



HARGIS + ASSOCIATES, INC.
HYDROGEOLOGY • ENGINEERING

La Jolla Gateway
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Phone: 858.455.6500
Fax: 858.455.6533

May 14, 2014

VIA FEDERAL EXPRESS – STANDARD

Mr. William F. Jeffers, PE
Hazardous Substances Engineer
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL
9211 Oakdale Avenue
Chatsworth, CA 91311-6505

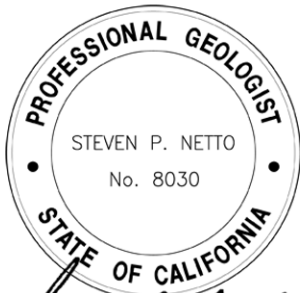
Re: Transmittal of Results of Groundwater Monitoring and Groundwater Extraction and Treatment
Pilot Testing, 2013/2014 Annual Report, Raytheon Company,
(Former Hughes Aircraft Company), 1901 West Malvern Avenue, Fullerton, California

Dear Mr. Jeffers:

Enclosed is one hard copy with a compact disc that contains a copy of the above-referenced report. If you have any questions or require further information, please contact us at 858-455-6500.

Sincerely,

HARGIS + ASSOCIATES, INC.



Steven P. Netto
PG 8030, CHG 872
Senior Hydrogeologist

SPN/MER/EJH/ama

Enclosure: 1 copy w-CD



Marcos E. Rodriguez
PE M35620
Engineer

Erin J. Hunter
Hydrogeologist

Other Offices:
Mesa, AZ
Tucson, AZ



Mr. William F. Jeffers, PE
CALIFORNIA EPA DTSC
May 14, 2014
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cc w/encl: (1 copy w-CD)

Mr. Paul Pongetti, Department of Toxic Substances Control, Cypress
Mr. Paul E. Brewer, Raytheon Company
Mr. Carl Bernhardt, California RWQCB, Santa Ana Region
Mr. Dave Mark, Orange County Water District
Mr. Eric Silvers, Regency Centers
Mr. Jeffrey Lochner, Athena Property Management

(2 copies w-CDs)

Mr. Dave Schickling, City of Fullerton

(via CD only) (Hard Copies Provided Upon Request)

Mr. Van Xayarath, City of Fullerton
Mr. Robert Logan, RG, Kennedy/Jenks Consultants
Mr. Harris Sanders, Gateway Environmental Management LLC
Ms. Jennifer Schaefer, The Morgan Group, Inc.
Rosalind McLeroy, Esq., The Morgan Group, Inc.
Mr. Corey Miller, Prudential Real Estate Investors
Ms. Tizita Bekele, PE, Department of Toxic Substances Control, Cypress
Mr. Mike McGee, City of Buena Park
Mr. Duc Nguyen, Orange County Public Works (County Property Permit CPP # 2013-00184)
Ms. Carol Owens, The Morgan Group, Inc.

MAY 14, 2014

RESULTS OF GROUNDWATER MONITORING AND
GROUNDWATER EXTRACTION AND TREATMENT PILOT
TESTING

2013/2014 ANNUAL REPORT

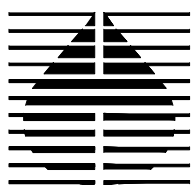
RAYTHEON COMPANY

(FORMER HUGHES AIRCRAFT COMPANY) FACILITY

1901 WEST MALVERN AVENUE

FULLERTON, CALIFORNIA

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RESULTS OF GROUNDWATER MONITORING AND
GROUNDWATER EXTRACTION AND TREATMENT PILOT TESTING
2013/2014 ANNUAL REPORT
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(FORMER HUGHES AIRCRAFT COMPANY) FACILITY
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ACRONYMS AND ABBREVIATIONS

1,1-DCA	1,1-Dichloroethane
1,2-DCE	1,2-Dichloroethane
1,1-DCE	1,1-Dichloroethylene
1,1,2-TCA	1,1,2-Trichloroethane
AGAWP	Additional Groundwater Assessment Work Plan
ATL	Advanced Technology Laboratories, Inc., Signal Hill, California
cis-1,2-DCE	cis-1,2-Dichloroethylene
CM	Conceptual Model
CMS	Corrective Measures Study
COPCs	Compounds of potential concern
DTSC	California Environmental Protection Agency, Department of Toxic Substances Control
DWR	California Department of Water Resources
EPA	United States Environmental Protection Agency
GETS	Groundwater Extraction and Treatment System
GMP	Groundwater Monitoring Program
GMWP/SAP	Groundwater Monitoring Work Plan and Sampling and Analysis Plan
gpm	Gallons per minute
H+A	Hargis + Associates, Inc.
HiPOx	Ozone and hydrogen peroxide
LAS	Lower Aquifer System
MAS	Middle Aquifer System
MCL(s)	Maximum Contaminant Level(s)
msl	Mean sea level
OCGB	Orange County Groundwater Basin
PCE	Tetrachloroethylene
QA/QC	Quality assurance/quality control
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
SIM	Selective ion monitoring
the Site	Former Raytheon Company facility located at 1901 West Malvern Avenue, Fullerton, California
TCE	Trichloroethylene
TCFM	Trichlorofluoromethane
UAS	Upper Aquifer System
ug/l	Micrograms per liter
VOC(s)	Volatile organic compound(s)

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1.0 INTRODUCTION

This report presents the results of groundwater monitoring and groundwater treatment pilot testing conducted during the second quarter 2013 through the first quarter 2014 at the former Raytheon Company (formerly Hughes Aircraft Company) facility located at 1901 West Malvern Avenue, Fullerton, California (the Site) (Figure 1). Previous investigations at the Site were conducted as part of the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) under the direction of the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) (Hargis + Associates, Inc. [H+A], 1998). Periodic groundwater monitoring and additional groundwater assessment have been conducted since completion of the RFI to support a Corrective Measures Study (CMS) for the Site under continuing direction of the DTSC (H+A, 2003a, 2003b, 2003c, 2003d, 2004a, 2004b, 2005a, 2008b, 2009b, 2010a, 2010c, 2011a, 2011c, 2011e, 2013a, and 2013h). As part of the CMS, an extended groundwater extraction and treatment pilot test began operation in July 2008 (H+A, 2005b, 2009c, 2011d, and 2013b).

Groundwater monitoring consists of measuring groundwater levels and collecting groundwater samples from monitor wells and piezometers at the Site (Figure 2). Quarterly water level measurements and groundwater samples were collected during this annual reporting period in May 2013, August 2013, November 2013, and February 2014 from accessible monitor wells and piezometers in general accordance with the Groundwater Monitoring Work Plan and Sampling and Analysis Plan (GMWP/SAP), and subsequent addenda except if noted herein (Section 2.1) (Tables 1 and 2) (H+A, 2003c, 2011a, and 2011e).

A summary of regional and local hydrogeologic conditions in the area and at the Site are presented in the following sections. Regional and local hydrogeologic conditions are described in greater detail in previously submitted well construction reports (H+A, 2005c, 2009a, 2010d, and 2011b).

1.1 REGIONAL HYDROGEOLOGIC FRAMEWORK

The Site is located within the Orange County Groundwater Basin (OCGB). Aquifers in the OCGB have been divided into three separate systems called the upper, middle, and lower regional groundwater systems (California Department of Water Resources [DWR], 1967).

The Upper Aquifer System (UAS) is located within the OCGB to the south of Malvern Avenue. The UAS in this area includes stream terrace and older alluvial deposits as well as the La Habra/Lakewood formation. It is believed that coarse-grained facies in the La Habra/Lakewood formation, corresponding to the upper aquifer, pinch out south of the Coyote Hills or are folded and unconformably truncated near the southern boundary of the Site (H+A, 2005c, 2009a, 2010d, and 2011b).

The Middle Aquifer System (MAS) underlies the UAS to the south of Malvern Avenue and extends to approximately -1,500 feet mean sea level (msl) in this area. The MAS is believed to include the Coyote Hills formation and the San Pedro formation and may include portions of the La Habra formation incised as channels into the underlying Coyote Hills formation.

The Lower Aquifer System (LAS) underlies the MAS and extends to the base of the freshwater zone. The LAS is believed to include portions of the Fernando group of Pliocene age. The base of the freshwater zone in the vicinity of the Site is estimated to be approximately -300 feet msl just north of the Site and -3,000 feet msl south of the Site in the OCGB (DWR, 1967). The base of the freshwater zone immediately beneath the Site has not been established.

Groundwater production in the OCGB is primarily from the lower portion of the UAS and the upper portion of the MAS between approximately -250 feet msl and -1,000 feet msl (DWR, 1967).

1.2 SITE HYDROGEOLOGY

Site hydrostratigraphic units consist of strata having similar hydraulic properties and lithologic characteristics, which have been correlated across the Site. The soils encountered at the Site are generally interbedded sand, silty to clayey sand, sandy silt, and sandy clay, with local gravel layers (H+A, 1998). Evaluation of strata on a relatively small scale, on the order of inches to a foot or two, indicate that soil types encountered in the subsurface are typically very discontinuous, precluding detailed correlation between boreholes. However, some larger-scale correlations have been made at the Site and vicinity as described below.

The groundwater conceptual model (CM) for the Site was refined after completion of additional groundwater assessment activities in 2004 and confirmed and further refined during the 2008 through 2013 well construction activities. Specific results of prior additional assessment activities were documented after discrete phases of work in several well construction and groundwater sampling reports (H+A, 2005c, 2009a, 2010d, 2011b, 2012a, 2013d, and 2013e). The following provides a general overview based on the RFI and well construction reports for the Site.

