethane	ND	10	20		2-Hexanone	ND	200	20	
Bromoform	ND	10	20		Isopropylbenzene	ND	10	20	
Bromomethane	ND	20	20		p-Isopropyltoluene	ND	10	20	
2-Butanone	ND	100	20		Methylene Chloride	ND	20	20	
n-Butylbenzene	ND	10	20		4-Methyl-2-Pentanone	ND	100	20	
sec-Butylbenzene	ND	10	20		Naphthalene	ND	20	20	
tert-Butylbenzene	ND	10	20		n-Propylbenzene	ND	10	20	
Carbon Disulfide	ND	20	20		Styrene	ND	10	20	
Carbon Tetrachloride	ND	10	20		1,1,1,2-Tetrachloroethane	ND	10	20	
Chlorobenzene	640	10	20		1,1,2,2-Tetrachloroethane	ND	10	20	
Chloroethane	15	10	20		Tetrachloroethene	ND	10	20	
Chloroform	ND	10	20		Toluene	ND	10	20	
Chloromethane	15	10	20		1,2,3-Trichlorobenzene	ND	10	20	
2-Chlorotoluene	ND	10	20		1,2,4-Trichlorobenzene	ND	10	20	
4-Chlorotoluene	ND	10	20		1,1,1-Trichloroethane	ND	10	20	
Dibromochloromethane	ND	10	20		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	20	
1,2-Dibromo-3-Chloropropane	ND	100	20		1,1,2-Trichloroethane	ND	10	20	
1,2-Dibromoethane	ND	10	20		Trichloroethene	ND	10	20	
Dibromomethane	ND	10	20		Trichlorofluoromethane	ND	10	20	
1,2-Dichlorobenzene	ND	10	20		1,2,3-Trichloropropane	ND	20	20	
1,3-Dichlorobenzene	ND	10	20		1,2,4-Trimethylbenzene	ND	10	20	
1,4-Dichlorobenzene	ND	10	20		1,3,5-Trimethylbenzene	ND	10	20	
Dichlorodifluoromethane	ND	20	20		Vinyl Acetate	ND	100	20	
1,1-Dichloroethane	ND	10	20		Vinyl Chloride	12	10	20	
1,2-Dichloroethane	ND	10	20		Xylenes (total)	ND	10	20	
1,1-Dichloroethene	ND	10	20		Methyl-t-Butyl Ether (MTBE)	ND	10	20	
c-1,2-Dichloroethene	ND	10	20		Tert-Butyl Alcohol (TBA)	ND	200	20	
t-1,2-Dichloroethene	ND	10	20		Diisopropyl Ether (DIPE)	ND	10	20	
1,2-Dichloropropane	ND	10	20		Ethyl-t-Butyl Ether (ETBE)	ND	10	20	
1,3-Dichloropropane	ND	20	20		Tert-Amyl-Methyl Ether (TAME)	ND	10	20	
2,2-Dichloropropane	ND	20	20		Ethanol	ND	1000	20	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	68-120		Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	87	80-128		Toluene-d8	96	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SWL0033	**12-02-0067-8-B**	**02/01/12 14:45**	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12 20:47**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	2000	200		1,1-Dichloropropene	ND	100	200	
Benzene	ND	100	200		c-1,3-Dichloropropene	ND	100	200	
Bromobenzene	ND	100	200		t-1,3-Dichloropropene	ND	100	200	
Bromochloromethane	ND	200	200		Ethylbenzene	ND	100	200	
Bromodichloromethane	ND	100	200		2-Hexanone	ND	2000	200	
Bromoform	ND	100	200		Isopropylbenzene	ND	100	200	
Bromomethane	ND	200	200		p-Isopropyltoluene	ND	100	200	
2-Butanone	ND	1000	200		Methylene Chloride	ND	200	200	
n-Butylbenzene	ND	100	200		4-Methyl-2-Pentanone	ND	1000	200	
sec-Butylbenzene	ND	100	200		Naphthalene	ND	200	200	
tert-Butylbenzene	ND	100	200		n-Propylbenzene	ND	100	200	
Carbon Disulfide	ND	200	200		Styrene	ND	100	200	
Carbon Tetrachloride	ND	100	200		1,1,1,2-Tetrachloroethane	ND	100	200	
Chlorobenzene	4400	100	200		1,1,2,2-Tetrachloroethane	ND	100	200	
Chloroethane	ND	100	200		Tetrachloroethene	ND	100	200	
Chloroform	ND	100	200		Toluene	ND	100	200	
Chloromethane	ND	100	200		1,2,3-Trichlorobenzene	ND	100	200	
2-Chlorotoluene	ND	100	200		1,2,4-Trichlorobenzene	ND	100	200	
4-Chlorotoluene	ND	100	200		1,1,1-Trichloroethane	ND	100	200	
Dibromochloromethane	ND	100	200		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	100	200	
1,2-Dibromo-3-Chloropropane	ND	1000	200		1,1,2-Trichloroethane	ND	100	200	
1,2-Dibromoethane	ND	100	200		Trichloroethene	ND	100	200	
Dibromomethane	ND	100	200		Trichlorofluoromethane	ND	100	200	
1,2-Dichlorobenzene	ND	100	200		1,2,3-Trichloropropane	ND	200	200	
1,3-Dichlorobenzene	ND	100	200		1,2,4-Trimethylbenzene	ND	100	200	
1,4-Dichlorobenzene	ND	100	200		1,3,5-Trimethylbenzene	ND	100	200	
Dichlorodifluoromethane	ND	200	200		Vinyl Acetate	ND	1000	200	
1,1-Dichloroethane	ND	100	200		Vinyl Chloride	ND	100	200	
1,2-Dichloroethane	ND	100	200		Xylenes (total)	ND	100	200	
1,1-Dichloroethene	ND	100	200		Methyl-t-Butyl Ether (MTBE)	ND	100	200	
c-1,2-Dichloroethene	ND	100	200		Tert-Butyl Alcohol (TBA)	ND	2000	200	
t-1,2-Dichloroethene	ND	100	200		Diisopropyl Ether (DIPE)	ND	100	200	
1,2-Dichloropropane	ND	100	200		Ethyl-t-Butyl Ether (ETBE)	ND	100	200	
1,3-Dichloropropane	ND	200	200		Tert-Amyl-Methyl Ether (TAME)	ND	100	200	
2,2-Dichloropropane	ND	200	200		Ethanol	ND	10000	200	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	86	68-120		Dibromofluoromethane	92	80-127	
1,2-Dichloroethane-d4	85	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,254**	**N/A**	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12 13:56**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	68-120		Dibromofluoromethane	91	80-127	
1,2-Dichloroethane-d4	87	80-128		Toluene-d8	95	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-33	**Aqueous**	**IC 8**	**N/A**	**02/01/12**	**120201S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	120	127	131	70-130	2	0-20	3

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 02/01/12
Work Order No: 12-02-0067
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-33	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12**	**120203S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	93	93	76-124	0	0-20	
Carbon Tetrachloride	10.00	99	101	74-134	2	0-20	
Chlorobenzene	10.00	102	101	80-120	1	0-20	
1,2-Dibromoethane	10.00	92	95	80-120	3	0-20	
1,2-Dichlorobenzene	10.00	95	99	80-120	4	0-20	
1,2-Dichloroethane	10.00	91	91	80-120	0	0-20	
1,1-Dichloroethene	10.00	93	98	73-127	6	0-20	
Ethylbenzene	10.00	102	96	78-126	3	0-20	
Toluene	10.00	106	105	80-120	0	0-20	
Trichloroethene	10.00	102	104	77-120	1	0-20	
Vinyl Chloride	10.00	96	102	72-126	6	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	83	86	67-121	4	0-49	
Tert-Butyl Alcohol (TBA)	50.00	111	165	36-162	39	0-30	4,3
Diisopropyl Ether (DIPE)	10.00	82	82	60-138	0	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	80	82	69-123	3	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	83	83	65-120	0	0-20	
Ethanol	100.0	73	97	30-180	27	0-72	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-6	**Aqueous**	**IC 8**	**N/A**	**02/01/12**	**120201L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	107	107	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: N/A
Work Order No: 12-02-0067
Preparation: EPA 3510C
Method: EPA 8081A

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-435-24	**Aqueous**	**GC 44**	**02/06/12**	**02/07/12**	**120206L03**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Aldrin	0.1250	92	91	50-150	33-167	1	0-25	
Alpha-BHC	0.1250	94	95	50-150	33-167	1	0-25	
Beta-BHC	0.1250	99	97	50-150	33-167	2	0-25	
4,4'-DDD	0.1250	93	91	50-150	33-167	2	0-25	
4,4'-DDE	0.1250	95	94	50-150	33-167	1	0-25	
4,4'-DDT	0.1250	100	99	50-150	33-167	1	0-25	
Delta-BHC	0.1250	92	96	50-150	33-167	4	0-25	
Dieldrin	0.1250	92	91	50-150	33-167	1	0-25	
Endosulfan I	0.1250	93	91	50-150	33-167	2	0-25	
Endosulfan II	0.1250	101	98	50-150	33-167	3	0-25	
Endosulfan Sulfate	0.1250	89	89	50-150	33-167	1	0-25	
Endrin	0.1250	95	95	50-150	33-167	0	0-25	
Endrin Aldehyde	0.1250	85	83	50-150	33-167	2	0-25	
Gamma-BHC	0.1250	96	97	50-150	33-167	1	0-25	
Heptachlor	0.1250	92	91	50-150	33-167	1	0-25	
Heptachlor Epoxide	0.1250	88	86	50-150	33-167	3	0-25	
Methoxychlor	0.1250	93	93	50-150	33-167	0	0-25	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,254	**Aqueous**	**GC/MS BB**	**02/03/12**	**02/03/12**	**120203L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	92	96	80-120	73-127	5	0-20	
Carbon Tetrachloride	10.00	102	108	74-134	64-144	5	0-20	
Chlorobenzene	10.00	106	107	80-120	73-127	1	0-20	
1,2-Dibromoethane	10.00	96	99	79-121	72-128	3	0-20	
1,2-Dichlorobenzene	10.00	100	104	80-120	73-127	4	0-20	
1,2-Dichloroethane	10.00	92	96	80-120	73-127	5	0-20	
1,1-Dichloroethene	10.00	98	103	78-126	70-134	5	0-28	
Ethylbenzene	10.00	104	106	80-120	73-127	2	0-20	
Toluene	10.00	105	111	80-120	73-127	5	0-20	
Trichloroethene	10.00	104	109	79-127	71-135	5	0-20	
Vinyl Chloride	10.00	102	108	72-132	62-142	5	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	84	90	69-123	60-132	7	0-20	
Tert-Butyl Alcohol (TBA)	50.00	96	105	63-123	53-133	10	0-20	
Diisopropyl Ether (DIPE)	10.00	82	87	59-137	46-150	5	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	82	86	69-123	60-132	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	82	87	70-120	62-128	6	0-20	
Ethanol	100.0	105	124	28-160	6-182	17	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-02-0067

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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☒ SoCal Laboratory
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494

☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 12-02-0067

Date: 2-1-2012

Page 1 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: Katharine.CarrGreen@aecom.com

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: KATHARINE CARR GREEN

SAMPLER(S): (PRINT) K. Carr Green

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260) PCBs air mg	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081) DDT + 2,4,5 Silvex	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
1	TB020112	2-1-2012	0745	H2O	2		X						X													
2	EB020112	↑	0802	↑	3		X						X													
2	EB020112		0802		1	X								X												
3	G-33		0915		2	X								X		MS/MSD										
3	G-33		0915		6		X						X			MS/MSD										
4	G-09		1130		3		X						X													
4	G-09		1130	↓	1	X								X												
5	EB020112P		1530	H2O	1	X											X									
6	G-06	↓	1700	H2O	3		X						X													
6	G-06	2-1-2012	1700	H2O	1	X											X									

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
K Carr Green 1713 2-01-2012	[signature] CEL	2/1/12	1713
[signature]	[signature] CEL	2/1/12	1830
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

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☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 0 2 - 0 0 6 7

Date 2-01-2012

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LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG Beach STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: Katharine.Carrgreen@AECOM.com

CLIENT PROJECT NAME / NUMBER: ~~AECOM~~ MONTROSE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: K. Carr Green

SAMPLER(S): (PRINT) K. Carr Green

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081) DDT + isomers	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
7	G-0600	2-1-2012	1700	H2O	1	X											X									
	G-0600	2-1-2012	1700	H2O	3		X						X													
8	SWL0033	2-1-2012	1445	H2O	3		X						X													

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
K Carr 2-01-2012 1713	[signature] CEL	2/1/12	1713
[signature]	[signature] CEL	2/1/12	1830
[signature]			

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

06/01/10 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-02-0067

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 02/1/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.4 °C - 0.3 °C (CF) = 2.1 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: AM

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: AM

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: MR

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 1201173 **Labeled/Checked by:** MR

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** [illegible]

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** [illegible]

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Calscience Environmental Laboratories, Inc.

Supplemental Report 1

Additional requested analyses are reported as a stand-alone report.

CALSCIENCE

WORK ORDER NUMBER: 12-02-0067

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 03/15/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Accredited in accordance with nelac

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

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Client Project Name: Montrose Superfund Site / 60212541.03.01
Work Order Number: 12-02-0067

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-02-0067
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	02/01/12 18:30
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	**Result**	Qualifiers	Reporting Limit	Units	Method	Extraction
G-06						
Arsenic	**0.00470**		0.00100	mg/L	EPA 6020	EPA 3020A Total

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 3020A Total
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-06	**12-02-0067-6-AB**	**02/01/12 17:00**	**Aqueous**	**ICP/MS 04**	**03/12/12**	**03/13/12 17:31**	**120312L02**

Parameter	Result	RL	DF	Qual	Units
Arsenic	0.00470	0.00100	1		mg/L

Method Blank	**096-06-003-3,689**	**N/A**	**Aqueous**	**ICP/MS 04**	**03/12/12**	**03/13/12 16:12**	**120312L02**

Parameter	Result	RL	DF	Qual	Units
Arsenic	ND	0.00100	1		mg/L

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 3020A Total
		Method:	EPA 6020

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-03-0611-1	**Aqueous**	**ICP/MS 04**	**03/12/12**	**03/13/12**	**120312S02**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	103	98	73-127	5	0-11	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

AECOM		Date Received	02/01/12
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 3020A Total
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
12-03-0611-1	**Aqueous**	**ICP/MS 04**	**03/12/12**	**03/13/12**	**120312S02**

Parameter	SPIKE ADDED	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	91	93	75-125	2	0-11	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0067
Long Beach, CA 90810-1869		Preparation:	EPA 3020A Total
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-3,689	**Aqueous**	**ICP/MS 04**	**03/12/12**	**03/13/12**	**120312L02**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	99	100	80-120	1	0-20	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-02-0067

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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Calscience Environmental Laboratories, Inc.

☒ SoCal Laboratory
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494

☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 12-02-0067

Date: 2-1-2012

Page 1 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: Katharine.CarrGreen@aecom.com

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: KATHARINE CARR GREEN

SAMPLER(S): (PRINT) K. Carr Green

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260) PCBs air mg	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081) DDT + 2,4,4 isomers	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
1	TB020112	2-1-2012	0745	H2O	2		X						X													
2	EB020112	↑	0802	↑	3		X						X													
3	EB020112		0802		1	X								X												
4	G-33		0915		2	X								X		MS/MSD										
5	G-33		0915		6		X						X			MS/MSD										
6	G-09		1130		3		X						X													
	G-09		1130	↓	1	X								X												
5	EB020112P		1530	H2O	1	X											X									
	G-06	↓	1700	H2O	3		X						X													
6	G-06	2-1-2012	1700	H2O	1	X											X									

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
K Carr 1713 2-01-2012	[signature] CEL	2/1/12	1713
[signature]	[signature] CEL	2/1/12	1830
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

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(714) 895-5494

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5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 0 2 - 0 0 6 7

Date 2-01-2012

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LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG Beach STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: Katharine.Carrgreen@AECOM.com

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: ~~AECOM~~ MONTROSE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: K. Carr Green

SAMPLER(S): (PRINT) K. Carr Green

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081) DDT + isomers	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
7	G-0600	2-1-2012	1700	H2O	1	X											X									
	G-0600	2-1-2012	1700	H2O	3		X						X													
8	SWL0033	2-1-2012	1445	H2O	3		X						X													

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
K Carr 2-01-2012 1713	Ay Hung CEL	2/1/12	1713
Ay Hung	CEL	2/1/12	1830

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

06/01/10 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-02-0067

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 02/1/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.4 °C - 0.3 °C (CF) = 2.1 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: AM

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: AM

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: MR

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 1201173 **Labeled/Checked by:** MR

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** [illegible]

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** [illegible]

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Vikas Patel

From: McCord, Alycia [Alycia.McCord@aecom.com]
Sent: Thursday, March 08, 2012 1:45 PM
To: Vikas Patel
Cc: CarrGreen, Katharine; McCord, Alycia
Subject: RE: Montrose (G-06 and G-24)

Vik –

Please add a Level IV data package to our request for the additional arsenic analyses. I have made everyone aware that the samples will be unfiltered.

Thank you,
Alycia

From: Vikas Patel [mailto:vipatel@calscience.com]
Sent: Thursday, March 08, 2012 11:39 AM
To: McCord, Alycia
Cc: CarrGreen, Katharine; Vikas Patel
Subject: RE: Montrose (G-06 and G-24)

Do you need a Level IV package for the additional Arsenic analyses?

We do not have any unpreserved sample left, so results will be reported as Total Arsenic (unfiltered).

Vik Patel
Project Manager
Calscience Environmental Laboratories, Inc.
714-895-5494 x211

From: McCord, Alycia [mailto:Alycia.McCord@aecom.com]
Sent: Thursday, March 08, 2012 11:24 AM
To: Vikas Patel
Cc: CarrGreen, Katharine; McCord, Alycia
Subject: RE: Montrose (G-06 and G-24)

Yes, the standard 5 day TAT will work for us.

Thanks,
Alycia

From: Vikas Patel [mailto:vipatel@calscience.com]
Sent: Thursday, March 08, 2012 11:14 AM
To: McCord, Alycia
Cc: CarrGreen, Katharine; Vikas Patel
Subject: RE: Montrose (G-06 and G-24)

Alycia – How soon do you need results. Standard 5 day TAT okay?

Vik Patel
Project Manager

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-02-0169

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 02/29/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 12-02-0169

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-02-0169
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	02/02/12 18:30
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
G-18						
p-Chlorobenzenesulfonic Acid	**49**		5.0	ug/L	EPA 314.0 (M) pCBS	N/A
Chlorobenzene	**2.9**		0.50	ug/L	EPA 8260B	EPA 5030C
MW-13						
Arsenic	**0.285**		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Alpha-BHC	**0.17**		0.0050	ug/L	EPA 8081A	EPA 3510C
Beta-BHC	**0.054**		0.0050	ug/L	EPA 8081A	EPA 3510C
Benzene	**5200**		100	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**4500**		100	ug/L	EPA 8260B	EPA 5030C
Chloroform	**99**		20	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	**54**		20	ug/L	EPA 8260B	EPA 5030C
Ethylbenzene	**450**		20	ug/L	EPA 8260B	EPA 5030C
Naphthalene	**160**		40	ug/L	EPA 8260B	EPA 5030C
n-Propylbenzene	**45**		20	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	**580**		20	ug/L	EPA 8260B	EPA 5030C
Toluene	**400**		20	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	**810**		20	ug/L	EPA 8260B	EPA 5030C
1,2,4-Trimethylbenzene	**360**		20	ug/L	EPA 8260B	EPA 5030C
1,3,5-Trimethylbenzene	**77**		20	ug/L	EPA 8260B	EPA 5030C
p/m-Xylene	**240**		20	ug/L	EPA 8260B	EPA 5030C
o-Xylene	**140**		20	ug/L	EPA 8260B	EPA 5030C
BF-6						
Chlorobenzene	**9100**		120	ug/L	EPA 8260B	EPA 5030C
MW-1						
Arsenic	**0.0141**		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Alpha-BHC	**20**		0.50	ug/L	EPA 8081A	EPA 3510C
Gamma-BHC	**27**		2.5	ug/L	EPA 8081A	EPA 3510C
Beta-BHC	**19**		0.50	ug/L	EPA 8081A	EPA 3510C
Delta-BHC	**15**		0.50	ug/L	EPA 8081A	EPA 3510C
Benzene	**2900**		1000	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**130000**		2000	ug/L	EPA 8260B	EPA 5030C
Chloroform	**14000**		1000	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	**1500**		1000	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB020212V	**12-02-0169-3-D**	**02/02/12 13:30**	**Aqueous**	**IC 8**	**N/A**	**02/03/12 12:35**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

G-18	**12-02-0169-4-D**	**02/02/12 15:10**	**Aqueous**	**IC 8**	**N/A**	**02/03/12 12:53**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	49	5.0	1		ug/L

Method Blank	**099-15-080-7**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**02/03/12 11:08**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB020212	**12-02-0169-2-C**	**02/02/12 07:35**	**Aqueous**	**GC 44**	**02/06/12**	**02/07/12 16:51**	**120206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	79	50-150		2,4,5,6-Tetrachloro-m-Xylene	72	50-150	

MW-13	**12-02-0169-5-F**	**02/02/12 09:40**	**Aqueous**	**GC 44**	**02/06/12**	**02/07/12 17:06**	**120206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	0.17	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	0.054	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	79	50-150		2,4,5,6-Tetrachloro-m-Xylene	59	50-150	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-6	**12-02-0169-6-D**	**02/02/12 08:40**	**Aqueous**	**GC 44**	**02/06/12**	**02/07/12 20:00**	**120206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	99	50-150		2,4,5,6-Tetrachloro-m-Xylene	66	50-150	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**12-02-0169-7-F**	**02/02/12 11:10**	**Aqueous**	**GC 44**	**02/06/12**	**02/07/12 18:33**	**120206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.50	50		Endosulfan I	ND	0.50	50	
Alpha-BHC	20	0.50	50		Endosulfan II	ND	0.50	50	
Beta-BHC	19	0.50	50		Endosulfan Sulfate	ND	0.50	50	
Chlordane	ND	1.2	50		Endrin	ND	0.50	50	
2,4'-DDD	ND	0.50	50		Endrin Aldehyde	ND	0.50	50	
4,4'-DDD	ND	0.50	50		Endrin Ketone	ND	0.50	50	
4,4'-DDE	ND	0.50	50		Gamma-BHC	27	2.5	250	
2,4'-DDE	ND	0.50	50		Heptachlor	ND	0.50	50	
2,4'-DDT	ND	0.50	50		Heptachlor Epoxide	ND	0.50	50	
4,4'-DDT	ND	0.50	50		Methoxychlor	ND	0.50	50	
Delta-BHC	15	0.50	50		Toxaphene	ND	6.2	50	
Dieldrin	ND	0.50	50						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	302	50-150	1,2,7	2,4,5,6-Tetrachloro-m-Xylene	124	50-150	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-435-24**	**N/A**	**Aqueous**	**GC 44**	**02/06/12**	**02/07/12 15:53**	**120206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	93	50-150		2,4,5,6-Tetrachloro-m-Xylene	56	50-150	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB020212	**12-02-0169-1-A**	**02/02/12 07:00**	**Aqueous**	**GC/MS FFF**	**02/03/12**	**02/03/12 12:02**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	96	68-120		Dibromofluoromethane	91	80-127	
1,2-Dichloroethane-d4	89	80-128		Toluene-d8	100	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB020212V	**12-02-0169-3-A**	**02/02/12 13:30**	**Aqueous**	**GC/MS FFF**	**02/03/12**	**02/03/12 12:29**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	98	68-120		Dibromofluoromethane	93	80-127	
1,2-Dichloroethane-d4	94	80-128		Toluene-d8	100	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-18	**12-02-0169-4-A**	**02/02/12 15:10**	**Aqueous**	**GC/MS FFF**	**02/03/12**	**02/03/12 12:57**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	2.9	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	98	68-120		Dibromofluoromethane	96	80-127	
1,2-Dichloroethane-d4	98	80-128		Toluene-d8	100	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-13	**12-02-0169-5-A**	**02/02/12 09:40**	**Aqueous**	**GC/MS FFF**	**02/03/12**	**02/03/12 13:24**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	400	40		c-1,3-Dichloropropene	ND	20	40	
Benzene	5200	100	200		t-1,3-Dichloropropene	ND	20	40	
Bromobenzene	ND	20	40		Ethylbenzene	450	20	40	
Bromochloromethane	ND	40	40		2-Hexanone	ND	400	40	
Bromodichloromethane	ND	20	40		Isopropylbenzene	ND	20	40	
Bromoform	ND	20	40		p-Isopropyltoluene	ND	20	40	
Bromomethane	ND	40	40		Methylene Chloride	ND	40	40	
2-Butanone	ND	200	40		4-Methyl-2-Pentanone	ND	200	40	
n-Butylbenzene	ND	20	40		Naphthalene	160	40	40	
sec-Butylbenzene	ND	20	40		n-Propylbenzene	45	20	40	
tert-Butylbenzene	ND	20	40		Styrene	ND	20	40	
Carbon Disulfide	ND	40	40		1,1,1,2-Tetrachloroethane	ND	20	40	
Carbon Tetrachloride	ND	20	40		1,1,2,2-Tetrachloroethane	ND	20	40	
Chlorobenzene	4500	100	200		Tetrachloroethene	580	20	40	
Chloroethane	ND	20	40		Toluene	400	20	40	
Chloroform	99	20	40		1,2,3-Trichlorobenzene	ND	20	40	
Chloromethane	ND	20	40		1,2,4-Trichlorobenzene	ND	20	40	
2-Chlorotoluene	ND	20	40		1,1,1-Trichloroethane	ND	20	40	
4-Chlorotoluene	ND	20	40		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	20	40	
Dibromochloromethane	ND	20	40		1,1,2-Trichloroethane	ND	20	40	
1,2-Dibromo-3-Chloropropane	ND	200	40		Trichloroethene	810	20	40	
1,2-Dibromoethane	ND	20	40		Trichlorofluoromethane	ND	20	40	
Dibromomethane	ND	20	40		1,2,3-Trichloropropane	ND	40	40	
1,2-Dichlorobenzene	ND	20	40		1,2,4-Trimethylbenzene	360	20	40	
1,3-Dichlorobenzene	ND	20	40		1,3,5-Trimethylbenzene	77	20	40	
1,4-Dichlorobenzene	ND	20	40		Vinyl Acetate	ND	200	40	
Dichlorodifluoromethane	ND	40	40		Vinyl Chloride	ND	20	40	
1,1-Dichloroethane	ND	20	40		p/m-Xylene	240	20	40	
1,2-Dichloroethane	ND	20	40		o-Xylene	140	20	40	
1,1-Dichloroethene	ND	20	40		Methyl-t-Butyl Ether (MTBE)	ND	20	40	
c-1,2-Dichloroethene	54	20	40		Tert-Butyl Alcohol (TBA)	ND	400	40	
t-1,2-Dichloroethene	ND	20	40		Diisopropyl Ether (DIPE)	ND	20	40	
1,2-Dichloropropane	ND	20	40		Ethyl-t-Butyl Ether (ETBE)	ND	20	40	
1,3-Dichloropropane	ND	40	40		Tert-Amyl-Methyl Ether (TAME)	ND	20	40	
2,2-Dichloropropane	ND	40	40		Ethanol	ND	2000	40	
1,1-Dichloropropene	ND	20	40						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	99	68-120		Dibromofluoromethane	95	80-127	
1,2-Dichloroethane-d4	99	80-128		Toluene-d8	102	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-6	**12-02-0169-6-A**	**02/02/12 08:40**	**Aqueous**	**GC/MS FFF**	**02/03/12**	**02/03/12 18:38**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	2500	250		c-1,3-Dichloropropene	ND	120	250	
Benzene	ND	120	250		t-1,3-Dichloropropene	ND	120	250	
Bromobenzene	ND	120	250		Ethylbenzene	ND	120	250	
Bromochloromethane	ND	250	250		2-Hexanone	ND	2500	250	
Bromodichloromethane	ND	120	250		Isopropylbenzene	ND	120	250	
Bromoform	ND	120	250		p-Isopropyltoluene	ND	120	250	
Bromomethane	ND	250	250		Methylene Chloride	ND	250	250	
2-Butanone	ND	1200	250		4-Methyl-2-Pentanone	ND	1200	250	
n-Butylbenzene	ND	120	250		Naphthalene	ND	250	250	
sec-Butylbenzene	ND	120	250		n-Propylbenzene	ND	120	250	
tert-Butylbenzene	ND	120	250		Styrene	ND	120	250	
Carbon Disulfide	ND	250	250		1,1,1,2-Tetrachloroethane	ND	120	250	
Carbon Tetrachloride	ND	120	250		1,1,2,2-Tetrachloroethane	ND	120	250	
Chlorobenzene	9100	120	250		Tetrachloroethene	ND	120	250	
Chloroethane	ND	120	250		Toluene	ND	120	250	
Chloroform	ND	120	250		1,2,3-Trichlorobenzene	ND	120	250	
Chloromethane	ND	120	250		1,2,4-Trichlorobenzene	ND	120	250	
2-Chlorotoluene	ND	120	250		1,1,1-Trichloroethane	ND	120	250	
4-Chlorotoluene	ND	120	250		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	120	250	
Dibromochloromethane	ND	120	250		1,1,2-Trichloroethane	ND	120	250	
1,2-Dibromo-3-Chloropropane	ND	1200	250		Trichloroethene	ND	120	250	
1,2-Dibromoethane	ND	120	250		Trichlorofluoromethane	ND	120	250	
Dibromomethane	ND	120	250		1,2,3-Trichloropropane	ND	250	250	
1,2-Dichlorobenzene	ND	120	250		1,2,4-Trimethylbenzene	ND	120	250	
1,3-Dichlorobenzene	ND	120	250		1,3,5-Trimethylbenzene	ND	120	250	
1,4-Dichlorobenzene	ND	120	250		Vinyl Acetate	ND	1200	250	
Dichlorodifluoromethane	ND	250	250		Vinyl Chloride	ND	120	250	
1,1-Dichloroethane	ND	120	250		p/m-Xylene	ND	120	250	
1,2-Dichloroethane	ND	120	250		o-Xylene	ND	120	250	
1,1-Dichloroethene	ND	120	250		Methyl-t-Butyl Ether (MTBE)	ND	120	250	
c-1,2-Dichloroethene	ND	120	250		Tert-Butyl Alcohol (TBA)	ND	2500	250	
t-1,2-Dichloroethene	ND	120	250		Diisopropyl Ether (DIPE)	ND	120	250	
1,2-Dichloropropane	ND	120	250		Ethyl-t-Butyl Ether (ETBE)	ND	120	250	
1,3-Dichloropropane	ND	250	250		Tert-Amyl-Methyl Ether (TAME)	ND	120	250	
2,2-Dichloropropane	ND	250	250		Ethanol	ND	12000	250	
1,1-Dichloropropene	ND	120	250						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	97	68-120		Dibromofluoromethane	93	80-127	
1,2-Dichloroethane-d4	94	80-128		Toluene-d8	100	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**12-02-0169-7-A**	**02/02/12 11:10**	**Aqueous**	**GC/MS FFF**	**02/03/12**	**02/03/12 18:10**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	20000	2000		c-1,3-Dichloropropene	ND	1000	2000	
Benzene	2900	1000	2000		t-1,3-Dichloropropene	ND	1000	2000	
Bromobenzene	ND	1000	2000		Ethylbenzene	ND	1000	2000	
Bromochloromethane	ND	2000	2000		2-Hexanone	ND	20000	2000	
Bromodichloromethane	ND	1000	2000		Isopropylbenzene	ND	1000	2000	
Bromoform	ND	1000	2000		p-Isopropyltoluene	ND	1000	2000	
Bromomethane	ND	2000	2000		Methylene Chloride	ND	2000	2000	
2-Butanone	ND	10000	2000		4-Methyl-2-Pentanone	ND	10000	2000	
n-Butylbenzene	ND	1000	2000		Naphthalene	ND	2000	2000	
sec-Butylbenzene	ND	1000	2000		n-Propylbenzene	ND	1000	2000	
tert-Butylbenzene	ND	1000	2000		Styrene	ND	1000	2000	
Carbon Disulfide	ND	2000	2000		1,1,1,2-Tetrachloroethane	ND	1000	2000	
Carbon Tetrachloride	ND	1000	2000		1,1,2,2-Tetrachloroethane	ND	1000	2000	
Chlorobenzene	130000	2000	4000		Tetrachloroethene	1500	1000	2000	
Chloroethane	ND	1000	2000		Toluene	ND	1000	2000	
Chloroform	14000	1000	2000		1,2,3-Trichlorobenzene	ND	1000	2000	
Chloromethane	ND	1000	2000		1,2,4-Trichlorobenzene	ND	1000	2000	
2-Chlorotoluene	ND	1000	2000		1,1,1-Trichloroethane	ND	1000	2000	
4-Chlorotoluene	ND	1000	2000		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1000	2000	
Dibromochloromethane	ND	1000	2000		1,1,2-Trichloroethane	ND	1000	2000	
1,2-Dibromo-3-Chloropropane	ND	10000	2000		Trichloroethene	ND	1000	2000	
1,2-Dibromoethane	ND	1000	2000		Trichlorofluoromethane	ND	1000	2000	
Dibromomethane	ND	1000	2000		1,2,3-Trichloropropane	ND	2000	2000	
1,2-Dichlorobenzene	ND	1000	2000		1,2,4-Trimethylbenzene	ND	1000	2000	
1,3-Dichlorobenzene	ND	1000	2000		1,3,5-Trimethylbenzene	ND	1000	2000	
1,4-Dichlorobenzene	ND	1000	2000		Vinyl Acetate	ND	10000	2000	
Dichlorodifluoromethane	ND	2000	2000		Vinyl Chloride	ND	1000	2000	
1,1-Dichloroethane	ND	1000	2000		p/m-Xylene	ND	1000	2000	
1,2-Dichloroethane	ND	1000	2000		o-Xylene	ND	1000	2000	
1,1-Dichloroethene	ND	1000	2000		Methyl-t-Butyl Ether (MTBE)	ND	1000	2000	
c-1,2-Dichloroethene	ND	1000	2000		Tert-Butyl Alcohol (TBA)	ND	20000	2000	
t-1,2-Dichloroethene	ND	1000	2000		Diisopropyl Ether (DIPE)	ND	1000	2000	
1,2-Dichloropropane	ND	1000	2000		Ethyl-t-Butyl Ether (ETBE)	ND	1000	2000	
1,3-Dichloropropane	ND	2000	2000		Tert-Amyl-Methyl Ether (TAME)	ND	1000	2000	
2,2-Dichloropropane	ND	2000	2000		Ethanol	ND	100000	2000	
1,1-Dichloropropene	ND	1000	2000						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	98	68-120		Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	94	80-128		Toluene-d8	101	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,253**	**N/A**	**Aqueous**	**GC/MS FFF**	**02/03/12**	**02/03/12 11:34**	**120203L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	97	68-120		Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	97	80-128		Toluene-d8	99	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB020212	**12-02-0169-2-B**	**02/02/12 07:35**	**Aqueous**	**ICP/MS 04**	**02/06/12**	**02/07/12 13:55**	**120206L03F**

Parameter	Result	RL	DF	Qual	Units
Arsenic	ND	0.00100	1		mg/L

MW-13	**12-02-0169-5-E**	**02/02/12 09:40**	**Aqueous**	**ICP/MS 04**	**02/06/12**	**02/07/12 13:52**	**120206L03F**

Parameter	Result	RL	DF	Qual	Units
Arsenic	0.285	0.00100	1		mg/L

MW-1	**12-02-0169-7-E**	**02/02/12 11:10**	**Aqueous**	**ICP/MS 04**	**02/06/12**	**02/07/12 14:38**	**120206L03F**

Parameter	Result	RL	DF	Qual	Units
Arsenic	0.0141	0.00100	1		mg/L

Method Blank	**096-06-003-3,644**	**N/A**	**Aqueous**	**ICP/MS 04**	**02/06/12**	**02/07/12 13:24**	**120206L03F**

Parameter	Result	RL	DF	Qual	Units
Arsenic	ND	0.00100	1		mg/L

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-13	**Aqueous**	**ICP/MS 04**	**02/06/12**	**02/07/12**	**120206S03**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	119	111	73-127	2	0-11	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

AECOM		Date Received	02/02/12
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
MW-13	**Aqueous**	**ICP/MS 04**	**02/06/12**	**02/07/12**	**120206S03**

Parameter	SPIKE ADDED	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	74	70	75-125	1	0-11	5

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 02/02/12
Work Order No: 12-02-0169
Preparation: N/A
Method: EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-18	**Aqueous**	**IC 8**	**N/A**	**02/03/12**	**120203S01A**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	118	115	70-130	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 02/02/12
Work Order No: 12-02-0169
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-18	**Aqueous**	**GC/MS FFF**	**02/03/12**	**02/03/12**	**120203S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	122	120	76-124	1	0-20	
Carbon Tetrachloride	10.00	115	114	74-134	1	0-20	
Chlorobenzene	10.00	121	116	80-120	3	0-20	3
1,2-Dibromoethane	10.00	117	117	80-120	1	0-20	
1,2-Dichlorobenzene	10.00	113	113	80-120	1	0-20	
1,2-Dichloroethane	10.00	114	114	80-120	0	0-20	
1,1-Dichloroethene	10.00	115	113	73-127	2	0-20	
Ethylbenzene	10.00	119	118	78-126	1	0-20	
Toluene	10.00	126	124	80-120	1	0-20	3
Trichloroethene	10.00	118	116	77-120	1	0-20	
Vinyl Chloride	10.00	131	126	72-126	4	0-20	3
Methyl-t-Butyl Ether (MTBE)	10.00	105	105	67-121	0	0-49	
Tert-Butyl Alcohol (TBA)	50.00	247	179	36-162	32	0-30	3,4
Diisopropyl Ether (DIPE)	10.00	114	112	60-138	1	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	102	101	69-123	1	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	107	106	65-120	1	0-20	
Ethanol	100.0	136	126	30-180	7	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-3,644	**Aqueous**	**ICP/MS 04**	**02/06/12**	**02/07/12**	**120206L03F**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	94	92	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-7	**Aqueous**	**IC 8**	**N/A**	**02/03/12**	**120203L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	108	111	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: N/A
Work Order No: 12-02-0169
Preparation: EPA 3510C
Method: EPA 8081A

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-435-24	**Aqueous**	**GC 44**	**02/06/12**	**02/07/12**	**120206L03**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Aldrin	0.1250	92	91	50-150	33-167	1	0-25	
Alpha-BHC	0.1250	94	95	50-150	33-167	1	0-25	
Beta-BHC	0.1250	99	97	50-150	33-167	2	0-25	
4,4'-DDD	0.1250	93	91	50-150	33-167	2	0-25	
4,4'-DDE	0.1250	95	94	50-150	33-167	1	0-25	
4,4'-DDT	0.1250	100	99	50-150	33-167	1	0-25	
Delta-BHC	0.1250	92	96	50-150	33-167	4	0-25	
Dieldrin	0.1250	92	91	50-150	33-167	1	0-25	
Endosulfan I	0.1250	93	91	50-150	33-167	2	0-25	
Endosulfan II	0.1250	101	98	50-150	33-167	3	0-25	
Endosulfan Sulfate	0.1250	89	89	50-150	33-167	1	0-25	
Endrin	0.1250	95	95	50-150	33-167	0	0-25	
Endrin Aldehyde	0.1250	85	83	50-150	33-167	2	0-25	
Gamma-BHC	0.1250	96	97	50-150	33-167	1	0-25	
Heptachlor	0.1250	92	91	50-150	33-167	1	0-25	
Heptachlor Epoxide	0.1250	88	86	50-150	33-167	3	0-25	
Methoxychlor	0.1250	93	93	50-150	33-167	0	0-25	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0169
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,253	**Aqueous**	**GC/MS FFF**	**02/03/12**	**02/03/12**	**120203L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	116	112	80-120	73-127	3	0-20	
Carbon Tetrachloride	10.00	110	106	74-134	64-144	4	0-20	
Chlorobenzene	10.00	113	110	80-120	73-127	3	0-20	
1,2-Dibromoethane	10.00	109	110	79-121	72-128	1	0-20	
1,2-Dichlorobenzene	10.00	112	109	80-120	73-127	3	0-20	
1,2-Dichloroethane	10.00	110	109	80-120	73-127	1	0-20	
1,1-Dichloroethene	10.00	112	107	78-126	70-134	5	0-28	
Ethylbenzene	10.00	115	111	80-120	73-127	3	0-20	
Toluene	10.00	115	112	80-120	73-127	3	0-20	
Trichloroethene	10.00	113	110	79-127	71-135	3	0-20	
Vinyl Chloride	10.00	109	109	72-132	62-142	0	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	101	101	69-123	60-132	0	0-20	
Tert-Butyl Alcohol (TBA)	50.00	103	110	63-123	53-133	6	0-20	
Diisopropyl Ether (DIPE)	10.00	109	108	59-137	46-150	2	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	101	100	69-123	60-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	102	102	70-120	62-128	0	0-20	
Ethanol	100.0	127	115	28-160	6-182	10	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-02-0169

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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☒ SoCal Laboratory
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494

☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 12-02-0169

Date: 2-2-2012

Page 1 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG Beach STATE: CA ZIP: 90810

TEL: 562-213-4166 E-MAIL: katharine.carrgreen@aecom.com

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: Katharine Carr Green

SAMPLER(S): (PRINT) K.Carr Green

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ PCBs 8141mod	En Core / Terra Core Prep (5035)	~~SVOCs (8270)~~ As Total 1	Pesticides (8081) DDT + 44-4,4-isomers	~~PCBs (8082)~~ As III As II 2020	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
1	TB020212	2-2-12	0700	H_2O	2		X						X													
2	EB020212	↑	0735	↑	1	X										X										
	EB020212		0735		1	X											X									
	EB020212		0735		1	X												X								
3	EB020212V		~~0700~~ 1330		3		X						X													
	EB020212V		1330		1	X								X												
4	G-18		1510		1	X								X												
	G-18		1510		3		X						X													
5	MW-13	↓	0940	↓	3		X						X													
	MW-13	2-2-12	0940	H_2O	1	X											X									

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
2/2/12 1700	CEL	2/2/12	17.00
	CEL	2/2/12	1830

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

06/01/10 Revision

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Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

Date 2-2-2012

Page 2 of 2

WO # / LAB USE ONLY: 0 2 - 0 1 6 9

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG Beach STATE: CA ZIP: 90810

TEL: 562-213-4164 E-MAIL: Katharine.Carrgreen@AECOM.com

CLIENT PROJECT NAME / NUMBER: MONTROSE

P.O. NO.: 60212541.03.01

PROJECT CONTACT: Katharine Carr Green

SAMPLER(S): (PRINT) K. Carr Green

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ KK PCBSA mod 314	En Core / Terra Core Prep (5035)	~~SVOCs (8270)~~ KK As Total	Pesticides (8081) DDT 22 4,4 isomers	~~PCBs (8082)~~ As III, As T 200.8	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
5	MW-13	2-2-2012	0940	H2O	1	X										X										
	MW-13	↑	0940	↑	1	X												X								
6	BF-6		0940		1	X											X									
	BF-6		0940		3		X						X													
7	MW-1		1110		3		X						X													
	MW-1		1110		1	X										X										
7	MW-1		1110		1	X											X									
	MW-1	2-2-2012	1110	H2O	1	X												X								

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
KCarr 2/2/12 1700	CEL	2/2/12	17.00
	CEL	2/2/12	1830

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

06/01/10 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-02-0169

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 02/2/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.9 °C - 0.3 °C (CF) = 1.6 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: DBE

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: DBE

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: PT

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑3 VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☑250PB (Brown) ~~EDTA~~ EDTA @ 2/2/12 ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120117B **Labeled/Checked by:** PT

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** [illegible]

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** [illegible]

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Calscience Environmental Laboratories, Inc.

Subcontractor Analysis Report

Work Order # 12-02-0169

One or more samples in this Work Order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1 Weck Laboratories, Inc. - City of Industry,CA NELAP 04229CA

Arsenic III and Arsenic IV

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Certificate of Analysis

Report Date: Wednesday, February 22, 2012
Received Date: Tuesday, February 7, 2012
Received Time: 11:00 am
Turnaround Time: Normal

Client: Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1432

Phones: (714) 895-5494
Fax: (714) 894-7501

Attn: Vikas Patel
Project: 12-02-0169

P.O. #: 12-02-0169

Lab Sample ID: 2B07018-01 **Sample ID: EB020212** **Matrix:** Water
Sampled by: Client **Sampled: 02/02/12 07:35**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Arsenic III	ND	0.014	0.40	ug/l	1	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	
Arsenic V	ND	0.014	0.40	ug/l	1	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	

Lab Sample ID: 2B07018-02 **Sample ID: MW-13** **Matrix:** Water
Sampled by: Client **Sampled: 02/02/12 09:40**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Arsenic III	**300**	0.14	4.0	ug/l	10	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	
Arsenic V	**110**	0.14	4.0	ug/l	10	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	

Lab Sample ID: 2B07018-03 **Sample ID: MW-1** **Matrix:** Water
Sampled by: Client **Sampled: 02/02/12 11:10**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Arsenic III	**8.1**	0.014	0.40	ug/l	1	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	
Arsenic V	**8.0**	0.014	0.40	ug/l	1	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634
www.wecklabs.com
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Certificate of Analysis

Quality Control Section

Metals by EPA 200 Series Methods - Quality Control

Batch W2B0839 - IC-ICP/MS

Blank (W2B0839-BLK1) — **Prepared: 02/21/12 Analyzed: 02/22/12 11:39**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III		ND		ug/l					
Arsenic V		ND		ug/l					

LCS (W2B0839-BS1) — **Prepared: 02/21/12 Analyzed: 02/22/12 11:39**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III		9.95		ug/l	10.0	100	85-115		
Arsenic V		10.2		ug/l	10.0	102	85-115		

Matrix Spike (W2B0839-MS1) — **Source: 2B08014-01** — **Prepared: 02/21/12 Analyzed: 02/22/12 11:39**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III	ND	11.2		ug/l	10.0	112	70-130		

Matrix Spike Dup (W2B0839-MSD1) — **Source: 2B08014-01** — **Prepared: 02/21/12 Analyzed: 02/22/12 11:39**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III	ND	11.4		ug/l	10.0	114	70-130	2	200

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Certificate of Analysis

Notes:
The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature
Contact: Ana Carrera For Kim G Tu (Project Manager)

ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-02-0275

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 02/21/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

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Client Project Name: Montrose Superfund Site / 60212541.03.01
Work Order Number: 12-02-0275

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-02-0275
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	02/03/12 16:30
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	**Result**	Qualifiers	Reporting Limit	Units	Method	Extraction
G-29						
p-Chlorobenzenesulfonic Acid	**7800**		1000	ug/L	EPA 314.0 (M) pCBS	N/A
Chlorobenzene	**1.5**		0.50	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/03/12
3995 Via Oro Ave		Work Order No:	12-02-0275
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB020312	**12-02-0275-2-D**	**02/03/12 07:45**	**Aqueous**	**IC 8**	**N/A**	**02/03/12 18:59**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

G-29	**12-02-0275-3-G**	**02/03/12 09:20**	**Aqueous**	**IC 8**	**N/A**	**02/03/12 20:18**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	7800	1000	200		ug/L

G-34	**12-02-0275-4-D**	**02/03/12 13:35**	**Aqueous**	**IC 8**	**N/A**	**02/03/12 19:35**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

Method Blank	**099-15-080-7**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**02/03/12 11:08**	**120203L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/03/12
3995 Via Oro Ave		Work Order No:	12-02-0275
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB020312	**12-02-0275-1-A**	**02/03/12 07:15**	**Aqueous**	**GC/MS BB**	**02/06/12**	**02/06/12 16:01**	**120206L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	83	68-120		Dibromofluoromethane	92	80-127	
1,2-Dichloroethane-d4	87	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/03/12
3995 Via Oro Ave		Work Order No:	12-02-0275
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB020312	**12-02-0275-2-A**	**02/03/12 07:45**	**Aqueous**	**GC/MS BB**	**02/06/12**	**02/06/12 16:30**	**120206L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	85	68-120		Dibromofluoromethane	92	80-127	
1,2-Dichloroethane-d4	88	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/03/12
3995 Via Oro Ave		Work Order No:	12-02-0275
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-29	**12-02-0275-3-A**	**02/03/12 09:20**	**Aqueous**	**GC/MS BB**	**02/06/12**	**02/06/12 16:59**	**120206L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	1.5	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	84	68-120		Dibromofluoromethane	93	80-127	
1,2-Dichloroethane-d4	88	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/03/12
3995 Via Oro Ave		Work Order No:	12-02-0275
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-34	**12-02-0275-4-A**	**02/03/12 13:35**	**Aqueous**	**GC/MS BB**	**02/06/12**	**02/06/12 17:29**	**120206L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	83	68-120		Dibromofluoromethane	92	80-127	
1,2-Dichloroethane-d4	86	80-128		Toluene-d8	93	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/03/12
3995 Via Oro Ave		Work Order No:	12-02-0275
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,255**	**N/A**	**Aqueous**	**GC/MS BB**	**02/06/12**	**02/06/12 15:01**	**120206L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	83	68-120		Dibromofluoromethane	92	80-127	
1,2-Dichloroethane-d4	87	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	02/03/12
3995 Via Oro Ave		Work Order No:	12-02-0275
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-29	**Aqueous**	**IC 8**	**N/A**	**02/03/12**	**120203S01B**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	5000	130	125	70-130	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 02/03/12
Work Order No: 12-02-0275
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-29	**Aqueous**	**GC/MS BB**	**02/06/12**	**02/06/12**	**120206S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	85	88	76-124	4	0-20	
Carbon Tetrachloride	10.00	89	92	74-134	4	0-20	
Chlorobenzene	10.00	100	105	80-120	4	0-20	
1,2-Dibromoethane	10.00	93	96	80-120	3	0-20	
1,2-Dichlorobenzene	10.00	99	105	80-120	6	0-20	
1,2-Dichloroethane	10.00	91	92	80-120	1	0-20	
1,1-Dichloroethene	10.00	84	89	73-127	6	0-20	
Ethylbenzene	10.00	96	102	78-126	6	0-20	
Toluene	10.00	102	104	80-120	2	0-20	
Trichloroethene	10.00	95	102	77-120	7	0-20	
Vinyl Chloride	10.00	95	103	72-126	8	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	75	79	67-121	6	0-49	
Tert-Butyl Alcohol (TBA)	50.00	308	150	36-162	69	0-30	3,4
Diisopropyl Ether (DIPE)	10.00	70	75	60-138	7	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	70	76	69-123	7	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	76	81	65-120	6	0-20	
Ethanol	100.0	105	106	30-180	1	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0275
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-7	**Aqueous**	**IC 8**	**N/A**	**02/03/12**	**120203L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	108	111	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0275
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,255	**Aqueous**	**GC/MS BB**	**02/06/12**	**02/06/12**	**120206L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	83	83	80-120	73-127	0	0-20	
Carbon Tetrachloride	10.00	91	93	74-134	64-144	2	0-20	
Chlorobenzene	10.00	99	100	80-120	73-127	1	0-20	
1,2-Dibromoethane	10.00	91	97	79-121	72-128	6	0-20	
1,2-Dichlorobenzene	10.00	98	102	80-120	73-127	4	0-20	
1,2-Dichloroethane	10.00	85	87	80-120	73-127	3	0-20	
1,1-Dichloroethene	10.00	83	85	78-126	70-134	3	0-28	
Ethylbenzene	10.00	96	98	80-120	73-127	3	0-20	
Toluene	10.00	96	97	80-120	73-127	1	0-20	
Trichloroethene	10.00	95	97	79-127	71-135	1	0-20	
Vinyl Chloride	10.00	93	96	72-132	62-142	3	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	78	82	69-123	60-132	5	0-20	
Tert-Butyl Alcohol (TBA)	50.00	94	90	63-123	53-133	4	0-20	
Diisopropyl Ether (DIPE)	10.00	70	74	59-137	46-150	5	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	74	76	69-123	60-132	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	79	83	70-120	62-128	5	0-20	
Ethanol	100.0	96	89	28-160	6-182	7	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-02-0275

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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Calscience Environmental Laboratories, Inc.

☒ SoCal Laboratory
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494

☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

WORK LAB USE ONLY: 12-02-0275

CHAIN OF CUSTODY RECORD

Date 2-3-12

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LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG Beach STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: Katharine.carrgreen@AECOM.com

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60258541.03.01

PROJECT CONTACT: KATHARINE CARR GREEN

SAMPLER(S): (PRINT) K. CARR GREEN

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ PCBs 4 mod 314	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
1	TB020312	2-3-12	0715	H2O	2		X						X													
2	EB020312	↑	0745	↑	3		X						X													
3	EB020312		0745		1	X								X												
3	G-29		0920		2	X								X												
8	G-29		0920		6		X						X													
6	G-34		1335		3		X						X													
4 7	G-34	2-3-12	1335	H2O	1	X								X												

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature/Affiliation)	Date:	Time:
[signature]	2-3-12	1541	[signature] CEL	2/3/12	1541
[signature]			[signature]	2/3/12	1630
[signature]			[signature]		

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-02-0275

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 02/3/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.3 °C - 0.3 °C (CF) = 2.0 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: AM

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: AM

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: N

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB ☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 1201176 **Labeled/Checked by:** N

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** CC

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** CC

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Vikas Patel

From: CarrGreen, Katharine [Katharine.CarrGreen@aecom.com]
Sent: Monday, February 06, 2012 5:35 PM
To: Vikas Patel
Subject: RE: Montrose Superfund Site / 60212541.03.01 / CEL 12-02-0275
Attachments: Calscience_2-03-12 revised.pdf

Vik –

Here is the revised COC

Katharine Carr Green

562-755-9046

From: Vikas Patel [mailto:vipatel@calscience.com]
Sent: Monday, February 06, 2012 09:57
To: CarrGreen, Katharine
Cc: Vikas Patel
Subject: Montrose Superfund Site / 60212541.03.01 / CEL 12-02-0275

Morning Katharine – We received twice the number of containers for sample G-29. Did you want us to run MS/MSD on this sample?

Vik Patel
Project Manager
Calscience Environmental Laboratories, Inc.
714-895-5494 x211

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Calscience Environmental Laboratories, Inc.

☑ SoCal Laboratory
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494

☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

Date 2-3-12

Page 1 of 1

WO #/ LAB USE ONLY

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG Beach STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: Katharine.carrgreen@AECOM.com

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☑ STANDARD

☐ COELT EDF GLOBAL ID

LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND SITE

P.O. NO.: 60285411.03.01

PROJECT CONTACT: KATHARINE CARR GREEN

SAMPLER(S): (PRINT) K. CARR GREEN

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ PCBs 8 mod 314	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]
	TB020312	2-3-12	0715	H2O	2		X						X										
	EB020312	↑	0745	↑	3		X						X										
	EB020312		0745		1	X								X									
	G-29		0920		2	X								X		MS/MSD							
	G-29		0920		6		X						X			MS/MSD							
	G-34	↓	1335	↓	3		X						X										
	G-34	2-3-12	1335	H2O	1	X								X									

Relinquished by: (Signature)	2-3-12 1541	Received by: (Signature/Affiliation)	Date: 2/3/12 Time: 1541
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	Date: Time:
Relinquished by: (Signature)		Received by: (Signature/Affiliation)	Date: Time:

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CALSCIENCE

WORK ORDER NUMBER: 12-02-0378

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 02/29/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Accredited in accordance with nelac

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

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Client Project Name: Montrose Superfund Site / 60212541.03.01
Work Order Number: 12-02-0378

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-02-0378
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	02/06/12 18:00
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
G-EW-2						
Benzene	**2.3**		0.50	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**790**		20	ug/L	EPA 8260B	EPA 5030C
1,4-Dichlorobenzene	**1.7**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**7.1**		0.50	ug/L	EPA 8260B	EPA 5030C
MBFB-EW-1						
Arsenic	**0.215**		0.00100	mg/L	EPA 6020	EPA 3005A Filt.
Beta-BHC	**0.43**		0.050	ug/L	EPA 8081A	EPA 3510C
Benzene	**7000**		100	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**820**		25	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**280**		25	ug/L	EPA 8260B	EPA 5030C
Ethylbenzene	**920**		25	ug/L	EPA 8260B	EPA 5030C
Isopropylbenzene	**27**		25	ug/L	EPA 8260B	EPA 5030C
Naphthalene	**180**		50	ug/L	EPA 8260B	EPA 5030C
n-Propylbenzene	**70**		25	ug/L	EPA 8260B	EPA 5030C
Toluene	**30**		25	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	**82**		25	ug/L	EPA 8260B	EPA 5030C
1,2,4-Trimethylbenzene	**550**		25	ug/L	EPA 8260B	EPA 5030C
1,3,5-Trimethylbenzene	**120**		25	ug/L	EPA 8260B	EPA 5030C
p/m-Xylene	**710**		25	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/06/12
3995 Via Oro Ave		Work Order No:	12-02-0378
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB020612	**12-02-0378-3-C**	**02/06/12 14:40**	**Aqueous**	**GC 44**	**02/08/12**	**02/10/12 19:20**	**120208L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	105	50-150		2,4,5,6-Tetrachloro-m-Xylene	100	50-150	

MBFB-EW-1	**12-02-0378-4-F**	**02/06/12 16:00**	**Aqueous**	**GC 44**	**02/08/12**	**02/10/12 18:07**	**120208L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	0.43	0.050	5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	91	50-150		2,4,5,6-Tetrachloro-m-Xylene	123	50-150	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/06/12
3995 Via Oro Ave		Work Order No:	12-02-0378
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-435-25**	**N/A**	**Aqueous**	**GC 44**	**02/08/12**	**02/10/12 17:53**	**120208L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	90	50-150		2,4,5,6-Tetrachloro-m-Xylene	90	50-150	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/06/12
3995 Via Oro Ave		Work Order No:	12-02-0378
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB020612	**12-02-0378-1-A**	**02/06/12 07:00**	**Aqueous**	**GC/MS BB**	**02/07/12**	**02/07/12 22:50**	**120207L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	68-120		Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	107	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/06/12
3995 Via Oro Ave		Work Order No:	12-02-0378
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-EW-2	**12-02-0378-2-A**	**02/06/12 13:09**	**Aqueous**	**GC/MS BB**	**02/07/12**	**02/07/12 23:19**	**120207L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	2.3	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	790	20	40		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	1.7	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	7.1	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	96	68-120		Dibromofluoromethane	103	80-127	
1,2-Dichloroethane-d4	102	80-128		Toluene-d8	93	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/06/12
3995 Via Oro Ave		Work Order No:	12-02-0378
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MBFB-EW-1	**12-02-0378-4-C**	**02/06/12 16:00**	**Aqueous**	**GC/MS BB**	**02/08/12**	**02/08/12 15:31**	**120208L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	500	50		c-1,3-Dichloropropene	ND	25	50	
Benzene	7000	100	200		t-1,3-Dichloropropene	ND	25	50	
Bromobenzene	ND	25	50		Ethylbenzene	920	25	50	
Bromochloromethane	ND	50	50		2-Hexanone	ND	500	50	
Bromodichloromethane	ND	25	50		Isopropylbenzene	27	25	50	
Bromoform	ND	25	50		p-Isopropyltoluene	ND	25	50	
Bromomethane	ND	50	50		Methylene Chloride	ND	50	50	
2-Butanone	ND	250	50		4-Methyl-2-Pentanone	ND	250	50	
n-Butylbenzene	ND	25	50		Naphthalene	180	50	50	
sec-Butylbenzene	ND	25	50		n-Propylbenzene	70	25	50	
tert-Butylbenzene	ND	25	50		Styrene	ND	25	50	
Carbon Disulfide	ND	50	50		1,1,1,2-Tetrachloroethane	ND	25	50	
Carbon Tetrachloride	ND	25	50		1,1,2,2-Tetrachloroethane	ND	25	50	
Chlorobenzene	820	25	50		Tetrachloroethene	ND	25	50	
Chloroethane	ND	25	50		Toluene	30	25	50	
Chloroform	ND	25	50		1,2,3-Trichlorobenzene	ND	25	50	
Chloromethane	ND	25	50		1,2,4-Trichlorobenzene	ND	25	50	
2-Chlorotoluene	ND	25	50		1,1,1-Trichloroethane	ND	25	50	
4-Chlorotoluene	ND	25	50		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	25	50	
Dibromochloromethane	ND	25	50		1,1,2-Trichloroethane	ND	25	50	
1,2-Dibromo-3-Chloropropane	ND	250	50		Trichloroethene	82	25	50	
1,2-Dibromoethane	ND	25	50		Trichlorofluoromethane	ND	25	50	
Dibromomethane	ND	25	50		1,2,3-Trichloropropane	ND	50	50	
1,2-Dichlorobenzene	ND	25	50		1,2,4-Trimethylbenzene	550	25	50	
1,3-Dichlorobenzene	ND	25	50		1,3,5-Trimethylbenzene	120	25	50	
1,4-Dichlorobenzene	ND	25	50		Vinyl Acetate	ND	250	50	
Dichlorodifluoromethane	ND	50	50		Vinyl Chloride	ND	25	50	
1,1-Dichloroethane	ND	25	50		p/m-Xylene	710	25	50	
1,2-Dichloroethane	280	25	50		o-Xylene	ND	25	50	
1,1-Dichloroethene	ND	25	50		Methyl-t-Butyl Ether (MTBE)	ND	25	50	
c-1,2-Dichloroethene	ND	25	50		Tert-Butyl Alcohol (TBA)	ND	500	50	
t-1,2-Dichloroethene	ND	25	50		Diisopropyl Ether (DIPE)	ND	25	50	
1,2-Dichloropropane	ND	25	50		Ethyl-t-Butyl Ether (ETBE)	ND	25	50	
1,3-Dichloropropane	ND	50	50		Tert-Amyl-Methyl Ether (TAME)	ND	25	50	
2,2-Dichloropropane	ND	50	50		Ethanol	ND	2500	50	
1,1-Dichloropropene	ND	25	50						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	96	68-120		Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	111	80-128		Toluene-d8	97	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/06/12
3995 Via Oro Ave		Work Order No:	12-02-0378
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,256**	**N/A**	**Aqueous**	**GC/MS BB**	**02/07/12**	**02/07/12 21:51**	**120207L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	100	80-128		Toluene-d8	96	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/06/12
3995 Via Oro Ave		Work Order No:	12-02-0378
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,257**	**N/A**	**Aqueous**	**GC/MS BB**	**02/08/12**	**02/08/12 14:32**	**120208L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	68-120		Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	104	80-128		Toluene-d8	95	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/06/12
3995 Via Oro Ave		Work Order No:	12-02-0378
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB020612	**12-02-0378-3-B**	**02/06/12 14:40**	**Aqueous**	**ICP/MS 04**	**02/06/12**	**02/09/12 16:05**	**120206L03F**

Parameter	Result	RL	DF	Qual	Units
Arsenic	ND	0.00100	1		mg/L

MBFB-EW-1	**12-02-0378-4-E**	**02/06/12 16:00**	**Aqueous**	**ICP/MS 04**	**02/06/12**	**02/09/12 16:06**	**120206L03F**

Parameter	Result	RL	DF	Qual	Units
Arsenic	0.215	0.00100	1		mg/L

Method Blank	**096-06-003-3,644**	**N/A**	**Aqueous**	**ICP/MS 04**	**02/06/12**	**02/07/12 13:24**	**120206L03F**

Parameter	Result	RL	DF	Qual	Units
Arsenic	ND	0.00100	1		mg/L

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	02/06/12
3995 Via Oro Ave		Work Order No:	12-02-0378
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-02-0169-5	**Aqueous**	**ICP/MS 04**	**02/06/12**	**02/07/12**	**120206S03**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	119	111	73-127	2	0-11	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received	02/06/12
3995 Via Oro Ave		Work Order No:	12-02-0378
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
12-02-0169-5	**Aqueous**	**ICP/MS 04**	**02/06/12**	**02/07/12**	**120206S03**

Parameter	SPIKE ADDED	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	74	70	75-125	1	0-11	5

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 02/06/12
Work Order No: 12-02-0378
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-EW-2	**Aqueous**	**GC/MS BB**	**02/07/12**	**02/08/12**	**120207S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	102	99	76-124	2	0-20	
Carbon Tetrachloride	10.00	98	98	74-134	0	0-20	
Chlorobenzene	10.00	0	0	80-120	1	0-20	3
1,2-Dibromoethane	10.00	101	100	80-120	1	0-20	
1,2-Dichlorobenzene	10.00	103	104	80-120	1	0-20	
1,2-Dichloroethane	10.00	103	98	80-120	3	0-20	
1,1-Dichloroethene	10.00	94	99	73-127	5	0-20	
Ethylbenzene	10.00	108	108	78-126	0	0-20	
Toluene	10.00	104	104	80-120	1	0-20	
Trichloroethene	10.00	106	102	77-120	4	0-20	
Vinyl Chloride	10.00	110	116	72-126	5	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	100	102	67-121	2	0-49	
Tert-Butyl Alcohol (TBA)	50.00	179	117	36-162	42	0-30	3,4
Diisopropyl Ether (DIPE)	10.00	100	103	60-138	3	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	95	98	69-123	3	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	98	98	65-120	0	0-20	
Ethanol	100.0	104	110	30-180	6	0-72	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 02/06/12
Work Order No: 12-02-0378
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MBFB-EW-1	**Aqueous**	**GC/MS BB**	**02/08/12**	**02/08/12**	**120208S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	500.0	0	0	76-124	3	0-20	3
Carbon Tetrachloride	500.0	97	92	74-134	6	0-20	
Chlorobenzene	500.0	90	86	80-120	1	0-20	
1,2-Dibromoethane	500.0	98	97	80-120	2	0-20	
1,2-Dichlorobenzene	500.0	98	97	80-120	1	0-20	
1,2-Dichloroethane	500.0	137	130	80-120	4	0-20	3
1,1-Dichloroethene	500.0	95	94	73-127	1	0-20	
Ethylbenzene	500.0	96	92	78-126	2	0-20	
Toluene	500.0	99	93	80-120	7	0-20	
Trichloroethene	500.0	103	91	77-120	11	0-20	
Vinyl Chloride	500.0	114	110	72-126	3	0-20	
Methyl-t-Butyl Ether (MTBE)	500.0	96	98	67-121	2	0-49	
Tert-Butyl Alcohol (TBA)	2500	84	78	36-162	6	0-30	
Diisopropyl Ether (DIPE)	500.0	100	99	60-138	1	0-45	
Ethyl-t-Butyl Ether (ETBE)	500.0	95	94	69-123	2	0-30	
Tert-Amyl-Methyl Ether (TAME)	500.0	95	94	65-120	1	0-20	
Ethanol	5000	91	85	30-180	7	0-72	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0378
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-3,644	**Aqueous**	**ICP/MS 04**	**02/06/12**	**02/07/12**	**120206L03F**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	94	92	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: N/A
Work Order No: 12-02-0378
Preparation: EPA 3510C
Method: EPA 8081A

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-435-25	**Aqueous**	**GC 44**	**02/08/12**	**02/10/12**	**120208L03**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Aldrin	0.1250	98	100	50-150	33-167	2	0-25	
Alpha-BHC	0.1250	103	106	50-150	33-167	3	0-25	
Beta-BHC	0.1250	102	103	50-150	33-167	1	0-25	
4,4'-DDD	0.1250	106	107	50-150	33-167	1	0-25	
4,4'-DDE	0.1250	107	107	50-150	33-167	0	0-25	
4,4'-DDT	0.1250	112	114	50-150	33-167	1	0-25	
Delta-BHC	0.1250	98	102	50-150	33-167	4	0-25	
Dieldrin	0.1250	103	104	50-150	33-167	1	0-25	
Endosulfan I	0.1250	102	104	50-150	33-167	2	0-25	
Endosulfan II	0.1250	113	115	50-150	33-167	1	0-25	
Endosulfan Sulfate	0.1250	102	104	50-150	33-167	2	0-25	
Endrin	0.1250	107	111	50-150	33-167	4	0-25	
Endrin Aldehyde	0.1250	96	100	50-150	33-167	4	0-25	
Gamma-BHC	0.1250	105	108	50-150	33-167	3	0-25	
Heptachlor	0.1250	86	94	50-150	33-167	9	0-25	
Heptachlor Epoxide	0.1250	99	100	50-150	33-167	1	0-25	
Methoxychlor	0.1250	103	103	50-150	33-167	0	0-25	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0378
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,256	**Aqueous**	**GC/MS BB**	**02/07/12**	**02/07/12**	**120207L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	98	99	80-120	73-127	1	0-20	
Carbon Tetrachloride	10.00	102	99	74-134	64-144	2	0-20	
Chlorobenzene	10.00	99	97	80-120	73-127	3	0-20	
1,2-Dibromoethane	10.00	101	99	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	10.00	106	103	80-120	73-127	3	0-20	
1,2-Dichloroethane	10.00	100	98	80-120	73-127	2	0-20	
1,1-Dichloroethene	10.00	99	97	78-126	70-134	2	0-28	
Ethylbenzene	10.00	104	103	80-120	73-127	1	0-20	
Toluene	10.00	102	102	80-120	73-127	0	0-20	
Trichloroethene	10.00	104	102	79-127	71-135	1	0-20	
Vinyl Chloride	10.00	117	115	72-132	62-142	2	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	102	98	69-123	60-132	4	0-20	
Tert-Butyl Alcohol (TBA)	50.00	101	96	63-123	53-133	5	0-20	
Diisopropyl Ether (DIPE)	10.00	103	99	59-137	46-150	4	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	98	96	69-123	60-132	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	99	98	70-120	62-128	1	0-20	
Ethanol	100.0	107	110	28-160	6-182	2	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: N/A
Work Order No: 12-02-0378
Preparation: EPA 5030C
Method: EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,257	**Aqueous**	**GC/MS BB**	**02/08/12**	**02/08/12**	**120208L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	104	99	80-120	73-127	6	0-20	
Carbon Tetrachloride	10.00	104	106	74-134	64-144	1	0-20	
Chlorobenzene	10.00	102	103	80-120	73-127	1	0-20	
1,2-Dibromoethane	10.00	103	108	79-121	72-128	5	0-20	
1,2-Dichlorobenzene	10.00	106	107	80-120	73-127	1	0-20	
1,2-Dichloroethane	10.00	105	103	80-120	73-127	2	0-20	
1,1-Dichloroethene	10.00	101	101	78-126	70-134	1	0-28	
Ethylbenzene	10.00	108	108	80-120	73-127	1	0-20	
Toluene	10.00	106	101	80-120	73-127	4	0-20	
Trichloroethene	10.00	110	102	79-127	71-135	8	0-20	
Vinyl Chloride	10.00	119	121	72-132	62-142	2	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	101	108	69-123	60-132	7	0-20	
Tert-Butyl Alcohol (TBA)	50.00	102	103	63-123	53-133	1	0-20	
Diisopropyl Ether (DIPE)	10.00	104	109	59-137	46-150	4	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	98	103	69-123	60-132	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	101	99	70-120	62-128	3	0-20	
Ethanol	100.0	109	112	28-160	6-182	3	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-02-0378

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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Calscience Environmental Laboratories, Inc.

☒ SoCal Laboratory
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494

☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO# (LAB USE ONLY) 12-02-0378

Date 2-6-2012

Page 1 of 1

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG Beach STATE: CA ZIP: 90810

TEL: 562-213-4160 E-MAIL: Katharine.Carr.Green@AECOM.com

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPERFUND

P.O. NO.: 60212541.03.01

PROJECT CONTACT: Katharine Carr Green

SAMPLER(S): (PRINT) K. Carr Green

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ AS TOTAL	En Core / Terra Core Prep (5035)	~~SVOCs (8270)~~ AS III AS V	Pesticides (8081) DDT + 22 24 Screens	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
1	TB020612	2-6-12	0700	H2O	2		X						X													
2	G-EW-2	↑	1309	H2O	3		X						X													
3	EB020612		1440	↑	1	X								X												
4	EB020612		1440		1		X									X										
5	EB020612		1440		1	X											X									
6	MBFB-EW-1		1600		1	X											X									
7	MBFB-EW-1		1600		1		X									X										
8	MBFB-EW-1	↓	1600	↓	1	X								X												
9	MBFB-EW-1	2-6-12	1600	H2O	3		X						X													
TN 2/6/12																										

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
2-6-12 16:40	COEL	2/6/12	16.40
	COEL	2/6/12	18:00

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

06/01/10 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-02-0378

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 02/06/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.9 °C - 0.3 °C (CF) = 1.6 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: DCE

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: DCE

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: [illegible]

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOAh ☐VOA**na$_2$** ☐125AGB ☐125AGBh ☐125AGBp ☑1AGB ☐1AGB**na$_2$** ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB ☑250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJ**na$_2$** ☑250AP EDTA ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120126A **Labeled/Checked by:** [illegible]

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** [illegible]

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** [illegible]

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Calscience Environmental Laboratories, Inc.