Two localized perched zones were identified under portions of the Site during the course of the RFI (H+A, 1998). Perched zones were identified based on the occurrence and behavior of groundwater, and are not clearly expressed lithologically. The perched zones do not represent a usable source of groundwater due to the limited area over which they occur and the small quantities of water flowing through these zones.

The regional groundwater system beneath the Site occurs in sand, silt, and clay (H+A, 1998). The upper portion of the regional groundwater system is heterogeneous as indicated by the differences in the lithology encountered during the construction of the groundwater monitor wells. The hydraulic conductivity of these sediments was estimated to range from approximately 0.1 foot per day to approximately 100 feet per day (H+A, 2008b). Wells completed in lithologic intervals with varying degrees of hydraulic communication with each other and with aquifer units in the OCGB respond differently to changes in regional water levels. Those in good communication respond rapidly to regional changes, while those in finer-grained or isolated lithologic units exhibit a dampened and delayed response to regional water level

changes. This differential response may also appear as a temporary reversal of the vertical hydraulic gradients in the vicinity of paired monitor well groupings. Such reversals tend to be repeated, representing a seasonally-linked pattern of gradient reversals, from downwards during periods of expected high basin-wide groundwater extraction to upwards during the shorter winter season (Figures 3 through 8) (H+A, 2005c). These differential responses facilitated the identification and correlation of several hydrogeologic units across the Site, designated with increasing depth they include: Unit A, the finer-grained intervening Unit AB, Unit B (the “Target Zone”), the finer-grained intervening Unit BC, Unit C, and Unit D.

The hydrogeology in the southern portion of the Site is heterogeneous and is interpreted to include a structural fold based on regional subsurface studies and on an evaluation of Site lithology, geophysical, water level, and water quality trends (H+A, 2005c, 2009a, 2010d, and 2011b). A groundwater CM was developed as part of the RFI and was subsequently refined to incorporate this structural feature following subsequent phases of additional subsurface exploration, such as exploratory borings and deep monitor well installations. The groundwater CM is intended to be descriptive of conditions observed in the subsurface, as well as, predictive of geologic and hydrogeologic conditions likely to be encountered in the course of any additional subsurface work. The groundwater CM is intended to describe conditions at both the regional scale and at the smaller, Site-specific scale. It is expected that the groundwater CM will continue to be refined with time as it is continuously tested against additional new groundwater monitoring data and other new data that may become available. The groundwater CM has been refined based on available groundwater monitoring data to date, and the primary geologic/hydrogeologic structural feature at and in the vicinity of the Site is described in the following paragraph.

Strata underlying the southern flank of the Coyote Hills are believed to dip gently southward to the north of the Site, and are well documented to be nearly horizontal in the OCGB south of the Site (DWR, 1967). The southern boundary of the Coyote Hills exhibits a monoclinical fold below the surficial terrace deposits, resulting in local southward dip of approximately 42 degrees between exploratory boring EB-1 and monitor well MW-31 (Figures 9 through 11) (H+A, 2010d).

2.0 GROUNDWATER MONITORING

Groundwater monitoring was conducted in general accordance with the DTSC-approved GMWP/SAP and subsequent addenda (DTSC, 2003, 2011, and 2013; H+A, 2003c, 2011a, 2011e, 2013d, 2013c and 2013e). Groundwater monitoring included quarterly water level measurements in all Site monitor wells, piezometers, and extraction wells (Figure 12). Water levels were measured on May 13, 2013, August 12, 2013, November 11, 2013, and February 3, 2014, during this annual reporting period (Table 3). Groundwater samples were collected from piezometers and monitor wells according to the analytical schedule detailed in the GMWP/SAP (DTSC, 2013; H+A, 2003c, 2011a, 2011e, 2013c, 2013d, and 2013e), as updated (Table 1). Additional groundwater monitoring was conducted as part of routine operation and monitoring of the pilot Groundwater Extraction and Treatment System (GETS) (Section 3.0).

2.1 WELL ACCESSIBILITY AND STATUS

All existing wells and piezometers at the Site were accessible during the groundwater monitoring events (Table 1). Several wells and piezometers that were installed prior to and during the RFI, and as part of earlier Site remediation activities, were previously decommissioned during property redevelopment at the Site in the early 2000s (H+A, 2002 and 2004c), and do not appear in the data tabulations compiled for this report (Tables 2 through 5).

2.1.1 Wells Installed Since Approval of the Sampling and Analysis Plan

In accordance with the Additional Groundwater Assessment Work Plan (AGAWP) Addendum 4, two monitor wells, MW-36 and MW-37, were installed and sampled in 2012 (H+A, 2011c); in accordance with the AGAWP Addendum 5, three monitor wells, MW-38, MW-39, and MW-40, were installed and sampled in 2013 to assess the depth of the Target Zone, and distribution of VOCs and 1,4-dioxane in the Target Zone west of the Site (H+A, 2013a). In accordance with the GMWP/SAP Addendum No. 1, monitor wells MW-36 through MW-40 have been

incorporated into the quarterly groundwater monitoring program at the Site (Tables 1 and 2; Figure 2) (DTSC, 2011; H+A, 2011a and 2011e).

2.2 GROUNDWATER LEVELS

Depth to groundwater was measured in all monitor wells, piezometers, and extraction wells. Water level elevations were calculated by subtracting the measured depth to water in each well from its surveyed reference point elevation (Table 3). Groundwater level elevations have been plotted for the northern perched zone and the regional groundwater system (Figure 12). Water level elevations in Unit B wells have been contoured (Figures 13A through 13D).

2.2.1 Perched Zone Water Levels

A hydrograph presenting historical water level data for the perched zone has been prepared (Figure 14). Water levels in the upgradient (northern) portion of the perched zone were depressed during operation of the voluntary dual-phase extraction system, but gradually recovered in 2000 and 2001 (represented by former piezometers P-02D and P-04 on Figure 14) (H+A, 2000). Since then, water levels in the northern portion of the perched zone have remained relatively stable. The water level elevation in piezometer P-09, which is located in the northern portion of the perched zone, has been stable between about 60 feet msl and 65 feet msl, fluctuating within a range of less than about 2.5 feet over its period of record since installation in mid-2003. Water levels across most of the perched zone do not appear to consistently reflect the seasonal fluctuations observed in regional groundwater system monitor wells at the Site (Section 2.2.2), indicating that the perched zone is not in direct hydraulic communication with the regional groundwater system.

Water level trends observed in the southernmost perched zone piezometer, P-07, suggest that the perched zone merges with the regional groundwater system in this area. Water level increases were observed in piezometer P-07 between December 2005 and June 2006, followed by a decline to dry conditions by September 2007 (Figure 14). Regional water levels reached historical highs within this same period in mid-2006 and began a continual decline during the last three quarters of 2007. The water level elevation in piezometer P-07 has been relatively

stable and slowly increasing since December 2007 while the regional groundwater system continued to decline to historical lows in late 2008. The water level elevation in piezometer P-07 decreased by approximately 0.4 foot between February 2013 and February 2014. Trends observed in piezometer P-07 suggest that this piezometer responds to regional water level increases above a certain threshold near approximately 30 feet msl, but does not exhibit a direct hydraulic connection with the regional groundwater system under typical conditions at the Site, where regional groundwater levels are depressed by production well pumping in the OCGB and are lower than 30 feet msl at the Site.

2.2.2 Regional Groundwater System Water Levels

Water level elevations decreased in all measured monitor and extraction wells between February 2013 and February 2014 (Table 3; Figures 3 through 8) (H+A, 2013c). Measured decreases ranged from approximately 2.3 feet at monitor well MW-36 to as much as 17 feet at monitor well MW-37. The highest water level elevation observed in wells at the Site in February 2014 was at monitor well MW-20, at an elevation of approximately 15.4 feet above msl. The lowest static water level elevation observed in monitor wells at the Site in February 2014 was at monitor well MW-29, at an elevation of approximately 1.1 feet below msl (Table 3; Figure 12).

Hydrographs have been prepared based on water levels measured manually during the period from January 1997 through February 2014, and on data collected automatically using pressure transducer/data-loggers in select wells during the period from November 1999 through March 2000 and January 2002 through February 2014 (Figures 3 through 8). Historical water level data from the regional groundwater system indicate an overall decline in regional groundwater levels from early 1997 through late 2002. Water levels began to recover in early 2003; following a record rainfall during the 2004-2005 season, and water level elevations in regional groundwater monitor wells at the Site reached historical highs by about the spring of 2006. Water levels then rapidly declined to historical lows by November to December 2008. Water levels in most wells have recovered from the historical lows of late 2008. Water level elevations in the regional groundwater system have generally fluctuated seasonally due to variations in groundwater production and recharge in the groundwater basin and, to a lesser extent, cyclical

groundwater extraction from regional production wells in the vicinity that are unrelated to the Site (Figures 3 through 8) (H+A, 2005c, 2009a, 2010d, and 2011c).

Six monitor well clusters/nests are completed in the regional groundwater system, where water levels are monitored at several different vertical intervals to characterize vertical hydraulic gradients between successively deeper hydrogeologic units (EW-01/MW-16/MW-21/MW-24/MW-25, for convenience designated the “Footbridge cluster,” MW-23/MW-26A/MW-26B/MW-26C, for convenience designated the “Starbuck cluster”, MW-30A/MW-30B, designated the MW-30 nest, MW-32A/MW-32B/MW-32C, designated the MW-32 nest, MW-34A/MW-34B/MW-34C, designated the MW-34 cluster, and MW-35A/MW-35B/MW-35C, designated the MW-35 nest) (Table 2; Figures 12 and 15 through 20). The following provides a summary of vertical hydraulic gradients based on the February 2014 water level measurements at these well clusters/nests (Table 3).

- At the Footbridge cluster, the water level elevation in extraction well MW-21 was higher than the water level elevations in the other wells in that cluster. A downward vertical hydraulic gradient was observed between monitor wells MW-24 and MW-25 and between extraction well MW-21 and monitor well MW-24. An upward gradient was observed between extraction wells EW-01 and MW-21 (Figure 15) (H+A, 2013c).
- At the Starbuck cluster, the water level elevation in monitor well MW-23 was higher than the water level elevations in the other wells in that cluster. Downward vertical gradients were observed between monitor wells MW-23 and MW-26A, as well as monitor wells MW-26A and MW-26B, and monitor wells MW-26B and MW-26C (Figure 16) (H+A, 2013c).
- At the MW-32 nest, the water level elevation in monitor well MW-32C was higher than the water level elevations in the other wells in that nest. Upward vertical gradients were observed between monitor wells MW-32A and MW-32B, as well as monitor wells MW-32B and MW-32C (Figure 17) (H+A, 2013c).

- At the MW-30 nest, the water level elevation in monitor well MW-30B was higher than the water level elevation in monitor well MW-30A, indicating an upward vertical gradient (Figure 18) (H+A, 2013c).
- At the MW-34 cluster, the water level elevation in monitor well MW-34A was higher than the water level elevations in the other wells in that cluster. Downward vertical gradients were observed between monitor wells MW-34A and MW-34B, and an upward vertical gradient was observed between monitor wells MW-34B and MW-34C (Figure 19) (H+A, 2013c).
- At the MW-35 nest, the water level elevation in monitor well MW-35A was higher than the water level elevations in the other wells in that nest. Downward vertical gradients were observed between monitor wells MW-35A and MW-35B, as well as monitor wells MW-35B and MW-35C (Figure 20) (H+A, 2013c).

Occasional seasonal gradient reversals appear to reflect the variable extent of hydraulic communication between Site wells and the regional MAS of the OCGB (Figures 3 through 8). Water level data obtained from the six monitor well nests/clusters indicate that some wells (e.g., EW-01, MW-23, and MW-26C) are highly responsive to piezometric changes in the basin, whether resulting from regional or seasonal fluctuations or from local production well pumping in the northern portion of Fullerton. Other wells (e.g., MW-16, MW-21, and MW-25) appear to be in partial communication with the regional aquifer, exhibiting a dampened and delayed response to changes in the regional system or becoming seasonally isolated from the regional system. Finally, some wells (e.g., MW-24, MW-26A, and MW-26B) appear to be relatively isolated from the regional groundwater system, exhibiting relatively low amplitude and gradual seasonal variation, with high water levels typically in the late spring months and low levels in the early fall (Figures 15 and 16).

2.3 CHEMICAL QUALITY OF GROUNDWATER

Two perched zone piezometers, 34 regional groundwater monitor wells, and 3 extraction wells were sampled in February 2014 (Table 1). All groundwater samples collected during the February 2014 monitoring event were analyzed for VOCs using U.S. Environmental Protection

Agency (EPA) Method 8260B. Groundwater samples collected from select piezometers, monitor wells, and extraction wells were also analyzed for 1,4-dioxane using modified EPA Method 8270 in accordance with the groundwater sampling schedule (Table 1). Selective ion monitoring (SIM) was used by the primary laboratory for analysis of 1,4-dioxane to provide lower detection and reporting limits (EPA Method 8270 SIM). Lower reporting limits for 1,4-dioxane resulted in historical low concentrations detected at several wells and a historical high, at a relatively low concentration, at one well as described in the following sections.

Original and duplicate groundwater samples were analyzed by Advanced Technology Laboratories, Inc., Signal Hill, California (ATL) (Appendix A). Laboratory split groundwater samples were analyzed by Calscience, Garden Grove, California (Appendix A). Chain-of-custody documentation was enclosed with each sample shipment. Results of groundwater sample VOC and 1,4-dioxane analyses have been summarized (Tables 4 and 5).

Prior to groundwater sample collection, each monitor well was purged until three casing or screen volumes were evacuated from the well, or the slow-well protocol was followed for removal of at least one casing or screen volume, as appropriate (H+A, 2003c and 2008b). One screen volume is defined as the volume of water inside the screened-interval of the well, and is typically used as the unit purge volume for wells where the submersible purge/sample pump is set near the top or within the screen interval and there is relatively low water level drawdown during purging. At deeper wells where the top of the screened interval is below the maximum submergence capacity of the pump, pumps are generally set near their maximum submergence level, and a unit purge volume is then taken as the volume of water inside the screened interval plus the volume of water inside the blank well casing below the pump. Groundwater samples were collected from the extraction wellhead(s) during operation of the pilot Groundwater Extraction and Treatment System (GETS). Extraction wells EW-01 and MW-21 were turned on temporarily for purging and sampling in February 2014, as current operation of the pilot GETS involves extraction from extraction well EW-02 only. Field parameters, including pH, specific conductance, dissolved oxygen, turbidity, and temperature, were monitored during well purging. Groundwater sampling field forms are provided (Appendix B).

Quality assurance/quality control (QA/QC) samples collected in February 2014 consisted of trip blanks, equipment rinsate blanks, field duplicates, and laboratory split samples. Trip blanks and

the water used to collect the equipment rinsate blanks were provided by ATL. Field duplicate and/or laboratory split samples were collected for analysis of VOCs and 1,4-dioxane from monitor wells MW-16, MW-33, MW-34B, and MW-36 in February 2014 (Table 4). Equipment rinsate blanks were collected at the rate of one per day when non-dedicated purging or sampling equipment was used.

The following sections describe the analytical results for VOC and 1,4-dioxane analyses of groundwater samples collected during the February 2014 groundwater monitoring event. Results from quarterly groundwater monitoring rounds conducted in May 2013, August 2013, and November 2013 were previously submitted as quarterly data submittals (H+A, 2013f, 2013g, and 2014a).

2.3.1 Perched Water Zone

Two perched zone piezometers, P-07 and P-09, were sampled during the February 2014 groundwater monitoring event (Tables 4 and 5; Figure 21). The groundwater samples collected from perched zone piezometers P-07 and P-09 were analyzed for VOCs and 1,4-dioxane. VOCs detected in the groundwater samples collected from piezometer P-07 in February 2014 include 1,1-dichloroethylene (1,1-DCE), 1,1-dichloroethane (1,1-DCA), 1,2-dichloroethane (1,2-DCA), 1,1,2-trichloroethane (1,1,2,-TCA), chloroform, carbon tetrachloride, tetrachloroethylene (PCE), trichloroethylene (TCE), and trichlorofluoromethane (TCFM). All concentrations were within their respective historical ranges for this piezometer. 1,4-Dioxane was detected in the groundwater sample collected from piezometer P-07 at a concentration of 1,400 micrograms per liter (ug/l), within its historical range. 1,1-DCE was the only VOC detected in the groundwater sample collected from piezometer P-09 in February 2014, at a concentration of 0.56 ug/l, which is a historical low detection at this piezometer. 1,4-Dioxane was detected at piezometer P-09 in February 2014 at a concentration of 0.35 ug/l, within its historical range (Table 4).

2.3.2 Regional Groundwater System

Thirty-four monitor wells and three extraction wells were sampled in February 2014 (Tables 1, 4, and 5; Figure 21). Samples collected from all regional groundwater system monitor and extraction wells were analyzed for VOCs. Groundwater samples collected from select monitor and extraction wells were also analyzed for 1,4-dioxane in accordance with the Groundwater Monitoring Program (GMP).

2.3.2.1 Volatile Organic Compounds in Regional Groundwater System Monitor and Extraction Wells

1,1-DCE was the principal VOC detected in groundwater samples collected from regional groundwater system monitor wells at the Site. The additional VOCs 1,1,2-TCA, 1,1-DCA, 1,2-DCA, chloroform, cis-1,2-dichloroethylene (cis-1,2-DCE), PCE, toluene, TCE, and TCFM were detected at relatively low concentrations in groundwater samples collected in February 2014 (Table 4). The concentrations of 1,1-DCE have decreased significantly from the June 2008 historical highs of 4,900 ug/l in extraction well MW-21 and approximately 1,600 ug/l in extraction well EW-01 since operation of the pilot GETS started in July 2008. 1,1-DCE was detected in groundwater samples collected from monitor well MW-26C beginning in December 2007 through December 2009. The concentration of 1,1-DCE at monitor well MW-26C generally declined since December 2007, with no detection of 1,1-DCE in recent samples at a reporting limit of 0.5 ug/l in March 2010 through February 2014.

Historical concentration ranges were evaluated for May 2013 through February 2014. VOC concentrations were generally within their respective historical ranges with the following exceptions. In May 2013 a relatively low historical high concentration of TCFM was detected in the groundwater sample collected from extraction well EW-01 at a concentration of 0.52 ug/l. In August 2013 historical high concentrations of TCE were detected in groundwater samples collected from monitor wells MW-16, MW-30B, and MW-32B at concentrations of 5.7 ug/l, 100 ug/l, and 75 ug/l, respectively. Historical high concentrations of 1,1-DCA and 1,1-DCE were detected in monitor well MW-32B at concentrations of 1.4 ug/l and 160 ug/l, respectively. A historical high 1,2-DCA concentration of 1.1 ug/l was detected in the groundwater sample collected from monitor well MW-34B. In September 2013, a historical low concentration of

1,1-DCE was detected in the groundwater sample collected from extraction well EW-02 at a concentration of 26 ug/l. In November 2013 historical high concentrations of toluene were detected in the groundwater samples collected from monitor wells MW-31 and MW-39 at concentrations of 1.0 ug/l and 0.83 ug/l, respectively. The concentration of toluene in the sample collected from monitor well MW-36 was historically low with a non-detect of less than 0.50 ug/l. In February 2014, a relatively low historical high concentration of PCE was detected in the groundwater sample collected from monitor well MW-31 at 0.77 ug/l. An historical low 1,1-DCE concentration of 0.56 ug/l was detected in the groundwater sample collected from piezometer P-09. The concentration of chloroform in the sample collected from monitor well MW-06 was also historically low with a non-detect of less than 0.50 ug/l in February 2014.