Subcontractor Analysis Report

Work Order # 12-02-0378

One or more samples in this Work Order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1 Weck Laboratories, Inc. - City of Industry,CA NELAP 04229CA

Arsenic III and Arsenic IV

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Certificate of Analysis

Report Date: Wednesday, February 22, 2012
Received Date: Tuesday, February 7, 2012
Received Time: 11:00 am
Turnaround Time: Normal

Client: Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1432

Phones: (714) 895-5494
Fax: (714) 894-7501

Attn: Vikas Patel
Project: 12-02-0378

P.O. #: 12-02-0378

Lab Sample ID: 2B07020-01 **Sample ID: EB020612** **Matrix:** Water
Sampled by: Client **Sampled: 02/06/12 14:40**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Arsenic III	ND	0.014	0.40	ug/l	1	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	
Arsenic V	ND	0.014	0.40	ug/l	1	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	

Lab Sample ID: 2B07020-02 **Sample ID: MBFB-EW-1** **Matrix:** Water
Sampled by: Client **Sampled: 02/06/12 16:00**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Arsenic III	**260**	0.14	4.0	ug/l	10	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	
Arsenic V	**100**	0.14	4.0	ug/l	10	IC-ICP/MS	2/21/12	2/22/12 11:39	W2B0839	

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Certificate of Analysis

Quality Control Section

Metals by EPA 200 Series Methods - Quality Control

Batch W2B0839 - IC-ICP/MS

Blank (W2B0839-BLK1) — **Prepared: 02/21/12 Analyzed: 02/22/12 11:39**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III		ND		ug/l					
Arsenic V		ND		ug/l					

LCS (W2B0839-BS1) — **Prepared: 02/21/12 Analyzed: 02/22/12 11:39**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III		9.95		ug/l	10.0	100	85-115		
Arsenic V		10.2		ug/l	10.0	102	85-115		

Matrix Spike (W2B0839-MS1) — **Source: 2B08014-01** — **Prepared: 02/21/12 Analyzed: 02/22/12 11:39**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III	ND	11.2		ug/l	10.0	112	70-130		

Matrix Spike Dup (W2B0839-MSD1) — **Source: 2B08014-01** — **Prepared: 02/21/12 Analyzed: 02/22/12 11:39**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III	ND	11.4		ug/l	10.0	114	70-130	2	200

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Certificate of Analysis

Notes:
The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature
Contact: Ana Carrera For Kim G Tu (Project Manager)

ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-02-0447

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 02/21/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 12-02-0447

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-02-0447
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	02/07/12 17:38
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
SWL0026						
p-Chlorobenzenesulfonic Acid	**130**		10	ug/L	EPA 314.0 (M) pCBS	N/A
Benzene	**0.67**		0.50	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**110**		2.0	ug/L	EPA 8260B	EPA 5030C
Chloroform	**0.82**		0.50	ug/L	EPA 8260B	EPA 5030C
BF-11						
Alpha-BHC	**0.024**		0.0050	ug/L	EPA 8081A	EPA 3510C
Gamma-BHC	**0.011**		0.0050	ug/L	EPA 8081A	EPA 3510C
Chlorobenzene	**5600**		100	ug/L	EPA 8260B	EPA 5030C
BF-EW-1						
Alpha-BHC	**0.43**		0.050	ug/L	EPA 8081A	EPA 3510C
Gamma-BHC	**0.84**		0.050	ug/L	EPA 8081A	EPA 3510C
Beta-BHC	**2.0**		0.050	ug/L	EPA 8081A	EPA 3510C
Chlorobenzene	**4000**		100	ug/L	EPA 8260B	EPA 5030C
BF-2						
2,4'-DDD	**4.8**		0.50	ug/L	EPA 8081A	EPA 3510C
2,4'-DDE	**0.12**		0.050	ug/L	EPA 8081A	EPA 3510C
2,4'-DDT	**0.35**		0.050	ug/L	EPA 8081A	EPA 3510C
4,4'-DDE	**0.18**		0.050	ug/L	EPA 8081A	EPA 3510C
4,4'-DDD	**5.9**		0.50	ug/L	EPA 8081A	EPA 3510C
Chlorobenzene	**77000**		1000	ug/L	EPA 8260B	EPA 5030C
Chloroform	**680**		250	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/07/12
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SWL0026	**12-02-0447-3-D**	**02/07/12 13:10**	**Aqueous**	**IC 8**	**N/A**	**02/09/12 12:41**	**120209L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	130	10	2		ug/L

Method Blank	**099-15-080-8**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**02/09/12 11:46**	**120209L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/07/12
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB020712	**12-02-0447-2-A**	**02/07/12 07:30**	**Aqueous**	**GC 44**	**02/08/12**	**02/10/12 19:34**	**120208L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	94	50-150		2,4,5,6-Tetrachloro-m-Xylene	98	50-150	

BF-11	**12-02-0447-4-D**	**02/07/12 15:18**	**Aqueous**	**GC 44**	**02/08/12**	**02/10/12 18:22**	**120208L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	0.024	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	0.011	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	95	50-150		2,4,5,6-Tetrachloro-m-Xylene	98	50-150	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/07/12
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-EW-1	**12-02-0447-5-D**	**02/07/12 10:20**	**Aqueous**	**GC 44**	**02/08/12**	**02/13/12 15:08**	**120208L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.050	5		Endosulfan I	ND	0.050	5	
Alpha-BHC	0.43	0.050	5		Endosulfan II	ND	0.050	5	
Beta-BHC	2.0	0.050	5		Endosulfan Sulfate	ND	0.050	5	
Chlordane	ND	0.12	5		Endrin	ND	0.050	5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.050	5	
4,4'-DDD	ND	0.050	5		Endrin Ketone	ND	0.050	5	
4,4'-DDE	ND	0.050	5		Gamma-BHC	0.84	0.050	5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.050	5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.050	5	
4,4'-DDT	ND	0.050	5		Methoxychlor	ND	0.050	5	
Delta-BHC	ND	0.050	5		Toxaphene	ND	0.62	5	
Dieldrin	ND	0.050	5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	128	50-150		2,4,5,6-Tetrachloro-m-Xylene	333	50-150	1,2,7

BF-2	**12-02-0447-6-D**	**02/07/12 16:40**	**Aqueous**	**GC 44**	**02/08/12**	**02/13/12 15:37**	**120208L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.050	5		Endosulfan I	ND	0.050	5	
Alpha-BHC	ND	0.050	5		Endosulfan II	ND	0.050	5	
Beta-BHC	ND	0.050	5		Endosulfan Sulfate	ND	0.050	5	
Chlordane	ND	0.12	5		Endrin	ND	0.050	5	
2,4'-DDD	4.8	0.50	50		Endrin Aldehyde	ND	0.050	5	
4,4'-DDD	5.9	0.50	50		Endrin Ketone	ND	0.050	5	
4,4'-DDE	0.18	0.050	5		Gamma-BHC	ND	0.050	5	
2,4'-DDE	0.12	0.050	5		Heptachlor	ND	0.050	5	
2,4'-DDT	0.35	0.050	5		Heptachlor Epoxide	ND	0.050	5	
4,4'-DDT	ND	0.050	5		Methoxychlor	ND	0.050	5	
Delta-BHC	ND	0.050	5		Toxaphene	ND	0.62	5	
Dieldrin	ND	0.050	5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	107	50-150		2,4,5,6-Tetrachloro-m-Xylene	119	50-150	

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/07/12
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-14-435-25**	**N/A**	**Aqueous**	**GC 44**	**02/08/12**	**02/10/12 17:53**	**120208L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Aldrin	ND	0.0050	0.5		Endosulfan I	ND	0.0050	0.5	
Alpha-BHC	ND	0.0050	0.5		Endosulfan II	ND	0.0050	0.5	
Beta-BHC	ND	0.0050	0.5		Endosulfan Sulfate	ND	0.0050	0.5	
Chlordane	ND	0.012	0.5		Endrin	ND	0.0050	0.5	
2,4'-DDD	ND	0.0050	0.5		Endrin Aldehyde	ND	0.0050	0.5	
4,4'-DDD	ND	0.0050	0.5		Endrin Ketone	ND	0.0050	0.5	
4,4'-DDE	ND	0.0050	0.5		Gamma-BHC	ND	0.0050	0.5	
2,4'-DDE	ND	0.0050	0.5		Heptachlor	ND	0.0050	0.5	
2,4'-DDT	ND	0.0050	0.5		Heptachlor Epoxide	ND	0.0050	0.5	
4,4'-DDT	ND	0.0050	0.5		Methoxychlor	ND	0.0050	0.5	
Delta-BHC	ND	0.0050	0.5		Toxaphene	ND	0.062	0.5	
Dieldrin	ND	0.0050	0.5						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	90	50-150		2,4,5,6-Tetrachloro-m-Xylene	90	50-150	

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/07/12
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB020712	**12-02-0447-1-A**	**02/07/12 07:00**	**Aqueous**	**GC/MS BB**	**02/08/12**	**02/08/12 18:28**	**120208L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	68-120		Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	103	80-128		Toluene-d8	96	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/07/12
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SWL0026	**12-02-0447-3-B**	**02/07/12 13:10**	**Aqueous**	**GC/MS BB**	**02/09/12**	**02/09/12 14:52**	**120209L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	0.67	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	110	2.0	4		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	0.82	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	68-120		Dibromofluoromethane	106	80-127	
1,2-Dichloroethane-d4	107	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/07/12
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-11	**12-02-0447-4-B**	**02/07/12 15:18**	**Aqueous**	**GC/MS BB**	**02/09/12**	**02/09/12 17:49**	**120209L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	2000	200		1,1-Dichloropropene	ND	100	200	
Benzene	ND	100	200		c-1,3-Dichloropropene	ND	100	200	
Bromobenzene	ND	100	200		t-1,3-Dichloropropene	ND	100	200	
Bromochloromethane	ND	200	200		Ethylbenzene	ND	100	200	
Bromodichloromethane	ND	100	200		2-Hexanone	ND	2000	200	
Bromoform	ND	100	200		Isopropylbenzene	ND	100	200	
Bromomethane	ND	200	200		p-Isopropyltoluene	ND	100	200	
2-Butanone	ND	1000	200		Methylene Chloride	ND	200	200	
n-Butylbenzene	ND	100	200		4-Methyl-2-Pentanone	ND	1000	200	
sec-Butylbenzene	ND	100	200		Naphthalene	ND	200	200	
tert-Butylbenzene	ND	100	200		n-Propylbenzene	ND	100	200	
Carbon Disulfide	ND	200	200		Styrene	ND	100	200	
Carbon Tetrachloride	ND	100	200		1,1,1,2-Tetrachloroethane	ND	100	200	
Chlorobenzene	5600	100	200		1,1,2,2-Tetrachloroethane	ND	100	200	
Chloroethane	ND	100	200		Tetrachloroethene	ND	100	200	
Chloroform	ND	100	200		Toluene	ND	100	200	
Chloromethane	ND	100	200		1,2,3-Trichlorobenzene	ND	100	200	
2-Chlorotoluene	ND	100	200		1,2,4-Trichlorobenzene	ND	100	200	
4-Chlorotoluene	ND	100	200		1,1,1-Trichloroethane	ND	100	200	
Dibromochloromethane	ND	100	200		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	100	200	
1,2-Dibromo-3-Chloropropane	ND	1000	200		1,1,2-Trichloroethane	ND	100	200	
1,2-Dibromoethane	ND	100	200		Trichloroethene	ND	100	200	
Dibromomethane	ND	100	200		Trichlorofluoromethane	ND	100	200	
1,2-Dichlorobenzene	ND	100	200		1,2,3-Trichloropropane	ND	200	200	
1,3-Dichlorobenzene	ND	100	200		1,2,4-Trimethylbenzene	ND	100	200	
1,4-Dichlorobenzene	ND	100	200		1,3,5-Trimethylbenzene	ND	100	200	
Dichlorodifluoromethane	ND	200	200		Vinyl Acetate	ND	1000	200	
1,1-Dichloroethane	ND	100	200		Vinyl Chloride	ND	100	200	
1,2-Dichloroethane	ND	100	200		Xylenes (total)	ND	100	200	
1,1-Dichloroethene	ND	100	200		Methyl-t-Butyl Ether (MTBE)	ND	100	200	
c-1,2-Dichloroethene	ND	100	200		Tert-Butyl Alcohol (TBA)	ND	2000	200	
t-1,2-Dichloroethene	ND	100	200		Diisopropyl Ether (DIPE)	ND	100	200	
1,2-Dichloropropane	ND	100	200		Ethyl-t-Butyl Ether (ETBE)	ND	100	200	
1,3-Dichloropropane	ND	200	200		Tert-Amyl-Methyl Ether (TAME)	ND	100	200	
2,2-Dichloropropane	ND	200	200		Ethanol	ND	10000	200	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	91	68-120		Dibromofluoromethane	104	80-127	
1,2-Dichloroethane-d4	104	80-128		Toluene-d8	93	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/07/12
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-EW-1	**12-02-0447-5-B**	**02/07/12 10:20**	**Aqueous**	**GC/MS BB**	**02/09/12**	**02/09/12 18:19**	**120209L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	2000	200		1,1-Dichloropropene	ND	100	200	
Benzene	ND	100	200		c-1,3-Dichloropropene	ND	100	200	
Bromobenzene	ND	100	200		t-1,3-Dichloropropene	ND	100	200	
Bromochloromethane	ND	200	200		Ethylbenzene	ND	100	200	
Bromodichloromethane	ND	100	200		2-Hexanone	ND	2000	200	
Bromoform	ND	100	200		Isopropylbenzene	ND	100	200	
Bromomethane	ND	200	200		p-Isopropyltoluene	ND	100	200	
2-Butanone	ND	1000	200		Methylene Chloride	ND	200	200	
n-Butylbenzene	ND	100	200		4-Methyl-2-Pentanone	ND	1000	200	
sec-Butylbenzene	ND	100	200		Naphthalene	ND	200	200	
tert-Butylbenzene	ND	100	200		n-Propylbenzene	ND	100	200	
Carbon Disulfide	ND	200	200		Styrene	ND	100	200	
Carbon Tetrachloride	ND	100	200		1,1,1,2-Tetrachloroethane	ND	100	200	
Chlorobenzene	4000	100	200		1,1,2,2-Tetrachloroethane	ND	100	200	
Chloroethane	ND	100	200		Tetrachloroethene	ND	100	200	
Chloroform	ND	100	200		Toluene	ND	100	200	
Chloromethane	ND	100	200		1,2,3-Trichlorobenzene	ND	100	200	
2-Chlorotoluene	ND	100	200		1,2,4-Trichlorobenzene	ND	100	200	
4-Chlorotoluene	ND	100	200		1,1,1-Trichloroethane	ND	100	200	
Dibromochloromethane	ND	100	200		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	100	200	
1,2-Dibromo-3-Chloropropane	ND	1000	200		1,1,2-Trichloroethane	ND	100	200	
1,2-Dibromoethane	ND	100	200		Trichloroethene	ND	100	200	
Dibromomethane	ND	100	200		Trichlorofluoromethane	ND	100	200	
1,2-Dichlorobenzene	ND	100	200		1,2,3-Trichloropropane	ND	200	200	
1,3-Dichlorobenzene	ND	100	200		1,2,4-Trimethylbenzene	ND	100	200	
1,4-Dichlorobenzene	ND	100	200		1,3,5-Trimethylbenzene	ND	100	200	
Dichlorodifluoromethane	ND	200	200		Vinyl Acetate	ND	1000	200	
1,1-Dichloroethane	ND	100	200		Vinyl Chloride	ND	100	200	
1,2-Dichloroethane	ND	100	200		Xylenes (total)	ND	100	200	
1,1-Dichloroethene	ND	100	200		Methyl-t-Butyl Ether (MTBE)	ND	100	200	
c-1,2-Dichloroethene	ND	100	200		Tert-Butyl Alcohol (TBA)	ND	2000	200	
t-1,2-Dichloroethene	ND	100	200		Diisopropyl Ether (DIPE)	ND	100	200	
1,2-Dichloropropane	ND	100	200		Ethyl-t-Butyl Ether (ETBE)	ND	100	200	
1,3-Dichloropropane	ND	200	200		Tert-Amyl-Methyl Ether (TAME)	ND	100	200	
2,2-Dichloropropane	ND	200	200		Ethanol	ND	10000	200	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	68-120		Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	100	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/07/12
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L
Project: Montrose Superfund Site / 60212541.03.01			Page 5 of 7

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-2	**12-02-0447-6-A**	**02/07/12 16:40**	**Aqueous**	**GC/MS BB**	**02/08/12**	**02/08/12 20:26**	**120208L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	5000	500		1,1-Dichloropropene	ND	250	500	
Benzene	ND	250	500		c-1,3-Dichloropropene	ND	250	500	
Bromobenzene	ND	250	500		t-1,3-Dichloropropene	ND	250	500	
Bromochloromethane	ND	500	500		Ethylbenzene	ND	250	500	
Bromodichloromethane	ND	250	500		2-Hexanone	ND	5000	500	
Bromoform	ND	250	500		Isopropylbenzene	ND	250	500	
Bromomethane	ND	500	500		p-Isopropyltoluene	ND	250	500	
2-Butanone	ND	2500	500		Methylene Chloride	ND	500	500	
n-Butylbenzene	ND	250	500		4-Methyl-2-Pentanone	ND	2500	500	
sec-Butylbenzene	ND	250	500		Naphthalene	ND	500	500	
tert-Butylbenzene	ND	250	500		n-Propylbenzene	ND	250	500	
Carbon Disulfide	ND	500	500		Styrene	ND	250	500	
Carbon Tetrachloride	ND	250	500		1,1,1,2-Tetrachloroethane	ND	250	500	
Chlorobenzene	77000	1000	2000		1,1,2,2-Tetrachloroethane	ND	250	500	
Chloroethane	ND	250	500		Tetrachloroethene	ND	250	500	
Chloroform	680	250	500		Toluene	ND	250	500	
Chloromethane	ND	250	500		1,2,3-Trichlorobenzene	ND	250	500	
2-Chlorotoluene	ND	250	500		1,2,4-Trichlorobenzene	ND	250	500	
4-Chlorotoluene	ND	250	500		1,1,1-Trichloroethane	ND	250	500	
Dibromochloromethane	ND	250	500		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	500	
1,2-Dibromo-3-Chloropropane	ND	2500	500		1,1,2-Trichloroethane	ND	250	500	
1,2-Dibromoethane	ND	250	500		Trichloroethene	ND	250	500	
Dibromomethane	ND	250	500		Trichlorofluoromethane	ND	250	500	
1,2-Dichlorobenzene	ND	250	500		1,2,3-Trichloropropane	ND	500	500	
1,3-Dichlorobenzene	ND	250	500		1,2,4-Trimethylbenzene	ND	250	500	
1,4-Dichlorobenzene	ND	250	500		1,3,5-Trimethylbenzene	ND	250	500	
Dichlorodifluoromethane	ND	500	500		Vinyl Acetate	ND	2500	500	
1,1-Dichloroethane	ND	250	500		Vinyl Chloride	ND	250	500	
1,2-Dichloroethane	ND	250	500		Xylenes (total)	ND	250	500	
1,1-Dichloroethene	ND	250	500		Methyl-t-Butyl Ether (MTBE)	ND	250	500	
c-1,2-Dichloroethene	ND	250	500		Tert-Butyl Alcohol (TBA)	ND	5000	500	
t-1,2-Dichloroethene	ND	250	500		Diisopropyl Ether (DIPE)	ND	250	500	
1,2-Dichloropropane	ND	250	500		Ethyl-t-Butyl Ether (ETBE)	ND	250	500	
1,3-Dichloropropane	ND	500	500		Tert-Amyl-Methyl Ether (TAME)	ND	250	500	
2,2-Dichloropropane	ND	500	500		Ethanol	ND	25000	500	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	104	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/07/12
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,257**	**N/A**	**Aqueous**	**GC/MS BB**	**02/08/12**	**02/08/12 14:32**	**120208L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	68-120		Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	104	80-128		Toluene-d8	95	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/07/12
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,258**	**N/A**	**Aqueous**	**GC/MS BB**	**02/09/12**	**02/09/12 13:53**	**120209L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	68-120		Dibromofluoromethane	103	80-127	
1,2-Dichloroethane-d4	104	80-128		Toluene-d8	95	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	02/07/12
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SWL0026	**Aqueous**	**IC 8**	**N/A**	**02/09/12**	**120209S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	120	112	121	70-130	4	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 02/07/12
Work Order No: 12-02-0447
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-02-0378-4	**Aqueous**	**GC/MS BB**	**02/08/12**	**02/08/12**	**120208S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	500.0	0	0	76-124	3	0-20	3
Carbon Tetrachloride	500.0	97	92	74-134	6	0-20	
Chlorobenzene	500.0	90	86	80-120	1	0-20	
1,2-Dibromoethane	500.0	98	97	80-120	2	0-20	
1,2-Dichlorobenzene	500.0	98	97	80-120	1	0-20	
1,2-Dichloroethane	500.0	137	130	80-120	4	0-20	3
1,1-Dichloroethene	500.0	95	94	73-127	1	0-20	
Ethylbenzene	500.0	96	92	78-126	2	0-20	
Toluene	500.0	99	93	80-120	7	0-20	
Trichloroethene	500.0	103	91	77-120	11	0-20	
Vinyl Chloride	500.0	114	110	72-126	3	0-20	
Methyl-t-Butyl Ether (MTBE)	500.0	96	98	67-121	2	0-49	
Tert-Butyl Alcohol (TBA)	2500	84	78	36-162	6	0-30	
Diisopropyl Ether (DIPE)	500.0	100	99	60-138	1	0-45	
Ethyl-t-Butyl Ether (ETBE)	500.0	95	94	69-123	2	0-30	
Tert-Amyl-Methyl Ether (TAME)	500.0	95	94	65-120	1	0-20	
Ethanol	5000	91	85	30-180	7	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 02/07/12
Work Order No: 12-02-0447
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SWL0026	**Aqueous**	**GC/MS BB**	**02/09/12**	**02/09/12**	**120209S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	97	97	76-124	0	0-20	
Carbon Tetrachloride	10.00	99	98	74-134	1	0-20	
Chlorobenzene	10.00	0	0	80-120	4	0-20	3
1,2-Dibromoethane	10.00	97	102	80-120	5	0-20	
1,2-Dichlorobenzene	10.00	100	104	80-120	4	0-20	
1,2-Dichloroethane	10.00	100	102	80-120	2	0-20	
1,1-Dichloroethene	10.00	93	97	73-127	3	0-20	
Ethylbenzene	10.00	105	104	78-126	1	0-20	
Toluene	10.00	100	100	80-120	1	0-20	
Trichloroethene	10.00	99	99	77-120	1	0-20	
Vinyl Chloride	10.00	108	109	72-126	1	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	99	102	67-121	3	0-49	
Tert-Butyl Alcohol (TBA)	50.00	145	144	36-162	1	0-30	
Diisopropyl Ether (DIPE)	10.00	100	101	60-138	1	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	94	95	69-123	2	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	92	96	65-120	4	0-20	
Ethanol	100.0	104	106	30-180	2	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-8	**Aqueous**	**IC 8**	**N/A**	**02/09/12**	**120209L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	95	97	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: N/A
Work Order No: 12-02-0447
Preparation: EPA 3510C
Method: EPA 8081A

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-14-435-25	**Aqueous**	**GC 44**	**02/08/12**	**02/10/12**	**120208L03**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Aldrin	0.1250	98	100	50-150	33-167	2	0-25	
Alpha-BHC	0.1250	103	106	50-150	33-167	3	0-25	
Beta-BHC	0.1250	102	103	50-150	33-167	1	0-25	
4,4'-DDD	0.1250	106	107	50-150	33-167	1	0-25	
4,4'-DDE	0.1250	107	107	50-150	33-167	0	0-25	
4,4'-DDT	0.1250	112	114	50-150	33-167	1	0-25	
Delta-BHC	0.1250	98	102	50-150	33-167	4	0-25	
Dieldrin	0.1250	103	104	50-150	33-167	1	0-25	
Endosulfan I	0.1250	102	104	50-150	33-167	2	0-25	
Endosulfan II	0.1250	113	115	50-150	33-167	1	0-25	
Endosulfan Sulfate	0.1250	102	104	50-150	33-167	2	0-25	
Endrin	0.1250	107	111	50-150	33-167	4	0-25	
Endrin Aldehyde	0.1250	96	100	50-150	33-167	4	0-25	
Gamma-BHC	0.1250	105	108	50-150	33-167	3	0-25	
Heptachlor	0.1250	86	94	50-150	33-167	9	0-25	
Heptachlor Epoxide	0.1250	99	100	50-150	33-167	1	0-25	
Methoxychlor	0.1250	103	103	50-150	33-167	0	0-25	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,257	**Aqueous**	**GC/MS BB**	**02/08/12**	**02/08/12**	**120208L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	104	99	80-120	73-127	6	0-20	
Carbon Tetrachloride	10.00	104	106	74-134	64-144	1	0-20	
Chlorobenzene	10.00	102	103	80-120	73-127	1	0-20	
1,2-Dibromoethane	10.00	103	108	79-121	72-128	5	0-20	
1,2-Dichlorobenzene	10.00	106	107	80-120	73-127	1	0-20	
1,2-Dichloroethane	10.00	105	103	80-120	73-127	2	0-20	
1,1-Dichloroethene	10.00	101	101	78-126	70-134	1	0-28	
Ethylbenzene	10.00	108	108	80-120	73-127	1	0-20	
Toluene	10.00	106	101	80-120	73-127	4	0-20	
Trichloroethene	10.00	110	102	79-127	71-135	8	0-20	
Vinyl Chloride	10.00	119	121	72-132	62-142	2	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	101	108	69-123	60-132	7	0-20	
Tert-Butyl Alcohol (TBA)	50.00	102	103	63-123	53-133	1	0-20	
Diisopropyl Ether (DIPE)	10.00	104	109	59-137	46-150	4	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	98	103	69-123	60-132	5	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	101	99	70-120	62-128	3	0-20	
Ethanol	100.0	109	112	28-160	6-182	3	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0447
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,258	**Aqueous**	**GC/MS BB**	**02/09/12**	**02/09/12**	**120209L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	98	98	80-120	73-127	0	0-20	
Carbon Tetrachloride	10.00	101	99	74-134	64-144	3	0-20	
Chlorobenzene	10.00	98	96	80-120	73-127	2	0-20	
1,2-Dibromoethane	10.00	100	95	79-121	72-128	5	0-20	
1,2-Dichlorobenzene	10.00	101	99	80-120	73-127	2	0-20	
1,2-Dichloroethane	10.00	99	98	80-120	73-127	1	0-20	
1,1-Dichloroethene	10.00	97	94	78-126	70-134	3	0-28	
Ethylbenzene	10.00	106	102	80-120	73-127	4	0-20	
Toluene	10.00	100	98	80-120	73-127	2	0-20	
Trichloroethene	10.00	104	101	79-127	71-135	2	0-20	
Vinyl Chloride	10.00	111	105	72-132	62-142	5	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	98	96	69-123	60-132	2	0-20	
Tert-Butyl Alcohol (TBA)	50.00	91	92	63-123	53-133	1	0-20	
Diisopropyl Ether (DIPE)	10.00	101	99	59-137	46-150	2	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	94	94	69-123	60-132	0	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	90	95	70-120	62-128	5	0-20	
Ethanol	100.0	107	103	28-160	6-182	3	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-02-0447

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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Calscience Environmental Laboratories, Inc.

☒ SoCal Laboratory
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494

☐ NorCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: 12-02-0447

Date 2-7-2012

Page 1 of 1

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG Beach STATE: CA ZIP: 90810

TEL: 562-213-4166 E-MAIL: Katharine.Carr-Green@AECOM

CLIENT PROJECT NAME / NUMBER: MONTROSE

P.O. NO.: 60212541

PROJECT CONTACT: KATHARINE Carr / Green

SAMPLER(S): (PRINT) K. Carr-Green

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ PCBs 8082 mod. 3141	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081) DDT + isomers	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010/747X)	Cr(VI) [7196 or 7199 or 218.6]	Air - VOCs (TO-14A) or (TO-15)	Air - TPH (g) [TO-3]			
1	TB020712	2-7-12	0700	H2O	2		X						X													
2	EB020712	↑	0730	↑	1	X											X									
3	SWL0026		1310		3		X						X													
	SWL0026		1310		1	X								X												
4	BF-11		1518		3		X						X													
	BF-11		1518		1	X											X									
5	BF-EW-1		1020		1	X											X									
	BF-EW-1		1020		3		X						X													
6	BF-2		1640	↓	3		X						X													
	BF-2	2-7-12	1640	H2O	1	X											X									

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date	Time
K Carr-Green 1650 2/7/12	CEL	2/7/12	16:50
	CEL	2/7/12	17:38

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

06/01/10 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-02-0447

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 02/07/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.7 °C - 0.3 °C (CF) = 1.4 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: DEE

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: DEE

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: NS

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑3VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120126A **Labeled/Checked by:** NS

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** TN

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** TN

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-02-0533

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 02/21/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 12-02-0533

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-02-0533
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	02/08/12 17:30
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
BF-25						
p-Chlorobenzenesulfonic Acid	**79**		10	ug/L	EPA 314.0 (M) pCBS	N/A
Styrene	**0.85**		0.50	ug/L	EPA 8260B	EPA 5030C
BF-29						
p-Chlorobenzenesulfonic Acid	**7400**		1000	ug/L	EPA 314.0 (M) pCBS	N/A
Chlorobenzene	**200**		4.0	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**18**		4.0	ug/L	EPA 8260B	EPA 5030C
BF-12						
p-Chlorobenzenesulfonic Acid	**23000**		2500	ug/L	EPA 314.0 (M) pCBS	N/A
Chlorobenzene	**1500**		20	ug/L	EPA 8260B	EPA 5030C
BF-22						
p-Chlorobenzenesulfonic Acid	**7700**		1000	ug/L	EPA 314.0 (M) pCBS	N/A
Chlorobenzene	**45**		1.0	ug/L	EPA 8260B	EPA 5030C
Styrene	**0.54**		0.50	ug/L	EPA 8260B	EPA 5030C
BF-2200						
p-Chlorobenzenesulfonic Acid	**7500**		1000	ug/L	EPA 314.0 (M) pCBS	N/A
Chlorobenzene	**44**		1.0	ug/L	EPA 8260B	EPA 5030C

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Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	02/08/12
3995 Via Oro Ave		Work Order No:	12-02-0533
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-25	**12-02-0533-2-D**	**02/08/12 15:08**	**Aqueous**	**IC 8**	**N/A**	**02/09/12 13:18**	**120209L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	79	10	2		ug/L

BF-29	**12-02-0533-3-D**	**02/08/12 09:10**	**Aqueous**	**IC 8**	**N/A**	**02/09/12 13:55**	**120209L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	7400	1000	200		ug/L

BF-12	**12-02-0533-4-D**	**02/08/12 13:00**	**Aqueous**	**IC 8**	**N/A**	**02/09/12 14:13**	**120209L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	23000	2500	500		ug/L

BF-22	**12-02-0533-5-D**	**02/08/12 10:40**	**Aqueous**	**IC 8**	**N/A**	**02/09/12 14:31**	**120209L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	7700	1000	200		ug/L

BF-2200	**12-02-0533-6-D**	**02/08/12 10:40**	**Aqueous**	**IC 8**	**N/A**	**02/09/12 14:50**	**120209L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	7500	1000	200		ug/L

Method Blank	**099-15-080-8**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**02/09/12 11:46**	**120209L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/08/12
3995 Via Oro Ave		Work Order No:	12-02-0533
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB020812	**12-02-0533-1-A**	**02/08/12 08:00**	**Aqueous**	**GC/MS L**	**02/10/12**	**02/10/12 12:20**	**120210L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	94	80-127	
1,2-Dichloroethane-d4	100	80-128		Toluene-d8	96	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/08/12
3995 Via Oro Ave		Work Order No:	12-02-0533
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-25	**12-02-0533-2-A**	**02/08/12 15:08**	**Aqueous**	**GC/MS L**	**02/10/12**	**02/10/12 15:08**	**120210L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	0.85	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	94	68-120		Dibromofluoromethane	107	80-127	
1,2-Dichloroethane-d4	110	80-128		Toluene-d8	97	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/08/12
3995 Via Oro Ave		Work Order No:	12-02-0533
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-29	**12-02-0533-3-A**	**02/08/12 09:10**	**Aqueous**	**GC/MS L**	**02/10/12**	**02/10/12 16:58**	**120210L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	80	8		1,1-Dichloropropene	ND	4.0	8	
Benzene	ND	4.0	8		c-1,3-Dichloropropene	ND	4.0	8	
Bromobenzene	ND	4.0	8		t-1,3-Dichloropropene	ND	4.0	8	
Bromochloromethane	ND	8.0	8		Ethylbenzene	ND	4.0	8	
Bromodichloromethane	ND	4.0	8		2-Hexanone	ND	80	8	
Bromoform	ND	4.0	8		Isopropylbenzene	ND	4.0	8	
Bromomethane	ND	8.0	8		p-Isopropyltoluene	ND	4.0	8	
2-Butanone	ND	40	8		Methylene Chloride	ND	8.0	8	
n-Butylbenzene	ND	4.0	8		4-Methyl-2-Pentanone	ND	40	8	
sec-Butylbenzene	ND	4.0	8		Naphthalene	ND	8.0	8	
tert-Butylbenzene	ND	4.0	8		n-Propylbenzene	ND	4.0	8	
Carbon Disulfide	ND	8.0	8		Styrene	ND	4.0	8	
Carbon Tetrachloride	ND	4.0	8		1,1,1,2-Tetrachloroethane	ND	4.0	8	
Chlorobenzene	200	4.0	8		1,1,2,2-Tetrachloroethane	ND	4.0	8	
Chloroethane	ND	4.0	8		Tetrachloroethene	ND	4.0	8	
Chloroform	ND	4.0	8		Toluene	ND	4.0	8	
Chloromethane	ND	4.0	8		1,2,3-Trichlorobenzene	ND	4.0	8	
2-Chlorotoluene	ND	4.0	8		1,2,4-Trichlorobenzene	ND	4.0	8	
4-Chlorotoluene	ND	4.0	8		1,1,1-Trichloroethane	ND	4.0	8	
Dibromochloromethane	ND	4.0	8		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	4.0	8	
1,2-Dibromo-3-Chloropropane	ND	40	8		1,1,2-Trichloroethane	ND	4.0	8	
1,2-Dibromoethane	ND	4.0	8		Trichloroethene	ND	4.0	8	
Dibromomethane	ND	4.0	8		Trichlorofluoromethane	ND	4.0	8	
1,2-Dichlorobenzene	ND	4.0	8		1,2,3-Trichloropropane	ND	8.0	8	
1,3-Dichlorobenzene	ND	4.0	8		1,2,4-Trimethylbenzene	ND	4.0	8	
1,4-Dichlorobenzene	ND	4.0	8		1,3,5-Trimethylbenzene	ND	4.0	8	
Dichlorodifluoromethane	ND	8.0	8		Vinyl Acetate	ND	40	8	
1,1-Dichloroethane	ND	4.0	8		Vinyl Chloride	ND	4.0	8	
1,2-Dichloroethane	18	4.0	8		Xylenes (total)	ND	4.0	8	
1,1-Dichloroethene	ND	4.0	8		Methyl-t-Butyl Ether (MTBE)	ND	4.0	8	
c-1,2-Dichloroethene	ND	4.0	8		Tert-Butyl Alcohol (TBA)	ND	80	8	
t-1,2-Dichloroethene	ND	4.0	8		Diisopropyl Ether (DIPE)	ND	4.0	8	
1,2-Dichloropropane	ND	4.0	8		Ethyl-t-Butyl Ether (ETBE)	ND	4.0	8	
1,3-Dichloropropane	ND	8.0	8		Tert-Amyl-Methyl Ether (TAME)	ND	4.0	8	
2,2-Dichloropropane	ND	8.0	8		Ethanol	ND	400	8	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	93	68-120		Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	108	80-128		Toluene-d8	102	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/08/12
3995 Via Oro Ave		Work Order No:	12-02-0533
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-12	**12-02-0533-4-A**	**02/08/12 13:00**	**Aqueous**	**GC/MS L**	**02/10/12**	**02/10/12 17:25**	**120210L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	400	40		1,1-Dichloropropene	ND	20	40	
Benzene	ND	20	40		c-1,3-Dichloropropene	ND	20	40	
Bromobenzene	ND	20	40		t-1,3-Dichloropropene	ND	20	40	
Bromochloromethane	ND	40	40		Ethylbenzene	ND	20	40	
Bromodichloromethane	ND	20	40		2-Hexanone	ND	400	40	
Bromoform	ND	20	40		Isopropylbenzene	ND	20	40	
Bromomethane	ND	40	40		p-Isopropyltoluene	ND	20	40	
2-Butanone	ND	200	40		Methylene Chloride	ND	40	40	
n-Butylbenzene	ND	20	40		4-Methyl-2-Pentanone	ND	200	40	
sec-Butylbenzene	ND	20	40		Naphthalene	ND	40	40	
tert-Butylbenzene	ND	20	40		n-Propylbenzene	ND	20	40	
Carbon Disulfide	ND	40	40		Styrene	ND	20	40	
Carbon Tetrachloride	ND	20	40		1,1,1,2-Tetrachloroethane	ND	20	40	
Chlorobenzene	1500	20	40		1,1,2,2-Tetrachloroethane	ND	20	40	
Chloroethane	ND	20	40		Tetrachloroethene	ND	20	40	
Chloroform	ND	20	40		Toluene	ND	20	40	
Chloromethane	ND	20	40		1,2,3-Trichlorobenzene	ND	20	40	
2-Chlorotoluene	ND	20	40		1,2,4-Trichlorobenzene	ND	20	40	
4-Chlorotoluene	ND	20	40		1,1,1-Trichloroethane	ND	20	40	
Dibromochloromethane	ND	20	40		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	20	40	
1,2-Dibromo-3-Chloropropane	ND	200	40		1,1,2-Trichloroethane	ND	20	40	
1,2-Dibromoethane	ND	20	40		Trichloroethene	ND	20	40	
Dibromomethane	ND	20	40		Trichlorofluoromethane	ND	20	40	
1,2-Dichlorobenzene	ND	20	40		1,2,3-Trichloropropane	ND	40	40	
1,3-Dichlorobenzene	ND	20	40		1,2,4-Trimethylbenzene	ND	20	40	
1,4-Dichlorobenzene	ND	20	40		1,3,5-Trimethylbenzene	ND	20	40	
Dichlorodifluoromethane	ND	40	40		Vinyl Acetate	ND	200	40	
1,1-Dichloroethane	ND	20	40		Vinyl Chloride	ND	20	40	
1,2-Dichloroethane	ND	20	40		Xylenes (total)	ND	20	40	
1,1-Dichloroethene	ND	20	40		Methyl-t-Butyl Ether (MTBE)	ND	20	40	
c-1,2-Dichloroethene	ND	20	40		Tert-Butyl Alcohol (TBA)	ND	400	40	
t-1,2-Dichloroethene	ND	20	40		Diisopropyl Ether (DIPE)	ND	20	40	
1,2-Dichloropropane	ND	20	40		Ethyl-t-Butyl Ether (ETBE)	ND	20	40	
1,3-Dichloropropane	ND	40	40		Tert-Amyl-Methyl Ether (TAME)	ND	20	40	
2,2-Dichloropropane	ND	40	40		Ethanol	ND	2000	40	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	93	68-120		Dibromofluoromethane	100	80-127	
1,2-Dichloroethane-d4	105	80-128		Toluene-d8	97	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/08/12
3995 Via Oro Ave		Work Order No:	12-02-0533
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-22	**12-02-0533-5-A**	**02/08/12 10:40**	**Aqueous**	**GC/MS L**	**02/10/12**	**02/10/12 17:53**	**120210L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	0.54	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	45	1.0	2		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	98	68-120		Dibromofluoromethane	103	80-127	
1,2-Dichloroethane-d4	113	80-128		Toluene-d8	97	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/08/12
3995 Via Oro Ave		Work Order No:	12-02-0533
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-2200	**12-02-0533-6-A**	**02/08/12 10:40**	**Aqueous**	**GC/MS L**	**02/10/12**	**02/10/12 18:20**	**120210L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	44	1.0	2		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	94	68-120		Dibromofluoromethane	97	80-127	
1,2-Dichloroethane-d4	106	80-128		Toluene-d8	96	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/08/12
3995 Via Oro Ave		Work Order No:	12-02-0533
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,259**	**N/A**	**Aqueous**	**GC/MS L**	**02/10/12**	**02/10/12 11:52**	**120210L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		1,1-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		c-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		Ethylbenzene	ND	0.50	1	
Bromodichloromethane	ND	0.50	1		2-Hexanone	ND	10	1	
Bromoform	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromomethane	ND	1.0	1		p-Isopropyltoluene	ND	0.50	1	
2-Butanone	ND	5.0	1		Methylene Chloride	ND	1.0	1	
n-Butylbenzene	ND	0.50	1		4-Methyl-2-Pentanone	ND	5.0	1	
sec-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
tert-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		Styrene	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chloroethane	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroform	ND	0.50	1		Toluene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichloroethene	ND	0.50	1	
Dibromomethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,3-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Acetate	ND	5.0	1	
1,1-Dichloroethane	ND	0.50	1		Vinyl Chloride	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		Xylenes (total)	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	91	68-120		Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	106	80-128		Toluene-d8	99	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	02/08/12
3995 Via Oro Ave		Work Order No:	12-02-0533
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-02-0447-3	**Aqueous**	**IC 8**	**N/A**	**02/09/12**	**120209S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	120	112	121	70-130	4	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	02/08/12
3995 Via Oro Ave		Work Order No:	12-02-0533
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BF-25	**Aqueous**	**GC/MS L**	**02/10/12**	**02/10/12**	**120210S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	97	103	76-124	6	0-20	
Carbon Tetrachloride	10.00	109	110	74-134	1	0-20	
Chlorobenzene	10.00	104	110	80-120	5	0-20	
1,2-Dibromoethane	10.00	100	108	80-120	8	0-20	
1,2-Dichlorobenzene	10.00	96	99	80-120	3	0-20	
1,2-Dichloroethane	10.00	107	109	80-120	2	0-20	
1,1-Dichloroethene	10.00	94	98	73-127	5	0-20	
Ethylbenzene	10.00	99	102	78-126	3	0-20	
Toluene	10.00	100	104	80-120	4	0-20	
Trichloroethene	10.00	94	99	77-120	5	0-20	
Vinyl Chloride	10.00	102	110	72-126	7	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	101	109	67-121	8	0-49	
Tert-Butyl Alcohol (TBA)	50.00	116	109	36-162	6	0-30	
Diisopropyl Ether (DIPE)	10.00	102	108	60-138	5	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	98	106	69-123	8	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	100	106	65-120	5	0-20	
Ethanol	100.0	113	108	30-180	4	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received:	N/A
Work Order No:	12-02-0533
Preparation:	N/A
Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-8	**Aqueous**	**IC 8**	**N/A**	**02/09/12**	**120209L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	95	97	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-0533
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,259	**Aqueous**	**GC/MS L**	**02/10/12**	**02/10/12**	**120210L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	96	103	80-120	73-127	7	0-20	
Carbon Tetrachloride	10.00	107	112	74-134	64-144	4	0-20	
Chlorobenzene	10.00	96	101	80-120	73-127	5	0-20	
1,2-Dibromoethane	10.00	100	105	79-121	72-128	5	0-20	
1,2-Dichlorobenzene	10.00	93	103	80-120	73-127	11	0-20	
1,2-Dichloroethane	10.00	100	109	80-120	73-127	8	0-20	
1,1-Dichloroethene	10.00	95	98	78-126	70-134	3	0-28	
Ethylbenzene	10.00	98	101	80-120	73-127	3	0-20	
Toluene	10.00	97	105	80-120	73-127	8	0-20	
Trichloroethene	10.00	98	106	79-127	71-135	8	0-20	
Vinyl Chloride	10.00	95	97	72-132	62-142	2	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	97	106	69-123	60-132	9	0-20	
Tert-Butyl Alcohol (TBA)	50.00	94	102	63-123	53-133	9	0-20	
Diisopropyl Ether (DIPE)	10.00	101	109	59-137	46-150	7	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	100	107	69-123	60-132	7	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	95	107	70-120	62-128	12	0-20	
Ethanol	100.0	95	101	28-160	6-182	7	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-02-0533

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date 2-8-2012

Page 1 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG Beach STATE: CA ZIP: 90810

TEL: 562-213-4166 FAX: E-MAIL: Katharine.Carrgreen@AECOM.com

CLIENT PROJECT NAME / NUMBER: MONTROSE/

PROJECT CONTACT: Katharine Carr Green

SAMPLER(S): (SIGNATURE)

COELT LOG CODE

P.O. NO.: 60212541.03.01

LAB USE ONLY 12-02-0533

COOLER RECEIPT TEMP = °C

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT REPORTING

SPECIAL INSTRUCTIONS:

ALL VOA VIALS (VOCS 8260B) preserved with HCL

REQUESTED ANALYSES

LAB USE ONLY	GEIMS ID	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) or ____	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	VOCs (5035 / 8260B) EnCore	~~SVOCs (8270C)~~ PCB54 mod. 8141	PEST (8081A)	PCBs (8082)	EOB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	PNAs (8310)	VOCs (TO-14A) or (TO-15)				
1		TB020812	2-8-12	0800	H2O	2					X												
2		BF-25	↑	1503	↑	1							X										
		BF-25		1508		3					X												
3		BF-29		0910		3					X												
		BF-29		0910		1							X										
4		BF-12		1300		1							X										
		BF-12		1300		3					X												
5		BF-22		1040		3					X												
		BF-22		1040		1							X										
6		BF-220	2-8-12	1040	H2O	1							X										

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
2-8-2012 1630	CL	2/8/12	16.30
Relinquished by: (Signature)	Received by: (Signature) Danny le CL	2/8/12	17:30
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date:	Time:

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09/10/01 Revision

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TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date 2-8-12

Page 2 of 2

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG Beach STATE: CA ZIP: 90810

TEL: 562-213-4166 FAX: — E-MAIL: Katharine.Carrgreen@AECOM

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT REPORTING

SPECIAL INSTRUCTIONS:

ALL VOA VIALS (VOCs 8260B) preserved w/ HCL

CLIENT PROJECT NAME / NUMBER: MONTROSE

PROJECT CONTACT: Katharine Carr Green

SAMPLER(S): (SIGNATURE)

COELT LOG CODE

P.O. NO.: 60212541.03.01

LAB USE ONLY: 0 2 - 0 5 3 3

COOLER RECEIPT TEMP = °C

REQUESTED ANALYSES

LAB USE ONLY	GEIMS ID	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) or	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	VOCs (5035 / 8260B) EnCore	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	PNAs (8310)	VOCs (TO-14A) or (TO-15)					
6		BF-2200	2-8-12	1040	H2O	3					X													

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
2-8-2012 1630	COL	2/8/12	16.30
Relinquished by: (Signature)	Received by: (Signature) Dannyle CZL	2/8/12	17:30
Relinquished by: (Signature)	Received for Laboratory by: (Signature)	Date:	Time:

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09/10/01 Revision

Graphic (714) 898-9702

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-02-0533

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 02/08/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.2 °C - 0.3 °C (CF) = 1.9 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: DEE

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: DEE

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: JV

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOAh ☐VOAna$_2$ ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna$_2$ ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB ☑250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna$_2$ ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 1201170 **Labeled/Checked by:** JV

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** TNC

Preservative: h: HCL n: HNO_3 na$_2$: $Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered **Scanned by:** N.C

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-03-1385

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 03/28/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Client Project Name: Montrose Superfund Site / 60212541.03.01
Work Order Number: 12-03-1385

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-03-1385
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	03/20/12 18:10
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	**Result**	Qualifiers	Reporting Limit	Units	Method	Extraction
CMW001						
p-Chlorobenzenesulfonic Acid	**31000**		5000	ug/L	EPA 314.0 (M) pCBS	N/A
CMW002						
p-Chlorobenzenesulfonic Acid	**64000**		5000	ug/L	EPA 314.0 (M) pCBS	N/A

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/20/12
3995 Via Oro Ave		Work Order No:	12-03-1385
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CMW001	**12-03-1385-1-A**	**03/20/12 08:59**	**Aqueous**	**IC 8**	**N/A**	**03/22/12 14:55**	**120322L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	31000	5000	1000		ug/L

CMW002	**12-03-1385-2-A**	**03/20/12 09:46**	**Aqueous**	**IC 8**	**N/A**	**03/22/12 15:32**	**120322L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	64000	5000	1000		ug/L

Method Blank	**099-15-080-10**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**03/22/12 14:00**	**120322L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	03/20/12
3995 Via Oro Ave		Work Order No:	12-03-1385
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
CMW001	**Aqueous**	**IC 8**	**N/A**	**03/22/12**	**120322S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25000	124	126	70-130	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-03-1385
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-10	**Aqueous**	**IC 8**	**N/A**	**03/22/12**	**120322L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	114	113	80-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-03-1385

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

Return to Contents

Calscience Environmental Laboratories, Inc.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494

Other CA office locations: Concord and San Luis Obispo
For courier service / sample drop off information,
contact sales@calscience.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **12-03-1385**

Date 3-20-12

Page 1 of 1

LABORATORY CLIENT: AECOM

ADDRESS: 3995 VIA ORO

CITY: LONG BEACH STATE: CA ZIP: 90810

TEL: 562-755-9046 E-MAIL: KATHARINE.CARR-GREEN@AECOM.COM

CLIENT PROJECT NAME / NUMBER: MONTROSE SUPER FUND

P.O. NO.: 60212541.03.01

PROJECT CONTACT: Katharine Carr Green

SAMPLER(S): (PRINT) E. MONCAYO

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF GLOBAL ID LOG CODE

SPECIAL INSTRUCTIONS: Both formats of EDDs

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	~~TPH (g) or GRO~~ PLUS SA	TPH (d) or DRO or (C6C36) or (C6-C44)	TPH (___)	BTEX / MTBE (8260) or (___)	VOCs (8260)	Oxygenates (8260)	En Core / Terra Core Prep (5035)	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010B/747X)	Cr(VI) [7196 or 7199 or 218.6]					
1	CMW001	3/20/12	859	H2O	1	X			X																	
2	CMW002	3/20/12	946	H2O	1	X			X																	

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
1727 3/20/12	CCL	3/20/12	17.27
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
		3/20/12	1810
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

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01/01/12 Revision

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WORK ORDER #: 12-03-1 3 8 6

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: URS

DATE: 03/20/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.2 °C - 0.3 °C (CF) = 1.9 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: DEC

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: DEC

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: YC

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** YC

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** JS

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** JS

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Calscience Environmental Laboratories, Inc.

Supplemental Report 1

Additional requested analyses have been added to the original report.

CALSCIENCE

WORK ORDER NUMBER: 12-03-1751

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 04/17/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Accredited in accordance with nelac

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Work Order Number: 12-03-1751

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-03-1751
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	03/26/12 17:45
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	**Result**	Qualifiers	Reporting Limit	Units	Method	Extraction
BF-EW-1						
Benzene	**190**		25	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**26000**		500	ug/L	EPA 8260B	EPA 5030C
1,4-Dichlorobenzene	**53**		25	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	**68**		25	ug/L	EPA 8260B	EPA 5030C
BF-EW-2						
Arsenic	**0.00892**		0.00100	mg/L	EPA 6020	EPA 3005A Filt.

Subcontracted analyses, if any, are not included in this summary.

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*MDL is shown.

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/26/12
3995 Via Oro Ave		Work Order No:	12-03-1751
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB032612	**12-03-1751-1-A**	**03/26/12 08:00**	**Aqueous**	**GC/MS BB**	**03/29/12**	**03/29/12 14:13**	**120329L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	94	68-120		Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	107	80-128		Toluene-d8	102	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 · TEL:(714) 895-5494 · FAX: (714) 894-7501

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/26/12
3995 Via Oro Ave		Work Order No:	12-03-1751
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-EW-1	**12-03-1751-2-A**	**03/26/12 15:00**	**Aqueous**	**GC/MS BB**	**03/29/12**	**03/29/12 14:41**	**120329L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	500	50		c-1,3-Dichloropropene	ND	25	50	
Benzene	190	25	50		t-1,3-Dichloropropene	ND	25	50	
Bromobenzene	ND	25	50		Ethylbenzene	ND	25	50	
Bromochloromethane	ND	50	50		2-Hexanone	ND	500	50	
Bromodichloromethane	ND	25	50		Isopropylbenzene	ND	25	50	
Bromoform	ND	25	50		p-Isopropyltoluene	ND	25	50	
Bromomethane	ND	50	50		Methylene Chloride	ND	50	50	
2-Butanone	ND	250	50		4-Methyl-2-Pentanone	ND	250	50	
n-Butylbenzene	ND	25	50		Naphthalene	ND	50	50	
sec-Butylbenzene	ND	25	50		n-Propylbenzene	ND	25	50	
tert-Butylbenzene	ND	25	50		Styrene	ND	25	50	
Carbon Disulfide	ND	50	50		1,1,1,2-Tetrachloroethane	ND	25	50	
Carbon Tetrachloride	ND	25	50		1,1,2,2-Tetrachloroethane	ND	25	50	
Chlorobenzene	26000	500	1000		Tetrachloroethene	ND	25	50	
Chloroethane	ND	25	50		Toluene	ND	25	50	
Chloroform	ND	25	50		1,2,3-Trichlorobenzene	ND	25	50	
Chloromethane	ND	25	50		1,2,4-Trichlorobenzene	ND	25	50	
2-Chlorotoluene	ND	25	50		1,1,1-Trichloroethane	ND	25	50	
4-Chlorotoluene	ND	25	50		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	25	50	
Dibromochloromethane	ND	25	50		1,1,2-Trichloroethane	ND	25	50	
1,2-Dibromo-3-Chloropropane	ND	250	50		Trichloroethene	68	25	50	
1,2-Dibromoethane	ND	25	50		Trichlorofluoromethane	ND	25	50	
Dibromomethane	ND	25	50		1,2,3-Trichloropropane	ND	50	50	
1,2-Dichlorobenzene	ND	25	50		1,2,4-Trimethylbenzene	ND	25	50	
1,3-Dichlorobenzene	ND	25	50		1,3,5-Trimethylbenzene	ND	25	50	
1,4-Dichlorobenzene	53	25	50		Vinyl Acetate	ND	250	50	
Dichlorodifluoromethane	ND	50	50		Vinyl Chloride	ND	25	50	
1,1-Dichloroethane	ND	25	50		p/m-Xylene	ND	25	50	
1,2-Dichloroethane	ND	25	50		o-Xylene	ND	25	50	
1,1-Dichloroethene	ND	25	50		Methyl-t-Butyl Ether (MTBE)	ND	25	50	
c-1,2-Dichloroethene	ND	25	50		Tert-Butyl Alcohol (TBA)	ND	500	50	
t-1,2-Dichloroethene	ND	25	50		Diisopropyl Ether (DIPE)	ND	25	50	
1,2-Dichloropropane	ND	25	50		Ethyl-t-Butyl Ether (ETBE)	ND	25	50	
1,3-Dichloropropane	ND	50	50		Tert-Amyl-Methyl Ether (TAME)	ND	25	50	
2,2-Dichloropropane	ND	50	50		Ethanol	ND	2500	50	
1,1-Dichloropropene	ND	25	50						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	104	68-120		Dibromofluoromethane	102	80-127	
1,2-Dichloroethane-d4	103	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/26/12
3995 Via Oro Ave		Work Order No:	12-03-1751
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,309**	**N/A**	**Aqueous**	**GC/MS BB**	**03/29/12**	**03/29/12 13:45**	**120329L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	95	68-120		Dibromofluoromethane	103	80-127	
1,2-Dichloroethane-d4	105	80-128		Toluene-d8	100	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/26/12
3995 Via Oro Ave		Work Order No:	12-03-1751
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-EW-2	**12-03-1751-3-F**	**03/26/12 11:30**	**Aqueous**	**ICP/MS 04**	**03/28/12**	**03/28/12 16:44**	**120328L01F**

Parameter	Result	RL	DF	Qual	Units
Arsenic	0.00892	0.00100	1		mg/L

Method Blank	**096-06-003-3,704**	**N/A**	**Aqueous**	**ICP/MS 04**	**03/28/12**	**03/28/12 15:55**	**120328L01F**

Parameter	Result	RL	DF	Qual	Units
Arsenic	ND	0.00100	1		mg/L

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	03/26/12
3995 Via Oro Ave		Work Order No:	12-03-1751
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BF-EW-2	**Aqueous**	**ICP/MS 04**	**03/28/12**	**03/28/12**	**120328S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	97	99	73-127	1	0-11	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received	03/26/12
3995 Via Oro Ave		Work Order No:	12-03-1751
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
BF-EW-2	**Aqueous**	**ICP/MS 04**	**03/28/12**	**03/28/12**	**120328S01**

Parameter	SPIKE ADDED	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	92	94	75-125	2	0-11	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 03/26/12
Work Order No: 12-03-1751
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
BF-EW-1	**Aqueous**	**GC/MS BB**	**03/29/12**	**03/29/12**	**120329S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	500.0	97	98	76-124	0	0-20	
Carbon Tetrachloride	500.0	93	93	74-134	0	0-20	
Chlorobenzene	500.0	0	0	80-120	4	0-20	3
1,2-Dibromoethane	500.0	95	93	80-120	2	0-20	
1,2-Dichlorobenzene	500.0	92	91	80-120	1	0-20	
1,2-Dichloroethane	500.0	104	105	80-120	0	0-20	
1,1-Dichloroethene	500.0	95	94	73-127	1	0-20	
Ethylbenzene	500.0	100	98	78-126	2	0-20	
Toluene	500.0	93	91	80-120	3	0-20	
Trichloroethene	500.0	91	91	77-120	0	0-20	
Vinyl Chloride	500.0	86	87	72-126	1	0-20	
Methyl-t-Butyl Ether (MTBE)	500.0	86	89	67-121	4	0-49	
Tert-Butyl Alcohol (TBA)	2500	101	104	36-162	3	0-30	
Diisopropyl Ether (DIPE)	500.0	89	90	60-138	1	0-45	
Ethyl-t-Butyl Ether (ETBE)	500.0	75	78	69-123	4	0-30	
Tert-Amyl-Methyl Ether (TAME)	500.0	78	80	65-120	3	0-20	
Ethanol	5000	93	88	30-180	6	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-03-1751
Long Beach, CA 90810-1869		Preparation:	EPA 3005A Filt.
		Method:	EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-3,704	**Aqueous**	**ICP/MS 04**	**03/28/12**	**03/28/12**	**120328L01F**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Arsenic	0.1000	102	105	80-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Return to Contents

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-03-1751
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,309	**Aqueous**	**GC/MS BB**	**03/29/12**	**03/29/12**	**120329L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	93	98	80-120	73-127	5	0-20	
Carbon Tetrachloride	10.00	96	97	74-134	64-144	1	0-20	
Chlorobenzene	10.00	92	93	80-120	73-127	0	0-20	
1,2-Dibromoethane	10.00	101	98	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	10.00	92	94	80-120	73-127	2	0-20	
1,2-Dichloroethane	10.00	97	103	80-120	73-127	6	0-20	
1,1-Dichloroethene	10.00	92	96	78-126	70-134	4	0-28	
Ethylbenzene	10.00	99	98	80-120	73-127	1	0-20	
Toluene	10.00	98	106	80-120	73-127	8	0-20	
Trichloroethene	10.00	99	95	79-127	71-135	3	0-20	
Vinyl Chloride	10.00	85	86	72-132	62-142	2	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	81	89	69-123	60-132	9	0-20	
Tert-Butyl Alcohol (TBA)	50.00	109	117	63-123	53-133	7	0-20	
Diisopropyl Ether (DIPE)	10.00	76	90	59-137	46-150	18	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	78	80	69-123	60-132	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	76	84	70-120	62-128	9	0-20	
Ethanol	100.0	106	108	28-160	6-182	2	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-03-1751

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 3-26-12
PAGE: 1 OF 1

LABORATORY CLIENT: AECOM
ADDRESS: 3995 Via Oro Avenue
CITY: Long Beach STATE: Ca ZIP: 90810
TEL: 562-755-9046 FAX: — E-MAIL: Katharine.CarrGreen@AECOM.com

CLIENT PROJECT NAME / NUMBER: Montrose Superfund Site
P.O. NO.: 60212541
PROJECT CONTACT: K. Carr Green
LAB CONTACT OR QUOTE NO.: Vik Patel
SAMPLER(S): (SIGNATURE)
LAB USE ONLY: 12-03-1751

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS: AECOM + DMMS Format EDDS
Level II & Level IV Data Packages

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	8260B VOCs	TOTAL As 6020/6010	As3/As5 200.8
1	TB032612		3/26/12	0800	H2O	2	X		
2	BF-EW-1		↑	1500	H2O	3	X		
3	BF-EW-2		↓	1130	H2O	1		X	
4	BF-EW-2		3/26/12	1130	H2O	1			X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
3/26/12 1655	CEL	3/26/12	16.55
	CEL	03/26/12	1745

06/01/10 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-03-1751

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 03/26/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 1.9 °C - 0.3 °C (CF) = 1.6 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: PEE

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: PEE

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: [illegible]

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOAh ☐VOA**na$_2$** ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGB**na$_2$** ☐1AGBs

☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB

☑250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJ**na$_2$** ☑ 250PBc ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120314B **Labeled/Checked by:** NC

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** [illegible]

Preservative: h: HCL n: HNO_3 na$_2$: $Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered **Scanned by:** [illegible]

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Calscience Environmental Laboratories, Inc.

Subcontractor Analysis Report

Work Order # 12-03-1751

One or more samples in this Work Order have tests that were subcontracted. The subcontract report(s) follows.

For subcontracted tests, please reference the laboratory information noted below.

1 Weck Laboratories, Inc. - City of Industry,CA NELAP 04229CA

Arsenic III and Arsenic IV

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Certificate of Analysis

Report Date: Friday, April 13, 2012
Received Date: Tuesday, March 27, 2012
Received Time: 11:05 am
Turnaround Time: Normal

Client: Calscience Environmental Laboratories
7440 Lincoln Way
Garden Grove, CA 92841-1432

Phones: (714) 895-5494
Fax: (714) 894-7501

Attn: Vikas Patel
Project: 12-03-1751

P.O. #:

Lab Sample ID: 2C27026-01 **Sample ID: BF-EW-2** **Matrix:** Water
Sampled by: client **Sampled: 03/26/12 11:30**

Analyte	Result	MDL	MRL	Units	Dil	Method	Prepared	Analyzed	Batch	Qualifier
Arsenic III	**8.5**	0.028	0.80	ug/l	2	IC-ICP/MS	4/12/12	4/13/12 17:45	W2D0493	
Arsenic V	**19**	0.014	0.40	ug/l	1	IC-ICP/MS	4/12/12	4/13/12 17:45	W2D0493	

Weck Laboratories, Inc 14859 East Clark Avenue, City of Industry, California 91745-1396 (626) 336-2139 FAX (626) 336-2634
www.wecklabs.com
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Certificate of Analysis

Quality Control Section

Metals by EPA 200 Series Methods - Quality Control

Batch W2D0493 - IC-ICP/MS

Blank (W2D0493-BLK1) — **Prepared: 04/12/12 Analyzed: 04/13/12 11:36**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III		ND		ug/l					
Arsenic V		ND		ug/l					

LCS (W2D0493-BS1) — **Prepared: 04/12/12 Analyzed: 04/13/12 11:46**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III		9.07		ug/l	9.92	91	85-115		
Arsenic V		11.3		ug/l	10.0	113	85-115		

Matrix Spike (W2D0493-MS1) — **Source: 2C27026-01** — **Prepared: 04/12/12 Analyzed: 04/13/12 17:45**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III	8.52	16.8		ug/l	9.92	83	70-130		

Matrix Spike Dup (W2D0493-MSD1) — **Source: 2C27026-01** — **Prepared: 04/12/12 Analyzed: 04/13/12 17:45**

Analyte	Sample Result	QC Result	Qualifier	Units	Spike Level	%REC	%REC Limits	RPD	RPD Limit
Arsenic III	8.52	17.4		ug/l	9.92	89	70-130	3	200

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Certificate of Analysis

Notes:
The Chain of Custody document is part of the analytical report.
Any remaining sample(s) for testing will be disposed of one month from the final report date unless other arrangements are made in advance.
All results are expressed on wet weight basis unless otherwise specified.

An Absence of Total Coliform meets the drinking water standards as established by the State of California Department of Health Services.
The Reporting Limit (RL) is referenced as laboratory's Practical Quantitation Limit (PQL).
For Potable water analysis, the Reporting Limit (RL) is referenced as Detection Limit for reporting purposes (DLRs) defined by EPA.

If sample collected by Weck Laboratories, sampled in accordance to lab SOP MIS002

Authorized Signature
Contact: Kim G Tu (Project Manager)

ELAP # 1132
LACSD # 10143
NELAC # 04229CA

The results in this report apply to the samples analyzed in accordance with the chain of custody document. Weck Laboratories certifies that the test results meet all requirements of NELAC unless noted in the Case Narrative. This analytical report must be reproduced in its entirety.

Flags for Data Qualifiers:

ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL).
Sub	Subcontracted analysis, original report enclosed.
DL	Method Detection Limit
RL	Method Reporting Limit
MDA	Minimum Detectable Activity
NR	Not Reportable

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: WECK

CHAIN OF CUSTODY RECORD

DATE: 03/27/12

PAGE: 1 OF 1

2C27026

LABORATORY CLIENT: Calscience Environmental Laboratories, Inc.
ADDRESS: 7440 Lincoln Way
CITY: Garden Grove, CA 92841-1427
TEL: 714/895-5494 | FAX: 714/894-7501 | E-MAIL: vipatel@calscience.com

CLIENT PROJECT NAME / NUMBER: 12-03-1751
PROJECT CONTACT: Vik Patel
SAMPLER(S): (SIGNATURE)
P.O. NO.:
QUOTE NO.:
LAB USE ONLY

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ Standard

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS

10-DAY TAT
LEVEL IV Package Required

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	Matrix	#Cont	Arsenic speciation (III/V) EPA 200.8
	BF-EW-2		03/26/2012	1130	W	1	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	Stephanie Gary 2.9°C	3-27-12	11:05
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-03-1828

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Approved for release on 04/4/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Client Project Name: Montrose Superfund Site / 60212541.03.01
Work Order Number: 12-03-1828

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-03-1828
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	03/27/12 17:45
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
EB032712						
p-Chlorobenzenesulfonic Acid	**16**		5.0	ug/L	EPA 314.0 (M) pCBS	N/A
SWL0026						
p-Chlorobenzenesulfonic Acid	**190**		50	ug/L	EPA 314.0 (M) pCBS	N/A
Benzene	**0.56**		0.50	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**17**		0.50	ug/L	EPA 8260B	EPA 5030C
Chloroform	**0.84**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**1.2**		0.50	ug/L	EPA 8260B	EPA 5030C
G-09						
p-Chlorobenzenesulfonic Acid	**12000**		2500	ug/L	EPA 314.0 (M) pCBS	N/A
Benzene	**0.94**		0.50	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**66**		4.0	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**0.60**		0.50	ug/L	EPA 8260B	EPA 5030C
BF-12						
p-Chlorobenzenesulfonic Acid	**24000**		2500	ug/L	EPA 314.0 (M) pCBS	N/A
Chlorobenzene	**1500**		20	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

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*MDL is shown.

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/27/12
3995 Via Oro Ave		Work Order No:	12-03-1828
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB032712	**12-03-1828-2-D**	**03/27/12 10:10**	**Aqueous**	**IC 8**	**N/A**	**03/28/12 11:32**	**120328L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	16	5.0	1		ug/L

SWL0026	**12-03-1828-3-D**	**03/27/12 12:40**	**Aqueous**	**IC 8**	**N/A**	**03/28/12 11:50**	**120328L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	190	50	10		ug/L

G-09	**12-03-1828-4-D**	**03/27/12 16:00**	**Aqueous**	**IC 8**	**N/A**	**03/28/12 12:09**	**120328L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	12000	2500	500		ug/L

BF-12	**12-03-1828-5-D**	**03/27/12 08:55**	**Aqueous**	**IC 8**	**N/A**	**03/28/12 12:27**	**120328L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	24000	2500	500		ug/L

Method Blank	**099-15-080-11**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**03/28/12 11:13**	**120328L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/27/12
3995 Via Oro Ave		Work Order No:	12-03-1828
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB032712	**12-03-1828-1-A**	**03/27/12 07:15**	**Aqueous**	**GC/MS BB**	**03/29/12**	**03/30/12 01:55**	**120329L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	93	68-120		Dibromofluoromethane	107	80-127	
1,2-Dichloroethane-d4	111	80-128		Toluene-d8	100	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/27/12
3995 Via Oro Ave		Work Order No:	12-03-1828
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
EB032712	**12-03-1828-2-A**	**03/27/12 10:10**	**Aqueous**	**GC/MS BB**	**03/29/12**	**03/30/12 02:23**	**120329L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	94	68-120		Dibromofluoromethane	108	80-127	
1,2-Dichloroethane-d4	118	80-128		Toluene-d8	95	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/27/12
3995 Via Oro Ave		Work Order No:	12-03-1828
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SWL0026	**12-03-1828-3-B**	**03/27/12 12:40**	**Aqueous**	**GC/MS BB**	**03/30/12**	**03/30/12 20:19**	**120330L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	0.56	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	17	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	0.84	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	1.2	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	93	68-120		Dibromofluoromethane	103	80-127	
1,2-Dichloroethane-d4	102	80-128		Toluene-d8	99	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/27/12
3995 Via Oro Ave		Work Order No:	12-03-1828
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-09	**12-03-1828-4-A**	**03/27/12 16:00**	**Aqueous**	**GC/MS BB**	**03/29/12**	**03/30/12 03:19**	**120329L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	0.94	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	66	4.0	8		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	0.60	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	94	68-120		Dibromofluoromethane	109	80-127	
1,2-Dichloroethane-d4	112	80-128		Toluene-d8	104	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/27/12
3995 Via Oro Ave		Work Order No:	12-03-1828
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BF-12	**12-03-1828-5-A**	**03/27/12 08:55**	**Aqueous**	**GC/MS BB**	**03/29/12**	**03/30/12 05:11**	**120329L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	400	40		c-1,3-Dichloropropene	ND	20	40	
Benzene	ND	20	40		t-1,3-Dichloropropene	ND	20	40	
Bromobenzene	ND	20	40		Ethylbenzene	ND	20	40	
Bromochloromethane	ND	40	40		2-Hexanone	ND	400	40	
Bromodichloromethane	ND	20	40		Isopropylbenzene	ND	20	40	
Bromoform	ND	20	40		p-Isopropyltoluene	ND	20	40	
Bromomethane	ND	40	40		Methylene Chloride	ND	40	40	
2-Butanone	ND	200	40		4-Methyl-2-Pentanone	ND	200	40	
n-Butylbenzene	ND	20	40		Naphthalene	ND	40	40	
sec-Butylbenzene	ND	20	40		n-Propylbenzene	ND	20	40	
tert-Butylbenzene	ND	20	40		Styrene	ND	20	40	
Carbon Disulfide	ND	40	40		1,1,1,2-Tetrachloroethane	ND	20	40	
Carbon Tetrachloride	ND	20	40		1,1,2,2-Tetrachloroethane	ND	20	40	
Chlorobenzene	1500	20	40		Tetrachloroethene	ND	20	40	
Chloroethane	ND	20	40		Toluene	ND	20	40	
Chloroform	ND	20	40		1,2,3-Trichlorobenzene	ND	20	40	
Chloromethane	ND	20	40		1,2,4-Trichlorobenzene	ND	20	40	
2-Chlorotoluene	ND	20	40		1,1,1-Trichloroethane	ND	20	40	
4-Chlorotoluene	ND	20	40		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	20	40	
Dibromochloromethane	ND	20	40		1,1,2-Trichloroethane	ND	20	40	
1,2-Dibromo-3-Chloropropane	ND	200	40		Trichloroethene	ND	20	40	
1,2-Dibromoethane	ND	20	40		Trichlorofluoromethane	ND	20	40	
Dibromomethane	ND	20	40		1,2,3-Trichloropropane	ND	40	40	
1,2-Dichlorobenzene	ND	20	40		1,2,4-Trimethylbenzene	ND	20	40	
1,3-Dichlorobenzene	ND	20	40		1,3,5-Trimethylbenzene	ND	20	40	
1,4-Dichlorobenzene	ND	20	40		Vinyl Acetate	ND	200	40	
Dichlorodifluoromethane	ND	40	40		Vinyl Chloride	ND	20	40	
1,1-Dichloroethane	ND	20	40		p/m-Xylene	ND	20	40	
1,2-Dichloroethane	ND	20	40		o-Xylene	ND	20	40	
1,1-Dichloroethene	ND	20	40		Methyl-t-Butyl Ether (MTBE)	ND	20	40	
c-1,2-Dichloroethene	ND	20	40		Tert-Butyl Alcohol (TBA)	ND	400	40	
t-1,2-Dichloroethene	ND	20	40		Diisopropyl Ether (DIPE)	ND	20	40	
1,2-Dichloropropane	ND	20	40		Ethyl-t-Butyl Ether (ETBE)	ND	20	40	
1,3-Dichloropropane	ND	40	40		Tert-Amyl-Methyl Ether (TAME)	ND	20	40	
2,2-Dichloropropane	ND	40	40		Ethanol	ND	2000	40	
1,1-Dichloropropene	ND	20	40						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	95	68-120		Dibromofluoromethane	115	80-127	
1,2-Dichloroethane-d4	121	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/27/12
3995 Via Oro Ave		Work Order No:	12-03-1828
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,310**	**N/A**	**Aqueous**	**GC/MS BB**	**03/29/12**	**03/30/12 01:27**	**120329L02**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	92	68-120		Dibromofluoromethane	106	80-127	
1,2-Dichloroethane-d4	108	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/27/12
3995 Via Oro Ave		Work Order No:	12-03-1828
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,311**	**N/A**	**Aqueous**	**GC/MS BB**	**03/30/12**	**03/30/12 19:51**	**120330L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	95	68-120		Dibromofluoromethane	112	80-127	
1,2-Dichloroethane-d4	110	80-128		Toluene-d8	97	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	03/27/12
3995 Via Oro Ave		Work Order No:	12-03-1828
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
EB032712	**Aqueous**	**IC 8**	**N/A**	**03/28/12**	**120328S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	120	115	70-130	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 03/27/12
Work Order No: 12-03-1828
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-09	**Aqueous**	**GC/MS BB**	**03/29/12**	**03/30/12**	**120329S02**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	100	93	76-124	6	0-20	
Carbon Tetrachloride	10.00	93	89	74-134	4	0-20	
Chlorobenzene	10.00	0	0	80-120	2	0-20	3
1,2-Dibromoethane	10.00	101	100	80-120	1	0-20	
1,2-Dichlorobenzene	10.00	90	89	80-120	1	0-20	
1,2-Dichloroethane	10.00	109	103	80-120	6	0-20	
1,1-Dichloroethene	10.00	96	93	73-127	3	0-20	
Ethylbenzene	10.00	96	94	78-126	2	0-20	
Toluene	10.00	107	100	80-120	6	0-20	
Trichloroethene	10.00	94	92	77-120	2	0-20	
Vinyl Chloride	10.00	87	84	72-126	4	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	90	81	67-121	11	0-49	
Tert-Butyl Alcohol (TBA)	50.00	238	107	36-162	76	0-30	3,4
Diisopropyl Ether (DIPE)	10.00	89	72	60-138	22	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	75	75	69-123	0	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	50	79	65-120	44	0-20	3,4
Ethanol	100.0	103	101	30-180	2	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 03/27/12
Work Order No: 12-03-1828
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
SWL0026	**Aqueous**	**GC/MS BB**	**03/30/12**	**03/30/12**	**120330S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	103	100	76-124	2	0-20	
Carbon Tetrachloride	10.00	99	99	74-134	0	0-20	
Chlorobenzene	10.00	91	109	80-120	6	0-20	
1,2-Dibromoethane	10.00	97	96	80-120	1	0-20	
1,2-Dichlorobenzene	10.00	99	102	80-120	2	0-20	
1,2-Dichloroethane	10.00	99	100	80-120	1	0-20	
1,1-Dichloroethene	10.00	83	85	73-127	1	0-20	
Ethylbenzene	10.00	103	98	78-126	5	0-20	
Toluene	10.00	101	97	80-120	4	0-20	
Trichloroethene	10.00	97	95	77-120	2	0-20	
Vinyl Chloride	10.00	83	90	72-126	8	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	82	91	67-121	10	0-49	
Tert-Butyl Alcohol (TBA)	50.00	98	112	36-162	13	0-30	
Diisopropyl Ether (DIPE)	10.00	99	102	60-138	3	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	72	83	69-123	14	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	80	79	65-120	2	0-20	
Ethanol	100.0	118	109	30-180	8	0-72	

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-03-1828
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-11	**Aqueous**	**IC 8**	**N/A**	**03/28/12**	**120328L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	105	106	80-120	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-03-1828
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,310	**Aqueous**	**GC/MS BB**	**03/29/12**	**03/30/12**	**120329L02**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	90	99	80-120	73-127	10	0-20	
Carbon Tetrachloride	10.00	92	93	74-134	64-144	1	0-20	
Chlorobenzene	10.00	91	93	80-120	73-127	2	0-20	
1,2-Dibromoethane	10.00	96	97	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	10.00	89	91	80-120	73-127	2	0-20	
1,2-Dichloroethane	10.00	94	104	80-120	73-127	10	0-20	
1,1-Dichloroethene	10.00	94	93	78-126	70-134	0	0-28	
Ethylbenzene	10.00	96	96	80-120	73-127	0	0-20	
Toluene	10.00	92	102	80-120	73-127	10	0-20	
Trichloroethene	10.00	95	97	79-127	71-135	2	0-20	
Vinyl Chloride	10.00	83	84	72-132	62-142	1	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	78	78	69-123	60-132	0	0-20	
Tert-Butyl Alcohol (TBA)	50.00	117	115	63-123	53-133	2	0-20	
Diisopropyl Ether (DIPE)	10.00	71	88	59-137	46-150	21	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	74	76	69-123	60-132	3	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	70	78	70-120	62-128	10	0-20	
Ethanol	100.0	112	114	28-160	6-182	1	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-03-1828
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,311	**Aqueous**	**GC/MS BB**	**03/30/12**	**03/30/12**	**120330L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	98	102	80-120	73-127	4	0-20	
Carbon Tetrachloride	10.00	100	98	74-134	64-144	2	0-20	
Chlorobenzene	10.00	100	100	80-120	73-127	0	0-20	
1,2-Dibromoethane	10.00	100	99	79-121	72-128	1	0-20	
1,2-Dichlorobenzene	10.00	102	101	80-120	73-127	1	0-20	
1,2-Dichloroethane	10.00	98	103	80-120	73-127	5	0-20	
1,1-Dichloroethene	10.00	86	86	78-126	70-134	0	0-28	
Ethylbenzene	10.00	103	102	80-120	73-127	0	0-20	
Toluene	10.00	100	111	80-120	73-127	11	0-20	
Trichloroethene	10.00	100	99	79-127	71-135	1	0-20	
Vinyl Chloride	10.00	80	86	72-132	62-142	6	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	86	85	69-123	60-132	1	0-20	
Tert-Butyl Alcohol (TBA)	50.00	110	102	63-123	53-133	7	0-20	
Diisopropyl Ether (DIPE)	10.00	86	104	59-137	46-150	19	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	88	89	69-123	60-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	80	85	70-120	62-128	6	0-20	
Ethanol	100.0	128	114	28-160	6-182	11	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-03-1828

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 3-27-2012
PAGE: 1 OF 1

LABORATORY CLIENT: AECOM
ADDRESS: 3995 Via Oro Avenue
CITY: Long Beach STATE: Ca ZIP: 90810
TEL: 562-755-9046 FAX: E-MAIL: Katharine.Carrasco@

CLIENT PROJECT NAME / NUMBER: Montrose Superfund Site
P.O. NO.: 60212541
PROJECT CONTACT: K. Carr Green
LAB CONTACT OR QUOTE NO.: Vik Patel
SAMPLER(S): (SIGNATURE)
LAB USE ONLY: 12-03-1828

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS (STD) ☐ 10 DAYS
SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___
SPECIAL INSTRUCTIONS:

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	VOCs 8260B	CBSA 314 mod
1	TB032712		3/27/12	0715	H_2O	2	X	
2	EB032712		3/27/12	1010	H_2O	3	X	
3	EB032712		3/27/12	1010	H_2O	1		X
4	SWL0026			1240		3	X	
5	SWL0026			1240		1		X
6	G-09			1600		3	X	
4	G-09			1600		1		X
5	BF-12			0855		3	X	
	BF-12		3/27/12	0855	H_2O	1		X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
1645 3-27-12		3/27/12	1645
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	CCL	03/27/12	1745
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

06/01/10 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-03-1828

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 03/27/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.3 °C - 0.3 °C (CF) = 2.0 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: AM

CUSTODY SEALS INTACT:

☐ Cooler	☐_____	☐ No (Not Intact)	☑ Not Present	☐ N/A	Initial: AM
☐ Sample	☐_____	☐ No (Not Intact)	☑ Not Present		Initial: YL

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na_2** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na_2** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☑250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na_2** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120320A **Labeled/Checked by:** YL

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** DS

Preservative: **h:** HCL **n:** HNO_3 **na_2:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** _____

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Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-03-1906

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Approved for release on 04/4/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Accredited in accordance with nelac

Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Calscience Environmental Laboratories, Inc.

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Client Project Name: Montrose Superfund Site / 60212541.03.01
Work Order Number: 12-03-1906

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-03-1906
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	03/28/12 18:20
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	**Result**	Qualifiers	Reporting Limit	Units	Method	Extraction
G-06						
Chlorobenzene	**1500**		40	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/28/12
3995 Via Oro Ave		Work Order No:	12-03-1906
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB032812	**12-03-1906-1-A**	**03/28/12 08:30**	**Aqueous**	**GC/MS BB**	**03/31/12**	**03/31/12 12:13**	**120331L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	68-120		Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	102	80-128		Toluene-d8	96	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/28/12
3995 Via Oro Ave		Work Order No:	12-03-1906
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
G-06	**12-03-1906-2-A**	**03/28/12 10:30**	**Aqueous**	**GC/MS BB**	**03/31/12**	**03/31/12 12:41**	**120331L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	200	20		c-1,3-Dichloropropene	ND	10	20	
Benzene	ND	10	20		t-1,3-Dichloropropene	ND	10	20	
Bromobenzene	ND	10	20		Ethylbenzene	ND	10	20	
Bromochloromethane	ND	20	20		2-Hexanone	ND	200	20	
Bromodichloromethane	ND	10	20		Isopropylbenzene	ND	10	20	
Bromoform	ND	10	20		p-Isopropyltoluene	ND	10	20	
Bromomethane	ND	20	20		Methylene Chloride	ND	20	20	
2-Butanone	ND	100	20		4-Methyl-2-Pentanone	ND	100	20	
n-Butylbenzene	ND	10	20		Naphthalene	ND	20	20	
sec-Butylbenzene	ND	10	20		n-Propylbenzene	ND	10	20	
tert-Butylbenzene	ND	10	20		Styrene	ND	10	20	
Carbon Disulfide	ND	20	20		1,1,1,2-Tetrachloroethane	ND	10	20	
Carbon Tetrachloride	ND	10	20		1,1,2,2-Tetrachloroethane	ND	10	20	
Chlorobenzene	1500	40	80		Tetrachloroethene	ND	10	20	
Chloroethane	ND	10	20		Toluene	ND	10	20	
Chloroform	ND	10	20		1,2,3-Trichlorobenzene	ND	10	20	
Chloromethane	ND	10	20		1,2,4-Trichlorobenzene	ND	10	20	
2-Chlorotoluene	ND	10	20		1,1,1-Trichloroethane	ND	10	20	
4-Chlorotoluene	ND	10	20		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	20	
Dibromochloromethane	ND	10	20		1,1,2-Trichloroethane	ND	10	20	
1,2-Dibromo-3-Chloropropane	ND	100	20		Trichloroethene	ND	10	20	
1,2-Dibromoethane	ND	10	20		Trichlorofluoromethane	ND	10	20	
Dibromomethane	ND	10	20		1,2,3-Trichloropropane	ND	20	20	
1,2-Dichlorobenzene	ND	10	20		1,2,4-Trimethylbenzene	ND	10	20	
1,3-Dichlorobenzene	ND	10	20		1,3,5-Trimethylbenzene	ND	10	20	
1,4-Dichlorobenzene	ND	10	20		Vinyl Acetate	ND	100	20	
Dichlorodifluoromethane	ND	20	20		Vinyl Chloride	ND	10	20	
1,1-Dichloroethane	ND	10	20		p/m-Xylene	ND	10	20	
1,2-Dichloroethane	ND	10	20		o-Xylene	ND	10	20	
1,1-Dichloroethene	ND	10	20		Methyl-t-Butyl Ether (MTBE)	ND	10	20	
c-1,2-Dichloroethene	ND	10	20		Tert-Butyl Alcohol (TBA)	ND	200	20	
t-1,2-Dichloroethene	ND	10	20		Diisopropyl Ether (DIPE)	ND	10	20	
1,2-Dichloropropane	ND	10	20		Ethyl-t-Butyl Ether (ETBE)	ND	10	20	
1,3-Dichloropropane	ND	20	20		Tert-Amyl-Methyl Ether (TAME)	ND	10	20	
2,2-Dichloropropane	ND	20	20		Ethanol	ND	1000	20	
1,1-Dichloropropene	ND	10	20						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	90	68-120		Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	99	80-128		Toluene-d8	100	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	03/28/12
3995 Via Oro Ave		Work Order No:	12-03-1906
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,313**	**N/A**	**Aqueous**	**GC/MS BB**	**03/31/12**	**03/31/12 11:45**	**120331L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	93	68-120		Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	102	80-128		Toluene-d8	94	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	03/28/12
3995 Via Oro Ave		Work Order No:	12-03-1906
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
G-06	**Aqueous**	**GC/MS BB**	**03/31/12**	**03/31/12**	**120331S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	200.0	96	96	76-124	0	0-20	
Carbon Tetrachloride	200.0	87	89	74-134	3	0-20	
Chlorobenzene	200.0	14	23	80-120	1	0-20	3
1,2-Dibromoethane	200.0	92	92	80-120	0	0-20	
1,2-Dichlorobenzene	200.0	101	103	80-120	2	0-20	
1,2-Dichloroethane	200.0	95	94	80-120	1	0-20	
1,1-Dichloroethene	200.0	76	78	73-127	3	0-20	
Ethylbenzene	200.0	98	105	78-126	7	0-20	
Toluene	200.0	90	91	80-120	0	0-20	
Trichloroethene	200.0	91	92	77-120	2	0-20	
Vinyl Chloride	200.0	77	78	72-126	1	0-20	
Methyl-t-Butyl Ether (MTBE)	200.0	74	73	67-121	1	0-49	
Tert-Butyl Alcohol (TBA)	1000	111	116	36-162	4	0-30	
Diisopropyl Ether (DIPE)	200.0	91	92	60-138	1	0-45	
Ethyl-t-Butyl Ether (ETBE)	200.0	66	62	69-123	5	0-30	3
Tert-Amyl-Methyl Ether (TAME)	200.0	64	62	65-120	3	0-20	3
Ethanol	2000	122	131	30-180	7	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-03-1906
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,313	**Aqueous**	**GC/MS BB**	**03/31/12**	**03/31/12**	**120331L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	99	97	80-120	73-127	2	0-20	
Carbon Tetrachloride	10.00	96	95	74-134	64-144	1	0-20	
Chlorobenzene	10.00	106	104	80-120	73-127	2	0-20	
1,2-Dibromoethane	10.00	105	103	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	10.00	106	106	80-120	73-127	0	0-20	
1,2-Dichloroethane	10.00	101	100	80-120	73-127	1	0-20	
1,1-Dichloroethene	10.00	85	84	78-126	70-134	1	0-28	
Ethylbenzene	10.00	109	107	80-120	73-127	2	0-20	
Toluene	10.00	97	100	80-120	73-127	3	0-20	
Trichloroethene	10.00	97	97	79-127	71-135	0	0-20	
Vinyl Chloride	10.00	81	81	72-132	62-142	0	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	85	79	69-123	60-132	8	0-20	
Tert-Butyl Alcohol (TBA)	50.00	114	109	63-123	53-133	4	0-20	
Diisopropyl Ether (DIPE)	10.00	97	95	59-137	46-150	2	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	75	76	69-123	60-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	71	73	70-120	62-128	2	0-20	
Ethanol	100.0	125	116	28-160	6-182	7	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-03-1906

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1427
TEL: (714) 895-5494 . FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

DATE: 3-28-12
PAGE: 1 OF 1

LABORATORY CLIENT: AECOM
ADDRESS: 3995 Via Oro Avenue
CITY: Long Beach STATE: Ca ZIP: 90810
TEL: 702-755-9046 FAX: — E-MAIL: Katherine.Carr-Green@aecom.com

CLIENT PROJECT NAME / NUMBER: Montrose Superfund Site
P.O. NO.: 60212541
PROJECT CONTACT: K. Carr Green
LAB CONTACT OR QUOTE NO.: Vik Patel
SAMPLER(S): (SIGNATURE)
LAB USE ONLY: 12-03-1906

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___/___/___

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSIS

Please list tests required: VOCs - 8260B

LAB USE ONLY	SAMPLE ID	LOCATION / DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	VOCs - 8260B
1	TB0328R		3-28-12	830	H2O	2	X
2	G-06		3-28-12	1030	H2O	3	X

Relinquished by: (Signature)		Received by: (Signature)	Date:	Time:
[signature]	1700 3/28/12	[signature] CEL	3/28/12	1700
[signature]		[signature] CEL	3/28/12	1820

06/01/10 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-03-1906

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 03/28/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.3 °C - 0.3 °C (CF) = 2.0 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: AY

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: AY

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: JS

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB

☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:** 120320A **Labeled/Checked by:** PJ

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** YL

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** YL

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-1120-1
Client Project/Site: Montrose - Torrance

For:
AECOM, Inc.
3995 Via Oro Ave
Long Beach, California 90810

Attn: Katherine Carr-Green

Authorized for release by:
2/21/2012 4:27:14 PM

Patty Mata
Project Manager I
patty.mata@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1120-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-1120-1	TB013112	Water	01/31/12 16:00	02/01/12 18:17
440-1120-2	BF-15	Water	01/31/12 16:48	02/01/12 18:17

Job ID: 440-1120-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-1120-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
No analytical or quality issues were noted.