2.3.2.2 1,4-Dioxane in Regional Groundwater System Monitor and Extraction Wells

In February 2014, 1,4-dioxane was detected in groundwater samples collected from regional groundwater system monitor wells MW-08, MW-09, MW-16, MW-28, MW-29, MW-30B, MW-31, MW-32B, MW-34B, and MW-36 and from extraction wells EW-01, EW-02, and MW-21. For May 2013 through February 2014, historical high concentrations of 1,4-dioxane were detected in the groundwater samples collected from monitor wells MW-31 and MW-36, at 13 ug/l and 13 ug/l, respectively.

2.3.2.3 Groundwater Quality in Site Hydrostratigraphic Zones

The following describes 1,1-DCE and 1,4-dioxane detected at the Site in February 2014 within the framework of the Site groundwater CM hydrostratigraphic zones (Tables 1 and 4; Figures 9 through 11 and 21).

- Seven of eight monitor wells screened in Unit A (MW-18, MW-19, MW-22, MW-23, MW-34A, MW-35B, and MW-38) were sampled for VOCs in February 2014. 1,1-DCE was not detected in groundwater samples collected from any of the seven Unit A monitor wells sampled in February 2014. All seven monitor wells sampled for VOCs were also sampled for 1,4-dioxane. 1,4-Dioxane was not detected in groundwater samples collected from these Unit A monitor wells.

- Three of five monitor wells screened in Unit AB (MW-13, MW-15, and MW-32A) were sampled for VOCs in February 2014. 1,1-DCE was not detected in groundwater samples collected from any of the three Unit AB monitor wells sampled in February 2014. Two of the three monitor wells sampled for VOCs were also sampled for 1,4-dioxane (MW-13 and MW-32A). 1,4-Dioxane was not detected in groundwater samples collected from these two Unit AB monitor wells.
- All 15 monitor wells (MW-16, MW-26C, MW-27, MW-28, MW-29, MW-30A, MW-31, MW-32B, MW-33, MW-34B, MW-35C, MW-36, MW-37, MW-39, and MW-40) and two extraction wells (EW-01 and EW-02) screened in Unit B (Target Zone) were sampled for VOCs and 1,4-dioxane in February 2014. Note, monitor well MW-37 may be screened in a deeper hydrostratigraphic unit, but for the purposes of this report the results are presented with Unit B. Water quality hydrographs depicting the concentrations of 1,1-DCE, TCE, and 1,4-dioxane in groundwater samples collected through February 2014 have been prepared (Appendix C). Comparison of the historical concentrations of these compounds in on-Site wells generally indicates stable or declining concentration trends with seasonal variability. Off-site monitor wells have a shorter monitoring history than On-Site monitor wells. In general, off-site monitor well MW-34B exhibits relatively large seasonal variations in VOC and 1,4-dioxane concentrations. In addition, the relative concentrations of 1,4-dioxane as compared to 1,1-DCE in groundwater samples collected from monitor wells along Malvern Avenue tend to be lower than on-Site monitor wells and monitor well MW-34B. TCE is also detected in monitor wells along Malvern Avenue, but at generally lower concentrations than 1,1-DCE. An additional off-site Unit B groundwater monitor well has been proposed to assess the distribution of VOCs and 1,4-dioxane (H+A, 2013h). .
- Three monitor wells (MW-08, MW-30B, and MW-34C) and one extraction well (MW-21) screened in Unit BC were sampled for VOCs and 1,4-dioxane in February 2014. 1,1-DCE was detected in extraction well MW-21 and monitor wells MW-30B and MW-08 (Table 4). TCE was also detected in monitor wells MW-30B and MW-08 and extraction well MW-21 in February 2014, but at lower concentrations. 1,4-Dioxane was detected in samples collected from extraction well MW-21 and monitor wells MW-30B and MW-08.

The concentrations of 1,1-DCE and 1,4-dioxane at extraction well MW-21 had declined during the operation of the initial pilot GETS program, June 2008 through 2009, and have been more variable since the conclusion of that initial phase of pilot testing when extraction well MW-21 was routinely operated (Table 4).

- All three monitor wells screened in Unit C (MW-09, MW-24, and MW-32C) were sampled for VOCs and 1,4-dioxane in February 2014. VOCs and 1,4-dioxane were not detected in groundwater samples collected from Unit C monitor wells with the exception of a low detection of 1,4-dioxane near the laboratory detection limit in monitor well MW-09.
- Two of three monitor wells screened in Unit D (MW-06 and MW-20) were sampled for VOCs in February 2014. 1,1-DCE was not detected in the groundwater sample collected from monitor well MW-06. 1,1-DCE was detected at a concentration of 1.4 ug/l in a groundwater sample collected from monitor well MW-20. 1,4-Dioxane was not detected in the groundwater sample collected from monitor well MW-20 in February 2014.

VOC and 1,4-dioxane concentrations will continue to be monitored to evaluate vertical and lateral distribution and to assess trends within and across the Site hydrostratigraphic zones.

2.3.2.4 Groundwater Quality in City of Fullerton Airport Well 9

The City of Fullerton operates a municipal water supply well, designated F-AIRP, which is located on the north side of Fullerton Municipal Airport (Figure 22). F-AIRP is located approximately 4,000 feet to the southwest of the southwest boundary of the Site and approximately 1,500 feet to the southwest of monitor well MW-33. Based on water quality results received from the Orange County Water District in January 2013, 1,1-DCE was detected for the first time in August 2002 at a concentration of 0.6 ug/l. Since 2002, 1,1-DCE has periodically been detected in F-AIRP with a maximum concentration of 2.1 ug/l in November 2008. In 2013, 1,1-DCE was detected at low levels in F-AIRP with a maximum detection of 1.8 ug/l in February and August 2013. All detections of 1,1-DCE in production well F-AIRP have been below the California maximum contaminant level (MCL) of 1,1-DCE in drinking water of 6 ug/l (Figure 23). TCE and 1,4-dioxane have not been detected in F-AIRP.

2.3.3 Quality Assurance/Quality Control

QA/QC samples, including field duplicates, laboratory split samples, equipment rinsate blanks and trip blanks, were collected and analyzed for VOCs during the February 2014 monitoring event (Appendix A). In addition, field duplicates and laboratory split samples were collected and analyzed for 1,4-dioxane in February 2014. The relative percent difference was calculated between the results of each field duplicate and each laboratory split sample with its corresponding original sample. Data quality assessment results for the May, August, and November 2013 groundwater monitoring events were previously reported in their respective groundwater monitoring data submittals (H+A, 2013f, 2013g, and 2014a). The data quality assessment for February 2014 indicated that all QA/QC results for groundwater samples are within acceptable criteria.

VOCs and 1,4-dioxane were not detected in the trip, method, or equipment rinsate blanks analyzed with groundwater samples collected during the February 2014 groundwater monitoring event (Table 4; Appendix A).

In addition QA/QC trip blanks were collected as part of the monthly and quarterly GETS sampling events in accordance with the GETS monitoring sampling schedule (Table 6). There were no detections of analytes sampled for the GETS quarterly and monthly monitoring in the trip or method blanks.

2.3.4 Adequacy of and Proposed Optimization to the Groundwater Monitoring Program

In accordance with Amendment A of Addendum No. 1 to the GMWP/SAP, the existing GMP was reviewed for adequacy based on results collected during the past four quarters of sampling. Adequacy of the groundwater monitoring program can be evaluated both in terms of appropriate frequencies of sampling and analytical schedules for monitoring temporal changes at existing wells, and in terms of delineation of the Site-derived contaminants in groundwater for completeness of the groundwater assessment, i.e. whether additional well(s) are needed to provide delineation.

Completeness of assessment is evaluated after each new phase of monitor well installations and then confirmed during on-going groundwater monitoring. One additional monitor well has been proposed based largely on results from the most recent phases of well installations (monitor wells MW-37 and MW-38) and ongoing monitoring (H+A, 2013h). One new monitor well is proposed to be installed in the vicinity of existing monitor wells MW-37 and MW-38 located west of the Site. This new monitor well is proposed to be a single completion well screened across Unit B.

Frequency of sampling and analytical schedules was considered based on results of monitoring at existing wells. VOC and/or 1,4-dioxane concentrations did not increase above historical high concentrations for two consecutive monitoring events in monitor wells that are not already sampled quarterly (Tables 1 and 4) (H+A, 2013c). Based on this review, no increase in sampling frequency is indicated for any of the monitor wells at the Site.

The following optimization of the groundwater monitoring program is proposed based on results of groundwater monitoring over the last several quarters:

- Unit A monitor well MW-18 is located in the hydrostratigraphic zone above Unit B and has limited hydraulic communication with the deeper units. Continued collection of high-frequency water quality data from this well is no longer warranted as the VOC results from this well have exhibited detections below the California or federal MCLs during its long monitoring history. This monitor well is proposed to be reduced from semi-annual to annual sampling.
- Unit AB monitor well MW-32A and Unit C monitor well MW-32C are screened above and below, respectively, the Unit B, and provide vertical delineation of VOCs and 1,4-dioxane detected in the Unit B at this location (monitor well MW-32B). Unit AB monitor well MW-32A and Unit C monitor well MW-32C water quality results have been consistently non-detect since their installation, with the exception of single anomalous detections at each well of PCE and/or 1,4-dioxane at concentrations at or below the drinking water MCL and California Notification Level, respectively. The monitoring periods for monitor wells MW-32A and MW-32C are proposed to be reduced from

semi-annually to annually. The monitoring period for monitor well MW-32B will remain quarterly.

- Unit A monitor well MW-34A and Unit BC monitor well MW-34C are screened above and below, respectively, the Unit B, and provide vertical delineation of VOCs and 1,4-dioxane detected in the Unit B at this location (monitor well MW-34B). Unit A monitor well MW-34A and Unit BC monitor well MW-34C water quality results have been consistently non-detect since their installation, with the exception of sporadic low-level detections of TCFM and/or toluene at concentrations well below drinking water MCLs. The monitoring periods for monitor wells MW-34A and MW-34C are proposed to be reduced from semi-annually to annually. The monitoring period for monitor well MW-34B will remain quarterly.
- Monitor well MW-35C is screened in the Unit B to the southwest of the Site and provides lateral delineation of the VOCs and 1,4-dioxane detected in groundwater monitor wells to the north and northwest of this location. Site-related contaminants have not been detected in monitor well MW-35C in 15 quarters of sampling since installation. The only VOC detected in this well was chloroform as a disinfection by-product related to use of chlorine during well development. Chloroform has not been detected in this well during the last 12 quarters of sampling. Monitor well MW-35C monitoring period is proposed to be reduced from quarterly to semi-annually.
- Unit C monitor well MW-09 and Unit D monitor well MW-06 are screened below the Unit B. These monitor wells water quality results have exhibited detections at or below the California or federal MCLs during their long monitoring histories, which have exhibited stable concentrations and/or are relatively hydraulically isolated from the regional groundwater system. These monitor wells are proposed to be reduced from semi-annual to annual.

3.0 GROUNDWATER EXTRACTION AND TREATMENT PILOT STUDY

This section summarizes the pilot GETS operation within the three-month period of monitoring conducted during the first quarter of 2014. The pilot GETS consists of three groundwater extraction wells, the treatment system, and the disposal system; however, the current phase of pilot testing is operating using only one extraction well, EW-02. The treatment system processes extracted groundwater through an advanced oxidation unit that utilizes ozone and hydrogen peroxide (HiPOx), followed by a granular activated carbon polish prior to disposal to the sanitary sewer. A graphical representation of the system operational time in relation to water level measurements at current extraction well EW-02 and the previously utilized extraction wells MW-21 and EW-01 has been provided (Figure 24).

3.1 SYSTEM OPERATION

Initial startup of the pilot GETS took place on Tuesday, July 8, 2008. From July 2008 through November 2009, the pilot GETS was operated with extraction wells EW-01 and MW-21 operating at approximately 10 gallons per minute (gpm) each. Pilot GETS expansion took place between November 2009 and March 2010 in order to incorporate extraction well EW-02 into the extraction well network. The system maximum flowrate was also increased from 20 gpm to 50 gpm. Beginning in March 2010, the pilot GETS was operated at 50 gpm, entirely from extraction well EW-02. During December 2011, a synthetic media pilot test was started. The purpose of the synthetic media pilot test was to evaluate the efficacy of treating water collected from extraction well MW-21 using a synthetic media for contaminant removal. In order to conduct the synthetic media pilot test, extraction wells EW-02 and MW-21 were operated at approximately 40 gpm and 10 gpm, respectively. The synthetic media pilot test was completed on March 9, 2012, and operation of the pilot GETS was restored to 50 gpm, entirely from extraction well EW-02. Extraction wells EW-01 and MW-21 are on standby for the current phase of pilot testing, but may be used for future phases of pilot testing or as part of a full scale pump-and-treat system.

During the first quarter 2014, the pilot GETS was operational approximately 93 percent of the available runtime and approximately 5,591,595 gallons of groundwater were treated and discharged to the sanitary sewer (Table 7). No significant downtime occurred during the first quarter of 2014, all downtime was associated with general facility operation and maintenance tasks, sampling events, or rain events. The average monthly discharge flowrate to the sanitary sewer during December 2013 through February 2014 was approximately 43.1 gpm. Since startup of the pilot GETS, approximately 90,317,316 gallons of groundwater have been treated at an average flowrate of 30.3 gpm through the end of February 2014 (Table 7).

3.2 WATER QUALITY PERFORMANCE MONITORING

Current monthly and quarterly pilot GETS monitoring activities include collecting samples from extraction well EW-02 in addition to collecting samples at treatment system sampling ports: extraction well EW-02, Influent, Post Particulate Filter, Post HiPOx Oxidation, Carbon Breakthrough, and Carbon Effluent (Tables 6 and 8; Figure 25). Samples collected during these activities were sent to ATL. Analytical results of the treatment system samples have been summarized (Table 8; Appendix A).

The pilot GETS continues to remove VOCs and 1,4-dioxane from extracted groundwater. The HiPOx advanced oxidation and carbon adsorption treatment units effectively removed VOCs from extracted groundwater. Breakthrough of low-level detections of VOCs was not observed in the first quarter 2014 with the exception of detections of 1,1-DCA with a concentration of 0.58 ug/l, which are just above the laboratory reporting limit, but below the pilot GETS permitted sewer discharge limit (Table 8). The effluent sample collected from the HiPOx advanced oxidation treatment unit contained low-level detections of bromate, a secondary by-product, during operations in the first quarter 2014. Carbon adsorption does not effectively remove this compound; however, this compound was detected at concentrations below the pilot GETS permitted sewer discharge limit. The operation of the advanced oxidation system continues to be optimized in an attempt to minimize the formation of bromate (Figure 26).

During the first quarter of 2014, the pilot GETS removed approximately 2.05 pounds of VOCs and 1.11 pounds of 1,4-dioxane from extracted groundwater. Since startup of the pilot GETS in

July 2008, approximately 125.74 pounds of VOCs and 24.33 pounds of 1,4-dioxane have been removed from groundwater through February 2014 (Figure 27).

3.3 WATER LEVEL PERFORMANCE MONITORING

The capture zone from extraction of groundwater at extraction well EW-02 during operation of the pilot GETS can be evaluated based on hydraulic properties of Unit B and from water level contours.

The width of the capture zone can be estimated based on the average extraction rate at extraction well EW-02 and an estimate of the rate of groundwater flow through a portion of Unit B as previously described in the technical memorandum regarding hydraulic testing and preliminary capture zone analysis for extraction well EW-02 (H+A, 2010b). One of the hydraulic parameters used to estimate rate of flow through Unit B is transmissivity, which generally does not change in the vicinity of extraction well EW-02. The average pumping rate and/or the hydraulic gradients do, however, vary. As a result, there will be some variation in estimated capture width as the variables change. To assess this, average extraction rates and hydraulic gradients were calculated on a quarterly basis for the following time periods: March to May 2013; June to August 2013; September to November 2013; and December 2013 to February 2014. The following table summarizes the estimated width of the capture zone during these time frames:

Time Period	Average Pumping Rate (gpm)	Hydraulic gradient ^(a)	Range in Transmissivity (square feet per day) (H+A, 2010b)	Range in Capture Width (feet)
March to May 2013	40	0.0057	2,400 – 5,400	250 – 570
June to August 2013	37	0.0055	2,400 – 5,400	238 – 540
September to November 2013	43	0.0031	2,400 – 5,400	500 – 1,120
December 2013 to February 2014	42	0.0033	2,400 – 5,400	457 – 1,030

(a) Based on water levels measured at monitor well MW-28 and extraction well EW-01 at end of time period.

The above calculations provide a rough estimate of the width of the capture zone. From a simplistic estimate, approximately one half of the width would be north of extraction well EW-02

and the balance to the south of extraction well EW-02. Given the complexity of Unit B, this is meant to provide a rough approximation of capture zone. Capture zone can also be evaluated using the quarterly water level contour maps (Figures 13A to 13D). The width of the capture zone in May 2013, August 2013, November 2013, and February 2014 varies with seasonal changes in hydraulic gradient and flow direction. In general, the extraction well EW-02 capture zone at an average flowrate of approximately 42 gpm does not appear to capture groundwater in Unit B along the southwestern portion of the Site in the vicinity of monitor well MW-31. In addition, the capture zone does not appear to encompass the area near monitor well MW-29. As indicated in the recently prepared pilot test addendum, monitor well MW-29 is proposed to be connected to the existing treatment system to enhance capture in this area.

The current pilot GETS extraction rate of approximately 50 gpm for extraction well EW-02 is not the maximum extraction rate the well will sustain, but rather, is limited to the treatment capacity of the pilot GETS, and the current maximum allowable flowrate for discharge of treated groundwater to the sewer pursuant to the Orange County Sanitation District sewer discharge permit. Therefore, the observed capture zone under pilot GETS operation is somewhat arbitrary in that it is not prescribed with a particular performance goal to be measured against, but can be useful for observing the effects of changing seasonal groundwater flow directions and gradients.

4.0 DISCUSSION

Perched zone water levels have remained relatively stable over the past five years (Figure 14). Water quality data obtained from the perched zone indicate that the perched zone remediation system that operated from about late 1998 to 2000 was effective at reducing concentrations of VOCs, particularly 1,1-DCE, in perched zone water (H+A, 2000). VOC concentrations in the perched zone have apparently stabilized after a long-term decline. 1,4-Dioxane concentrations remain relatively stable in perched zone water (Table 4).