GC Semi VOA
Method(s) 8081A: The continuing calibration verification (CCV) for DDE associated with batch 5489 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 8081A: Batch 5268 was not spiked with 2,4 DDD,DDE,DDT and there was insufficient sample for re-extraction.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client Sample Results

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1120-1

Client Sample ID: TB013112

Date Collected: 01/31/12 16:00
Date Received: 02/01/12 18:17

Lab Sample ID: 440-1120-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.27	ug/L			02/04/12 00:20	1
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			02/04/12 00:20	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			02/04/12 00:20	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			02/04/12 00:20	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			02/04/12 00:20	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			02/04/12 00:20	1
1,1-Dichloropropene	ND		0.50	0.28	ug/L			02/04/12 00:20	1
1,2,3-Trichlorobenzene	ND		1.0	0.30	ug/L			02/04/12 00:20	1
1,2,3-Trichloropropane	ND		2.0	0.40	ug/L			02/04/12 00:20	1
1,2,4-Trichlorobenzene	ND		0.50	0.48	ug/L			02/04/12 00:20	1
1,2,4-Trimethylbenzene	ND		0.50	0.23	ug/L			02/04/12 00:20	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.97	ug/L			02/04/12 00:20	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			02/04/12 00:20	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			02/04/12 00:20	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			02/04/12 00:20	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			02/04/12 00:20	1
1,3,5-Trimethylbenzene	ND		0.50	0.26	ug/L			02/04/12 00:20	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			02/04/12 00:20	1
1,3-Dichloropropane	ND		0.50	0.32	ug/L			02/04/12 00:20	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			02/04/12 00:20	1
2,2-Dichloropropane	ND		0.50	0.34	ug/L			02/04/12 00:20	1
2-Chlorotoluene	ND		0.50	0.28	ug/L			02/04/12 00:20	1
4-Chlorotoluene	ND		0.50	0.29	ug/L			02/04/12 00:20	1
4-Isopropyltoluene	ND		0.50	0.28	ug/L			02/04/12 00:20	1
Benzene	ND		0.50	0.28	ug/L			02/04/12 00:20	1
Bromobenzene	ND		0.50	0.27	ug/L			02/04/12 00:20	1
Bromochloromethane	ND		0.50	0.40	ug/L			02/04/12 00:20	1
Bromodichloromethane	ND		0.50	0.30	ug/L			02/04/12 00:20	1
Bromoform	ND		0.50	0.40	ug/L			02/04/12 00:20	1
Bromomethane	ND		1.0	0.42	ug/L			02/04/12 00:20	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			02/04/12 00:20	1
Chlorobenzene	ND		0.50	0.36	ug/L			02/04/12 00:20	1
Chloroethane	ND		1.0	0.40	ug/L			02/04/12 00:20	1
Chloroform	ND		0.50	0.33	ug/L			02/04/12 00:20	1
Chloromethane	ND		1.0	0.40	ug/L			02/04/12 00:20	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			02/04/12 00:20	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			02/04/12 00:20	1
Dibromochloromethane	ND		0.50	0.40	ug/L			02/04/12 00:20	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.28	ug/L			02/04/12 00:20	1
Dibromomethane	ND		0.50	0.36	ug/L			02/04/12 00:20	1
Dichlorodifluoromethane	ND		2.0	0.26	ug/L			02/04/12 00:20	1
Ethylbenzene	ND		0.50	0.25	ug/L			02/04/12 00:20	1
Hexachlorobutadiene	ND		1.0	0.38	ug/L			02/04/12 00:20	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			02/04/12 00:20	1
Isopropylbenzene	ND		0.50	0.25	ug/L			02/04/12 00:20	1
Carbon disulfide	ND		2.0	0.48	ug/L			02/04/12 00:20	1
m,p-Xylene	ND		1.0	0.60	ug/L			02/04/12 00:20	1
Methylene Chloride	ND		2.0	0.95	ug/L			02/04/12 00:20	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.32	ug/L			02/04/12 00:20	1
Naphthalene	ND		0.50	0.41	ug/L			02/04/12 00:20	1
n-Butylbenzene	ND		0.50	0.37	ug/L			02/04/12 00:20	1

Client Sample ID: TB013112

Lab Sample ID: 440-1120-1

Date Collected: 01/31/12 16:00

Matrix: Water

Date Received: 02/01/12 18:17

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		0.50	0.27	ug/L			02/04/12 00:20	1
o-Xylene	ND		0.50	0.30	ug/L			02/04/12 00:20	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			02/04/12 00:20	1
Styrene	ND		0.50	0.20	ug/L			02/04/12 00:20	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.33	ug/L			02/04/12 00:20	1
tert-Butyl alcohol (TBA)	ND		10	6.5	ug/L			02/04/12 00:20	1
tert-Butylbenzene	ND		0.50	0.22	ug/L			02/04/12 00:20	1
Tetrachloroethene	ND		0.50	0.32	ug/L			02/04/12 00:20	1
Toluene	ND		0.50	0.36	ug/L			02/04/12 00:20	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			02/04/12 00:20	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			02/04/12 00:20	1
Trichloroethene	ND		0.50	0.26	ug/L			02/04/12 00:20	1
Trichlorofluoromethane	ND		1.0	0.34	ug/L			02/04/12 00:20	1
Vinyl chloride	ND		0.50	0.40	ug/L			02/04/12 00:20	1
2-Butanone (MEK)	ND		10	4.7	ug/L			02/04/12 00:20	1
2-Hexanone	ND		10	2.6	ug/L			02/04/12 00:20	1
Acetone	ND		10	4.5	ug/L			02/04/12 00:20	1
4-Methyl-2-pentanone (MIBK)	ND		10	3.5	ug/L			02/04/12 00:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5	0.50	ug/L			02/04/12 00:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*02/04/12 00:20*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*02/04/12 00:20*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*02/04/12 00:20*	*1*

Client Sample ID: BF-15

Lab Sample ID: 440-1120-2

Date Collected: 01/31/12 16:48

Matrix: Water

Date Received: 02/01/12 18:17

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		40	11	ug/L			02/04/12 01:18	40
1,1,1-Trichloroethane	ND		20	12	ug/L			02/04/12 01:18	40
1,1,2,2-Tetrachloroethane	ND		20	12	ug/L			02/04/12 01:18	40
1,1,2-Trichloroethane	ND		20	12	ug/L			02/04/12 01:18	40
1,1-Dichloroethane	ND		20	16	ug/L			02/04/12 01:18	40
1,1-Dichloroethene	ND		20	17	ug/L			02/04/12 01:18	40
1,1-Dichloropropene	ND		20	11	ug/L			02/04/12 01:18	40
1,2,3-Trichlorobenzene	ND		40	12	ug/L			02/04/12 01:18	40
1,2,3-Trichloropropane	ND		80	16	ug/L			02/04/12 01:18	40
1,2,4-Trichlorobenzene	ND		20	19	ug/L			02/04/12 01:18	40
1,2,4-Trimethylbenzene	ND		20	9.2	ug/L			02/04/12 01:18	40
1,2-Dibromo-3-Chloropropane	ND		200	39	ug/L			02/04/12 01:18	40
1,2-Dichlorobenzene	ND		20	13	ug/L			02/04/12 01:18	40
1,2-Dibromoethane (EDB)	ND		20	16	ug/L			02/04/12 01:18	40
1,2-Dichloroethane	**110**		20	11	ug/L			02/04/12 01:18	40
1,2-Dichloropropane	ND		20	14	ug/L			02/04/12 01:18	40
1,3,5-Trimethylbenzene	ND		20	10	ug/L			02/04/12 01:18	40
1,3-Dichlorobenzene	ND		20	14	ug/L			02/04/12 01:18	40
1,3-Dichloropropane	ND		20	13	ug/L			02/04/12 01:18	40
1,4-Dichlorobenzene	**35**		20	15	ug/L			02/04/12 01:18	40

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1120-1

Client Sample ID: BF-15
Date Collected: 01/31/12 16:48
Date Received: 02/01/12 18:17

Lab Sample ID: 440-1120-2
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		20	14	ug/L			02/04/12 01:18	40
2-Chlorotoluene	ND		20	11	ug/L			02/04/12 01:18	40
4-Chlorotoluene	ND		20	12	ug/L			02/04/12 01:18	40
4-Isopropyltoluene	ND		20	11	ug/L			02/04/12 01:18	40
Benzene	**36**		20	11	ug/L			02/04/12 01:18	40
Bromobenzene	ND		20	11	ug/L			02/04/12 01:18	40
Bromochloromethane	ND		20	16	ug/L			02/04/12 01:18	40
Bromodichloromethane	ND		20	12	ug/L			02/04/12 01:18	40
Bromoform	ND		20	16	ug/L			02/04/12 01:18	40
Bromomethane	ND		40	17	ug/L			02/04/12 01:18	40
Carbon tetrachloride	ND		20	11	ug/L			02/04/12 01:18	40
Chloroethane	ND		40	16	ug/L			02/04/12 01:18	40
Chloroform	ND		20	13	ug/L			02/04/12 01:18	40
Chloromethane	ND		40	16	ug/L			02/04/12 01:18	40
cis-1,2-Dichloroethene	ND		20	13	ug/L			02/04/12 01:18	40
cis-1,3-Dichloropropene	ND		20	8.8	ug/L			02/04/12 01:18	40
Dibromochloromethane	ND		20	16	ug/L			02/04/12 01:18	40
Ethyl-t-butyl ether (ETBE)	ND		20	11	ug/L			02/04/12 01:18	40
Dibromomethane	ND		20	14	ug/L			02/04/12 01:18	40
Dichlorodifluoromethane	ND		80	10	ug/L			02/04/12 01:18	40
Ethylbenzene	ND		20	10	ug/L			02/04/12 01:18	40
Hexachlorobutadiene	ND		40	15	ug/L			02/04/12 01:18	40
Isopropyl Ether (DIPE)	ND		20	10	ug/L			02/04/12 01:18	40
Isopropylbenzene	ND		20	10	ug/L			02/04/12 01:18	40
Carbon disulfide	ND		80	19	ug/L			02/04/12 01:18	40
m,p-Xylene	ND		40	24	ug/L			02/04/12 01:18	40
Methylene Chloride	ND		80	38	ug/L			02/04/12 01:18	40
Methyl-t-Butyl Ether (MTBE)	ND		20	13	ug/L			02/04/12 01:18	40
Naphthalene	ND		20	16	ug/L			02/04/12 01:18	40
n-Butylbenzene	ND		20	15	ug/L			02/04/12 01:18	40
N-Propylbenzene	ND		20	11	ug/L			02/04/12 01:18	40
o-Xylene	ND		20	12	ug/L			02/04/12 01:18	40
sec-Butylbenzene	ND		20	10	ug/L			02/04/12 01:18	40
Styrene	ND		20	8.0	ug/L			02/04/12 01:18	40
Tert-amyl-methyl ether (TAME)	ND		20	13	ug/L			02/04/12 01:18	40
tert-Butyl alcohol (TBA)	ND		400	260	ug/L			02/04/12 01:18	40
tert-Butylbenzene	ND		20	8.8	ug/L			02/04/12 01:18	40
Tetrachloroethene	**90**		20	13	ug/L			02/04/12 01:18	40
Toluene	ND		20	14	ug/L			02/04/12 01:18	40
trans-1,2-Dichloroethene	ND		20	12	ug/L			02/04/12 01:18	40
trans-1,3-Dichloropropene	ND		20	13	ug/L			02/04/12 01:18	40
Trichloroethene	**19**	**J**	20	10	ug/L			02/04/12 01:18	40
Trichlorofluoromethane	ND		40	14	ug/L			02/04/12 01:18	40
Vinyl chloride	ND		20	16	ug/L			02/04/12 01:18	40
2-Butanone (MEK)	ND		400	190	ug/L			02/04/12 01:18	40
2-Hexanone	ND		400	100	ug/L			02/04/12 01:18	40
Acetone	ND		400	180	ug/L			02/04/12 01:18	40
4-Methyl-2-pentanone (MIBK)	ND		400	140	ug/L			02/04/12 01:18	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	20	ug/L			02/04/12 01:18	40

Client Sample Results

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1120-1

Client Sample ID: BF-15

Date Collected: 01/31/12 16:48
Date Received: 02/01/12 18:17

Lab Sample ID: 440-1120-2

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		80 - 120		02/04/12 01:18	40
Dibromofluoromethane (Surr)	102		80 - 120		02/04/12 01:18	40
Toluene-d8 (Surr)	104		80 - 120		02/04/12 01:18	40

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	10000		100	72	ug/L			02/04/12 00:49	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		80 - 120		02/04/12 00:49	200
Dibromofluoromethane (Surr)	96		80 - 120		02/04/12 00:49	200
Toluene-d8 (Surr)	102		80 - 120		02/04/12 00:49	200

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.094	0.019	ug/L		02/05/12 14:46	02/06/12 16:20	1
2,4'-DDE	ND		0.094	0.019	ug/L		02/05/12 14:46	02/06/12 16:20	1
2,4'-DDT	ND		0.094	0.019	ug/L		02/05/12 14:46	02/06/12 16:20	1
4,4'-DDD	ND		0.0047	0.0038	ug/L		02/05/12 14:46	02/06/12 16:20	1
4,4'-DDE	ND		0.0047	0.0028	ug/L		02/05/12 14:46	02/06/12 16:20	1
4,4'-DDT	ND		0.0094	0.0038	ug/L		02/05/12 14:46	02/06/12 16:20	1
Aldrin	ND		0.0047	0.0014	ug/L		02/05/12 14:46	02/06/12 16:20	1
Chlordane (technical)	ND		0.094	0.0075	ug/L		02/05/12 14:46	02/06/12 16:20	1
delta-BHC	ND		0.0047	0.0033	ug/L		02/05/12 14:46	02/06/12 16:20	1
Dieldrin	ND		0.0047	0.0019	ug/L		02/05/12 14:46	02/06/12 16:20	1
Endosulfan I	ND		0.0047	0.0028	ug/L		02/05/12 14:46	02/06/12 16:20	1
Endosulfan II	ND		0.0047	0.0019	ug/L		02/05/12 14:46	02/06/12 16:20	1
Endosulfan sulfate	ND		0.0094	0.0028	ug/L		02/05/12 14:46	02/06/12 16:20	1
Endrin	ND		0.0047	0.0019	ug/L		02/05/12 14:46	02/06/12 16:20	1
Endrin aldehyde	ND		0.0094	0.0019	ug/L		02/05/12 14:46	02/06/12 16:20	1
Endrin ketone	ND		0.0094	0.0066	ug/L		02/05/12 14:46	02/06/12 16:20	1
Heptachlor	ND		0.0094	0.0028	ug/L		02/05/12 14:46	02/06/12 16:20	1
Heptachlor epoxide	ND		0.0047	0.0024	ug/L		02/05/12 14:46	02/06/12 16:20	1
Methoxychlor	ND		0.0047	0.0033	ug/L		02/05/12 14:46	02/06/12 16:20	1
Toxaphene	ND		0.47	0.24	ug/L		02/05/12 14:46	02/06/12 16:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	45		35 - 115	02/05/12 14:46	02/06/12 16:20	1
DCB Decachlorobiphenyl (Surr)	59		45 - 120	02/05/12 14:46	02/06/12 16:20	1

Method: 8081A - Organochlorine Pesticides (GC) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-BHC	0.65		0.024	0.012	ug/L		02/05/12 14:46	02/07/12 21:00	5
beta-BHC	1.1		0.047	0.019	ug/L		02/05/12 14:46	02/07/12 21:00	5
gamma-BHC (Lindane)	0.62		0.047	0.014	ug/L		02/05/12 14:46	02/07/12 21:00	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	48		35 - 115	02/05/12 14:46	02/07/12 21:00	5
DCB Decachlorobiphenyl (Surr)	61		45 - 120	02/05/12 14:46	02/07/12 21:00	5

Lab Chronicle

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1120-1

Client Sample ID: TB013112

Lab Sample ID: 440-1120-1

Date Collected: 01/31/12 16:00

Matrix: Water

Date Received: 02/01/12 18:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	5133	02/04/12 00:20	KK	TAL IRV

Client Sample ID: BF-15

Lab Sample ID: 440-1120-2

Date Collected: 01/31/12 16:48

Matrix: Water

Date Received: 02/01/12 18:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	200	10 mL	10 mL	5133	02/04/12 00:49	KK	TAL IRV
Total/NA	Analysis	8260B		40	10 mL	10 mL	5133	02/04/12 01:18	KK	TAL IRV
Total/NA	Prep	3510C			1060 mL	2 mL	5268	02/05/12 14:46	AB	TAL IRV
Total/NA	Analysis	8081A		1			5489	02/06/12 16:20	CN	TAL IRV
Total/NA	Prep	3510C	DL		1060 mL	2 mL	5268	02/05/12 14:46	AB	TAL IRV
Total/NA	Analysis	8081A	DL	5			5489	02/07/12 21:00	CN	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-5133/4
Matrix: Water
Analysis Batch: 5133

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.27	ug/L			02/03/12 19:34	1
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			02/03/12 19:34	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			02/03/12 19:34	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			02/03/12 19:34	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			02/03/12 19:34	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			02/03/12 19:34	1
1,1-Dichloropropene	ND		0.50	0.28	ug/L			02/03/12 19:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.30	ug/L			02/03/12 19:34	1
1,2,3-Trichloropropane	ND		2.0	0.40	ug/L			02/03/12 19:34	1
1,2,4-Trichlorobenzene	ND		0.50	0.48	ug/L			02/03/12 19:34	1
1,2,4-Trimethylbenzene	ND		0.50	0.23	ug/L			02/03/12 19:34	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.97	ug/L			02/03/12 19:34	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			02/03/12 19:34	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			02/03/12 19:34	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			02/03/12 19:34	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			02/03/12 19:34	1
1,3,5-Trimethylbenzene	ND		0.50	0.26	ug/L			02/03/12 19:34	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			02/03/12 19:34	1
1,3-Dichloropropane	ND		0.50	0.32	ug/L			02/03/12 19:34	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			02/03/12 19:34	1
2,2-Dichloropropane	ND		0.50	0.34	ug/L			02/03/12 19:34	1
2-Chlorotoluene	ND		0.50	0.28	ug/L			02/03/12 19:34	1
4-Chlorotoluene	ND		0.50	0.29	ug/L			02/03/12 19:34	1
4-Isopropyltoluene	ND		0.50	0.28	ug/L			02/03/12 19:34	1
Benzene	ND		0.50	0.28	ug/L			02/03/12 19:34	1
Bromobenzene	ND		0.50	0.27	ug/L			02/03/12 19:34	1
Bromochloromethane	ND		0.50	0.40	ug/L			02/03/12 19:34	1
Bromodichloromethane	ND		0.50	0.30	ug/L			02/03/12 19:34	1
Bromoform	ND		0.50	0.40	ug/L			02/03/12 19:34	1
Bromomethane	ND		1.0	0.42	ug/L			02/03/12 19:34	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			02/03/12 19:34	1
Chlorobenzene	ND		0.50	0.36	ug/L			02/03/12 19:34	1
Chloroethane	ND		1.0	0.40	ug/L			02/03/12 19:34	1
Chloroform	ND		0.50	0.33	ug/L			02/03/12 19:34	1
Chloromethane	ND		1.0	0.40	ug/L			02/03/12 19:34	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			02/03/12 19:34	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			02/03/12 19:34	1
Dibromochloromethane	ND		0.50	0.40	ug/L			02/03/12 19:34	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.28	ug/L			02/03/12 19:34	1
Dibromomethane	ND		0.50	0.36	ug/L			02/03/12 19:34	1
Dichlorodifluoromethane	ND		2.0	0.26	ug/L			02/03/12 19:34	1
Ethylbenzene	ND		0.50	0.25	ug/L			02/03/12 19:34	1
Hexachlorobutadiene	ND		1.0	0.38	ug/L			02/03/12 19:34	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			02/03/12 19:34	1
Isopropylbenzene	ND		0.50	0.25	ug/L			02/03/12 19:34	1
Carbon disulfide	ND		2.0	0.48	ug/L			02/03/12 19:34	1
m,p-Xylene	ND		1.0	0.60	ug/L			02/03/12 19:34	1
Methylene Chloride	0.990	J	2.0	0.95	ug/L			02/03/12 19:34	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.32	ug/L			02/03/12 19:34	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-5133/4
Matrix: Water
Analysis Batch: 5133

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.50	0.41	ug/L			02/03/12 19:34	1
n-Butylbenzene	ND		0.50	0.37	ug/L			02/03/12 19:34	1
N-Propylbenzene	ND		0.50	0.27	ug/L			02/03/12 19:34	1
o-Xylene	ND		0.50	0.30	ug/L			02/03/12 19:34	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			02/03/12 19:34	1
Styrene	ND		0.50	0.20	ug/L			02/03/12 19:34	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.33	ug/L			02/03/12 19:34	1
tert-Butyl alcohol (TBA)	ND		10	6.5	ug/L			02/03/12 19:34	1
tert-Butylbenzene	ND		0.50	0.22	ug/L			02/03/12 19:34	1
Tetrachloroethene	ND		0.50	0.32	ug/L			02/03/12 19:34	1
Toluene	ND		0.50	0.36	ug/L			02/03/12 19:34	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			02/03/12 19:34	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			02/03/12 19:34	1
Trichloroethene	ND		0.50	0.26	ug/L			02/03/12 19:34	1
Trichlorofluoromethane	ND		1.0	0.34	ug/L			02/03/12 19:34	1
Vinyl chloride	ND		0.50	0.40	ug/L			02/03/12 19:34	1
2-Butanone (MEK)	ND		10	4.7	ug/L			02/03/12 19:34	1
2-Hexanone	ND		10	2.6	ug/L			02/03/12 19:34	1
Acetone	ND		10	4.5	ug/L			02/03/12 19:34	1
4-Methyl-2-pentanone (MIBK)	ND		10	3.5	ug/L			02/03/12 19:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5	0.50	ug/L			02/03/12 19:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*02/03/12 19:34*	*1*
Dibromofluoromethane (Surr)	*92*		*80 - 120*		*02/03/12 19:34*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*02/03/12 19:34*	*1*

Lab Sample ID: LCS 440-5133/5
Matrix: Water
Analysis Batch: 5133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	27.9		ug/L		112	70 - 130
1,1,1-Trichloroethane	25.0	28.4		ug/L		114	65 - 135
1,1,2,2-Tetrachloroethane	25.0	22.0		ug/L		88	55 - 130
1,1,2-Trichloroethane	25.0	24.4		ug/L		98	70 - 125
1,1-Dichloroethane	25.0	24.3		ug/L		97	70 - 125
1,1-Dichloroethene	25.0	21.4		ug/L		86	70 - 125
1,1-Dichloropropene	25.0	24.6		ug/L		98	75 - 130
1,2,3-Trichlorobenzene	25.0	20.1		ug/L		80	65 - 125
1,2,3-Trichloropropane	25.0	20.5		ug/L		82	60 - 130
1,2,4-Trichlorobenzene	25.0	21.8		ug/L		87	70 - 135
1,2,4-Trimethylbenzene	25.0	25.5		ug/L		102	75 - 125
1,2-Dibromo-3-Chloropropane	25.0	18.6		ug/L		74	50 - 135
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	75 - 120
1,2-Dibromoethane (EDB)	25.0	25.9		ug/L		104	75 - 125
1,2-Dichloroethane	25.0	29.1		ug/L		116	60 - 140
1,2-Dichloropropane	25.0	23.5		ug/L		94	70 - 125
1,3,5-Trimethylbenzene	25.0	25.5		ug/L		102	75 - 125

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-5133/5
Matrix: Water
Analysis Batch: 5133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	25.0	27.0		ug/L		108	75 - 120
1,3-Dichloropropane	25.0	21.7		ug/L		87	70 - 120
1,4-Dichlorobenzene	25.0	26.5		ug/L		106	75 - 120
2,2-Dichloropropane	25.0	28.5		ug/L		114	65 - 140
2-Chlorotoluene	25.0	23.5		ug/L		94	70 - 125
4-Chlorotoluene	25.0	24.5		ug/L		98	75 - 125
4-Isopropyltoluene	25.0	25.4		ug/L		102	75 - 125
Benzene	25.0	24.3		ug/L		97	70 - 120
Bromobenzene	25.0	25.6		ug/L		102	75 - 120
Bromochloromethane	25.0	25.2		ug/L		101	70 - 130
Bromodichloromethane	25.0	28.6		ug/L		114	70 - 135
Bromoform	25.0	24.0		ug/L		96	55 - 130
Bromomethane	25.0	28.0		ug/L		112	65 - 140
Carbon tetrachloride	25.0	32.1		ug/L		128	65 - 140
Chlorobenzene	25.0	24.7		ug/L		99	75 - 120
Chloroethane	25.0	23.5		ug/L		94	60 - 140
Chloroform	25.0	25.2		ug/L		101	70 - 130
Chloromethane	25.0	24.1		ug/L		96	50 - 140
cis-1,2-Dichloroethene	25.0	24.6		ug/L		98	70 - 125
cis-1,3-Dichloropropene	25.0	24.6		ug/L		98	75 - 125
Dibromochloromethane	25.0	27.6		ug/L		110	70 - 140
Ethyl-t-butyl ether (ETBE)	25.0	22.3		ug/L		89	65 - 135
Dibromomethane	25.0	25.4		ug/L		102	70 - 125
Dichlorodifluoromethane	25.0	23.5		ug/L		94	35 - 155
Ethylbenzene	25.0	24.2		ug/L		97	75 - 125
Hexachlorobutadiene	25.0	23.9		ug/L		96	65 - 135
Isopropyl Ether (DIPE)	25.0	23.4		ug/L		94	60 - 135
Isopropylbenzene	25.0	22.9		ug/L		92	75 - 130
Carbon disulfide	25.0	23.1		ug/L		92	50 - 130
m,p-Xylene	50.0	49.3		ug/L		99	75 - 125
Methylene Chloride	25.0	21.9		ug/L		88	55 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	20.3		ug/L		81	60 - 135
Naphthalene	25.0	20.2		ug/L		81	55 - 135
n-Butylbenzene	25.0	23.8		ug/L		95	70 - 130
N-Propylbenzene	25.0	23.3		ug/L		93	75 - 130
o-Xylene	25.0	25.4		ug/L		102	75 - 125
sec-Butylbenzene	25.0	24.5		ug/L		98	70 - 125
Styrene	25.0	25.2		ug/L		101	75 - 130
Tert-amyl-methyl ether (TAME)	25.0	20.8		ug/L		83	60 - 135
tert-Butyl alcohol (TBA)	125	140		ug/L		112	70 - 135
tert-Butylbenzene	25.0	25.4		ug/L		102	70 - 125
Tetrachloroethene	25.0	27.5		ug/L		110	70 - 125
Toluene	25.0	24.8		ug/L		99	70 - 120
trans-1,2-Dichloroethene	25.0	22.5		ug/L		90	70 - 125
trans-1,3-Dichloropropene	25.0	26.7		ug/L		107	70 - 125
Trichloroethene	25.0	28.6		ug/L		114	70 - 125
Trichlorofluoromethane	25.0	28.3		ug/L		113	65 - 145
Vinyl chloride	25.0	26.2		ug/L		105	55 - 135
2-Butanone (MEK)	25.0	20.2		ug/L		81	40 - 140
2-Hexanone	25.0	23.5		ug/L		94	45 - 140

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-5133/5
Matrix: Water
Analysis Batch: 5133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	25.4		ug/L		102	30 - 140
4-Methyl-2-pentanone (MIBK)	25.0	23.4		ug/L		94	45 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: 440-998-D-1 MS
Matrix: Water
Analysis Batch: 5133

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	28.3		ug/L		113	65 - 140
1,1,1-Trichloroethane	ND		25.0	28.5		ug/L		114	65 - 140
1,1,2,2-Tetrachloroethane	ND		25.0	22.7		ug/L		91	55 - 135
1,1,2-Trichloroethane	ND		25.0	24.6		ug/L		98	65 - 130
1,1-Dichloroethane	ND		25.0	24.4		ug/L		98	65 - 130
1,1-Dichloroethene	ND		25.0	21.6		ug/L		86	60 - 130
1,1-Dichloropropene	ND		25.0	24.8		ug/L		99	70 - 135
1,2,3-Trichlorobenzene	ND		25.0	21.2		ug/L		85	60 - 135
1,2,3-Trichloropropane	ND		25.0	21.1		ug/L		84	55 - 135
1,2,4-Trichlorobenzene	ND		25.0	22.9		ug/L		92	65 - 135
1,2,4-Trimethylbenzene	ND		25.0	25.0		ug/L		100	55 - 135
1,2-Dibromo-3-Chloropropane	ND		25.0	19.3		ug/L		77	45 - 145
1,2-Dichlorobenzene	ND		25.0	25.9		ug/L		104	75 - 125
1,2-Dibromoethane (EDB)	ND		25.0	26.1		ug/L		104	70 - 130
1,2-Dichloroethane	ND		25.0	27.4		ug/L		110	60 - 140
1,2-Dichloropropane	ND		25.0	24.5		ug/L		98	65 - 130
1,3,5-Trimethylbenzene	ND		25.0	24.8		ug/L		99	70 - 130
1,3-Dichlorobenzene	ND		25.0	26.9		ug/L		108	75 - 125
1,3-Dichloropropane	ND		25.0	23.4		ug/L		94	65 - 135
1,4-Dichlorobenzene	ND		25.0	26.7		ug/L		107	75 - 125
2,2-Dichloropropane	ND		25.0	29.3		ug/L		117	60 - 145
2-Chlorotoluene	ND		25.0	23.4		ug/L		94	65 - 135
4-Chlorotoluene	ND		25.0	24.2		ug/L		97	70 - 135
4-Isopropyltoluene	ND		25.0	25.1		ug/L		100	65 - 130
Benzene	ND		25.0	23.9		ug/L		96	65 - 125
Bromobenzene	ND		25.0	25.8		ug/L		103	70 - 125
Bromochloromethane	ND		25.0	25.8		ug/L		103	65 - 135
Bromodichloromethane	ND		25.0	29.5		ug/L		118	70 - 135
Bromoform	ND		25.0	25.2		ug/L		101	55 - 135
Bromomethane	ND		25.0	25.6		ug/L		102	55 - 145
Carbon tetrachloride	ND		25.0	31.6		ug/L		126	65 - 140
Chlorobenzene	ND		25.0	24.7		ug/L		99	75 - 125
Chloroethane	ND		25.0	23.6		ug/L		94	55 - 140
Chloroform	ND		25.0	25.4		ug/L		102	65 - 135
Chloromethane	ND		25.0	24.1		ug/L		96	45 - 145
cis-1,2-Dichloroethene	ND		25.0	24.9		ug/L		100	65 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-998-D-1 MS
Matrix: Water
Analysis Batch: 5133

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	ND		25.0	25.3		ug/L		101	70 - 130
Dibromochloromethane	ND		25.0	28.8		ug/L		115	65 - 140
Ethyl-t-butyl ether (ETBE)	ND		25.0	23.3		ug/L		93	60 - 135
Dibromomethane	ND		25.0	26.4		ug/L		106	65 - 135
Dichlorodifluoromethane	ND		25.0	23.2		ug/L		93	25 - 155
Ethylbenzene	ND		25.0	24.3		ug/L		97	65 - 130
Hexachlorobutadiene	ND		25.0	24.4		ug/L		98	60 - 135
Isopropyl Ether (DIPE)	ND		25.0	24.0		ug/L		96	60 - 140
Isopropylbenzene	ND		25.0	22.4		ug/L		90	70 - 135
Carbon disulfide	ND		25.0	22.9		ug/L		92	40 - 140
m,p-Xylene	ND		50.0	49.7		ug/L		99	65 - 130
Methylene Chloride	ND		25.0	21.1		ug/L		84	50 - 135
Methyl-t-Butyl Ether (MTBE)	0.97		25.0	22.4		ug/L		86	55 - 145
Naphthalene	ND		25.0	21.0		ug/L		84	50 - 140
n-Butylbenzene	ND		25.0	23.9		ug/L		96	65 - 135
N-Propylbenzene	ND		25.0	23.1		ug/L		92	70 - 135
o-Xylene	ND		25.0	26.0		ug/L		104	65 - 125
sec-Butylbenzene	ND		25.0	23.9		ug/L		96	70 - 125
Styrene	ND		25.0	25.6		ug/L		102	50 - 145
Tert-amyl-methyl ether (TAME)	ND		25.0	22.0		ug/L		88	60 - 140
tert-Butyl alcohol (TBA)	15		125	157		ug/L		114	65 - 140
tert-Butylbenzene	ND		25.0	24.9		ug/L		100	65 - 130
Tetrachloroethene	ND		25.0	27.6		ug/L		110	65 - 130
Toluene	ND		25.0	24.8		ug/L		99	70 - 125
trans-1,2-Dichloroethene	ND		25.0	22.5		ug/L		90	65 - 130
trans-1,3-Dichloropropene	ND		25.0	28.0		ug/L		112	65 - 135
Trichloroethene	ND		25.0	28.2		ug/L		113	65 - 125
Trichlorofluoromethane	ND		25.0	27.9		ug/L		112	60 - 145
Vinyl chloride	ND		25.0	25.0		ug/L		100	45 - 140
2-Butanone (MEK)	ND		25.0	18.8		ug/L		75	30 - 145
2-Hexanone	ND		25.0	22.5		ug/L		90	25 - 140
Acetone	ND		25.0	19.2		ug/L		77	20 - 150
4-Methyl-2-pentanone (MIBK)	ND		25.0	24.2		ug/L		97	40 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: 440-998-D-1 MSD
Matrix: Water
Analysis Batch: 5133

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	28.1		ug/L		112	65 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	27.8		ug/L		111	65 - 140	2	20
1,1,2,2-Tetrachloroethane	ND		25.0	22.2		ug/L		89	55 - 135	2	30
1,1,2-Trichloroethane	ND		25.0	23.4		ug/L		94	65 - 130	5	25
1,1-Dichloroethane	ND		25.0	23.6		ug/L		94	65 - 130	3	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-998-D-1 MSD
Matrix: Water
Analysis Batch: 5133

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		25.0	20.9		ug/L		84	60 - 130	3	20
1,1-Dichloropropene	ND		25.0	24.4		ug/L		98	70 - 135	2	20
1,2,3-Trichlorobenzene	ND		25.0	20.4		ug/L		82	60 - 135	4	20
1,2,3-Trichloropropane	ND		25.0	20.6		ug/L		82	55 - 135	2	30
1,2,4-Trichlorobenzene	ND		25.0	22.2		ug/L		89	65 - 135	3	20
1,2,4-Trimethylbenzene	ND		25.0	24.2		ug/L		97	55 - 135	3	25
1,2-Dibromo-3-Chloropropane	ND		25.0	18.4		ug/L		74	45 - 145	5	30
1,2-Dichlorobenzene	ND		25.0	25.3		ug/L		101	75 - 125	2	20
1,2-Dibromoethane (EDB)	ND		25.0	25.2		ug/L		101	70 - 130	4	25
1,2-Dichloroethane	ND		25.0	28.3		ug/L		113	60 - 140	3	20
1,2-Dichloropropane	ND		25.0	23.8		ug/L		95	65 - 130	3	20
1,3,5-Trimethylbenzene	ND		25.0	24.6		ug/L		98	70 - 130	1	20
1,3-Dichlorobenzene	ND		25.0	26.8		ug/L		107	75 - 125	0	20
1,3-Dichloropropane	ND		25.0	22.1		ug/L		88	65 - 135	6	25
1,4-Dichlorobenzene	ND		25.0	26.6		ug/L		106	75 - 125	0	20
2,2-Dichloropropane	ND		25.0	28.9		ug/L		116	60 - 145	1	25
2-Chlorotoluene	ND		25.0	23.4		ug/L		94	65 - 135	0	20
4-Chlorotoluene	ND		25.0	24.1		ug/L		96	70 - 135	0	20
4-Isopropyltoluene	ND		25.0	24.8		ug/L		99	65 - 130	1	20
Benzene	ND		25.0	23.6		ug/L		94	65 - 125	1	20
Bromobenzene	ND		25.0	25.7		ug/L		103	70 - 125	0	20
Bromochloromethane	ND		25.0	24.8		ug/L		99	65 - 135	4	25
Bromodichloromethane	ND		25.0	28.1		ug/L		112	70 - 135	5	20
Bromoform	ND		25.0	23.5		ug/L		94	55 - 135	7	25
Bromomethane	ND		25.0	25.7		ug/L		103	55 - 145	0	25
Carbon tetrachloride	ND		25.0	30.9		ug/L		124	65 - 140	2	25
Chlorobenzene	ND		25.0	24.4		ug/L		98	75 - 125	1	20
Chloroethane	ND		25.0	23.2		ug/L		93	55 - 140	2	25
Chloroform	ND		25.0	24.5		ug/L		98	65 - 135	4	20
Chloromethane	ND		25.0	24.0		ug/L		96	45 - 145	0	25
cis-1,2-Dichloroethene	ND		25.0	23.8		ug/L		95	65 - 130	5	20
cis-1,3-Dichloropropene	ND		25.0	24.3		ug/L		97	70 - 130	4	20
Dibromochloromethane	ND		25.0	27.1		ug/L		108	65 - 140	6	25
Ethyl-t-butyl ether (ETBE)	ND		25.0	22.0		ug/L		88	60 - 135	6	25
Dibromomethane	ND		25.0	25.1		ug/L		100	65 - 135	5	25
Dichlorodifluoromethane	ND		25.0	22.2		ug/L		89	25 - 155	4	30
Ethylbenzene	ND		25.0	23.9		ug/L		96	65 - 130	2	20
Hexachlorobutadiene	ND		25.0	24.1		ug/L		96	60 - 135	1	20
Isopropyl Ether (DIPE)	ND		25.0	23.0		ug/L		92	60 - 140	4	25
Isopropylbenzene	ND		25.0	22.6		ug/L		90	70 - 135	1	20
Carbon disulfide	ND		25.0	22.4		ug/L		90	40 - 140	2	20
m,p-Xylene	ND		50.0	48.3		ug/L		97	65 - 130	3	25
Methylene Chloride	ND		25.0	20.3		ug/L		81	50 - 135	4	20
Methyl-t-Butyl Ether (MTBE)	0.97		25.0	20.9		ug/L		80	55 - 145	7	25
Naphthalene	ND		25.0	20.2		ug/L		81	50 - 140	4	30
n-Butylbenzene	ND		25.0	23.9		ug/L		96	65 - 135	0	20
N-Propylbenzene	ND		25.0	23.1		ug/L		92	70 - 135	0	20
o-Xylene	ND		25.0	24.9		ug/L		100	65 - 125	4	20
sec-Butylbenzene	ND		25.0	24.1		ug/L		96	70 - 125	1	20
Styrene	ND		25.0	13.2	F	ug/L		53	50 - 145	64	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-998-D-1 MSD
Matrix: Water
Analysis Batch: 5133

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tert-amyl-methyl ether (TAME)	ND		25.0	20.7		ug/L		83	60 - 140	6	30
tert-Butyl alcohol (TBA)	15		125	161		ug/L		117	65 - 140	3	25
tert-Butylbenzene	ND		25.0	24.9		ug/L		100	65 - 130	0	20
Tetrachloroethene	ND		25.0	27.3		ug/L		109	65 - 130	1	20
Toluene	ND		25.0	24.2		ug/L		97	70 - 125	2	20
trans-1,2-Dichloroethene	ND		25.0	21.9		ug/L		88	65 - 130	3	20
trans-1,3-Dichloropropene	ND		25.0	26.7		ug/L		107	65 - 135	5	25
Trichloroethene	ND		25.0	27.1		ug/L		108	65 - 125	4	20
Trichlorofluoromethane	ND		25.0	26.7		ug/L		107	60 - 145	4	25
Vinyl chloride	ND		25.0	25.5		ug/L		102	45 - 140	2	30
2-Butanone (MEK)	ND		25.0	18.4		ug/L		74	30 - 145	2	40
2-Hexanone	ND		25.0	20.6		ug/L		82	25 - 140	9	35
Acetone	ND		25.0	18.2		ug/L		73	20 - 150	5	35
4-Methyl-2-pentanone (MIBK)	ND		25.0	21.9		ug/L		88	40 - 140	10	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 440-5268/1-A
Matrix: Water
Analysis Batch: 5489

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5268

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4'-DDD	ND		0.10	0.020	ug/L		02/05/12 14:46	02/06/12 14:27	1
2,4'-DDE	ND		0.10	0.020	ug/L		02/05/12 14:46	02/06/12 14:27	1
2,4'-DDT	ND		0.10	0.020	ug/L		02/05/12 14:46	02/06/12 14:27	1
4,4'-DDD	ND		0.0050	0.0040	ug/L		02/05/12 14:46	02/06/12 14:27	1
4,4'-DDE	ND		0.0050	0.0030	ug/L		02/05/12 14:46	02/06/12 14:27	1
4,4'-DDT	ND		0.010	0.0040	ug/L		02/05/12 14:46	02/06/12 14:27	1
Aldrin	ND		0.0050	0.0015	ug/L		02/05/12 14:46	02/06/12 14:27	1
alpha-BHC	ND		0.0050	0.0025	ug/L		02/05/12 14:46	02/06/12 14:27	1
beta-BHC	ND		0.010	0.0040	ug/L		02/05/12 14:46	02/06/12 14:27	1
Chlordane (technical)	ND		0.10	0.0080	ug/L		02/05/12 14:46	02/06/12 14:27	1
delta-BHC	ND		0.0050	0.0035	ug/L		02/05/12 14:46	02/06/12 14:27	1
Dieldrin	ND		0.0050	0.0020	ug/L		02/05/12 14:46	02/06/12 14:27	1
Endosulfan I	ND		0.0050	0.0030	ug/L		02/05/12 14:46	02/06/12 14:27	1
Endosulfan II	ND		0.0050	0.0020	ug/L		02/05/12 14:46	02/06/12 14:27	1
Endosulfan sulfate	ND		0.010	0.0030	ug/L		02/05/12 14:46	02/06/12 14:27	1
Endrin	ND		0.0050	0.0020	ug/L		02/05/12 14:46	02/06/12 14:27	1
Endrin aldehyde	ND		0.010	0.0020	ug/L		02/05/12 14:46	02/06/12 14:27	1
Endrin ketone	ND		0.010	0.0070	ug/L		02/05/12 14:46	02/06/12 14:27	1
gamma-BHC (Lindane)	ND		0.010	0.0030	ug/L		02/05/12 14:46	02/06/12 14:27	1
Heptachlor	ND		0.010	0.0030	ug/L		02/05/12 14:46	02/06/12 14:27	1
Heptachlor epoxide	ND		0.0050	0.0025	ug/L		02/05/12 14:46	02/06/12 14:27	1
Methoxychlor	ND		0.0050	0.0035	ug/L		02/05/12 14:46	02/06/12 14:27	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 440-5268/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5489 — **Prep Batch: 5268**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		0.50	0.25	ug/L		02/05/12 14:46	02/06/12 14:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*35 - 115*	*02/05/12 14:46*	*02/06/12 14:27*	*1*
DCB Decachlorobiphenyl (Surr)	*77*		*45 - 120*	*02/05/12 14:46*	*02/06/12 14:27*	*1*

Lab Sample ID: LCS 440-5268/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5489 — **Prep Batch: 5268**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	0.500	0.427		ug/L		85	55 - 120
4,4'-DDE	0.500	0.428		ug/L		86	50 - 120
4,4'-DDT	0.500	0.437		ug/L		87	55 - 120
Aldrin	0.500	0.396		ug/L		79	40 - 115
alpha-BHC	0.500	0.371		ug/L		74	45 - 115
beta-BHC	0.500	0.385		ug/L		77	55 - 115
delta-BHC	0.500	0.423		ug/L		85	55 - 115
Dieldrin	0.500	0.406		ug/L		81	55 - 115
Endosulfan I	0.500	0.399		ug/L		80	55 - 115
Endosulfan II	0.500	0.411		ug/L		82	55 - 120
Endosulfan sulfate	0.500	0.448		ug/L		90	60 - 120
Endrin	0.500	0.407		ug/L		81	55 - 115
Endrin aldehyde	0.500	0.371		ug/L		74	50 - 120
Endrin ketone	0.500	0.396		ug/L		79	55 - 120
gamma-BHC (Lindane)	0.500	0.417		ug/L		83	45 - 115
Heptachlor	0.500	0.399		ug/L		80	45 - 115
Heptachlor epoxide	0.500	0.397		ug/L		79	55 - 115
Methoxychlor	0.500	0.395		ug/L		79	60 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*72*		*35 - 115*
DCB Decachlorobiphenyl (Surr)	*74*		*45 - 120*

Lab Sample ID: LCSD 440-5268/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5489 — **Prep Batch: 5268**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	0.500	0.452		ug/L		90	55 - 120	6	30
4,4'-DDE	0.500	0.456		ug/L		91	50 - 120	6	30
4,4'-DDT	0.500	0.464		ug/L		93	55 - 120	6	30
Aldrin	0.500	0.415		ug/L		83	40 - 115	5	30
alpha-BHC	0.500	0.390		ug/L		78	45 - 115	5	30
beta-BHC	0.500	0.405		ug/L		81	55 - 115	5	30
delta-BHC	0.500	0.447		ug/L		89	55 - 115	6	30
Dieldrin	0.500	0.430		ug/L		86	55 - 115	6	30
Endosulfan I	0.500	0.424		ug/L		85	55 - 115	6	30
Endosulfan II	0.500	0.434		ug/L		87	55 - 120	5	30

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 440-5268/3-A
Matrix: Water
Analysis Batch: 5489

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 5268

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endosulfan sulfate			0.500	0.474		ug/L		95	60 - 120	6	30
Endrin			0.500	0.432		ug/L		86	55 - 115	6	30
Endrin aldehyde			0.500	0.390		ug/L		78	50 - 120	5	30
Endrin ketone			0.500	0.418		ug/L		84	55 - 120	6	30
gamma-BHC (Lindane)			0.500	0.440		ug/L		88	45 - 115	5	30
Heptachlor			0.500	0.422		ug/L		84	45 - 115	6	30
Heptachlor epoxide			0.500	0.419		ug/L		84	55 - 115	5	30
Methoxychlor			0.500	0.415		ug/L		83	60 - 120	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*76*		*35 - 115*
DCB Decachlorobiphenyl (Surr)	*81*		*45 - 120*

QC Association Summary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1120-1

GC/MS VOA

Analysis Batch: 5133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-998-D-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-998-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
440-1120-1	TB013112	Total/NA	Water	8260B	
440-1120-2 - DL	BF-15	Total/NA	Water	8260B	
440-1120-2	BF-15	Total/NA	Water	8260B	
LCS 440-5133/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-5133/4	Method Blank	Total/NA	Water	8260B	

GC Semi VOA

Prep Batch: 5268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-1120-2	BF-15	Total/NA	Water	3510C	
440-1120-2 - DL	BF-15	Total/NA	Water	3510C	
LCS 440-5268/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 440-5268/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 440-5268/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 5489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-1120-2	BF-15	Total/NA	Water	8081A	5268
440-1120-2 - DL	BF-15	Total/NA	Water	8081A	5268
LCS 440-5268/2-A	Lab Control Sample	Total/NA	Water	8081A	5268
LCSD 440-5268/3-A	Lab Control Sample Dup	Total/NA	Water	8081A	5268
MB 440-5268/1-A	Method Blank	Total/NA	Water	8081A	5268

Definitions/Glossary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1120-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1120-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Irvine	Arizona	State Program	9	AZ0671
TestAmerica Irvine	California	State Program	9	2706
TestAmerica Irvine	Nevada	State Program	9	CA015312007A
TestAmerica Irvine	Oregon	NELAC	10	4005
TestAmerica Irvine	USDA	USDA		P330-09-00080

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica

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TAL-0013 (0911)

CHAIN OF CUSTODY FORM

17461 Derian Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
6000 S. Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

440-1120

Client Name/Address: AECOM
3995 VIA ORO
LONG BEACH, CA, 90810

Project/PO Number: MONTROSE
60212541.03.01

Project Manager: Brian Dean

Phone Number: 562-755-9046

Sampler: Katharine Carr Green

Fax Number:

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260B VOCS	8081A Pesticides	24-4-4-1 DOT +1 Sorbitol							Special Instructions
TB013112	H2O	VOA	3	1-31-12	1600	HCL	X									
BF-15	H2O	VOA	4	1-31-12	1648	HCL	X									
BF-15	H2O	~~Sorbitol~~	1	1-31-12	1648	—		X								

Relinquished By:	Date/Time:	Received By:	Date/Time:
Moral Grajjar	21-12 1645		21.12 1645
	21.12 1817		
		Received in Lab By:	02/01/12 1817

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice ✓

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

1-9-c

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 440-1120-1

Login Number: 1120
List Number: 1
Creator: Skinner, Alma

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-1122-1
Client Project/Site: Montrose - Torrance

For:
AECOM, Inc.
3995 Via Oro Ave
Long Beach, California 90810

Attn: Katherine Carr-Green

Authorized for release by:
2/21/2012 4:48:56 PM

Patty Mata
Project Manager I
patty.mata@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1122-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-1122-1	TB020112	Water	02/01/12 11:00	02/01/12 18:17
440-1122-2	G-09	Water	02/01/12 11:30	02/01/12 18:17

Client Sample Results

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1122-1

Client Sample ID: TB020112

Lab Sample ID: 440-1122-1

Date Collected: 02/01/12 11:00

Matrix: Water

Date Received: 02/01/12 18:17

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.27	ug/L			02/04/12 17:42	1
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			02/04/12 17:42	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			02/04/12 17:42	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			02/04/12 17:42	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			02/04/12 17:42	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			02/04/12 17:42	1
1,1-Dichloropropene	ND		0.50	0.28	ug/L			02/04/12 17:42	1
1,2,3-Trichlorobenzene	ND		1.0	0.30	ug/L			02/04/12 17:42	1
1,2,3-Trichloropropane	ND		2.0	0.40	ug/L			02/04/12 17:42	1
1,2,4-Trichlorobenzene	ND		0.50	0.48	ug/L			02/04/12 17:42	1
1,2,4-Trimethylbenzene	ND		0.50	0.23	ug/L			02/04/12 17:42	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.97	ug/L			02/04/12 17:42	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			02/04/12 17:42	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			02/04/12 17:42	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			02/04/12 17:42	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			02/04/12 17:42	1
1,3,5-Trimethylbenzene	ND		0.50	0.26	ug/L			02/04/12 17:42	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			02/04/12 17:42	1
1,3-Dichloropropane	ND		0.50	0.32	ug/L			02/04/12 17:42	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			02/04/12 17:42	1
2,2-Dichloropropane	ND		0.50	0.34	ug/L			02/04/12 17:42	1
2-Chlorotoluene	ND		0.50	0.28	ug/L			02/04/12 17:42	1
4-Chlorotoluene	ND		0.50	0.29	ug/L			02/04/12 17:42	1
4-Isopropyltoluene	ND		0.50	0.28	ug/L			02/04/12 17:42	1
Benzene	ND		0.50	0.28	ug/L			02/04/12 17:42	1
Bromobenzene	ND		0.50	0.27	ug/L			02/04/12 17:42	1
Bromochloromethane	ND		0.50	0.40	ug/L			02/04/12 17:42	1
Bromodichloromethane	ND		0.50	0.30	ug/L			02/04/12 17:42	1
Bromoform	ND		0.50	0.40	ug/L			02/04/12 17:42	1
Bromomethane	ND		1.0	0.42	ug/L			02/04/12 17:42	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			02/04/12 17:42	1
Chlorobenzene	ND		0.50	0.36	ug/L			02/04/12 17:42	1
Chloroethane	ND		1.0	0.40	ug/L			02/04/12 17:42	1
Chloroform	ND		0.50	0.33	ug/L			02/04/12 17:42	1
Chloromethane	ND		1.0	0.40	ug/L			02/04/12 17:42	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			02/04/12 17:42	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			02/04/12 17:42	1
Dibromochloromethane	ND		0.50	0.40	ug/L			02/04/12 17:42	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.28	ug/L			02/04/12 17:42	1
Dibromomethane	ND		0.50	0.36	ug/L			02/04/12 17:42	1
Dichlorodifluoromethane	ND		2.0	0.26	ug/L			02/04/12 17:42	1
Ethylbenzene	ND		0.50	0.25	ug/L			02/04/12 17:42	1
Hexachlorobutadiene	ND		1.0	0.38	ug/L			02/04/12 17:42	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			02/04/12 17:42	1
Isopropylbenzene	ND		0.50	0.25	ug/L			02/04/12 17:42	1
Carbon disulfide	ND		2.0	0.48	ug/L			02/04/12 17:42	1
m,p-Xylene	ND		1.0	0.60	ug/L			02/04/12 17:42	1
Methylene Chloride	ND		2.0	0.95	ug/L			02/04/12 17:42	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.32	ug/L			02/04/12 17:42	1
Naphthalene	ND		0.50	0.41	ug/L			02/04/12 17:42	1
n-Butylbenzene	ND		0.50	0.37	ug/L			02/04/12 17:42	1

Client Sample Results

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1122-1

Client Sample ID: TB020112

Lab Sample ID: 440-1122-1

Date Collected: 02/01/12 11:00
Matrix: Water
Date Received: 02/01/12 18:17

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		0.50	0.27	ug/L			02/04/12 17:42	1
o-Xylene	ND		0.50	0.30	ug/L			02/04/12 17:42	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			02/04/12 17:42	1
Styrene	ND		0.50	0.20	ug/L			02/04/12 17:42	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.33	ug/L			02/04/12 17:42	1
tert-Butyl alcohol (TBA)	ND		10	6.5	ug/L			02/04/12 17:42	1
tert-Butylbenzene	ND		0.50	0.22	ug/L			02/04/12 17:42	1
Tetrachloroethene	ND		0.50	0.32	ug/L			02/04/12 17:42	1
Toluene	ND		0.50	0.36	ug/L			02/04/12 17:42	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			02/04/12 17:42	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			02/04/12 17:42	1
Trichloroethene	ND		0.50	0.26	ug/L			02/04/12 17:42	1
Trichlorofluoromethane	ND		1.0	0.34	ug/L			02/04/12 17:42	1
Vinyl chloride	ND		0.50	0.40	ug/L			02/04/12 17:42	1
2-Butanone (MEK)	ND		10	4.7	ug/L			02/04/12 17:42	1
2-Hexanone	ND		10	2.6	ug/L			02/04/12 17:42	1
Acetone	ND		10	4.5	ug/L			02/04/12 17:42	1
4-Methyl-2-pentanone (MIBK)	ND		10	3.5	ug/L			02/04/12 17:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5	0.50	ug/L			02/04/12 17:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*02/04/12 17:42*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*02/04/12 17:42*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*02/04/12 17:42*	*1*

Client Sample ID: G-09

Lab Sample ID: 440-1122-2

Date Collected: 02/01/12 11:30
Matrix: Water
Date Received: 02/01/12 18:17

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.27	ug/L			02/04/12 18:11	1
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			02/04/12 18:11	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			02/04/12 18:11	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			02/04/12 18:11	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			02/04/12 18:11	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			02/04/12 18:11	1
1,1-Dichloropropene	ND		0.50	0.28	ug/L			02/04/12 18:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.30	ug/L			02/04/12 18:11	1
1,2,3-Trichloropropane	ND		2.0	0.40	ug/L			02/04/12 18:11	1
1,2,4-Trichlorobenzene	ND		0.50	0.48	ug/L			02/04/12 18:11	1
1,2,4-Trimethylbenzene	ND		0.50	0.23	ug/L			02/04/12 18:11	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.97	ug/L			02/04/12 18:11	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			02/04/12 18:11	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			02/04/12 18:11	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			02/04/12 18:11	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			02/04/12 18:11	1
1,3,5-Trimethylbenzene	ND		0.50	0.26	ug/L			02/04/12 18:11	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			02/04/12 18:11	1
1,3-Dichloropropane	ND		0.50	0.32	ug/L			02/04/12 18:11	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			02/04/12 18:11	1

Client Sample Results

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1122-1

Client Sample ID: G-09

Date Collected: 02/01/12 11:30
Date Received: 02/01/12 18:17

Lab Sample ID: 440-1122-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		0.50	0.34	ug/L			02/04/12 18:11	1
2-Chlorotoluene	ND		0.50	0.28	ug/L			02/04/12 18:11	1
4-Chlorotoluene	ND		0.50	0.29	ug/L			02/04/12 18:11	1
4-Isopropyltoluene	ND		0.50	0.28	ug/L			02/04/12 18:11	1
Benzene	**0.30**	**J**	0.50	0.28	ug/L			02/04/12 18:11	1
Bromobenzene	ND		0.50	0.27	ug/L			02/04/12 18:11	1
Bromochloromethane	ND		0.50	0.40	ug/L			02/04/12 18:11	1
Bromodichloromethane	ND		0.50	0.30	ug/L			02/04/12 18:11	1
Bromoform	ND		0.50	0.40	ug/L			02/04/12 18:11	1
Bromomethane	ND		1.0	0.42	ug/L			02/04/12 18:11	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			02/04/12 18:11	1
Chlorobenzene	**68**		0.50	0.36	ug/L			02/04/12 18:11	1
Chloroethane	ND		1.0	0.40	ug/L			02/04/12 18:11	1
Chloroform	ND		0.50	0.33	ug/L			02/04/12 18:11	1
Chloromethane	ND		1.0	0.40	ug/L			02/04/12 18:11	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			02/04/12 18:11	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			02/04/12 18:11	1
Dibromochloromethane	ND		0.50	0.40	ug/L			02/04/12 18:11	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.28	ug/L			02/04/12 18:11	1
Dibromomethane	ND		0.50	0.36	ug/L			02/04/12 18:11	1
Dichlorodifluoromethane	ND		2.0	0.26	ug/L			02/04/12 18:11	1
Ethylbenzene	ND		0.50	0.25	ug/L			02/04/12 18:11	1
Hexachlorobutadiene	ND		1.0	0.38	ug/L			02/04/12 18:11	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			02/04/12 18:11	1
Isopropylbenzene	ND		0.50	0.25	ug/L			02/04/12 18:11	1
Carbon disulfide	ND		2.0	0.48	ug/L			02/04/12 18:11	1
m,p-Xylene	ND		1.0	0.60	ug/L			02/04/12 18:11	1
Methylene Chloride	ND		2.0	0.95	ug/L			02/04/12 18:11	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.32	ug/L			02/04/12 18:11	1
Naphthalene	ND		0.50	0.41	ug/L			02/04/12 18:11	1
n-Butylbenzene	ND		0.50	0.37	ug/L			02/04/12 18:11	1
N-Propylbenzene	ND		0.50	0.27	ug/L			02/04/12 18:11	1
o-Xylene	ND		0.50	0.30	ug/L			02/04/12 18:11	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			02/04/12 18:11	1
Styrene	ND		0.50	0.20	ug/L			02/04/12 18:11	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.33	ug/L			02/04/12 18:11	1
tert-Butyl alcohol (TBA)	ND		10	6.5	ug/L			02/04/12 18:11	1
tert-Butylbenzene	ND		0.50	0.22	ug/L			02/04/12 18:11	1
Tetrachloroethene	ND		0.50	0.32	ug/L			02/04/12 18:11	1
Toluene	ND		0.50	0.36	ug/L			02/04/12 18:11	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			02/04/12 18:11	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			02/04/12 18:11	1
Trichloroethene	ND		0.50	0.26	ug/L			02/04/12 18:11	1
Trichlorofluoromethane	ND		1.0	0.34	ug/L			02/04/12 18:11	1
Vinyl chloride	ND		0.50	0.40	ug/L			02/04/12 18:11	1
2-Butanone (MEK)	ND		10	4.7	ug/L			02/04/12 18:11	1
2-Hexanone	ND		10	2.6	ug/L			02/04/12 18:11	1
Acetone	**4.9**	**J**	10	4.5	ug/L			02/04/12 18:11	1
4-Methyl-2-pentanone (MIBK)	ND		10	3.5	ug/L			02/04/12 18:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5	0.50	ug/L			02/04/12 18:11	1

Client Sample Results

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1122-1

Client Sample ID: G-09

Lab Sample ID: 440-1122-2

Date Collected: 02/01/12 11:30

Matrix: Water

Date Received: 02/01/12 18:17

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*02/04/12 18:11*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*02/04/12 18:11*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*02/04/12 18:11*	*1*

Method: pCBSA - p-Chlorobenzenesulfonic Acid (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorobenzenesulfonic Acid	**3000**		10	1.5	ug/L			02/03/12 08:42	1

Lab Chronicle

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1122-1

Client Sample ID: TB020112

Lab Sample ID: 440-1122-1

Date Collected: 02/01/12 11:00

Matrix: Water

Date Received: 02/01/12 18:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	5162	02/04/12 17:42	YK	TAL IRV

Client Sample ID: G-09

Lab Sample ID: 440-1122-2

Date Collected: 02/01/12 11:30

Matrix: Water

Date Received: 02/01/12 18:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	5162	02/04/12 18:11	YK	TAL IRV
Total/NA	Analysis	pCBSA		1	1 mL	1.0 mL	4993	02/03/12 08:42	JM	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-5162/4
Matrix: Water
Analysis Batch: 5162

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.27	ug/L			02/04/12 12:37	1
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			02/04/12 12:37	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			02/04/12 12:37	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			02/04/12 12:37	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			02/04/12 12:37	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			02/04/12 12:37	1
1,1-Dichloropropene	ND		0.50	0.28	ug/L			02/04/12 12:37	1
1,2,3-Trichlorobenzene	ND		1.0	0.30	ug/L			02/04/12 12:37	1
1,2,3-Trichloropropane	ND		2.0	0.40	ug/L			02/04/12 12:37	1
1,2,4-Trichlorobenzene	ND		0.50	0.48	ug/L			02/04/12 12:37	1
1,2,4-Trimethylbenzene	ND		0.50	0.23	ug/L			02/04/12 12:37	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.97	ug/L			02/04/12 12:37	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			02/04/12 12:37	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			02/04/12 12:37	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			02/04/12 12:37	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			02/04/12 12:37	1
1,3,5-Trimethylbenzene	ND		0.50	0.26	ug/L			02/04/12 12:37	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			02/04/12 12:37	1
1,3-Dichloropropane	ND		0.50	0.32	ug/L			02/04/12 12:37	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			02/04/12 12:37	1
2,2-Dichloropropane	ND		0.50	0.34	ug/L			02/04/12 12:37	1
2-Chlorotoluene	ND		0.50	0.28	ug/L			02/04/12 12:37	1
4-Chlorotoluene	ND		0.50	0.29	ug/L			02/04/12 12:37	1
4-Isopropyltoluene	ND		0.50	0.28	ug/L			02/04/12 12:37	1
Benzene	ND		0.50	0.28	ug/L			02/04/12 12:37	1
Bromobenzene	ND		0.50	0.27	ug/L			02/04/12 12:37	1
Bromochloromethane	ND		0.50	0.40	ug/L			02/04/12 12:37	1
Bromodichloromethane	ND		0.50	0.30	ug/L			02/04/12 12:37	1
Bromoform	ND		0.50	0.40	ug/L			02/04/12 12:37	1
Bromomethane	ND		1.0	0.42	ug/L			02/04/12 12:37	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			02/04/12 12:37	1
Chlorobenzene	ND		0.50	0.36	ug/L			02/04/12 12:37	1
Chloroethane	ND		1.0	0.40	ug/L			02/04/12 12:37	1
Chloroform	ND		0.50	0.33	ug/L			02/04/12 12:37	1
Chloromethane	ND		1.0	0.40	ug/L			02/04/12 12:37	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			02/04/12 12:37	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			02/04/12 12:37	1
Dibromochloromethane	ND		0.50	0.40	ug/L			02/04/12 12:37	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.28	ug/L			02/04/12 12:37	1
Dibromomethane	ND		0.50	0.36	ug/L			02/04/12 12:37	1
Dichlorodifluoromethane	ND		2.0	0.26	ug/L			02/04/12 12:37	1
Ethylbenzene	ND		0.50	0.25	ug/L			02/04/12 12:37	1
Hexachlorobutadiene	ND		1.0	0.38	ug/L			02/04/12 12:37	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			02/04/12 12:37	1
Isopropylbenzene	ND		0.50	0.25	ug/L			02/04/12 12:37	1
Carbon disulfide	ND		2.0	0.48	ug/L			02/04/12 12:37	1
m,p-Xylene	ND		1.0	0.60	ug/L			02/04/12 12:37	1
Methylene Chloride	ND		2.0	0.95	ug/L			02/04/12 12:37	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.32	ug/L			02/04/12 12:37	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-5162/4
Matrix: Water
Analysis Batch: 5162

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.50	0.41	ug/L			02/04/12 12:37	1
n-Butylbenzene	ND		0.50	0.37	ug/L			02/04/12 12:37	1
N-Propylbenzene	ND		0.50	0.27	ug/L			02/04/12 12:37	1
o-Xylene	ND		0.50	0.30	ug/L			02/04/12 12:37	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			02/04/12 12:37	1
Styrene	ND		0.50	0.20	ug/L			02/04/12 12:37	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.33	ug/L			02/04/12 12:37	1
tert-Butyl alcohol (TBA)	ND		10	6.5	ug/L			02/04/12 12:37	1
tert-Butylbenzene	ND		0.50	0.22	ug/L			02/04/12 12:37	1
Tetrachloroethene	ND		0.50	0.32	ug/L			02/04/12 12:37	1
Toluene	ND		0.50	0.36	ug/L			02/04/12 12:37	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			02/04/12 12:37	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			02/04/12 12:37	1
Trichloroethene	ND		0.50	0.26	ug/L			02/04/12 12:37	1
Trichlorofluoromethane	ND		1.0	0.34	ug/L			02/04/12 12:37	1
Vinyl chloride	ND		0.50	0.40	ug/L			02/04/12 12:37	1
2-Butanone (MEK)	ND		10	4.7	ug/L			02/04/12 12:37	1
2-Hexanone	ND		10	2.6	ug/L			02/04/12 12:37	1
Acetone	ND		10	4.5	ug/L			02/04/12 12:37	1
4-Methyl-2-pentanone (MIBK)	ND		10	3.5	ug/L			02/04/12 12:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5	0.50	ug/L			02/04/12 12:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*02/04/12 12:37*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*02/04/12 12:37*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*02/04/12 12:37*	*1*

Lab Sample ID: LCS 440-5162/5
Matrix: Water
Analysis Batch: 5162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	27.9		ug/L		112	70 - 130
1,1,1-Trichloroethane	25.0	27.3		ug/L		109	65 - 135
1,1,2,2-Tetrachloroethane	25.0	22.3		ug/L		89	55 - 130
1,1,2-Trichloroethane	25.0	22.9		ug/L		92	70 - 125
1,1-Dichloroethane	25.0	23.2		ug/L		93	70 - 125
1,1-Dichloroethene	25.0	20.7		ug/L		83	70 - 125
1,1-Dichloropropene	25.0	24.0		ug/L		96	75 - 130
1,2,3-Trichlorobenzene	25.0	19.8		ug/L		79	65 - 125
1,2,3-Trichloropropane	25.0	20.5		ug/L		82	60 - 130
1,2,4-Trichlorobenzene	25.0	21.3		ug/L		85	70 - 135
1,2,4-Trimethylbenzene	25.0	25.1		ug/L		100	75 - 125
1,2-Dibromo-3-Chloropropane	25.0	18.4		ug/L		74	50 - 135
1,2-Dichlorobenzene	25.0	24.8		ug/L		99	75 - 120
1,2-Dibromoethane (EDB)	25.0	24.9		ug/L		100	75 - 125
1,2-Dichloroethane	25.0	28.2		ug/L		113	60 - 140
1,2-Dichloropropane	25.0	23.4		ug/L		94	70 - 125
1,3,5-Trimethylbenzene	25.0	25.1		ug/L		100	75 - 125

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-5162/5
Matrix: Water
Analysis Batch: 5162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	25.0	26.6		ug/L		106	75 - 120
1,3-Dichloropropane	25.0	22.7		ug/L		91	70 - 120
1,4-Dichlorobenzene	25.0	26.1		ug/L		104	75 - 120
2,2-Dichloropropane	25.0	29.2		ug/L		117	65 - 140
2-Chlorotoluene	25.0	23.5		ug/L		94	70 - 125
4-Chlorotoluene	25.0	24.1		ug/L		96	75 - 125
4-Isopropyltoluene	25.0	24.9		ug/L		100	75 - 125
Benzene	25.0	23.3		ug/L		93	70 - 120
Bromobenzene	25.0	25.5		ug/L		102	75 - 120
Bromochloromethane	25.0	24.1		ug/L		96	70 - 130
Bromodichloromethane	25.0	27.9		ug/L		112	70 - 135
Bromoform	25.0	23.5		ug/L		94	55 - 130
Bromomethane	25.0	26.2		ug/L		105	65 - 140
Carbon tetrachloride	25.0	31.2		ug/L		125	65 - 140
Chlorobenzene	25.0	24.3		ug/L		97	75 - 120
Chloroethane	25.0	22.5		ug/L		90	60 - 140
Chloroform	25.0	24.1		ug/L		96	70 - 130
Chloromethane	25.0	22.7		ug/L		91	50 - 140
cis-1,2-Dichloroethene	25.0	23.3		ug/L		93	70 - 125
cis-1,3-Dichloropropene	25.0	24.1		ug/L		96	75 - 125
Dibromochloromethane	25.0	27.8		ug/L		111	70 - 140
Ethyl-t-butyl ether (ETBE)	25.0	21.5		ug/L		86	65 - 135
Dibromomethane	25.0	24.7		ug/L		99	70 - 125
Dichlorodifluoromethane	25.0	22.6		ug/L		90	35 - 155
Ethylbenzene	25.0	23.8		ug/L		95	75 - 125
Hexachlorobutadiene	25.0	23.1		ug/L		92	65 - 135
Isopropyl Ether (DIPE)	25.0	22.3		ug/L		89	60 - 135
Isopropylbenzene	25.0	22.6		ug/L		90	75 - 130
Carbon disulfide	25.0	21.8		ug/L		87	50 - 130
m,p-Xylene	50.0	48.5		ug/L		97	75 - 125
Methylene Chloride	25.0	19.9		ug/L		80	55 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	19.6		ug/L		78	60 - 135
Naphthalene	25.0	19.3		ug/L		77	55 - 135
n-Butylbenzene	25.0	23.5		ug/L		94	70 - 130
N-Propylbenzene	25.0	23.0		ug/L		92	75 - 130
o-Xylene	25.0	24.9		ug/L		100	75 - 125
sec-Butylbenzene	25.0	24.0		ug/L		96	70 - 125
Styrene	25.0	24.8		ug/L		99	75 - 130
Tert-amyl-methyl ether (TAME)	25.0	20.1		ug/L		80	60 - 135
tert-Butyl alcohol (TBA)	125	146		ug/L		117	70 - 135
tert-Butylbenzene	25.0	24.8		ug/L		99	70 - 125
Tetrachloroethene	25.0	27.2		ug/L		109	70 - 125
Toluene	25.0	24.0		ug/L		96	70 - 120
trans-1,2-Dichloroethene	25.0	21.4		ug/L		86	70 - 125
trans-1,3-Dichloropropene	25.0	26.0		ug/L		104	70 - 125
Trichloroethene	25.0	27.1		ug/L		108	70 - 125
Trichlorofluoromethane	25.0	26.9		ug/L		108	65 - 145
Vinyl chloride	25.0	25.4		ug/L		102	55 - 135
2-Butanone (MEK)	25.0	19.2		ug/L		77	40 - 140
2-Hexanone	25.0	22.7		ug/L		91	45 - 140

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-5162/5
Matrix: Water
Analysis Batch: 5162

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	24.0		ug/L		96	30 - 140
4-Methyl-2-pentanone (MIBK)	25.0	22.8		ug/L		91	45 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: 440-1429-A-1 MS
Matrix: Water
Analysis Batch: 5162

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	27.7		ug/L		111	65 - 140
1,1,1-Trichloroethane	ND		25.0	30.9		ug/L		124	65 - 140
1,1,2,2-Tetrachloroethane	ND		25.0	19.9		ug/L		80	55 - 135
1,1,2-Trichloroethane	ND		25.0	21.3		ug/L		85	65 - 130
1,1-Dichloroethane	ND		25.0	23.0		ug/L		92	65 - 130
1,1-Dichloroethene	ND		25.0	18.9		ug/L		76	60 - 130
1,1-Dichloropropene	ND		25.0	24.8		ug/L		99	70 - 135
1,2,3-Trichlorobenzene	ND		25.0	19.4		ug/L		78	60 - 135
1,2,3-Trichloropropane	ND		25.0	18.2		ug/L		73	55 - 135
1,2,4-Trichlorobenzene	ND		25.0	21.7		ug/L		87	65 - 135
1,2,4-Trimethylbenzene	ND		25.0	25.5		ug/L		102	55 - 135
1,2-Dibromo-3-Chloropropane	ND		25.0	16.1		ug/L		64	45 - 145
1,2-Dichlorobenzene	ND		25.0	25.0		ug/L		100	75 - 125
1,2-Dibromoethane (EDB)	ND		25.0	23.4		ug/L		94	70 - 130
1,2-Dichloroethane	ND		25.0	27.4		ug/L		110	60 - 140
1,2-Dichloropropane	ND		25.0	23.2		ug/L		93	65 - 130
1,3,5-Trimethylbenzene	ND		25.0	26.0		ug/L		104	70 - 130
1,3-Dichlorobenzene	ND		25.0	26.9		ug/L		108	75 - 125
1,3-Dichloropropane	ND		25.0	21.6		ug/L		86	65 - 135
1,4-Dichlorobenzene	ND		25.0	26.6		ug/L		106	75 - 125
2,2-Dichloropropane	ND		25.0	30.3		ug/L		121	60 - 145
2-Chlorotoluene	ND		25.0	24.0		ug/L		96	65 - 135
4-Chlorotoluene	ND		25.0	24.6		ug/L		98	70 - 135
4-Isopropyltoluene	ND		25.0	25.9		ug/L		104	65 - 130
Benzene	ND		25.0	23.8		ug/L		95	65 - 125
Bromobenzene	ND		25.0	25.7		ug/L		103	70 - 125
Bromochloromethane	ND		25.0	23.6		ug/L		94	65 - 135
Bromodichloromethane	ND		25.0	27.9		ug/L		112	70 - 135
Bromoform	ND		25.0	22.6		ug/L		90	55 - 135
Bromomethane	ND		25.0	27.5		ug/L		110	55 - 145
Carbon tetrachloride	ND		25.0	32.2		ug/L		129	65 - 140
Chlorobenzene	ND		25.0	24.4		ug/L		98	75 - 125
Chloroethane	ND		25.0	22.2		ug/L		89	55 - 140
Chloroform	0.57		25.0	24.7		ug/L		97	65 - 135
Chloromethane	ND		25.0	25.2		ug/L		101	45 - 145
cis-1,2-Dichloroethene	ND		25.0	23.0		ug/L		92	65 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-1429-A-1 MS
Matrix: Water
Analysis Batch: 5162

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	ND		25.0	23.6		ug/L		94	70 - 130
Dibromochloromethane	0.59		25.0	27.4		ug/L		107	65 - 140
Ethyl-t-butyl ether (ETBE)	ND		25.0	20.5		ug/L		82	60 - 135
Dibromomethane	ND		25.0	23.3		ug/L		93	65 - 135
Dichlorodifluoromethane	ND		25.0	22.6		ug/L		90	25 - 155
Ethylbenzene	ND		25.0	24.3		ug/L		97	65 - 130
Hexachlorobutadiene	ND		25.0	25.1		ug/L		100	60 - 135
Isopropyl Ether (DIPE)	ND		25.0	22.0		ug/L		88	60 - 140
Isopropylbenzene	ND		25.0	23.3		ug/L		93	70 - 135
Carbon disulfide	ND		25.0	22.3		ug/L		89	40 - 140
m,p-Xylene	ND		50.0	49.5		ug/L		99	65 - 130
Methylene Chloride	ND		25.0	19.4		ug/L		78	50 - 135
Methyl-t-Butyl Ether (MTBE)	ND		25.0	18.3		ug/L		73	55 - 145
Naphthalene	ND		25.0	17.5		ug/L		70	50 - 140
n-Butylbenzene	ND		25.0	24.2		ug/L		97	65 - 135
N-Propylbenzene	ND		25.0	24.0		ug/L		96	70 - 135
o-Xylene	ND		25.0	25.6		ug/L		102	65 - 125
sec-Butylbenzene	ND		25.0	25.2		ug/L		101	70 - 125
Styrene	ND		25.0	25.4		ug/L		102	50 - 145
Tert-amyl-methyl ether (TAME)	ND		25.0	18.9		ug/L		76	60 - 140
tert-Butyl alcohol (TBA)	ND		125	158		ug/L		127	65 - 140
tert-Butylbenzene	ND		25.0	25.9		ug/L		104	65 - 130
Tetrachloroethene	ND		25.0	28.1		ug/L		112	65 - 130
Toluene	ND		25.0	24.3		ug/L		97	70 - 125
trans-1,2-Dichloroethene	ND		25.0	21.8		ug/L		87	65 - 130
trans-1,3-Dichloropropene	ND		25.0	25.3		ug/L		101	65 - 135
Trichloroethene	ND		25.0	27.7		ug/L		111	65 - 125
Trichlorofluoromethane	ND		25.0	28.1		ug/L		112	60 - 145
Vinyl chloride	ND		25.0	26.0		ug/L		104	45 - 140
2-Butanone (MEK)	ND		25.0	14.6		ug/L		58	30 - 145
2-Hexanone	ND		25.0	16.4		ug/L		66	25 - 140
Acetone	5.1	J	25.0	17.4		ug/L		49	20 - 150
4-Methyl-2-pentanone (MIBK)	ND		25.0	18.1		ug/L		72	40 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*94*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: 440-1429-A-1 MSD
Matrix: Water
Analysis Batch: 5162

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	28.0		ug/L		112	65 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	30.9		ug/L		124	65 - 140	0	20
1,1,2,2-Tetrachloroethane	ND		25.0	22.6		ug/L		90	55 - 135	13	30
1,1,2-Trichloroethane	ND		25.0	23.4		ug/L		94	65 - 130	9	25
1,1-Dichloroethane	ND		25.0	23.5		ug/L		94	65 - 130	2	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-1429-A-1 MSD
Matrix: Water
Analysis Batch: 5162

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		25.0	19.1		ug/L		76	60 - 130	1	20
1,1-Dichloropropene	ND		25.0	24.7		ug/L		99	70 - 135	0	20
1,2,3-Trichlorobenzene	ND		25.0	20.1		ug/L		80	60 - 135	4	20
1,2,3-Trichloropropane	ND		25.0	20.4		ug/L		82	55 - 135	11	30
1,2,4-Trichlorobenzene	ND		25.0	22.0		ug/L		88	65 - 135	1	20
1,2,4-Trimethylbenzene	ND		25.0	25.6		ug/L		102	55 - 135	0	25
1,2-Dibromo-3-Chloropropane	ND		25.0	18.1		ug/L		72	45 - 145	12	30
1,2-Dichlorobenzene	ND		25.0	25.4		ug/L		102	75 - 125	2	20
1,2-Dibromoethane (EDB)	ND		25.0	25.1		ug/L		100	70 - 130	7	25
1,2-Dichloroethane	ND		25.0	28.9		ug/L		116	60 - 140	5	20
1,2-Dichloropropane	ND		25.0	24.0		ug/L		96	65 - 130	3	20
1,3,5-Trimethylbenzene	ND		25.0	25.5		ug/L		102	70 - 130	2	20
1,3-Dichlorobenzene	ND		25.0	27.1		ug/L		108	75 - 125	1	20
1,3-Dichloropropane	ND		25.0	23.0		ug/L		92	65 - 135	6	25
1,4-Dichlorobenzene	ND		25.0	26.6		ug/L		106	75 - 125	0	20
2,2-Dichloropropane	ND		25.0	31.6		ug/L		126	60 - 145	4	25
2-Chlorotoluene	ND		25.0	23.9		ug/L		96	65 - 135	0	20
4-Chlorotoluene	ND		25.0	24.4		ug/L		98	70 - 135	1	20
4-Isopropyltoluene	ND		25.0	25.4		ug/L		102	65 - 130	2	20
Benzene	ND		25.0	24.2		ug/L		97	65 - 125	2	20
Bromobenzene	ND		25.0	25.6		ug/L		102	70 - 125	0	20
Bromochloromethane	ND		25.0	24.5		ug/L		98	65 - 135	4	25
Bromodichloromethane	ND		25.0	29.0		ug/L		116	70 - 135	4	20
Bromoform	ND		25.0	24.9		ug/L		100	55 - 135	10	25
Bromomethane	ND		25.0	28.2		ug/L		113	55 - 145	3	25
Carbon tetrachloride	ND		25.0	32.2		ug/L		129	65 - 140	0	25
Chlorobenzene	ND		25.0	24.6		ug/L		98	75 - 125	1	20
Chloroethane	ND		25.0	22.9		ug/L		92	55 - 140	3	25
Chloroform	0.57		25.0	24.7		ug/L		97	65 - 135	0	20
Chloromethane	ND		25.0	25.3		ug/L		101	45 - 145	0	25
cis-1,2-Dichloroethene	ND		25.0	23.9		ug/L		96	65 - 130	4	20
cis-1,3-Dichloropropene	ND		25.0	24.9		ug/L		100	70 - 130	5	20
Dibromochloromethane	0.59		25.0	28.6		ug/L		112	65 - 140	4	25
Ethyl-t-butyl ether (ETBE)	ND		25.0	22.2		ug/L		89	60 - 135	8	25
Dibromomethane	ND		25.0	25.8		ug/L		103	65 - 135	10	25
Dichlorodifluoromethane	ND		25.0	22.1		ug/L		88	25 - 155	2	30
Ethylbenzene	ND		25.0	24.1		ug/L		96	65 - 130	1	20
Hexachlorobutadiene	ND		25.0	24.0		ug/L		96	60 - 135	4	20
Isopropyl Ether (DIPE)	ND		25.0	23.2		ug/L		93	60 - 140	5	25
Isopropylbenzene	ND		25.0	23.2		ug/L		93	70 - 135	0	20
Carbon disulfide	ND		25.0	22.5		ug/L		90	40 - 140	1	20
m,p-Xylene	ND		50.0	49.2		ug/L		98	65 - 130	1	25
Methylene Chloride	ND		25.0	19.9		ug/L		80	50 - 135	3	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	20.6		ug/L		82	55 - 145	12	25
Naphthalene	ND		25.0	19.5		ug/L		78	50 - 140	11	30
n-Butylbenzene	ND		25.0	24.1		ug/L		96	65 - 135	0	20
N-Propylbenzene	ND		25.0	23.7		ug/L		95	70 - 135	1	20
o-Xylene	ND		25.0	25.4		ug/L		102	65 - 125	1	20
sec-Butylbenzene	ND		25.0	24.5		ug/L		98	70 - 125	3	20
Styrene	ND		25.0	23.8		ug/L		95	50 - 145	7	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-1429-A-1 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 5162

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tert-amyl-methyl ether (TAME)	ND		25.0	21.0		ug/L		84	60 - 140	11	30
tert-Butyl alcohol (TBA)	ND		125	149		ug/L		119	65 - 140	6	25
tert-Butylbenzene	ND		25.0	25.4		ug/L		102	65 - 130	2	20
Tetrachloroethene	ND		25.0	27.7		ug/L		111	65 - 130	1	20
Toluene	ND		25.0	24.7		ug/L		99	70 - 125	2	20
trans-1,2-Dichloroethene	ND		25.0	22.2		ug/L		89	65 - 130	2	20
trans-1,3-Dichloropropene	ND		25.0	27.6		ug/L		110	65 - 135	9	25
Trichloroethene	ND		25.0	28.2		ug/L		113	65 - 125	2	20
Trichlorofluoromethane	ND		25.0	27.9		ug/L		112	60 - 145	1	25
Vinyl chloride	ND		25.0	23.7		ug/L		95	45 - 140	9	30
2-Butanone (MEK)	ND		25.0	17.5		ug/L		70	30 - 145	18	40
2-Hexanone	ND		25.0	21.7		ug/L		87	25 - 140	28	35
Acetone	5.1	J	25.0	21.3		ug/L		65	20 - 150	20	35
4-Methyl-2-pentanone (MIBK)	ND		25.0	23.0		ug/L		92	40 - 140	24	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Method: pCBSA - p-Chlorobenzenesulfonic Acid (HPLC)

Lab Sample ID: MB 440-4993/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4993

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorobenzenesulfonic Acid	ND		10	1.5	ug/L			02/03/12 07:35	1

Lab Sample ID: LCS 440-4993/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4993