Regional groundwater system water level data obtained in February 2014 indicate a continuation of typical seasonal variations superimposed on long-term trends. The water level declines observed between mid-2006 and December 2008 represent the most rapid overall decline observed during the period of monitoring, with water levels decreasing from historical highs to historical lows in all Site regional groundwater system monitor and extraction wells, by as much as 70 feet in wells completed in Unit B (Figures 3 through 8). Water level elevations in Site monitor wells have since exhibited recovery and seasonal trend variation.

The following conclusions have been formulated regarding the regional groundwater system based on previous investigations and recent monitoring conducted at the Site. The operations formerly conducted at the Site have impacted two areas of the regional groundwater system.

The first area starts where the perched zone merges with the regional groundwater system near monitor well MW-16 (Figures 2 and 9) and appears to extend to the west/southwest in Unit B. The compounds of potential concern (COPCs) are limited to VOCs, principally 1,1-DCE and 1,4-dioxane.

- The following provides a general discussion of water quality near the location of where the perched zone merges with the regional groundwater system.
 - o Historically, the regional groundwater level at monitor well MW-16 has been and continues to be lower than the water level at the toe of the perched zone

in piezometer P-07, except for a brief period in the mid-2000s (Figures 5, 9, and 14).

- o VOC concentrations at monitor well MW-16 have been variable, and in February 2014, concentrations remained within the historical ranges for this well (Tables 4 and 5).
- o VOC concentrations at extraction well EW-01, adjacent to and screened over a greater interval than monitor well MW-16, are variable, with the initial samples collected in June and September 2005 exhibiting similar concentrations of VOCs as detected in monitor well MW-16. Concentrations of 1,1-DCE in extraction well EW-01 were lower than those detected in monitor well MW-16 from December 2005 through September 2007. In December 2007, concentrations of all VOCs detected in extraction well EW-01 were equal to or higher than those detected in monitor well MW-16. The concentrations of 1,1-DCE and 1,4-dioxane detected in samples collected from extraction well EW-01 have declined since the startup of the pilot GETS in June 2008.
- o VOC concentrations at extraction well MW-21, which is located adjacent to and screened deeper than monitor well MW-16 and extraction well EW-01, suggest that VOC concentrations are higher several tens of feet below the water table than at the water table in this vicinity. This may be a result of the greater effectiveness of the former perched zone remediation system near the water table, or it may represent remnant VOCs at depth in this slightly less transmissive or more isolated hydrostratigraphic zone. During the initial phase of the pilot GETS operations, from July 2008 through 2009, the concentration of 1,1-DCE declined in extraction well MW-21 from its historical high of 4,900 ug/l in June 2008 to its historical low of 200 ug/l in December 2009 (Table 4). The concentration of 1,4-dioxane also declined in extraction well MW-21 during the initial phase of the pilot GETS from 370 ug/l in June of 2008 to its historical low of 11 ug/l in December 2009 (Table 4). Since the conclusion of the pilots GETS operations, concentrations of VOCs and 1,4-dioxane have been variable in extraction well MW-21; in February 2014 1,1-DCE and 1,4-dioxane were detected at concentrations of 1,300 ug/l and 390 ug/l, respectively.

- o 1,4-Dioxane was detected near the detection limit in two groundwater samples collected from monitor well MW-24 in March 2007 and December 2010. 1,4-Dioxane was not detected in the sample collected in February 2014. COPCs have not been otherwise detected in groundwater samples collected from this well. The March 2007 and December 2010 detections are considered anomalous. The general lack of COPCs detections in monitor well MW-24, which is located adjacent to and screened approximately 100 feet deeper than extraction well MW-21, demonstrates that the vertical extent of contamination in the vicinity of these wells is defined.
- The following provides a general discussion of water quality within Unit B downgradient of the location where the perched zone merges with the regional groundwater system.
 - o In December 2007, the detections of VOCs and 1,4-dioxane at monitor well MW-26C represented the first confirmed historical detections of these analytes in this Unit B well (H+A, 2008a) (Figure 9). In monthly and quarterly monitoring samples collected during 2008, concentrations of 1,1-DCE and 1,4-dioxane detected in groundwater samples collected from monitor well MW-26C exhibited a generally declining trend from the concentrations detected in the December 2007 groundwater samples. The rapid change in water level elevations in this well from historically high water level elevations in mid-2006 to historically low water level elevations observed in this well since December 2007, and the accompanying historically high concentrations of VOCs and 1,4-dioxane detected in groundwater samples collected from this well in December 2007, continue to suggest that Unit B is the primary transport zone.
 - o Additional work to further characterize the hydrogeology and water quality of Unit B has been conducted since late 2007. Monitor wells MW-27, MW-28, MW-29, MW-30A, and MW-30B were installed in 2008, and monitor wells MW-31, MW-32 nest, and extraction well EW-02 were installed in 2009 to delineate the distribution of 1,1-DCE and 1,4-dioxane in Unit B on the southern portion of the Site, and increase groundwater capture and accomplish greater remediation of groundwater within the primary transport zone (H+A, 2008b, 2009b, 2009c, and 2010d). In July 2010, monitor

well MW-33 was installed to delineate the distribution of 1,1-DCE and 1,4-dioxane southwest of the Site (H+A, 2010d). In December 2010 through February 2011, the MW-34 cluster and MW-35 nest were installed to delineate the distribution of 1,1-DCE and 1,4-dioxane to the west and south of the Site, respectively (H+A, 2011b). In December 2011 through October 2012, additional monitor wells MW-36 and MW-37 were installed to further delineate the distribution of 1,1-DCE and 1,4-dioxane to the west and south of the Site, respectively (H+A, 2011c, 2012a, and 2012b). In June and July 2013, additional monitor wells MW-39 and MW-40 were installed to further delineate the distribution of 1,1-DCE and 1,4-dioxane to the west and east of the Site, respectively, and monitor well MW-38 was installed west of the Site to help correlate hydrostratigraphic units and evaluate geologic structure in the area (H+A, 2013a and 2013e). 1,1-DCE and/or 1,4-dioxane have been detected in groundwater samples collected from monitor wells MW-28, MW-29, MW-30A, MW-31, MW-32B, MW-33, MW-34B, MW-36, and extraction well EW-02 since their construction (Table 4) (H+A, 2013c). VOCs and 1,4-dioxane have historically not been detected in monitor well MW-27, defining the edge of groundwater impacts in that area within the primary transport zone. The work outlined in Addendum No. 2A of the AGAWP and Addendum No. 4A of the Groundwater Extraction and Treatment System Pilot Testing Corrective Measures Study Work Plan was completed and was summarized in the Well Construction and Groundwater Sampling Report Additional Groundwater Assessment Primary Transport Zone and Groundwater Extraction Treatment System Pilot Testing (H+A, 2009b, 2009c, and 2010d). The work outlined in Addendum No. 3 of the AGAWP was completed and was summarized in the Well Construction and Groundwater Sampling Report Additional Groundwater Assessment Primary Transport Zone and Groundwater Extraction Treatment System Pilot Testing (H+A, 2010c and 2011b). The work outlined in Addendum No. 4 of the AGAWP was completed and was summarized in the Well Construction and Groundwater Sampling Report Addition Groundwater Assessment Primary Transport Zone and Groundwater Extraction Treatment System Pilot Testing (H+A, 2011c and 2013d). The work outlined in Addendum No. 5 of the

AGAWP was completed and was summarized in the Well Construction and Groundwater Sampling Report Additional Groundwater Assessment Primary Transport Zone and Groundwater Extraction Treatment System Pilot Testing (H+A, 2013a and 2013e). One additional off-site monitor well proposed in Addendum No. 6 of the AGAWP to further delineate the VOCs and 1,4-dioxane in Unit B to the west of the Site is nearing commencement of construction activities pending access and permitting, and will be designated monitor well MW-41 (H+A, 2013h).

The second area of impact is located away from the perched zone and exhibits sporadic detections of TCE, 1,1-DCE, and TCFM in the vicinity of monitor well MW-15; and 1,1-DCE, benzene, TCE, cis-1,2-DCE, and low concentrations of other VOCs and 1,4-dioxane at monitor well MW-08. Samples collected from monitor well MW-30B, installed in November 2008, exhibit similar proportions of TCE, 1,1-DCE, and cis-1,2-DCE as samples collected from monitor well MW-08, also screened in Unit BC (Figures 18 and 28).

- The following provides a general discussion of water quality near monitor wells MW-15 and MW-08.
 - o Historically, VOC concentrations have generally remained near or below MCLs at monitor well MW-15. 1,1-DCE was not detected in groundwater samples collected from monitor well MW-15 in February 2014 (Table 4).
 - o Concentrations of VOCs detected in monitor well MW-08 prior to March 2004 were generally near or below the drinking water MCLs for the respective compounds (H+A, 2004c). More recently, concentrations of 1,1-DCE and TCE detected in samples collected from monitor well MW-08 have exceeded their respective MCLs (Table 4). In June 2006, the detected concentrations of 1,1-DCE, 1,1-DCA, PCE, and 1,4-dioxane in groundwater samples collected from monitor well MW-08 represented historical high concentrations for this well (Figure 28). In February 2014, the VOCs 1,1-DCE, cis-1,2-DCE, and TCE were detected at concentrations within their respective historical ranges for monitor well MW-08. The concentration of TCE remains at or above California and/or Federal MCL; the concentrations of 1,1-DCE and cis-1,2-DCE in recent sampling events have dropped below the California and/or

Federal MCLs. 1,4-Dioxane was detected at a concentration of 0.53 ug/l in the groundwater sample collected from monitor well MW-08 in February 2014.