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorobenzenesulfonic Acid	990	1190		ug/L		120	70 - 130

Lab Sample ID: 440-782-G-8 MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4993

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorobenzenesulfonic Acid	ND		990	1180		ug/L		119	70 - 130

Lab Sample ID: 440-782-G-8 MSD — **Client Sample ID: Matrix Spike Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 4993

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Chlorobenzenesulfonic Acid	ND		990	1150		ug/L		117	70 - 130	14	30

QC Association Summary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1122-1

GC/MS VOA

Analysis Batch: 5162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-1122-1	TB020112	Total/NA	Water	8260B	
440-1122-2	G-09	Total/NA	Water	8260B	
440-1429-A-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-1429-A-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 440-5162/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-5162/4	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 4993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-782-G-8 MS	Matrix Spike	Total/NA	Water	pCBSA	
440-782-G-8 MSD	Matrix Spike Duplicate	Total/NA	Water	pCBSA	
440-1122-2	G-09	Total/NA	Water	pCBSA	
LCS 440-4993/5	Lab Control Sample	Total/NA	Water	pCBSA	
MB 440-4993/4	Method Blank	Total/NA	Water	pCBSA	

Definitions/Glossary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1122-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1122-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Irvine	Arizona	State Program	9	AZ0671
TestAmerica Irvine	California	State Program	9	2706
TestAmerica Irvine	Nevada	State Program	9	CA015312007A
TestAmerica Irvine	Oregon	NELAC	10	4005
TestAmerica Irvine	USDA	USDA		P330-09-00080

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013 (0911)

CHAIN OF CUSTODY FORM

17461 Derian Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
6000 S. Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

440-1122

Client Name/Address: AECOM, 3995 VIA ORO, LONG Beach CA 90810

Project/PO Number: MONTROSE 60212541.03.01

Project Manager: BRIAN DEAN

Phone Number: 562-755-9046

Sampler: Katharine Carl Grec

Fax Number:

Analysis Required: 8260B VOCs; 314 mod; PCBS4

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260B VOCs	314 mod	PCBS4	Special Instructions
TB020112	H2O	VOA	3	2-1-12	1100	HCL	X			
G-09	↓	VOA	4	↓	1130	HCL	X			
G-09	H2O	poly	1	2-1-12	1130	—		X		

Relinquished By:	Date/Time:	Received By:	Date/Time:	Turnaround Time: (Check)
Monal Gajjar	2-1-12 1645	[signature]	2-1-12 1645	same day ____ 72 hours ____
Relinquished By: [signature]	2-1-12 Date/Time: 1817	Received By:	Date/Time:	24 hours ____ 5 days ____
				48 hours ____ normal X
Relinquished By:	Date/Time:	Received in Lab By: [signature]	Date/Time: 02/01/12 1817	Sample Integrity: (Check) intact ✓ on ice ✓

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

1.9°C

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 440-1122-1

Login Number: 1122
List Number: 1
Creator: Skinner, Alma

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Katherine Carr-Green
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-1771-1
Client Project/Site: Montrose - Torrance

For:
AECOM, Inc.
3995 Via Oro Ave
Long Beach, California 90810

Attn: Katherine Carr-Green

Authorized for release by:
3/1/2012 3:38:40 PM
Michelle Johnston
Project Manager I
michelle.johnston@testamericainc.com

Designee for

Patty Mata
Project Manager I
patty.mata@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1771-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-1771-1	TB020612	Water	02/06/12 12:00	02/06/12 18:05
440-1771-2	GEW-2	Water	02/06/12 13:09	02/06/12 18:05

Job ID: 440-1771-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-1771-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client Sample Results

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1771-1

Client Sample ID: TB020612

Date Collected: 02/06/12 12:00
Date Received: 02/06/12 18:05

Lab Sample ID: 440-1771-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.27	ug/L			02/11/12 19:03	1
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			02/11/12 19:03	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			02/11/12 19:03	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			02/11/12 19:03	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			02/11/12 19:03	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			02/11/12 19:03	1
1,1-Dichloropropene	ND		0.50	0.28	ug/L			02/11/12 19:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.30	ug/L			02/11/12 19:03	1
1,2,3-Trichloropropane	ND		2.0	0.40	ug/L			02/11/12 19:03	1
1,2,4-Trichlorobenzene	ND		0.50	0.48	ug/L			02/11/12 19:03	1
1,2,4-Trimethylbenzene	ND		0.50	0.23	ug/L			02/11/12 19:03	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.97	ug/L			02/11/12 19:03	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			02/11/12 19:03	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			02/11/12 19:03	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			02/11/12 19:03	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			02/11/12 19:03	1
1,3,5-Trimethylbenzene	ND		0.50	0.26	ug/L			02/11/12 19:03	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			02/11/12 19:03	1
1,3-Dichloropropane	ND		0.50	0.32	ug/L			02/11/12 19:03	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			02/11/12 19:03	1
2,2-Dichloropropane	ND		0.50	0.34	ug/L			02/11/12 19:03	1
2-Chlorotoluene	ND		0.50	0.28	ug/L			02/11/12 19:03	1
4-Chlorotoluene	ND		0.50	0.29	ug/L			02/11/12 19:03	1
4-Isopropyltoluene	ND		0.50	0.28	ug/L			02/11/12 19:03	1
Benzene	ND		0.50	0.28	ug/L			02/11/12 19:03	1
Bromobenzene	ND		0.50	0.27	ug/L			02/11/12 19:03	1
Bromochloromethane	ND		0.50	0.40	ug/L			02/11/12 19:03	1
Bromodichloromethane	ND		0.50	0.30	ug/L			02/11/12 19:03	1
Bromoform	ND		0.50	0.40	ug/L			02/11/12 19:03	1
Bromomethane	ND		1.0	0.42	ug/L			02/11/12 19:03	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			02/11/12 19:03	1
Chlorobenzene	ND		0.50	0.36	ug/L			02/11/12 19:03	1
Chloroethane	ND		1.0	0.40	ug/L			02/11/12 19:03	1
Chloroform	ND		0.50	0.33	ug/L			02/11/12 19:03	1
Chloromethane	ND		1.0	0.40	ug/L			02/11/12 19:03	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			02/11/12 19:03	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			02/11/12 19:03	1
Dibromochloromethane	ND		0.50	0.40	ug/L			02/11/12 19:03	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.28	ug/L			02/11/12 19:03	1
Dibromomethane	ND		0.50	0.36	ug/L			02/11/12 19:03	1
Dichlorodifluoromethane	ND		2.0	0.26	ug/L			02/11/12 19:03	1
Ethylbenzene	ND		0.50	0.25	ug/L			02/11/12 19:03	1
Hexachlorobutadiene	ND		1.0	0.38	ug/L			02/11/12 19:03	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			02/11/12 19:03	1
Isopropylbenzene	ND		0.50	0.25	ug/L			02/11/12 19:03	1
Carbon disulfide	ND		2.0	0.48	ug/L			02/11/12 19:03	1
m,p-Xylene	ND		1.0	0.60	ug/L			02/11/12 19:03	1
Methylene Chloride	ND		2.0	0.95	ug/L			02/11/12 19:03	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.32	ug/L			02/11/12 19:03	1
Naphthalene	ND		0.50	0.41	ug/L			02/11/12 19:03	1
n-Butylbenzene	ND		0.50	0.37	ug/L			02/11/12 19:03	1

Client Sample Results

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1771-1

Client Sample ID: TB020612

Lab Sample ID: 440-1771-1

Date Collected: 02/06/12 12:00
Matrix: Water
Date Received: 02/06/12 18:05

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		0.50	0.27	ug/L			02/11/12 19:03	1
o-Xylene	ND		0.50	0.30	ug/L			02/11/12 19:03	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			02/11/12 19:03	1
Styrene	ND		0.50	0.20	ug/L			02/11/12 19:03	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.33	ug/L			02/11/12 19:03	1
tert-Butyl alcohol (TBA)	ND		10	6.5	ug/L			02/11/12 19:03	1
tert-Butylbenzene	ND		0.50	0.22	ug/L			02/11/12 19:03	1
Tetrachloroethene	ND		0.50	0.32	ug/L			02/11/12 19:03	1
Toluene	ND		0.50	0.36	ug/L			02/11/12 19:03	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			02/11/12 19:03	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			02/11/12 19:03	1
Trichloroethene	ND		0.50	0.26	ug/L			02/11/12 19:03	1
Trichlorofluoromethane	ND		1.0	0.34	ug/L			02/11/12 19:03	1
Vinyl chloride	ND		0.50	0.40	ug/L			02/11/12 19:03	1
2-Butanone (MEK)	ND		10	4.7	ug/L			02/11/12 19:03	1
2-Hexanone	ND		10	2.6	ug/L			02/11/12 19:03	1
Acetone	ND		10	4.5	ug/L			02/11/12 19:03	1
4-Methyl-2-pentanone (MIBK)	ND		10	3.5	ug/L			02/11/12 19:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5	0.50	ug/L			02/11/12 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*02/11/12 19:03*	*1*
Dibromofluoromethane (Surr)	*91*		*80 - 120*		*02/11/12 19:03*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*02/11/12 19:03*	*1*

Client Sample ID: GEW-2

Lab Sample ID: 440-1771-2

Date Collected: 02/06/12 13:09
Matrix: Water
Date Received: 02/06/12 18:05

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		10	2.7	ug/L			02/11/12 18:34	10
1,1,1-Trichloroethane	ND		5.0	3.0	ug/L			02/11/12 18:34	10
1,1,2,2-Tetrachloroethane	ND		5.0	3.0	ug/L			02/11/12 18:34	10
1,1,2-Trichloroethane	ND		5.0	3.0	ug/L			02/11/12 18:34	10
1,1-Dichloroethane	ND		5.0	4.0	ug/L			02/11/12 18:34	10
1,1-Dichloroethene	ND		5.0	4.2	ug/L			02/11/12 18:34	10
1,1-Dichloropropene	ND		5.0	2.8	ug/L			02/11/12 18:34	10
1,2,3-Trichlorobenzene	ND		10	3.0	ug/L			02/11/12 18:34	10
1,2,3-Trichloropropane	ND		20	4.0	ug/L			02/11/12 18:34	10
1,2,4-Trichlorobenzene	ND		5.0	4.8	ug/L			02/11/12 18:34	10
1,2,4-Trimethylbenzene	**2.6**	**J**	5.0	2.3	ug/L			02/11/12 18:34	10
1,2-Dibromo-3-Chloropropane	ND		50	9.7	ug/L			02/11/12 18:34	10
1,2-Dichlorobenzene	ND		5.0	3.2	ug/L			02/11/12 18:34	10
1,2-Dibromoethane (EDB)	ND		5.0	4.0	ug/L			02/11/12 18:34	10
1,2-Dichloroethane	**7.5**		5.0	2.8	ug/L			02/11/12 18:34	10
1,2-Dichloropropane	ND		5.0	3.5	ug/L			02/11/12 18:34	10
1,3,5-Trimethylbenzene	ND		5.0	2.6	ug/L			02/11/12 18:34	10
1,3-Dichlorobenzene	ND		5.0	3.5	ug/L			02/11/12 18:34	10
1,3-Dichloropropane	ND		5.0	3.2	ug/L			02/11/12 18:34	10
1,4-Dichlorobenzene	ND		5.0	3.7	ug/L			02/11/12 18:34	10

Client Sample ID: GEW-2

Date Collected: 02/06/12 13:09
Date Received: 02/06/12 18:05

Lab Sample ID: 440-1771-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		5.0	3.4	ug/L			02/11/12 18:34	10
2-Chlorotoluene	ND		5.0	2.8	ug/L			02/11/12 18:34	10
4-Chlorotoluene	ND		5.0	2.9	ug/L			02/11/12 18:34	10
4-Isopropyltoluene	ND		5.0	2.8	ug/L			02/11/12 18:34	10
Benzene	ND		5.0	2.8	ug/L			02/11/12 18:34	10
Bromobenzene	ND		5.0	2.7	ug/L			02/11/12 18:34	10
Bromochloromethane	ND		5.0	4.0	ug/L			02/11/12 18:34	10
Bromodichloromethane	ND		5.0	3.0	ug/L			02/11/12 18:34	10
Bromoform	ND		5.0	4.0	ug/L			02/11/12 18:34	10
Bromomethane	ND		10	4.2	ug/L			02/11/12 18:34	10
Carbon tetrachloride	ND		5.0	2.8	ug/L			02/11/12 18:34	10
Chlorobenzene	**760**		5.0	3.6	ug/L			02/11/12 18:34	10
Chloroethane	ND		10	4.0	ug/L			02/11/12 18:34	10
Chloroform	ND		5.0	3.3	ug/L			02/11/12 18:34	10
Chloromethane	ND		10	4.0	ug/L			02/11/12 18:34	10
cis-1,2-Dichloroethene	ND		5.0	3.2	ug/L			02/11/12 18:34	10
cis-1,3-Dichloropropene	ND		5.0	2.2	ug/L			02/11/12 18:34	10
Dibromochloromethane	ND		5.0	4.0	ug/L			02/11/12 18:34	10
Ethyl-t-butyl ether (ETBE)	ND		5.0	2.8	ug/L			02/11/12 18:34	10
Dibromomethane	ND		5.0	3.6	ug/L			02/11/12 18:34	10
Dichlorodifluoromethane	ND		20	2.6	ug/L			02/11/12 18:34	10
Ethylbenzene	ND		5.0	2.5	ug/L			02/11/12 18:34	10
Hexachlorobutadiene	ND		10	3.8	ug/L			02/11/12 18:34	10
Isopropyl Ether (DIPE)	ND		5.0	2.5	ug/L			02/11/12 18:34	10
Isopropylbenzene	ND		5.0	2.5	ug/L			02/11/12 18:34	10
Carbon disulfide	ND		20	4.8	ug/L			02/11/12 18:34	10
m,p-Xylene	ND		10	6.0	ug/L			02/11/12 18:34	10
Methylene Chloride	ND		20	9.5	ug/L			02/11/12 18:34	10
Methyl-t-Butyl Ether (MTBE)	ND		5.0	3.2	ug/L			02/11/12 18:34	10
Naphthalene	ND		5.0	4.1	ug/L			02/11/12 18:34	10
n-Butylbenzene	ND		5.0	3.7	ug/L			02/11/12 18:34	10
N-Propylbenzene	ND		5.0	2.7	ug/L			02/11/12 18:34	10
o-Xylene	ND		5.0	3.0	ug/L			02/11/12 18:34	10
sec-Butylbenzene	ND		5.0	2.5	ug/L			02/11/12 18:34	10
Styrene	ND		5.0	2.0	ug/L			02/11/12 18:34	10
Tert-amyl-methyl ether (TAME)	ND		5.0	3.3	ug/L			02/11/12 18:34	10
tert-Butyl alcohol (TBA)	ND		100	65	ug/L			02/11/12 18:34	10
tert-Butylbenzene	ND		5.0	2.2	ug/L			02/11/12 18:34	10
Tetrachloroethene	ND		5.0	3.2	ug/L			02/11/12 18:34	10
Toluene	ND		5.0	3.6	ug/L			02/11/12 18:34	10
trans-1,2-Dichloroethene	ND		5.0	3.0	ug/L			02/11/12 18:34	10
trans-1,3-Dichloropropene	ND		5.0	3.2	ug/L			02/11/12 18:34	10
Trichloroethene	ND		5.0	2.6	ug/L			02/11/12 18:34	10
Trichlorofluoromethane	ND		10	3.4	ug/L			02/11/12 18:34	10
Vinyl chloride	ND		5.0	4.0	ug/L			02/11/12 18:34	10
2-Butanone (MEK)	ND		100	47	ug/L			02/11/12 18:34	10
2-Hexanone	ND		100	26	ug/L			02/11/12 18:34	10
Acetone	ND		100	45	ug/L			02/11/12 18:34	10
4-Methyl-2-pentanone (MIBK)	ND		100	35	ug/L			02/11/12 18:34	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		25	5.0	ug/L			02/11/12 18:34	10

Client Sample Results

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1771-1

Client Sample ID: GEW-2
Date Collected: 02/06/12 13:09
Date Received: 02/06/12 18:05

Lab Sample ID: 440-1771-2
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		80 - 120		02/11/12 18:34	10
Dibromofluoromethane (Surr)	88		80 - 120		02/11/12 18:34	10
Toluene-d8 (Surr)	102		80 - 120		02/11/12 18:34	10

Lab Chronicle

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1771-1

Client Sample ID: TB020612

Lab Sample ID: 440-1771-1

Date Collected: 02/06/12 12:00

Matrix: Water

Date Received: 02/06/12 18:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	6560	02/11/12 19:03	VH	TAL IRV

Client Sample ID: GEW-2

Lab Sample ID: 440-1771-2

Date Collected: 02/06/12 13:09

Matrix: Water

Date Received: 02/06/12 18:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	6560	02/11/12 18:34	VH	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-6560/4
Matrix: Water
Analysis Batch: 6560

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.27	ug/L			02/11/12 12:03	1
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			02/11/12 12:03	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			02/11/12 12:03	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			02/11/12 12:03	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			02/11/12 12:03	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			02/11/12 12:03	1
1,1-Dichloropropene	ND		0.50	0.28	ug/L			02/11/12 12:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.30	ug/L			02/11/12 12:03	1
1,2,3-Trichloropropane	ND		2.0	0.40	ug/L			02/11/12 12:03	1
1,2,4-Trichlorobenzene	ND		0.50	0.48	ug/L			02/11/12 12:03	1
1,2,4-Trimethylbenzene	ND		0.50	0.23	ug/L			02/11/12 12:03	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.97	ug/L			02/11/12 12:03	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			02/11/12 12:03	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			02/11/12 12:03	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			02/11/12 12:03	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			02/11/12 12:03	1
1,3,5-Trimethylbenzene	ND		0.50	0.26	ug/L			02/11/12 12:03	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			02/11/12 12:03	1
1,3-Dichloropropane	ND		0.50	0.32	ug/L			02/11/12 12:03	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			02/11/12 12:03	1
2,2-Dichloropropane	ND		0.50	0.34	ug/L			02/11/12 12:03	1
2-Chlorotoluene	ND		0.50	0.28	ug/L			02/11/12 12:03	1
4-Chlorotoluene	ND		0.50	0.29	ug/L			02/11/12 12:03	1
4-Isopropyltoluene	ND		0.50	0.28	ug/L			02/11/12 12:03	1
Benzene	ND		0.50	0.28	ug/L			02/11/12 12:03	1
Bromobenzene	ND		0.50	0.27	ug/L			02/11/12 12:03	1
Bromochloromethane	ND		0.50	0.40	ug/L			02/11/12 12:03	1
Bromodichloromethane	ND		0.50	0.30	ug/L			02/11/12 12:03	1
Bromoform	ND		0.50	0.40	ug/L			02/11/12 12:03	1
Bromomethane	ND		1.0	0.42	ug/L			02/11/12 12:03	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			02/11/12 12:03	1
Chlorobenzene	ND		0.50	0.36	ug/L			02/11/12 12:03	1
Chloroethane	ND		1.0	0.40	ug/L			02/11/12 12:03	1
Chloroform	ND		0.50	0.33	ug/L			02/11/12 12:03	1
Chloromethane	ND		1.0	0.40	ug/L			02/11/12 12:03	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			02/11/12 12:03	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			02/11/12 12:03	1
Dibromochloromethane	ND		0.50	0.40	ug/L			02/11/12 12:03	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.28	ug/L			02/11/12 12:03	1
Dibromomethane	ND		0.50	0.36	ug/L			02/11/12 12:03	1
Dichlorodifluoromethane	ND		2.0	0.26	ug/L			02/11/12 12:03	1
Ethylbenzene	ND		0.50	0.25	ug/L			02/11/12 12:03	1
Hexachlorobutadiene	ND		1.0	0.38	ug/L			02/11/12 12:03	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			02/11/12 12:03	1
Isopropylbenzene	ND		0.50	0.25	ug/L			02/11/12 12:03	1
Carbon disulfide	ND		2.0	0.48	ug/L			02/11/12 12:03	1
m,p-Xylene	ND		1.0	0.60	ug/L			02/11/12 12:03	1
Methylene Chloride	ND		2.0	0.95	ug/L			02/11/12 12:03	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.32	ug/L			02/11/12 12:03	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-6560/4
Matrix: Water
Analysis Batch: 6560

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.50	0.41	ug/L			02/11/12 12:03	1
n-Butylbenzene	ND		0.50	0.37	ug/L			02/11/12 12:03	1
N-Propylbenzene	ND		0.50	0.27	ug/L			02/11/12 12:03	1
o-Xylene	ND		0.50	0.30	ug/L			02/11/12 12:03	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			02/11/12 12:03	1
Styrene	ND		0.50	0.20	ug/L			02/11/12 12:03	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.33	ug/L			02/11/12 12:03	1
tert-Butyl alcohol (TBA)	ND		10	6.5	ug/L			02/11/12 12:03	1
tert-Butylbenzene	ND		0.50	0.22	ug/L			02/11/12 12:03	1
Tetrachloroethene	ND		0.50	0.32	ug/L			02/11/12 12:03	1
Toluene	ND		0.50	0.36	ug/L			02/11/12 12:03	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			02/11/12 12:03	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			02/11/12 12:03	1
Trichloroethene	ND		0.50	0.26	ug/L			02/11/12 12:03	1
Trichlorofluoromethane	ND		1.0	0.34	ug/L			02/11/12 12:03	1
Vinyl chloride	ND		0.50	0.40	ug/L			02/11/12 12:03	1
2-Butanone (MEK)	ND		10	4.7	ug/L			02/11/12 12:03	1
2-Hexanone	ND		10	2.6	ug/L			02/11/12 12:03	1
Acetone	ND		10	4.5	ug/L			02/11/12 12:03	1
4-Methyl-2-pentanone (MIBK)	ND		10	3.5	ug/L			02/11/12 12:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5	0.50	ug/L			02/11/12 12:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*02/11/12 12:03*	*1*
Dibromofluoromethane (Surr)	*86*		*80 - 120*		*02/11/12 12:03*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*02/11/12 12:03*	*1*

Lab Sample ID: LCS 440-6560/5
Matrix: Water
Analysis Batch: 6560

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	27.1		ug/L		108	70 - 130
1,1,1-Trichloroethane	25.0	25.1		ug/L		100	65 - 135
1,1,2,2-Tetrachloroethane	25.0	20.9		ug/L		84	55 - 130
1,1,2-Trichloroethane	25.0	21.6		ug/L		86	70 - 125
1,1-Dichloroethane	25.0	20.9		ug/L		84	70 - 125
1,1-Dichloroethene	25.0	19.3		ug/L		77	70 - 125
1,1-Dichloropropene	25.0	23.4		ug/L		94	75 - 130
1,2,3-Trichlorobenzene	25.0	19.3		ug/L		77	65 - 125
1,2,3-Trichloropropane	25.0	19.2		ug/L		77	60 - 130
1,2,4-Trichlorobenzene	25.0	20.8		ug/L		83	70 - 135
1,2,4-Trimethylbenzene	25.0	24.0		ug/L		96	75 - 125
1,2-Dibromo-3-Chloropropane	25.0	18.1		ug/L		72	50 - 135
1,2-Dichlorobenzene	25.0	23.9		ug/L		96	75 - 120
1,2-Dibromoethane (EDB)	25.0	23.9		ug/L		96	75 - 125
1,2-Dichloroethane	25.0	25.7		ug/L		103	60 - 140
1,2-Dichloropropane	25.0	21.9		ug/L		88	70 - 125
1,3,5-Trimethylbenzene	25.0	24.1		ug/L		96	75 - 125

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-6560/5
Matrix: Water
Analysis Batch: 6560

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	75 - 120
1,3-Dichloropropane	25.0	21.8		ug/L		87	70 - 120
1,4-Dichlorobenzene	25.0	25.2		ug/L		101	75 - 120
2,2-Dichloropropane	25.0	27.3		ug/L		109	65 - 140
2-Chlorotoluene	25.0	22.7		ug/L		91	70 - 125
4-Chlorotoluene	25.0	22.9		ug/L		92	75 - 125
4-Isopropyltoluene	25.0	24.0		ug/L		96	75 - 125
Benzene	25.0	22.4		ug/L		90	70 - 120
Bromobenzene	25.0	24.8		ug/L		99	75 - 120
Bromochloromethane	25.0	22.3		ug/L		89	70 - 130
Bromodichloromethane	25.0	24.9		ug/L		100	70 - 135
Bromoform	25.0	23.8		ug/L		95	55 - 130
Bromomethane	25.0	24.2		ug/L		97	65 - 140
Carbon tetrachloride	25.0	29.5		ug/L		118	65 - 140
Chlorobenzene	25.0	24.3		ug/L		97	75 - 120
Chloroethane	25.0	20.8		ug/L		83	60 - 140
Chloroform	25.0	21.9		ug/L		88	70 - 130
Chloromethane	25.0	20.2		ug/L		81	50 - 140
cis-1,2-Dichloroethene	25.0	22.0		ug/L		88	70 - 125
cis-1,3-Dichloropropene	25.0	22.5		ug/L		90	75 - 125
Dibromochloromethane	25.0	26.6		ug/L		106	70 - 140
Ethyl-t-butyl ether (ETBE)	25.0	18.2		ug/L		73	65 - 135
Dibromomethane	25.0	22.8		ug/L		91	70 - 125
Dichlorodifluoromethane	25.0	19.7		ug/L		79	35 - 155
Ethylbenzene	25.0	23.6		ug/L		94	75 - 125
Hexachlorobutadiene	25.0	23.2		ug/L		93	65 - 135
Isopropyl Ether (DIPE)	25.0	18.7		ug/L		75	60 - 135
Isopropylbenzene	25.0	22.1		ug/L		88	75 - 130
Carbon disulfide	25.0	17.5		ug/L		70	50 - 130
m,p-Xylene	50.0	48.1		ug/L		96	75 - 125
Methylene Chloride	25.0	18.3		ug/L		73	55 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	16.4		ug/L		66	60 - 135
Naphthalene	25.0	19.0		ug/L		76	55 - 135
n-Butylbenzene	25.0	22.4		ug/L		90	70 - 130
N-Propylbenzene	25.0	22.3		ug/L		89	75 - 130
o-Xylene	25.0	24.7		ug/L		99	75 - 125
sec-Butylbenzene	25.0	23.3		ug/L		93	70 - 125
Styrene	25.0	24.2		ug/L		97	75 - 130
Tert-amyl-methyl ether (TAME)	25.0	17.4		ug/L		70	60 - 135
tert-Butyl alcohol (TBA)	125	134		ug/L		107	70 - 135
tert-Butylbenzene	25.0	24.3		ug/L		97	70 - 125
Tetrachloroethene	25.0	27.4		ug/L		110	70 - 125
Toluene	25.0	23.2		ug/L		93	70 - 120
trans-1,2-Dichloroethene	25.0	20.1		ug/L		80	70 - 125
trans-1,3-Dichloropropene	25.0	24.3		ug/L		97	70 - 125
Trichloroethene	25.0	26.7		ug/L		107	70 - 125
Trichlorofluoromethane	25.0	24.4		ug/L		98	65 - 145
Vinyl chloride	25.0	23.0		ug/L		92	55 - 135
2-Butanone (MEK)	25.0	18.2		ug/L		73	40 - 140
2-Hexanone	25.0	22.4		ug/L		90	45 - 140

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-6560/5
Matrix: Water
Analysis Batch: 6560

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	22.1		ug/L		88	30 - 140
4-Methyl-2-pentanone (MIBK)	25.0	22.2		ug/L		89	45 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*89*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: 440-2012-C-4 MS
Matrix: Water
Analysis Batch: 6560

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	27.3		ug/L		109	65 - 140
1,1,1-Trichloroethane	ND		25.0	25.8		ug/L		103	65 - 140
1,1,2,2-Tetrachloroethane	ND		25.0	21.6		ug/L		86	55 - 135
1,1,2-Trichloroethane	ND		25.0	22.7		ug/L		91	65 - 130
1,1-Dichloroethane	ND		25.0	21.8		ug/L		87	65 - 130
1,1-Dichloroethene	ND		25.0	19.2		ug/L		77	60 - 130
1,1-Dichloropropene	ND		25.0	23.3		ug/L		93	70 - 135
1,2,3-Trichlorobenzene	ND		25.0	19.0		ug/L		76	60 - 135
1,2,3-Trichloropropane	ND		25.0	19.9		ug/L		80	55 - 135
1,2,4-Trichlorobenzene	ND		25.0	21.2		ug/L		85	65 - 135
1,2,4-Trimethylbenzene	ND		25.0	23.9		ug/L		96	55 - 135
1,2-Dibromo-3-Chloropropane	ND		25.0	17.8		ug/L		71	45 - 145
1,2-Dichlorobenzene	ND		25.0	24.5		ug/L		98	75 - 125
1,2-Dibromoethane (EDB)	ND		25.0	24.9		ug/L		100	70 - 130
1,2-Dichloroethane	ND		25.0	27.0		ug/L		108	60 - 140
1,2-Dichloropropane	ND		25.0	22.7		ug/L		91	65 - 130
1,3,5-Trimethylbenzene	ND		25.0	23.7		ug/L		95	70 - 130
1,3-Dichlorobenzene	ND		25.0	25.8		ug/L		103	75 - 125
1,3-Dichloropropane	ND		25.0	22.2		ug/L		89	65 - 135
1,4-Dichlorobenzene	ND		25.0	25.2		ug/L		101	75 - 125
2,2-Dichloropropane	ND		25.0	27.7		ug/L		111	60 - 145
2-Chlorotoluene	ND		25.0	22.0		ug/L		88	65 - 135
4-Chlorotoluene	ND		25.0	23.0		ug/L		92	70 - 135
4-Isopropyltoluene	ND		25.0	23.7		ug/L		95	65 - 130
Benzene	ND		25.0	22.5		ug/L		90	65 - 125
Bromobenzene	ND		25.0	24.6		ug/L		98	70 - 125
Bromochloromethane	ND		25.0	23.2		ug/L		93	65 - 135
Bromodichloromethane	ND		25.0	26.2		ug/L		105	70 - 135
Bromoform	ND		25.0	24.4		ug/L		98	55 - 135
Bromomethane	ND		25.0	24.1		ug/L		96	55 - 145
Carbon tetrachloride	ND		25.0	29.3		ug/L		117	65 - 140
Chlorobenzene	ND		25.0	23.7		ug/L		95	75 - 125
Chloroethane	ND		25.0	20.9		ug/L		84	55 - 140
Chloroform	ND		25.0	22.2		ug/L		89	65 - 135
Chloromethane	ND		25.0	21.4		ug/L		86	45 - 145
cis-1,2-Dichloroethene	ND		25.0	22.3		ug/L		89	65 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-2012-C-4 MS
Matrix: Water
Analysis Batch: 6560

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	ND		25.0	23.3		ug/L		93	70 - 130
Dibromochloromethane	ND		25.0	27.2		ug/L		109	65 - 140
Ethyl-t-butyl ether (ETBE)	ND		25.0	19.4		ug/L		78	60 - 135
Dibromomethane	ND		25.0	23.8		ug/L		95	65 - 135
Dichlorodifluoromethane	ND		25.0	19.6		ug/L		78	25 - 155
Ethylbenzene	ND		25.0	23.2		ug/L		93	65 - 130
Hexachlorobutadiene	ND		25.0	22.4		ug/L		90	60 - 135
Isopropyl Ether (DIPE)	ND		25.0	20.0		ug/L		80	60 - 140
Isopropylbenzene	ND		25.0	21.4		ug/L		86	70 - 135
Carbon disulfide	ND		25.0	17.5		ug/L		70	40 - 140
m,p-Xylene	ND		50.0	47.1		ug/L		94	65 - 130
Methylene Chloride	ND		25.0	18.8		ug/L		75	50 - 135
Methyl-t-Butyl Ether (MTBE)	ND		25.0	18.1		ug/L		72	55 - 145
Naphthalene	ND		25.0	19.3		ug/L		77	50 - 140
n-Butylbenzene	ND		25.0	22.0		ug/L		88	65 - 135
N-Propylbenzene	ND		25.0	22.0		ug/L		88	70 - 135
o-Xylene	ND		25.0	24.6		ug/L		98	65 - 125
sec-Butylbenzene	ND		25.0	22.9		ug/L		92	70 - 125
Styrene	ND		25.0	24.5		ug/L		98	50 - 145
Tert-amyl-methyl ether (TAME)	ND		25.0	18.3		ug/L		73	60 - 140
tert-Butyl alcohol (TBA)	7.3	J	125	142		ug/L		108	65 - 140
tert-Butylbenzene	ND		25.0	23.9		ug/L		96	65 - 130
Tetrachloroethene	ND		25.0	26.8		ug/L		107	65 - 130
Toluene	ND		25.0	22.9		ug/L		92	70 - 125
trans-1,2-Dichloroethene	ND		25.0	20.5		ug/L		82	65 - 130
trans-1,3-Dichloropropene	ND		25.0	25.6		ug/L		102	65 - 135
Trichloroethene	ND		25.0	26.4		ug/L		106	65 - 125
Trichlorofluoromethane	ND		25.0	24.1		ug/L		96	60 - 145
Vinyl chloride	ND		25.0	22.7		ug/L		91	45 - 140
2-Butanone (MEK)	ND		25.0	18.8		ug/L		75	30 - 145
2-Hexanone	ND		25.0	22.3		ug/L		89	25 - 140
Acetone	ND		25.0	18.3		ug/L		73	20 - 150
4-Methyl-2-pentanone (MIBK)	ND		25.0	23.5		ug/L		94	40 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: 440-2012-C-4 MSD
Matrix: Water
Analysis Batch: 6560

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	27.7		ug/L		111	65 - 140	1	20
1,1,1-Trichloroethane	ND		25.0	26.0		ug/L		104	65 - 140	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	22.6		ug/L		90	55 - 135	5	30
1,1,2-Trichloroethane	ND		25.0	23.2		ug/L		93	65 - 130	2	25
1,1-Dichloroethane	ND		25.0	21.8		ug/L		87	65 - 130	0	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-2012-C-4 MSD
Matrix: Water
Analysis Batch: 6560

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		25.0	19.8		ug/L		79	60 - 130	3	20
1,1-Dichloropropene	ND		25.0	23.8		ug/L		95	70 - 135	2	20
1,2,3-Trichlorobenzene	ND		25.0	20.5		ug/L		82	60 - 135	8	20
1,2,3-Trichloropropane	ND		25.0	20.6		ug/L		82	55 - 135	3	30
1,2,4-Trichlorobenzene	ND		25.0	22.1		ug/L		88	65 - 135	4	20
1,2,4-Trimethylbenzene	ND		25.0	23.8		ug/L		95	55 - 135	0	25
1,2-Dibromo-3-Chloropropane	ND		25.0	20.1		ug/L		80	45 - 145	12	30
1,2-Dichlorobenzene	ND		25.0	24.6		ug/L		98	75 - 125	0	20
1,2-Dibromoethane (EDB)	ND		25.0	25.9		ug/L		104	70 - 130	4	25
1,2-Dichloroethane	ND		25.0	27.8		ug/L		111	60 - 140	3	20
1,2-Dichloropropane	ND		25.0	22.8		ug/L		91	65 - 130	0	20
1,3,5-Trimethylbenzene	ND		25.0	23.6		ug/L		94	70 - 130	0	20
1,3-Dichlorobenzene	ND		25.0	25.6		ug/L		102	75 - 125	1	20
1,3-Dichloropropane	ND		25.0	23.2		ug/L		93	65 - 135	4	25
1,4-Dichlorobenzene	ND		25.0	25.7		ug/L		103	75 - 125	2	20
2,2-Dichloropropane	ND		25.0	28.2		ug/L		113	60 - 145	2	25
2-Chlorotoluene	ND		25.0	22.3		ug/L		89	65 - 135	1	20
4-Chlorotoluene	ND		25.0	23.0		ug/L		92	70 - 135	0	20
4-Isopropyltoluene	ND		25.0	24.0		ug/L		96	65 - 130	1	20
Benzene	ND		25.0	22.9		ug/L		92	65 - 125	2	20
Bromobenzene	ND		25.0	24.9		ug/L		100	70 - 125	1	20
Bromochloromethane	ND		25.0	23.6		ug/L		94	65 - 135	2	25
Bromodichloromethane	ND		25.0	26.9		ug/L		108	70 - 135	3	20
Bromoform	ND		25.0	25.8		ug/L		103	55 - 135	6	25
Bromomethane	ND		25.0	24.5		ug/L		98	55 - 145	2	25
Carbon tetrachloride	ND		25.0	30.0		ug/L		120	65 - 140	2	25
Chlorobenzene	ND		25.0	24.3		ug/L		97	75 - 125	3	20
Chloroethane	ND		25.0	21.2		ug/L		85	55 - 140	1	25
Chloroform	ND		25.0	22.7		ug/L		91	65 - 135	2	20
Chloromethane	ND		25.0	21.9		ug/L		88	45 - 145	2	25
cis-1,2-Dichloroethene	ND		25.0	22.7		ug/L		91	65 - 130	2	20
cis-1,3-Dichloropropene	ND		25.0	23.9		ug/L		96	70 - 130	3	20
Dibromochloromethane	ND		25.0	28.2		ug/L		113	65 - 140	4	25
Ethyl-t-butyl ether (ETBE)	ND		25.0	19.9		ug/L		80	60 - 135	3	25
Dibromomethane	ND		25.0	24.7		ug/L		99	65 - 135	4	25
Dichlorodifluoromethane	ND		25.0	20.2		ug/L		81	25 - 155	3	30
Ethylbenzene	ND		25.0	23.7		ug/L		95	65 - 130	2	20
Hexachlorobutadiene	ND		25.0	23.5		ug/L		94	60 - 135	5	20
Isopropyl Ether (DIPE)	ND		25.0	20.3		ug/L		81	60 - 140	1	25
Isopropylbenzene	ND		25.0	21.5		ug/L		86	70 - 135	0	20
Carbon disulfide	ND		25.0	18.0		ug/L		72	40 - 140	3	20
m,p-Xylene	ND		50.0	48.8		ug/L		98	65 - 130	4	25
Methylene Chloride	ND		25.0	19.2		ug/L		77	50 - 135	2	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	18.8		ug/L		75	55 - 145	4	25
Naphthalene	ND		25.0	21.2		ug/L		85	50 - 140	9	30
n-Butylbenzene	ND		25.0	22.9		ug/L		92	65 - 135	4	20
N-Propylbenzene	ND		25.0	22.1		ug/L		88	70 - 135	0	20
o-Xylene	ND		25.0	24.9		ug/L		100	65 - 125	1	20
sec-Butylbenzene	ND		25.0	23.0		ug/L		92	70 - 125	0	20
Styrene	ND		25.0	24.3		ug/L		97	50 - 145	1	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-2012-C-4 MSD
Matrix: Water
Analysis Batch: 6560

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tert-amyl-methyl ether (TAME)	ND		25.0	19.3		ug/L		77	60 - 140	5	30
tert-Butyl alcohol (TBA)	7.3	J	125	142		ug/L		107	65 - 140	1	25
tert-Butylbenzene	ND		25.0	23.9		ug/L		96	65 - 130	0	20
Tetrachloroethene	ND		25.0	27.3		ug/L		109	65 - 130	2	20
Toluene	ND		25.0	23.6		ug/L		94	70 - 125	3	20
trans-1,2-Dichloroethene	ND		25.0	20.9		ug/L		84	65 - 130	2	20
trans-1,3-Dichloropropene	ND		25.0	26.5		ug/L		106	65 - 135	3	25
Trichloroethene	ND		25.0	26.8		ug/L		107	65 - 125	2	20
Trichlorofluoromethane	ND		25.0	24.8		ug/L		99	60 - 145	3	25
Vinyl chloride	ND		25.0	23.5		ug/L		94	45 - 140	3	30
2-Butanone (MEK)	ND		25.0	20.8		ug/L		83	30 - 145	10	40
2-Hexanone	ND		25.0	24.5		ug/L		98	25 - 140	9	35
Acetone	ND		25.0	19.0		ug/L		76	20 - 150	4	35
4-Methyl-2-pentanone (MIBK)	ND		25.0	25.4		ug/L		102	40 - 140	8	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*92*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

QC Association Summary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1771-1

GC/MS VOA

Analysis Batch: 6560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-1771-1	TB020612	Total/NA	Water	8260B	
440-1771-2	GEW-2	Total/NA	Water	8260B	
440-2012-C-4 MS	Matrix Spike	Total/NA	Water	8260B	
440-2012-C-4 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
LCS 440-6560/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-6560/4	Method Blank	Total/NA	Water	8260B	

Definitions/Glossary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1771-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1771-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Irvine	Arizona	State Program	9	AZ0671
TestAmerica Irvine	California	LA Cty Sanitation Districts	9	10256
TestAmerica Irvine	California	NELAC	9	1108CA
TestAmerica Irvine	California	State Program	9	2706
TestAmerica Irvine	Guam	State Program	9	Cert. No. 10.001r
TestAmerica Irvine	Hawaii	State Program	9	N/A
TestAmerica Irvine	Nevada	State Program	9	CA015312007A
TestAmerica Irvine	New Mexico	State Program	6	N/A
TestAmerica Irvine	Northern Mariana Islands	State Program	9	MP0002
TestAmerica Irvine	Oregon	NELAC	10	4005
TestAmerica Irvine	USDA	Federal		P330-09-00080

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

440-1771

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY FORM

17461 Derian Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
6000 S. Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

TAL-0013 (0911)

Client Name/Address: AECOM 3995 VIA ORO LONG Beach, CA 90810

Project/PO Number: 60212541.03.01 Montrose

Project Manager: Brian Dean

Phone Number: 562-213-4160

Sampler: Katherine Carl Green

Fax Number:

Analysis Required: 8260B-VOCs

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260B-VOCs									Special Instructions
TB020612	H2O	VOA	3	2-6-12	1200	HCL	X									
GEW-2	H2O	VOA	4	2-6-12	1309	HCL	X									

Relinquished By:	Date/Time:	Received By:	Date/Time:	Turnaround Time: (Check)
[signature]	2-6-12 1710	[signature]	2-6-12 1710	same day ____ 72 hours ____
Relinquished By: [signature]	Date/Time: 2-6-12 1805	Received By:	Date/Time:	24 hours ____ 5 days ____
				48 hours ____ normal ____
Relinquished By:	Date/Time:	Received in Lab By: [signature]	Date/Time: 2/6/12 18:05	Sample Integrity: (Check) intact ✓ on ice ✓ 3.4°C

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 440-1771-1

Login Number: 1771
List Number: 1
Creator: Van Banh, Vu

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-1991-1
Client Project/Site: Montrose - Torrance

For:
AECOM, Inc.
3995 Via Oro Ave
Long Beach, California 90810

Attn: Katherine Carr-Green

Erin Arasate

Authorized for release by:
3/2/2012 8:32:31 PM
Erin Arasate
Project Manager I
erin.arasate@testamericainc.com

Designee for

Patty Mata
Project Manager I
patty.mata@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1991-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-1991-1	TB020712	Water	02/07/12 12:00	02/08/12 18:30
440-1991-2	BF-29	Water	02/08/12 09:10	02/08/12 18:30
440-1991-3	SWL0026	Water	02/07/12 13:10	02/08/12 18:30

Case Narrative

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1991-1

Job ID: 440-1991-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-1991-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
No analytical or quality issues were noted.

HPLC
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Client Sample Results

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1991-1

Client Sample ID: TB020712

Date Collected: 02/07/12 12:00
Date Received: 02/08/12 18:30

Lab Sample ID: 440-1991-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.27	ug/L			02/18/12 13:53	1
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			02/18/12 13:53	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			02/18/12 13:53	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			02/18/12 13:53	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			02/18/12 13:53	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			02/18/12 13:53	1
1,1-Dichloropropene	ND		0.50	0.28	ug/L			02/18/12 13:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.30	ug/L			02/18/12 13:53	1
1,2,3-Trichloropropane	ND		2.0	0.40	ug/L			02/18/12 13:53	1
1,2,4-Trichlorobenzene	ND		0.50	0.48	ug/L			02/18/12 13:53	1
1,2,4-Trimethylbenzene	ND		0.50	0.23	ug/L			02/18/12 13:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.97	ug/L			02/18/12 13:53	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			02/18/12 13:53	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			02/18/12 13:53	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			02/18/12 13:53	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			02/18/12 13:53	1
1,3,5-Trimethylbenzene	ND		0.50	0.26	ug/L			02/18/12 13:53	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			02/18/12 13:53	1
1,3-Dichloropropane	ND		0.50	0.32	ug/L			02/18/12 13:53	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			02/18/12 13:53	1
2,2-Dichloropropane	ND		0.50	0.34	ug/L			02/18/12 13:53	1
2-Chlorotoluene	ND		0.50	0.28	ug/L			02/18/12 13:53	1
4-Chlorotoluene	ND		0.50	0.29	ug/L			02/18/12 13:53	1
4-Isopropyltoluene	ND		0.50	0.28	ug/L			02/18/12 13:53	1
Benzene	ND		0.50	0.28	ug/L			02/18/12 13:53	1
Bromobenzene	ND		0.50	0.27	ug/L			02/18/12 13:53	1
Bromochloromethane	ND		0.50	0.40	ug/L			02/18/12 13:53	1
Bromodichloromethane	ND		0.50	0.30	ug/L			02/18/12 13:53	1
Bromoform	ND		0.50	0.40	ug/L			02/18/12 13:53	1
Bromomethane	ND		1.0	0.42	ug/L			02/18/12 13:53	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			02/18/12 13:53	1
Chlorobenzene	ND		0.50	0.36	ug/L			02/18/12 13:53	1
Chloroethane	ND		1.0	0.40	ug/L			02/18/12 13:53	1
Chloroform	ND		0.50	0.33	ug/L			02/18/12 13:53	1
Chloromethane	ND		1.0	0.40	ug/L			02/18/12 13:53	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			02/18/12 13:53	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			02/18/12 13:53	1
Dibromochloromethane	ND		0.50	0.40	ug/L			02/18/12 13:53	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.28	ug/L			02/18/12 13:53	1
Dibromomethane	ND		0.50	0.36	ug/L			02/18/12 13:53	1
Dichlorodifluoromethane	ND		2.0	0.26	ug/L			02/18/12 13:53	1
Ethylbenzene	ND		0.50	0.25	ug/L			02/18/12 13:53	1
Hexachlorobutadiene	ND		1.0	0.38	ug/L			02/18/12 13:53	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			02/18/12 13:53	1
Isopropylbenzene	ND		0.50	0.25	ug/L			02/18/12 13:53	1
Carbon disulfide	ND		2.0	0.48	ug/L			02/18/12 13:53	1
m,p-Xylene	ND		1.0	0.60	ug/L			02/18/12 13:53	1
Methylene Chloride	ND		2.0	0.95	ug/L			02/18/12 13:53	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.32	ug/L			02/18/12 13:53	1
Naphthalene	ND		0.50	0.41	ug/L			02/18/12 13:53	1
n-Butylbenzene	ND		0.50	0.37	ug/L			02/18/12 13:53	1

Client Sample ID: TB020712

Lab Sample ID: 440-1991-1

Date Collected: 02/07/12 12:00

Matrix: Water

Date Received: 02/08/12 18:30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		0.50	0.27	ug/L			02/18/12 13:53	1
o-Xylene	ND		0.50	0.30	ug/L			02/18/12 13:53	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			02/18/12 13:53	1
Styrene	ND		0.50	0.20	ug/L			02/18/12 13:53	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.33	ug/L			02/18/12 13:53	1
tert-Butyl alcohol (TBA)	ND		10	6.5	ug/L			02/18/12 13:53	1
tert-Butylbenzene	ND		0.50	0.22	ug/L			02/18/12 13:53	1
Tetrachloroethene	ND		0.50	0.32	ug/L			02/18/12 13:53	1
Toluene	ND		0.50	0.36	ug/L			02/18/12 13:53	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			02/18/12 13:53	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			02/18/12 13:53	1
Trichloroethene	ND		0.50	0.26	ug/L			02/18/12 13:53	1
Trichlorofluoromethane	ND		1.0	0.34	ug/L			02/18/12 13:53	1
Vinyl chloride	ND		0.50	0.40	ug/L			02/18/12 13:53	1
2-Butanone (MEK)	ND		10	4.7	ug/L			02/18/12 13:53	1
2-Hexanone	ND		10	2.6	ug/L			02/18/12 13:53	1
Acetone	ND		10	4.5	ug/L			02/18/12 13:53	1
4-Methyl-2-pentanone (MIBK)	ND		10	3.5	ug/L			02/18/12 13:53	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5	0.50	ug/L			02/18/12 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*02/18/12 13:53*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*02/18/12 13:53*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*02/18/12 13:53*	*1*

Client Sample ID: BF-29

Lab Sample ID: 440-1991-2

Date Collected: 02/08/12 09:10

Matrix: Water

Date Received: 02/08/12 18:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.27	ug/L			02/18/12 14:22	1
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			02/18/12 14:22	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			02/18/12 14:22	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			02/18/12 14:22	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			02/18/12 14:22	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			02/18/12 14:22	1
1,1-Dichloropropene	ND		0.50	0.28	ug/L			02/18/12 14:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.30	ug/L			02/18/12 14:22	1
1,2,3-Trichloropropane	ND		2.0	0.40	ug/L			02/18/12 14:22	1
1,2,4-Trichlorobenzene	ND		0.50	0.48	ug/L			02/18/12 14:22	1
1,2,4-Trimethylbenzene	**0.26**	**J**	0.50	0.23	ug/L			02/18/12 14:22	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.97	ug/L			02/18/12 14:22	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			02/18/12 14:22	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			02/18/12 14:22	1
1,2-Dichloroethane	**20**		0.50	0.28	ug/L			02/18/12 14:22	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			02/18/12 14:22	1
1,3,5-Trimethylbenzene	ND		0.50	0.26	ug/L			02/18/12 14:22	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			02/18/12 14:22	1
1,3-Dichloropropane	ND		0.50	0.32	ug/L			02/18/12 14:22	1
1,4-Dichlorobenzene	**1.3**		0.50	0.37	ug/L			02/18/12 14:22	1

Client Sample Results

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1991-1

Client Sample ID: BF-29

Date Collected: 02/08/12 09:10
Date Received: 02/08/12 18:30

Lab Sample ID: 440-1991-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,2-Dichloropropane	ND		0.50	0.34	ug/L			02/18/12 14:22	1
2-Chlorotoluene	ND		0.50	0.28	ug/L			02/18/12 14:22	1
4-Chlorotoluene	ND		0.50	0.29	ug/L			02/18/12 14:22	1
4-Isopropyltoluene	ND		0.50	0.28	ug/L			02/18/12 14:22	1
Benzene	**0.73**		0.50	0.28	ug/L			02/18/12 14:22	1
Bromobenzene	ND		0.50	0.27	ug/L			02/18/12 14:22	1
Bromochloromethane	ND		0.50	0.40	ug/L			02/18/12 14:22	1
Bromodichloromethane	ND		0.50	0.30	ug/L			02/18/12 14:22	1
Bromoform	ND		0.50	0.40	ug/L			02/18/12 14:22	1
Bromomethane	ND		1.0	0.42	ug/L			02/18/12 14:22	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			02/18/12 14:22	1
Chlorobenzene	**180**		0.50	0.36	ug/L			02/18/12 14:22	1
Chloroethane	ND		1.0	0.40	ug/L			02/18/12 14:22	1
Chloroform	ND		0.50	0.33	ug/L			02/18/12 14:22	1
Chloromethane	ND		1.0	0.40	ug/L			02/18/12 14:22	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			02/18/12 14:22	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			02/18/12 14:22	1
Dibromochloromethane	ND		0.50	0.40	ug/L			02/18/12 14:22	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.28	ug/L			02/18/12 14:22	1
Dibromomethane	ND		0.50	0.36	ug/L			02/18/12 14:22	1
Dichlorodifluoromethane	ND		2.0	0.26	ug/L			02/18/12 14:22	1
Ethylbenzene	ND		0.50	0.25	ug/L			02/18/12 14:22	1
Hexachlorobutadiene	ND		1.0	0.38	ug/L			02/18/12 14:22	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			02/18/12 14:22	1
Isopropylbenzene	ND		0.50	0.25	ug/L			02/18/12 14:22	1
Carbon disulfide	ND		2.0	0.48	ug/L			02/18/12 14:22	1
m,p-Xylene	ND		1.0	0.60	ug/L			02/18/12 14:22	1
Methylene Chloride	ND		2.0	0.95	ug/L			02/18/12 14:22	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.32	ug/L			02/18/12 14:22	1
Naphthalene	ND		0.50	0.41	ug/L			02/18/12 14:22	1
n-Butylbenzene	ND		0.50	0.37	ug/L			02/18/12 14:22	1
N-Propylbenzene	ND		0.50	0.27	ug/L			02/18/12 14:22	1
o-Xylene	ND		0.50	0.30	ug/L			02/18/12 14:22	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			02/18/12 14:22	1
Styrene	ND		0.50	0.20	ug/L			02/18/12 14:22	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.33	ug/L			02/18/12 14:22	1
tert-Butyl alcohol (TBA)	ND		10	6.5	ug/L			02/18/12 14:22	1
tert-Butylbenzene	ND		0.50	0.22	ug/L			02/18/12 14:22	1
Tetrachloroethene	ND		0.50	0.32	ug/L			02/18/12 14:22	1
Toluene	ND		0.50	0.36	ug/L			02/18/12 14:22	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			02/18/12 14:22	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			02/18/12 14:22	1
Trichloroethene	ND		0.50	0.26	ug/L			02/18/12 14:22	1
Trichlorofluoromethane	ND		1.0	0.34	ug/L			02/18/12 14:22	1
Vinyl chloride	ND		0.50	0.40	ug/L			02/18/12 14:22	1
2-Butanone (MEK)	ND		10	4.7	ug/L			02/18/12 14:22	1
2-Hexanone	ND		10	2.6	ug/L			02/18/12 14:22	1
Acetone	ND		10	4.5	ug/L			02/18/12 14:22	1
4-Methyl-2-pentanone (MIBK)	ND		10	3.5	ug/L			02/18/12 14:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5	0.50	ug/L			02/18/12 14:22	1

Client Sample Results

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1991-1

Client Sample ID: BF-29

Lab Sample ID: 440-1991-2
Date Collected: 02/08/12 09:10
Matrix: Water
Date Received: 02/08/12 18:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*02/18/12 14:22*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*02/18/12 14:22*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*02/18/12 14:22*	*1*

Method: pCBSA - p-Chlorobenzenesulfonic Acid (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorobenzenesulfonic Acid	**5700**		10	1.5	ug/L			02/22/12 10:08	1

Client Sample ID: SWL0026

Lab Sample ID: 440-1991-3
Date Collected: 02/07/12 13:10
Matrix: Water
Date Received: 02/08/12 18:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.27	ug/L			02/18/12 15:48	1
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			02/18/12 15:48	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			02/18/12 15:48	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			02/18/12 15:48	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			02/18/12 15:48	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			02/18/12 15:48	1
1,1-Dichloropropene	ND		0.50	0.28	ug/L			02/18/12 15:48	1
1,2,3-Trichlorobenzene	**0.33**	**J**	1.0	0.30	ug/L			02/18/12 15:48	1
1,2,3-Trichloropropane	ND		2.0	0.40	ug/L			02/18/12 15:48	1
1,2,4-Trichlorobenzene	ND		0.50	0.48	ug/L			02/18/12 15:48	1
1,2,4-Trimethylbenzene	ND		0.50	0.23	ug/L			02/18/12 15:48	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.97	ug/L			02/18/12 15:48	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			02/18/12 15:48	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			02/18/12 15:48	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			02/18/12 15:48	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			02/18/12 15:48	1
1,3,5-Trimethylbenzene	ND		0.50	0.26	ug/L			02/18/12 15:48	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			02/18/12 15:48	1
1,3-Dichloropropane	ND		0.50	0.32	ug/L			02/18/12 15:48	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			02/18/12 15:48	1
2,2-Dichloropropane	ND		0.50	0.34	ug/L			02/18/12 15:48	1
2-Chlorotoluene	ND		0.50	0.28	ug/L			02/18/12 15:48	1
4-Chlorotoluene	ND		0.50	0.29	ug/L			02/18/12 15:48	1
4-Isopropyltoluene	ND		0.50	0.28	ug/L			02/18/12 15:48	1
Benzene	**0.65**		0.50	0.28	ug/L			02/18/12 15:48	1
Bromobenzene	ND		0.50	0.27	ug/L			02/18/12 15:48	1
Bromochloromethane	ND		0.50	0.40	ug/L			02/18/12 15:48	1
Bromodichloromethane	ND		0.50	0.30	ug/L			02/18/12 15:48	1
Bromoform	ND		0.50	0.40	ug/L			02/18/12 15:48	1
Bromomethane	ND		1.0	0.42	ug/L			02/18/12 15:48	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			02/18/12 15:48	1
Chlorobenzene	**89**		0.50	0.36	ug/L			02/18/12 15:48	1
Chloroethane	ND		1.0	0.40	ug/L			02/18/12 15:48	1
Chloroform	**0.70**		0.50	0.33	ug/L			02/18/12 15:48	1
Chloromethane	ND		1.0	0.40	ug/L			02/18/12 15:48	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			02/18/12 15:48	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			02/18/12 15:48	1
Dibromochloromethane	ND		0.50	0.40	ug/L			02/18/12 15:48	1

Client Sample Results

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1991-1

Client Sample ID: SWL0026

Date Collected: 02/07/12 13:10
Date Received: 02/08/12 18:30

Lab Sample ID: 440-1991-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.28	ug/L			02/18/12 15:48	1
Dibromomethane	ND		0.50	0.36	ug/L			02/18/12 15:48	1
Dichlorodifluoromethane	ND		2.0	0.26	ug/L			02/18/12 15:48	1
Ethylbenzene	ND		0.50	0.25	ug/L			02/18/12 15:48	1
Hexachlorobutadiene	ND		1.0	0.38	ug/L			02/18/12 15:48	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			02/18/12 15:48	1
Isopropylbenzene	ND		0.50	0.25	ug/L			02/18/12 15:48	1
Carbon disulfide	ND		2.0	0.48	ug/L			02/18/12 15:48	1
m,p-Xylene	ND		1.0	0.60	ug/L			02/18/12 15:48	1
Methylene Chloride	ND		2.0	0.95	ug/L			02/18/12 15:48	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.32	ug/L			02/18/12 15:48	1
Naphthalene	ND		0.50	0.41	ug/L			02/18/12 15:48	1
n-Butylbenzene	ND		0.50	0.37	ug/L			02/18/12 15:48	1
N-Propylbenzene	ND		0.50	0.27	ug/L			02/18/12 15:48	1
o-Xylene	ND		0.50	0.30	ug/L			02/18/12 15:48	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			02/18/12 15:48	1
Styrene	ND		0.50	0.20	ug/L			02/18/12 15:48	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.33	ug/L			02/18/12 15:48	1
tert-Butyl alcohol (TBA)	ND		10	6.5	ug/L			02/18/12 15:48	1
tert-Butylbenzene	ND		0.50	0.22	ug/L			02/18/12 15:48	1
Tetrachloroethene	ND		0.50	0.32	ug/L			02/18/12 15:48	1
Toluene	ND		0.50	0.36	ug/L			02/18/12 15:48	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			02/18/12 15:48	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			02/18/12 15:48	1
Trichloroethene	ND		0.50	0.26	ug/L			02/18/12 15:48	1
Trichlorofluoromethane	ND		1.0	0.34	ug/L			02/18/12 15:48	1
Vinyl chloride	ND		0.50	0.40	ug/L			02/18/12 15:48	1
2-Butanone (MEK)	ND		10	4.7	ug/L			02/18/12 15:48	1
2-Hexanone	ND		10	2.6	ug/L			02/18/12 15:48	1
Acetone	ND		10	4.5	ug/L			02/18/12 15:48	1
4-Methyl-2-pentanone (MIBK)	ND		10	3.5	ug/L			02/18/12 15:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5	0.50	ug/L			02/18/12 15:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*02/18/12 15:48*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*02/18/12 15:48*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*02/18/12 15:48*	*1*

Method: pCBSA - p-Chlorobenzenesulfonic Acid (HPLC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorobenzenesulfonic Acid	**75**		10	1.5	ug/L			02/22/12 10:17	1

Lab Chronicle

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1991-1

Client Sample ID: TB020712 — Lab Sample ID: 440-1991-1

Date Collected: 02/07/12 12:00 — **Matrix: Water**
Date Received: 02/08/12 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	8092	02/18/12 13:53	VH	TAL IRV

Client Sample ID: BF-29 — Lab Sample ID: 440-1991-2

Date Collected: 02/08/12 09:10 — **Matrix: Water**
Date Received: 02/08/12 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	8092	02/18/12 14:22	VH	TAL IRV
Total/NA	Analysis	pCBSA		1	1 mL	1.0 mL	8585	02/22/12 10:08	JM	TAL IRV

Client Sample ID: SWL0026 — Lab Sample ID: 440-1991-3

Date Collected: 02/07/12 13:10 — **Matrix: Water**
Date Received: 02/08/12 18:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	8092	02/18/12 15:48	VH	TAL IRV
Total/NA	Analysis	pCBSA		1	1 mL	1.0 mL	8585	02/22/12 10:17	JM	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-8092/4
Matrix: Water
Analysis Batch: 8092

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	ND		1.0	0.27	ug/L			02/18/12 12:22	1
1,1,1-Trichloroethane	ND		0.50	0.30	ug/L			02/18/12 12:22	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.30	ug/L			02/18/12 12:22	1
1,1,2-Trichloroethane	ND		0.50	0.30	ug/L			02/18/12 12:22	1
1,1-Dichloroethane	ND		0.50	0.40	ug/L			02/18/12 12:22	1
1,1-Dichloroethene	ND		0.50	0.42	ug/L			02/18/12 12:22	1
1,1-Dichloropropene	ND		0.50	0.28	ug/L			02/18/12 12:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.30	ug/L			02/18/12 12:22	1
1,2,3-Trichloropropane	ND		2.0	0.40	ug/L			02/18/12 12:22	1
1,2,4-Trichlorobenzene	ND		0.50	0.48	ug/L			02/18/12 12:22	1
1,2,4-Trimethylbenzene	ND		0.50	0.23	ug/L			02/18/12 12:22	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.97	ug/L			02/18/12 12:22	1
1,2-Dichlorobenzene	ND		0.50	0.32	ug/L			02/18/12 12:22	1
1,2-Dibromoethane (EDB)	ND		0.50	0.40	ug/L			02/18/12 12:22	1
1,2-Dichloroethane	ND		0.50	0.28	ug/L			02/18/12 12:22	1
1,2-Dichloropropane	ND		0.50	0.35	ug/L			02/18/12 12:22	1
1,3,5-Trimethylbenzene	ND		0.50	0.26	ug/L			02/18/12 12:22	1
1,3-Dichlorobenzene	ND		0.50	0.35	ug/L			02/18/12 12:22	1
1,3-Dichloropropane	ND		0.50	0.32	ug/L			02/18/12 12:22	1
1,4-Dichlorobenzene	ND		0.50	0.37	ug/L			02/18/12 12:22	1
2,2-Dichloropropane	ND		0.50	0.34	ug/L			02/18/12 12:22	1
2-Chlorotoluene	ND		0.50	0.28	ug/L			02/18/12 12:22	1
4-Chlorotoluene	ND		0.50	0.29	ug/L			02/18/12 12:22	1
4-Isopropyltoluene	ND		0.50	0.28	ug/L			02/18/12 12:22	1
Benzene	ND		0.50	0.28	ug/L			02/18/12 12:22	1
Bromobenzene	ND		0.50	0.27	ug/L			02/18/12 12:22	1
Bromochloromethane	ND		0.50	0.40	ug/L			02/18/12 12:22	1
Bromodichloromethane	ND		0.50	0.30	ug/L			02/18/12 12:22	1
Bromoform	ND		0.50	0.40	ug/L			02/18/12 12:22	1
Bromomethane	ND		1.0	0.42	ug/L			02/18/12 12:22	1
Carbon tetrachloride	ND		0.50	0.28	ug/L			02/18/12 12:22	1
Chlorobenzene	ND		0.50	0.36	ug/L			02/18/12 12:22	1
Chloroethane	ND		1.0	0.40	ug/L			02/18/12 12:22	1
Chloroform	ND		0.50	0.33	ug/L			02/18/12 12:22	1
Chloromethane	ND		1.0	0.40	ug/L			02/18/12 12:22	1
cis-1,2-Dichloroethene	ND		0.50	0.32	ug/L			02/18/12 12:22	1
cis-1,3-Dichloropropene	ND		0.50	0.22	ug/L			02/18/12 12:22	1
Dibromochloromethane	ND		0.50	0.40	ug/L			02/18/12 12:22	1
Ethyl-t-butyl ether (ETBE)	ND		0.50	0.28	ug/L			02/18/12 12:22	1
Dibromomethane	ND		0.50	0.36	ug/L			02/18/12 12:22	1
Dichlorodifluoromethane	ND		2.0	0.26	ug/L			02/18/12 12:22	1
Ethylbenzene	ND		0.50	0.25	ug/L			02/18/12 12:22	1
Hexachlorobutadiene	ND		1.0	0.38	ug/L			02/18/12 12:22	1
Isopropyl Ether (DIPE)	ND		0.50	0.25	ug/L			02/18/12 12:22	1
Isopropylbenzene	ND		0.50	0.25	ug/L			02/18/12 12:22	1
Carbon disulfide	ND		2.0	0.48	ug/L			02/18/12 12:22	1
m,p-Xylene	ND		1.0	0.60	ug/L			02/18/12 12:22	1
Methylene Chloride	ND		2.0	0.95	ug/L			02/18/12 12:22	1
Methyl-t-Butyl Ether (MTBE)	ND		0.50	0.32	ug/L			02/18/12 12:22	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-8092/4
Matrix: Water
Analysis Batch: 8092

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.50	0.41	ug/L			02/18/12 12:22	1
n-Butylbenzene	ND		0.50	0.37	ug/L			02/18/12 12:22	1
N-Propylbenzene	ND		0.50	0.27	ug/L			02/18/12 12:22	1
o-Xylene	ND		0.50	0.30	ug/L			02/18/12 12:22	1
sec-Butylbenzene	ND		0.50	0.25	ug/L			02/18/12 12:22	1
Styrene	ND		0.50	0.20	ug/L			02/18/12 12:22	1
Tert-amyl-methyl ether (TAME)	ND		0.50	0.33	ug/L			02/18/12 12:22	1
tert-Butyl alcohol (TBA)	ND		10	6.5	ug/L			02/18/12 12:22	1
tert-Butylbenzene	ND		0.50	0.22	ug/L			02/18/12 12:22	1
Tetrachloroethene	ND		0.50	0.32	ug/L			02/18/12 12:22	1
Toluene	ND		0.50	0.36	ug/L			02/18/12 12:22	1
trans-1,2-Dichloroethene	ND		0.50	0.30	ug/L			02/18/12 12:22	1
trans-1,3-Dichloropropene	ND		0.50	0.32	ug/L			02/18/12 12:22	1
Trichloroethene	ND		0.50	0.26	ug/L			02/18/12 12:22	1
Trichlorofluoromethane	ND		1.0	0.34	ug/L			02/18/12 12:22	1
Vinyl chloride	ND		0.50	0.40	ug/L			02/18/12 12:22	1
2-Butanone (MEK)	ND		10	4.7	ug/L			02/18/12 12:22	1
2-Hexanone	ND		10	2.6	ug/L			02/18/12 12:22	1
Acetone	ND		10	4.5	ug/L			02/18/12 12:22	1
4-Methyl-2-pentanone (MIBK)	ND		10	3.5	ug/L			02/18/12 12:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.5	0.50	ug/L			02/18/12 12:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*02/18/12 12:22*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*02/18/12 12:22*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*		*02/18/12 12:22*	*1*

Lab Sample ID: LCS 440-8092/5
Matrix: Water
Analysis Batch: 8092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	25.0	26.0		ug/L		104	70 - 130
1,1,1-Trichloroethane	25.0	24.5		ug/L		98	65 - 135
1,1,2,2-Tetrachloroethane	25.0	29.1		ug/L		116	55 - 130
1,1,2-Trichloroethane	25.0	25.6		ug/L		102	70 - 125
1,1-Dichloroethane	25.0	26.1		ug/L		104	70 - 125
1,1-Dichloroethene	25.0	23.8		ug/L		95	70 - 125
1,1-Dichloropropene	25.0	24.9		ug/L		100	75 - 130
1,2,3-Trichlorobenzene	25.0	25.4		ug/L		102	65 - 125
1,2,3-Trichloropropane	25.0	25.9		ug/L		104	60 - 130
1,2,4-Trichlorobenzene	25.0	26.9		ug/L		108	70 - 135
1,2,4-Trimethylbenzene	25.0	26.8		ug/L		107	75 - 125
1,2-Dibromo-3-Chloropropane	25.0	28.3		ug/L		113	50 - 135
1,2-Dichlorobenzene	25.0	28.9		ug/L		116	75 - 120
1,2-Dibromoethane (EDB)	25.0	25.8		ug/L		103	75 - 125
1,2-Dichloroethane	25.0	24.4		ug/L		98	60 - 140
1,2-Dichloropropane	25.0	26.3		ug/L		105	70 - 125
1,3,5-Trimethylbenzene	25.0	26.6		ug/L		106	75 - 125

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-8092/5
Matrix: Water
Analysis Batch: 8092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Dichlorobenzene	25.0	27.7		ug/L		111	75 - 120
1,3-Dichloropropane	25.0	25.9		ug/L		104	70 - 120
1,4-Dichlorobenzene	25.0	27.1		ug/L		108	75 - 120
2,2-Dichloropropane	25.0	25.6		ug/L		102	65 - 140
2-Chlorotoluene	25.0	27.4		ug/L		110	70 - 125
4-Chlorotoluene	25.0	27.5		ug/L		110	75 - 125
4-Isopropyltoluene	25.0	27.0		ug/L		108	75 - 125
Benzene	25.0	23.7		ug/L		95	70 - 120
Bromobenzene	25.0	27.0		ug/L		108	75 - 120
Bromochloromethane	25.0	25.3		ug/L		101	70 - 130
Bromodichloromethane	25.0	25.5		ug/L		102	70 - 135
Bromoform	25.0	25.2		ug/L		101	55 - 130
Bromomethane	25.0	22.5		ug/L		90	65 - 140
Carbon tetrachloride	25.0	23.6		ug/L		94	65 - 140
Chlorobenzene	25.0	25.1		ug/L		100	75 - 120
Chloroethane	25.0	23.5		ug/L		94	60 - 140
Chloroform	25.0	24.6		ug/L		98	70 - 130
Chloromethane	25.0	20.4		ug/L		82	50 - 140
cis-1,2-Dichloroethene	25.0	27.4		ug/L		110	70 - 125
cis-1,3-Dichloropropene	25.0	27.3		ug/L		109	75 - 125
Dibromochloromethane	25.0	26.7		ug/L		107	70 - 140
Ethyl-t-butyl ether (ETBE)	25.0	29.6		ug/L		118	65 - 135
Dibromomethane	25.0	25.2		ug/L		101	70 - 125
Dichlorodifluoromethane	25.0	15.4		ug/L		62	35 - 155
Ethylbenzene	25.0	25.8		ug/L		103	75 - 125
Hexachlorobutadiene	25.0	22.8		ug/L		91	65 - 135
Isopropyl Ether (DIPE)	25.0	30.3		ug/L		121	60 - 135
Isopropylbenzene	25.0	25.5		ug/L		102	75 - 130
Carbon disulfide	25.0	26.8		ug/L		107	50 - 130
m,p-Xylene	50.0	54.4		ug/L		109	75 - 125
Methylene Chloride	25.0	22.7		ug/L		91	55 - 130
Methyl-t-Butyl Ether (MTBE)	25.0	28.3		ug/L		113	60 - 135
Naphthalene	25.0	29.6		ug/L		118	55 - 135
n-Butylbenzene	25.0	25.3		ug/L		101	70 - 130
N-Propylbenzene	25.0	27.5		ug/L		110	75 - 130
o-Xylene	25.0	27.9		ug/L		112	75 - 125
sec-Butylbenzene	25.0	27.8		ug/L		111	70 - 125
Styrene	25.0	27.0		ug/L		108	75 - 130
Tert-amyl-methyl ether (TAME)	25.0	30.4		ug/L		122	60 - 135
tert-Butyl alcohol (TBA)	125	162		ug/L		130	70 - 135
tert-Butylbenzene	25.0	28.3		ug/L		113	70 - 125
Tetrachloroethene	25.0	24.4		ug/L		98	70 - 125
Toluene	25.0	25.7		ug/L		103	70 - 120
trans-1,2-Dichloroethene	25.0	24.7		ug/L		99	70 - 125
trans-1,3-Dichloropropene	25.0	28.1		ug/L		112	70 - 125
Trichloroethene	25.0	25.6		ug/L		102	70 - 125
Trichlorofluoromethane	25.0	23.2		ug/L		93	65 - 145
Vinyl chloride	25.0	22.0		ug/L		88	55 - 135
2-Butanone (MEK)	25.0	23.0		ug/L		92	40 - 140
2-Hexanone	25.0	28.7		ug/L		115	45 - 140

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-8092/5
Matrix: Water
Analysis Batch: 8092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	22.6		ug/L		90	30 - 140
4-Methyl-2-pentanone (MIBK)	25.0	28.1		ug/L		112	45 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: 440-1991-2 MS
Matrix: Water
Analysis Batch: 8092

Client Sample ID: BF-29
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	26.4		ug/L		106	65 - 140
1,1,1-Trichloroethane	ND		25.0	25.4		ug/L		102	65 - 140
1,1,2,2-Tetrachloroethane	ND		25.0	25.6		ug/L		102	55 - 135
1,1,2-Trichloroethane	ND		25.0	25.5		ug/L		102	65 - 130
1,1-Dichloroethane	ND		25.0	26.6		ug/L		106	65 - 130
1,1-Dichloroethene	ND		25.0	23.2		ug/L		93	60 - 130
1,1-Dichloropropene	ND		25.0	25.0		ug/L		100	70 - 135
1,2,3-Trichlorobenzene	ND		25.0	20.8		ug/L		83	60 - 135
1,2,3-Trichloropropane	ND		25.0	22.9		ug/L		92	55 - 135
1,2,4-Trichlorobenzene	ND		25.0	24.3		ug/L		97	65 - 135
1,2,4-Trimethylbenzene	0.26	J	25.0	24.3		ug/L		96	55 - 135
1,2-Dibromo-3-Chloropropane	ND		25.0	23.5		ug/L		94	45 - 145
1,2-Dichlorobenzene	ND		25.0	26.5		ug/L		106	75 - 125
1,2-Dibromoethane (EDB)	ND		25.0	26.0		ug/L		104	70 - 130
1,2-Dichloroethane	20		25.0	46.6		ug/L		106	60 - 140
1,2-Dichloropropane	ND		25.0	26.7		ug/L		107	65 - 130
1,3,5-Trimethylbenzene	ND		25.0	25.0		ug/L		100	70 - 130
1,3-Dichlorobenzene	ND		25.0	26.2		ug/L		105	75 - 125
1,3-Dichloropropane	ND		25.0	26.5		ug/L		106	65 - 135
1,4-Dichlorobenzene	1.3		25.0	27.1		ug/L		103	75 - 125
2,2-Dichloropropane	ND		25.0	25.8		ug/L		103	60 - 145
2-Chlorotoluene	ND		25.0	27.0		ug/L		108	65 - 135
4-Chlorotoluene	ND		25.0	26.6		ug/L		106	70 - 135
4-Isopropyltoluene	ND		25.0	26.1		ug/L		104	65 - 130
Benzene	0.73		25.0	24.6		ug/L		95	65 - 125
Bromobenzene	ND		25.0	26.0		ug/L		104	70 - 125
Bromochloromethane	ND		25.0	25.9		ug/L		104	65 - 135
Bromodichloromethane	ND		25.0	26.3		ug/L		105	70 - 135
Bromoform	ND		25.0	24.6		ug/L		98	55 - 135
Bromomethane	ND		25.0	21.0		ug/L		84	55 - 145
Carbon tetrachloride	ND		25.0	24.3		ug/L		97	65 - 140
Chlorobenzene	180		25.0	181	4	ug/L		-6	75 - 125
Chloroethane	ND		25.0	23.7		ug/L		95	55 - 140
Chloroform	ND		25.0	25.0		ug/L		100	65 - 135
Chloromethane	ND		25.0	19.7		ug/L		79	45 - 145
cis-1,2-Dichloroethene	ND		25.0	28.0		ug/L		112	65 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-1991-2 MS
Matrix: Water
Analysis Batch: 8092

Client Sample ID: BF-29
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	ND		25.0	27.4		ug/L		110	70 - 130
Dibromochloromethane	ND		25.0	27.0		ug/L		108	65 - 140
Ethyl-t-butyl ether (ETBE)	ND		25.0	26.5		ug/L		106	60 - 135
Dibromomethane	ND		25.0	25.8		ug/L		103	65 - 135
Dichlorodifluoromethane	ND		25.0	15.9		ug/L		64	25 - 155
Ethylbenzene	ND		25.0	26.5		ug/L		106	65 - 130
Hexachlorobutadiene	ND		25.0	20.7		ug/L		83	60 - 135
Isopropyl Ether (DIPE)	ND		25.0	27.5		ug/L		110	60 - 140
Isopropylbenzene	ND		25.0	24.9		ug/L		100	70 - 135
Carbon disulfide	ND		25.0	22.4		ug/L		90	40 - 140
m,p-Xylene	ND		50.0	54.7		ug/L		109	65 - 130
Methylene Chloride	ND		25.0	23.7		ug/L		95	50 - 135
Methyl-t-Butyl Ether (MTBE)	ND		25.0	25.0		ug/L		100	55 - 145
Naphthalene	ND		25.0	24.4		ug/L		98	50 - 140
n-Butylbenzene	ND		25.0	24.8		ug/L		99	65 - 135
N-Propylbenzene	ND		25.0	27.0		ug/L		108	70 - 135
o-Xylene	ND		25.0	28.1		ug/L		112	65 - 125
sec-Butylbenzene	ND		25.0	26.9		ug/L		108	70 - 125
Styrene	ND		25.0	23.9		ug/L		96	50 - 145
Tert-amyl-methyl ether (TAME)	ND		25.0	26.1		ug/L		104	60 - 140
tert-Butyl alcohol (TBA)	ND		125	131		ug/L		105	65 - 140
tert-Butylbenzene	ND		25.0	27.1		ug/L		108	65 - 130
Tetrachloroethene	ND		25.0	24.7		ug/L		99	65 - 130
Toluene	ND		25.0	25.9		ug/L		104	70 - 125
trans-1,2-Dichloroethene	ND		25.0	24.8		ug/L		99	65 - 130
trans-1,3-Dichloropropene	ND		25.0	28.8		ug/L		115	65 - 135
Trichloroethene	ND		25.0	25.3		ug/L		101	65 - 125
Trichlorofluoromethane	ND		25.0	23.5		ug/L		94	60 - 145
Vinyl chloride	ND		25.0	22.0		ug/L		88	45 - 140
2-Butanone (MEK)	ND		25.0	20.6		ug/L		82	30 - 145
2-Hexanone	ND		25.0	25.0		ug/L		100	25 - 140
Acetone	ND		25.0	17.9		ug/L		72	20 - 150
4-Methyl-2-pentanone (MIBK)	ND		25.0	26.2		ug/L		105	40 - 140

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Lab Sample ID: 440-1991-2 MSD
Matrix: Water
Analysis Batch: 8092

Client Sample ID: BF-29
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	ND		25.0	25.6		ug/L		102	65 - 140	3	20
1,1,1-Trichloroethane	ND		25.0	24.7		ug/L		99	65 - 140	3	20
1,1,2,2-Tetrachloroethane	ND		25.0	25.4		ug/L		102	55 - 135	1	30
1,1,2-Trichloroethane	ND		25.0	25.2		ug/L		101	65 - 130	1	25
1,1-Dichloroethane	ND		25.0	25.9		ug/L		104	65 - 130	3	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-1991-2 MSD
Matrix: Water
Analysis Batch: 8092

Client Sample ID: BF-29
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1-Dichloroethene	ND		25.0	22.4		ug/L		90	60 - 130	4	20
1,1-Dichloropropene	ND		25.0	24.4		ug/L		98	70 - 135	2	20
1,2,3-Trichlorobenzene	ND		25.0	20.6		ug/L		82	60 - 135	1	20
1,2,3-Trichloropropane	ND		25.0	23.0		ug/L		92	55 - 135	0	30
1,2,4-Trichlorobenzene	ND		25.0	23.4		ug/L		94	65 - 135	4	20
1,2,4-Trimethylbenzene	0.26	J	25.0	22.3		ug/L		88	55 - 135	9	25
1,2-Dibromo-3-Chloropropane	ND		25.0	22.7		ug/L		91	45 - 145	3	30
1,2-Dichlorobenzene	ND		25.0	26.3		ug/L		105	75 - 125	1	20
1,2-Dibromoethane (EDB)	ND		25.0	25.2		ug/L		101	70 - 130	3	25
1,2-Dichloroethane	20		25.0	43.0		ug/L		92	60 - 140	8	20
1,2-Dichloropropane	ND		25.0	26.1		ug/L		104	65 - 130	2	20
1,3,5-Trimethylbenzene	ND		25.0	23.9		ug/L		96	70 - 130	4	20
1,3-Dichlorobenzene	ND		25.0	25.9		ug/L		104	75 - 125	1	20
1,3-Dichloropropane	ND		25.0	25.7		ug/L		103	65 - 135	3	25
1,4-Dichlorobenzene	1.3		25.0	26.2		ug/L		100	75 - 125	3	20
2,2-Dichloropropane	ND		25.0	26.0		ug/L		104	60 - 145	1	25
2-Chlorotoluene	ND		25.0	26.4		ug/L		106	65 - 135	2	20
4-Chlorotoluene	ND		25.0	26.1		ug/L		104	70 - 135	2	20
4-Isopropyltoluene	ND		25.0	25.4		ug/L		102	65 - 130	3	20
Benzene	0.73		25.0	24.2		ug/L		94	65 - 125	2	20
Bromobenzene	ND		25.0	25.4		ug/L		102	70 - 125	2	20
Bromochloromethane	ND		25.0	24.6		ug/L		98	65 - 135	5	25
Bromodichloromethane	ND		25.0	25.2		ug/L		101	70 - 135	4	20
Bromoform	ND		25.0	24.3		ug/L		97	55 - 135	1	25
Bromomethane	ND		25.0	20.2		ug/L		81	55 - 145	4	25
Carbon tetrachloride	ND		25.0	23.9		ug/L		96	65 - 140	2	25
Chlorobenzene	180		25.0	178	4	ug/L		-16	75 - 125	1	20
Chloroethane	ND		25.0	23.0		ug/L		92	55 - 140	3	25
Chloroform	ND		25.0	24.2		ug/L		97	65 - 135	3	20
Chloromethane	ND		25.0	20.8		ug/L		83	45 - 145	5	25
cis-1,2-Dichloroethene	ND		25.0	27.3		ug/L		109	65 - 130	3	20
cis-1,3-Dichloropropene	ND		25.0	26.3		ug/L		105	70 - 130	4	20
Dibromochloromethane	ND		25.0	26.4		ug/L		106	65 - 140	2	25
Ethyl-t-butyl ether (ETBE)	ND		25.0	26.1		ug/L		104	60 - 135	2	25
Dibromomethane	ND		25.0	25.2		ug/L		101	65 - 135	2	25
Dichlorodifluoromethane	ND		25.0	15.3		ug/L		61	25 - 155	4	30
Ethylbenzene	ND		25.0	25.6		ug/L		102	65 - 130	3	20
Hexachlorobutadiene	ND		25.0	19.9		ug/L		80	60 - 135	4	20
Isopropyl Ether (DIPE)	ND		25.0	26.8		ug/L		107	60 - 140	3	25
Isopropylbenzene	ND		25.0	24.6		ug/L		98	70 - 135	1	20
Carbon disulfide	ND		25.0	21.0		ug/L		84	40 - 140	6	20
m,p-Xylene	ND		50.0	52.3		ug/L		105	65 - 130	4	25
Methylene Chloride	ND		25.0	22.9		ug/L		92	50 - 135	3	20
Methyl-t-Butyl Ether (MTBE)	ND		25.0	24.7		ug/L		99	55 - 145	1	25
Naphthalene	ND		25.0	23.6		ug/L		94	50 - 140	3	30
n-Butylbenzene	ND		25.0	24.2		ug/L		97	65 - 135	2	20
N-Propylbenzene	ND		25.0	26.7		ug/L		107	70 - 135	1	20
o-Xylene	ND		25.0	27.3		ug/L		109	65 - 125	3	20
sec-Butylbenzene	ND		25.0	26.4		ug/L		106	70 - 125	2	20
Styrene	ND		25.0	19.9		ug/L		80	50 - 145	18	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-1991-2 MSD — **Client Sample ID: BF-29**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8092

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Tert-amyl-methyl ether (TAME)	ND		25.0	25.5		ug/L		102	60 - 140	2	30
tert-Butyl alcohol (TBA)	ND		125	127		ug/L		101	65 - 140	3	25
tert-Butylbenzene	ND		25.0	27.0		ug/L		108	65 - 130	0	20
Tetrachloroethene	ND		25.0	23.9		ug/L		96	65 - 130	3	20
Toluene	ND		25.0	25.2		ug/L		101	70 - 125	3	20
trans-1,2-Dichloroethene	ND		25.0	24.0		ug/L		96	65 - 130	3	20
trans-1,3-Dichloropropene	ND		25.0	28.8		ug/L		115	65 - 135	0	25
Trichloroethene	ND		25.0	24.5		ug/L		98	65 - 125	3	20
Trichlorofluoromethane	ND		25.0	23.0		ug/L		92	60 - 145	2	25
Vinyl chloride	ND		25.0	22.0		ug/L		88	45 - 140	0	30
2-Butanone (MEK)	ND		25.0	21.8		ug/L		87	30 - 145	6	40
2-Hexanone	ND		25.0	25.2		ug/L		101	25 - 140	1	35
Acetone	ND		25.0	18.2		ug/L		73	20 - 150	2	35
4-Methyl-2-pentanone (MIBK)	ND		25.0	26.6		ug/L		106	40 - 140	2	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*108*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 120*

Method: pCBSA - p-Chlorobenzenesulfonic Acid (HPLC)

Lab Sample ID: MB 440-8585/17 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8585

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorobenzenesulfonic Acid	ND		10	1.5	ug/L			02/22/12 09:35	1

Lab Sample ID: LCS 440-8585/18 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8585

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorobenzenesulfonic Acid	990	984		ug/L		99	70 - 130

Lab Sample ID: 440-1991-2 MS — **Client Sample ID: BF-29**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8585

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorobenzenesulfonic Acid	5700		990	6720	F 4	ug/L		679	70 - 130

Lab Sample ID: 440-1991-2 MSD — **Client Sample ID: BF-29**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 8585

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Chlorobenzenesulfonic Acid	5700		990	6720	F 4	ug/L		678	70 - 130	NC	30

QC Association Summary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1991-1

GC/MS VOA

Analysis Batch: 8092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-1991-1	TB020712	Total/NA	Water	8260B	
440-1991-2	BF-29	Total/NA	Water	8260B	
440-1991-2 MS	BF-29	Total/NA	Water	8260B	
440-1991-2 MSD	BF-29	Total/NA	Water	8260B	
440-1991-3	SWL0026	Total/NA	Water	8260B	
LCS 440-8092/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-8092/4	Method Blank	Total/NA	Water	8260B	

HPLC/IC

Analysis Batch: 8585

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-1991-2	BF-29	Total/NA	Water	pCBSA	
440-1991-2 MS	BF-29	Total/NA	Water	pCBSA	
440-1991-2 MSD	BF-29	Total/NA	Water	pCBSA	
440-1991-3	SWL0026	Total/NA	Water	pCBSA	
LCS 440-8585/18	Lab Control Sample	Total/NA	Water	pCBSA	
MB 440-8585/17	Method Blank	Total/NA	Water	pCBSA	

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: AECOM, Inc.
Project/Site: Montrose - Torrance

TestAmerica Job ID: 440-1991-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Irvine	Arizona	State Program	9	AZ0671
TestAmerica Irvine	California	LA Cty Sanitation Districts	9	10256
TestAmerica Irvine	California	NELAC	9	1108CA
TestAmerica Irvine	California	State Program	9	2706
TestAmerica Irvine	Guam	State Program	9	Cert. No. 10.001r
TestAmerica Irvine	Hawaii	State Program	9	N/A
TestAmerica Irvine	Nevada	State Program	9	CA015312007A
TestAmerica Irvine	New Mexico	State Program	6	N/A
TestAmerica Irvine	Northern Mariana Islands	State Program	9	MP0002
TestAmerica Irvine	Oregon	NELAC	10	4005
TestAmerica Irvine	USDA	Federal		P330-09-00080

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013 (0911)

CHAIN OF CUSTODY FORM

17461 Derian Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303
6000 S. Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

440-1991

Client Name/Address: AECOM
3995 VIA ORO
LONG Beach, CA 90810

Project/PO Number: MONTROSE
60212541.03.01

Project Manager: BRIAN DEAN

Phone Number: 562-755-9046

Sampler: Katherine Carr-Gr

Fax Number:

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	8260B VOC	PCBs4 Mod. 3/4								Special Instructions
TB020712	H2O	VOA	3	2-7-12	1200	HCL	X									
BF-29	↑	VOA	3	2-8-12	0910	HCL	X									
BF-29	↓	poly	1	2-8-12	0910	None		X								
SWL0026	↓	poly	1	2-7-12	1310	None		X								
SWL0026	H2O	VOA	3	2-7-12	1310	HCL	X									

Relinquished By:	Date/Time:	Received By:	Date/Time:	Turnaround Time: (Check)
	2-8-12 1410		2-8-12 1410	same day ____ 72 hours ____
Relinquished By:	Date/Time:	Received By:	Date/Time:	24 hours ____ 5 days ____
	2-8-12 1830			48 hours ____ normal X
Relinquished By:	Date/Time:	Received in Lab By:	Date/Time:	Sample Integrity: (Check)
			2/8/12 1830	intact X on ice X

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

3.8

Login Sample Receipt Checklist

Client: AECOM, Inc.

Job Number: 440-1991-1

Login Number: 1991
List Number: 1
Creator: Nguyen, Tuan

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	Katherine Carr-Green
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX C

DATA QUALITY ASSESSMENT AND DATA VALIDATION REPORT

DATA QUALITY ASSESSMENT

This data quality assessment section discusses the quality and usability of the definitive-level analytical data for the groundwater samples collected during sampling conducted by AECOM from 24 January through 29 March 2012, with additional data from sampling performed by Avocet Environmental, Inc. on 20 March 2012.

Groundwater and associated field QC samples were analyzed for arsenic (total) by EPA Method SW6020, speciated arsenic as arsenic III and arsenic V by EPA Method 200.8, p-chlorobenzenesulfonic acid (pCBSA) by EPA Method 314.0, organochlorine pesticides by EPA Method SW8081A, and volatile organic compounds (VOCs) by EPA Method SW8260B. The analyses were performed by CalScience Environmental Laboratories, Inc., of Garden Grove, California (CELG), with the analyses for speciated arsenic by EPA Method 200.8 subcontracted to Weck Laboratories, Inc. of City of Industry, California (WECK); and split sample analyses and analyses of the two samples collected by Avocet Environmental, Inc. were performed by TestAmerica Laboratories, Inc., of Irvine, California (TAMI). Not all samples were analyzed for all methods. The analyses were performed in conformance with the requirements of *SW846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods* (EPA 1986 and Updates), *Methods for the Determination of Metals in Environmental Samples, Supplement 1* (EPA/600/R-94/111, 1994), and *Methods for the Determination of Inorganic Substances in Environmental Samples* EPA/600/R-93/100, 1993).

The analytical data were provided in U.S. EPA Level IV (Tier 3) format. Level IV data packages included the case narratives, completed Chain-of-Custody (COC) documentation, laboratory analysis results reporting forms, quality control (QC) summary forms, and the raw data generated from each analytical method performed, such as sample preparation sheets, instrument run logs, calibration data, chromatograms, and instrument generated quantitation reports.

Level III (Tier 2) validation was performed on 100% of the environmental samples collected for this data set, with Level IV (Tier 3) validation performed at a frequency greater than 10% for the samples and methods specified in Table C-1, below.

For the Level 3 validation, data were validated for all QC parameters specified in the methods, and qualifiers were applied to all associated samples, as applicable. For the Level 4 validation,

chromatograms and mass spectra were reviewed to confirm detections, and calculations were performed for chlorobenzene by EPA Method SW8260B, alpha-BHC by SW8081A, pCBSA by EPA Method W314.0, and arsenic III and arsenic V by EPA Method 200.8, with sample and QC results for arsenic (total) reported on summary forms confirmed from the raw data for EPA Method SW6020. Level IV validation was performed for each of the samples and methods specified for Level IV evaluation plus other samples in the associated batches, with calculations to verify initial calibrations, calibration verifications, reported concentrations, and percent recoveries and relative percent differences for all samples and associated batch QC, and to verify that appropriate quantitation and stoichiometric corrections were applied.

A total of 53 groundwater samples and 5 field duplicate samples with 14 associated equipment blanks and 4 trip blanks from Montrose Superfund Site were analyzed by CELG; and 2 groundwater samples and 5 split samples (inter-laboratory field duplicate samples) with 4 associated trip blanks were analyzed by TAMI. The analytical data consisted of 16 sample delivery groups (SDGs) from CELG and 5 SDGs from TAMI. The samples, matrices, and analytical parameters for which each sample was analyzed and the levels at which they were validated are identified in Table C-1:

Table C-1 Q1 2012 Groundwater Analytical Sample Summary

SDG	Lab ID	Field Sample ID	Matrix/ Sample Type	Date Sampled	SW8260B	SW8081A	SW6020	E200.8	E314.0
12-01-1418	01	TB012412	TB	1/24/2012	Y				
12-01-1418	02	EB012412	EB	1/24/2012	Y	Y			Y
12-01-1418	03	G-30 (01/24/2012)	GW	1/24/2012	Y[a,d]				Y
12-01-1418	04	BF-33 (01/24/2012)	GW	1/24/2012	Y				Y
12-01-1418	05	BF-31 (01/24/2012)	GW	1/24/2012	Y				Y
12-01-1418	06	**MW-6 (01/24/2012)**	GW	1/24/2012	**Y[b,d]**	**Y[b,d]**			
12-01-1418	07	**MW-600**	FD GW	1/24/2012	**Y[b,d]**	**Y[b,d]**			
12-01-1513	01	TB012512	TB	1/25/2012	Y				
12-01-1513	02	EB012512	EB	1/25/2012	Y				Y
12-01-1513	03	G-32 (01/25/2012)	GW	1/25/2012	Y				Y
12-01-1513	04	G-23 (01/25/2012)	GW	1/25/2012	Y				Y
12-01-1513	05	BF-36 (01/25/2012)	GW	1/25/2012	Y[a]				Y[a]
12-01-1513	06	BF-30 (01/25/2012)	GW	1/25/2012	Y				Y
12-01-1596	01	TB012612	TB	1/26/2012	Y				
12-01-1596	02	EB012612	EB	1/26/2012	Y				Y
12-01-1596	03	G-28 (01/26/2012)	GW	1/26/2012	Y				Y

SDG	Lab ID	Field Sample ID	Matrix/ Sample Type	Date Sampled	SW8260B	SW8081A	SW6020	E200.8	E314.0
12-01-1596	04	G-27 (01/26/2012)	GW	1/26/2012	Y[a]				Y[a]
12-01-1596	05	BF-27 (01/26/2012)	GW	1/26/2012	Y				Y
12-01-1596	06	BF-26 (01/26/2012)	GW	1/26/2012	Y				Y
12-01-1667	01	TB012712	TB	1/27/2012	Y				
12-01-1667	02	EB012712	EB	1/27/2012	Y				Y[d]
12-01-1667	03	BF-28 (01/27/2012)	GW	1/27/2012	Y[a,d]				Y[d]
12-01-1667	**04**	**G-22 (01/27/2012)**	**GW**	**1/27/2012**	**Y[d]**				**Y[d]**
12-01-1667	05	G-25 (01/27/2012)	GW	1/27/2012	Y[a,d]				Y[d]
12-01-1748	01	TB013012	TB	1/30/2012	Y				Y
12-01-1748	02	EB013012	EB	1/30/2012	Y	Y	Y	Y[d]	
12-01-1748	03	G-35 (01/30/2012)	GW	1/30/2012	Y[a,d]				Y[a]
12-01-1748	04	G-31 (01/30/2012)	GW	1/30/2012	Y				Y
12-01-1748	05	G-OW-3 (01/30/2012)	GW	1/30/2012		Y			
12-01-1748	**06**	**BF-OW-3**	**GW**	**1/30/2012**	**Y[b,d]**		**Y[b,d]**	**Y[b,d]**	
12-01-1748	**07**	**BF-OW-300**	**FD GW**	**1/30/2012**	**Y[b,d]**		**Y[b,d]**	**Y[b,d]**	
12-01-1815	01	TB013112	TB	1/31/2012	Y				
12-01-1815	**02**	**G-26 (01/31/2012)**	**GW**	**1/31/2012**	**Y[a,d]**				**Y[d]**
12-01-1815	03	G-24 (01/31/2012)	GW	1/31/2012	Y[b,d]				Y[b,d]
12-01-1815	04	G-2400 (01/31/2012)	FD GW	1/31/2012	Y[b,d]				Y[b,d]
12-01-1815	05	EB013112	EB	1/31/2012		Y			
12-01-1815	06	G-13 (01/31/2012)	GW	1/31/2012		Y			
12-01-1815	07	BF-15 (01/31/2012)	GW	1/31/2012	Y[c]	Y[c]			
12-02-0067	01	TB020112	TB	2/1/2012	Y				
12-02-0067	02	EB020112	EB	2/1/2012	Y				Y
12-02-0067	03	G-33 (02/01/2012)	GW	2/1/2012	Y[a]				Y
12-02-0067	04	G-09 (02/01/2012)	GW	2/1/2012	Y[c]				Y[c]
12-02-0067	05	EB020112P	EB	2/1/2012		Y			
12-02-0067	06	G-06 (02/01/2012)	GW	2/1/2012	Y[b]	Y[b]			
12-02-0067	07	G-0600 (02/01/2012)	FD GW	2/1/2012	Y[b]	Y[b]			
12-02-0067	08	SWL0033	GW	2/1/2012	Y				
12-02-0169	01	TB020212	TB	2/2/2012	Y				
12-02-0169	02	EB020212	EB	2/2/2012		Y	Y	Y	
12-02-0169	03	EB020212V	EB	2/2/2012	Y				Y
12-02-0169	04	G-18 (02/02/2012)	GW	2/2/2012	Y[a]				Y[a]
12-02-0169	05	MW-13 (02/02/2012)	GW	2/2/2012	Y	Y	Y[a]	Y	
12-02-0169	06	BF-6 (02/02/2012)	GW	2/2/2012	Y	Y			
12-02-0169	07	MW-1 (02/02/2012)	GW	2/2/2012	Y	Y	Y	Y	
12-02-0275	01	TB020312	TB	2/3/2012	Y				
12-02-0275	02	EB020312	EB	2/3/2012	Y				Y

SDG	Lab ID	Field Sample ID	Matrix/ Sample Type	Date Sampled	SW8260B	SW8081A	SW6020	E200.8	E314.0
12-02-0275	03	G-29 (02/03/2012)	GW	2/3/2012	Y[a]				Y[a]
12-02-0275	04	G-34 (02/03/2012)	GW	2/3/2012	Y				Y
12-02-0378	01	TB020612	TB	2/6/2012	Y				
12-02-0378	02	G-EW-2 (02/06/2012)	GW	2/6/2012	Y[a,c]				
12-02-0378	03	EB020612	EB	2/6/2012		Y	Y	Y	
12-02-0378	04	MBFB-EW-1	GW	2/6/2012	Y[a]	Y	Y	Y	
12-02-0447	01	TB020712	TB	2/7/2012	Y				
12-02-0447	02	EB020712	EB	2/7/2012		Y			
12-02-0447	03	SWL0026	GW	2/7/2012	Y[a,c,d]				Y[a,c]
12-02-0447	**04**	**BF-11 (02/07/2012)**	**GW**	**2/7/2012**	**Y[d]**	**Y[d]**			
12-02-0447	05	BF-EW-1	GW	2/7/2012	Y[d]	Y[d]			
12-02-0447	06	BF-2 (02/07/2012)	GW	2/7/2012	Y[d]	Y			
12-02-0533	01	TB020812	TB	2/8/2012	Y				
12-02-0533	02	BF-25 (02/08/2012)	GW	2/8/2012	Y[a]				Y
12-02-0533	03	BF-29 (02/08/2012)	GW	2/8/2012	Y[c]				Y[c]
12-02-0533	04	BF-12 (02/08/2012)	GW	2/8/2012	Y				Y
12-02-0533	05	BF-22 (02/08/2012)	GW	2/8/2012	Y[b]				Y[b]
12-02-0533	06	BF-2200	FD GW	2/8/2012	Y[b]				Y[b]
12-03-1385	01	CMW001	GW	3/20/2012					Y[a]
12-03-1385	02	CMW002	GW	3/20/2012					Y
12-03-1751	01	TB032612	TB	3/26/2012	Y				
12-03-1751	02	BF-EW-1	GW	3/26/2012	Y[a]				
12-03-1751	03	BF-EW-2	GW	3/26/2012			Y[a]	Y[a]	
12-03-1828	01	TB032712	TB	3/27/2012	Y				
12-03-1828	02	EB032712	EB	3/27/2012	Y				Y[a]
12-03-1828	03	SWL0026	GW	3/27/2012	Y[a]				Y
12-03-1828	04	G-09 (03/27/2012)	GW	3/27/2012	Y[a]				Y
12-03-1828	05	BF-12 (03/27/2012)	GW	3/27/2012	Y				Y
12-03-1906	01	TB032812	TB	3/28/2012	Y				
12-03-1906	02	G-06 (03/28/2012)	GW	3/28/2012	Y[a]				
440-1120	01	TB013112 a	TB	1/31/2012	Y				
440-1120	02	BF-15 (01/31/2012)	FDS GW	1/31/2012	Y[c]	Y[c]			
440-1122	01	TB020112 a	TB	2/1/2012	Y				
440-1122	02	G-09 (02/01/2012) cf	FDS GW	2/1/2012	Y[c]				Y[c]
440-1771	01	TB020612	TB	2/6/2012	Y				
440-1771	02	G-EW-2 (02/06/2012)	FDS GW	2/6/2012	Y[c]				
440-1991	01	TB020712 a	TB	2/7/2012	Y				
440-1991	02	BF-29 (02/08/2012)	FDS GW	2/8/2012	Y[a,c]				Y[a,c]
440-1991	03	SWL0026	FDS GW	2/7/2012	Y[c]				Y[c]

SDG	Lab ID	Field Sample ID	Matrix/ Sample Type	Date Sampled	SW8260B	SW8081A	SW6020	E200.8	E314.0
440-5987	01	CMW001_WG20120	GW	3/20/2012	Y				
440-5987	02	CMW002_WG20120	GW	3/20/2012	Y				

Analytical Parameters by Method (Y = Yes, analysis by this method was requested and performed):
SW8260B = VOCs by gas chromatography/mass spectrometry (GC/MS)
SW8081A = Organochlorine Pesticides by Gas Chromatography (GC)
SW6020 = Total arsenic by inductively coupled plasma mass spectrometry (ICP-MS)
E200.8 = Arsenic III and arsenic IV by ion exchange separation and ICP-MS
E314.0 = pCBSA by ion chromatography (IC)
(a) Matrix spike/matrix spike duplicate analyses performed on this sample.
(b) Field duplicate groundwater sample pair.
(c) Field duplicate groundwater split sample pair.
(d) Level IV validation performed on calibration and batch QC samples
(requested Level 4 samples and methods in bold).
FD = field duplicate groundwater sample
FDS = field duplicate groundwater split sample

The laboratory data for the definitive-level samples were reviewed for conformance with the requirements of the specified analytical methods in *SW846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods* (EPA 1986 and Updates), *Methods for the Determination of Metals in Environmental Samples, Supplement 1* (EPA/600/R-94/111, 1994), and *Methods for the Determination of Inorganic Substances in Environmental Samples* EPA/600/R-93/100, 1993). Data were validated and qualified using the *Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (EPA, 2008) and *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (EPA, 2004) (NFGs), as applicable to the methods used for this project. The reviewer's professional judgment was used to evaluate data quality when called for in the Functional Guidelines. The data validation process was performed by the AECOM chemist in Oakland, California.

Data validation is a systematic process of reviewing and qualifying the analytical data presented against an established set of criteria. Validation is performed to ensure the quality of collected data and to assess limitations on usability, as well as to evaluate laboratory compliance with specified methods and protocols. The following documentation and criteria were evaluated.

Organic Analyses

- Case Narratives
- Data Summary Sheets

- Sample Custody
- Holding Times
- Initial and Continuing Calibrations
- Method Blanks
- Surrogate Recoveries for System Monitoring Compounds (as applicable to the methods)
- Laboratory Control Sample (LCS) and LCS Duplicate (LCSD) Recoveries and Relative Percent Differences (RPDs)
- Matrix Spike/Matrix Spike Duplicates (MS/MSD) Recoveries and RPDs
- Internal Standard Areas (as applicable to the methods)
- Target Compound Identification and Quantitation (Level IV)
- Method Detection Limits (MDL) and Reporting Limits (RL)
- Sample Chromatograms (Level IV)
- Instrument Run Logs
- Sample Preparation Sheets
- Field Duplicate and Split Samples

Data validation qualifiers were assigned by the data validator to all definitive-level data that failed to meet specified analytical and QC criteria according to requirements specified in the QAPP and the Functional Guidelines. Instances where specified criteria were not met are discussed in the Data Validation Report (DVR).

Data qualified with the “R” qualifier are considered rejected and unusable. Data qualified with the “J” or “UJ” qualifiers are considered estimated and usable within the constraints of the final data usability assessment. No data were blank-qualified with the "U" qualifier as considered non-detected at the reported value and usable to demonstrate the analyte is not present above the reported concentration. The qualifiers used to flag validated and verified analytical data are summarized below. The validation qualifiers are:

J	The analyte was reported as detected by the laboratory; the result is an estimate due to QC parameter exceeding specified control limits.
UJ	The analyte was reported as ND by the laboratory, the result is an estimate due to QC parameter exceeding specified control limits.
U (detected, but blank-qualified)	The analyte was tested for and detected above the MDL, but is considered non-detected (ND) at the reported value due to detection in an associated blank at a level greater than one-fifth the reported concentration in the sample.
R (unusable)	The result is rejected due to QC failure or data quality limitations. The presence or absence of the analyte in the sample cannot be verified, or the reported result is so severely compromised as to be unusable.

Note that for each sample, one analytical result was determined to be most appropriate for reporting purposes for each analyte by the laboratory according to dilution. These results were validated and qualifiers applied, as specified in the DVR. These results have been used for project reporting purposes and are provided in the sample results tables in Appendix B.

A technical completeness of 99.9 percent for the data was achieved for this project. Seven results (approximately 0.11 percent of the data) were qualified as rejected (R), none of the data were blank-qualified as non-detected (U), and 1.6 percent of the data were qualified as estimated (J/UJ) in data validation for exceeding quality assurance objectives (QAOs) specified for precision, accuracy, representativeness, comparability, and completeness (PARCC) in the QAPP. Of the 1.7 percent that were qualified as estimated or rejected, 0.4 percent were due to matrix-related issues and 1.3 percent were due to exceeded laboratory accuracy and precision criteria.

Results from CELG and WECK were reported to the RL. TAMI reported trace results that were detected at less than the RL but greater than the MDL. Such results were reported by the laboratory with the “J” laboratory qualifier, which appears in the “Results” column of the results tables. Six sample results (approximately 0.1 percent of the data) were qualified with this laboratory qualifier. These results may be quantitatively and qualitatively uncertain due to uncertainty near the limits of detection. No additional validation qualifiers are assigned as these data do not indicate analytical problems, do not affect the PARCC objectives, and are not included in calculation of qualification percentages for PARCC parameters.

All data validation qualifiers were reviewed with respect to usability for project objectives. Results qualified with the “R” qualifier are considered rejected and unusable for project decision-making

purposes. All of the estimated data were determined to be usable and to meet project objectives. Data quality, data usability, completeness, and PARCC assessment for each method are summarized in the following sections.

1.1 DATA QUALITY ASSESSMENT FOR VOCS—SW8260B

A total of 48 groundwater samples, 5 field duplicate samples, 5 split samples, 9 equipment blanks, and 19 trip blanks were analyzed by EPA Method SW8260B for VOCs. In data validation, 3 sample results (approximately 0.05 percent of the SW8260B data) were qualified as rejected (R), none of the SW8260B data were blank-qualified as non-detected (U), and 1.5 percent of the SW8260B data were qualified as estimated (J/UJ). Of the 0.05 percent of the SW8260B data qualified as rejected, all were due to exceeded laboratory accuracy criteria. Of the 1.5 percent of the SW8260B data qualified as estimated, approximately 0.1 percent were matrix-related and 1.4 percent were due to exceeded laboratory accuracy and precision criteria.

1.1.1 DATA USABILITY ASSESSMENT OF QUALIFIED DATA FOR EPA METHOD SW8260B—VOCS

All sample analyses were performed within the 14-day technical holding time.

Three non-detected sample results (approximately 0.05 percent of the SW8260B data) were qualified as rejected and assigned the “UR” qualifiers and approximately 1.3 percent of the SW8260B data were qualified as estimated and assigned the “J” or “UJ” qualifiers in data validation due to calibration verification standards that exceeded 25%D. Refer to the DVR for specific information on calibration verification standards for specific sample results. Note that %Ds were generally high bias (negative %D) for non-detects or not significantly greater than the 25%D criterion; therefore, the effect on the quality of the data is not expected to be significant. The rejected results for bromomethane in samples BF-11, BF-EW-1, and SWL0026 are considered unusable for decision-making purposes. Although quantitatively uncertain, the estimated results are considered usable for decision-making purposes.

None of the SW8260B data were blank-qualified as non-detected (U) at the reported concentration. Note that the 4.9 µg/L trace detection (result detected between the RL and MDL) of the common laboratory contaminant acetone in sample G-09 (440-5162), although not detected in any of the associated blanks, may be a laboratory artifact and should be considered to be a potential false positive or biased high.

All surrogate recoveries were within specified control limits.

All internal standard areas were within specified control limits.

All LCS and LCSD recoveries and RPDs between LCS/LCSD results were within specified control limits.

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on parent field samples at a frequency of 32.8 percent, exceeding the minimum requirement of 1:20 samples. Five sample results (less than 0.1 percent of the SW8260B data) were qualified as estimated (J) and no data were qualified as rejected due to MS/MSD recoveries not within specified criteria (1,2-dichloroethane in sample G-35, chlorobenzene in sample G-18, ethyl tert-butyl ether [ETBE] and tert-amyl methyl ether [TAME] in sample G-06, and TAME in sample G-09). Results for MS/MSD outliers are qualified in the parent samples only, as it is not possible to determine if other samples are of a similar matrix as demonstrated by acceptable recoveries in other MS/MSD samples. Refer to the DVR for specific information on MS/MSD outliers for specific samples. As LCS, LCSD, and other QC parameters were acceptable, the MS/MSD outliers are attributed to matrix effects. The qualifications are not expected to significantly affect project objectives.

For this method, field duplicate samples were collected and analyzed at a frequency of 10.4 percent and split samples were collected and analyzed at a frequency of 10.4 percent. The guideline for relative percent difference (RPD) between sample and field duplicate or split sample results is 30 RPD. The RPD value is not defined and cannot be calculated for field duplicate pairs for which one or both results are below RLs. For values less than five-times the RL, RPDs are not used for evaluation. In these cases, the 30 RPD guideline may not be appropriate, and results within ±RL for waters are considered acceptable. Two results (approximately 0.03 percent of the SW8260B data) were qualified as estimated (J) due to field duplicate results exceeding specified criteria (total xylenes in samples MW-6 and MW-600). No data were qualified due to split sample results. Results for field duplicate or split sample outliers are qualified in the field duplicate or split samples only, as it is not possible to determine if other samples are of a similar matrix, as demonstrated by acceptable field precision in other field duplicate and split samples. Refer to the DVR for specific information on field duplicate outliers for specific samples.

Results from CELG were reported to the RL. TAMI reported results that were detected at less than the RL but greater than the MDL. Such results were reported by the laboratory with the “J” laboratory qualifier, which appears in the “Results” column of the results tables. Six sample results (approximately

0.1 percent of the SW8260B data) were qualified with this laboratory qualifier. These results may be quantitatively and qualitatively uncertain due to uncertainty near the limits of detection. No additional validation qualifiers were assigned as these results are not representative of QA/QC problems.

With the exception of the rejected results for bromomethane in samples BF-11, BF-EW-1, and SWL0026, all qualified data were determined to be usable for decision-making in data assessment. The data are considered usable for the purposes of determining VOC groundwater contamination and delineation. PARCC for EPA Method SW8260B is discussed in Section 1.6.

1.1.2 COMPLETENESS FOR EPA METHOD SW8260B—VOCS

Results flagged with the "R" qualifier are not considered valid results with respect to completeness. The completeness for EPA Method SW8260B for this project is 99.95 percent.

Completeness for all EPA Method EPA Method SW8260B analytes is acceptable for this project. The data validation and data usability assessment results indicate the overall acceptable quality of the definitive-level data for EPA Method SW8260B collected for this project. With the exception of the rejected results for bromomethane in three samples, the data meet project objectives and can be used within the constraints of specified qualifiers for decision-making purposes.

1.2 DATA QUALITY ASSESSMENT FOR PESTICIDES—SW8081A

A total of 12 groundwater samples, 2 field duplicate samples, 1 split sample, and 7 equipment blanks were analyzed by EPA Method SW8081A for pesticides. In data validation, 4 sample results (approximately 0.8 percent of the SW8081A data) were qualified as rejected (R), none of the SW8081A data were blank-qualified as non-detected (U), and 3.0 percent of the SW8081A data were qualified as estimated (J/UJ). Of the 0.8 percent of the SW8081A data qualified as rejected, all were due to exceeded laboratory accuracy criteria. Of the 3.0 percent of the SW8081A data qualified as estimated, approximately 2.8 percent were matrix-related and 0.2 percent were due to exceeded laboratory accuracy and precision criteria.

1.2.1 DATA USABILITY ASSESSMENT OF QUALIFIED DATA FOR EPA METHOD SW8081A—PESTICIDES

All sample analyses were performed within the 7 days (water) until extraction and 40 days after extraction technical holding times.

Four non-detected sample results (approximately 0.8 percent of the SW8081A data) were qualified as rejected and assigned the "UR" qualifiers due to lack of an associated CCV and one result (approximately 0.2 percent of the SW8081A data) was qualified as estimated and assigned the "J" qualifier in data validation due to a calibration verification standard that marginally exceeded 15%D. Refer to the DVR for specific information on calibration verification standards for specific sample results. The rejected results for chlordane (non-specific) and toxaphene in samples BF-2 and BF-15 are considered unusable for decision-making purposes. Although quantitatively uncertain, the estimated result for 4,4'-DDE in sample BF-15 is considered usable for decision-making purposes.

None of the SW8081A data were blank-qualified as non-detected (U) at the reported concentration.

Six sample results (approximately 1.2 percent of the SW8081A data) qualified as estimated and assigned the "J" qualifier in data validation due to high surrogate recoveries. The detected results for alpha-BHC, beta-BHC, and delta-BHC in the 50-times dilution analysis of sample MW-1 and the detected results for 2,4'-DDE, 2,4'-DDT, and 4,4'DDE in the 5-times dilution analysis of sample BF-2 were qualified as estimated (J) for high recoveries of one of the two surrogates reported for this method. As LCS, LCSD, and other QC parameters were acceptable for this analytical batch were acceptable, matrix interference is indicated. The results may be biased high, but are usable to indicate elevated levels of these compounds in these samples.

All LCS and LCSD recoveries and RPDs between LCS/LCSD results were within specified control limits.

No matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on project field samples for this method.

For this method, field duplicate samples were collected and analyzed at a frequency of 16.7 percent and split samples were collected and analyzed at a frequency of 8.3 percent. The guideline for relative percent difference (RPD) between sample and field duplicate or split sample results is 30 RPD. The RPD

value is not defined and cannot be calculated for field duplicate pairs for which one or both results are below RLs. For values less than five-times the RL, RPDs are not used for evaluation. In these cases, the 30 RPD guideline may not be appropriate, and results within ±RL for waters are considered acceptable. Eight results (approximately 1.6 percent of the SW8081A data) were qualified as estimated (J/UJ) due to split sample results exceeding specified criteria (alpha-BHC, beta-BHC, delta-BHC, and gamma-BHC in samples BF-15 and BF-15 cf). No data were qualified due to field duplicate sample results. Results for field duplicate or split sample outliers are qualified in the field duplicate or split samples only, as it is not possible to determine if other samples are of a similar matrix, as demonstrated by acceptable field precision in other field duplicate and split samples. Refer to the DVR for specific information on field duplicate outliers for specific samples.

Results from CELG were reported to the RL. TAMI reported results that were detected at less than the RL but greater than the MDL; however, there were no such results reported by the laboratory for this method.

With the exception of the rejected results for chlordane (non-specific) and toxaphene in samples BF-2 and BF-15, all qualified data were determined to be usable for decision-making in data assessment. The data are considered usable for the purposes of determining pesticide groundwater contamination and delineation. PARCC for EPA Method SW8081A is discussed in Section 1.6.

1.2.2 COMPLETENESS FOR EPA METHOD SW8081A—PESTICIDES

Results flagged with the “R” qualifier are not considered valid results with respect to completeness. The completeness for EPA Method SW8081A for this project is 99.2 percent.

Completeness for all EPA Method EPA Method SW8081A analytes is acceptable for this project. The data validation and data usability assessment results indicate the overall acceptable quality of the definitive-level data for EPA Method SW8081A collected for this project. With the exception of the rejected results for chlordane (non-specific) and toxaphene in two samples, the data meet project objectives and can be used within the constraints of specified qualifiers for decision-making purposes.

1.3 DATA QUALITY ASSESSMENT FOR TOTAL ARSENIC—SW6020

A total of 5 groundwater samples, 1 field duplicate sample, and 3 equipment blanks were analyzed by EPA Method SW6020 for total arsenic. In data validation, none of the SW6020 data were qualified as rejected (R), none of the SW6020 data were blank-qualified as non-detected (U), and none of the SW6020 data were qualified as estimated (J/UJ). All of the data met laboratory accuracy and precision criteria.

1.3.1 DATA USABILITY ASSESSMENT OF QUALIFIED DATA FOR EPA METHOD SW6020—TOTAL ARSENIC

All sample analyses were performed within the 180 day technical holding time.

All of the data met initial calibration and calibration verification criteria.

None of the SW6020 data were blank-qualified as non-detected (U) at the reported concentration.

All LCS and LCSD recoveries and RPDs between LCS/LCSD results were within specified control limits.

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on parent field samples at a frequency of 33.3 percent, exceeding the minimum requirement of 1:20 samples. All MS and MSD recoveries and RPDs between MS/MSD results were within specified control limits.

For this method, field duplicate samples were collected and analyzed at a frequency of 20.0 percent. No split samples were collected and analyzed for this method, although speciated arsenic analyses were performed by WECK. The guideline for relative percent difference (RPD) between sample and field duplicate or split sample results is 30 RPD. The RPD value is not defined and cannot be calculated for field duplicate pairs for which one or both results are below RLs. For values less than five-times the RL, RPDs are not used for evaluation. In these cases, the 30 RPD guideline may not be appropriate, and results within ±RL for waters are considered acceptable. The field duplicate results met the specified criteria. No data were qualified due to field duplicate results.

Note that for the total arsenic and speciated arsenic analyses, the total of the speciated results were very close to the total arsenic results for samples BF-OW3 and BF-OW300 and met field precision criteria; however, the 8.5 µg/L for arsenic III and the 19 µg/L result for arsenic V are approximately three-times

the 8.92 µg/L for total arsenic in sample BF-EW-2. As there are no criteria for comparing results for these analyses, no qualifiers were applied in data validation. The cause for the differences is not known and may be due to matrix effects.

Results from CELG were reported to the RL. No results were reported at less than the RL but greater than the MDL for this method.

All of the data were determined to be usable for decision-making in data assessment. The data are considered usable for the purposes of determining total arsenic groundwater contamination and delineation. PARCC for EPA Method SW6020 is discussed in Section 1.6.

1.3.2 COMPLETENESS FOR EPA METHOD SW6020—TOTAL ARSENIC

Results flagged with the "R" qualifier are not considered valid results with respect to completeness. The completeness for EPA Method SW6020 for this project is 100 percent.

Completeness for all EPA Method EPA Method SW6020 analytes is acceptable for this project. The data validation and data usability assessment results indicate the overall acceptable quality of the definitive-level data for EPA Method SW6020 collected for this project. The data meet project objectives and can be used for decision-making purposes.

1.4 DATA QUALITY ASSESSMENT FOR SPECIATED ARSENIC—E200.8

A total of 5 groundwater samples, 1 field duplicate sample, and 3 equipment blanks were analyzed by EPA Method E200.8 for speciated arsenic (arsenic III and arsenic IV). In data validation, none of the E200.8 data were qualified as rejected (R), none of the E200.8 data were blank-qualified as non-detected (U), and none of the E200.8 data were qualified as estimated (J/UJ). All of the data met laboratory accuracy and precision criteria.

1.4.1 DATA USABILITY ASSESSMENT OF QUALIFIED DATA FOR EPA METHOD E200.8—SPECIATED ARSENIC

All sample analyses were performed within the 90 day analytical holding time.

All of the data met initial calibration and calibration verification criteria.

None of the E200.8 data were blank-qualified as non-detected (U) at the reported concentration.

All LCS and LCSD recoveries and RPDs between LCS/LCSD results were within specified control limits.

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on parent field samples at a frequency of 16.7 percent, exceeding the minimum requirement of 1:20 samples. All MS and MSD recoveries and RPDs between MS/MSD results were within specified control limits.

For this method, field duplicate samples were collected and analyzed at a frequency of 20.0 percent. No split samples were collected and analyzed for this method, although speciated arsenic analyses were performed by WECK. The guideline for relative percent difference (RPD) between sample and field duplicate or split sample results is 30 RPD. The RPD value is not defined and cannot be calculated for field duplicate pairs for which one or both results are below RLs. For values less than five-times the RL, RPDs are not used for evaluation. In these cases, the 30 RPD guideline may not be appropriate, and results within ±RL for waters are considered acceptable. The field duplicate results met the specified criteria. No data were qualified due to field duplicate results.

Note that for the total arsenic and speciated arsenic analyses, the total of the speciated results were very close to the total arsenic results for samples BF-OW3 and BF-OW300 and met field precision criteria; however, the 8.5 µg/L for arsenic III and the 19 µg/L result for arsenic V are approximately three-times the 8.92 µg/L for total arsenic in sample BF-EW-2. As there are no criteria for comparing results for these analyses, no qualifiers were applied in data validation. The cause for the differences is not known and may be due to matrix effects.

Results from WECK were reported to the RL. No results were reported at less than the RL but greater than the MDL for this method.

All of the data were determined to be usable for decision-making in data assessment. The data are considered usable for the purposes of determining speciated arsenic groundwater contamination and delineation. PARCC for EPA Method E200.8 is discussed in Section 1.6.

1.4.2 COMPLETENESS FOR EPA METHOD E200.8—SPECIATED ARSENIC

Results flagged with the "R" qualifier are not considered valid results with respect to completeness. The completeness for EPA Method E200.8 for this project is 100 percent.

Completeness for all EPA Method EPA Method E200.8 analytes is acceptable for this project. The data validation and data usability assessment results indicate the overall acceptable quality of the definitive-level data for EPA Method E200.8 collected for this project. The data meet project objectives and can be used for decision-making purposes.

1.5 DATA QUALITY ASSESSMENT FOR PCBSA—E314.0

A total of 34 groundwater samples, 2 field duplicate samples, 3 split samples, and 9 equipment blanks were analyzed by EPA Method E314.0 for pCBSA. In data validation, none of the E314.0 data were qualified as rejected (R), none of the E314.0 data were blank-qualified as non-detected (U), and approximately 8.3 percent of the E314.0 data were qualified as estimated (J/UJ). Of the 8.3 percent of the E314.0 data qualified as estimated, all were matrix-related and none were due to exceeded laboratory accuracy and precision criteria.

1.5.1 DATA USABILITY ASSESSMENT OF QUALIFIED DATA FOR EPA METHOD E314.0—PCBSA

All sample analyses were performed within the 14 day technical holding time.

All of the data met initial calibration and calibration verification criteria.

None of the E314.0 data were blank-qualified as non-detected (U) at the reported concentration.

All LCS and LCSD recoveries and RPDs between LCS/LCSD results were within specified control limits.

Matrix spike/matrix spike duplicate (MS/MSD) analyses were performed on parent field samples at a frequency of 23.1 percent, exceeding the minimum requirement of 1:20 samples. Two sample results (approximately 4.2 percent of the E314.0 data) were qualified as estimated (J) and no data were qualified as rejected due to MS/MSD recoveries not within specified criteria (pCBSA in samples MW-33 and MW-35). Results for MS/MSD outliers are qualified in the parent samples only, as it is not possible to

determine if other samples are of a similar matrix as demonstrated by acceptable recoveries in other MS/MSD samples. Refer to the DVR for specific information on MS/MSD outliers for specific samples. The qualifications are not expected to significantly affect project objectives.

For this method, field duplicate samples were collected and analyzed at a frequency of 5.9 percent and split samples were collected and analyzed at a frequency of 8.8 percent (14.7 percent overall). The guideline for relative percent difference (RPD) between sample and field duplicate or split sample results is 30 RPD. The RPD value is not defined and cannot be calculated for field duplicate pairs for which one or both results are below RLs. For values less than five-times the RL, RPDs are not used for evaluation. In these cases, the 30 RPD guideline may not be appropriate, and results within ±RL for waters are considered acceptable. Two results (approximately 4.3 percent of the E314.0 data) were qualified as estimated ((J) due to split sample results exceeding specified criteria (pCBSA in samples SWL0026 and SWL0026 cf). No data were qualified due to field duplicate sample results. Results for field duplicate or split sample outliers are qualified in the field duplicate or split samples only, as it is not possible to determine if other samples are of a similar matrix, as demonstrated by acceptable field precision in other field duplicate and split samples. Refer to the DVR for specific information on field duplicate outliers for specific samples.

Results from CELG were reported to the RL. TAMI reported results that were detected at less than the RL but greater than the MDL; however, there were no such results reported by the laboratory for this method.

All of the qualified data were determined to be usable for decision-making in data assessment. The data are considered usable for the purposes of determining pCBSA groundwater contamination and delineation. PARCC for EPA Method E314.0 is discussed in Section 1.6.

1.5.2 COMPLETENESS FOR EPA METHOD E314.0—PCBSA

Results flagged with the “R” qualifier are not considered valid results with respect to completeness. The completeness for EPA Method E314.0 for this project is 100 percent.

Completeness for all EPA Method EPA Method E314.0 analytes is acceptable for this project. The data validation and data usability assessment results indicate the overall acceptable quality of the definitive-

level data for EPA Method E314.0 collected for this project. The data meet project objectives and can be used for decision-making purposes.

1.6 PARCC ASSESSMENT

The following paragraphs discuss the overall data quality in terms of the PARCC goals established for this project.

Precision

Precision measures the reproducibility of the experimental value for the same parameter in the same sample under the same conditions. The parameters evaluated to assess precision during the data validation process are the RPDs for LCS/LCSD, MS/MSD, and field duplicate and split sample analyses.

The RPDs for the laboratory duplicate and field replicate analyses were acceptable, with very few minor exceptions. Less than 0.2 percent of the data were qualified due to RPD results outside of acceptance criteria for field duplicate and split sample analyses. Field replicate or laboratory duplicate samples were collected for more than 10 percent of sample analyses, and achieved 99.2 percent compliance with the precision criteria. Precision is considered acceptable for this data set.

Accuracy

One of the major objectives of the data validation process is to evaluate the accuracy of the data collected. Accuracy measures the deviation between the reported or experimental value and the true value. To assess accuracy, known concentrations of the analytes of interest were spiked into samples and percent recoveries of the spiked analytes were calculated. The parameters evaluated to assess accuracy during the data validation process include surrogate recoveries, MS and MSD recoveries, and LCS and LCSD recoveries. Additional factors affecting accuracy such as blank evaluation, internal standard areas, calibration criteria, and analyte identification and quantitation were also reviewed in data validation.

The surrogate recoveries are indicators of interference specific to the sample matrix. LCS recoveries are indicators of laboratory performance. Spike, surrogate, calibration, quantitation problems, and other accuracy related parameters resulted in the rejection of approximately 0.1 percent of the data and estimation of approximately 1.4 percent of the data. No problems severe enough to significantly affect

the usability of the qualified data for decision-making purposes or to compromise project objectives are indicated.

Representativeness

Representativeness measures how accurately the sample data reflect the actual media and environmental conditions being measured. Sampling locations that were representative of the medium being sampled were chosen. Sampling protocols were developed to ensure that samples collected represented the actual medium and that no contamination was introduced during sample collection. Proper sample handling and preservation were observed in the field to ensure that the samples maintained their integrity while being transported to the laboratory for analysis.

The protocols followed by the field crew while collecting the samples were described in the *Revised Addendum, Groundwater Survey Workplan, Montrose Superfund Site, 20201 S. Normandie Avenue, Los Angeles, California*, December, 2009, including *Appendix A: Task-Specific Quality Assurance Project Plan* (the QAPP).

Completeness

Completeness is defined as the percentage of data that are within the acceptance criteria for a given data set and are, therefore, considered valid. Completeness is measured by comparing the total number of acceptable parameters (valid data) against the total number of parameters analyzed. Valid or acceptable data consist of parameters that met all the QC acceptance criteria and parameters that were estimated and qualified as "J" or “UJ” or “U” that can still be used for their intended purpose.

The data reviewed for this project showed a completeness of 99.9 percent for this data set.

Comparability

Comparability reflects the internal consistency of the measurements and how well the data set can be compared to another data set generated by a different organization. The generation of comparable data requires the use of certified or approved laboratories and established and widely accepted protocols that produce comparable results. Review of the data generated for this project include the use of approved and nationally accepted sampling and testing methods approved by the EPA, thereby ensuring a high degree of comparability.

Data Validation Report

General

A total of 53 groundwater samples and 5 field duplicate samples with 14 associated equipment blanks and 4 trip blanks from Montrose Superfund Site were analyzed by CELG Environmental Laboratories, Inc., of Garden Grove, California (CELG). Sample analyses included arsenic (total) by EPA Method SW6020, arsenic III and arsenic V by EPA Method 200.8, p-chlorobenzenesulfonic acid (pCBSA) by EPA Method 314.0, organochlorine pesticides by EPA Method SW8081A, and volatile organic compounds (VOCs) by EPA Method SW8260B, with the analyses for speciated arsenic by EPA Method 200.8 subcontracted to Weck Laboratories, Inc. of City of Industry, California (WECK). Not all samples were analyzed for all methods.

A total of five groundwater split samples (inter-laboratory field duplicate samples) with 4 associated trip blanks from Montrose Superfund Site were analyzed by TestAmerica Laboratories, Inc., of Irvine, California (TAMI). The samples were analyzed for pCBSA by EPA Method 314.0, organochlorine pesticides by EPA Method SW8081A, and VOCs by EPA Method SW8260B. Not all samples were analyzed for all methods. An additional two groundwater samples collected at monitoring wells CMW001 and CMW002 by Avocet Environmental, Inc. as part of the Boeing Former C-6 Facility Investigation were analyzed by TAMI by EPA Method SW8260B and are included in the data set for this report.

Four samples, one field duplicate (FD), one equipment blank (EB), and one trip blank (TB) collected on January 24, 2012 were received the same day by CELG, and given the work order number 12-01-1418. Samples were analyzed for pCBSA by EPA Method 314.0, organochlorine pesticides by EPA Method SW8081A, and VOCs by EPA Method SW8260B.

Four samples, one EB, and one TB collected on January 25, 2012 were received the same day by CELG, and given the work order number 12-01-1513. Samples were analyzed for pCBSA by EPA Method 314.0 and VOCs by EPA Method SW8260B.

Four samples, one EB, and one TB collected on January 26, 2012 were received the same day by CELG, and given the work order number 12-01-1596. Samples were analyzed for pCBSA by EPA Method 314.0 and VOCs by EPA Method SW8260B.

Three samples, one EB, and one TB collected on January 27, 2012 were received the same day by CELG, and given the work order number 12-01-1667. Samples were analyzed for pCBSA by EPA Method 314.0 and VOCs by EPA Method SW8260B.

Four samples, one FD, one EB, and one TB collected on January 30, 2012 were received the same day by CELG, and given the work order number 12-01-1748. Samples for speciated arsenic were forwarded to WECK and received on February 7, 2012. Samples were analyzed for arsenic (total) by EPA Method SW6020, arsenic III and arsenic V by

EPA Method 200.8, pCBSA by EPA Method 314.0, organochlorine pesticides by EPA Method SW8081A, and VOCs by EPA Method SW8260B. Not all samples were analyzed for all methods.

Four samples, one FD, one EB, and one TB collected on January 31, 2012 were received the same day by CELG, and given the work order number 12-01-1815. Samples were analyzed for pCBSA by EPA Method 314.0, organochlorine pesticides by EPA Method SW8081A, and VOCs by EPA Method SW8260B. Not all samples were analyzed for all methods.

Four samples, one FD, one EB, and one TB collected on February 1, 2012 were received the same day by CELG, and given the work order number 12-02-0067. Samples were analyzed for pCBSA by EPA Method 314.0, organochlorine pesticides by EPA Method SW8081A, and VOCs by EPA Method SW8260B. Not all samples were analyzed for all methods.

Four samples, one EB, and one TB collected on January 30, 2012 were received the same day by CELG, and given the work order number 12-02-0169. Samples for speciated arsenic were forwarded to WECK and received on February 7, 2012. Samples were analyzed for arsenic (total) by EPA Method SW6020, arsenic III and arsenic V by EPA Method 200.8, pCBSA by EPA Method 314.0, organochlorine pesticides by EPA Method SW8081A, and VOCs by EPA Method SW8260B. Not all samples were analyzed for all methods.

Two samples, one EB, and one TB collected on February 3, 2012 were received the same day by CELG, and given the work order number 12-02-0275. Samples were analyzed for pCBSA by EPA Method 314.0 and VOCs by EPA Method SW8260B.

Two samples, one EB, and one TB collected on February 6, 2012 were received the same day by CELG, and given the work order number 12-02-0378. Samples for speciated arsenic were forwarded to WECK and received on February 7, 2012. Samples were analyzed for arsenic (total) by EPA Method SW6020, arsenic III and arsenic V by EPA Method 200.8, organochlorine pesticides by EPA Method SW8081A, and VOCs by EPA Method SW8260B. Not all samples were analyzed for all methods.

Four samples, one EB, and one TB collected on February 7, 2012 were received the same day by CELG, and given the work order number 12-02-0447. Samples were analyzed for pCBSA by EPA Method 314.0, organochlorine pesticides by EPA Method SW8081A, and VOCs by EPA Method SW8260B. Not all samples were analyzed for all methods.

Four samples, one FD, and one TB collected on February 8, 2012 were received the same day by CELG, and given the work order number 12-02-0533. Samples were analyzed for pCBSA by EPA Method 314.0 and VOCs by EPA Method SW8260B.

Two samples collected on March 20, 2012 were received the same day by CELG, and given the work order number 12-03-1385. Samples were analyzed for pCBSA by EPA Method 314.0.

Two samples collected on March 26, 2012 were received the same day by CELG, and given the work order number 12-03-1751. Samples for speciated arsenic were forwarded to WECK and received on March 26, 2012. One sample was analyzed for arsenic (total) by EPA Method SW6020 and arsenic III and arsenic V by EPA Method 200.8 and one sample was analyzed for VOCs by EPA Method SW8260B.

Three samples, one EB, and one TB collected on March 27, 2012 were received the same day by CELG, and given the work order number 12-03-1828. Samples were analyzed for pCBSA by EPA Method 314.0 and VOCs by EPA Method SW8260B.

One sample and one TB collected on March 28, 2012 were received the same day by CELG, and given the work order number 12-03-1906. Samples were analyzed for VOCs by EPA Method SW8260B.

One split sample and one TB collected on January 31, 2012 were received the following day by TAMI, and given the work order number 440-1120. Samples were analyzed for organochlorine pesticides by EPA Method SW8081A and VOCs by EPA Method SW8260B.

One split sample and one TB collected on February 1, 2012 were received the same day by TAMI, and given the work order number 440-1122. Samples were analyzed for pCBSA by EPA Method 314.0 and VOCs by EPA Method SW8260B.

One split sample and one TB collected on February 6, 2012 were received the same day by TAMI, and given the work order number 440-1771. Samples were analyzed for VOCs by EPA Method SW8260B.

Two split samples and one TB collected on February 7 and 8, 2012 were received February 8, 2012 by TAMI, and given the work order number 440-1991. Samples were analyzed for pCBSA by EPA Method 314.0 and VOCs by EPA Method SW8260B.

Two groundwater samples collected on March 20, 2012 by Avocet Environmental, Inc. as part of the Boeing Former C-6 Facility Investigation were received the same day by TAMI, and given the work order number 12-03-1385. Samples were analyzed for VOCs by EPA Method SW8260B.

The laboratory data for these samples were reviewed for conformance with the requirements of the specified analytical methods in *SW846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods* (EPA 1986 and Updates), *Methods for the Determination of Metals in Environmental Samples, Supplement 1* (EPA/600/R-94/111, 1994), and *Methods for the Determination of Inorganic Substances in Environmental Samples* EPA/600/R-93/100, 1993). Data were validated and qualified using the

Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (EPA, 2008) and *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (EPA, 2004) (NFGs) as applicable to the methods used for this project. The reviewer's professional judgment was used to evaluate data quality when called for in the Functional Guidelines.

Analytical Results

All data are acceptable for use with the following qualifiers. Some of the sample data are qualified with J (estimated value), UJ (estimated non-detected result and reporting limit), or UR (rejected non-detected result), which would be considered unusable. No data were qualified with U (not detected due to blank contamination).

Data validation was performed at EPA Level 3 for all of the samples, with data validation performed at EPA Level 4 for the following samples and methods, including review and verification of results from the raw data to summary forms, and calculations to verify initial calibrations, calibration verifications, reported concentrations, and percent recoveries and relative percent differences for all specified samples and associated batch QC (including MS/MSD when performed), and to verify that appropriate quantitation and stoichiometric corrections were applied, as applicable to the method: MW-6 (12-01-1418-6) and MW-600 (12-01-1418-7) for pesticides; MW-6 (12-01-1418-6), MW-600 (12-01-1418-7), and G-30 (12-01-1418-3) for VOCs; BF-OW-3 (12-01-1748-6) and BF-OW-300 (12-01-1748-7) for total arsenic, arsenic III, and arsenic V; BF-OW-3 (12-01-1748-6), BF-OW-300 (12-01-1748-7), and G-35 (12-01-1748-3) for VOCs; BF-11 (12-02-0447-4) and BF-EW-1 (12-02-0447-5) for pesticides; BF-11 (12-02-0447-4), BF-EW-1 (12-02-0447-5), BF-2 (12-02-0447-6), and SWL0026 (12-02-0447-3) for VOCs; G-26 (12-01-1815-2), G-24 (12-01-1815-3), and G-2400 (12-01-1815-4) for pCBSA and VOCs; and G-22 (12-01-1667-4), G-25 (12-01-1667-5), and BF-28 (12-01-1667-3) for pCBSA and VOCs. The Level 4 validation represents greater than ten percent of the data for each method. Chromatograms and mass spectra were reviewed to confirm detections, and calculations were performed for pCBSA, arsenic III and arsenic V, alpha-BHC, and chlorobenzene to verify that appropriate quantitation and stoichiometric corrections were applied.

Results from CELG and WECK were reported to the Reporting Limit (RL). TAMI reported results that were detected at less than the RL but greater than the method detection limit (RL). Such results were reported by the laboratory with the "J" laboratory qualifier, which appears in the "Results" column of the results tables. Six sample results were qualified with this laboratory qualifier. These results may be quantitatively and qualitatively uncertain due to uncertainty near the limits of detection. No additional validation qualifiers are assigned as these data do not indicate analytical problems, do not affect the PARCC objectives, and are not included in calculation of qualification percentages for PARCC parameters.

When analyte concentrations exceeded the calibration range, samples were reanalyzed at an appropriate dilution. Results from the appropriate dilution have been selected by the laboratory for project reporting purposes.

Sample preservation and receipt

As samples were generally collected and received at the laboratory the same day, there were no problems with sample preservation or receipt. All samples were received at 0-6 degrees Celcius (C).

Documentation and Deliverables

The complete SDG File (CSF) inventory is listed as the Analytical Report for Samples in each data package, and links the laboratory IDs with the client IDs.

The data packages are organized by laboratory sample identifier (ID) and there is a QC summary for each batch. Level 2 and Level 4 data packages were provided for all SDGs, and the data were validated for the additional QC parameters not included in Level 2 data packages for all samples, including initial calibrations, tunes, calibration verifications, internal standards, and other method-specified QC samples, as applicable to each method.

Holding Times

All samples were analyzed within the technical holding time specified for each method.

The dates of analysis on the hardcopy sample results summary forms for CELG are not always correct as they reflect the initial date of analysis only. If the sample was reanalyzed and one or more results reported form the more diluted analysis, that date is not indicated on the summary forms, but the dates are correct in the raw data and in the EDD. This is a laboratory LIMS limitation.

Tunes and Calibrations

- **SW8260B**

Tune data were reported and reviewed for all samples. All volatile tunes met the requirements of Method SW8260B for frequency of analysis, mass identification, and mass intensity.

Initial calibration data were reported and reviewed for all samples. Initial calibration data for the volatile analyses met the requirements of SW-846 for minimum response factors for system performance check compounds and percent relative standard deviations (%RSD) for calibration check compounds. The calibrations for the extended list of compounds were performed and met the criteria. The results for all analytes met the $\leq$30% relative standard deviation (RSD) or relative response factor (RRF) $\geq$0.05 (or $\geq$0.01 for VOCs in Table 1.0 of the NFGs for VOCs) requirements specified in the NFGs.

Second-source initial calibration verification standards (ICVs) met the ≤25 percent difference (%D) (or ≤40 %D for VOCs in Table 1.0 of the NFGs for VOCs) requirements specified in the NFGs, with the following exceptions.

Detected and nondetected results associated with ICV %Ds greater than 25% (or ≤40 %D for VOCs in Table 1.0 of the NFGs for VOCs) are qualified as estimated (J/UJ), as presented below. Note that a negative percent difference indicates high bias in ICV or CCV.

SW8260B ICV Results Exceeding 25%D:

ICV Instrument	Date Time	Compound	%D	Qualifier
GCMS BB	01/25/12 1539	Naphthalene	-67.4*	UJ*

* Qualified as estimated (UJ) instead of rejected (R) as high bias and samples non-detected and daily CCVs and 2nd source LCS/LCSDs were acceptable.

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier
TB012412	12-01-1418-1	Naphthalene	UJ
EB012412	12-01-1418-2	Naphthalene	UJ
G-30 (01/24/2012)	12-01-1418-3	Naphthalene	UJ
BF-33 (01/24/2012)	12-01-1418-4	Naphthalene	UJ
BF-31 (01/24/2012)	12-01-1418-5	Naphthalene	UJ
MW-6 (01/24/2012)	12-01-1418-6	Naphthalene	UJ
MW-600 (01/24/2012)	12-01-1418-7	Naphthalene	UJ
TB012512	12-01-1513-1	Naphthalene	UJ
EB012512	12-01-1513-2	Naphthalene	UJ
G-32 (01/25/2012)	12-01-1513-3	Naphthalene	UJ
G-23 (01/25/2012)	12-01-1513-4	Naphthalene	UJ
BF-36 (01/25/2012)	12-01-1513-5	Naphthalene	UJ
BF-30 (01/25/2012)	12-01-1513-6	Naphthalene	UJ
TB012712	12-01-1667-1	Naphthalene	UJ
EB012712	12-01-1667-2	Naphthalene	UJ
BF-28 (01/27/2012)	12-01-1667-3	Naphthalene	UJ
G-22 (01/27/2012)	12-01-1667-4	Naphthalene	UJ
G-25 (01/27/2012)	12-01-1667-5	Naphthalene	UJ
TB013012	12-01-1748-1	Naphthalene	UJ
EB013012	12-01-1748-2	Naphthalene	UJ
G-35 (01/30/2012)	12-01-1748-3	Naphthalene	UJ
G-31 (01/30/2012)	12-01-1748-4	Naphthalene	UJ
BF-OW-3 (01/30/2012)	12-01-1748-6	Naphthalene	UJ
BF-OW-300 (01/30/2012)	12-01-1748-7	Naphthalene	UJ
TB013112	12-01-1815-1	Naphthalene	UJ
G-26 (01/31/2012)	12-01-1815-2	Naphthalene	UJ

G-24 (01/31/2012)	12-01-1815-3	Naphthalene	UJ
G-2400 (01/31/2012)	12-01-1815-4	Naphthalene	UJ
BF-15 (01/31/2012)	12-01-1815-7	Naphthalene	UJ
TB020112	12-02-0067-1	Naphthalene	UJ
EB020112	12-02-0067-2	Naphthalene	UJ
G-33 (02/01/2012)	12-02-0067-3	Naphthalene	UJ
G-09 (02/01/2012)	12-02-0067-4	Naphthalene	UJ
G-06 (02/01/2012)	12-02-0067-6	Naphthalene	UJ
G-0600 (02/01/2012)	12-02-0067-7	Naphthalene	UJ
SWL0033 (02/01/2012)	12-02-0067-8	Naphthalene	UJ
TB020312	12-02-0275-1	Naphthalene	UJ
EB020312	12-02-0275-2	Naphthalene	UJ
G-29 (02/03/2012)	12-02-0275-3	Naphthalene	UJ
G-34 (02/03/2012)	12-02-0275-4	Naphthalene	UJ

ICV

Instrument	Date Time	Compound	%D	Qualifier
GCMS BB	02/07/12 1825	Naphthalene	-55.2*	UJ*

* Qualified as estimated (UJ) instead of rejected (R) as high bias and samples non-detected and daily CCVs and 2nd source LCS/LCSDs were acceptable.

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier
TB020612	12-02-0378-1	Naphthalene	UJ
G-EW-2 (02/06/2012)	12-02-0378-2	Naphthalene	UJ
MBFB-EW-1 (02/06/2012)	12-02-0378-4	Naphthalene	J

Daily continuing calibration verification standards (CCVs) met the ≤25 %D (or ≤40 %D for VOCs in Table 1.0 of the NFGs for VOCs) requirements specified in the NFGs, with the following exceptions.

Detected and nondetected results associated with CCV %Ds greater than 25% (or ≤40 %D for VOCs in Table 1.0 of the NFGs for VOCs) are qualified as estimated (J/UJ) and nondetected results associated with CCV %Ds greater than 50 %D are qualified as rejected (UR), as presented below.

SW8260B CCV Results Exceeding 25%D:

CCV

Instrument	Date Time	Compound	%D	Qualifier
GCMS BB	01/26/12 0030	Bromomethane	-28.9	UJ

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier
TB012412	12-01-1418-1	Bromomethane	UJ

EB012412	12-01-1418-2	Bromomethane	UJ
G-30 (01/24/2012)	12-01-1418-3	Bromomethane	UJ
BF-33 (01/24/2012)	12-01-1418-4	Bromomethane	UJ
BF-31 (01/24/2012)	12-01-1418-5	Bromomethane	UJ
MW-6 (01/24/2012)	12-01-1418-6	Bromomethane	UJ
MW-600 (01/24/2012)	12-01-1418-7	Bromomethane	UJ

CCV

Instrument	Date Time	Compound	%D	Qualifier
GCMS BB	02/01/12 0018	Bromomethane	-29.8	UJ

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier
TB013012	12-01-1748-1	Bromomethane	UJ
EB013012	12-01-1748-2	Bromomethane	UJ
G-35 (01/30/2012)	12-01-1748-3	Bromomethane	UJ
G-31 (01/30/2012)	12-01-1748-4	Bromomethane	UJ

CCV

Instrument	Date Time	Compound	%D	Qualifier
GCMS BB	02/06/12 1302	Bromomethane	41.6	UJ

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier
TB020312	12-02-0275-1	Bromomethane	UJ
EB020312	12-02-0275-2	Bromomethane	UJ
G-29 (02/03/2012)	12-02-0275-3	Bromomethane	UJ
G-34 (02/03/2012)	12-02-0275-4	Bromomethane	UJ

CCV

Instrument	Date Time	Compound	%D	Qualifier
GCMS BB	02/09/12 1155	Bromomethane	51.9	UR

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier
SWL0026 (02/07/2012)	12-02-0447-3	Bromomethane	UR
BF-11 (02/07/2012)	12-02-0447-4	Bromomethane	UR
BF-EW-1 (02/07/2012)	12-02-0447-5	Bromomethane	UR

CCV

Instrument	Date Time	Compound	%D	Qualifier
GCMS BB	03/29/12 1153	Naphthalene	27.4	UJ
GCMS BB	03/29/12 1153	Tetrachloroethene	32.9	UJ

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier

TB032612	12-03-1751-1	Naphthalene	UJ
BF-EW-1 (03/26/2012)	12-03-1751-2	Naphthalene	UJ
TB032612	12-03-1751-1	Tetrachloroethene	UJ
BF-EW-1 (03/26/2012)	12-03-1751-2	Tetrachloroethene	UJ

CCV

Instrument	Date Time	Compound	%D	Qualifier
GCMS BB	03/29/12 1135	Naphthalene	30.3	UJ

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier
TB032712	12-03-1828-1	Naphthalene	UJ
EB032712	12-03-1828-2	Naphthalene	UJ
G-09 (03/27/2012)	12-03-1828-4	Naphthalene	UJ
BF-12 (03/27/2012)	12-03-1828-5	Naphthalene	UJ

CCV

Instrument	Date Time	Compound	%D	Qualifier
GCMS BB	03/30/12 1826	Bromomethane	26.7	UJ

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier
SWL0026 (03/27/2012)	12-03-1828-3	Bromomethane	UJ
TB032812	12-03-1906-1	Bromomethane	UJ
G-06 (03/28/2012)	12-03-1906-2	Bromomethane	UJ

CCV

Instrument	Date Time	Compound	%D	Qualifier
GCMS36	02/03/12 1827	Carbon tetrachloride	34.6	UJ

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier
TB013112 a	440-1120-1	Carbon tetrachloride	UJ
BF-15 (01/31/2012) cf	440-1120-2	Carbon tetrachloride	UJ

CCV

Instrument	Date Time	Compound	%D	Qualifier
GCMS36	02/04/12 1138	2,2-Dichloropropane	-25.8	UJ

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier
TB020112 a	440-1122-1	2,2-Dichloropropane	UJ
G-09 (02/01/2012) cf	440-1122-2	2,2-Dichloropropane	UJ

CCV

Instrument	Date Time	Compound	%D	Qualifier

GCMS36	02/11/12 1048	Acetone	-40.4	UJ
GCMS36	02/11/12 1048	Carbon tetrachloride	-34.0	UJ

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier
TB020612	440-1771-1	Acetone	UJ
G-EW-2 (02/06/2012) cf	440-1771-2	Acetone	UJ
TB020612	440-1771-1	Carbon tetrachloride	UJ
G-EW-2 (02/06/2012) cf	440-1771-2	Carbon tetrachloride	UJ

CCV

Instrument	Date Time	Compound	%D	Qualifier
GCMS01	03/28/2012 0116	Vinyl acetate	29.8	UJ
GCMS01	03/28/2012 0116	Tetrahydrofuran	41.2	UJ

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier
CMW001-WG20120320_01	440-5987-01	Tetrahydrofuran	UJ
CMW001-WG20120320_01	440-5987-02	Tetrahydrofuran	UJ
CMW001-WG20120320_01	440-5987-01	Vinyl acetate	UJ
CMW001-WG20120320_01	440-5987-02	Vinyl acetate	UJ

- **SW8081A**

The initial calibration and performance evaluation mix (PEM) met all requirements of SW-846 Method 8081A for frequency of analysis, and %RSD and %D criteria, respectively.

The initial calibration verification standard (ICV) associated with reported results met the frequency of analysis and ±15%D criteria.

Continuing calibration standards associated with reported results met the frequency of analysis and ±15%D criteria, with the following exceptions. Detected results associated with CCV %Ds greater than 15% are qualified as estimated (J), as presented below. Note that a negative percent difference indicates high bias in CCV.

SW8081A CCV Results Exceeding 15%D:

CCV

Instrument	Date Time	Compound	%D	Qualifier
GC54	02/06/2012 2158	4,4'-DDE	-15.7	J

Associated Samples:

Field Sample	Laboratory Sample	Compound	Qualifier
BF-15 (01/31/2012) cf	440-1120-2	4,4'-DDE	J

In addition, for the analytical run on 02/13/12, there were no CCVs analyzed for non-specific chlordane and toxaphene. The associated non-detected results for non-specific chlordane and toxaphene in samples BF-EW-1 (12-02-0447-5) and BF-2 (12-02-0447-6) were therefore qualified as rejected (UR).

Note that the results for the SW8081A analytes in samples EB012412 (12-01-1418-2), MW-6 (12-01-1418-6), and MW-600 (12-01-1418-7) were associated with a final CCV that was performed 5 hours and 7 minutes after the 14-hour time limit specified in the NFGs. The analyses for all samples and for the final CCV were performed within 12 hours from the opening instrument blank; however, due to a mis-set autosampler vial, the final CCV was not analyzed. This occurred after the end of the shift, and the error was not discovered until the following morning, at which time a CCV was analyzed before any other samples were run. Note that the 14-hour requirement specified in the NFGs is not an SW-846 method requirement. SW8081A specifies that no more than 20 samples (10 samples recommended) should be analyzed between CCVs. As only 5 sample analyses plus 4 QC sample analyses were performed between CCVs, the analytical run meets method requirements. All associated QC for the analytical run met QC requirements, including all of the CCVs, LCS/LCSDs, and MS/MSDs. The CCV that was analyzed prior to any other analyses the next morning was acceptable. Therefore, the associated data were not qualified, using professional judgment. The quality and usability of the data are not expected to be affected.

- **SW6020**

  All initial calibration, ICV, CCV, ICSA, and ICSAB analyses met the criteria specified in the method and in the NFGs.

- **E200.8**

  All initial calibration, ICV, and CCV analyses met the criteria specified in the method and in the NFGs.

- **E314.0**

  All initial calibration, ICV, and CCV analyses met the criteria specified in the method and in the NFGs.

Blanks

- **SW8260B**

  No contamination was detected above the reporting limit in any of the method blanks, equipment blanks, or trip blanks associated with all reported results for this analysis. No data were qualified for blank detections.

Note that the 4.9 µg/L trace detection (result detected between the RL and MDL) of the common laboratory contaminant acetone in sample G-09 (440-5162), although not detected in any of the associated blanks, may be a laboratory artifact and should be considered to be a potential false positive or biased high.

- **SW8081A**

  No contamination was detected above the reporting limit in any of the method blanks or equipment blanks associated with all reported results for this analysis. No data were qualified for blank detections.

- **SW6020**

  No contamination was detected above the reporting limit in any of the laboratory blanks or equipment blanks associated with all reported results for this analysis. No data were qualified for blank detections.

- **E200.8**

  No contamination was detected above the reporting limit in any of the laboratory blanks or equipment blanks associated with all reported results for this analysis. In some cases, the raw data indicate trace results for arsenic III or arsenic V in equipment blanks or laboratory blanks. All associated detected results were greater than 10-times the detections in the blanks. No data were qualified for blank detections.

- **E314.0**

  No contamination was detected above the reporting limit in any of the laboratory blanks or equipment blanks associated with all reported results for this analysis, with the following exception. The 16 µg/L result for pCBSA in equipment blank EB032712 (12-03-1828-2) exceeds the 5 µg/L RL. All associated sample results were greater than 5-times the concentration in this blank. No data were qualified for blank detections.

Surrogate Recoveries

The surrogate recoveries on the hardcopy sample results summary forms for CELG are not always correct as they reflect the initial analysis only. If the sample was reanalyzed and one or more results weer reported from the more diluted analysis, the surrogate recoveries from the reanalysis are not indicated on the sample results summary forms, but the surrogates are summarized on forms in the raw data and were validated from those forms.

- **SW8260B**

  Surrogate recoveries associated with all reported results for the SW8260B analyses were acceptable.

- **SW8081A**

  Surrogate recoveries associated with all reported results for the SW8081A analyses were acceptable, with the following exceptions:

  The 302 %R for decachlorobiphenyl in the 50-times dilution analysis of sample MW-1 (12-02-0169-7) exceeded the 50-150%R control limits. The detected results for alpha-BHC, beta-BHC, and delta-BHC in the 50-times dilution analysis of this sample were qualified as estimated (J).

  The 333 %R for tetrachloro-m-xylene in the 5-times dilution analysis of sample BF-2 (12-02-0447-6) exceeded the 50-150%R control limits. The detected results for 2,4'-DDE, 2,4'-DDT, and 4,4'DDE in the 5-times dilution analysis of this sample were qualified as estimated (J).

Internal Standard Areas

- **SW8260B**

  Internal standard data were reported and reviewed for all samples. Internal standard areas associated with all reported results were acceptable.

Laboratory Control Samples

- **SW8260B**

  The recoveries for all laboratory control samples (LCSs) and LCS duplicates (LCSDs) were acceptable.

  Note that CELG reported an incomplete target analyte list including 17 of the 71 VOCs reported for this project by this method. The reported spiked VOCs include all five of the VOCs included for assessment in the NFGs. The raw data indicate that all VOCs were spiked; however, the laboratory indicated it was unable to report the full list of spiked VOCs without reprocessing all the data. Future submissions by this laboratory will include reporting of spike recoveries for all reported VOCs.

- **SW8081A**

  The recoveries for all laboratory control samples (LCSs) and LCS duplicates (LCSDs) were acceptable.

- **SW6020**

  The recoveries for all laboratory control samples (LCSs) and LCS duplicates (LCSDs) were acceptable.

- **E200.8**

  The recoveries for all laboratory control samples (LCSs) and LCS duplicates (LCSDs) were acceptable.

- **E314.0**

  The recoveries for all laboratory control samples (LCSs) and LCS duplicates (LCSDs) were acceptable.

Matrix Spike/Matrix Spike Duplicates

MS/MSD analyses were performed on project samples at a minimum frequency of 1:20 samples program-wide for all methods, with the exception of EPA Method SW8081A. In some cases, MS/MSD analyses were performed on non-project samples or project-specific samples from other SDGs for an analytical batch. MS/MSD analyses for non-project samples are not applicable to the project sample matrices, and are not included in this validation report. When no MS/MSD analyses were performed on a project sample for an analytical batch, LCS/LCSD analyses were performed.

Where applicable, results for MS/MSD outliers are qualified in the parent samples only, as it is not possible to determine if other samples are of a similar matrix as demonstrated by acceptable recoveries in other MS/MSD samples. MS/MSD recoveries for samples with results greater than 4-times the spike are not evaluated with respect to control limits, and are considered acceptable per the NFGs.

- **SW8260B**

  MS/MSD analyses were performed for this method on samples G-30 (12-01-1418-3), BF-36 (12-01-1513-5), G-27 (12-01-1596-4), BF-28 (12-01-1667-3), G-25 (12-01-1667-5), G-35 (12-01-1748-3), G-26 (12-01-1815-2), G-33 (12-02-0067-3), G-18 (12-02-0169-4), G-29 (12-02-0275-3), G-EW-2 (12-02-0378-2), MBFB-EW-1 (12-02-0378-4), SWL0026 (12-02-0447-3), BF-25 (12-02-0533-2), BF-EW-1 (12-03-1751-2), SWL0026 (12-03-1828-3), G-09 (12-03-1828-4), G-06 (12-03-1906-2), and BF-29 cf (440-1991-2).

Note that CELG reported an incomplete target analyte list including 17 of the 71 VOCs reported for this project by this method. The reported spiked VOCs include all five of the VOCs included for assessment in the NFGs. The raw data indicate that all VOCs were spiked; however, the laboratory indicated it was unable to report the full list of spiked VOCs without reprocessing all the data. Future submissions by this laboratory will include reporting of spike recoveries for all reported VOCs.

MS/MSD recoveries and the RPDs between MS/MSDs were acceptable, with the following exceptions.

The 206 %R in the MS analysis and 54 RPD between MS and MSD for tert-butyl alcohol (TBA) in the MS/MSD analysis of sample G-30 (12-01-1418-3) were above the 36-162 %R and 30 RPD control limits. The 119 %R recovery for the MSD was within control limits. As the result for TBA in the parent sample was non-detected, no qualifier was assigned in data validation.

The 124 %R in the MSD analysis for 1,2-dichloroethane in the MS/MSD analysis of sample G-35 (12-01-1748-3) was above the 80-120 %R control limits. The 101 %R for the MS was within control limits. The detected result for 1,2-dichloroethane in sample G-35 is qualified as estimated (J).

The 243 %R in the MS analysis and 51 RPD between MS and MSD for TBA in the MS/MSD analysis of sample G-35 (12-01-1748-3) were above the 36-162 %R and 30 RPD control limits. The 144 %R recovery for the MSD was within control limits. As the result for TBA in the parent sample was non-detected, no qualifier was assigned in data validation.

The 238 %R in the MS analysis and 70 RPD between MS and MSD for TBA in the MS/MSD analysis of sample G-26 (12-01-1815-2) were above the 36-162 %R and 30 RPD control limits. The 114 %R recovery for the MSD was within control limits. As the result for TBA in the parent sample was non-detected, no qualifier was assigned in data validation.

The 165 %R in the MSD analysis and 39 RPD between MS and MSD for TBA in the MS/MSD analysis of sample G-33 (12-02-0067-3) were above the 36-162 %R and 30 RPD control limits. The 111 %R recovery for the MS was within control limits. As the result for TBA in the parent sample was non-detected, no qualifier was assigned in data validation.

The 121 %R in the MS analysis for chlorobenzene in the MS/MSD analysis of sample G-18 (12-02-0169-4) was above the 80-120 %R control limits. The 116 %R for the MSD was within control limits. The detected result for chlorobenzene in sample G-18 is qualified as estimated (J).

The 126 %R in the MS and 124 %R in the MSD analysis for toluene in the MS/MSD analysis of sample G-18 (12-02-0169-4) were above the 80-120 %R control limits. As

the result for toluene in the parent sample was non-detected, no qualifier was assigned in data validation.

The 126 %R in the MS and 124 %R in the MSD analysis for toluene in the MS/MSD analysis of sample G-18 (12-02-0169-4) were above the 80-120 %R control limits. As the result for toluene in the parent sample was non-detected, no qualifier was assigned in data validation.

The 131 %R in the MS and 126 %R in the MSD analysis for vinyl chloride in the MS/MSD analysis of sample G-18 (12-02-0169-4) were above the 80-120 %R control limits. As the result for vinyl chloride in the parent sample was non-detected, no qualifier was assigned in data validation.

The 247 %R in the MS, 179 %R in the MSD and 32 RPD between MS and MSD for TBA in the MS/MSD analysis of sample G-18 (12-02-0169-4) were above the 36-162 %R and 30 RPD control limits. As the result for TBA in the parent sample was non-detected, no qualifier was assigned in data validation.

The 308 %R in the MS analysis and 69 RPD between MS and MSD for TBA in the MS/MSD analysis of sample G-29 (12-02-0275-3) were above the 36-162 %R and 30 RPD control limits. The 150 %R recovery for the MSD was within control limits. As the result for TBA in the parent sample was non-detected, no qualifier was assigned in data validation.

The 179 %R in the MS analysis and 42 RPD between MS and MSD for TBA in the MS/MSD analysis of sample G-EW-2 (12-02-0378-2) were above the 36-162 %R and 30 RPD control limits. The 117 %R recovery for the MSD was within control limits. As the result for TBA in the parent sample was non-detected, no qualifier was assigned in data validation.

The 50 %R in the MS analysis and 44 RPD between MS and MSD for tert-amyl-methyl Ether (TAME) in the MS/MSD analysis of sample G-09 (12-03-1828-4) were above the 65-120 %R and 20 RPD control limits. The 79 %R for the MSD was within control limits. The detected result for TAME in sample G-09 is qualified as estimated (J).

The 238 %R in the MS analysis and 76 RPD between MS and MSD for TBA in the MS/MSD analysis of sample G-09 (12-03-1828-4) were above the 36-162 %R and 30 RPD control limits. The 107 %R recovery for the MSD was within control limits. As the result for TBA in the parent sample was non-detected, no qualifier was assigned in data validation.

The 66 %R in the MS analysis and 62 %R in the MSD analysis for ethyl-t-butyl ether (ETBE) in the MS/MSD analysis of sample G-06 (12-03-1906-2) were above the 69-123 %R control limits. The non-detected result for ETBE in sample G-06 is qualified as estimated (J).