- The following provides a general discussion of water quality downgradient of monitor well MW-08.
 - o The VOCs detected at monitor well MW-30B, TCE, 1,1-DCE, and cis-1,2-DCE, are similar to the VOCs detected at monitor well MW-08. In February 2014, the VOCs TCE, 1,1-DCE, toluene, and cis-1,2-DCE were detected in groundwater samples collected from monitor well MW-30B at concentrations of 92 ug/l, 15 ug/l, 1.0 ug/l, and 4.6 ug/l, respectively. Both monitor wells MW-08 and MW-30B are screened in Unit BC near the western portion of the Site. 1,4-Dioxane was detected at a concentration of 0.68 ug/l in the groundwater sample collected from monitor well MW-30B in February 2014. Monitor wells MW-08 and MW-30B are both completed hydrostratigraphically beneath Unit B; however, monitor well MW-30B is completed closer to Unit B and, based on vertical hydraulic gradients observed from water levels measured in the monitor wells completed below Unit B and those monitor wells completed within Unit B, it is expected that the compounds detected in groundwater collected from monitor well MW-30B will migrate stratigraphically upward and merge into Unit B groundwater in areas further downgradient. TCE has been detected in groundwater collected from Unit B monitor wells MW-31, MW-32B, and MW-33 near Malvern Avenue, which suggests that groundwater from the deeper zone is merging with that of Unit B.

5.0 STATUS OF CORRECTIVE MEASURE STUDY ACTIVITIES

Periodic groundwater monitoring and additional groundwater assessment have been conducted to support a CMS for the Site under continuing direction of the DTSC. As part of the CMS, multiple addenda of the AGAWP have been implemented at the Site. Monitor wells have been installed to more fully delineate the distribution of VOCs, principally 1,1-DCE and 1,4-dioxane, in the Target Zone (H+A, 2003b, 2008b, 2010c, 2011c, 2013a, and 2013h). Results of the additional groundwater assessments completed through 2013 indicate that additional assessment is required, particularly to the west of the Site.

In December 2013 the AGAWP Addendum No. 6 was submitted to DTSC; additional groundwater assessment is proposed to assess the distribution of VOCs and 1,4-dioxane, and the geological structure and hydraulic properties at and to the west of the Site (H+A, 2013h). One additional off-site groundwater monitor well west of the Site to further delineate the distribution of VOCs and 1,4-dioxane in Unit B, is nearing commencement of construction activities pending access and permitting (H+A, 2013h). This proposed monitor well will be designated MW-41.

In February 2013 the GETS Pilot Testing CMS Workplan Addendum No. 6 was submitted to DTSC; this workplan addendum presents details regarding additional actions which are proposed in response to previously completed pilot testing activities (H+A, 2011d, 2012c, and 2013b). Additional pilot testing will consist of four activities, the first two of which would be conducted concurrently, as follows: 1) continued operation of the pilot test system with existing treatment equipment; 2) installation of an extraction well vault at monitor well MW-29 and construction of additional associated conveyance pipeline/controls, if accessible; 3) replacement of the existing APTwater, Inc. pilot test treatment equipment (ozone-peroxide) with Trojan UV, Inc. pilot test treatment equipment (ultraviolet light-peroxide); and 4) operation of the new pilot extraction well MW-29 with existing extraction well EW-02, and of the treatment system with new Trojan UV pilot test treatment equipment (H+A, 2013b). In accordance with the GETS Pilot Testing CMS Workplan Addendum No.6 construction activities commenced on March 17, 2014 and are expected to be completed in May 2014.

An updated conceptual groundwater model through current and proposed well construction activities will be presented as the results become available. It is expected that the results of groundwater assessment, groundwater monitoring, and pilot testing will be incorporated into the CMS report after the groundwater assessment is complete.

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TABLE 1
GROUNDWATER MONITORING PROGRAM

WELL IDENTIFIER	HYDROGEOLOGIC ZONE	SAMPLED FEB 2014	SAMPLING FREQUENCY			
			QUARTERLY FEB, MAY, AUG, NOV	SEMIANNUAL FEBRUARY, AUGUST	ANNUAL FEBRUARY	BIENNIAL FEB (EVEN YEARS)
P-07	Perched	X			VOCs; 1,4-Dioxane	
P-09	Perched	X			VOCs; 1,4-Dioxane	
MW-35A	Other	X				VOCs; 1,4-Dioxane
MW-17	A		PIEZOMETER - WATER LEVEL MEASUREMENT ONLY			
MW-18	A	X		VOCs; 1,4-Dioxane		
MW-19	A	X				VOCs
MW-22	A	X				VOCs; 1,4-Dioxane
MW-23	A	X				VOCs
MW-34A	A	X		VOCs; 1,4-Dioxane		
MW-35B	A	X				VOCs; 1,4-Dioxane
MW-38	A	X	VOCs; 1,4-Dioxane			
MW-13	AB	X			VOCs; 1,4-Dioxane	
MW-15	AB	X		VOCs		
MW-26A	AB		PIEZOMETER - WATER LEVEL MEASUREMENT ONLY			
MW-26B	AB		PIEZOMETER - WATER LEVEL MEASUREMENT ONLY			
MW-32A	AB	X		VOCs; 1,4-Dioxane		
EW-01	B	X	VOCs; 1,4-Dioxane			
EW-02*	B	X	VOCs; 1,4-Dioxane			
MW-16	B	X		VOCs; 1,4-Dioxane		
MW-26C	B	X	VOCs; 1,4-Dioxane			
MW-27	B	X			VOCs; 1,4-Dioxane	
MW-28	B	X	VOCs; 1,4-Dioxane			
MW-29	B	X	VOCs; 1,4-Dioxane			
MW-30A	B	X	VOCs; 1,4-Dioxane			
MW-31	B	X	VOCs; 1,4-Dioxane			
MW-32B	B	X	VOCs; 1,4-Dioxane			
MW-33	B	X	VOCs; 1,4-Dioxane			
MW-34B	B	X	VOCs; 1,4-Dioxane			
MW-35C	B	X	VOCs; 1,4-Dioxane			
MW-36	B	X	VOCs; 1,4-Dioxane			
MW-37**	B	X	VOCs; 1,4-Dioxane			
MW-39	B	X	VOCs; 1,4-Dioxane			
MW-40	B	X	VOCs; 1,4-Dioxane			
MW-21*	BC	X	VOCs; 1,4-Dioxane			
MW-08	BC	X	VOCs; 1,4-Dioxane			
MW-30B	BC	X	VOCs; 1,4-Dioxane			
MW-34C	BC	X		VOCs; 1,4-Dioxane		
MW-09	C	X		VOCs; 1,4-Dioxane		
MW-24	C	X			VOCs; 1,4-Dioxane	
MW-32C	C	X		VOCs; 1,4-Dioxane		
MW-06	D	X			VOCs	
MW-20	D	X		VOCs; 1,4-Dioxane		
MW-25	D		WATER LEVEL MEASUREMENT ONLY			

FOOTNOTES

* = Extraction well monitored monthly as part of the Groundwater Extraction and Treatment System Pilot Testing