The 64 %R in the MS analysis and 62 %R in the MSD analysis for tert-amyl-methyl Ether (TAME) in the MS/MSD analysis of sample G-06 (12-03-1906-2) were above the 65-120 %R control limits. The detected result for TAME in sample G-06 is qualified as estimated (J).

As the associated LCS/LCSD results were acceptable, the MS/MSD outliers are attributed to matrix interference.

- **SW8081A**

No MS/MSD analyses were performed for this method on project samples. All MS/MSDs for the batches associated with project samples were performed on non-project samples. The recoveries and the RPDs between MS/MSDs for these samples were acceptable.

- **SW6020**

MS/MSD analyses were performed for this method on samples MW-13 (12-02-0169-5) and BF-EW-2 (12-03-1751-3). All MS/MSD recoveries and the RPDs between MS/MSDs were acceptable.

- **E200.8**

MS/MSD analyses were performed for this method on sample BF-EW-2 (12-03-1751-3). The MS/MSD recoveries and the RPD between MS/MSD were acceptable.

- **E314.0**

MS/MSD analyses were performed for this method on samples BF-36 (12-01-1513-5), G-27 (12-01-1596-4), G-35 (12-01-1748-3), G-33 (12-02-0067-3), G-18 (12-02-0169-4), G-29 (12-02-0275-3), SWL0026 (12-02-0447-3), CMW001 (12-03-1385-1), EB032712 (12-03-1828-2), and BF-29 cf (440-1991-2). MS/MSD recoveries and the RPDs between MS/MSDs were acceptable, with the following exceptions.

The 140 %R in the MS and 134 %R in the MSD analysis for pCBSA in the MS/MSD analysis of sample G-35 (12-01-1748-3) were above the 70-130 %R control limits. The detected result for pCBSA in sample G-35 is qualified as estimated (J).

The 131 %R in the MSD analysis for pCBSA in the MS/MSD analysis of sample G-33 (12-02-0067-3) was above the 70-130 %R control limits. The 127 %R for the MS was within control limits. The detected result for pCBSA in sample G-33 is qualified as estimated (J).

As all LCS/LCSD results were acceptable, the MS/MSD outliers are attributed to matrix interference.

Sample Information

Results Exceeding Calibration Range

All analytical results and RLs are adjusted for stoichiometric factors such as extraction volumes and for dilutions required for high concentrations of target analytes to be quantitated within the calibration range of the instrument.

Samples with results exceeding the calibration range were reanalyzed at appropriate dilutions, and the results from the more diluted reanalyses are used for reporting purposes for those analytes. No results used for reporting purposes exceeded the calibration range.

Field Precision

Field duplicate and split sample pairs were collected at a frequency exceeding 10% for all methods. The guideline for relative percent difference (RPD) between sample and field duplicate or split sample results is 30 RPD. The RPD value is not defined and cannot be calculated for field duplicate pairs for which one or both results are below RLs. For values less than five-times the RL, RPDs will not be used for evaluation. In these cases, the 30 RPD guideline may not be appropriate, and results within ±RL for waters are considered acceptable. If one result is non-detect, the RL is used as the result for the non-detect in these calculations.

All field duplicate ands split sample results were within the specified criteria, with the exceptions listed below. Results not meeting field precision criteria are qualified as estimated (J/UJ) in the field duplicate or split samples only, as it is not possible to determine if other samples are of a similar matrix, as demonstrated by acceptable field precision in other field duplicate and split samples.

- **SW8260B**

Field duplicate samples MW-6 (12-01-1418-6) and MW-600 (12-01-1418-7), BF-OW-3 (12-01-1748-6) and BF-OW-300 (12-01-1748-7), G-24 (12-01-1815-3) and G-2400 (12-01-1815-4), G-06 (12-02-0067-6) and G-0600 (12-02-0067-7), and BF-22 (12-02-0533-5) and BF-2200 (12-02-0533-6); and split sample pairs BF-15 (12-01-1815-7) and BF-15 cf (440-1120-02), BF-29 (12-02-0533-3) and BF-29 cf (440-1991-02), G-09 (12-02-0067-4) and G-09 cf (440-1122-02), G-EW-2 (12-02-0378-2) and G-EW-2 cf (440-1771-02), and SWL0026 (12-02-0447-3) and SWL0026 cf (440-1991-03) were collected for EPA Method SW8260B.

All split sample results met duplicate precision criteria. All field duplicate sample results met duplicate precision criteria, with the following exceptions. The results qualified due to field duplicate precision criteria are presented in the table below.

SW8260B Field Duplicate Results Exceeding 30 RPD or ±RL:

Field Duplicate Sample Pair (Lab ID)	Result (µg/L)	RL (µg/L)	RPD	Difference	Qualifier
Compound: Xylenes, Total					
MW-6 (12-01-1418-6)	1.6	0.5			J
MW-600 (12-01-1418-7)	2.2	0.5	31.6	0.6	J

- **SW8081A**

Field duplicate samples MW-6 (12-01-1418-6) and MW-600 (12-01-1418-7) and G-06 (12-02-0067-6) and G-0600 (12-02-0067-7), and split sample pairs BF-15 (12-01-1815-7) and BF-15 cf (440-1120-02) were collected for EPA Method SW8081A.

All field duplicate sample results met duplicate precision criteria. All split sample results met duplicate precision criteria, with the following exceptions. The results qualified due to field duplicate precision criteria are presented in the table below.

SW8081A Split Sample Results Exceeding 30 RPD or ±RL:

Split Sample Pair (Lab ID)	Result (µg/L)	RL (µg/L)	RPD	Difference	Qualifier
Compound: alpha-BHC					
BF-15 (12-01-1815-7)	0.90	0.25			J
BF-15 cf (440-1120-02)	0.65	0.024	32.3	0.25	J
Compound: beta-BHC					
BF-15 (12-01-1815-7)	1.7	0.25			J
BF-15 cf (440-1120-02)	1.1	0.047	42.9	0.6	J
Compound: delta-BHC					
BF-15 (12-01-1815-7)	0.33	0.25			J
BF-15 cf (440-1120-02)	ND	0.0047	194	0.33	J
Compound: gamma-BHC					
BF-15 (12-01-1815-7)	0.89	0.25			J
BF-15 cf (440-1120-02)	0.62	0.047	35.8	0.27	J

- **SW6020**

Field duplicate samples BF-OW-3 (12-01-1748-6) and BF-OW-300 (12-01-1748-7) were collected for EPA Method SW6020. All of the field duplicate results for this method met the precision criteria. No data were qualified due to field duplicate sample results.

- **E200.8**

Field duplicate samples BF-OW-3 (12-01-1748-6) and BF-OW-300 (12-01-1748-7) were collected for EPA Method E200.8. All of the field duplicate results for this method met the precision criteria. No data were qualified due to field duplicate sample results.

- **E314.0**

Field duplicate samples G-24 (12-01-1815-3) and G-2400 (12-01-1815-4) and BF-22 (12-02-0533-5) and BF-2200 (12-02-0533-6); and split sample pairs BF-29 (12-02-0533-3) and BF-29 cf (440-1991-02), G-09 (12-02-0067-4) and G-09 cf (440-1122-02), and SWL0026 (12-02-0447-3) and SWL0026 cf (440-1991-03) were collected for EPA Method E314.0.

All field duplicate sample results met duplicate precision criteria. All split sample results met duplicate precision criteria, with the following exceptions. The results qualified due to field duplicate precision criteria are presented in the table below.

E314.0 Split Sample Results Exceeding 30 RPD or ±RL:

Split Sample Pair (Lab ID)	**Result (µg/L)**	**RL (µg/L)**	**RPD**	**Difference**	**Qualifier**
Compound: pCBSA					
SWL0026 (12-02-0447-3)	130	10			J
SWL0026 cf (440-1991-03)	75	10	53.7	55	J

Table C-2
RPD Between Primary and Duplicate Samples
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Field Sample	Chemical	Primary Result (µg/L)	Duplicate Result (µg/L)	RPD (%)	RPD>30%	<5x RL[1]	D<2x RL[2]	Comment[3]
MW-6	VOCs, EPA Method 8260B							
	Benzene	17.00	17.00	0.00				
	Bromodichloromethane	0.87	0.90	3.39				
	Chlorobenzene	26.00	26.00	0.00				
	2-chloro-1,3-butadiene	79.00	81.00	2.50				
	Chloroform	2,400	2,400	0.00				
	1,2-Dichlorobenzene	7.90	7.90	0.00				
	1,2-Dichloroethane	37.00	38.00	2.67				
	1,1-Dichloroethane	35.00	39.00	10.81				
	1,1-Dichoroethene	100.00	110.00	9.52				
	1,3-Dichlorobenzene	0.75	0.78	3.92				
	1,4-Dichlorobenzene	11.00	11.00	0.00				
	cis-1,2-Dichlorethene	57.00	55.00	3.57				
	trans-1,2-Dichloroethene	2.60	2.10	21.30				
	1,2-dichloropropane	1.10	1.10	0.00				
	Isopropyl Ether (DIPE)	3.80	4.30	12.34				
	Methylene Chloride	3.90	3.60	8.00				
	Tert-Butanol (TBA)	220.00	260.00	16.67				
	Tetrachloroethene (PCE)	17,000	16,000	6.06				
	1,1,1,2 Tetrachloroethane	6.10	6.20	1.63				
	1,2,4-trichlorobenzene	3.30	3.70	11.43				
	1,1,2-Trichloroethane	15.00	15.00	0.00				
	Freon 113	11.00	11.00	0.00				
	Trichloroethene (TCE)	530.00	530.00	0.00				
	1,2,3-trichloropropane	4.10	4.30	4.76				
	Total Xylenes	1.60	2.20	31.57	Y	N	N	**Outside Limits**
	Pesticides, EPA Method 8081A							
	2,4'-DDD	0.0048	0.0052	8.00				
	alpha- BHC	1.60	1.80	11.76				
	beta-BHC	<0.50	0.64	NC				
	delta-BHC	2.90	3.50	18.75				
	gamma-BHC	3.40	3.90	13.70				

AECOM

Table C-2
RPD Between Primary and Duplicate Samples
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Field Sample	Chemical	Primary Result (µg/L)	Duplicate Result (µg/L)	RPD (%)	RPD>30%	<5x RL[1]	D<2x RL[2]	Comment[3]
BF-OW-3	VOCs, EPA Method 8260B							
	Benzene	110.00	110.00	0.00				
	Chlorobenzene	14,000.00	14,000.00	0.00				
	1,2-Dichloroethane	72.00	70.00	2.82				
	Arsenic, EPA Method 200.8 and SW6020							
	Arsenic III	76	76	0.00				
	Arsenic V	3.20	3.40	6.06				
	Arsenic	0.078	0.082	5.51				
G-06	VOCs, EPA Method 8260B							
	Chlorobenzene	620.00	640.00	3.17				
	Chloroethane	<10	15.00	NC				
	Chloromethane	10.00	15.00	40.00	Y	Y	Y	**Acceptable**
	Vinyl Chloride	<10	12.00	NC				
	Pesticides, EPA Method 8081A							
	4,4'-DDD	0.028	0.03	6.90				
	4,4'-DDE	0.0072	0.0057	23.26				
	4,4'-DDT	0.610	0.64	4.8				
G-24	VOCs, EPA Method 8260B							
	Benzene	0.87	0.85	2.33				
	Chlorobenzene	740.00	750.00	1.34				
	1,2-Dichlorobenzene	0.96	1.10	13.59				
	1,2-Dichloroethane	0.86	0.88	2.30				
	1,4-Dichlorobenzene	5.70	5.80	1.74				
	Toluene	0.65	0.63	3.12				
	pCBSA, EPA Method 314 modified							
	pCBSA	2,500	3,000	18.18				
BF-22	VOCs, EPA Method 8260B							
	Chlorobenzene	45.00	44.00	2.25				
	Styrene	0.54	<0.50	NC				
	pCBSA, EPA Method 314 modified							
	pCBSA	7,700	7,500	2.63				

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Table C-2
RPD Between Primary and Duplicate Samples
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Field Sample	Chemical	Primary Result (µg/L)	Duplicate Result (µg/L)	RPD (%)	RPD>30%	<5x RL[1]	D<2x RL[2]	Comment[3]

Notes:
Only detected results, in either the primary or duplicate sample, are provided in the table
µg/L= micrograms per liter
RPD = Relative Percent Difference
NC= Not Calculated
D = Difference between primary and field duplicate results
[1] Indicated as "Y" if primary and/or duplicate result is <5x the RL.
[2] Where <5x RL, the result is acceptable for purposes of data validation if D <2x the RL.
[3] RPD results outside the acceptance limits are indicated as outliers and highlighted in yellow.
pCBSA = 4-Chlorobenzenesulfonic acid
Freon 113 = 1,1,2-Trichlorotrifluoroethane
DDT = dichlorodiphenyltrichloroethane
BHC= Benzene Hexachloride
Y= Yes
N= No

Table C-3
RPD Between Primary and Split Samples
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Field Sample	Chemical	Primary Result (µg/L)	Split Result (µg/L)	RPD (%)	RPD>30%	<5x RL[1]	D<2x RL[2]	Comment[3]
BF-15	VOCs, EPA Method 8260B							
	Benzene	<50	36.00	NC				
	Chlorobenzene	9,900.00	10,000.00	1.00				
	1,4-Dichlorobenzene	<50	35.00	NC				
	1,2-dichloroethane	89.00	110.00	21.10				
	Tetrachloroethene (PCE)	80.00	90.00	11.76				
	Trichloroethene (TCE)	<50	19.00 (J)	NC				
	Pesticides, EPA Method 8081A							
	alpha-BHC	0.90 (J)	0.65 (J)	32.2	Y	Y	N	Outside Limits
	beta-BHC	1.70 (J)	1.10 (J)	42.8	Y	Y	N	Outside Limits
	delta-BHC	0.33	<0.0047	194	Y	Y	N	Outside Limits
	gamma-BHC	0.89 (J)	0.62 (J)	36	Y	Y	N	Outside Limits
BF-29	VOCs, EPA Method 8260B							
	Benzene	<4.0	0.73	NC				
	Chlorobenzene	200.00	180.00	10.53				
	1,4-Dichlorobenzene	<4.0	1.30	NC				
	1,2-dichloroethane	18.00	20.00	10.53				
	1,2,4-trimethylbenzene	<4.0	0.26 (J)	NC				
	pCBSA, EPA Method 314 modified							
	pCBSA	7,400	5,700	25.95				
G-09	VOCs, EPA Method 8260B							
	Acetone	<20	4.90 (J)	NC				
	Benzene	<1	0.30 (J)	NC				
	Chlorobenzene	73.00	68.00	7.09				
	pCBSA, EPA Method 314 modified							
	pCBSA	2,500	3,000	18.18				
SWL0026	VOCs, EPA Method 8260B							
	Benzene	0.67	0.65	3.03				
	Chlorobenzene	110.00	89.00	21.10				
	Chloroform	0.82	0.70	15.79				
	1,2,3-trichlorobenzene	<0.50	0.33 (J)	NC				
	pCBSA, EPA Method 314 modified							
	pCBSA	130 J	75 J	53.66	Y	N	N	Outside Limits

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Table C-3
RPD Between Primary and Split Samples
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Field Sample	Chemical	Primary Result (µg/L)	Split Result (µg/L)	RPD (%)	RPD>30%	<5x RL[1]	D<2x RL[2]	Comment[3]
G-EW-2	VOCs, EPA Method 8260B							
	Benzene	2.30	<5.0	NC				
	Chlorobenzene	790.00	760.00	3.87				
	1,4-Dichlorobenzene	1.70	<5.0	NC				
	1,2-dichloroethane	7.10	7.50	5.48				

Notes:
µg/L= micrograms per liter
RPD = Relative Percent Difference
NC= Not Calculated
D = Difference between primary and field duplicate results
[1] Indicated as "Y" if primary and/or duplicate result is <5x the RL.
[2] Where <5x RL, the result is acceptable for purposes of data validation if D <2x the RL.
[3] RPD results outside the acceptance limits are indicated as outliers and highlighted in yellow.
pCBSA = 4-Chlorobenzenesulfonic acid
Freon 113 = 1,1,2-Trichlorotrifluoroethane
DDT = dichlorodiphenyltrichloroethane
BHC= Benzene Hexachloride
Y= Yes
N= No

Table C-4
MS/MSD Results
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Analysis	Field Sample	Lab SDG	Analyte	Original Sample (µg/L)	MS Spike Amount (µg/L)	MSD Spike Amount (µg/L)	MS Expected (µg/L)	MSD Expected (µg/L)	MS Dilution	MSD Dilution	MS Result (µg/L)	MSD Result (µg/L)	MS %R	MSD %R	%R Min Limit	%R Max Limit	%RPD	Max %RPD
SW6020	MW-13	12-02-0169	Arsenic	0.2846	0.1	0.1	0.35	0.35	1	1	0.4035	0.3957	119	111	73	127	2	11
SW8260B	BF-25	12-02-0533	Benzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.678	10.27	97	103	76	124	6	20
SW8260B	BF-25	12-02-0533	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	10.87	11.03	109	110	74	134	1	20
SW8260B	BF-25	12-02-0533	Chlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.45	11.01	104	110	80	120	5	20
SW8260B	BF-25	12-02-0533	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	9.998	10.83	100	108	80	120	8	20
SW8260B	BF-25	12-02-0533	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.605	9.885	96	99	80	120	3	20
SW8260B	BF-25	12-02-0533	1,2-Dichloroethane	<0.50	10.00	10.00	10.00	10.00	1	1	10.65	10.87	107	109	80	120	2	20
SW8260B	BF-25	12-02-0533	1,1-Dichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	9.358	9.826	94	98	73	127	5	20
SW8260B	BF-25	12-02-0533	Ethylbenzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.934	10.23	99	102	78	126	3	20
SW8260B	BF-25	12-02-0533	Toluene	<0.50	10.00	10.00	10.00	10.00	1	1	9.956	10.39	100	104	80	120	4	20
SW8260B	BF-25	12-02-0533	Trichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	9.392	9.882	94	99	77	120	5	20
SW8260B	BF-25	12-02-0533	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	10.22	10.98	102	110	72	126	7	20
SW8260B	BF-25	12-02-0533	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	10.15	10.94	101	109	67	121	8	49
SW8260B	BF-25	12-02-0533	TBA	<10	50	50	50	50	1	1	58.13	54.49	116	109	36	162	6	30
SW8260B	BF-25	12-02-0533	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	10.22	10.77	102	108	60	138	5	45
SW8260B	BF-25	12-02-0533	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	9.759	10.61	98	106	69	123	8	30
SW8260B	BF-25	12-02-0533	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	10.01	10.57	100	106	65	120	5	20
SW8260B	BF-25	12-02-0533	Ethanol	<50	100	100	100	100	1	1	112.8	108.5	113	108	30	180	4	72
SW8260B	BF-28	12-01-1667	Benzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.973	9.64	100	96	76	124	3	20
SW8260B	BF-28	12-01-1667	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	10.48	10.73	105	107	74	134	2	20
SW8260B	BF-28	12-01-1667	Chlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.35	10.46	103	105	80	120	1	20
SW8260B	BF-28	12-01-1667	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	10	9.994	100	100	80	120	0	20
SW8260B	BF-28	12-01-1667	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.19	10.2	102	102	80	120	0	20
SW8260B	BF-28	12-01-1667	1,2-Dichloroethane	<0.50	10.00	10.00	10.00	10.00	1	1	10.7	10.46	107	105	80	120	2	20
SW8260B	BF-28	12-01-1667	1,1-Dichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	10	10.2	100	102	73	127	2	20
SW8260B	BF-28	12-01-1667	Ethylbenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.77	10.85	108	109	78	126	1	20
SW8260B	BF-28	12-01-1667	Toluene	<0.50	10.00	10.00	10.00	10.00	1	1	10.91	10.45	109	104	80	120	4	20
SW8260B	BF-28	12-01-1667	Trichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	10.69	10.52	107	105	77	120	2	20
SW8260B	BF-28	12-01-1667	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	11.3	12.31	113	123	72	126	8	20
SW8260B	BF-28	12-01-1667	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	10.58	10.14	106	101	67	121	4	49
SW8260B	BF-28	12-01-1667	TBA	<10	50	50	50	50	1	1	63.62	52.99	127	106	36	162	18	30
SW8260B	BF-28	12-01-1667	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	11.83	10.9	118	109	60	138	8	45
SW8260B	BF-28	12-01-1667	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	11.24	10.99	112	110	69	123	2	30
SW8260B	BF-28	12-01-1667	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	9.852	9.588	99	96	65	120	3	20
SW8260B	BF-28	12-01-1667	Ethanol	<50	100	100	100	100	1	1	105.1	115.4	105	115	30	180	9	72
SW8260B	BF-29	440-1991	Benzene	0.73	25	25	25	25	1	1	24.6	24.2	95	94	65	125	2	20
SW8260B	BF-29	440-1991	Carbon Tetrachloride	<0.50	25	25	25	25	1	1	24.3	23.9	97	96	65	140	2	25

Table C-4
MS/MSD Results
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Analysis	Field Sample	Lab SDG	Analyte	Original Sample (µg/L)	MS Spike Amount (µg/L)	MSD Spike Amount (µg/L)	MS Expected (µg/L)	MSD Expected (µg/L)	MS Dilution	MSD Dilution	MS Result (µg/L)	MSD Result (µg/L)	MS %R	MSD %R	%R Min Limit	%R Max Limit	%RPD	Max %RPD
SW8260B	BF-29	440-1991	Chlorobenzene	180	25	25	25	25	1	1	181	178	-6	-16	75	125	1	20
SW8260B	BF-29	440-1991	1,2-Dibromoethane	<0.50	25	25	25	25	1	1	26	25.2	104	101	70	130	3	25
SW8260B	BF-29	440-1991	1,2-Dichlorobenzene	<0.50	25	25	25	25	1	1	26.5	26.3	106	105	75	125	1	20
SW8260B	BF-29	440-1991	1,2-Dichloroethane	20	25	25	25	25	1	1	46.6	43	106	92	60	140	8	20
SW8260B	BF-29	440-1991	1,1-Dichloroethene	<0.50	25	25	25	25	1	1	26.6	25.9	93	90	60	130	4	20
SW8260B	BF-29	440-1991	Ethylbenzene	<0.50	25	25	25	25	1	1	26.5	25.6	106	102	65	130	3	20
SW8260B	BF-29	440-1991	Toluene	<0.50	25	25	25	25	1	1	25.9	25.2	104	101	70	125	3	20
SW8260B	BF-29	440-1991	Trichloroethene	<0.50	25	25	25	25	1	1	25.3	24.5	101	98	65	125	3	20
SW8260B	BF-29	440-1991	Vinyl Chloride	<0.50	25	25	25	25	1	1	22	22	88	88	45	140	0	30
SW8260B	BF-29	440-1991	MTBE	<0.50	25	25	25	25	1	1	25	24.7	100	99	55	145	1	25
SW8260B	BF-29	440-1991	TBA	<5	125	125	25	25	1	1	131	127	105	101	65	140	3	25
SW8260B	BF-29	440-1991	DIPE	<0.50	25	25	25	25	1	1	27.5	26.8	110	107	60	140	3	25
SW8260B	BF-29	440-1991	ETBE	<0.50	25	25	25	25	1	1	26.5	26.1	106	104	60	135	2	25
SW8260B	BF-29	440-1991	TAME	<0.50	25	25	25	25	1	1	26.1	25.5	104	102	60	140	2	30
314 modified	BF-29	440-1991	pCBSA	6710	50	50	6700	6700	1	1	6720	6720	100	100	70	130	1	20
SW8260B	BF-36	12-01-1513	Benzene	<0.50	10.00	10.00	10.00	10.00	1	1	11.28	9.702	113	97	76	124	15	20
SW8260B	BF-36	12-01-1513	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	10.24	10.14	103	101	74	134	1	20
SW8260B	BF-36	12-01-1513	Chlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.27	10.06	103	101	80	120	2	20
SW8260B	BF-36	12-01-1513	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	9.968	9.63	100	96	80	120	3	20
SW8260B	BF-36	12-01-1513	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.16	10.07	102	101	80	120	1	20
SW8260B	BF-36	12-01-1513	1,2-Dichloroethane	<0.50	10.00	10.00	10.00	10.00	1	1	11.4	10.02	114	100	80	120	13	20
SW8260B	BF-36	12-01-1513	1,1-Dichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	9.548	10.84	95	108	73	127	13	20
SW8260B	BF-36	12-01-1513	Ethylbenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.58	10.58	106	106	78	126	0	20
SW8260B	BF-36	12-01-1513	Toluene	<0.50	10.00	10.00	10.00	10.00	1	1	10.82	10.56	108	106	80	120	2	20
SW8260B	BF-36	12-01-1513	Trichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	10.5	10.43	105	104	77	120	1	20
SW8260B	BF-36	12-01-1513	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	9.766	10.86	98	109	72	126	11	20
SW8260B	BF-36	12-01-1513	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	9.444	10.94	94	109	67	121	15	49
SW8260B	BF-36	12-01-1513	TBA	<10	50	50	50	50	1	1	117.5	64.34	235	129	36	162	58	30
SW8260B	BF-36	12-01-1513	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	10.71	10.72	107	107	60	138	0	45
SW8260B	BF-36	12-01-1513	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	9.023	9.696	90	97	69	123	7	30
SW8260B	BF-36	12-01-1513	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	10.39	9.278	104	93	65	120	11	20
SW8260B	BF-36	12-01-1513	Ethanol	<50	100	100	100	100	1	1	120.4	112.1	120	112	30	180	7	72
314 modified	BF-36	12-01-1513	pCBSA	<5.0	25	25	25	25	1	1	24.06	24.38	96	98	70	130	1	20
SW8260B	MBFB-EW-1	12-02-0378	Benzene	6997	10.00	500	500	500	1	1	6438	6254	0	0	76	124	3	20
SW8260B	MBFB-EW-1	12-02-0378	Carbon Tetrachloride	<0.50	10.00	500	500	500	1	1	488.6	459.5	97	92	74	134	6	20
SW8260B	MBFB-EW-1	12-02-0378	Chlorobenzene	818.1	10.00	500	500	500	1	1	1266	1250	90	86	80	120	1	20
SW8260B	MBFB-EW-1	12-02-0378	1,2-Dibromoethane	<0.50	10.00	500	500	500	1	1	490.6	482.7	98	97	80	120	2	20

Table C-4
MS/MSD Results
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Analysis	Field Sample	Lab SDG	Analyte	Original Sample (µg/L)	MS Spike Amount (µg/L)	MSD Spike Amount (µg/L)	MS Expected (µg/L)	MSD Expected (µg/L)	MS Dilution	MSD Dilution	MS Result (µg/L)	MSD Result (µg/L)	MS %R	MSD %R	%R Min Limit	%R Max Limit	%RPD	Max %RPD
SW8260B	MBFB-EW-1	12-02-0378	1,2-Dichlorobenzene	<0.50	10.00	500	500	500	1	1	491.5	485.2	98	97	80	120	1	20
SW8260B	MBFB-EW-1	12-02-0378	1,2-Dichloroethane	282.1	10.00	500	500	500	1	1	969	933	137	130	80	120	4	20
SW8260B	MBFB-EW-1	12-02-0378	1,1-Dichloroethene	<0.50	10.00	500	500	500	1	1	476.2	472.4	95	94	73	127	1	20
SW8260B	MBFB-EW-1	12-02-0378	Ethylbenzene	915.1	10.00	500	500	500	1	1	1397	1373	96	92	78	126	2	20
SW8260B	MBFB-EW-1	12-02-0378	Toluene	29.88	10.00	500	500	500	1	1	527.2	492.5	99	93	80	120	7	20
SW8260B	MBFB-EW-1	12-02-0378	Trichloroethene	82.45	10.00	500	500	500	1	1	599.4	537.2	103	91	77	120	11	20
SW8260B	MBFB-EW-1	12-02-0378	Vinyl Chloride	<0.50	10.00	500	500	500	1	1	568.4	551.5	114	110	72	126	3	20
SW8260B	MBFB-EW-1	12-02-0378	MTBE	<0.50	10.00	500	500	500	1	1	481.9	490.1	96	98	67	121	2	49
SW8260B	MBFB-EW-1	12-02-0378	TBA	<10	50	2,500	2,500	2,500	1	1	2092	1962	84	78	36	162	6	30
SW8260B	MBFB-EW-1	12-02-0378	DIPE	<0.50	10.00	500	500	500	1	1	498.2	492.6	100	99	60	138	1	45
SW8260B	MBFB-EW-1	12-02-0378	ETBE	<0.50	10.00	500	500	500	1	1	477	468.7	95	94	69	123	2	30
SW8260B	MBFB-EW-1	12-02-0378	TAME	<0.50	10.00	500	500	500	1	1	474.9	470.8	95	94	65	120	1	20
SW8260B	MBFB-EW-1	12-02-0378	Ethanol	<50	100	5,000	5,000	5,000	1	1	4544	4244	91	85	30	180	7	72
SW8260B	BF-EW-1	12-03-1751	Benzene	191.4	10.00	500	500	500	1	1	677	680	97	98	76	124	0	20
SW8260B	BF-EW-1	12-03-1751	Carbon Tetrachloride	<0.50	10.00	500	500	500	1	1	464.5	463.8	93	93	74	134	0	20
SW8260B	BF-EW-1	12-03-1751	Chlorobenzene	25,740	10.00	500	500	500	1	1	14,690	14140	0	0	80	120	4	20
SW8260B	BF-EW-1	12-03-1751	1,2-Dibromoethane	<0.50	10.00	500	500	500	1	1	475	466.4	95	93	80	120	2	20
SW8260B	BF-EW-1	12-03-1751	1,2-Dichlorobenzene	<0.50	10.00	500	500	500	1	1	460.4	457.2	92	91	80	120	1	20
SW8260B	BF-EW-1	12-03-1751	1,2-Dichloroethane	<0.50	10.00	500	500	500	1	1	520.8	523	104	105	80	120	0	20
SW8260B	BF-EW-1	12-03-1751	1,1-Dichloroethene	<0.50	10.00	500	500	500	1	1	476.2	470.7	95	94	73	127	1	20
SW8260B	BF-EW-1	12-03-1751	Ethylbenzene	<0.50	10.00	500	500	500	1	1	501.9	492	100	98	78	126	2	20
SW8260B	BF-EW-1	12-03-1751	Toluene	<0.50	10.00	500	500	500	1	1	467.4	455.9	93	91	80	120	3	20
SW8260B	BF-EW-1	12-03-1751	Trichloroethene	68.05	10.00	500	500	500	1	1	521.8	523.9	91	91	77	120	0	20
SW8260B	BF-EW-1	12-03-1751	Vinyl Chloride	<0.50	10.00	500	500	500	1	1	430.9	433.5	86	87	72	126	1	20
SW8260B	BF-EW-1	12-03-1751	MTBE	<0.50	10.00	500	500	500	1	1	428.6	446.5	86	89	67	121	4	49
SW8260B	BF-EW-1	12-03-1751	TBA	<10	50	2,500	2,500	2,500	1	1	2,521	2602	101	104	36	162	3	30
SW8260B	BF-EW-1	12-03-1751	DIPE	<0.50	10.00	500	500	500	1	1	445.8	448.8	89	90	60	138	1	45
SW8260B	BF-EW-1	12-03-1751	ETBE	<0.50	10.00	500	500	500	1	1	374.5	388	75	78	69	123	4	30
SW8260B	BF-EW-1	12-03-1751	TAME	<0.50	10.00	500	500	500	1	1	389.7	402	78	80	65	120	3	20
SW8260B	BF-EW-1	12-03-1751	Ethanol	<50	100	5,000	5,000	5,000	1	1	4,654	4390	93	83	30	180	6	72
E200.8	BF-EW-2	12-03-1751	Arsenic III	0.0992	0.1	0.1	0.1	0.1	1	1	0.091	0.088	--	--	60	125	1	20
E200.8	BF-EW-2	12-03-1751	Arsenic V	0.1	0.1	0.1	0.1	0.1	1	1	0.101	0.102	--	--	60	125	1	20
SW6020	BF-EW-2	12-03-1751	Arsenic	0.008923	0.1	0.1	0.1	0.1	1	1	0.1007	0.1030	92	94	75	125	2	11
314 modified	CMW001	12-03-1385	pCBSA	31,280	25	25,000	50,000	50,000	1	1	62,160	62,700	124	126	70	130	1	20
SW8260B	SWL0026	12-02-0447	Benzene	6997	10.00	500	500	500	1	1	6438	6254	0	0	76	124	3	20
SW8260B	SWL0026	12-02-0447	Carbon Tetrachloride	<0.50	10.00	500	500	500	1	1	485.6	159.5	97	92	74	134	6	20
SW8260B	SWL0026	12-02-0447	Chlorobenzene	818.1	10.00	500	500	500	1	1	1266	1250	90	86	80	120	1	20

Table C-4
MS/MSD Results
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20201 S. Normandie Avenue, Los Angeles, California

Analysis	Field Sample	Lab SDG	Analyte	Original Sample (µg/L)	MS Spike Amount (µg/L)	MSD Spike Amount (µg/L)	MS Expected (µg/L)	MSD Expected (µg/L)	MS Dilution	MSD Dilution	MS Result (µg/L)	MSD Result (µg/L)	MS %R	MSD %R	%R Min Limit	%R Max Limit	%RPD	Max %RPD
SW8260B	SWL0026	12-02-0447	1,2-Dibromoethane	<0.50	10.00	500	500	500	1	1	490.6	.482.7	98	97	80	120	2	20
SW8260B	SWL0026	12-02-0447	1,2-Dichlorobenzene	<0.50	10.00	500	500	500	1	1	491.5	485.2	98	97	80	120	1	20
SW8260B	SWL0026	12-02-0447	1,2-Dichloroethane	282.1	10.00	500	500	500	1	1	969	933	137	130	80	120	4	20
SW8260B	SWL0026	12-02-0447	1,1-Dichloroethene	<0.50	10.00	500	500	500	1	1	476.2	472.4	95	94	73	127	1	20
SW8260B	SWL0026	12-02-0447	Ethylbenzene	915.1	10.00	500	500	500	1	1	1397	1373	96	92	78	126	2	20
SW8260B	SWL0026	12-02-0447	Toluene	29.88	10.00	500	500	500	1	1	527.2	492.5	99	93	80	120	7	20
SW8260B	SWL0026	12-02-0447	Trichloroethene	82.45	10.00	500	500	500	1	1	599.4	537.2	103	91	77	120	11	20
SW8260B	SWL0026	12-02-0447	Vinyl Chloride	<0.50	10.00	500	500	500	1	1	568.4	51.5	114	110	72	126	3	20
SW8260B	SWL0026	12-02-0447	MTBE	<0.50	10.00	500	500	500	1	1	481.9	490.1	96	98	67	121	2	49
SW8260B	SWL0026	12-02-0447	TBA	<10	50	2,500	2,500	2,500	1	1	2092	1962	84	78	36	162	4	30
SW8260B	SWL0026	12-02-0447	DIPE	<0.50	10.00	500	500	500	1	1	498.2	492.6	100	99	60	138	1	45
SW8260B	SWL0026	12-02-0447	ETBE	<0.50	10.00	500	500	500	1	1	477	468.7	95	94	69	123	2	30
SW8260B	SWL0026	12-02-0447	TAME	<0.50	10.00	500	500	500	1	1	474.9	470.8	95	94	65	120	1	20
SW8260B	SWL0026	12-02-0447	Ethanol	<50	100	5,000	5,000	5,000	1	1	4544	4244	91	85	30	180	7	72
314 modified	SWL0026	12-02-0447	pCBSA	132.8	25	125	250	250	1	1	272.3	284.5	112	121	70	130	4	20
SW8260B	SWL0026	12-03-1828	Benzene	0.5559	10.00	10.00	10.00	10.00	1	1	10.81	10.58	103	100	76	124	2	20
SW8260B	SWL0026	12-03-1828	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	9.872	9.866	99	99	76	134	0	20
SW8260B	SWL0026	12-03-1828	Chlorobenzene	17.29	10.00	10.00	10.00	10.00	1	1	26.43	28.17	91	109	80	120	6	20
SW8260B	SWL0026	12-03-1828	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	9.733	9.626	97	96	80	120	1	20
SW8260B	SWL0026	12-03-1828	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.934	10.18	99	102	80	120	2	20
SW8260B	SWL0026	12-03-1828	1,2-Dichloroethane	1,525	10.00	10.00	10.00	10.00	1	1	11.12	11.23	99	100	80	120	1	20
SW8260B	SWL0026	12-03-1828	1,1-Dichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	8.333	8.455	83	85	73	127	1	20
SW8260B	SWL0026	12-03-1828	Ethylbenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.3	9.766	103	98	78	126	5	20
SW8260B	SWL0026	12-03-1828	Toluene	<0.50	10.00	10.00	10.00	10.00	1	1	10.07	9.718	101	97	80	120	4	20
SW8260B	SWL0026	12-03-1828	Trichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	9.735	9.508	97	95	77	120	2	20
SW8260B	SWL0026	12-03-1828	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	8.344	9.018	83	90	72	126	8	20
SW8260B	SWL0026	12-03-1828	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	8.17	9.054	82	91	67	121	10	49
SW8260B	SWL0026	12-03-1828	TBA	<10	50	50	50	50	1	1	49.21	56.21	98	112	36	162	13	30
SW8260B	SWL0026	12-03-1828	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	9.901	10.22	99	102	60	138	2	45
SW8260B	SWL0026	12-03-1828	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	7.214	8.322	72	83	69	123	14	30
SW8260B	SWL0026	12-03-1828	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	8.034	7.897	80	79	65	120	2	20
SW8260B	SWL0026	12-03-1828	Ethanol	<50	100	100	100	100	1	1	118.3	108.7	118	109	30	180	8	72
SW8260B	G-06	12-03-1906	Benzene	<0.50	10.00	200	200	200	1	1	191.9	192.4	96	96	76	124	0	20
SW8260B	G-06	12-03-1906	Carbon Tetrachloride	1525	10.00	200	200	200	1	1	174	178.8	87	89	76	134	3	20
SW8260B	G-06	12-03-1906	Chlorobenzene	<0.50	10.00	200	200	200	1	1	1,553	1,571	14	23	80	120	1	20
SW8260B	G-06	12-03-1906	1,2-Dibromoethane	<0.50	10.00	200	200	200	1	1	184.5	184.6	92	92	80	120	0	20
SW8260B	G-06	12-03-1906	1,2-Dichlorobenzene	<0.50	10.00	200	200	200	1	1	201.7	205.2	101	103	80	120	2	20

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Analysis	Field Sample	Lab SDG	Analyte	Original Sample (µg/L)	MS Spike Amount (µg/L)	MSD Spike Amount (µg/L)	MS Expected (µg/L)	MSD Expected (µg/L)	MS Dilution	MSD Dilution	MS Result (µg/L)	MSD Result (µg/L)	MS %R	MSD %R	%R Min Limit	%R Max Limit	%RPD	Max %RPD
SW8260B	G-06	12-03-1906	1,2-Dichloroethane	<0.50	10.00	200	200	200	1	1	190.4	187.7	95	94	80	120	1	20
SW8260B	G-06	12-03-1906	1,1-Dichloroethene	<0.50	10.00	200	200	200	1	1	152.1	156.4	76	78	73	127	3	20
SW8260B	G-06	12-03-1906	Ethylbenzene	<0.50	10.00	200	200	200	1	1	196.2	209.7	98	105	78	126	7	20
SW8260B	G-06	12-03-1906	Toluene	<0.50	10.00	200	200	200	1	1	180.9	181	90	91	80	120	0	20
SW8260B	G-06	12-03-1906	Trichloroethene	<0.50	10.00	200	200	200	1	1	181.1	184	91	92	77	120	2	20
SW8260B	G-06	12-03-1906	Vinyl Chloride	<0.50	10.00	200	200	200	1	1	153.36	155.5	77	78	72	126	1	20
SW8260B	G-06	12-03-1906	MTBE	<0.50	10.00	200	200	200	1	1	148.5	146.7	74	73	67	121	1	49
SW8260B	G-06	12-03-1906	TBA	<0.50	10.00	1,000	1,000	1,000	1	1	1111	1159	111	116	36	162	4	30
SW8260B	G-06	12-03-1906	DIPE	<10	50	200	200	200	1	1	181.8	184.4	91	92	60	138	1	45
SW8260B	G-06	12-03-1906	ETBE	<0.50	10.00	200	200	200	1	1	131.3	124.6	66	62	69	123	5	30
SW8260B	G-06	12-03-1906	TAME	<0.50	10.00	200	200	200	1	1	127.1	123.6	64	62	65	120	3	20
SW8260B	G-06	12-03-1906	Ethanol	<50	100	200	200	200	1	1	2,437	2,621	122	131	30	180	7	72
SW8260B	G-09	12-03-1828	Benzene	0.9354	10.00	10.00	10.00	10.00	1	1	10.9	10.24	100	93	76	124	6	20
SW8260B	G-09	12-03-1828	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	9.266	8.934	93	89	76	134	4	20
SW8260B	G-09	12-03-1828	Chlorobenzene	83.45	10.00	10.00	10.00	10.00	1	1	68.96	67.87	0	0	80	120	2	20
SW8260B	G-09	12-03-1828	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	10.11	9.964	101	100	80	120	1	20
SW8260B	G-09	12-03-1828	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	9	8.888	90	89	80	120	1	20
SW8260B	G-09	12-03-1828	1,2-Dichloroethane	0.5966	10.00	10.00	10.00	10.00	1	1	11.5	10.88	109	103	80	120	6	20
SW8260B	G-09	12-03-1828	1,1-Dichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	9.596	9.317	96	93	73	127	3	20
SW8260B	G-09	12-03-1828	Ethylbenzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.572	9.353	96	94	78	126	2	20
SW8260B	G-09	12-03-1828	Toluene	<0.50	10.00	10.00	10.00	10.00	1	1	10.67	10.4	107	100	80	120	6	20
SW8260B	G-09	12-03-1828	Trichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	9.445	9.217	94	92	77	120	2	20
SW8260B	G-09	12-03-1828	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	8.724	8.388	87	84	72	126	4	20
SW8260B	G-09	12-03-1828	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	9.007	8.087	90	91	67	121	11	49
SW8260B	G-09	12-03-1828	TBA	<10	50	50	50	50	1	1	119.2	53.55	238	107	36	162	76	30
SW8260B	G-09	12-03-1828	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	8.941	7.162	89	72	60	138	22	45
SW8260B	G-09	12-03-1828	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	7.508	7.531	75	75	69	123	0	30
SW8260B	G-09	12-03-1828	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	5.018	7.875	50	79	65	120	44	20
SW8260B	G-09	12-03-1828	Ethanol	<50	100	100	100	100	1	1	103.3	101.2	103	101	30	180	2	72
SW8260B	G-18	12-02-0169	Benzene	<0.50	10.00	10.00	10.00	10.00	1	1	12.19	12.01	122	120	76	124	1	20
SW8260B	G-18	12-02-0169	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	11.51	11.35	115	114	76	134	1	20
SW8260B	G-18	12-02-0169	Chlorobenzene	2.91	10.00	10.00	10.00	10.00	1	1	15.01	14.55	121	116	80	120	3	20
SW8260B	G-18	12-02-0169	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	11.66	11.75	117	117	80	120	1	20
SW8260B	G-18	12-02-0169	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	11.28	11.34	113	113	80	120	1	20
SW8260B	G-18	12-02-0169	1,2-Dichloroethane	<0.50	10.00	10.00	10.00	10.00	1	1	11.43	11.4	114	114	80	120	0	20
SW8260B	G-18	12-02-0169	1,1-dichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	11.54	11.31	115	113	73	127	2	20
SW8260B	G-18	12-02-0169	Ethylbenzene	<0.50	10.00	10.00	10.00	10.00	1	1	11.94	11.78	119	118	78	126	1	20

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Analysis	Field Sample	Lab SDG	Analyte	Original Sample (µg/L)	MS Spike Amount (µg/L)	MSD Spike Amount (µg/L)	MS Expected (µg/L)	MSD Expected (µg/L)	MS Dilution	MSD Dilution	MS Result (µg/L)	MSD Result (µg/L)	MS %R	MSD %R	%R Min Limit	%R Max Limit	%RPD	Max %RPD
SW8260B	G-18	12-02-0169	Toluene	<0.50	10.00	10.00	10.00	10.00	1	1	12.59	12.42	126	124	80	120	1	20
SW8260B	G-18	12-02-0169	Trichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	11.8	11.65	118	116	77	120	1	20
SW8260B	G-18	12-02-0169	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	13.06	12.56	131	126	72	126	4	20
SW8260B	G-18	12-02-0169	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	10.55	10.53	105	105	67	121	0	49
SW8260B	G-18	12-02-0169	TBA	<10	50	50	50	50	1	1	123.7	89.55	247	179	36	162	32	30
SW8260B	G-18	12-02-0169	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	11.37	11.23	114	112	60	138	1	45
SW8260B	G-18	12-02-0169	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	10.2	10.09	102	101	69	123	1	30
SW8260B	G-18	12-02-0169	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	10.72	10.64	107	106	65	120	1	20
SW8260B	G-18	12-02-0169	Ethanol	<50	100	100	100	100	1	1	135.8	126.2	136	126	30	180	7	72
314 modified	G-18	12-02-0169	pCBSA	48.7	25	25	70	70	1	1	78.21	77.51	118	115	70	130	1	20
SW8260B	G-25	12-01-1667	Benzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.973	9.64	100	96	76	124	3	20
SW8260B	G-25	12-01-1667	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	10.48	10.73	105	107	76	134	2	20
SW8260B	G-25	12-01-1667	Chlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.35	10.46	103	105	80	120	1	20
SW8260B	G-25	12-01-1667	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	10	9.994	100	100	80	120	0	20
SW8260B	G-25	12-01-1667	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.19	10.2	102	102	80	120	0	20
SW8260B	G-25	12-01-1667	1,2-Dichloroethane	<0.50	10.00	10.00	10.00	10.00	1	1	10.7	10.46	107	105	80	120	2	20
SW8260B	G-25	12-01-1667	1,1-dichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	10	10.2	100	102	73	127	2	20
SW8260B	G-25	12-01-1667	Ethylbenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.77	10.85	108	109	78	126	1	20
SW8260B	G-25	12-01-1667	Toluene	<0.50	10.00	10.00	10.00	10.00	1	1	10.91	10.45	109	104	80	120	4	20
SW8260B	G-25	12-01-1667	Trichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	10.69	10.52	107	105	77	120	2	20
SW8260B	G-25	12-01-1667	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	11.3	12.31	113	123	72	126	8	20
SW8260B	G-25	12-01-1667	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	10.58	10.14	106	101	67	121	4	49
SW8260B	G-25	12-01-1667	TBA	<10	50	50	50	50	1	1	63.62	52.99	127	105	36	162	18	30
SW8260B	G-25	12-01-1667	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	11.83	10.9	118	109	60	138	8	45
SW8260B	G-25	12-01-1667	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	11.24	10.99	112	110	69	123	2	30
SW8260B	G-25	12-01-1667	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	9.852	9.588	99	96	65	120	3	20
SW8260B	G-25	12-01-1667	Ethanol	<50	100	100	100	100	1	1	105.1	115.4	105	115	30	180	9	72
SW8260B	G-26	12-01-1815	Benzene	<0.50	10.00	10.00	10.00	10.00	1	1	11.46	10.09	115	101	76	124	13	20
SW8260B	G-26	12-01-1815	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	10.74	11.31	107	113	74	134	5	20
SW8260B	G-26	12-01-1815	Chlorobenzene	124.7	10.00	10.00	10.00	10.00	1	1	114.02	114.2	0	0	80	120	0	20
SW8260B	G-26	12-01-1815	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	9.556	11.14	96	111	80	120	15	20
SW8260B	G-26	12-01-1815	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.62	10.77	96	108	80	120	11	20
SW8260B	G-26	12-01-1815	1,2-Dichloroethane	<0.50	10.00	10.00	10.00	10.00	1	1	11.69	10.4	117	104	80	120	12	20
SW8260B	G-26	12-01-1815	1,1-dichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	9.946	10.46	99	105	73	127	5	20
SW8260B	G-26	12-01-1815	Ethylbenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.6	11.09	106	111	78	126	5	20
SW8260B	G-26	12-01-1815	Toluene	<0.50	10.00	10.00	10.00	10.00	1	1	10.92	10.46	109	105	80	120	4	20
SW8260B	G-26	12-01-1815	Trichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	10.72	10.44	107	104	77	120	3	20

Table C-4
MS/MSD Results
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Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Analysis	Field Sample	Lab SDG	Analyte	Original Sample (µg/L)	MS Spike Amount (µg/L)	MSD Spike Amount (µg/L)	MS Expected (µg/L)	MSD Expected (µg/L)	MS Dilution	MSD Dilution	MS Result (µg/L)	MSD Result (µg/L)	MS %R	MSD %R	%R Min Limit	%R Max Limit	%RPD	Max %RPD
SW8260B	G-26	12-01-1815	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	10.11	11.16	101	112	72	126	10	20
SW8260B	G-26	12-01-1815	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	9.248	10.26	92	103	67	121	10	49
SW8260B	G-26	12-01-1815	TBA	<10	50	50	50	50	1	1	118.8	57.04	238	114	36	162	70	30
SW8260B	G-26	12-01-1815	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	9.723	10.23	97	102	60	138	5	45
SW8260B	G-26	12-01-1815	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	9.096	10.05	91	100	69	123	10	30
SW8260B	G-26	12-01-1815	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	10.01	9.305	100	93	65	120	7	20
SW8260B	G-26	12-01-1815	Ethanol	<50	100	100	100	100	1	1	99.07	109.1	99	109	30	180	10	72
SW8260B	G-27	12-01-1596	Benzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.54	10.91	105	109	76	124	3	20
SW8260B	G-27	12-01-1596	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	11.92	12.23	119	122	74	134	3	20
SW8260B	G-27	12-01-1596	Chlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.42	10.71	104	107	80	120	3	20
SW8260B	G-27	12-01-1596	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	10.41	10.81	104	108	80	120	4	20
SW8260B	G-27	12-01-1596	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.54	10.58	105	106	80	120	0	20
SW8260B	G-27	12-01-1596	1,2-Dichloroethane	<0.50	10.00	10.00	10.00	10.00	1	1	10.91	11.38	109	114	80	120	4	20
SW8260B	G-27	12-01-1596	Ethylbenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.45	10.66	105	107	78	126	2	20
SW8260B	G-27	12-01-1596	Toluene	0.5383	10.00	10.00	10.54	10.54	1	1	11.06	11.32	105	108	80	120	2	20
SW8260B	G-27	12-01-1596	Trichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	10.66	10.93	107	109	77	120	2	20
SW8260B	G-27	12-01-1596	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	11.43	11.86	114	119	72	126	4	20
SW8260B	G-27	12-01-1596	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	11.36	12.09	114	121	67	121	6	49
SW8260B	G-27	12-01-1596	TBA	<10	50	50	50	50	1	1	97.28	102.3	195	205	36	162	5	30
SW8260B	G-27	12-01-1596	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	11.32	11.73	113	117	60	138	4	45
SW8260B	G-27	12-01-1596	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	11.31	11.82	113	118	69	123	4	30
SW8260B	G-27	12-01-1596	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	10.43	10.93	104	109	65	120	5	20
SW8260B	G-27	12-01-1596	Ethanol	<50	100	100	100	100	1	1	100.9	100.6	101	101	30	180	0	72
314 modified	G-27	12-01-1596	pCBSA	<5.0	25	25	25	25	1	1	30.42	29.72	122	119	70	130	2	20
SW8260B	G-29	12-02-0275	Benzene	<0.50	10.00	10.00	10.00	10.00	1	1	8.522	8.844	85	88	76	124	4	20
SW8260B	G-29	12-02-0275	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	8.865	9.213	89	92	74	134	4	20
SW8260B	G-29	12-02-0275	Chlorobenzene	1.522	10.00	10.00	11.52	11.52	1	1	11.51	12.01	100	105	80	120	4	20
SW8260B	G-29	12-02-0275	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	9.298	9.584	93	96	80	120	3	20
SW8260B	G-29	12-02-0275	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.902	10.48	99	105	80	120	6	20
SW8260B	G-29	12-02-0275	1,2-Dichloroethane	<0.50	10.00	10.00	10.00	10.00	1	1	9.06	9.177	91	92	80	120	1	20
SW8260B	G-29	12-02-0275	1,1-Dichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	8.388	8.943	84	89	73	127	6	20
SW8260B	G-29	12-02-0275	Ethylbenzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.634	10.19	96	102	78	126	6	20
SW8260B	G-29	12-02-0275	Toluene	<0.50	10.00	10.00	10.00	10.00	1	1	10.23	10.43	102	104	80	120	2	20
SW8260B	G-29	12-02-0275	Trichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	9.495	10.19	95	102	77	120	7	20
SW8260B	G-29	12-02-0275	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	9.539	10.32	95	103	72	126	8	20
SW8260B	G-29	12-02-0275	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	7.503	7.931	75	79	67	121	6	49
SW8260B	G-29	12-02-0275	TBA	<10	50	50	50	50	1	1	153.9	74.77	308	150	36	162	69	30

Table C-4
MS/MSD Results
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20201 S. Normandie Avenue, Los Angeles, California

Analysis	Field Sample	Lab SDG	Analyte	Original Sample (µg/L)	MS Spike Amount (µg/L)	MSD Spike Amount (µg/L)	MS Expected (µg/L)	MSD Expected (µg/L)	MS Dilution	MSD Dilution	MS Result (µg/L)	MSD Result (µg/L)	MS %R	MSD %R	%R Min Limit	%R Max Limit	%RPD	Max %RPD
SW8260B	G-29	12-02-0275	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	7.007	7.48	70	75	60	138	7	45
SW8260B	G-29	12-02-0275	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	7.047	7.56	70	76	69	123	7	30
SW8260B	G-29	12-02-0275	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	7.623	8.069	76	81	65	120	6	20
SW8260B	G-29	12-02-0275	Ethanol	<50	100	100	100	100	1	1	104.8	106	105	106	30	180	1	72
314 modified	G-29	12-02-0275	pCBSA	7,835	5,000	5,000	11,031	11,031	200	200	14,340	14,070	130	125	70	130	2	20
SW8260B	G-30	12-01-1418	Benzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.84	10.03	98	100	76	124	2	20
SW8260B	G-30	12-01-1418	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	9.30	10.35	93	103	74	134	11	20
SW8260B	G-30	12-01-1418	Chlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.40	10.38	104	104	80	120	0	20
SW8260B	G-30	12-01-1418	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	10.26	10.42	103	104	80	120	2	20
SW8260B	G-30	12-01-1418	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.96	10.39	100	104	80	120	4	20
SW8260B	G-30	12-01-1418	1,2-Dichloroethane	3.060	10.00	10.00	10.00	10.00	1	1	13.33	13.66	103	106	80	120	2	20
SW8260B	G-30	12-01-1418	1,1-dichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	9.18	10.51	92	105	73	127	14	20
SW8260B	G-30	12-01-1418	Ethylbenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.69	10.55	107	105	78	126	1	20
SW8260B	G-30	12-01-1418	Toluene	1.13	10.00	10.00	10.00	10.00	1	1	12.03	12.19	109	111	80	120	1	20
SW8260B	G-30	12-01-1418	Trichloroethene	0.9018	10.00	10.00	10.00	10.00	1	1	11.35	11.49	10	106	77	120	1	20
SW8260B	G-30	12-01-1418	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	10.10	11.63	101	116	72	126	14	20
SW8260B	G-30	12-01-1418	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	9.06	10.35	91	104	67	121	13	49
SW8260B	G-30	12-01-1418	TBA	<10	50	50	50	50	1	1	103.00	59.26	206	119	36	162	54	30
SW8260B	G-30	12-01-1418	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	11.42	12.79	114	128	60	138	11	45
SW8260B	G-30	12-01-1418	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	10.20	11.42	102	114	69	123	11	30
SW8260B	G-30	12-01-1418	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	9.45	9.60	95	96	65	120	1	20
SW8260B	G-30	12-01-1418	Ethanol	<50	100	100	100	100	1	1	129.60	135.90	130	136	30	180	5	72
SW8260B	G-33	12-02-0067	Benzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.308	9.318	93	93	76	124	0	20
SW8260B	G-33	12-02-0067	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	9.904	10.12	99	101	74	134	2	20
SW8260B	G-33	12-02-0067	Chlorobenzene	2.518	10.00	10.00	12.52	12.52	1	1	12.76	12.62	102	101	80	120	1	20
SW8260B	G-33	12-02-0067	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	9.186	9.454	92	95	80	120	3	20
SW8260B	G-33	12-02-0067	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.462	9.862	95	99	80	120	4	20
SW8260B	G-33	12-02-0067	1,2-Dichloroethane	0.51	10.00	10.00	10.51	10.51	1	1	9.619	9.61	91	91	80	120	0	20
SW8260B	G-33	12-02-0067	1,1-Dichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	9.272	9.834	93	98	73	127	6	20
SW8260B	G-33	12-02-0067	Ethylbenzene	8.237	10.00	10.00	18.24	18.24	1	1	18.44	17.84	102	96	73	127	3	20
SW8260B	G-33	12-02-0067	Toluene	<0.50	10.00	10.00	10.00	10.00	1	1	10.55	10.52	106	105	80	120	0	20
SW8260B	G-33	12-02-0067	Trichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	10.25	10.38	102	104	77	120	1	20
SW8260B	G-33	12-02-0067	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	9.583	10.16	96	102	72	126	6	20
SW8260B	G-33	12-02-0067	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	8.288	8.595	83	86	67	121	4	49
SW8260B	G-33	12-02-0067	TBA	<10	50	50	50	50	1	1	55.64	82.66	111	165	36	162	39	30
SW8260B	G-33	12-02-0067	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	8.247	8.242	82	82	60	138	0	45
SW8260B	G-33	12-02-0067	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	7.974	8.204	80	82	69	123	3	30

Table C-4
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20201 S. Normandie Avenue, Los Angeles, California

Analysis	Field Sample	Lab SDG	Analyte	Original Sample (µg/L)	MS Spike Amount (µg/L)	MSD Spike Amount (µg/L)	MS Expected (µg/L)	MSD Expected (µg/L)	MS Dilution	MSD Dilution	MS Result (µg/L)	MSD Result (µg/L)	MS %R	MSD %R	%R Min Limit	%R Max Limit	%RPD	Max %RPD
SW8260B	G-33	12-02-0067	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	8.279	8.302	83	83	65	120	0	20
SW8260B	G-33	12-02-0067	Ethanol	<50	100	100	100	100	1	1	73.44	96.56	73	97	30	180	27	72
314 modified	G-33	12-02-0067	pCBSA	162	125	125	253	253	2	2	321	326	127	131	70	130	2	20
SW8260B	G-35	12-01-1748	Benzene	<0.50	10.00	10.00	10.00	10.00	1	1	9.979	10.69	100	107	76	124	7	20
SW8260B	G-35	12-01-1748	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	11.12	11.23	111	112	74	134	1	20
SW8260B	G-35	12-01-1748	Chlorobenzene	0.513	10.00	10.00	10.51	20.00	1	1	11.13	11.28	106	108	80	120	1	20
SW8260B	G-35	12-01-1748	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	10.23	10.22	102	102	80	120	0	20
SW8260B	G-35	12-01-1748	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.17	10.6	102	106	80	120	4	20
SW8260B	G-35	12-01-1748	1,2-Dichloroethane	10.39	10.00	10.00	20.39	20.39	1	1	20.52	22.8	101	124	80	120	11	20
SW8260B	G-35	12-01-1748	1,1-Dichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	10.87	10.69	109	107	73	127	2	20
SW8260B	G-35	12-01-1748	Ethylbenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.87	10.69	109	107	73	127	2	20
SW8260B	G-35	12-01-1748	Toluene	<0.50	10.00	10.00	10.00	10.00	1	1	9.878	11.54	99	115	80	120	16	20
SW8260B	G-35	12-01-1748	Trichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	10.25	11.35	102	114	77	120	10	20
SW8260B	G-35	12-01-1748	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	11.92	11.69	119	117	72	126	2	20
SW8260B	G-35	12-01-1748	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	10.4	10.03	104	100	67	121	4	49
SW8260B	G-35	12-01-1748	TBA	<10	50	50	50	50	1	1	121.5	72.23	243	144	36	162	51	30
SW8260B	G-35	12-01-1748	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	10.96	10.42	110	104	60	138	5	45
SW8260B	G-35	12-01-1748	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	10.13	9.495	101	95	69	123	6	30
SW8260B	G-35	12-01-1748	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	8.98	9.736	90	97	65	120	8	20
SW8260B	G-35	12-01-1748	Ethanol	<50	100	100	100	100	1	1	117.7	113.5	118	114	30	180	4	72
314 modified	G-35	12-01-1748	pCBSA	12,730	10,000	10,000	19,057	19,057	400	400	26,680	26,130	140	134	70	130	2	20
SW8260B	G-EW-2	12-02-0378	Benzene	2.32	10.00	10.00	10.00	10.00	1	1	12.54	12.24	102	99	76	124	2	20
SW8260B	G-EW-2	12-02-0378	Carbon Tetrachloride	<0.50	10.00	10.00	10.00	10.00	1	1	89.823	9.786	98	98	74	134	0	20
SW8260B	G-EW-2	12-02-0378	Chlorobenzene	309.3	10.00	10.00	319.30	20.00	1	1	300.4	298	0	0	80	120	1	20
SW8260B	G-EW-2	12-02-0378	1,2-Dibromoethane	<0.50	10.00	10.00	10.00	10.00	1	1	10.1	9.958	101	100	80	120	1	20
SW8260B	G-EW-2	12-02-0378	1,2-Dichlorobenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.3	10.36	103	104	80	120	1	20
SW8260B	G-EW-2	12-02-0378	1,2-Dichloroethane	7.053	10.00	10.00	20.39	20.39	1	1	17.35	16.87	103	98	80	120	3	20
SW8260B	G-EW-2	12-02-0378	1,1-Dichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	9.413	9.908	94	99	73	127	5	20
SW8260B	G-EW-2	12-02-0378	Ethylbenzene	<0.50	10.00	10.00	10.00	10.00	1	1	10.81	10.77	108	108	78	126	0	20
SW8260B	G-EW-2	12-02-0378	Toluene	<0.50	10.00	10.00	10.00	10.00	1	1	10.45	10.39	104	104	80	120	1	20
SW8260B	G-EW-2	12-02-0378	Trichloroethene	<0.50	10.00	10.00	10.00	10.00	1	1	10.58	10.19	106	102	77	120	4	20
SW8260B	G-EW-2	12-02-0378	Vinyl Chloride	<0.50	10.00	10.00	10.00	10.00	1	1	11.05	11.56	110	116	72	126	5	20
SW8260B	G-EW-2	12-02-0378	MTBE	<0.50	10.00	10.00	10.00	10.00	1	1	9.969	10.22	100	102	67	121	2	49
SW8260B	G-EW-2	12-02-0378	TBA	<10	50	50	50	50	1	1	89.45	58.68	179	117	36	162	42	30
SW8260B	G-EW-2	12-02-0378	DIPE	<0.50	10.00	10.00	10.00	10.00	1	1	10.05	10.35	100	103	60	138	3	45
SW8260B	G-EW-2	12-02-0378	ETBE	<0.50	10.00	10.00	10.00	10.00	1	1	9.534	9.787	95	98	69	123	3	30
SW8260B	G-EW-2	12-02-0378	TAME	<0.50	10.00	10.00	10.00	10.00	1	1	9.768	9.78	98	98	65	120	0	20

Table C-4
MS/MSD Results
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

Analysis	Field Sample	Lab SDG	Analyte	Original Sample (µg/L)	MS Spike Amount (µg/L)	MSD Spike Amount (µg/L)	MS Expected (µg/L)	MSD Expected (µg/L)	MS Dilution	MSD Dilution	MS Result (µg/L)	MSD Result (µg/L)	MS %R	MSD %R	%R Min Limit	%R Max Limit	%RPD	Max %RPD
SW8260B	G-EW-2	12-02-0378	Ethanol	<50	100	100	100	100	1	1	104.4	110.4	104	110	30	180	6	72
314 modified	EB032712	12-03-1828	pCBSA	16.46	25	25	40	40	1	1	46.49	45.19	120	115	70	130	3	20

Notes:
MS = Matrix Spike
MSD = Matrix Spike Duplicate
NR = No recovery; not detected at or above the reporting limit
NC = Not calculated; native concentration exceeds 4 times the spike level
NDR = Not detected at reporting limit.
RPD = Relative Percent difference or Precision.
%R = Percent Recovery or Accuracy.

= Result outside of acceptance limits

APPENDIX D

INVESTIGATION-DERIVED WASTE DOCUMENTATION

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD008242711
2. Page 1 of: 1
3. Emergency Response Phone: NRCES 562.432.1304
4. Waste Tracking Number: 1 of 3/6543/NH

5. Generator's Name and Mailing Address
Montrose Chemical Corp of California
600 Erickson Ave Suite 380
Bain Bridge Island WA 98110
Generator's Phone: 203 2014770

Generator's Site Address (if different than mailing address)
Montrose Chemical Corp of California
20201 S. Normandie Ave.
Torrance CA 90502

6. Transporter 1 Company Name: NRC Environmental Services, Inc
U.S. EPA ID Number: CAR000030114

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Crosby & Overton, Inc.
1630 W. 17th Street
Long Beach CA 90813
Facility's Phone: 562 432-5445
U.S. EPA ID Number: CAD028409019

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1. Non-hazardous waste liquid (water)	001	TT	2000	G	NONE
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information
BILL TO NRCES LONG BEACH
JOB# 65431 PO# 472306. PROFILE# ~~68005~~ an 71559.
L14237 D61780

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Dean Charles
Signature: on behalf of Montrose
Month Day Year: 3 7 12

15. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter Signature (for exports only):
Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Juan Delgado
Signature:
Month Day Year: 3 7 12
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year:

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Johnston
Signature:
Month Day Year: 03 07 12

GENERATOR
INT'L
TRANSPORTER
DESIGNATED FACILITY

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	CAD008242711	1	NRCES 562.432.1304	2 of 3 / 65431 NH

5. Generator's Name and Mailing Address
Montrose Chemical Corp of California
600 Erickson Ave Suite 380
Bain Bridge Island WA 98110
Generator's Phone: 203 2614770

Generator's Site Address (if different than mailing address)
Montrose Chemical Corp of California
20201 S. Normandie Ave.
Torrance CA 90502

6. Transporter 1 Company Name: NRC Environmental Services, Inc
U.S. EPA ID Number: CAR000030114

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Crosby & Overton, Inc.
1630 W. 17th Street
Long Beach CA 90813
Facility's Phone: 562 432-5445
U.S. EPA ID Number: CAD028409019

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1	Non-hazardous waste liquid (water)	001	TT	4000	G	NONE
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
BILL TO NRCES LONG BEACH
JOB# 65431 PO# 472306 PROFILE# ~~68089~~ 71559 D61769
L# 14236

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Dean Charles
Signature: on behalf of Montrose
Month 8 Day 7 Year 12

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Juan Delgado
Signature
Month 3 Day 07 Year 12
Transporter 2 Printed/Typed Name
Signature
Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Laura Christensen
Signature
Month 03 Day 07 Year 12

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD008242711

2. Page 1 of 1

3. Emergency Response Phone: NRCES 562.432.1304

4. Waste Tracking Number: 3 of 3 NH65431

5. Generator's Name and Mailing Address
Montrose Chemical Corp of California
600 Erickson Ave Suite 380
Bain Bridge Island WA 98110
Generator's Phone: 203 2814770

Generator's Site Address (if different than mailing address)
Montrose Chemical Corp of California
20201 S. Normandie Ave.
Torrance CA 90502
U.S. EPA ID Number: CAR000030114

6. Transporter 1 Company Name
NRC Environmental Services, Inc
U.S. EPA ID Number:

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Crosby & Overton, Inc.
1630 W. 17th Street
Long Beach CA 90813
Facility's Phone: 562 432-5445
U.S. EPA ID Number: CAD028409019

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1	Non-hazardous waste liquid (water)	001	TT	4000	G	NONE
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
BILL TO NRCES LONG BEACH
JOB# 65431 PO# 472306 PROFILE#~~68009~~ 71559
L14220
D 61753

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Dean Charles
Signature: on behalf of Montrose
Month Day Year: 3 7 12

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: Date leaving U.S.:
Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Juan Delgado
Signature:
Month Day Year: 3 7 12
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year:

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number: U.S. EPA ID Number:
17b. Alternate Facility (or Generator)
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Lchnslesa
Signature:
Month Day Year: 03 07 12

DESIGNATED FACILITY TO GENERATOR

LC-O 6 10498 (Rev. 9/09)

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD008242711

2. Page 1 of 1

3. Emergency Response Phone: NRCES 562.432.1304

4. Waste Tracking Number: WH ~~5 of 6~~ 4

5. Generator's Name and Mailing Address
Montrose Chemical Corp of California
600 Erickson Ave Suite 380
Bain Bridge Island WA 98110
Generator's Phone: 203 2614770

Generator's Site Address (if different than mailing address)
Montrose Chemical Corp of California
20201 S. Normandie Ave.
Torrance CA 90502

6. Transporter 1 Company Name: NRC Environmental Services, Inc
U.S. EPA ID Number: CAR000030114

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Crosby & Overton, Inc.
1630 W. 17th Street
Long Beach CA 90813
Facility's Phone: 562 432-5445
U.S. EPA ID Number: CAD028409019

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-hazardous waste liquid (water)	001	TT	4800	G	NONE
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
BILL TO NRCES LONG BEACH
JOB# 65431 PO# AU0416-1 PROFILE# ~~68009~~ 71659
14761
D635247

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Dean Charley
Signature: on behalf of Montrose
Month Day Year: 4 16 12

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Rufus Harris
Signature: Rufus Harris
Month Day Year: 4 16 12

Transporter 2 Printed/Typed Name
Signature
Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

H135

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: J Belleza
Signature: J Belleza
Month Day Year: 04 16 12

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	CAD008242711	1	NRCES 562.432.1304	~~6 of 6~~ 5

GENERATOR

5. Generator's Name and Mailing Address
Montrose Chemical Corp of California
600 Erickson Ave Suite 380
Bain Bridge Island WA 98110
Generator's Phone: 203 2614770

Generator's Site Address (if different than mailing address)
Montrose Chemical Corp of California
20201 S. Normandie Ave.
Torrance CA 90502

6. Transporter 1 Company Name: NRC Environmental Services, Inc
U.S. EPA ID Number: CAR000030114

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Crosby & Overton, Inc.
1630 W. 17th Street
Long Beach CA 90813
Facility's Phone: 562 432-5445
U.S. EPA ID Number: CAD028409019

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1	Non-hazardous waste liquid (water)	001	TT	1200	G	NONE
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information
BILL TO NRCES LONG BEACH
JOB# 65431 PO#
PROFILE#68009
71579
D03560 L#14763

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Dean Charles
Signature: on behalf of Montrose
Month 4 Day 16 Year 12

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Rufus Harris
Signature: Rufus Harris
Month 4 Day 16 Year 12
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

4135

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: J Belleza
Signature: J Belleza
Month 04 Day 16 Year 12

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

Calscience Environmental Laboratories, Inc.

CALSCIENCE

WORK ORDER NUMBER: 12-02-1068

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: AECOM

Client Project Name: Montrose Superfund Site / 60212541.03.01

Attention: Katharine Carr Green
3995 Via Oro Ave
Long Beach, CA 90810-1869

Vikas Patel

Approved for release on 02/27/2012 by:
Vikas Patel
Project Manager

ResultLink

Email your PM

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety. Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

Calscience Environmental Laboratories, Inc.

Contents

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Work Order Number: 12-02-1068

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Calscience Environmental Laboratories, Inc.

Client:	AECOM 3995 Via Oro Ave Long Beach, CA 90810-1869	Work Order:	12-02-1068
		Project Name:	Montrose Superfund Site / 60212541.03.01
		Received:	02/16/12 16:15
Attn:	Katharine Carr Green		

DETECTIONS SUMMARY

Client Sample ID Analyte	Result	Qualifiers	Reporting Limit	Units	Method	Extraction
IDW021612						
Arsenic	**0.00611**		0.00100	mg/L	EPA 6020	EPA 3020A Total
Barium	**0.0659**		0.00100	mg/L	EPA 6020	EPA 3020A Total
Cobalt	**0.00164**		0.00100	mg/L	EPA 6020	EPA 3020A Total
Molybdenum	**0.00405**		0.00100	mg/L	EPA 6020	EPA 3020A Total
Nickel	**0.00288**		0.00100	mg/L	EPA 6020	EPA 3020A Total
Zinc	**0.281**		0.00500	mg/L	EPA 6020	EPA 3020A Total
p-Chlorobenzenesulfonic Acid	**13000**		2500	ug/L	EPA 314.0 (M) pCBS	N/A
MBAS	**0.69**		0.10	mg/L	SM 5540C	N/A
Alpha-BHC	**0.099**		0.025	ug/L	EPA 8081A	EPA 3510C
Gamma-BHC	**0.14**		0.025	ug/L	EPA 8081A	EPA 3510C
Beta-BHC	**0.19**		0.025	ug/L	EPA 8081A	EPA 3510C
Benzene	**84**		50	ug/L	EPA 8260B	EPA 5030C
Chlorobenzene	**3100**		50	ug/L	EPA 8260B	EPA 5030C
Chloroform	**88**		50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichlorobenzene	**0.87**		0.50	ug/L	EPA 8260B	EPA 5030C
1,4-Dichlorobenzene	**4.7**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2-Dichloroethane	**5.0**		0.50	ug/L	EPA 8260B	EPA 5030C
c-1,2-Dichloroethene	**0.63**		0.50	ug/L	EPA 8260B	EPA 5030C
Ethylbenzene	**5.1**		0.50	ug/L	EPA 8260B	EPA 5030C
Methylene Chloride	**1.5**		1.0	ug/L	EPA 8260B	EPA 5030C
Naphthalene	**1.3**		1.0	ug/L	EPA 8260B	EPA 5030C
Tetrachloroethene	**4.3**		0.50	ug/L	EPA 8260B	EPA 5030C
Toluene	**0.74**		0.50	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	**9.0**		0.50	ug/L	EPA 8260B	EPA 5030C
1,2,4-Trimethylbenzene	**2.1**		0.50	ug/L	EPA 8260B	EPA 5030C
p/m-Xylene	**4.2**		0.50	ug/L	EPA 8260B	EPA 5030C
o-Xylene	**0.60**		0.50	ug/L	EPA 8260B	EPA 5030C
Tert-Butyl Alcohol (TBA)	**20**		10	ug/L	EPA 8260B	EPA 5030C

Subcontracted analyses, if any, are not included in this summary.

*MDL is shown.

Return to Contents

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/16/12
3995 Via Oro Ave		Work Order No:	12-02-1068
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW021612	**12-02-1068-1-F**	**02/16/12 10:50**	**Aqueous**	**IC 8**	**N/A**	**02/20/12 15:11**	**120220L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	13000	2500	500		ug/L

Method Blank	**099-15-080-9**	**N/A**	**Aqueous**	**IC 8**	**N/A**	**02/20/12 13:40**	**120220L01**

Parameter	Result	RL	DF	Qual	Units
p-Chlorobenzenesulfonic Acid	ND	5.0	1		ug/L

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/16/12
3995 Via Oro Ave		Work Order No:	12-02-1068
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	SM 5540C

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW021612	**12-02-1068-1-G**	**02/16/12 10:50**	**Aqueous**	**UV 8**	**02/17/12**	**02/17/12 19:57**	**C0217SURL1**

Parameter	Result	RL	DF	Qual	Units
MBAS	0.69	0.10	1		mg/L

Method Blank	**099-05-093-2,321**	**N/A**	**Aqueous**	**UV 8**	**02/17/12**	**02/17/12 19:57**	**C0217SURL1**

Parameter	Result	RL	DF	Qual	Units
MBAS	ND	0.10	1		mg/L

Return to Contents

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/16/12
3995 Via Oro Ave		Work Order No:	12-02-1068
Long Beach, CA 90810-1869		Preparation:	EPA 3510C
		Method:	EPA 8081A
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW021612	**12-02-1068-1-E**	**02/16/12 10:50**	**Aqueous**	**GC 44**	**02/17/12**	**02/21/12 13:33**	**120217L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
2,4'-DDD	ND	0.025	0.25		4,4'-DDE	ND	0.025	0.25	
2,4'-DDE	ND	0.025	0.25		Endrin	ND	0.025	0.25	
2,4'-DDT	ND	0.025	0.25		Endrin Aldehyde	ND	0.025	0.25	
Alpha-BHC	0.099	0.025	0.25		4,4'-DDD	ND	0.025	0.25	
Gamma-BHC	0.14	0.025	0.25		Endosulfan II	ND	0.025	0.25	
Beta-BHC	0.19	0.025	0.25		4,4'-DDT	ND	0.025	0.25	
Heptachlor	ND	0.025	0.25		Endosulfan Sulfate	ND	0.025	0.25	
Delta-BHC	ND	0.025	0.25		Methoxychlor	ND	0.025	0.25	
Aldrin	ND	0.025	0.25		Chlordane	ND	0.25	0.25	
Heptachlor Epoxide	ND	0.025	0.25		Toxaphene	ND	0.50	0.25	
Endosulfan I	ND	0.025	0.25		Endrin Ketone	ND	0.025	0.25	
Dieldrin	ND	0.025	0.25						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	81	50-135		2,4,5,6-Tetrachloro-m-Xylene	71	50-135	

Method Blank	**099-12-529-513**	**N/A**	**Aqueous**	**GC 44**	**02/17/12**	**02/21/12 13:18**	**120217L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
2,4'-DDD	ND	0.025	0.25		4,4'-DDE	ND	0.025	0.25	
2,4'-DDE	ND	0.025	0.25		Endrin	ND	0.025	0.25	
2,4'-DDT	ND	0.025	0.25		Endrin Aldehyde	ND	0.025	0.25	
Alpha-BHC	ND	0.025	0.25		4,4'-DDD	ND	0.025	0.25	
Gamma-BHC	ND	0.025	0.25		Endosulfan II	ND	0.025	0.25	
Beta-BHC	ND	0.025	0.25		4,4'-DDT	ND	0.025	0.25	
Heptachlor	ND	0.025	0.25		Endosulfan Sulfate	ND	0.025	0.25	
Delta-BHC	ND	0.025	0.25		Methoxychlor	ND	0.025	0.25	
Aldrin	ND	0.025	0.25		Chlordane	ND	0.25	0.25	
Heptachlor Epoxide	ND	0.025	0.25		Toxaphene	ND	0.50	0.25	
Endosulfan I	ND	0.025	0.25		Endrin Ketone	ND	0.025	0.25	
Dieldrin	ND	0.025	0.25						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	94	50-135		2,4,5,6-Tetrachloro-m-Xylene	69	50-135	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/16/12
3995 Via Oro Ave		Work Order No:	12-02-1068
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW021612	**12-02-1068-1-A**	**02/16/12 10:50**	**Aqueous**	**GC/MS BB**	**02/17/12**	**02/18/12 02:26**	**120217L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	84	50	100		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	5.1	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	1.5	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	1.3	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	3100	50	100		Tetrachloroethene	4.3	0.50	1	
Chloroethane	ND	0.50	1		Toluene	0.74	0.50	1	
Chloroform	88	50	100		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	9.0	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	0.87	0.50	1		1,2,4-Trimethylbenzene	2.1	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	4.7	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	4.2	0.50	1	
1,2-Dichloroethane	5.0	0.50	1		o-Xylene	0.60	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	0.63	0.50	1		Tert-Butyl Alcohol (TBA)	20	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	68-120		Dibromofluoromethane	99	80-127	
1,2-Dichloroethane-d4	102	80-128		Toluene-d8	97	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/16/12
3995 Via Oro Ave		Work Order No:	12-02-1068
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,266**	**N/A**	**Aqueous**	**GC/MS BB**	**02/17/12**	**02/18/12 01:57**	**120217L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	88	68-120		Dibromofluoromethane	98	80-127	
1,2-Dichloroethane-d4	101	80-128		Toluene-d8	96	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

AECOM		Date Received:	02/16/12
3995 Via Oro Ave		Work Order No:	12-02-1068
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	ug/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-10-025-2,267**	**N/A**	**Aqueous**	**GC/MS BB**	**02/20/12**	**02/20/12 14:56**	**120220L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	10	1		c-1,3-Dichloropropene	ND	0.50	1	
Benzene	ND	0.50	1		t-1,3-Dichloropropene	ND	0.50	1	
Bromobenzene	ND	0.50	1		Ethylbenzene	ND	0.50	1	
Bromochloromethane	ND	1.0	1		2-Hexanone	ND	10	1	
Bromodichloromethane	ND	0.50	1		Isopropylbenzene	ND	0.50	1	
Bromoform	ND	0.50	1		p-Isopropyltoluene	ND	0.50	1	
Bromomethane	ND	1.0	1		Methylene Chloride	ND	1.0	1	
2-Butanone	ND	5.0	1		4-Methyl-2-Pentanone	ND	5.0	1	
n-Butylbenzene	ND	0.50	1		Naphthalene	ND	1.0	1	
sec-Butylbenzene	ND	0.50	1		n-Propylbenzene	ND	0.50	1	
tert-Butylbenzene	ND	0.50	1		Styrene	ND	0.50	1	
Carbon Disulfide	ND	1.0	1		1,1,1,2-Tetrachloroethane	ND	0.50	1	
Carbon Tetrachloride	ND	0.50	1		1,1,2,2-Tetrachloroethane	ND	0.50	1	
Chlorobenzene	ND	0.50	1		Tetrachloroethene	ND	0.50	1	
Chloroethane	ND	0.50	1		Toluene	ND	0.50	1	
Chloroform	ND	0.50	1		1,2,3-Trichlorobenzene	ND	0.50	1	
Chloromethane	ND	0.50	1		1,2,4-Trichlorobenzene	ND	0.50	1	
2-Chlorotoluene	ND	0.50	1		1,1,1-Trichloroethane	ND	0.50	1	
4-Chlorotoluene	ND	0.50	1		1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.50	1	
Dibromochloromethane	ND	0.50	1		1,1,2-Trichloroethane	ND	0.50	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1		Trichloroethene	ND	0.50	1	
1,2-Dibromoethane	ND	0.50	1		Trichlorofluoromethane	ND	0.50	1	
Dibromomethane	ND	0.50	1		1,2,3-Trichloropropane	ND	1.0	1	
1,2-Dichlorobenzene	ND	0.50	1		1,2,4-Trimethylbenzene	ND	0.50	1	
1,3-Dichlorobenzene	ND	0.50	1		1,3,5-Trimethylbenzene	ND	0.50	1	
1,4-Dichlorobenzene	ND	0.50	1		Vinyl Acetate	ND	5.0	1	
Dichlorodifluoromethane	ND	1.0	1		Vinyl Chloride	ND	0.50	1	
1,1-Dichloroethane	ND	0.50	1		p/m-Xylene	ND	0.50	1	
1,2-Dichloroethane	ND	0.50	1		o-Xylene	ND	0.50	1	
1,1-Dichloroethene	ND	0.50	1		Methyl-t-Butyl Ether (MTBE)	ND	0.50	1	
c-1,2-Dichloroethene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
t-1,2-Dichloroethene	ND	0.50	1		Diisopropyl Ether (DIPE)	ND	0.50	1	
1,2-Dichloropropane	ND	0.50	1		Ethyl-t-Butyl Ether (ETBE)	ND	0.50	1	
1,3-Dichloropropane	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	0.50	1	
2,2-Dichloropropane	ND	1.0	1		Ethanol	ND	50	1	
1,1-Dichloropropene	ND	0.50	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	86	68-120		Dibromofluoromethane	101	80-127	
1,2-Dichloroethane-d4	105	80-128		Toluene-d8	97	80-120	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 02/16/12
Work Order No: 12-02-1068
Preparation: EPA 3020A Total / EPA 7470A Total
Method: EPA 6020 / EPA 7470A
Units: mg/L

Project: Montrose Superfund Site / 60212541.03.01

Client Sample Number	Lab Sample Number	Date /Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
IDW021612	**12-02-1068-1-D**	**02/16/12 10:50**	**Aqueous**	**ICP/MS 04**	**02/21/12**	**02/24/12 14:40**	**120221L01**

Comment(s): -Mercury analysis was performed on 02/20/12 12:49 with batch 120220L01.

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.00100	1		Mercury	ND	0.000500	1	
Arsenic	0.00611	0.00100	1		Molybdenum	0.00405	0.00100	1	
Barium	0.0659	0.00100	1		Nickel	0.00288	0.00100	1	
Beryllium	ND	0.00100	1		Selenium	ND	0.00100	1	
Cadmium	ND	0.00100	1		Silver	ND	0.00100	1	
Chromium	ND	0.00100	1		Thallium	ND	0.00100	1	
Cobalt	0.00164	0.00100	1		Vanadium	ND	0.00100	1	
Copper	ND	0.00100	1		Zinc	0.281	0.00500	1	
Lead	ND	0.00100	1						

Method Blank	**096-06-003-3,655**	**N/A**	**Aqueous**	**ICP/MS 04**	**02/21/12**	**02/24/12 14:19**	**120221L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Antimony	ND	0.00100	1		Lead	ND	0.00100	1	
Arsenic	ND	0.00100	1		Molybdenum	ND	0.00100	1	
Barium	ND	0.00100	1		Nickel	ND	0.00100	1	
Beryllium	ND	0.00100	1		Selenium	ND	0.00100	1	
Cadmium	ND	0.00100	1		Silver	ND	0.00100	1	
Chromium	ND	0.00100	1		Thallium	ND	0.00100	1	
Cobalt	ND	0.00100	1		Vanadium	ND	0.00100	1	
Copper	ND	0.00100	1		Zinc	ND	0.00500	1	

Method Blank	**099-04-008-5,850**	**N/A**	**Aqueous**	**Mercury**	**02/20/12**	**02/20/12 12:42**	**120220L01**

Comment(s): -Preparation/analysis for Mercury was performed by EPA 7470A.

Parameter	Result	RL	DF	Qual
Mercury	ND	0.000500	1	

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RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 02/16/12
Work Order No: 12-02-1068
Preparation: EPA 3020A Total
Method: EPA 6020

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
IDW021612	**Aqueous**	**ICP/MS 04**	**02/21/12**	**02/24/12**	**120221S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Antimony	0.1000	92	89	85-133	3	0-11	
Arsenic	0.1000	91	87	73-127	4	0-11	
Barium	0.1000	108	105	74-128	2	0-10	
Beryllium	0.1000	77	79	56-122	2	0-11	
Cadmium	0.1000	85	82	84-114	4	0-8	3
Chromium	0.1000	107	107	73-133	0	0-11	
Cobalt	0.1000	105	104	79-121	1	0-10	
Copper	0.1000	97	95	72-108	2	0-10	
Lead	0.1000	109	108	79-121	1	0-10	
Molybdenum	0.1000	105	105	83-137	0	0-10	
Nickel	0.1000	99	98	68-122	1	0-10	
Selenium	0.1000	75	69	59-125	8	0-12	
Silver	0.05000	95	92	68-128	3	0-14	
Thallium	0.1000	103	102	73-121	2	0-11	
Vanadium	0.1000	111	109	77-137	2	0-15	
Zinc	0.1000	79	60	43-145	5	0-39	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	02/16/12
3995 Via Oro Ave		Work Order No:	12-02-1068
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
IDW021612	**Aqueous**	**IC 8**	**N/A**	**02/20/12**	**120220S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	12000	85	82	70-130	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

AECOM		Date Received:	02/16/12
3995 Via Oro Ave		Work Order No:	12-02-1068
Long Beach, CA 90810-1869		Preparation:	EPA 7470A Total
		Method:	EPA 7470A

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
IDW021612	**Aqueous**	**Mercury**	**02/20/12**	**02/20/12**	**120220S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	0.01000	104	103	57-141	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 02/16/12
Work Order No: 12-02-1068
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
IDW021612	**Aqueous**	**GC/MS BB**	**02/17/12**	**02/18/12**	**120217S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	0	0	76-124	2	0-20	3
Carbon Tetrachloride	10.00	101	104	74-134	3	0-20	
Chlorobenzene	10.00	0	0	80-120	3	0-20	3
1,2-Dibromoethane	10.00	93	96	80-120	3	0-20	
1,2-Dichlorobenzene	10.00	98	103	80-120	5	0-20	
1,2-Dichloroethane	10.00	108	114	80-120	4	0-20	
1,1-Dichloroethene	10.00	101	105	73-127	5	0-20	
Ethylbenzene	10.00	92	92	78-126	0	0-20	
Toluene	10.00	106	109	80-120	3	0-20	
Trichloroethene	10.00	80	84	77-120	3	0-20	
Vinyl Chloride	10.00	108	117	72-126	8	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	99	101	67-121	2	0-49	
Tert-Butyl Alcohol (TBA)	50.00	154	92	36-162	39	0-30	4
Diisopropyl Ether (DIPE)	10.00	100	103	60-138	3	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	96	99	69-123	3	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	97	102	65-120	6	0-20	
Ethanol	100.0	101	97	30-180	3	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: 02/16/12
Work Order No: 12-02-1068
Preparation: EPA 5030C
Method: EPA 8260B

Project Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
12-02-1018-5	**Aqueous**	**GC/MS BB**	**02/20/12**	**02/20/12**	**120220S01**

Parameter	SPIKE ADDED	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	10.00	97	100	76-124	4	0-20	
Carbon Tetrachloride	10.00	102	104	74-134	2	0-20	
Chlorobenzene	10.00	96	100	80-120	4	0-20	
1,2-Dibromoethane	10.00	99	102	80-120	3	0-20	
1,2-Dichlorobenzene	10.00	98	103	80-120	5	0-20	
1,2-Dichloroethane	10.00	98	102	80-120	4	0-20	
1,1-Dichloroethene	10.00	96	101	73-127	5	0-20	
Ethylbenzene	10.00	101	103	78-126	2	0-20	
Toluene	10.00	100	103	80-120	4	0-20	
Trichloroethene	10.00	97	99	77-120	2	0-20	
Vinyl Chloride	10.00	99	102	72-126	2	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	100	104	67-121	4	0-49	
Tert-Butyl Alcohol (TBA)	50.00	400	151	36-162	91	0-30	3,4
Diisopropyl Ether (DIPE)	10.00	96	99	60-138	3	0-45	
Ethyl-t-Butyl Ether (ETBE)	10.00	96	100	69-123	4	0-30	
Tert-Amyl-Methyl Ether (TAME)	10.00	99	103	65-120	4	0-20	
Ethanol	100.0	103	111	30-180	7	0-72	

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: N/A
Work Order No: 12-02-1068
Preparation: EPA 3020A Total
Method: EPA 6020

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
096-06-003-3,655	**Aqueous**	**ICP/MS 04**	**02/21/12**	**02/24/12**	**120221L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Antimony	0.1000	99	98	80-120	73-127	1	0-20	
Arsenic	0.1000	98	96	80-120	73-127	3	0-20	
Barium	0.1000	100	100	80-120	73-127	0	0-20	
Beryllium	0.1000	99	104	80-120	73-127	5	0-20	
Cadmium	0.1000	98	98	80-120	73-127	0	0-20	
Chromium	0.1000	96	96	80-120	73-127	0	0-20	
Cobalt	0.1000	98	97	80-120	73-127	1	0-20	
Copper	0.1000	100	98	80-120	73-127	2	0-20	
Lead	0.1000	100	97	80-120	73-127	3	0-20	
Molybdenum	0.1000	97	95	80-120	73-127	2	0-20	
Nickel	0.1000	99	97	80-120	73-127	2	0-20	
Selenium	0.1000	93	93	80-120	73-127	0	0-20	
Silver	0.05000	81	80	80-120	73-127	1	0-20	
Thallium	0.1000	91	89	80-120	73-127	2	0-20	
Vanadium	0.1000	96	96	80-120	73-127	0	0-20	
Zinc	0.1000	99	97	80-120	73-127	2	0-20	

Total number of LCS compounds : 16
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-1068
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	EPA 314.0 (M) pCBSA

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-15-080-9	**Aqueous**	**IC 8**	**N/A**	**02/20/12**	**120220L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
p-Chlorobenzenesulfonic Acid	25	118	120	80-120	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-1068
Long Beach, CA 90810-1869		Preparation:	N/A
		Method:	SM 5540C

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-05-093-2,321	**Aqueous**	**UV 8**	**02/17/12**	**02/17/12**	**C0217SURL1**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
MBAS	1.0	95	94	80-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-1068
Long Beach, CA 90810-1869		Preparation:	EPA 7470A Total
		Method:	EPA 7470A

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-04-008-5,850	**Aqueous**	**Mercury**	**02/20/12**	**02/20/12**	**120220L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Mercury	0.01000	99	98	85-121	1	0-10	

RPD - Relative Percent Difference , CL - Control Limit

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Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: N/A
Work Order No: 12-02-1068
Preparation: EPA 3510C
Method: EPA 8081A

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-529-513	**Aqueous**	**GC 44**	**02/17/12**	**02/21/12**	**120217L03**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Alpha-BHC	0.1250	96	97	50-135	36-149	1	0-25	
Gamma-BHC	0.1250	99	100	50-135	36-149	1	0-25	
Beta-BHC	0.1250	99	100	50-135	36-149	1	0-25	
Heptachlor	0.1250	84	83	50-135	36-149	2	0-25	
Delta-BHC	0.1250	96	99	50-135	36-149	4	0-25	
Aldrin	0.1250	78	78	50-135	36-149	0	0-25	
Heptachlor Epoxide	0.1250	91	92	50-135	36-149	1	0-25	
Endosulfan I	0.1250	92	96	50-135	36-149	4	0-25	
Dieldrin	0.1250	95	96	50-135	36-149	1	0-25	
4,4'-DDE	0.1250	94	96	50-135	36-149	2	0-25	
Endrin	0.1250	99	99	50-135	36-149	1	0-25	
Endrin Aldehyde	0.1250	93	94	50-135	36-149	1	0-25	
4,4'-DDD	0.1250	95	96	50-135	36-149	1	0-25	
Endosulfan II	0.1250	102	103	50-135	36-149	1	0-25	
4,4'-DDT	0.1250	105	105	50-135	36-149	0	0-25	
Endosulfan Sulfate	0.1250	91	92	50-135	36-149	1	0-25	
Methoxychlor	0.1250	96	95	50-135	36-149	1	0-25	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

Return to Contents

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM
3995 Via Oro Ave
Long Beach, CA 90810-1869

Date Received: N/A
Work Order No: 12-02-1068
Preparation: EPA 5030C
Method: EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,266	**Aqueous**	**GC/MS BB**	**02/17/12**	**02/18/12**	**120217L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	101	99	80-120	73-127	1	0-20	
Carbon Tetrachloride	10.00	100	101	74-134	64-144	1	0-20	
Chlorobenzene	10.00	97	99	80-120	73-127	2	0-20	
1,2-Dibromoethane	10.00	96	98	79-121	72-128	2	0-20	
1,2-Dichlorobenzene	10.00	100	102	80-120	73-127	2	0-20	
1,2-Dichloroethane	10.00	100	97	80-120	73-127	3	0-20	
1,1-Dichloroethene	10.00	99	102	78-126	70-134	3	0-28	
Ethylbenzene	10.00	104	105	80-120	73-127	1	0-20	
Toluene	10.00	104	100	80-120	73-127	3	0-20	
Trichloroethene	10.00	99	99	79-127	71-135	0	0-20	
Vinyl Chloride	10.00	110	107	72-132	62-142	2	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	99	100	69-123	60-132	0	0-20	
Tert-Butyl Alcohol (TBA)	50.00	97	102	63-123	53-133	5	0-20	
Diisopropyl Ether (DIPE)	10.00	100	100	59-137	46-150	0	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	95	95	69-123	60-132	0	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	98	96	70-120	62-128	2	0-20	
Ethanol	100.0	114	113	28-160	6-182	0	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

AECOM		Date Received:	N/A
3995 Via Oro Ave		Work Order No:	12-02-1068
Long Beach, CA 90810-1869		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: Montrose Superfund Site / 60212541.03.01

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-10-025-2,267	**Aqueous**	**GC/MS BB**	**02/20/12**	**02/20/12**	**120220L01**

Parameter	SPIKE ADDED	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	10.00	96	98	80-120	73-127	3	0-20	
Carbon Tetrachloride	10.00	103	105	74-134	64-144	2	0-20	
Chlorobenzene	10.00	96	100	80-120	73-127	4	0-20	
1,2-Dibromoethane	10.00	95	103	79-121	72-128	8	0-20	
1,2-Dichlorobenzene	10.00	99	100	80-120	73-127	1	0-20	
1,2-Dichloroethane	10.00	96	97	80-120	73-127	1	0-20	
1,1-Dichloroethene	10.00	93	97	78-126	70-134	4	0-28	
Ethylbenzene	10.00	102	104	80-120	73-127	2	0-20	
Toluene	10.00	99	102	80-120	73-127	3	0-20	
Trichloroethene	10.00	93	97	79-127	71-135	4	0-20	
Vinyl Chloride	10.00	100	103	72-132	62-142	3	0-20	
Methyl-t-Butyl Ether (MTBE)	10.00	98	101	69-123	60-132	3	0-20	
Tert-Butyl Alcohol (TBA)	50.00	84	97	63-123	53-133	14	0-20	
Diisopropyl Ether (DIPE)	10.00	93	98	59-137	46-150	5	0-37	
Ethyl-t-Butyl Ether (ETBE)	10.00	95	99	69-123	60-132	4	0-20	
Tert-Amyl-Methyl Ether (TAME)	10.00	97	101	70-120	62-128	5	0-20	
Ethanol	100.0	77	110	28-160	6-182	35	0-57	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

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RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 12-02-1068

Qualifier	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS/LCSD Recovery Percentage is within Marginal Exceedance (ME) Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
MPN - Most Probable Number

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Calscience Environmental Laboratories, Inc.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
Other CA office locations: Concord and San Luis Obispo
For courier service / sample drop off information,
contact sales@calscience.com or call us.

CHAIN OF CUSTODY RECORD

WO # / LAB USE ONLY: **12-02-1068**

Date: 2-16-2012
Page: 1 of 1

LABORATORY CLIENT: AECOM
ADDRESS: 3995 VIA ORO
CITY: LONG Beach STATE: CA ZIP: 90810
TEL: 562-213-4166 E-MAIL: Katharine.Carrgreen@AECOM.com
TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD
☐ COELT EDF GLOBAL ID LOG CODE
SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MONTROSE
P.O. NO.: 60212541.03.01
PROJECT CONTACT: Katharine Carr Green
SAMPLER(S): (PRINT) EDWIN MONCADO

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH (g) or GRO	TPH (d) or DRO or (C6-C36) or (C6-C44)	TPH ( )	BTEX / MTBE (8260) or ( )	VOCs (8260)	~~Oxygenates (8260)~~ PCBSA	En Core / Terra Core Prep (5035)	~~SVOCs (8270)~~ CAM 17 Metals	Pesticides (8081) PDT + isomers	~~PCBs (8082)~~ MBAS	PNAs (8310) or (8270)	T22 Metals (6010B/747X)	Cr(VI) [7196 or 7199 or 218.6]					
	1DW021612	2-16-12	1050	H2O	3		X						X													
	1DW021612	↑	1050	H2O	1		X									X										
	1DW021612	↕	1050	↑	1	X											X									
	1DW021612	↓	1050	↓	1	X								X												
	1DW021612	2-16-12	1050	H2O	1	X												X								

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
2-16-12 1515	CEL	2/16/12	15:15
	Dannyle CEL	2/16/12	16:15

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of 2 of our T/Cs are printed on the reverse side of the Green and Yellow copies respectively.

01/01/12 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 12-02-1068

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: AECOM

DATE: 02/16/12

TEMPERATURE: Thermometer ID: SC3 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.4 °C - 0.3 °C (CF) = 2.1 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: AT

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Initial: AT

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Initial: PL

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Res. Chlorine / Diss. Sulfide / Diss. Oxygen received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☑ 2/16/12 RS
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** (3) ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☑1AGB ☐1AGB**na$_2$** ☐1AGB**s**

☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☑500PB

☑250PB ☑250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** RS

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** DC

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:** $Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:** HV

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APPENDIX E

ESTIMATED FLOW-WEIGHTED AVERAGE INFLUENT CONCENTRATIONS

APPENDIX E
ESTIMATED FLOW-WEIGHTED AVERAGE INFLUENT CONCENTRATIONS
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

						Extraction Well—►	MBFB-EW-1					UBA-EW-1[3]					UBA-EW-2					BF-EW-1				
						Modeled Flowrate—►	4 GPM					6 GPM					12 GPM					35 GPM				
Chemical Class	Analyte	Units	Flow Weighted Influent Concentration	Regulatory Criteria	Regulatory Standard	Exceeds Regulatory Standard?	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date
VOC	Total VOCs (Note 2)	ug/l	**11494**				11410		1			165067		2			13645		1	MW-13	2/2/12	26336		1	BF-EW-1	4/22/09
VOC	1,1,1,2-Tetrachloroethane	ug/l	**0.05**					< 5	1	MW-14	1/22/04	6.2		2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	1,1,1-Trichloroethane	ug/l	**0**	200	ISGS			< 2	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	1,1,2,2-Tetrachloroethane	ug/l	**0**	1	ISGS			< 1	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	1,1,2-Trichloroethane	ug/l	**0.20**	5	ISGS			< 2	1	MW-14	1/22/04	15		2	MW-06	1/24/12		< 20	1	MW-13	2/2/12	0.75		1	BF-EW-1	8/26/05
VOC	1,1-Dichloroethane	ug/l	**0.30**	5	ISGS			< 2	1	MW-14	1/22/04	35		2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	1,1-Dichloroethylene	ug/l	**1**	6	ISGS			< 5	1	MW-14	1/22/04	110		2	MW-06	1/24/12		< 20	1	MW-13	2/2/12	0.89		1	BF-EW-1	8/26/05
VOC	1,1-Dichloropropene	ug/l	**0**					< 2	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12	0.62		1	BF-EW-1	8/26/05
VOC	1,2,3-Trichlorobenzene	ug/l	**0**					< 5	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12	0.55		1	BF-EW-1	8/26/05
VOC	1,2,3-Trichloropropane	ug/l	**0**					< 10	1	MW-14	1/22/04	4.3		2	MW-06	1/24/12		< 40	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	1,2,4-Trichlorobenzene	ug/l	**0.20**	70	ISGS			< 1	1	MW-14	7/8/04		< 1000	2	MW-01	2/2/12		< 20	1	MW-13	2/2/12	3.7		1	BF-EW-1	4/22/09
VOC	1,2,4-Trimethyl Benzene	ug/l	**10**	12	ISGS		550		1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12	360		1	MW-13	2/2/12	1.3		1	BF-EW-1	8/26/05
VOC	1,2-Dibromo-3-Chloropropane (DBCP)	ug/l	**0**	0.2	MCL			< 5	1	MW-14	1/22/04		< 5	2	MW-06	1/24/12		< 200	1	MW-13	2/2/12		< 5	1	BF-EW-1	8/26/05
VOC	1,2-Dibromoethane	ug/l	**0**	0.05	MCL			< 2	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	1,2-Dichloro-1,1,2-Trifluoroethane	ug/l	**0**					< 2	1	MW-14	1/22/04		< 20	2	MW-06	1/23/04		< 40	1	MW-13	4/23/09		< 100	1	BF-07	2/2/04
VOC	1,2-Dichlorobenzene	ug/l	**1**	600	ISGS			< 2	1	MW-14	1/22/04	7.9		2	MW-06	1/24/12		< 20	1	MW-13	2/2/12	7.1		1	BF-EW-1	4/22/09
VOC	1,2-Dichloroethane	ug/l	**20**	0.5	ISGS	YES	280		1	MBFB-EW-1	2/6/12	38		2	MW-06	1/24/12		< 20	1	MW-13	2/2/12	6.4		1	BF-EW-1	8/26/05
VOC	1,2-Dichloropropane	ug/l	**0**	5	ISGS			< 2	1	MW-14	1/22/04	1.1		2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	1,3,5-Trimethyl Benzene	ug/l	**2**				120		1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12	77		1	MW-13	2/2/12	0.46		1	BF-EW-1	8/26/05
VOC	1,3-Dichlorobenzene	ug/l	**0.08**	17	ISGS			< 2	1	MW-14	1/22/04	0.78		2	MW-06	1/24/12		< 20	1	MW-13	2/2/12	0.48		1	BF-EW-1	4/22/09
VOC	1,3-Dichloropropane	ug/l	**0**					< 2	1	MW-14	1/22/04		< 1	2	MW-06	1/24/12		< 40	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	1,4-Dichlorobenzene	ug/l	**12**	5	ISGS	YES		< 2	1	MW-14	1/22/04	11		2	MW-06	1/24/12		< 20	1	MW-13	2/2/12	53		1	BF-EW-1	3/26/12
VOC	2,2-Dichloropropane	ug/l	**0**					< 2	1	MW-14	1/22/04		< 1	2	MW-06	1/24/12		< 40	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	2-Chloroethylvinyl ether	ug/l	**0**					< 25	1	MW-14	5/16/89		< 5	2	MW-06	12/1/95		< 200	1	MW-13	4/21/90		< 100	1	BF-EW-1	8/26/05
VOC	2-Chlorotoluene	ug/l	**0**					< 5	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	2-Hexanone	ug/l	**0**	1,604	ISGS			< 10	1	MW-14	1/22/04		< 10	2	MW-06	1/24/12		< 400	1	MW-13	2/2/12		< 10	1	BF-EW-1	8/26/05
VOC	4-Chlorotoluene	ug/l	**0**					< 5	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	4-Methyl-2-Pentanone	ug/l	**0**	160	ISGS			< 10	1	MW-14	1/22/04		< 5	2	MW-06	1/24/12		< 200	1	MW-13	2/2/12		< 10	1	BF-EW-1	8/26/05
VOC	Acetone	ug/l	**0**	610	ISGS		75		1	MW-14	1/22/04		< 20000	2	MW-01	2/2/12		< 400	1	MW-13	2/2/12		< 10	1	BF-EW-1	8/26/05
VOC	Acrolein	ug/l	**0**	0.042	ISGS			< 5	1	MBFB-EW-1	9/28/05		< 1000	2	MW-06	4/27/09		< 5000	1	MW-13	4/23/09		< 100	1	BF-EW-1	8/26/05
VOC	Acrylonitrile	ug/l	**0**	3.7	ISGS			< 2	1	MBFB-EW-1	9/28/05		< 50	2	MW-06	12/1/95		< 5000	2	MW-13	4/23/09		< 40	1	BF-EW-1	8/26/05
VOC	Benzene	ug/l	**192**	1	ISGS	YES	7000		1	MBFB-EW-1	2/6/12	2900		2	MW-01	2/2/12	5200		1	MW-13	2/2/12	190		1	BF-EW-1	3/26/12
VOC	Bromobenzene	ug/l	**0**					< 5	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Bromochloromethane	ug/l	**0**					< 5	1	MW-14	1/22/04		< 1	2	MW-06	1/24/12		< 40	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Bromodichloromethane	ug/l	**0**					< 2	1	MW-14	1/22/04	0.9		2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Bromoform	ug/l	**0**	100	ISGS			< 5	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Bromomethane	ug/l	**0**	8.7	ISGS			< 5	1	MW-14	1/22/04		< 1	2	MW-06	1/24/12		< 40	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Carbon Disulfide	ug/l	**0**	1,000	ISGS			< 5	1	MW-14	1/22/04		< 1	2	MW-06	1/24/12		< 40	1	MW-13	2/2/12		< 50	1	BF-EW-1	3/26/12
VOC	Carbon Tetrachloride	ug/l	**0.7**	0.5	ISGS	YES		< 0.5	1	MW-14	1/22/04	81		2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 0.5	1	BF-EW-1	8/26/05
VOC	Chlorobenzene	ug/l	**10850**	70	ISGS	YES	820		1	MBFB-EW-1	2/6/12	130000		2	MW-01	2/2/12	4500		1	MW-13	2/2/12	26000		1	BF-EW-1	3/26/12
VOC	Chloroethane	ug/l	**0**	8,600	ISGS			< 5	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Chloroform	ug/l	**156**	100	ISGS	YES		< 2	1	MW-14	1/22/04	14000		2	MW-01	2/2/12	99		1	MW-13	2/2/12		< 25	1	BF-EW-1	3/26/12
VOC	Chloromethane	ug/l	**0.00**	1.5	ISGS			< 1.5	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	cis-1,2-Dichloroethylene	ug/l	**1.5**	6	ISGS		5.7		1	MBFB-EW-1	4/21/09	57		2	MW-06	1/24/12	54		1	MW-13	2/2/12	1		1	BF-EW-1	8/26/05
VOC	cis-1,3-Dichloropropylene	ug/l	**0**					< 2	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 0.5	1	BF-EW-1	8/26/05
VOC	Cyclohexane	ug/l	**9.5**					< 1200	1	MBFB-EW-1	4/21/09		< 2500	2	MW-06	4/27/09	310		1	MW-13	4/23/09		< 12000	1	BF-EW-1	4/22/09
VOC	Dibromochloromethane	ug/l	**0**					< 2	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Dibromomethane	ug/l	**0**					< 2	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Dichlorodifluoromethane	ug/l	**0**	390	ISGS			< 5	1	MW-14	1/22/04		< 1	2	MW-06	1/24/12		< 40	1	MW-13	2/2/12		< 2	1	BF-EW-1	8/26/05
VOC	Diisopropyl Ether	ug/l	**0**					< 25	1	MBFB-EW-1	2/6/12	4.3		2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Ethanol	ug/l	**0**					< 2500	1	MBFB-EW-1	2/6/12		< 50	2	MW-06	1/24/12		< 2000	1	MW-13	2/2/12		< 150	1	BF-EW-1	8/26/05
VOC	Ethyl tert-Butyl Ether	ug/l	**0**					< 25	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Ethylbenzene	ug/l	**13.1**	700	ISGS		920		1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12	450		1	MW-13	2/2/12		< 25	1	BF-EW-1	3/26/12
VOC	Hexachlorobutadiene	ug/l	**0**					< 2	1	MW-14	7/8/04	1		2	MW-06	4/27/09		< 38	1	MW-13	4/23/09		< 1	1	BF-EW-1	8/26/05
VOC	Isopropyl Benzene	ug/l	**0.15**	61	ISGS		27		1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Methyl Ethyl Ketone	ug/l	**0**	1,900	ISGS			< 10	1	MW-14	1/22/04		< 100	2	MW-06	1/23/04		< 200	1	MW-13	4/23/09		< 10	1	BF-EW-1	8/26/05
VOC	Methyl Tertiary Butyl Ether	ug/l	**0**					< 25	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Methylene Chloride	ug/l	**0.0**	5	MCL			< 5	1	MW-14	1/22/04	3.9		2	MW-06	1/24/12		< 40	1	MW-13	2/2/12		< 50	1	BF-EW-1	3/26/12
VOC	N-Butyl Benzene	ug/l	**0**					< 5	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	p-Isopropyltoluene	ug/l	**0**				3.2		1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Propylbenzene	ug/l	**1.2**	61	ISGS		70		1	MBFB-EW-1	4/21/09		< 1	2	MW-06	1/24/12	45		1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	S-Butyl Benzene	ug/l	**0.04**	61	ISGS		7		1	MBFB-EW-1	4/21/09		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Styrene	ug/l	**0**	100	ISGS			< 2	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	T-Butyl Benzene	ug/l	**0**					< 5	1	MW-14	1/22/04		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	tert-Amyl methyl ether	ug/l	**0**					< 25	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	tert-Butyl alcohol	ug/l	**2**					< 500	1	MBFB-EW-1	2/6/12	260		2	MW-06	1/24/12		< 400	1	MW-13	2/2/12		< 10	1	BF-EW-1	8/26/05
VOC	Tetrachloroethylene	ug/l	**164**	5	ISGS	YES		< 25	1	MBFB-EW-1	2/6/12	17000		2	MW-06	1/24/12	580		1	MW-13	2/2/12		< 25	1	BF-EW-1	3/26/12
VOC	Toluene	ug/l	**7.3**	150	ISGS		30		1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12	400		1	MW-13	2/2/12	1.7		1	BF-EW-1	8/26/05
VOC	Total Xylenes	ug/l	**10.8**	1,750	ISGS		710		1	MBFB-EW-1	2/6/12		< 1000	2	MW-01	2/2/12	380		1	MW-13	2/2/12		< 25	1	BF-EW-1	3/26/12
VOC	o-Xylene/Ortho Xylene	ug/l	**2**					< 25	1	MBFB-EW-1	2/6/12		< 20	2	MW-06	1/23/04	140		1	MW-13	2/2/12		< 25	1	BF-EW-1	3/26/12
VOC	m,p-xylenes	ug/l	**8**				710		1	MBFB-EW-1	2/6/12		< 1000	2	MW-01	2/2/12	240		1	MW-13	2/2/12		< 25	1	BF-EW-1	3/26/12
VOC	trans-1,2-Dichloroethylene	ug/l	**0.04**	10	ISGS			< 2	1	MW-14	1/22/04		< 2.6	2	MW-06	1/23/04		< 20	1	MW-13	2/2/12	0.37		1	BF-EW-1	8/26/05
VOC	trans-1,3-Dichloropropylene	ug/l	**0**					< 2	1	MW-14	1/22/04		< 0.5	2	MW-06	1/23/04		< 20	1	MW-13	2/2/12		< 0.5	1	BF-EW-1	8/26/05
VOC	Trichloroethylene	ug/l	**28.2**	5	ISGS	YES	82		1	MBFB-EW-1	2/6/12	530		2	MW-06	1/24/12	810		1	MW-13	2/2/12	68		1	BF-EW-1	3/26/12
VOC	Trichlorofluoromethane	ug/l	**0.00**	150	ISGS			< 5	1	MW-14	1/22/04		< 0.5	2	MW-06	1/23/04		< 20	1	MW-13	2/2/12		< 1	1	BF-EW-1	8/26/05
VOC	Vinyl Acetate	ug/l	**0**	410	ISGS			< 5	1	MW-14	1/22/04		< 5	2	MW-06	1/23/04		< 200	1	MW-13	2/2/12		< 250	1	BF-07	2/2/04
VOC	Vinyl Chloride	ug/l	**0**	0.5	ISGS			< 0.5	1	MW-14	1/22/04		< 0.5	2	MW-06	1/23/04		< 20	1	MW-13	2/2/12		< 0.5	1	BF-EW-1	8/26/05
pCBSA	Para-Chlorobenzene Sulfonic Acid	ug/l	**39628**	25000	ROD	YES	12000		1	MBFB-EW-1	8/25/05	60000		2	MW-01	1/27/04	37000		1	MW-13	1/26/04	56000		1	BF-EW-1	10/6/06

AECOM

APPENDIX E
ESTIMATED FLOW-WEIGHTED AVERAGE INFLUENT CONCENTRATIONS
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

						Extraction Well—►	MBFB-EW-1					UBA-EW-1[3]					UBA-EW-2					BF-EW-1				
						Modeled Flowrate—►	4 GPM					6 GPM					12 GPM					35 GPM				
Chemical Class	Analyte	Units	Flow Weighted Influent Concentration	Regulatory Criteria	Regulatory Standard	Exceeds Regulatory Standard?	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date
SVOC	Total SVOCs (Note 2)	ug/l	**22**				282.72					729.48					229.7		1	MW-13	4/23/09	40.83		1	BF-EW-1	
SVOC	1,2-Diphenylhydrazine/Azobenzene	ug/l	**0**					< 1	1	MW-14	7/8/04		< 4.8	2	MW-06	4/27/09		< 19	1	MW-13	4/23/09		< 50	1	BF-EW-1	8/26/05
SVOC	2,4,5-Trichlorophenol	ug/l	**0**					< 2	1	MW-14	7/8/04	13		2	MW-06	4/27/09		< 38	1	MW-13	4/23/09	1.3		1	BF-EW-1	4/22/09
SVOC	2,4,6-Trichlorophenol	ug/l	**0**					< 1	1	MW-14	7/8/04	1.5		2	MW-06	4/27/09		< 19	1	MW-13	4/23/09		< 50	1	BF-EW-1	8/26/05
SVOC	2,4-Dichlorophenol	ug/l	**0**					< 2	1	MW-14	7/8/04	10		2	MW-01	4/28/09		< 38	1	MW-13	4/23/09	2.2		1	BF-EW-1	4/22/09
SVOC	2,4-Dimethylphenol	ug/l	**0**				7.3		1	MBFB-EW-1	8/24/05		< 9.5	2	MW-06	4/27/09		< 38	1	MW-13	4/23/09		< 50	1	BF-EW-1	8/26/05
SVOC	2,4-Dinitrophenol	ug/l	**0**					< 5	1	MW-14	7/8/04		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	2,4-Dinitrotoluene	ug/l	**0**					< 5	1	MW-14	7/8/04		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	2,6-Dinitrotoluene	ug/l	**0**					< 5	1	MW-14	7/8/04		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	2-Chloronaphthalene	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	2-Chlorophenol	ug/l	**2.7**	38	ISGS			< 1	1	MW-14	7/8/04	140		2	MW-01	4/28/09	6.1		1	MW-13	4/23/09	13		1	BF-EW-1	4/22/09
SVOC	2-Methylnaphthalene	ug/l	**0.74**	6.2	ISGS		51		1	MBFB-EW-1	8/24/05		< 4.8	2	MW-06	4/27/09	26		1	MW-13	4/23/09		< 4.8	1	BF-EW-1	4/22/09
SVOC	2-Methylphenol	ug/l	**0**					< 2	1	MW-14	7/8/04		< 9.5	2	MW-06	4/27/09		< 38	1	MW-13	4/23/09		< 9.5	1	BF-EW-1	4/22/09
SVOC	2-Nitroaniline	ug/l	**0**					< 5	1	MW-14	7/8/04		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	2-Nitrophenol	ug/l	**0**					< 2	1	MW-14	7/8/04		< 9.5	2	MW-06	4/27/09		< 38	1	MW-13	4/23/09		< 9.5	1	BF-EW-1	4/22/09
SVOC	3,3'-Dichlorobenzidine	ug/l	**0**					< 5	1	MW-14	7/8/04		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	3,4-Benzofluoranthene	ug/l	**0**					< 2	1	MW-14	7/8/04		< 9.5	2	MW-06	4/27/09		< 38	1	MW-13	4/23/09		< 9.5	1	BF-EW-1	4/22/09
SVOC	3-Nitroaniline	ug/l	**0**					< 5	1	MW-14	7/8/04		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	4,6-Dinitro-2-methylphenol	ug/l	**0**					< 5	1	MW-14	7/8/04		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	4-Bromophenyl phenyl ether	ug/l	**0**					< 1	1	MW-14	7/8/04		< 4.8	2	MW-06	4/27/09		< 19	1	MW-13	4/23/09		< 4.8	1	BF-EW-1	4/22/09
SVOC	4-Chloroaniline	ug/l	**0**					< 2	1	MW-14	7/8/04		< 9.5	2	MW-06	4/27/09		< 38	1	MW-13	4/23/09		< 9.5	1	BF-EW-1	4/22/09
SVOC	4-Chlorophenyl phenyl ether	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	4-Methylphenol	ug/l	**0**				7.3		1	MBFB-EW-1	8/24/05		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	4-Nitroaniline	ug/l	**0**					< 5	1	MW-14	7/8/04		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	4-Nitrophenol	ug/l	**0**					< 5	1	MW-14	7/8/04		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	Acenaphthene	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	Aniline	ug/l	**0**					< 10	1	MW-14	7/8/04		< 48	2	MW-06	4/27/09		< 190	1	MW-13	4/23/09		< 48	1	BF-EW-1	4/22/09
SVOC	Anthracene	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	Benzidine	ug/l	**0**					< 5	1	MW-14	7/8/04		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	Benzo(a)anthracene	ug/l	**0**					< 5	1	MW-14	7/8/04		< 10	2	MW-06	12/2/90		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	Benzo(a)pyrene	ug/l	**0**	0.2	MCL			< 2	1	MW-14	7/8/04		< 9.5	2	MW-06	4/27/09		< 38	1	MW-13	4/23/09		< 9.5	1	BF-EW-1	4/22/09
SVOC	Benzo(ghi)perylene	ug/l	**0**					< 5	1	MW-14	7/8/04		< 10	2	MW-06	12/2/90		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	Benzo(k)fluoranthene	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	Benzoic Acid	ug/l	**0**					< 20	1	MW-14	7/8/04	58		2	MW-01	4/28/09		< 380	1	MW-13	4/23/09		< 95	1	BF-EW-1	4/22/09
SVOC	Benzyl Alcohol	ug/l	**0**					< 5	1	MW-14	7/8/04		< 20	2	MW-06	12/2/90		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	Bis(2-chloroethoxy)methane	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	Bis(2-chloroethyl) ether	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	Bis(2-chloroisopropyl) ether	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 10	2	MW-01	8/13/85		< 9.5	1	MW-13	4/23/09		< 25	1	BF-EW-1	8/26/05
SVOC	Bis(2-ethylhexyl) phthalate	ug/l	**3.7**	6	MCL		4		1	MW-14	7/8/04		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09	9.5		1	BF-EW-1	4/22/09
SVOC	Butyl benzyl phthalate	ug/l	**3**				2.5		1	MW-14	7/8/04	17		2	MW-01	4/28/09	16		1	MW-13	4/23/09	4.2		1	BF-EW-1	4/22/09
SVOC	Chrysene	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	Dibenzo(a,h)anthracene	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	Dibenzofuran	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	Diethyl phthalate	ug/l	**0**	29,000	ISGS			< 1	1	MW-14	7/8/04		< 4.8	2	MW-06	4/27/09		< 19	1	MW-13	4/23/09		< 4.8	1	BF-EW-1	4/22/09
SVOC	Dimethylphthalate	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	Di-n-butyl phthalate	ug/l	**1.1**	3700			1.1		1	MW-14	7/8/04	4.2		2	MW-01	4/28/09		< 38	1	MW-13	4/23/09		< 1/9/00	1	BF-EW-1	4/22/09
SVOC	Di-n-octyl phthalate	ug/l	**0**					< 5	1	MW-14	7/8/04		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	Dioxane	ug/l	**3**				0.52		1	MBFB-EW-1	8/24/05	380		2	MW-06	4/27/09	2		1	MW-13	4/23/09	1.2		1	BF-EW-1	4/22/09
SVOC	Fluoranthene	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	Fluorene	ug/l	**0.0023**				0.4		1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	Hexachlorobenzene	ug/l	**0**	1	MCL			< 1	1	MW-14	7/8/04		< 4.8	2	MW-06	4/27/09		< 19	1	MW-13	4/23/09		< 4.8	1	BF-EW-1	4/22/09
SVOC	Hexachlorocyclopentadiene	ug/l	**0**	50	MCL			< 5	1	MW-14	7/8/04		< 24	2	MW-06	4/27/09		< 95	1	MW-13	4/23/09		< 24	1	BF-EW-1	4/22/09
SVOC	Hexachloroethane	ug/l	**0**					< 3	1	MW-14	7/8/04	1.1		2	MW-06	4/27/09		< 57	1	MW-13	4/23/09		< 14	1	BF-EW-1	4/22/09
SVOC	Indeno(1,2,3-cd) pyrene	ug/l	**0**					< 2	1	MW-14	7/8/04		< 9.5	2	MW-06	4/27/09		< 38	1	MW-13	4/23/09		< 1/9/00	1	BF-EW-1	4/22/09
SVOC	Isophorone	ug/l	**0**					< 1	1	MW-14	7/8/04	4.2		2	MW-01	4/28/09	4.60		1	MW-13	4/23/09	0.95		1	BF-EW-1	4/22/09
SVOC	Naphthalene	ug/l	**5.5**	6.2	ISGS		180		1	MBFB-EW-1	2/6/12	85		2	MW-01	4/28/09	160		1	MW-13	4/23/09	8		1	BF-EW-1	4/22/09
SVOC	Nitrobenzene	ug/l	**0**					< 1	1	MW-14	7/8/04		< 4.8	2	MW-06	4/28/09		< 19	1	MW-13	4/23/09		< 4.8	1	BF-EW-1	4/22/09
SVOC	N-Nitrosdimethylamine	ug/l	**0**					< 2	1	MW-14	7/8/04		< 9.5	2	MW-06	4/28/09		< 38	1	MW-13	4/23/09		< 9.5	1	BF-EW-1	4/22/09
SVOC	N-Nitrosdi-n-propylamine	ug/l	**0**					< 2	1	MW-14	7/8/04		< 9.5	2	MW-06	4/28/09		< 38	1	MW-13	4/23/09		< 9.5	1	BF-EW-1	4/22/09
SVOC	N-Nitrosdiphenylamine	ug/l	**0**					< 1	1	MW-14	7/8/04		< 4.8	2	MW-06	4/28/09		< 19	1	MW-13	4/23/09		< 4.8	1	BF-EW-1	4/22/09
SVOC	p-Chloro-m-cresol	ug/l	**0**					< 2	1	MW-14	7/8/04		< 9.5	2	MW-06	4/28/09		< 38	1	MW-13	4/23/09		< 9.5	1	BF-EW-1	4/22/09
SVOC	Pentachlorophenol	ug/l	**0.05**	1	ISGS			< 2	1	MW-14	7/8/04	0.48		2	MW-06	4/27/09		< 38	1	MW-13	4/23/09	0.48		1	BF-EW-1	4/22/09
SVOC	Phenanthrene	ug/l	**0**				0.6		1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
SVOC	Phenol	ug/l	**0.54**	22,000	ISGS		28		1	MBFB-EW-1	8/24/05	15		2	MW-01	4/28/09	15		1	MW-13	4/23/09		< 4.8	1	BF-EW-1	4/22/09
SVOC	Pyrene	ug/l	**0**					< 0.5	1	MW-14	7/8/04		< 2.4	2	MW-06	4/27/09		< 9.5	1	MW-13	4/23/09		< 2.4	1	BF-EW-1	4/22/09
Pesticide	Total Pesticides (Note 2)	ug/l	**2**				0.43		1	MBFB-EW-1	2/6/12	81.052		2	MW-06	1/24/12	0.224		1	MW-13	2/2/12	3.27			BF-EW-1	2/7/12
Pesticide	2,4'-DDD	ug/l	**0.24**	0.28	ISGS (T)			< 0.005	1	MBFB-EW-1	2/6/12	0.052		2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.005	1	BF-EW-1	2/7/12
Pesticide	2,4'-DDE	ug/l	**0.0**	0.2	ISGS (T)			< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-01	2/2/12		< 0.005	1	MW-13	2/2/12		< 0.005	1	BF-EW-1	2/7/12
Pesticide	2,4'-DDT	ug/l	**0.0**	0.2	ISGS (T)			< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-01	2/2/12		< 0.005	1	MW-13	2/2/12		< 0.005	1	BF-EW-1	2/7/12
Pesticide	4,4'-DDD	ug/l	**0.30**	see 2,4-DDD				< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	4,4'-DDE	ug/l	**0.01**	see 2,4-DDE				< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	4,4'-DDT	ug/l	**0.11**	see 2,4-DDT				< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	Total DDD	ug/l	**0.54**	see 2,4-DDD				< 0.005	1	MBFB-EW-1	2/6/12	0.052		2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	Total DDE	ug/l	**0.02**	see 2,4-DDE				< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	Total DDT	ug/l	**0.13**	see 2,4-DDT				< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	Aldrin	ug/l	**0.000**	0.004	ISGS			< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	beta-Endosulfan	ug/l	**0**	220	ISGS			< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	BHC, alpha-	ug/l	**0.282**	0.011	ISGS	YES		< 0.005	1	MBFB-EW-1	2/6/12	20		2	MW-01	2/2/12	0.17		1	MW-13	2/2/12	0.43		1	BF-EW-1	2/7/12
Pesticide	BHC, beta-	ug/l	**0.421**	0.037	ISGS	YES	0.43		1	MBFB-EW-1	2/6/12	19		2	MW-01	2/2/12	0.054		1	MW-13	2/2/12	2		1	BF-EW-1	2/7/12

APPENDIX E
ESTIMATED FLOW-WEIGHTED AVERAGE INFLUENT CONCENTRATIONS
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

						Extraction Well—►	MBFB-EW-1					UBA-EW-1[3]					UBA-EW-2					BF-EW-1				
						Modeled Flowrate—►	4 GPM					6 GPM					12 GPM					35 GPM				
Chemical Class	Analyte	Units	Flow Weighted Influent Concentration	Regulatory Criteria	Regulatory Standard	Exceeds Regulatory Standard?	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date
Pesticide	BHC, delta-	ug/l	**0**					< 0.005	1	MBFB-EW-1	2/6/12	15		2	MW-01	2/2/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	BHC, gamma-	ug/l	**0.36**	0.2	ISGS	YES		< 0.005	1	MBFB-EW-1	2/6/12	27		2	MW-01	2/2/12		< 0.005	1	MW-13	2/2/12	0.84		1	BF-EW-1	2/7/12
Pesticide	Chlordane	ug/l	**0**	2	MCL			< 0.012	1	MBFB-EW-1	2/6/12		< 1.2	2	MW-06	1/24/12		< 0.012	1	MW-13	2/2/12		< 0.12	1	BF-EW-1	2/7/12
Pesticide	Dieldrin	ug/l	**0**					< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	Endosulfan 1	ug/l	**0**					< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	Endosulfan sulfate	ug/l	**0**					< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	Endrin	ug/l	**0**	2	ISGS			< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	Endrin aldehyde	ug/l	**0**					< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	Endrin Ketone	ug/l	**0**					< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	Heptachlor	ug/l	**0.00**	0.01	ISGS			< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	Heptachlor epoxide	ug/l	**0.00**	0.01	ISGS			< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	Methoxychlor	ug/l	**0**	40	MCL			< 0.005	1	MBFB-EW-1	2/6/12		< 0.5	2	MW-06	1/24/12		< 0.005	1	MW-13	2/2/12		< 0.05	1	BF-EW-1	2/7/12
Pesticide	Toxaphene	ug/l	**0**	3	MCL			< 0.062	1	MBFB-EW-1	2/6/12		< 6.2	2	MW-06	1/24/12		< 0.062	1	MW-13	2/2/12		< 0.62	1	BF-EW-1	2/7/12
PCB	PCB 1016	ug/l	**0**	5	MCL (T)			< 2.5	1	MW-14	11/19/91		< 1	2	MW-06	4/27/09		< 1	1	MW-13	4/23/09		< 0.5	1	BF-EW-1	8/26/05
PCB	PCB 1221	ug/l	**0**	see PCB 1016				< 2.5	1	MW-14	11/19/91		< 1	2	MW-06	4/27/09		< 1	1	MW-13	4/23/09		< 0.5	1	BF-EW-1	8/26/05
PCB	PCB 1232	ug/l	**0**	see PCB 1016				< 2.5	1	MW-14	11/19/91		< 1	2	MW-06	4/27/09		< 1	1	MW-13	4/23/09		< 0.5	1	BF-EW-1	8/26/05
PCB	PCB 1242	ug/l	**0**	see PCB 1016				< 2.5	1	MW-14	11/19/91		< 1	2	MW-06	4/27/09		< 1	1	MW-13	4/23/09		< 0.5	1	BF-EW-1	8/26/05
PCB	PCB 1248	ug/l	**0**	see PCB 1016				< 2.5	1	MW-14	11/19/91		< 1	2	MW-06	4/27/09		< 1	1	MW-13	4/23/09		< 0.5	1	BF-EW-1	8/26/05
PCB	PCB 1254	ug/l	**0**	see PCB 1016				< 2.5	1	MW-14	11/19/91		< 1	2	MW-06	4/27/09		< 1	1	MW-13	4/23/09		< 0.5	1	BF-EW-1	8/26/05
PCB	PCB 1260	ug/l	**0**	see PCB 1016				< 2.5	1	MW-14	11/19/91		< 1	2	MW-06	4/27/09		< 1	1	MW-13	4/23/09		< 0.5	1	BF-EW-1	8/26/05
PCB	PCB 1262	ug/l	**0**	see PCB 1016				Not Tested	4	Not Tested			< 1	2	MW-06	4/27/09		< 1	1	MW-13	4/23/09		Not Tested	4	Not Tested	
PCB	PCB 1268	ug/l	**0**	see PCB 1016				Not Tested	4	Not Tested			< 1	2	MW-06	4/27/09		< 1	1	MW-13	4/23/09		Not Tested	4	Not Tested	
General Minerals	Alkalinity as CaCO3	mg/l	**270**				750		1	MBFB-EW-1	4/21/09	700		2	MW-06	4/27/09	590		1	MW-13	4/23/09	220		1	BF-EW-1	4/22/09
General Minerals	Alkalinity - Bicarbonate (HCO3)	mg/l	**333**				920		1	MBFB-EW-1	4/21/09	850		2	MW-06	4/27/09	720		1	MW-13	4/23/09	270		1	BF-EW-1	4/22/09
General Minerals	Alkalinity - Carbonate (CO3)	mg/l	**0**					< 1	1	MW-14	2/9/89		< 1.2	2	MW-06	4/27/09		< 1.2	1	MW-13	4/23/09		< 1.2	1	BF-EW-1	4/22/09
General Minerals	Alkalinity - Hydroxide (OH)	mg/l	**0.00**					< 1	1	MW-14	2/9/89		< 0.7	2	MW-06	4/27/09		< 0.7	1	MW-13	4/23/09		< 0.7	1	BF-EW-1	4/22/09
General Minerals	Bromate	ug/l	**0**	10	MCL			< 100	1	MBFB-EW-1	4/21/09		< 100	2	MW-06	4/27/09		< 250	1	MW-13	4/23/09		< 250	1	BF-EW-1	4/22/09
General Minerals	Bromide	ug/l	**431**				2700		1	MBFB-EW-1	4/21/09	1800			MW-06	4/27/09	1200		1	MW-13	4/23/09	320		1	BF-EW-1	4/22/09
General Minerals	Calcium	mg/l	**133**				310		1	MBFB-EW-1	4/21/09	1300		2	MW-06	4/27/09	280		1	MW-13	4/23/09	150		1	BF-EW-1	4/22/09
General Minerals	Chloride	mg/l	**185**				690		1	MW-14	5/26/04	3900		2	MW-06	4/27/09	480		1	MW-13	4/23/09	250		1	BF-EW-1	4/22/09
General Minerals	Iron	mg/l	**0.3**				4.4		1	MBFB-EW-1	4/21/09	2.2		2	MW-01	4/28/09	13		1	MW-13	4/23/09		< 0.04	1	BF-EW-1	4/22/09
General Minerals	Magnesium	mg/l	**41.2**				120		1	MBFB-EW-1	4/21/09	480		2	MW-06	4/27/09	110		1	MW-13	4/23/09	45		1	BF-EW-1	4/22/09
General Minerals	Manganese	mg/l	**0.4**				6		1	MBFB-EW-1	4/21/09	3.6		2	MW-01	4/28/09	6.3		1	MW-13	4/23/09	0.45		1	BF-EW-1	4/22/09
General Minerals	Potassium	mg/l	**6.8**				8.1		1	MBFB-EW-1	4/21/09	20		2	MW-06	4/27/09	6.7		1	MW-13	4/23/09	8.9		1	BF-EW-1	4/22/09
General Minerals	Sodium	mg/l	**105**				300		1	MBFB-EW-1	4/21/09	1500		2	MW-06	4/27/09	190		1	MW-13	4/23/09	110		1	BF-EW-1	4/22/09
General Minerals	Sulfate	mg/l	**175**				90		1	MW-14	1/26/05	1900		2	MW-06	4/27/09	170		1	MW-13	4/23/09	290		1	BF-EW-1	4/22/09
General Minerals	Total Dissolved Solids	mg/l	**909**				2000		1	MW-14	5/26/04	10000		2	MW-06	4/27/09	1800		1	MW-13	4/23/09	1200		1	BF-EW-1	4/22/09
General Minerals	Silica (Silicon reported as Silica)	mg/l	**27**				48		1	MBFB-EW-1	4/21/09	36			MW-06	4/27/09	43		1	MW-13	4/23/09	26		1	BF-EW-1	4/22/09
General Minerals	Hardness as CaCO3	mg/l	**495**				1200		1	MBFB-EW-1	4/21/09	5200		2	MW-06	4/27/09	1100		1	MW-13	4/23/09	640		1	BF-EW-1	4/22/09
CAM-17	Antimony	ug/l	**0.27**	6	MCL		0.25		1	MBFB-EW-1	4/21/09		< 2	2	MW-01	10/31/06		< 2	1	MW-13	10/30/06	0.06		1	BF-EW-1	10/6/06
CAM-17	Arsenic	ug/l	**8.9**	10	MCL		215		1	MBFB-EW-1	2/6/12	14.1		2	MW-01	2/2/12	285		1	MW-13	2/2/12	2.4		1	BF-EW-1	10/6/06
CAM-17	Arsenic (III), dissolved	ug/l	**7.9**				260		1	MBFB-EW-1	2/6/12	8.1		2	MW-01	2/2/12	300		1	MW-13	2/2/12	4.4		1	BF-EW-1	4/22/09
CAM-17	Arsenic (V), dissolved	ug/l	**4.4**				100		1	MBFB-EW-1	2/6/12	8		2	MW-01	2/2/12	110		1	MW-13	2/2/12		< 2	1	BF-EW-1	4/22/09
CAM-17	Barium	ug/l	**63.5**	2,000	MCL		380		1	MBFB-EW-1	4/21/09	110		2	MW-01	4/28/09	100		1	MW-13	10/30/06	67		1	BF-EW-1	8/26/05
CAM-17	Beryllium	ug/l	**0**	4	MCL			< 5	1	MBFB-EW-1	8/24/05		< 0.5	2	MW-01	10/31/06		< 0.5	1	MW-13	10/30/06		< 0.5	1	BF-EW-1	8/26/05
CAM-17	Cadmium	ug/l	**0**	5	MCL			< 10	1	MBFB-EW-1	8/24/05		< 1	2	MW-01	10/31/06		< 1	1	MW-13	10/30/06		< 1	1	BF-EW-1	8/26/05
CAM-17	Chromium (Total)	ug/l	**1.1**	100	MCL		0.56		1	MW-14	7/8/04	39		2	MW-01	4/28/09		< 2	1	MW-13	4/23/09	1.2		1	BF-EW-1	8/26/05
CAM-17	Chromium (hexavalent)	mg/l	**0.000063**					< 0.002	1	MBFB-EW-1	4/21/09	0.00067		2	MW-06	4/27/09		< 0	1	MW-13	4/23/09		< 1	1	BF-EW-1	10/6/06
CAM-17	Chromium (trivalent)	mg/l	**0.00068**					< 0.005	1	MBFB-EW-1	4/21/09	0.039		2	MW-01	4/28/09		< 0.01	1	MW-13	4/23/09		< 5	1	BF-EW-1	10/6/06
CAM-17	Cobalt	ug/l	**0.61**				1.1		1	MBFB-EW-1	4/21/09	26		2	MW-06	4/27/09		< 1	1	MW-13	10/30/06	1		1	BF-EW-1	8/26/05
CAM-17	Copper	ug/l	**1.2**	1,300	MCL		1.2		1	MBFB-EW-1	4/21/09	17		2	MW-06	4/27/09		< 2	1	MW-13	10/30/06	2.1		1	BF-EW-1	8/26/05
CAM-17	Lead	ug/l	**1.8**	15	MCL			< 1	1	MBFB-EW-1	4/21/09		< 1	2	MW-01	10/31/06		< 1	1	MW-13	10/30/06	30		1	BF-07	7/7/04
CAM-17	Mercury	mg/l	**0**	0.002	MCL			< 0.0002	1	MBFB-EW-1	4/21/09	0.00012		2	MW-06	4/27/09		< 0.2	1	MW-13	10/30/06		< 0.2	1	BF-EW-1	8/26/05
CAM-17	Molybdenum	ug/l	**4.5**				4.6		1	MBFB-EW-1	4/21/09	3.4		2	MW-06	4/27/09	3		1	MW-13	10/30/06	3.1		1	BF-EW-1	8/26/05
CAM-17	Nickel	ug/l	**3.9**				6.2		1	MBFB-EW-1	8/24/05	130		2	MW-06	4/27/09		< 2	1	MW-13	10/30/06	16		1	BF-EW-1	8/26/05
CAM-17	Selenium	ug/l	**0.79**	50	MCL		2.3		1	MBFB-EW-1	4/21/09	6.7		2	MW-06	4/27/09	3		1	MW-13	10/30/06	1.5		1	BF-EW-1	8/26/05
CAM-17	Silver	ug/l	**0.01**					< 1	1	MBFB-EW-1	4/21/09		< 1	2	MW-01	10/31/06		< 1	1	MW-13	10/30/06		< 1	1	BF-EW-1	8/26/05
CAM-17	Thallium	ug/l	**0.13**	2	MCL		0.25		1	MW-14	7/8/04		< 1	2	MW-01	10/31/06		< 1	1	MW-13	10/30/06	0.38		1	BF-EW-1	8/26/05
CAM-17	Vanadium	ug/l	**1**					< 20	1	MBFB-EW-1	8/24/05		< 2	2	MW-01	10/31/06		< 2	1	MW-13	10/30/06	3.4		1	BF-EW-1	8/26/05
CAM-17	Zinc	ug/l	**112**				52		1	MBFB-EW-1	4/21/09	180		2	MW-06	4/27/09		< 20	1	MW-13	10/30/06	12		1	BF-EW-1	8/26/05
Other	Aluminum	mg/l	**7.5**					< 0.05	1	MBFB-EW-1	4/21/09		< 0.1	2	MW-01	4/28/09		< 0.05	1	MW-13	4/23/09		< 0.05	1	BF-EW-1	4/22/09
Other	Ammonia-Nitrogen	mg/l	**0.10**					< 0.5	1	MBFB-EW-1	4/21/09	0.55		2	MW-06	4/27/09		< 0.5	1	MW-13	4/23/09		< 0.05	1	BF-EW-1	4/22/09
Other	Ammonium	ug/l	**0**					Not Tested	4	Not Tested			Not Tested	4	Not Tested			Not Tested	4	Not Tested			< 0	3	HSU Avg	
Other	Biochemical Oxygen Demand	ug/l	**2562**				23000		1	MBFB-EW-1	8/25/05	2100		3	HSU Avg		2100		3	HSU Avg			< 2000	1	BF-EW-1	8/26/05
Other	Boron	ug/l	**52.0**				410		1	MW-14	5/3/04	0.34		2	MW-06	4/27/09	0.22		1	MW-13	4/23/09	0.13		1	BF-EW-1	4/22/09
Other	Chemical Oxygen Demand	mg/l	**92.8**				100		1	MBFB-EW-1	4/21/09	1200		2	MW-01	4/28/09	130		1	MW-13	4/23/09	250		1	BF-EW-1	4/22/09
Other	Chlorine, Residual	ug/l	**0**	4,000	MCL			< 100	1	MBFB-EW-1	8/25/05		Not Tested	4	Not Tested			Not Tested	4	Not Tested			< 100	1	BF-EW-1	8/26/05
Other	Color	Color Units	**5.3**				150		1	MBFB-EW-1	4/21/09	180		2	MW-01	4/28/09	100		1	MW-13	4/23/09	10		1	BF-EW-1	4/22/09
Other	Cyanide	mg/l	**0**	0.2	MCL			< 5	1	MBFB-EW-1	8/24/05		< 0.025	2	MW-01	4/28/09		< 0.03	1	MW-13	4/23/09		< 5	1	BF-EW-1	8/26/05
Other	Carbon Dioxide	ug/l	**40993**				220000		1	MBFB-EW-1	4/21/09	230000		2	MW-01	4/28/09	160000		1	MW-13	4/23/09	29000		1	BF-EW-1	4/22/09
Other	Dissolved Nitrogen	mg/l	**0.20**					< 3.1	1	MBFB-EW-1	4/21/09	23		2	MW-06	4/27/09		< 3.1	1	MW-13	4/23/09		< 3.1	1	BF-EW-1	4/22/09
Other	Dissolved Methane	ug/l	**20.8**				11		1	MBFB-EW-1	4/21/09	5.7		2	MW-01	4/28/09	0.01		1	MW-13	4/23/09	4.1		1	BF-EW-1	4/22/09
Other	Fluoride	mg/l	**0.3**	4	MCL		0.4		1	MBFB-EW-1	4/21/09		< 2.5	2	MW-01	4/28/09	0.55		1	MW-13	4/23/09	0.21		1	BF-EW-1	4/22/09
Other	Iron (ferrous)	mg/l	**0.48**					< 0.10	1	MBFB-EW-1	4/21/09	1		2	MW-01	4/28/09		< 0.1	1	MW-13	4/23/09			1		
Other	Sulfide as H2S	mg/l	**0.01**				0.04		1	MBFB-EW-1	4/21/09		< 0.1	2	MW-01	4/28/09		< 0.1	1	MW-13	4/23/09	0.03		1	BF-EW-1	4/22/09
Other	Langelier Saturation Index (calculation)	unitless	**Note 4**				0.511		1	MBFB-EW-1	4/21/09	0.954		2	MW-06	4/27/09	0.275		1	MW-13	4/23/09	0.315		1	BF-EW-1	4/22/09

APPENDIX E
ESTIMATED FLOW-WEIGHTED AVERAGE INFLUENT CONCENTRATIONS
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

						Extraction Well—►	MBFB-EW-1					UBA-EW-1[3]					UBA-EW-2					BF-EW-1				
						Modeled Flowrate—►	4 GPM					6 GPM					12 GPM					35 GPM				
Chemical Class	Analyte	Units	Flow Weighted Influent Concentration	Regulatory Criteria	Regulatory Standard	Exceeds Regulatory Standard?	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date
Other	MBAS (Surfactants)	ug/l	**936**				390		1	MBFB-EW-1	8/25/05	35		3	HSU Avg		35		3	HSU Avg		3200		1	BF-EW-1	8/26/05
Other	Methanol	ug/l	**114**				670		1	MBFB-EW-1	8/24/05		< 0	3	HSU Avg			< 0.00	3	HSU Avg		860		1	BF-EW-1	8/26/05
Other	Nitrate-Nitrogen	mg/l	**0.2**	10	MCL			< 0.11	1	MBFB-EW-1	4/21/09	20		2	MW-06	4/27/09		< 0.11	1	MW-13	4/23/09		< 0.11	1	BF-EW-1	4/22/09
Other	Nitrate (as NO3)	mg/l	**0.75**					< 0.50	1	MBFB-EW-1	4/21/09	88		2	MW-06	4/27/09		< 0.5	1	MW-13	4/23/09		< 0.5	1	BF-EW-1	4/22/09
Other	Nitrite (as NO2)	mg/l	**0.10**	1	MCL			< 10	1	MBFB-EW-1	4/21/09	12		2	MW-06	4/27/09		< 10	1	MW-13	4/23/09		< 10	1	BF-EW-1	4/22/09
Other	Nitrite (as N)	mg/l	**0**	1	MCL			< 3	1	MBFB-EW-1	4/21/09	3.7		2	MW-06	4/27/09		< 3	1	MW-13	4/23/09		< 3	1	BF-EW-1	4/22/09
Other	Odor	T.O.N.	**75.1**				1300		1	MBFB-EW-1	4/21/09	350		2	MW-06	4/27/09	390		1	MW-13	4/23/09	180		1	BF-EW-1	4/22/09
Other	Orthophosphate	mg/l	**0.03**				0.018		1	MBFB-EW-1	4/21/09	0.12		2	MW-01	4/28/09	0.11		1	MW-13	4/23/09	0.016		1	BF-EW-1	4/22/09
Other	Phosphate	mg/l	**0.09**				0.46		1	MBFB-EW-1	4/21/09	0.54		2	MW-01	4/28/09	0.60		1	MW-13	4/23/09		< 0.15	1	BF-EW-1	4/22/09
Other	Perchlorate	ug/l	**0**					< 40	1	MBFB-EW-1	8/25/05		< 0	3	HSU Avg			< 0	3	HSU Avg			< 400	1	BF-EW-1	8/26/05
Other	pH	pH Units	**7.7**				7.12		1	MBFB-EW-1	4/21/09	6.79		2	MW-06	4/27/09	7.02		1	MW-13	4/23/09	7.04		1	BF-EW-1	4/22/09
Other	Radon 222	pCi/L	**192**				131		1	MBFB-EW-1	4/21/09	139		2	MW-01	4/28/09	87.1		1	MW-13	4/23/09	224		1	BF-EW-1	4/22/09
Other	Ryznar Stability Index	unitless	**Note 4**				5.8		1	MBFB-EW-1	4/21/09	4.8		2	MW-01	4/28/09	6.2		1	MW-13	4/23/09	6.8		1	BF-EW-1	4/22/09
Other	Strontium	ug/l	**1589**					Not Tested	4	Not Tested			Not Tested	4	Not Tested			Not Tested	4	Not Tested		2300		3	HSU Avg	
Other	Sulfide	mg/l	**0.06**				0.089		1	MBFB-EW-1	4/21/09		< 0.1	2	MW-01	4/28/09		< 0.1	1	MW-13	4/23/09	0.061		1	BF-EW-1	4/22/09
Other	Total Kjeldahl Nitrogen	mg/l	**1.1**				1.1		1	MBFB-EW-1	4/21/09	3.9		2	MW-06	4/27/09	1.4		1	MW-13	4/23/09	1.1		1	BF-EW-1	4/22/09
Other	Total Organic Carbon	mg/l	**21.9**				17		1	MBFB-EW-1	4/21/09	410		2	MW-01	4/28/09	16		1	MW-13	4/23/09	58		1	BF-EW-1	4/22/09
Other	Total Suspended Solids	mg/l	**3**				17		1	MBFB-EW-1	8/25/05	26		2	MW-01	4/28/09	31		1	MW-13	4/23/09	18		1	BF-EW-1	8/26/05
Other	analyzed; see below for field measurement)	umhos/cm	**1389**				3600		1	MBFB-EW-1	4/21/09	15000		2	MW-06	4/27/09	2800		1	MW-13	4/23/09	1700		1	BF-EW-1	4/22/09
Field Parameter	Dissolved Oxygen	mg/l	**0.90**				1.49		1	MBFB-EW-1	2/6/12	1.29		2	MW-06	1/24/12	1.45		1	MW-13	2/2/12	0.06		1	BF-EW-1	3/26/12
Field Parameter	Electrical Conductivity (field measured; see above for laboratory measurement)	umhos/cm	**1437**				3560		1	MBFB-EW-1	2/6/12	14400		2	MW-06	1/24/12	3000		1	MW-13	2/2/12	1530		1	BF-EW-1	3/26/12
Field Parameter	Eh (Calculated)	mV	**157**				121		1	MBFB-EW-1	2/6/12	322		2	MW-06	1/24/12	125		1	MW-13	2/2/12	121		1	BF-EW-1	3/26/12
Field Parameter	Oxidation-Reduction Potential	mV	**-43**				-79		1	MBFB-EW-1	2/6/12	122		2	MW-06	1/24/12	-75.0		1	MW-13	2/2/12	-79		1	BF-EW-1	3/26/12
Field Parameter	pH	pH units	**7.47**				6.8		1	MBFB-EW-1	2/6/12	6.71		2	MW-06	1/24/12	6.71		1	MW-13	2/2/12	7.42		1	BF-EW-1	3/26/12
Field Parameter	Temperature	°C	**22**				23.19		1	MBFB-EW-1	2/6/12	23.7		2	MW-06	1/24/12	23.08		1	MW-13	2/2/12	23.70		1	BF-EW-1	3/26/12
Field Parameter	Turbidity	NTU	**1**				1.7		1	MBFB-EW-1	2/6/12	2.9		2	MW-06	1/24/12	0.0		1	MW-13	2/2/12	17		1	BF-EW-1	3/26/12

NOTES:
1. Calculation of cumulative flow-weighted influent concentration assumes non-detected analytes have a zero concentration. (low bias)
2. The "total" value presented in the summation of all the detected concentrations in that chemical class.
3. Approximate influent concentration is the maximum concentration detected at two the two representative monitor wells (MW-1 and MW-6).
4. A flow-weighted concentration is not calculated.

Spreadsheet originally generated by Hargis + Associates.
MCL = Maximum Contaminant Level for drinking water
ISGS = In Situ Groundwater Standards (from Record of Decision EPA, 1999)
ROD = Record of Decision (EPA, 1999)
mg/l = milligrams per liter
ug/l = micrograms per liter
(T) = Total. Limits for DDD, DDE, DDT, PCBs are for total isomers
(<) = Less than; the numerical value is the Limit of Detection for that compound.
HSU Avg = Hydrostratigraphic Unit Average

CERTAINTY LEVELS:

Certainty Level 1 (High) = Analytical result is from the extraction well or from a monitor well with a similar screen interval and within 150 feet of the extraction well. Additionally, analytical results are from 2004 to present.

Certainty Level 2 (Moderate) = Analytical result is from the extraction or from a monitor well greater than 150 feet from the extraction well location. However, the monitor well screen interval is not similar to the extraction well screened interval or the data was obtained prior to 2004.

Certainty Level 3 (Low) = Analyte not sampled in the extraction well or a representative monitor well. Concentration estimated based on the average historic analyte concentration in Montrose wells screened in the same unit.

Certainty Level 4 (None) = Analyte not sampled in Montrose wells screened in the same unit. No value was assigned.

APPENDIX E
ESTIMATED FLOW-WEIGHTED AVERAGE INFLUENT CONCENTRATIONS
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

			BF-EW-2					BF-EW-3					BF-EW-4					BF-EW-5					BF-EW-6						
			68 GPM					64 GPM					132 GPM					35 GPM					35 GPM						
Chemical Class	Analyte	Units	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not & I
VOC	Total VOCs (Note 2)	ug/l	14226		1	BF-OW-3	4/22/09	10290		2	BF-15	1/31/12	5600		2	BF-11	1/16/04	78013		2			9208		1	BF-06	4/23/09	1508	
VOC	1,1,1,2-Tetrachloroethane	ug/l		< 50	1	BF-OW-3	4/22/09		< 40	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	1,1,1-Trichloroethane	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	1,1,2,2-Tetrachloroethane	ug/l		< 10	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 10	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 20	1	BF-06	4/23/09		<
VOC	1,1,2-Trichloroethane	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04	0.75		2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	1,1-Dichloroethane	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	1,1-Dichloroethylene	ug/l		< 50	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04	0.89		2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	1,1-Dichloropropene	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04	0.62		2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	1,2,3-Trichlorobenzene	ug/l		< 50	1	BF-OW-3	4/22/09		< 40	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04	0.55		2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	1,2,3-Trichloropropane	ug/l		< 100	1	BF-OW-3	4/22/09		< 80	2	BF-15	1/31/12		< 50	2	BF-11	7/7/04		< 1	2	BF-EW-1	8/26/05		< 200	1	BF-06	4/23/09		<
VOC	1,2,4-Trichlorobenzene	ug/l		< 40	1	BF-EW-2	7/26/05		< 20	2	BF-15	1/31/12		< 2	2	BF-11	7/7/04			2	BF-EW-1	4/22/09	0.29		1	BF-06	4/23/09		<
VOC	1,2,4-Trimethyl Benzene	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 40	2	BF-11	4/21/09	1.3		2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	1,2-Dibromo-3-Chloropropane (DBCP)	ug/l		< 50	1	BF-OW-3	4/22/09		< 200	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 5	2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	1,2-Dibromoethane	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	1,2-Dichloro-1,1,2-Trifluoroethane	ug/l		< 2	1	BF-OW-3	7/20/05		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 200	2	BF-02	1/26/04		< 40	1	BF-06	4/23/09		<
VOC	1,2-Dichlorobenzene	ug/l		< 50	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 100	2	BF-11	2/7/12	7.1		2	BF-EW-1	4/22/09	3.29		1	BF-06	4/23/09	0.53	
VOC	1,2-Dichloroethane	ug/l	72		1	BF-OW-3	1/30/12	110		2	BF-15	1/31/12		< 10	2	BF-11	4/21/09	6.4		2	BF-EW-1	8/26/05		< 10	1	BF-06	4/23/09		<
VOC	1,2-Dichloropropane	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	1,3,5-Trimethyl Benzene	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 100	2	BF-11	2/7/12	0.46		2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	1,3-Dichlorobenzene	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 1	2	BF-11	7/7/04	0.74		2	BF-EW-1	8/26/05	0.19		1	BF-06	4/23/09		<
VOC	1,3-Dichloropropane	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	1,4-Dichlorobenzene	ug/l		< 50	1	BF-OW-3	1/30/12	35		2	BF-15	1/31/12		< 100	2	BF-11	2/7/12	53		2	BF-EW-1	3/26/12	23		1	BF-06	4/23/09	5.4	
VOC	2,2-Dichloropropane	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	2-Chloroethylvinyl ether	ug/l		< 5	1	BF-EW-2	9/29/05		< 500	2	BF-15	8/4/90		< 20	2	BF-11	8/4/90		< 100	2	BF-EW-1	8/26/05		< 100	1	BF-06	2/24/90		<
VOC	2-Chlorotoluene	ug/l		< 50	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	2-Hexanone	ug/l		< 100	1	BF-OW-3	4/22/09		< 400	2	BF-15	1/31/12		< 100	2	BF-11	1/16/04		< 10	2	BF-EW-1	8/26/05		< 200	1	BF-06	4/23/09		<
VOC	4-Chlorotoluene	ug/l		< 50	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	4-Methyl-2-Pentanone	ug/l		< 100	1	BF-OW-3	4/22/09		< 400	2	BF-15	1/31/12		< 100	2	BF-11	1/16/04		< 10	2	BF-EW-1	8/26/05		< 200	1	BF-06	4/23/09		<
VOC	Acetone	ug/l		< 100	1	BF-OW-3	4/22/09		< 400	2	BF-15	1/31/12		< 100	2	BF-11	1/16/04		< 10	2	BF-EW-1	8/26/05		< 200	1	BF-06	4/23/09		<
VOC	Acrolein	ug/l		< 5	1	BF-EW-2	9/29/05		< 1000	2	BF-15	4/27/09		< 5000	2	BF-11	4/21/09		< 100	2	BF-EW-1	8/26/05		< 50	1	BF-06	4/23/09		<
VOC	Acrylonitrile	ug/l		< 2	1	BF-EW-2	9/29/05		< 1000	2	BF-15	4/27/09		< 5000	2	BF-11	4/21/09		< 40	2	BF-EW-1	8/26/05		< 50	1	BF-06	4/23/09		<
VOC	Benzene	ug/l	110		1	BF-OW-3	1/30/12	36		2	BF-15	1/31/12		< 100	2	BF-11	2/7/12	190		2	BF-EW-1	3/26/12	68		1	BF-06	4/23/09	1.9	
VOC	Bromobenzene	ug/l		< 50	1	BF-OW-3	1/30/12		< 20	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	Bromochloromethane	ug/l		< 50	1	BF-OW-3	1/30/12		< 20	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	Bromodichloromethane	ug/l		< 20	1	BF-EW-2	7/26/05		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	Bromoform	ug/l		< 50	1	BF-OW-3	1/30/12		< 20	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	Bromomethane	ug/l		< 50	1	BF-OW-3	1/30/12		< 40	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	Carbon Disulfide	ug/l		< 5	1	BF-OW-3	7/20/05		< 20	2	BF-15	1/31/12		< 20	2	BF-11	4/21/09		< 500	2	BF-02	1/26/04		< 20	1	BF-06	4/23/09		<
VOC	Carbon Tetrachloride	ug/l		< 5	1	BF-EW-2	4/22/09		< 20	2	BF-15	1/31/12		< 5	2	BF-11	1/16/04		< 0.5	2	BF-EW-1	8/26/05		< 10	1	BF-06	4/23/09		<
VOC	Chlorobenzene	ug/l	14000		1	BF-OW-3	1/30/12	10000		2	BF-15	1/31/12	5600		2	BF-11	2/7/12	77000		2	BF-02	2/7/12	9100		1	BF-06	2/2/12	1500	
VOC	Chloroethane	ug/l		< 50	1	BF-OW-3	1/31/12		< 40	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	Chloroform	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04	680		2	BF-02	2/7/12		< 40	1	BF-06	4/23/09		<
VOC	Chloromethane	ug/l		< 15	1	BF-OW-3	4/22/09		< 40	2	BF-15	1/31/12		< 15	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 30	1	BF-06	4/23/09		<
VOC	cis-1,2-Dichloroethylene	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 100	2	BF-11	2/7/12	1		2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	cis-1,3-Dichloropropylene	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 0.5	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	Cyclohexane	ug/l	44		1	BF-OW-3	4/22/09		< 2500	2	BF-15	4/27/09		< 2500	2	BF-11	4/21/09		< 25000	2	BF-02	4/28/09		< 2500	1	BF-06	4/23/09		<
VOC	Dibromochloromethane	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	Dibromomethane	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	Dichlorodifluoromethane	ug/l		< 50	1	BF-OW-3	4/22/09		< 80	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 2	2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	Diisopropyl Ether	ug/l		< 50	1	BF-OW-3	1/30/12		< 20	2	BF-15	1/31/12		< 50	2	BF-11	7/7/04		< 1	2	BF-EW-1	8/26/05		< 120	1	BF-06	2/2/12		<
VOC	Ethanol	ug/l		< 5000	1	BF-OW-3	1/30/12		< 5000	2	BF-15	1/31/12		< 7500	2	BF-11	7/7/04		< 150	2	BF-EW-1	8/26/05		< 12000	1	BF-06	2/2/12		<
VOC	Ethyl tert-Butyl Ether	ug/l		< 100	1	BF-OW-3	1/30/12		< 20	2	BF-15	1/31/12		< 50	2	BF-11	7/7/04		< 1	2	BF-EW-1	8/26/05		< 120	1	BF-06	2/2/12		<
VOC	Ethylbenzene	ug/l		< 50	1	BF-OW-3	1/30/12		< 20	2	BF-15	1/31/12		< 40	2	BF-11	4/21/09		< 25	2	BF-EW-1	3/26/12		< 40	1	BF-06	4/23/09	0.63	
VOC	Hexachlorobutadiene	ug/l		< 40	1	BF-EW-2	7/26/05		< 40	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04		< 1	2	BF-EW-1	8/26/05		< 1.9	1	BF-06	4/23/09		<
VOC	Isopropyl Benzene	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	Methyl Ethyl Ketone	ug/l		< 100	1	BF-OW-3	4/22/09		< 400	2	BF-15	1/31/12		< 100	2	BF-11	1/16/04		< 10	2	BF-EW-1	8/26/05		< 200	1	BF-06	4/23/09		<
VOC	Methyl Tertiary Butyl Ether	ug/l		< 100	1	BF-EW-2	7/26/05		< 20	2	BF-15	1/31/12		< 50	2	BF-11	7/7/04		< 1	2	BF-EW-1	8/26/05		< 5	1	BF-06	1/22/99		<
VOC	Methylene Chloride	ug/l		< 50	1	BF-OW-3	4/22/09		< 80	2	BF-15	1/31/12		< 100	2	BF-11	2/7/12		< 50	2	BF-EW-1	3/26/12		< 100	1	BF-06	4/23/09		<
VOC	N-Butyl Benzene	ug/l		< 50	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	p-Isopropyltoluene	ug/l		< 20	1	BF-OW-3	4/22/09		< 50	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	Propylbenzene	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 100	2	BF-11	2/7/12		< 1	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	S-Butyl Benzene	ug/l		< 50	1	BF-OW-3	4/22/09		< 50	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	Styrene	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	T-Butyl Benzene	ug/l		< 50	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 1	2	BF-EW-1	8/26/05		< 100	1	BF-06	4/23/09		<
VOC	tert-Amyl methyl ether	ug/l		< 50	1	BF-OW-3	1/30/12		< 20	3	BF-15	1/31/12		< 50	2	BF-11	7/7/04		< 1	2	BF-EW-1	8/26/05		< 120	1	BF-06	2/2/12		<
VOC	tert-Butyl alcohol	ug/l		< 1000	1	BF-OW-3	1/30/12		< 400	3	BF-15	1/31/12		< 500	2	BF-11	7/7/04		< 10	2	BF-EW-1	8/26/05		< 2500	1	BF-06	2/2/12		<
VOC	Tetrachloroethylene	ug/l		< 50	1	BF-OW-3	1/30/12	90		2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 25	2	BF-EW-1	3/26/12		< 40	1	BF-06	4/23/09		<
VOC	Toluene	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04	1.7		2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	Total Xylenes	ug/l		< 50	1	BF-OW-3	1/30/12		< 20	2	BF-15	1/31/12		< 40	2	BF-11	4/21/09		< 25	2	BF-EW-1	3/26/12		< 40	1	BF-06	4/23/09		<
VOC	o-Xylene/Ortho Xylene	ug/l		< 50	1	BF-OW-3	1/30/12		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 25	2	BF-EW-1	3/26/12		< 40	1	BF-06	4/23/09		<
VOC	m,p-xylenes	ug/l		< 50	1	BF-OW-3	1/30/12		< 20	2	BF-15	1/31/12		< 40	2	BF-11	4/21/09		< 25	2	BF-EW-1	3/26/12		< 40	1	BF-06	4/23/09		<
VOC	trans-1,2-Dichloroethylene	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04	0.37		2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	trans-1,3-Dichloropropylene	ug/l		< 20	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 20	2	BF-11	1/16/04		< 0.5	2	BF-EW-1	8/26/05		< 40	1	BF-06	4/23/09		<
VOC	Trichloroethylene	ug/l		< 20	1	BF-OW-3	4/22/09	19		2	BF-15	1/31/12		< 100	2	BF-11	2/7/12	68		2	BF-EW-1	3/26/12	17		1	BF-06	4/23/09		<
VOC	Trichlorofluoromethane	ug/l		< 50	1	BF-OW-3	4/22/09		< 40	2	BF-15	1/31/12		< 50	2	BF-11	1/16/04		< 25	2	BF-EW-1	3/26/12		< 100	1	BF-06	4/23/09		<
VOC	Vinyl Acetate	ug/l		< 5	1	BF-OW-3	7/20/05		< 50	2	BF-15	1/28/04		< 50	2	BF-11	1/16/04		< 500	2	BF-02	1/26/04		< 100	1	BF-06	4/23/09		<
VOC	Vinyl Chloride	ug/l		< 5	1	BF-OW-3	4/22/09		< 20	2	BF-15	1/31/12		< 5	2	BF-11	1/16/04		< 0.5	2	BF-EW-1	8/26/05		< 10	1	BF-06	4/23/09		<
pCBSA	Para-Chlorobenzene Sulfonic Acid	ug/l	110000		1	BF-EW-2	1/25/07	110000		2	BF-15	1/28/04	11000		2	BF-11	1/16/04	50000		2	BF-EW-1	10/6/06	78000		1	BF-06	1/26/04	16000	

AECOM

APPENDIX E
ESTIMATED FLOW-WEIGHTED AVERAGE INFLUENT CONCENTRATIONS
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

			BF-EW-2					BF-EW-3					BF-EW-4					BF-EW-5					BF-EW-6						
			68 GPM					64 GPM					132 GPM					35 GPM					35 GPM						
Chemical Class	Analyte	Units	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not & I
SVOC	Total SVOCs (Note 2)	ug/l		< 200				6.5		2	BF-15	4/27/09	14.33		2	BF-11	7/7/04	36.63		2	BF-EW-1		1		1	BF-06	4/23/09	12.9	
SVOC	1,2-Diphenylhydrazine/Azobenzene	ug/l		< 80	1	BF-EW-2	7/26/05		< 4.8	2	BF-15	4/27/09		< 2	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 0.95	1	BF-06	4/23/09		<
SVOC	2,4,5-Trichlorophenol	ug/l		< 80	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04	1.3		2	BF-EW-1	4/22/09		< 1.9	1	BF-06	4/23/09		<
SVOC	2,4,6-Trichlorophenol	ug/l		< 80	1	BF-EW-2	7/26/05		< 4.8	2	BF-15	4/27/09		< 2	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 0.95	1	BF-06	4/23/09		<
SVOC	2,4-Dichlorophenol	ug/l		< 40	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04	2.2		2	BF-EW-1	4/22/09		< 1.9	1	BF-06	4/23/09		<
SVOC	2,4-Dimethylphenol	ug/l		< 80	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 1.9	1	BF-06	4/23/09		<
SVOC	2,4-Dinitrophenol	ug/l		< 80	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	2,4-Dinitrotoluene	ug/l		< 40	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	2,6-Dinitrotoluene	ug/l		< 40	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	2-Chloronaphthalene	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	2-Chlorophenol	ug/l		< 40	1	BF-EW-2	7/26/05		< 4.8	2	BF-15	4/27/09		< 2	2	BF-11	7/7/04	13		2	BF-EW-1	4/22/09		< 0.95	1	BF-06	4/23/09		<
SVOC	2-Methylnaphthalene	ug/l		< 40	1	BF-EW-2	7/26/05		< 4.8	2	BF-15	4/27/09		< 2	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.95	1	BF-06	4/23/09		<
SVOC	2-Methylphenol	ug/l		< 40	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 1.9	1	BF-06	4/23/09		<
SVOC	2-Nitroaniline	ug/l		< 80	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	2-Nitrophenol	ug/l		< 40	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 1.9	1	BF-06	4/23/09		<
SVOC	3,3'-Dichlorobenzidine	ug/l		< 80	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	3,4-Benzofluoranthene	ug/l		< 40	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 1.9	1	BF-06	4/23/09		<
SVOC	3-Nitroaniline	ug/l		< 80	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	4,6-Dinitro-2-methylphenol	ug/l		< 80	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	4-Bromophenyl phenyl ether	ug/l		< 40	1	BF-EW-2	7/26/05		< 4.8	2	BF-15	4/27/09		< 2	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.95	1	BF-06	4/23/09		<
SVOC	4-Chloroaniline	ug/l		< 40	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 1.9	1	BF-06	4/23/09		<
SVOC	4-Chlorophenyl phenyl ether	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	4-Methylphenol	ug/l		< 40	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	4-Nitroaniline	ug/l		< 80	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	4-Nitrophenol	ug/l		< 80	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	Acenaphthene	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	Aniline	ug/l		< 40	1	BF-EW-2	7/26/05		< 48	2	BF-15	4/27/09		< 20	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 9.5	1	BF-06	4/23/09		<
SVOC	Anthracene	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	Benzidine	ug/l		< 80	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	Benzo(a)anthracene	ug/l		< 40	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	Benzo(a)pyrene	ug/l		< 40	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 1.9	1	BF-06	4/23/09		<
SVOC	Benzo(ghi)perylene	ug/l		< 40	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	Benzo(k)fluoranthene	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	Benzoic Acid	ug/l		< 80	1	BF-EW-2	7/26/05		< 95	2	BF-15	4/27/09		< 40	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 19	1	BF-06	4/23/09		<
SVOC	Benzyl Alcohol	ug/l		< 80	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	Bis(2-chloroethoxy)methane	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	Bis(2-chloroethyl) ether	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	Bis(2-chloroisopropyl) ether	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	Bis(2-ethylhexyl) phthalate	ug/l		< 200	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09	6.5		2	BF-11	7/7/04	9.5	< 120	2	BF-EW-1	4/22/09		< 4.8	1	BF-06	4/23/09	6.4	
SVOC	Butyl benzyl phthalate	ug/l		< 80	1	BF-EW-2	7/26/05	4.3		2	BF-15	4/27/09	5		2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05	1		1	BF-06	4/23/09	4.8	
SVOC	Chrysene	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	Dibenzo(a,h)anthracene	ug/l		< 80	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	Dibenzofuran	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	Diethyl phthalate	ug/l		< 40	1	BF-EW-2	7/26/05		< 4.8	2	BF-15	4/27/09		< 2	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.95	1	BF-06	4/23/09		<
SVOC	Dimethylphthalate	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	Di-n-butyl phthalate	ug/l		< 80	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09	1.8		2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 1.9	1	BF-06	4/23/09	1.7	
SVOC	Di-n-octyl phthalate	ug/l		< 80	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	Dioxane	ug/l		< 2	1	BF-OW-3	4/22/09		< 2	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04	1.2	< 2.5	2	BF-EW-1	4/22/09		< 2	1	BF-06	4/23/09		<
SVOC	Fluoranthene	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	Fluorene	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	Hexachlorobenzene	ug/l		< 40	1	BF-EW-2	7/26/05		< 4.8	2	BF-15	4/27/09		< 2	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.95	1	BF-06	4/23/09		<
SVOC	Hexachlorocyclopentadiene	ug/l		< 80	1	BF-EW-2	7/26/05		< 24	2	BF-15	4/27/09		< 10	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 4.8	1	BF-06	4/23/09		<
SVOC	Hexachloroethane	ug/l		< 40	1	BF-EW-2	7/26/05		< 14	2	BF-15	4/27/09		< 6	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 2.9	1	BF-06	4/23/09		<
SVOC	Indeno(1,2,3-cd) pyrene	ug/l		< 80	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 1.9	1	BF-06	4/23/09		<
SVOC	Isophorone	ug/l		< 40	1	BF-EW-2	7/26/05	1.1		2	BF-15	4/27/09		< 2	2	BF-11	7/7/04	0.95		2	BF-EW-1	4/22/09	0.19	< 0	1	BF-06	4/23/09		<
SVOC	Naphthalene	ug/l		< 40	1	BF-EW-2	7/26/05	1.1		2	BF-15	4/27/09	0.65		2	BF-11	7/7/04	8		2	BF-EW-1	4/22/09	0.15	< 100	1	BF-06	4/23/09		<
SVOC	Nitrobenzene	ug/l		< 80	1	BF-EW-2	7/26/05		< 4.8	2	BF-15	4/27/09		< 2	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 0.95	1	BF-06	4/23/09		<
SVOC	N-Nitrosdimethylamine	ug/l		< 80	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 1.9	1	BF-06	4/23/09		<
SVOC	N-Nitrosdi-n-propylamine	ug/l		< 40	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 1.9	1	BF-06	4/23/09		<
SVOC	N-Nitrosdiphenylamine	ug/l		< 40	1	BF-EW-2	7/26/05		< 4.8	2	BF-15	4/27/09		< 2	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.95	1	BF-06	4/23/09		<
SVOC	p-Chloro-m-cresol	ug/l		< 80	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04		< 50	2	BF-EW-1	8/26/05		< 1.9	1	BF-06	4/23/09		<
SVOC	Pentachlorophenol	ug/l		< 80	1	BF-EW-2	7/26/05		< 9.5	2	BF-15	4/27/09		< 4	2	BF-11	7/7/04	0.48	< 50	2	BF-EW-1	4/22/09		< 1.9	1	BF-06	4/23/09		<
SVOC	Phenanthrene	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09	0.38		2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
SVOC	Phenol	ug/l		< 40	1	BF-EW-2	7/26/05		< 4.8	2	BF-15	4/27/09		< 2	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.95	1	BF-06	4/23/09		<
SVOC	Pyrene	ug/l		< 40	1	BF-EW-2	7/26/05		< 2.4	2	BF-15	4/27/09		< 1	2	BF-11	7/7/04		< 25	2	BF-EW-1	8/26/05		< 0.48	1	BF-06	4/23/09		<
Pesticide	Total Pesticides (Note 2)	ug/l	0.0035		1			3.82		2	BF-15	1/31/12	0.035		2	BF-11	2/7/12	11.35		2		2/7/12	0		1	BF-06	2/2/12	0.6772	
Pesticide	2,4'-DDD	ug/l		< 0.098	1	BF-OW-3	4/22/09		< 0.094	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12	4.8		2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	2,4'-DDE	ug/l		< 0.098	1	BF-OW-3	4/22/09		< 0.094	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12	0.12		2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	2,4'-DDT	ug/l		< 0.098	1	BF-OW-3	4/22/09		< 0.094	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12	0.35		2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	4,4'-DDD	ug/l		< 0.0047	1	BF-EW-2	1/25/07		< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12	5.9		2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12	0.03	
Pesticide	4,4'-DDE	ug/l		< 0.0047	1	BF-EW-2	1/25/07		< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12	0.18		2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12	0.0072	
Pesticide	4,4'-DDT	ug/l		< 0.0094	1	BF-EW-2	1/25/07		< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12	0.64	
Pesticide	Total DDD	ug/l		< 0.098	1				< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12	10.7		2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12	0.03	
Pesticide	Total DDE	ug/l		< 0.098	1				< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12	0.3		2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12	0.0057	
Pesticide	Total DDT	ug/l		< 0.098	1				< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12	0.35		2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12	0.64	
Pesticide	Aldrin	ug/l		< 0.005	1	BF-EW-2	7/26/05		< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	beta-Endosulfan	ug/l		< 0.005	1	BF-EW-2	7/26/05		< 0.5	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	BHC, alpha-	ug/l	0.0035		1	BF-EW-2	1/25/07	0.9		2	BF-15	1/31/12	0.024		2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	BHC, beta-	ug/l		< 0.0094	1	BF-EW-2	1/25/07	1.7		2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<

APPENDIX E
ESTIMATED FLOW-WEIGHTED AVERAGE INFLUENT CONCENTRATIONS
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

			BF-EW-2					BF-EW-3					BF-EW-4					BF-EW-5					BF-EW-6						
			68 GPM					64 GPM					132 GPM					35 GPM					35 GPM						
Chemical Class	Analyte	Units	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not & I
Pesticide	BHC, delta-	ug/l		< 0.005	1	BF-EW-2	7/26/05	0.33		2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	BHC, gamma-	ug/l		< 0.01	1	BF-EW-2	7/26/05	0.89		2	BF-15	1/31/12	0.011		2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	Chlordane	ug/l		< 0.98	1	BF-OW-3	4/22/09		< 0.62	2	BF-15	1/31/12		< 0.012	2	BF-11	2/7/12		< 0.12	2	BF-02	2/7/12		< 0.012	1	BF-06	2/2/12		<
Pesticide	Dieldrin	ug/l		< 0.005	1	BF-EW-2	7/26/05		< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	Endosulfan 1	ug/l		< 0.005	1	BF-EW-2	7/26/05		< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	Endosulfan sulfate	ug/l		< 0.01	1	BF-EW-2	7/26/05		< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	Endrin	ug/l		< 0.005	1	BF-EW-2	7/26/05		< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	Endrin aldehyde	ug/l		< 0.01	1	BF-EW-2	7/26/05		< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	Endrin Ketone	ug/l		< 0.01	1	BF-EW-2	7/26/05		< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	Heptachlor	ug/l		< 0.0094	1	BF-EW-2	1/25/07		< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	Heptachlor epoxide	ug/l		< 0.005	1	BF-EW-2	7/26/05		< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	Methoxychlor	ug/l		< 0.005	1	BF-EW-2	7/26/05		< 0.25	2	BF-15	1/31/12		< 0.005	2	BF-11	2/7/12		< 0.05	2	BF-02	2/7/12		< 0.005	1	BF-06	2/2/12		<
Pesticide	Toxaphene	ug/l		< 0.1	1	BF-EW-2	7/26/05		< 3.1	2	BF-15	1/31/12		< 0.062	2	BF-11	2/7/12		< 0.62	2	BF-02	2/7/12		< 0.062	1	BF-06	2/2/12		<
PCB	PCB 1016	ug/l		< 0.5	1	BF-EW-2	7/26/05		< 1	2	BF-15	4/27/09		< 1	2	BF-11	4/21/09		< 0.5	2	BF-EW-1	8/26/05		< 1	1	BF-06	4/23/09		<
PCB	PCB 1221	ug/l		< 0.5	1	BF-EW-2	7/26/05		< 1	2	BF-15	4/27/09		< 1	2	BF-11	4/21/09		< 0.5	2	BF-EW-1	8/26/05		< 1	1	BF-06	4/23/09		<
PCB	PCB 1232	ug/l		< 0.5	1	BF-EW-2	7/26/05		< 1	2	BF-15	4/27/09		< 1	2	BF-11	4/21/09		< 0.5	2	BF-EW-1	8/26/05		< 1	1	BF-06	4/23/09		<
PCB	PCB 1242	ug/l		< 0.5	1	BF-EW-2	7/26/05		< 1	2	BF-15	4/27/09		< 1	2	BF-11	4/21/09		< 0.5	2	BF-EW-1	8/26/05		< 1	1	BF-06	4/23/09		<
PCB	PCB 1248	ug/l		< 0.5	1	BF-EW-2	7/26/05		< 1	2	BF-15	4/27/09		< 1	2	BF-11	4/21/09		< 0.5	2	BF-EW-1	8/26/05		< 1	1	BF-06	4/23/09		<
PCB	PCB 1254	ug/l		< 0.5	1	BF-EW-2	7/26/05		< 1	2	BF-15	4/27/09		< 1	2	BF-11	4/21/09		< 0.5	2	BF-EW-1	8/26/05		< 1	1	BF-06	4/23/09		<
PCB	PCB 1260	ug/l		< 0.5	1	BF-EW-2	7/26/05		< 1	2	BF-15	4/27/09		< 1	2	BF-11	4/21/09		< 0.5	2	BF-EW-1	8/26/05		< 1	1	BF-06	4/23/09		<
PCB	PCB 1262	ug/l		Not Tested	4	Not Tested			Not Tested	4	Not Tested			< 1	2	BF-11	4/21/09		Not Tested	4	Not Tested			< 1	1	BF-06	4/23/09		
PCB	PCB 1268	ug/l		Not Tested	4	Not Tested			Not Tested	4	Not Tested			< 1	2	BF-11	4/21/09		Not Tested	4	Not Tested			< 1	1	BF-06	4/23/09		
General Minerals	Alkalinity as CaCO3	mg/l	220		1	BF-OW-3	4/22/09	590		2	BF-15	4/27/09	360		2	BF-11	4/21/09	330		2	BF-02	4/28/09	180		1	BF-06	4/23/09	160	
General Minerals	Alkalinity - Bicarbonate (HCO3)	mg/l	270		1	BF-OW-3	4/22/09	720		2	BF-15	4/27/09	440		2	BF-11	4/21/09	400		2	BF-02	4/28/09	220		1	BF-06	4/23/09	200	
General Minerals	Alkalinity - Carbonate (CO3)	mg/l		< 1.2	1	BF-OW-3	4/22/09		< 1.2	2	BF-15	4/27/09		< 1.2	2	BF-11	4/21/09		< 20	2	BF-02	1/13/87		< 1.2	1	BF-06	4/23/09		<
General Minerals	Alkalinity - Hydroxide (OH)	mg/l		< 0.7	1	BF-OW-3	4/22/09		< 0.7	2	BF-15	4/27/09		< 0.7	2	BF-11	4/21/09		< 20	2	BF-02	1/13/87		< 0.7	1	BF-06	4/23/09		<
General Minerals	Bromate	ug/l		< 100	1	BF-OW-3	4/22/09		< 250	2	BF-15	4/27/09		< 50	2	BF-11	4/21/09		< 40	2	BF-02	4/28/09		< 100	1	BF-06	4/23/09		<
General Minerals	Bromide	ug/l	390		1	BF-OW-3	4/22/09	790		2	BF-15	4/27/09	690		2	BF-11	4/21/09	850		2	BF-02	4/28/09	210		1	BF-06	4/23/09	190	
General Minerals	Calcium	mg/l	130		1	BF-OW-3	4/22/09	260		2	BF-15	1/28/04	150		2	BF-11	4/21/09	230		2	BF-02	4/28/09	100		1	BF-06	4/23/09	57	
General Minerals	Chloride	mg/l	160		1	BF-OW-3	4/22/09	330		2	BF-15	1/28/04	200		2	BF-11	4/21/09	250		2	BF-02	4/28/09	88		1	BF-06	4/23/09	62	
General Minerals	Iron	mg/l	0.038		1	BF-OW-3	4/22/09	0.027		2	BF-15	4/27/09		< 0.04	3	BF-11	4/21/09		< 30	2	BF-02	1/13/87	0.017		1	BF-06	4/23/09		<
General Minerals	Magnesium	mg/l	40		1	BF-OW-3	4/22/09	87		2	BF-15	1/28/04	52		2	BF-11	4/21/09	53		2	BF-02	4/28/09	24		1	BF-06	4/23/09	15	
General Minerals	Manganese	mg/l	0.67		1	BF-OW-3	4/22/09	0.33		2	BF-15	1/28/04	0.024		3	BF-11	4/21/09	2		2	BF-02	4/28/09	0.067		1	BF-06	4/23/09	0.042	
General Minerals	Potassium	mg/l	6.5		1	BF-OW-3	4/22/09	11		2	BF-15	1/28/04	7.5		2	BF-11	4/21/09	8.9		2	BF-EW-1	4/22/09	6.8		1	BF-06	4/23/09	4.4	
General Minerals	Sodium	mg/l	95		1	BF-OW-3	4/22/09	160		2	BF-15	1/28/04	130		2	BF-11	4/21/09	120		2	BF-02	4/28/09	65		1	BF-06	4/23/09	47	
General Minerals	Sulfate	mg/l	200		1	BF-OW-3	4/22/09	320		2	BF-15	1/28/04	210		2	BF-11	4/21/09	290		2	BF-EW-1	4/22/09	150		1	BF-06	4/23/09	48	
General Minerals	Total Dissolved Solids	mg/l	920		1	BF-OW-3	4/22/09	1600		2	BF-15	1/28/04	1100		2	BF-11	4/21/09	1200		2	BF-EW-1	4/22/09	640		1	BF-06	4/23/09	380	
General Minerals	Silica (Silicon reported as Silica)	mg/l	26		1	BF-OW-3	4/22/09	34		2	BF-15	4/27/09	29		2	BF-11	4/21/09	27		2	BF-02	4/28/09	23			BF-06	4/23/09	27	
General Minerals	Hardness as CaCO3	mg/l	450		1	BF-OW-3	4/22/09	1000		2	BF-15	1/28/04	570		2	BF-11	4/21/09	770		2	BF-02	4/28/09	350		1	BF-06	4/23/09	200	
CAM-17	Antimony	ug/l	0.16		1	BF-EW-2	7/26/05		< 2	2	BF-15	4/27/09	1		2	BF-11	7/7/04	0.062		2	BF-EW-1	10/6/06	0.63		1	BF-06	4/23/09	0.073	
CAM-17	Arsenic	ug/l	8.92		1	BF-EW-2	3/26/12		< 1	2	BF-15	4/27/09	2.1		2	BF-11	4/21/09	2.4		2	BF-EW-1	10/6/06		< 1	1	BF-06	4/23/09	4.7	
CAM-17	Arsenic (III), dissolved	ug/l	8.5		1	BF-EW-2	3/26/12		< 2	2	BF-15	4/27/09		< 2	2	BF-11	4/21/09	4.4		2	BF-EW-1	4/22/09		< 2	1	BF-06	4/23/09		
CAM-17	Arsenic (V), dissolved	ug/l	19		1	BF-EW-2	3/26/12		< 2	2	BF-15	4/27/09		< 2	2	BF-11	4/21/09		< 2	2	BF-EW-1	4/22/09		< 2	1	BF-06	4/23/09		
CAM-17	Barium	ug/l	64		1	BF-OW-3	4/22/09	64		2	BF-15	4/27/09	63		2	BF-11	4/21/09	67		2	BF-EW-1	8/26/05	56		1	BF-06	4/23/09	58	
CAM-17	Beryllium	ug/l		< 0.5	1	BF-OW-3	4/22/09		< 0.5	2	BF-15	4/27/09		< 0.5	2	BF-11	4/21/09		< 0.5	2	BF-EW-1	8/26/05		< 0.5	1	BF-06	4/23/09		<
CAM-17	Cadmium	ug/l		< 1	1	BF-OW-3	4/22/09		< 1	2	BF-15	4/27/09		< 1	2	BF-11	4/21/09		< 1	2	BF-EW-1	8/26/05		< 1	1	BF-06	4/23/09		<
CAM-17	Chromium (Total)	ug/l		< 2	1	BF-OW-3	4/22/09		< 1	2	BF-15	1/28/04		< 2	2	BF-11	4/21/09	1.2		2	BF-EW-1	8/26/05		< 2	1	BF-06	4/23/09	1	
CAM-17	Chromium (hexavalent)	mg/l		< 1	1	BF-EW-2	1/25/07	0.00042		2	BF-15	4/27/09		< 0.002	2	BF-11	4/21/09		< 1	2	BF-EW-1	10/6/06		< 0.002	1	BF-06	4/23/09		<
CAM-17	Chromium (trivalent)	mg/l		< 5	1	BF-EW-2	1/25/07		< 0.002	2	BF-15	4/27/09		< 0.005	2	BF-11	4/21/09		< 5	2	BF-EW-1	10/6/06		< 0.005	1	BF-06	4/23/09		<
CAM-17	Cobalt	ug/l	0.37		1	BF-OW-3	4/22/09	1.4		2	BF-15	4/27/09	0.26		2	BF-11	4/21/09	1		2	BF-EW-1	8/26/05	0.27		1	BF-06	4/23/09	0.21	
CAM-17	Copper	ug/l	1.3		1	BF-OW-3	4/22/09	2.7		2	BF-15	4/27/09	1.3		2	BF-11	4/21/09	2.1		2	BF-EW-1	8/26/05	1		1	BF-06	4/23/09	0.72	
CAM-17	Lead	ug/l		< 1	1	BF-OW-3	4/22/09		< 1	2	BF-15	4/27/09	0.96		2	BF-11	7/7/04		< 1	2	BF-EW-1	8/26/05		< 1	1	BF-06	4/23/09		<
CAM-17	Mercury	mg/l		< 0.0002	1	BF-OW-3	4/22/09		< 0.0002	2	BF-15	4/27/09		< 0.0002	2	BF-11	4/21/09		< 0.2	2	BF-EW-1	8/26/05		< 0.0002	1	BF-06	4/23/09		<
CAM-17	Molybdenum	ug/l	3.1		1	BF-OW-3	4/22/09	0.94		2	BF-15	4/27/09	1.4		2	BF-11	4/21/09	3.1		2	BF-EW-1	8/26/05	4.7		1	BF-06	4/23/09	5.8	
CAM-17	Nickel	ug/l		< 2	1	BF-OW-3	4/22/09		< 1	2	BF-15	1/28/04	3		2	BF-11	10/23/06	16		2	BF-EW-1	8/26/05		< 2	1	BF-06	4/23/09	1.7	
CAM-17	Selenium	ug/l	0.37		1	BF-OW-3	4/22/09	0.9		2	BF-15	4/27/09	0.94		2	BF-11	4/21/09	1.5		2	BF-EW-1	8/26/05	0.37		1	BF-06	4/23/09	0.34	
CAM-17	Silver	ug/l	0.03		1	BF-EW-2	7/26/05		< 1	2	BF-15	4/27/09		< 1	2	BF-11	4/21/09		< 1	2	BF-EW-1	8/26/05		< 1	1	BF-06	4/23/09	0.029	
CAM-17	Thallium	ug/l	0.49		1	BF-EW-2	7/26/05		< 1	2	BF-15	4/27/09		< 1	2	BF-11	4/21/09	0.38		2	BF-EW-1	8/26/05		< 1	1	BF-06	4/23/09	0.26	
CAM-17	Vanadium	ug/l	0.89		1	BF-EW-2	7/26/05	1.2		2	BF-15	1/28/04	0.87		2	BF-11	4/21/09	3.4		2	BF-EW-1	8/26/05		< 2	1	BF-06	4/23/09	1	
CAM-17	Zinc	ug/l	23		1	BF-OW-3	4/22/09	92		2	BF-15	4/27/09	480		2	BF-11	4/21/09	12		2	BF-EW-1	8/26/05	48		1	BF-06	4/23/09	7.6	
Other	Aluminum	mg/l		< 0.05	1	BF-OW-3	4/22/09		< 50	2	BF-15	1/28/04		< 0.05	2	BF-11	4/21/09		< 0.05	2	EW-1 and B/09 and 4/28/09			< 0.05	1	BF-06	4/23/09		<
Other	Ammonia-Nitrogen	mg/l	0.18		1	BF-OW-3	4/22/09		< 0.5	2	BF-15	4/27/09	0.10		2	BF-11	4/21/09	0.12		2	BF-02	4/28/09		< 0.5	1	BF-06	4/23/09	0.15	
Other	Ammonium	ug/l		< 0	3	HSU Avg			< 600	2	BF-15	1/28/04		< 0	3	HSU Avg			< 0	3	HSU Avg			< 0	3	HSU Avg			<
Other	Biochemical Oxygen Demand	ug/l		< 2000	1	BF-EW-2	7/26/05	4600		3	HSU Avg		4600		3	HSU Avg			< 2000	2	BF-EW-1	8/26/05	4600		3	HSU Avg			<
Other	Boron	ug/l	0.14		1	BF-OW-3	4/22/09	410		2	BF-15	1/28/04	0.18		2	BF-11	4/21/09	0.13		2	BF-EW-1	4/22/09	0.13		1	BF-06	4/23/09	0.11	
Other	Chemical Oxygen Demand	mg/l	170		1	BF-OW-3	4/22/09	87		2	BF-15	4/27/09	51		2	BF-11	4/21/09	260		2	BF-02	4/28/09	110		1	BF-06	4/23/09	31	
Other	Chlorine, Residual	ug/l		< 100	1	BF-EW-2	7/26/05		< 0	3	HSU Avg			< 0	3	HSU Avg			< 100	2	BF-EW-1	8/26/05		< 0	3	HSU Avg			<
Other	Color	Color Units	5		1	BF-OW-3	4/22/09		< 1	2	BF-15	4/27/09		< 1	2	BF-11	4/21/09	5		2	BF-02	4/28/09		< 1	1	BF-06	4/23/09		<
Other	Cyanide	mg/l		< 5	1	BF-EW-2	7/26/05		< 25	2	BF-15	1/28/04		< 25	2	BF-11	7/7/04		< 5	2	BF-EW-1	8/26/05		< 0.025	1	BF-06	4/23/09		<
Other	Carbon Dioxide	ug/l	14000		1	BF-OW-3	4/22/09	170000		2	BF-15	4/27/09	64000		2	BF-11	4/21/09	49000		2	BF-02	4/28/09	10000		1	BF-06	4/23/09	4800	
Other	Dissolved Nitrogen	mg/l		< 0.26	1	BF-OW-3	4/22/09		< 3.1	2	BF-15	4/27/09		< 3.1	2	BF-11	4/21/09		< 0.86	2	BF-02	4/28/09		< 0.26	1	BF-06	4/23/09		<
Other	Dissolved Methane	ug/l	2.8		1	BF-OW-3	4/22/09	0.032		2	BF-15	4/27/09	0.71		2	BF-11	4/21/09	4.1		2	BF-EW-1	4/22/09	0.0014		1	BF-06	4/23/09	110	
Other	Fluoride	mg/l	0.25		1	BF-OW-3	4/22/09		< 1000	2	BF-15	1/28/04	0.23		2	BF-11	4/21/09	0.3		2	BF-02	4/28/09	0.33		1	BF-06	4/23/09	0.38	
Other	Iron (ferrous)	mg/l		< 0.1	1	BF-OW-3	4/22/09		< 0.1	2	BF-15	4/27/09	2.5		2	BF-11	4/21/09		< 0.1	2				< 0.1	1	BF-06	4/23/09		<
Other	Sulfide as H2S	mg/l		< 0.1	1	BF-OW-3	4/22/09	0.03		2	BF-15	4/27/09		< 0.1	2	BF-11	4/21/09	0.03		2	BF-EW-1	4/22/09		< 0.1	1	BF-06	4/23/09		<
Other	Langelier Saturation Index (calculation)	unitless	0.388		1	BF-OW-3	4/22/09	0.291		2	BF-15	4/27/09	0.147		2	BF-11	4/21/09	0.306			BF-02	4/28/09	0.168		1	BF-06	4/23/09	0.219	

APPENDIX E
ESTIMATED FLOW-WEIGHTED AVERAGE INFLUENT CONCENTRATIONS
2012 Groundwater Monitoring Report
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			BF-EW-2						BF-EW-3						BF-EW-4						BF-EW-5						BF-EW-6						
			68 GPM						64 GPM						132 GPM						35 GPM						35 GPM						
Chemical Class	Analyte	Units	Detected Concentration	Not Detected & Reporting Limit		Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit		Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit		Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit		Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit		Certainty	Sampled Well	Sample Date	Detected Concentration	Not & I
Other	MBAS (Surfactants)	ug/l	2100			1	BF-EW-2	7/26/05	470			2	BF-15	1/28/04	1300			3	HSU Avg		3200			2	BF-EW-1	8/26/05	1300			3	HSU Avg			<
Other	Methanol	ug/l		<	500	1	BF-EW-2	7/26/05	170			3	HSU Avg			<	500	2	BF-11	7/7/04	860			2	BF-EW-1	8/26/05	170			3	HSU Avg			<
Other	Nitrate-Nitrogen	mg/l		<	0.11	1	BF-OW-3	4/22/09		<	0.11	2	BF-15	4/27/09		<	0.11	2	BF-11	4/21/09		<	0.11	2	BF-EW-1	4/22/09		<	0.11	1	BF-06	4/23/09		<
Other	Nitrate (as NO3)	mg/l		<	0.5	1	BF-OW-3	4/22/09		<	0.5	2	BF-15	4/27/09		<	0.5	2	BF-11	4/21/09		<	0.5	2	BF-EW-1	4/22/09		<	0.5	1	BF-06	4/23/09		<
Other	Nitrite (as NO2)	mg/l		<	0.5	1	BF-OW-3	4/22/09		<	3000	2	BF-15	1/28/04		<	10	2	BF-11	4/21/09		<	2.5	2	BF-02	4/28/09		<	0.5	1	BF-06	4/23/09		<
Other	Nitrite (as N)	mg/l		<	0.15	1	BF-OW-3	4/22/09		<	3	2	BF-15	4/27/09		<	3	2	BF-11	4/21/09		<	0.75	2	BF-02	4/28/09		<	0.15	1	BF-06	4/23/09		<
Other	Odor	T.O.N.	140			1	BF-OW-3	4/22/09	39			2	BF-15	4/27/09	21			2	BF-11	4/21/09	310			2	BF-02	4/28/09	94			1	BF-06	4/23/09	15	
Other	Orthophosphate	mg/l	0.11			1	BF-OW-3	4/22/09		<	0.025	2	BF-15	4/27/09		<	0.025	2	BF-11	4/21/09	0.016			2	BF-EW-1	4/22/09	0.017			1	BF-06	4/23/09	0.039	
Other	Phosphate	mg/l	0.19			1	BF-OW-3	4/22/09	0.080			2	BF-15	4/27/09		<	0.15	2	BF-11	4/21/09	0.20			2	BF-02	4/28/09	0.080			1	BF-06	4/23/09		<
Other	Perchlorate	ug/l		<	80	1	BF-EW-2	7/26/05		<	0	3	HSU Avg			<	200	2	BF-11	7/7/04		<	400	2	BF-EW-1	8/26/05				3	HSU Avg			<
Other	pH	pH Units	7.79			1	BF-OW-3	4/22/09	7.04			2	BF-15	4/27/09	7.53			2	BF-11	4/21/09	7.41			2	BF-02	4/28/09	7.75			1	BF-06	4/23/09	7.93	
Other	Radon 222	pCi/L	267			1	BF-OW-3	4/22/09	205			2	BF-15	4/27/09	162			2	BF-11	4/21/09	236			2	BF-02	4/28/09	279			1	BF-06	4/23/09	149	
Other	Ryznar Stability Index	unitless	6.8			1	BF-OW-3	4/22/09	6.2			2	BF-15	4/27/09	6.8			2	BF-11	4/21/09	6.5			2	BF-02	4/28/09	7.2			1	BF-06	4/23/09	7.4	
Other	Strontium	ug/l	2300			3	HSU Avg		3200			2	BF-15	1/28/04	2300			3	HSU Avg		2300			3	HSU Avg		2300			3	HSU Avg		660	
Other	Sulfide	mg/l	0.087			1	BF-OW-3	4/22/09	0.053			2	BF-15	4/27/09	0.093			2	BF-11	4/21/09	0.061			2	BF-EW-1	4/22/09	0.065			1	BF-06	4/23/09	0.048	
Other	Total Kjeldahl Nitrogen	mg/l	0.84			1	BF-OW-3	4/22/09	1.1			2	BF-15	4/27/09	1.1			2	BF-11	4/21/09	1.39			2	BF-02	4/28/09	1.1			1	BF-06	4/23/09	1.1	
Other	Total Organic Carbon	mg/l	44			1	BF-OW-3	4/22/09	19			2	BF-15	1/28/04	11			2	BF-11	4/21/09	58			2	BF-EW-1	4/22/09	18			1	BF-06	4/23/09	6.4	
Other	Total Suspended Solids	mg/l		<	10	1	BF-EW-2	7/26/05		<	10	2	BF-15	1/28/04		<	10	2	BF-11	4/21/09	18			2	BF-EW-1	8/26/05	4			1	BF-06	4/23/09		<
Other	analyzed; see below for field measurement)	umhos/cm	1300			1	BF-OW-3	4/22/09	2300			2	BF-15	4/27/09	1700			2	BF-11	4/21/09	2000			2	BF-02	4/28/09	960			1	BF-06	4/23/09	620	
Field Parameter	Dissolved Oxygen	mg/l	0			1	BF-EW-2	3/26/12	1.22			2	BF-15	1/31/12	1.61			2	BF-11	2/7/12	1.49			2	BF-02	2/7/12	1.39			1	BF-06	2/2/12	0	
Field Parameter	Electrical Conductivity (field measured; see above for laboratory measurement)	umhos/cm	1370			1	BF-EW-2	3/26/12	2640			2	BF-15	1/31/12	1780			2	BF-11	2/7/12	2080			2	BF-02	2/7/12	866			1	BF-06	2/2/12	680	
Field Parameter	Eh (Calculated)	mV	96			1	BF-EW-2	3/26/12	196			2	BF-15	1/31/12	281			2	BF-11	2/7/12	172			2	BF-02	2/7/12	180			1	BF-06	2/2/12	94	
Field Parameter	Oxidation-Reduction Potential	mV	-104			1	BF-EW-2	3/26/12	-4			2	BF-15	1/31/12	81			2	BF-11	2/7/12	-28			2	BF-02	2/7/12	-20			1	BF-06	2/2/12	-106	
Field Parameter	pH	pH units	7.59			1	BF-EW-2	3/26/12	6.78			2	BF-15	1/31/12	7.09			2	BF-11	2/7/12	7.07			2	BF-02	2/7/12	7.53			1	BF-06	2/2/12	7.83	
Field Parameter	Temperature	°C	21.3			1	BF-EW-2	3/26/12	21.69			2	BF-15	1/31/12	20.81			2	BF-11	2/7/12	22.61			2	BF-02	2/7/12	22.57			1	BF-06	2/2/12	23.8	
Field Parameter	Turbidity	NTU	0			1	BF-EW-2	3/26/12	0			2	BF-15	1/31/12	0			2	BF-11	2/7/12	0			2	BF-02	2/7/12	0.00			1	BF-06	2/2/12	0	

NOTES:
1. Calculation of cumulative flow-weighted influent concentration assumes non-detected analytes have a zero concentration. (low bias)
2. The "total" value presented in the summation of all the detected concentrations in that chemical class.
3. Approximate influent concentration is the maximum concentration detected at two the two representative monitor wells (MW-1 and MW-6).
4. A flow-weighted concentration is not calculated.

Spreadsheet originally generated by Hargis + Associates.
MCL = Maximum Contaminant Level for drinking water
ISGS = In Situ Groundwater Standards (from Record of Decision EPA, 1999)
ROD = Record of Decision (EPA, 1999)
mg/l = milligrams per liter
ug/l = micrograms per liter
(T) = Total. Limits for DDD, DDE, DDT, PCBs are for total isomers
(<) = Less than; the numerical value is the Limit of Detection for that compound.
HSU Avg = Hydrostratigraphic Unit Average

CERTAINTY LEVELS:

Certainty Level 1 (High) = Analytical result is from the extraction well or from a monitor well with a similar screen interval and within 150 feet of the extraction well. Additionally, analytical results are from 2004 to present.

Certainty Level 2 (Moderate) = Analytical result is from the extraction or from a monitor well greater than 150 feet from the extraction well location. However, the monitor well screen interval is not similar to the extraction well screened interval or the data was obtained prior to 2004.

Certainty Level 3 (Low) = Analyte not sampled in the extraction well or a representative monitor well. Concentration estimated based on the average historic analyte concentration in Montrose wells screened in the same unit.

Certainty Level 4 (None) = Analyte not sampled in Montrose wells screened in the same unit. No value was assigned.

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			G-EW-1				G-EW-2					G-EW-3					G-EW-4					G-EW-5				
			120 GPM				60 GPM					25 GPM					57 GPM					48 GPM				
Chemical Class	Analyte	Units	Detected Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date
VOC	Total VOCs (Note 2)	ug/l		1			804		1		2/6/12	2229		1			3914		2	G-13		291		2	G-OW-3	4/22/09
VOC	1,1,1,2-Tetrachloroethane	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	1,1,1-Trichloroethane	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	1,1,2,2-Tetrachloroethane	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 1	2	G-13	1/19/04		< 1	2	G-OW-3	4/22/09
VOC	1,1,2-Trichloroethane	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	1,1-Dichloroethane	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	1,1-Dichloroethylene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	1,1-Dichloropropene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	1,2,3-Trichlorobenzene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	1,2,3-Trichloropropane	ug/l	1	1	G-EW-1	9/27/05		< 1	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 10	2	G-13	1/19/04		< 10	2	G-OW-3	4/22/09
VOC	1,2,4-Trichlorobenzene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	1,2,4-Trimethyl Benzene	ug/l	10	1	G-06	3/28/12	2.6		1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	1,2-Dibromo-3-Chloropropane (DBCP)	ug/l	5	1	G-EW-1	9/27/05		< 5	1	G-EW-2	2/6/12		< 5	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	1,2-Dibromoethane	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	1,2-Dichloro-1,1,2-Trifluoroethane	ug/l	10	1	G-06	1/22/04		< 2	1	G-22	10/27/06		< 2	2	G-24	10/29/04		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	1,2-Dichlorobenzene	ug/l		1	G-06	7/7/04		< 0.5	1	G-EW-2	2/6/12	1.6		1	G-OW-4	4/23/09		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	1,2-Dichloroethane	ug/l	0.5	1	G-EW-1	9/12/06	7.5		1	G-EW-2	2/6/12		< 2	1	G-OW-4	4/23/09		< 0.5	2	G-13	1/19/04		< 0.5	2	G-OW-3	4/22/09
VOC	1,2-Dichloropropane	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	1,3,5-Trimethyl Benzene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	1,3-Dichlorobenzene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	1,3-Dichloropropane	ug/l	1	1	G-EW-1	9/27/05		< 1	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	1,4-Dichlorobenzene	ug/l		1	G-EW-1	9/12/06	1.7		1	G-EW-2	2/6/12	9.9		1	G-OW-4	4/23/09	4.6		2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	2,2-Dichloropropane	ug/l	1	1	G-EW-1	9/27/05		< 1	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	2-Chloroethylvinyl ether	ug/l	5	1	G-EW-1	9/27/05		< 0	3	HSU Avg			< 0	3	HSU Avg			< 10	2	G-13	10/26/89		< 0	3	HSU Avg	
VOC	2-Chlorotoluene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	2-Hexanone	ug/l	10	1	G-EW-1	9/27/05		< 10	1	G-EW-2	2/6/12		< 10	1	G-EW-3	2/16/06		< 10	2	G-13	1/19/04		< 10	2	G-OW-3	4/22/09
VOC	4-Chlorotoluene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	4-Methyl-2-Pentanone	ug/l	10	1	G-EW-1	9/27/05		< 5	1	G-EW-2	2/6/12		< 10	1	G-EW-3	2/16/06		< 10	2	G-13	1/19/04		< 10	2	G-OW-3	4/22/09
VOC	Acetone	ug/l	10	1	G-EW-1	9/27/05		< 10	1	G-EW-2	2/6/12		< 10	1	G-EW-3	2/16/06		< 10	2	G-13	1/19/04		< 10	2	G-OW-3	4/22/09
VOC	Acrolein	ug/l	5	1	G-EW-1	9/27/05		< 120	1	G-22	12/11/08		< 50	1	G-OW-4	4/23/09		< 400	2	G-13	4/24/91		< 250	2	G-OW-3	4/22/09
VOC	Acrylonitrile	ug/l	2	1	G-EW-1	9/27/05		< 120	1	G-22	12/11/08		< 50	1	G-OW-4	4/23/09		< 200	2	G-13	2/23/90		< 250	2	G-OW-3	4/22/09
VOC	Benzene	ug/l		1	G-EW-1	9/12/06	2.3		1	G-EW-2	2/6/12	9.9		1	G-OW-4	4/23/09	3.1		2	G-13	4/27/09	8.8		2	G-OW-3	4/22/09
VOC	Bromobenzene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	Bromochloromethane	ug/l	1	1	G-EW-1	9/27/05		< 1	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	Bromodichloromethane	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	Bromoform	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	Bromomethane	ug/l	1	1	G-EW-1	9/27/05		< 1	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	Carbon Disulfide	ug/l	25	1	G-06	1/22/04		< 1	1	G-EW-2	2/6/12		< 4	1	G-OW-4	4/23/09		< 5	2	G-13	1/19/04		< 1	2	G-OW-3	4/22/09
VOC	Carbon Tetrachloride	ug/l	0.5	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 0.5	1	G-EW-3	2/16/06		< 0.5	2	G-13	1/19/04		< 0.5	2	G-OW-3	4/22/09
VOC	Chlorobenzene	ug/l		1	G-06	3/28/12	790		1	G-EW-2	2/6/12	2200		1	G-OW-4	4/23/09	3900		2	G-13	4/27/09	280		2	G-OW-3	4/22/09
VOC	Chloroethane	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5.00	2	G-OW-3	4/22/09
VOC	Chloroform	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12	0.84		1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2.00	2	G-OW-3	4/22/09
VOC	Chloromethane	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 1.5	2	G-13	1/19/04		< 1.50	2	G-OW-3	4/22/09
VOC	cis-1,2-Dichloroethylene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2.00	2	G-OW-3	4/22/09
VOC	cis-1,3-Dichloropropylene	ug/l	0.5	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 0.5	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2.00	2	G-OW-3	4/22/09
VOC	Cyclohexane	ug/l	3100		G-06	4/20/09		< 310	1	G-22	12/11/08		< 500	1	G-OW-4	4/23/09		< 1200	2	G-13	4/27/09		< 120.00	2	G-OW-3	4/22/09
VOC	Dibromochloromethane	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2.00	2	G-OW-3	4/22/09
VOC	Dibromomethane	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2.00	2	G-OW-3	4/22/09
VOC	Dichlorodifluoromethane	ug/l	2	1	G-EW-1	9/27/05		< 1	1	G-EW-2	2/6/12		< 2	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5.00	2	G-OW-3	4/22/09
VOC	Diisopropyl Ether	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12	1.8		1	G-EW-3	2/16/06	0.16		3	HSU Avg		0.16		3	HSU Avg	
VOC	Ethanol	ug/l	150	1	G-EW-1	9/27/05		< 50	1	G-EW-2	2/6/12		< 150	1	G-EW-3	2/16/06		< 0	3	HSU Avg				3	HSU Avg	
VOC	Ethyl tert-Butyl Ether	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 0	3	HSU Avg				3	HSU Avg	
VOC	Ethylbenzene	ug/l		1	G-EW-1	9/12/06		< 0.5	1	G-EW-2	2/6/12		< 5	1	G-EW-3	2/28/07		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	Hexachlorobutadiene	ug/l	1	1	G-EW-1	9/27/05		< 5	1	G-EW-2	3/2/06		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	Isopropyl Benzene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	Methyl Ethyl Ketone	ug/l	10	1	G-EW-1	9/27/05		< 50	1	G-22	12/11/08		< 10	1	G-EW-3	2/16/06		< 10	2	G-13	1/19/04		< 10	2	G-OW-3	4/22/09
VOC	Methyl Tertiary Butyl Ether	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 0	3	HSU Avg			< 0	3	HSU Avg	
VOC	Methylene Chloride	ug/l	20	1	G-06	3/28/12		< 1	1	G-EW-2	2/6/12		< 5	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	N-Butyl Benzene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	p-Isopropyltoluene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	Propylbenzene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	S-Butyl Benzene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	Styrene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	T-Butyl Benzene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	tert-Amyl methyl ether	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 0	3	HSU Avg			< 0	3	HSU Avg	
VOC	tert-Butyl alcohol	ug/l	10	1	G-EW-1	9/27/05		< 10	1	G-EW-2	2/6/12		< 100	1	G-EW-3	2/16/06		< 0	3	HSU Avg			< 0	3	HSU Avg	
VOC	Tetrachloroethylene	ug/l	1	1	G-EW-1	9/12/06		< 0.5	1	G-EW-2	2/6/12	4.8		1	G-EW-3	2/12/07	3.3		2	G-13	4/27/09		< 2	2	G-OW-3	4/22/09
VOC	Toluene	ug/l	0.5	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 0.5	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04	1.3		2	G-OW-3	4/22/09
VOC	Total Xylenes	ug/l	1.5	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1.5	1	G-EW-3	2/16/06	2.9		2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	o-Xylene/Ortho Xylene	ug/l	0.5	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 0.5	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04	0.61	< 20	2	G-OW-3	4/22/09
VOC	m,p-xylenes	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	trans-1,2-Dichloroethylene	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	trans-1,3-Dichloropropylene	ug/l	0.5	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 0.5	1	G-EW-3	2/16/06		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	Trichloroethylene	ug/l	1	1	G-EW-1	9/12/06		< 0.5	1	G-EW-2	2/6/12		< 10	1	G-EW-3	2/28/07		< 2	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
VOC	Trichlorofluoromethane	ug/l	1	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 1	1	G-EW-3	2/16/06		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	Vinyl Acetate	ug/l	25	1	G-06	1/22/04		< 5	1	G-22	10/29/04		< 5	2	G-24	10/29/04		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
VOC	Vinyl Chloride	ug/l	0.5	1	G-EW-1	9/27/05		< 0.5	1	G-EW-2	2/6/12		< 0.5	1	G-EW-3	2/16/06		< 0.5	2	G-13	1/19/04		< 0.5	2	G-OW-3	4/22/09
pCBSA	Para-Chlorobenzene Sulfonic Acid	ug/l		1	G-EW-1	9/12/06	11000		1	G-EW-2	12/15/06	3700		1	G-EW-3	2/28/07	26000		2	G-13	1/19/04	8500		2	G-OW-3	4/22/09

AECOM

APPENDIX E
ESTIMATED FLOW-WEIGHTED AVERAGE INFLUENT CONCENTRATIONS
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

			G-EW-1				G-EW-2					G-EW-3					G-EW-4					G-EW-5				
			120 GPM				60 GPM					25 GPM					57 GPM					48 GPM				
Chemical Class	Analyte	Units	Detected Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date
SVOC	Total SVOCs (Note 2)	ug/l		1				< 50	1	G-EW-2			< 48	1			10.32		2	G-13		4.59		2	G-OW-3	4/22/09
SVOC	1,2-Diphenylhydrazine/Azobenzene	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 0.95	2	G-13	4/27/09		< 0.95	2	G-OW-3	4/22/09
SVOC	2,4,5-Trichlorophenol	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 1.9	2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	2,4,6-Trichlorophenol	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 0.95	2	G-13	4/27/09		< 0.95	2	G-OW-3	4/22/09
SVOC	2,4-Dichlorophenol	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 1.9	2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	2,4-Dimethylphenol	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 1.9	2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	2,4-Dinitrophenol	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	2,4-Dinitrotoluene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	2,6-Dinitrotoluene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	2-Chloronaphthalene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	2-Chlorophenol	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06	0.61		2	G-13	4/27/09		< 0.95	2	G-OW-3	4/22/09
SVOC	2-Methylnaphthalene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.95	2	G-13	4/27/09		< 0.95	2	G-OW-3	4/22/09
SVOC	2-Methylphenol	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 1.9	2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	2-Nitroaniline	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	2-Nitrophenol	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 1.9	2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	3,3'-Dichlorobenzidine	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	3,4-Benzofluoranthene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 1.9	2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	3-Nitroaniline	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	4,6-Dinitro-2-methylphenol	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	4-Bromophenyl phenyl ether	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.95	2	G-13	4/27/09		< 0.95	2	G-OW-3	4/22/09
SVOC	4-Chloroaniline	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 1.9	2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	4-Chlorophenyl phenyl ether	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	4-Methylphenol	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	4-Nitroaniline	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	4-Nitrophenol	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	Acenaphthene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	Aniline	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 9.5	2	G-13	4/27/09		< 9.5	2	G-OW-3	4/22/09
SVOC	Anthracene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	Benzidine	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	Benzo(a)anthracene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	Benzo(a)pyrene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 1.9	2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	Benzo(ghi)perylene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	Benzo(k)fluoranthene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	Benzoic Acid	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 19	2	G-13	4/27/09		< 19	2	G-OW-3	4/22/09
SVOC	Benzyl Alcohol	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	Bis(2-chloroethoxy)methane	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	Bis(2-chloroethyl) ether	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	Bis(2-chloroisopropyl) ether	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	Bis(2-ethylhexyl) phthalate	ug/l		1	G-06	7/7/04		< 50	1	G-EW-2	2/27/06		< 48	1	G-EW-3	2/16/06	1.9		2	G-13	4/27/09	3.5		2	G-OW-3	4/22/09
SVOC	Butyl benzyl phthalate	ug/l		1	G-06	7/7/04		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06	1.2		2	G-13	4/27/09	0.88		2	G-OW-3	4/22/09
SVOC	Chrysene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	Dibenzo(a,h)anthracene	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	Dibenzofuran	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	Diethyl phthalate	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.95	2	G-13	4/27/09		< 0.95	2	G-OW-3	4/22/09
SVOC	Dimethylphthalate	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	Di-n-butyl phthalate	ug/l		1	G-06	7/7/04		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06	5.3		2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	Di-n-octyl phthalate	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06	1.1		2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	Dioxane	ug/l	0.5	1	G-EW-1	8/18/05		< 0	3	HSU Avg			< 2	1	G-OW-4	4/23/09		< 2	2	G-13	4/27/09		< 2	2	G-OW-3	4/22/09
SVOC	Fluoranthene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	Fluorene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	Hexachlorobenzene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.95	2	G-13	4/27/09		< 0.95	2	G-OW-3	4/22/09
SVOC	Hexachlorocyclopentadiene	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 4.8	2	G-13	4/27/09		< 4.8	2	G-OW-3	4/22/09
SVOC	Hexachloroethane	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 2.9	2	G-13	4/27/09		< 2.9	2	G-OW-3	4/22/09
SVOC	Indeno(1,2,3-cd) pyrene	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 1.9	2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	Isophorone	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06	0.21		2	G-13	4/27/09	0.21		2	G-OW-3	4/22/09
SVOC	Naphthalene	ug/l	1	1	G-EW-1	9/12/06		< 10	1	G-EW-2	12/15/06		< 10	1	G-EW-3	2/28/07		< 5	2	G-13	1/19/04		< 5	2	G-OW-3	4/22/09
SVOC	Nitrobenzene	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 1.1	2	G-13	4/27/09		< 0.95	2	G-OW-3	4/22/09
SVOC	N-Nitrosdimethylamine	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 1.9	2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	N-Nitrosdi-n-propylamine	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 1.9	2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	N-Nitrosdiphenylamine	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.95	2	G-13	4/27/09		< 0.95	2	G-OW-3	4/22/09
SVOC	p-Chloro-m-cresol	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 1.9	2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	Pentachlorophenol	ug/l	20	1	G-EW-1	8/18/05		< 20	1	G-EW-2	2/27/06		< 19	1	G-EW-3	2/16/06		< 1.9	2	G-13	4/27/09		< 1.9	2	G-OW-3	4/22/09
SVOC	Phenanthrene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
SVOC	Phenol	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.95	2	G-13	4/27/09		< 0.95	2	G-OW-3	4/22/09
SVOC	Pyrene	ug/l	10	1	G-EW-1	8/18/05		< 10	1	G-EW-2	2/27/06		< 9.5	1	G-EW-3	2/16/06		< 0.48	2	G-13	4/27/09		< 0.48	2	G-OW-3	4/22/09
Pesticide	Total Pesticides (Note 2)	ug/l				2/1/12		< 4.9	1	G-EW-2	2/27/06	0.0074		1	G-EW-3		0.0671		2	G-13	1/31/12		< 5	2	G-OW-3	1/30/12
Pesticide	2,4'-DDD	ug/l	0.005	1	G-06	2/1/12		< 0.097	1	G-EW-2	2/27/06		< 0.094	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	2,4'-DDE	ug/l	0.005	1	G-06	2/1/12		< 0.097	1	G-EW-2	2/27/06		< 0.094	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	2,4'-DDT	ug/l	0.005	1	G-06	2/1/12		< 0.097	1	G-EW-2	2/27/06		< 0.094	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	4,4'-DDD	ug/l		1	G-06	2/1/12		< 0.0047	1	G-EW-2	12/15/06		< 0.0048	1	G-EW-3	2/28/07	0.0071		2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	4,4'-DDE	ug/l		1	G-06	2/1/12		< 0.0047	1	G-EW-2	12/15/06		< 0.0048	1	G-EW-3	2/28/07	0.018		2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	4,4'-DDT	ug/l		1	G-06	2/1/12		< 0.0094	1	G-EW-2	12/15/06	0.0074		1	G-EW-3	2/12/07	0.042		2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Total DDD	ug/l		1	G-06	2/1/12		< 0.097	1	G-EW-2			< 0.094	1	G-EW-3		0.0071		2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Total DDE	ug/l		1	G-06	2/1/12		< 0.097	1	G-EW-2			< 0.094	1	G-EW-3		0.018		2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Total DDT	ug/l		1	G-06	2/1/12		< 0.097	1	G-EW-2		0.0074		1	G-EW-3		0.042		2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Aldrin	ug/l	0.005	1	G-06	2/1/12		< 0.0039	1	G-EW-2	2/27/06		< 0.0038	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	beta-Endosulfan	ug/l	0.005	1	G-06	2/1/12		< 0.0049	1	G-EW-2	2/27/06		< 0.0047	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	BHC, alpha-	ug/l	0.005	1	G-06	2/1/12		< 0.0047	1	G-EW-2	12/15/06		< 0.0048	1	G-EW-3	2/28/07		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	BHC, beta-	ug/l	0.005	1	G-06	2/1/12		< 0.0094	1	G-EW-2	12/15/06		< 0.0097	1	G-EW-3	2/28/07		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12

APPENDIX E
ESTIMATED FLOW-WEIGHTED AVERAGE INFLUENT CONCENTRATIONS
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

			G-EW-1				G-EW-2					G-EW-3					G-EW-4					G-EW-5				
			120 GPM				60 GPM					25 GPM					57 GPM					48 GPM				
Chemical Class	Analyte	Units	Detected Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date
Pesticide	BHC, delta-	ug/l	0.005	1	G-06	2/1/12		< 0.0049	1	G-EW-2	2/27/06		< 0.0047	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	BHC, gamma-	ug/l	0.005	1	G-06	2/1/12		< 0.0097	1	G-EW-2	2/27/06		< 0.0094	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Chlordane	ug/l	0.012	1	G-06	2/1/12		< 0.097	1	G-EW-2	2/27/06		< 0.094	1	G-EW-3	2/16/06		< 0.012	2	G-13	1/31/12		< 0.012	2	G-OW-3	1/30/12
Pesticide	Dieldrin	ug/l	0.005	1	G-06	2/1/12		< 0.0049	1	G-EW-2	2/27/06		< 0.0047	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Endosulfan 1	ug/l	0.005	1	G-06	2/1/12		< 0.0049	1	G-EW-2	2/27/06		< 0.0047	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Endosulfan sulfate	ug/l	0.005	1	G-06	2/1/12		< 0.0097	1	G-EW-2	2/27/06		< 0.0094	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Endrin	ug/l	0.005	1	G-06	2/1/12		< 0.0049	1	G-EW-2	2/27/06		< 0.0047	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Endrin aldehyde	ug/l	0.005	1	G-06	2/1/12		< 0.0097	1	G-EW-2	2/27/06		< 0.0094	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Endrin Ketone	ug/l	0.005	1	G-06	2/1/12		< 0.0097	1	G-EW-2	2/27/06		< 0.0094	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Heptachlor	ug/l	0.005	1	G-06	2/1/12		< 0.0094	1	G-EW-2	12/15/06		< 0.0097	1	G-EW-3	2/28/07		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Heptachlor epoxide	ug/l	0.005	1	G-06	2/1/12		< 0.0049	1	G-EW-2	2/27/06		< 0.0047	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Methoxychlor	ug/l	0.005	1	G-06	2/1/12		< 0.0049	1	G-EW-2	2/27/06		< 0.0047	1	G-EW-3	2/16/06		< 0.005	2	G-13	1/31/12		< 0.005	2	G-OW-3	1/30/12
Pesticide	Toxaphene	ug/l	0.062	1	G-06	2/1/12		< 4.9	1	G-EW-2	2/27/06		< 4.7	1	G-EW-3	2/16/06		< 0.062	2	G-13	1/31/12		< 0.062	2	G-OW-3	1/30/12
PCB	PCB 1016	ug/l	0.5	1	G-EW-1	8/18/05		< 0.49	1	G-EW-2	2/27/06		< 0.47	1	G-EW-3	2/16/06		< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
PCB	PCB 1221	ug/l	0.5	1	G-EW-1	8/18/05		< 0.49	1	G-EW-2	2/27/06		< 0.47	1	G-EW-3	2/16/06		< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
PCB	PCB 1232	ug/l	0.5	1	G-EW-1	8/18/05		< 0.49	1	G-EW-2	2/27/06		< 0.47	1	G-EW-3	2/16/06		< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
PCB	PCB 1242	ug/l	0.5	1	G-EW-1	8/18/05		< 0.49	1	G-EW-2	2/27/06		< 0.47	1	G-EW-3	2/16/06		< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
PCB	PCB 1248	ug/l	0.5	1	G-EW-1	8/18/05		< 0.49	1	G-EW-2	2/27/06		< 0.47	1	G-EW-3	2/16/06		< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
PCB	PCB 1254	ug/l	0.5	1	G-EW-1	8/18/05		< 0.49	1	G-EW-2	2/27/06		< 0.47	1	G-EW-3	2/16/06		< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
PCB	PCB 1260	ug/l	0.5	1	G-EW-1	8/18/05		< 0.49	1	G-EW-2	2/27/06		< 0.47	1	G-EW-3	2/16/06		< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
PCB	PCB 1262	ug/l	Not Tested	4	Not Tested			Not Tested	4	Not Tested			Not Tested	4	Not Tested			< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
PCB	PCB 1268	ug/l	Not Tested	4	Not Tested			Not Tested	4	Not Tested			Not Tested	4	Not Tested			< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
General Minerals	Alkalinity as CaCO3	mg/l		1	G-06	4/20/09	110		1	G-22	10/29/04	190		1	G-OW-4	4/23/09	190		2	G-13	4/27/09	160		2	G-OW-3	4/22/09
General Minerals	Alkalinity - Bicarbonate (HCO3)	mg/l		1	G-06	4/20/09	160		1	G-22	12/11/08	230		1	G-OW-4	4/23/09	230		2	G-13	4/27/09	200		2	G-OW-3	4/22/09
General Minerals	Alkalinity - Carbonate (CO3)	mg/l	1	1	G-06	2/9/89		< 2	1	G-22	12/11/08		< 1.2	1	G-OW-4	4/23/09		< 1.2	2	G-13	4/27/09		< 1.2	2	G-OW-3	4/22/09
General Minerals	Alkalinity - Hydroxide (OH)	mg/l	1	1	G-06	2/9/89		< 2	1	G-22	12/11/08		< 0.7	1	G-OW-4	4/23/09		< 0.7	2	G-13	4/27/09		< 0.7	2	G-OW-3	4/22/09
General Minerals	Bromate	ug/l	10	1	G-06	4/20/09		< 5	1	G-22	12/11/08		< 250	1	G-OW-4	4/23/09		< 10	2	G-13	4/27/09		< 50	2	G-OW-3	4/22/09
General Minerals	Bromide	ug/l		1	G-06	4/20/09		< 0.5	1	G-22	12/11/08	470		1	G-OW-4	4/23/09	160		2	G-13	4/27/09	130		2	G-OW-3	4/22/09
General Minerals	Calcium	mg/l		1	G-06	4/20/09	76		1	G-22	12/11/08	65		2	G-24	10/29/04	63		2	G-13	1/19/04	51		2	G-OW-3	4/22/09
General Minerals	Chloride	mg/l		1	G-06	4/20/09	69		1	G-22	12/11/08	94		2	G-24	10/29/04	49		2	G-13	1/19/04	49		2	G-OW-3	4/22/09
General Minerals	Iron	mg/l	40	1	G-06	4/20/09		< 0.04	1	G-22	12/11/08	0.025		1	G-OW-4	4/23/09	0.021		2	G-13	4/27/09	0.015		2	G-OW-3	4/22/09
General Minerals	Magnesium	mg/l		1	G-06	4/20/09	15		1	G-22	12/11/08	17		2	G-24	10/29/04	17		2	G-13	1/19/04	14		2	G-OW-3	4/22/09
General Minerals	Manganese	mg/l		1	G-06	4/20/09		< 0.02	1	G-22	12/11/08		< 20	2	G-24	11/18/04	0.06		2	G-13	1/19/04	0.045		2	G-OW-3	4/22/09
General Minerals	Potassium	mg/l		1	G-06	4/20/09	5.4		1	G-22	12/11/08	7.1		2	G-24	11/18/04	5.1		2	G-13	1/19/04	4.9		2	G-OW-3	4/22/09
General Minerals	Sodium	mg/l		1	G-06	4/20/09	56		1	G-22	12/11/08	93		2	G-24	10/29/04	52		2	G-13	1/19/04	55		2	G-OW-3	4/22/09
General Minerals	Sulfate	mg/l		1	G-06	4/20/09	120		1	G-22	12/11/08	110		2	G-24	10/29/04	67		2	G-13	1/19/04	40		2	G-OW-3	4/22/09
General Minerals	Total Dissolved Solids	mg/l		1	G-06	4/20/09	520		1	G-22	12/11/08	530		2	G-24	10/29/04	420		2	G-13	1/19/04	350		2	G-OW-3	4/22/09
General Minerals	Silica (Silicon reported as Silica)	mg/l		1	G-06	4/20/09	22		1	G-22	12/11/08	24			G-OW-4	4/23/09	26		2	G-13	4/27/09	24		2	G-OW-3	4/22/09
General Minerals	Hardness as CaCO3	mg/l		1	G-06	4/20/09	260		1	G-22	12/11/08	230		2	G-24	10/29/04	230		2	G-13	1/19/04	170		2	G-OW-3	4/22/09
CAM-17	Antimony	ug/l		1	G-EW-1	9/12/06	0.16		1	G-EW-2	12/15/06	0.11		1	G-EW-3	2/16/06		< 2	2	G-13	4/27/09		< 2	2	G-OW-3	4/22/09
CAM-17	Arsenic	ug/l		1	G-06	2/1/12	1.2		1	G-22	12/11/08	2.31		1	G-24	1/31/12		< 1	2	G-13	4/27/09	2.2		2	G-OW-3	4/22/09
CAM-17	Arsenic (III), dissolved	ug/l	Not Tested	4	G-06	2/1/12		< 2	1	G-22	12/11/08		Not Tested	4	Not Tested			< 2	2	G-13	4/27/09		< 2	2	G-OW-3	4/22/09
CAM-17	Arsenic (V), dissolved	ug/l	Not Tested	4	G-06	2/1/12		< 2	1	G-22	12/11/08		Not Tested	4	Not Tested			< 2	2	G-13	4/27/09		< 2	2	G-OW-3	4/22/09
CAM-17	Barium	ug/l		1	G-EW-1	8/18/05	69		1	G-22	12/11/08	140		1	G-EW-3	2/16/06	36		2	G-13	4/27/09	23		2	G-OW-3	4/22/09
CAM-17	Beryllium	ug/l	0.5	1	G-EW-1	8/18/05		< 0.5	1	G-22	12/11/08		< 0.5	1	G-EW-3	2/16/06		< 0.5	2	G-13	4/27/09		< 0.5	2	G-OW-3	4/22/09
CAM-17	Cadmium	ug/l	1	1	G-EW-1	8/18/05		< 1	1	G-22	12/11/08		< 1	1	G-EW-3	2/16/06		< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
CAM-17	Chromium (Total)	ug/l		1	G-EW-1	8/18/05	1.2		1	G-22	10/29/04	0.56		1	G-EW-3	2/16/06	4.2		2	G-13	4/27/09		< 2	2	G-OW-3	4/22/09
CAM-17	Chromium (hexavalent)	mg/l	1	1	G-EW-1	9/12/06		< 1	1	G-EW-2	12/15/06		< 1	1	G-EW-3	2/28/07		< 0.002	2	G-13	4/27/09	0.00028		2	G-OW-3	4/22/09
CAM-17	Chromium (trivalent)	mg/l	5	1	G-EW-1	9/12/06		< 5	1	G-EW-2	12/15/06		< 5	1	G-EW-3	2/28/07	0.0042		2	G-13	4/27/09		< 0.005	2	G-OW-3	4/22/09
CAM-17	Cobalt	ug/l		1	G-EW-1	8/18/05	0.17		1	G-EW-2	2/27/06	0.19		1	G-EW-3	2/16/06		< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
CAM-17	Copper	ug/l		1	G-EW-1	8/18/05		< 0.0099	1	G-22	12/11/08	0.78		1	G-EW-3	2/16/06	0.78		2	G-13	4/27/09		< 2	2	G-OW-3	4/22/09
CAM-17	Lead	ug/l	1	1	G-EW-1	8/18/05	1.2	< 1	1	G-22	12/11/08	0.1		1	G-EW-3	2/16/06		< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
CAM-17	Mercury	mg/l	0.2	1	G-EW-1	8/18/05		< 0.0002	1	G-22	12/11/08		< 0.2	1	G-EW-3	2/16/06		< 0.0002	2	G-13	4/27/09		< 0.0002	2	G-OW-3	4/22/09
CAM-17	Molybdenum	ug/l		1	G-EW-1	8/18/05	18		1	G-22	12/11/08	3.9		1	G-EW-3	2/16/06	3.8		2	G-13	4/27/09	2.6		2	G-OW-3	4/22/09
CAM-17	Nickel	ug/l		1	G-EW-1	8/18/05		< 2	1	G-EW-2	2/27/06	1.2		1	G-EW-3	2/16/06	2.8		2	G-13	4/27/09		< 2	2	G-OW-3	4/22/09
CAM-17	Selenium	ug/l		1	G-EW-1	8/18/05	1.1		1	G-EW-2	2/27/06	0.85		1	G-EW-3	2/16/06	0.4		2	G-13	4/27/09		< 2	2	G-OW-3	4/22/09
CAM-17	Silver	ug/l		1	G-EW-1	8/18/05		< 1	1	G-EW-2	2/27/06		< 1	1	G-EW-3	2/16/06		< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
CAM-17	Thallium	ug/l		1	G-EW-1	8/18/05		< 1	1	G-EW-2	2/27/06		< 1	1	G-EW-3	2/16/06		< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
CAM-17	Vanadium	ug/l		1	G-EW-1	8/18/05	0.89		1	G-EW-2	2/27/06	1.5		1	G-EW-3	2/16/06		< 1	2	G-13	1/19/04		< 2	2	G-OW-3	4/22/09
CAM-17	Zinc	ug/l		1	G-EW-1	8/18/05		< 0.019	1	G-22	12/11/08	38		1	G-EW-3	2/16/06	3.6		2	G-13	4/27/09	31		2	G-OW-3	4/22/09
Other	Aluminum	mg/l	0.05	1	G-06	4/20/09	88		1	G-22	10/29/04		< 50	2	G-24	11/18/04		< 50	2	G-13	1/19/04		< 0.05	2	G-OW-3	4/22/09
Other	Ammonia-Nitrogen	mg/l		1	G-06	4/20/09		< 0.50	1	G-22	12/11/08		< 0.5	1	G-OW-4	4/23/09	0.19		2	G-13	4/27/09	0.22		2	G-OW-3	4/22/09
Other	Ammonium	ug/l	0	3	HSU Avg			< 0.6	1	G-22	12/11/08		< 0	3	HSU Avg			< 600	2	G-13	1/19/04		< 0	3	HSU Avg	
Other	Biochemical Oxygen Demand	ug/l	2000	1	G-EW-1	9/27/05	7600		1	G-EW-2	3/2/06		< 2000	1	G-EW-3	2/16/06	1400		3	HSU Avg		1370		3	HSU Avg	
Other	Boron	ug/l		1	G-06	4/20/09	0.109		1	G-22	12/11/08	0.099		1	G-OW-4	4/23/09	150		2	G-13	1/19/04	0.11		2	G-OW-3	4/22/09
Other	Chemical Oxygen Demand	mg/l		1	G-06	4/20/09	25		1	G-22	12/11/08	48		1	G-OW-4	4/23/09	53		2	G-13	4/27/09	19		2	G-OW-3	4/22/09
Other	Chlorine, Residual	ug/l	100	1	G-EW-1	9/27/05		< 100	1	G-EW-2	3/2/06		< 100	1	G-EW-3	2/16/06		< 0	3	HSU Avg			< 0	3	HSU Avg	
Other	Color	Color Units	1	1	G-06	4/20/09		< Not Tested	4	Not Tested			< 1	1	G-OW-4	4/23/09		< 1	2	G-13	4/27/09		< 1	2	G-OW-3	4/22/09
Other	Cyanide	mg/l	5	1	G-EW-1	8/18/05		< 0.025	1	G-22	12/11/2008		< 0.025	1	G-OW-4	4/23/09		< 25	2	G-13	1/19/04		< 0.025	2	G-OW-3	4/22/09
Other	Carbon Dioxide	ug/l		1	G-06	4/20/09	2100		1	G-22	12/11/08	6600		1	G-OW-4	4/23/09	3700		2	G-13	4/27/09	2400		2	G-OW-3	4/22/09
Other	Dissolved Nitrogen	mg/l	0.26	1	G-06	4/20/09		< Not Tested	4	Not Tested			< 0.26	1	G-OW-4	4/23/09		< 0.26	2	G-13	4/27/09		< 0.26	2	G-OW-3	4/22/09
Other	Dissolved Methane	ug/l		1	G-06	4/20/09	2.09		1	G-22	12/11/08	0.0011		1	G-OW-4	4/23/09	0.094		2	G-13	4/27/09	12		2	G-OW-3	4/22/09
Other	Fluoride	mg/l		1	G-06	4/20/09		< 0.5	1	G-22	12/11/08	0.35		1	G-OW-4	4/23/09	0.52		2	G-13	1/19/04	0.35		2	G-OW-3	4/22/09
Other	Iron (ferrous)	mg/l	0.1	1	G-06	4/20/09		< 0.1	1	G-22	12/11/08		< 0.1	1	G-OW-4	4/23/09		< 0.1	2	G-13	4/27/09		< 0.1	2	G-OW-3	4/22/09
Other	Sulfide as H2S	mg/l	0.1	1	G-06	4/20/09		< 0.1	1	G-22	12/11/08		< 0.1	1	G-OW-4	4/23/09		< 0.1	2	G-13	4/27/09		< 0.1	2	G-OW-3	4/22/09
Other	Langelier Saturation Index (calculation)	unitless		1	G-06	4/20/09	0.077		1	G-22	12/11/08	-0.031		1	G-OW-4	4/23/09	0.456		2	G-13	4/27/09	0.370		2	G-OW-3	4/22/09

APPENDIX E
ESTIMATED FLOW-WEIGHTED AVERAGE INFLUENT CONCENTRATIONS
2012 Groundwater Monitoring Report
Montrose Superfund Site
20201 S. Normandie Avenue, Los Angeles, California

			G-EW-1				G-EW-2					G-EW-3					G-EW-4					G-EW-5				
			120 GPM				60 GPM					25 GPM					57 GPM					48 GPM				
Chemical Class	Analyte	Units	Detected Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date	Detected Concentration	Not Detected & Reporting Limit	Certainty	Sampled Well	Sample Date
Other	MBAS (Surfactants)	ug/l	100	1	G-EW-1	9/27/05	0.23		1	G-22	12/11/08		< 100	1	G-EW-3	2/16/06	130		2	G-13	1/19/04	690		3	HSU Avg	
Other	Methanol	ug/l	500	1	G-EW-1	8/18/05		< 0	3	HSU Avg			< 0	3	HSU Avg			< 0	3	HSU Avg			< 0	3	HSU Avg	
Other	Nitrate-Nitrogen	mg/l	0.11	1	G-06	4/20/09		< 0.11	1	G-22	12/11/2008		< 0.11	1	G-OW-4	4/23/09		< 0.11	2	G-13	4/27/09		< 0.11	2	G-OW-3	4/22/09
Other	Nitrate (as NO3)	mg/l	0.5	1	G-06	4/20/09		< 0.5	1	G-22	12/11/2008		< 0.5	1	G-OW-4	4/23/09		< 0.5	2	G-13	4/27/09		< 0.5	2	G-OW-3	4/22/09
Other	Nitrite (as NO2)	mg/l	0.5	1	G-06	4/20/09		< 0.15	1	G-22	12/11/2008		< 0.5	1	G-OW-4	4/23/09		< 0.5	2	G-13	4/27/09		< 0.5	2	G-OW-3	4/22/09
Other	Nitrite (as N)	mg/l	0.15	1	G-06	4/20/09		< 0.15	1	G-22	12/11/2008		< 0.15	1	G-OW-4	4/23/09		< 0.15	2	G-13	4/27/09		< 0.15	2	G-OW-3	4/22/09
Other	Odor	T.O.N.		1	G-06	4/20/09		< Not Tested	4	Not Tested		19		1	G-OW-4	4/23/09	50		2	G-13	4/27/09	8		2	G-OW-3	4/22/09
Other	Orthophosphate	mg/l		1	G-06	4/20/09		< 0.025	1	G-22	12/11/08	0.036		1	G-OW-4	4/23/09	0.065		2	G-13	4/27/09	0.058		2	G-OW-3	4/22/09
Other	Phosphate	mg/l	0.15	1	G-06	4/20/09		< 50	1	G-EW-2	11/9/06	0.10		1	G-OW-4	4/23/09	0.20		2	G-13	4/27/09	0.20		2	G-OW-3	4/22/09
Other	Perchlorate	ug/l	40	1	G-EW-1	8/18/05		< 0	3	HSU Avg			< 0	3	HSU Avg			< 0	3	HSU Avg			< 0	3	HSU Avg	
Other	pH	pH Units		1	G-06	4/20/09	8.37		1	G-22	12/11/08	7.91		1	G-OW-4	4/23/09	7.99		2	G-13	4/27/09	8.2		2	G-OW-3	4/22/09
Other	Radon 222	pCi/L		1	G-06	4/20/09		< Not Tested	4	Not Tested		327		1	G-OW-4	4/23/09	164		2	G-13	4/27/09	380		2	G-OW-3	4/22/09
Other	Ryznar Stability Index	unitless		1	G-06	4/20/09	7.6		1	G-22	12/11/08	7.6		1	G-OW-4	4/23/09	7.0		2	G-13	4/27/09	7.3		2	G-OW-3	4/22/09
Other	Strontium	ug/l		3	HSU Avg		660		3	HSU Avg		660		3	HSU Avg		720		2	G-13	1/19/04	660		3	HSU Avg	
Other	Sulfide	mg/l		1	G-06	4/20/09		< 0.1	1	G-22	12/11/08	0.041		1	G-OW-4	4/23/09		< 0.1	2	G-13	4/27/09	0.09		2	G-OW-3	4/22/09
Other	Total Kjeldahl Nitrogen	mg/l		1	G-06	4/20/09	1.12		3	HSU Avg		0.84		1	G-OW-4	4/23/09	1.7		2	G-13	4/27/09	0.84		2	G-OW-3	4/22/09
Other	Total Organic Carbon	mg/l		1	G-06	4/20/09	6.59		1	G-22	12/11/08	6.9		1	G-OW-4	4/23/09	13		2	G-13	1/19/04	4.6		2	G-OW-3	4/22/09
Other	Total Suspended Solids	mg/l	10	1	G-EW-1	9/27/05		< 10	1	G-EW-2	2/27/06		< 10	1	G-EW-3	2/16/06		< 10	2	G-13	1/19/04		< 10	2	G-OW-3	4/22/09
Other	analyzed; see below for field measurement)	umhos/cm		1	G-06	4/20/09	790		1	G-22	12/11/08	1000		1	G-OW-4	4/23/09	650			G-13	4/27/09	600		2	G-OW-3	4/22/09
Field Parameter	Dissolved Oxygen	mg/l		1	G-06	3/28/12	1.2		1	G-EW-2	2/6/12	0.31		1	G-OW-4	4/23/09	1.2		2	G-13	1/31/12	1.24		2	G-OW-3	1/30/12
Field Parameter	Electrical Conductivity (field measured; see above for laboratory measurement)	umhos/cm		1	G-06	3/28/12	772		1	G-EW-2	2/6/12	836		1	G-OW-4	4/23/09	644		2	G-13	1/31/12	657		2	G-OW-3	1/30/12
Field Parameter	Eh (Calculated)	mV		1	G-06	3/28/12	148		1	G-EW-2	2/6/12	90.6		1	G-OW-4	4/23/09	85		2	G-13	1/31/12	125		2	G-OW-3	1/30/12
Field Parameter	Oxidation-Reduction Potential	mV		1	G-06	3/28/12	-52		1	G-EW-2	2/6/12	-109.4		1	G-OW-4	4/23/09	-115		2	G-13	1/31/12	-75		2	G-OW-3	1/30/12
Field Parameter	pH	pH units		1	G-06	3/28/12	7.75		1	G-EW-2	2/6/12	7.50		1	G-OW-4	4/23/09	7.96		2	G-13	1/31/12	8.06		2	G-OW-3	1/30/12
Field Parameter	Temperature	°C		1	G-06	3/28/12	23.25		1	G-EW-2	2/6/12	21.89		1	G-OW-4	4/23/09	23.49		2	G-13	1/31/12	22.04		2	G-OW-3	1/30/12
Field Parameter	Turbidity	NTU		1	G-06	3/28/12	0		1	G-EW-2	2/6/12	1.3		1	G-OW-4	4/23/09	0		2	G-13	1/31/12	0.0		2	G-OW-3	1/30/12

NOTES:
1. Calculation of cumulative flow-weighted influent concentration assumes non-detected analytes have a zero concentration. (low bias)
2. The "total" value presented in the summation of all the detected concentrations in that chemical class.
3. Approximate influent concentration is the maximum concentration detected at two the two representative monitor wells (MW-1 and MW-6).
4. A flow-weighted concentration is not calculated.

Spreadsheet originally generated by Hargis + Associates.
MCL = Maximum Contaminant Level for drinking water
ISGS = In Situ Groundwater Standards (from Record of Decision EPA, 1999)
ROD = Record of Decision (EPA, 1999)
mg/l = milligrams per liter
ug/l = micrograms per liter
(T) = Total. Limits for DDD, DDE, DDT, PCBs are for total isomers
(<) = Less than; the numerical value is the Limit of Detection for that compound.
HSU Avg = Hydrostratigraphic Unit Average

CERTAINTY LEVELS:

Certainty Level 1 (High) = Analytical result is from the extraction well or from a monitor well with a similar screen interval and within 150 feet of the extraction well. Additionally, analytical results are from 2004 to present.

Certainty Level 2 (Moderate) = Analytical result is from the extraction or from a monitor well greater than 150 feet from the extraction well location. However, the monitor well screen interval is not similar to the extraction well screened interval or the data was obtained prior to 2004.

Certainty Level 3 (Low) = Analyte not sampled in the extraction well or a representative monitor well. Concentration estimated based on the average historic analyte concentration in Montrose wells screened in the same unit.

Certainty Level 4 (None) = Analyte not sampled in Montrose wells screened in the same unit. No value was assigned.