** = Uncertainty of Hydrogeologic Zone; current investigation being conducted to determine zone

VOCs = Volatile organic compounds

TABLE 2
WELL CONSTRUCTION SUMMARY

Well Identifier	Date Installed	Current Land Surface Elevation (feet msl)	Current Reference Point Elevation (feet msl)	Total Depth of Borehole (feet bls)	Perforated Interval (feet bls)	Screen Slot Size (inches)	Borehole Diameter (inches)	Casing Diameter (inches) (a)	Filter Pack Interval (feet bls)	Filter Pack Sand Size	Grout Filter/ Intermediate Seal Interval (feet bls) (b)	Annular Seal Interval (feet bls) (c)
<u>Regional Groundwater System Monitor Wells, Extraction Wells and Piezometers:</u>												
MW-06	1/16/1997	185.0	184.70	190.9	149.6 - 189.6	0.010	8.5	2	145.4 - 190.9	#2/16	139.4 - 145.4 (d)	0 - 139.4
MW-08	1/22/1997	156.6	155.91	167.2	126.1 - 166.1	0.010	8.5	2	120.7 - 167.2	#2/16	115.7 - 120.7	0 - 115.7
MW-09	3/21/1997	180.5	180.10	194.2	152.2 - 192.2	0.010	8.5	2	146.2 - 194.2	#2/16	141.2 - 146.2	0 - 141.2
MW-13	4/16/1997	142.5	141.84	159.6	120.6 - 159.6	0.010	8.5	2	114.6 - 159.6	#2/16	109.6 - 114.6	0 - 109.6
MW-15	5/18/1998	145.6	144.95	174.8	120.8 - 170.8	0.010	8.5	2	115.8 - 174.8	#2/16	112.8 - 115.8	0 - 112.8
MW-16	11/20/1999	143.0	142.40	179.5	148.5 - 178.5	0.010	11.0	4	144.5 - 179.5	#2/16	134.5 - 144.5 (e)	0 - 134.5
MW-17	5/31/2000	142.8	142.70	203.7	173.1 - 193.1 (i)	0.020	10.0	4	159.7 - 193.1	#2/16	156.2 - 159.7 193.1 - 203.7 (j)	0 - 156.2
MW-18	5/24/2000	142.4	142.32	195.6	164.1 - 194.1	0.020	10.0	4	158.9 - 194.5	#2/16	154.2 - 158.9	0 - 154.2
MW-19	5/26/2000	142.7	142.06	205.5	184.9 - 204.9	0.020	10.0	4	177.0 - 205.3	#2/16	171.5 - 177.0	0 - 171.5
MW-20	6/26/2003	184.4	184.19	200.0	158.6 - 198.2	0.020	11.0	4 (f)	158.0 - 200.0	#2/12	151.0 - 158.0 (g)	0 - 151.1 (h)
MW-21	7/17/2003	143.3	141.18	238.3	212.1 - 232.1	0.010	8.0	4 (k)	205.0 - 234.5	#2/16	202.0 - 205.0 234.5 - 238 (j)	0 - 202.0 (h)
MW-22	8/13/2003	139.4	138.65	245.0	217.4 - 237.4	0.020	8.0	4 (l)	215.0 - 238.0	#2/12	208.0 - 215.0 (m)	0 - 208.0 (h)
MW-23	8/18/2003	137.8	137.33	235.6	215.2 - 235.2	0.020	8.0	4 (n)	209.4 - 235.6	#2/12	203.5 - 209.4 (m)	0 - 203.5 (h)
MW-24	9/15/2004	143.1	142.83	338.0	310.3 - 330.3	0.030	10.6	4 (o)	306 - 330	#3	301 - 306 (p)	0 - 301 (h)
MW-25	9/10/2004	143.0	142.64	805	449.4 - 479.8	0.010	8.5 (q)	2 (r)	429 - 485	#2/16	418 - 429	0 - 418 (h)
MW-26A (s)	10/1/2004	137.6	137.04	805	279 - 309	0.020	12.25 (q)	2 (t)	274 - 315	#2/12	266 - 274	0 - 266 (h)
MW-26B (s)	10/1/2004	137.6	137.05	805	339 - 379	0.020	12.25 (q)	2 (u)	334 - 387	#2/12	266 - 274	0 - 266 (h)
MW-26C (s)	10/1/2004	137.6	137.22	805	459 - 499	0.020	12.25 (q)	2 (v)	435 - 499	#2/12	387 - 435 (w)	0 - 266 (h)
MW-27	4/22/2008	137.6	137.16	550	475 - 505.2 (cc)	0.030	11.25 (q)	4 (z)	468 - 520	#3	457.5 - 468	0 - 457.5 (h)
MW-28	5/5/2008	141.4	140.77	425	335 - 375	0.040	12.25 (q)	4 (z)	325.4 - 377	#8	318 - 325.4	0 - 318 (h)
MW-29	8/15/2008	142.7	142.34	265.7	200 - 240	0.020	10.0 (aa)	4 (z)	185 - 246	#2/12	176 - 185	0 - 176 (h)
MW-30A(s)	11/26/2008	130.2	129.44	635 (j)	524-564	0.020	14.25	3 (y)	515.9-570.5	#2/12	495.5-515.9	0-495.5 (bb)
MW-30B(s)	11/26/2008	130.2	129.39	635 (j)	596-616	0.020	14.25	3 (y)	586.8-625	#2/12	586.8-570.5	0-495.5 (bb)
MW-31	10/2/2009	120.3	119.60	1,100 (jj)	946-996	0.020	13	6(kk)	922-1,006	#2/12	904-922	0-904
MW-32A(s)	12/10/2009	93.4	92.88	1,153 (gg)	890-905	0.020	18.5	4(dd)	880-910	#2/12	832-880	0-832
MW-32B(s)	12/10/2009	93.4	92.89	1,153 (gg)	969-999	0.020	18.5	4(dd)	960-1,004.5	#2/12	910-960	0-832
MW-32C(s)	12/10/2009	93.4	92.88	1,153 (gg)	1,070-1,090	0.020	18.5	4(dd)	1,054-1,100	#2/12	1,004.5-1,054	0-832
MW-33	7/2/2010	83.8	83.19	1,080 (hh)	980-1,020	0.020	11	4(dd)	970-1,025	#2/12	924-970	0-924 (ii)
MW-34A	2/3/2011	154.0	153.25	290	220 - 280	0.020	12.25	4(dd)	211 - 290	#2/12	175 - 211	0 - 175
MW-34B	2/1/2011	153.9	153.11	540	486 - 536	0.020	12.25	4(dd)	475 - 540	#2/12	449 - 475	0 - 449
MW-34C	1/19/2011	154.1	153.29	709 (ll)	556 - 576	0.020	12.25	4(dd)	551 - 582	#2/12	530 - 551	0 - 530
MW-35A	12/20/2010	94.3	93.57	1,101	420 - 470	0.020	18	4(dd)	401 - 482	#2/12	376 - 401	0 - 376
MW-35B	12/20/2010	94.3	93.56	1,101	745 - 805	0.020	18	4(dd)	725 - 816	#2/12	482 - 725	0 - 376
MW-35C	12/20/2010	94.3	93.55	1101 (ll)	990 - 1,040	0.020	12.25	4(dd)	980 - 1,048	#2/12	816 - 980	0 - 376
MW-36	1/3/2012	87.19	86.65	1030 (mm)	934 - 954 974 - 994	0.020	12.25	4(dd)	914 - 1,003	#2/12	95 - 853 (oo), 853 - 914 (pp)	0 - 95 (qq)
MW-37	10/17/2012	156.02	155.60	916	770-820	0.020	12.25	4(dd)	755-834	#2/12	724-755 (pp) 120-140 (pp)	0-229 (ss)
MW-38	7/29/2013	155.7	154.90	203	150-200	0.020	10	4(z)	140-203	#2/12		0-120 (qq)
MW-39	7/25/2013	84.71	84.25	1,080 (ll)	982-1,012	0.020	12.25	4(dd)	974-1,017	#2/12	156 -917 (rr) 917-974 (pp)	0-156 (qq)
MW-40	7/2/2013	124.09	123.40	1040 (ll)	930-970	0.030	12.25	6(dd)	916-975	#3	175 -880 (rr) 880-916 (pp)	0-175 (qq)
EW-01	5/16/2005	143.3	141.07	195	138.1-188.1	0.020	7.6	4 (x)	134.1-195	#2/12	129-134.1 (m)	0-129 (h)
EW-02	10/20/2009	136.0	132.97	473 (ee)	410-460	0.030	17.0	8 (ff)	400-465	#3	384-400	0-384
<u>Perched Zone Piezometers</u>												
P-07	6/6/1997	142.7	142.31	116.8	107.7 - 117.7	0.010	8.5	2	104.7 - 117.7	#2/16	101.7 - 104.7	0 - 101.7
P-09	6/30/2003	184.3	183.86	130.0	109.6 - 129.6	0.010	11.0	4	114.0 - 130.0	#2/16	101.0 - 108.0 (g)	0 - 101.0 (h)

TABLE 2
WELL CONSTRUCTION SUMMARY

NOTE: Refer to page 2 of this table for footnotes.

FOOTNOTES

- msl = Mean sea level, City of Fullerton datum
 bls = Below current land surface (October 2004)
 (a) = Schedule 40 polyvinyl chloride (PVC) screen and casing, unless otherwise indicated
 (b) = Medium bentonite chip seal, unless otherwise indicated
 (c) = Bentonite grout annular seal unless otherwise indicated, completed at surface with vault set in concrete
 (d) = No. 60 silica sand
 (e) = Includes 2.0 feet of No. 60 silica sand placed above filter pack
 (f) = Schedule 80 polyvinyl chloride screen and casing
 (g) = Includes 2.5 to 3.0 feet of No. 60 silica sand placed above bentonite chip seal
 (h) = Cement/bentonite grout, Type I/II Portland, less than 5% bentonite
 (i) = Well plug, approximately 0.5-foot length, set at bottom of perforated interval
 (j) = Bottom of borehole backfilled with bentonite chips
 (k) = Stainless steel wire wrap screen; Schedule 10 stainless steel casing 122.0 - 212.1 feet bls; Schedule 40 mild steel casing 0 - 122.0 feet bls
 (l) = Stainless steel wire wrap screen; Schedule 10 stainless steel casing 112.4 - 217.4 feet bls; Schedule 40 mild steel casing 0 - 112.4 feet bls
 (m) = 1/4-inch coated bentonite pellets
 (n) = Stainless steel wire wrap screen; Schedule 10 stainless steel casing 110.1 - 215.2 feet bls; Schedule 40 mild steel casing 0 - 110.1 feet bls
 (o) = Mild steel wire wrap screen and Schedule 40 mild steel well casing
 (p) = Includes 1 to 2 feet of #2/16 sand placed above bentonite chip seal
 (q) = Below filter pack, diameter of the original pilot borehole is 5 to 6.25 inches to total depth of boring. Lower borehole backfilled with cement/bentonite grout, Type I/II Portland, less than 5% bentonite
 (r) = Stainless steel wire wrap screen, Schedule 10 stainless steel casing 429.4 - 449.4 feet bls, Schedule 80 polyvinylchloride casing 429.0 - 429.4 feet bls, Schedule 40 mild steel casing 0 - 429.0 feet bls
 (s) = Nested wells MW-26A, MW-26B, MW-26C, and MW-32A, MW-32B, MW-32C are constructed with three separate well casings in a single borehole; nested well MW-30A and MW-30B is constructed with two separate casings in a single borehole.
 (t) = Stainless steel wire wrap screen; Schedule 10 stainless steel casing 259 - 279 feet bls and 0 - 19 feet bls; Schedule 40 mild steel casing 19 - 259 feet bls
 (u) = Stainless steel wire wrap screen; Schedule 10 stainless steel casing 319 - 339 feet bls; Schedule 40 mild steel casing 0 - 319 feet bls
 (v) = Stainless steel wire wrap screen; Schedule 10 stainless steel casing 439 - 459 feet bls; Schedule 40 mild steel casing 0 - 439 feet bls
 (w) = #8 granular bentonite with exception of heavy mud/formational caving filling annular interval from 417 to 428 feet bls
 (x) = Stainless steel wire wrap screen; Schedule 10 stainless steel casing 118.1-138.1 feet bls; Schedule 40 mild steel casing 0-118.1 feet bls
 (y) = Schedule 40 Stainless steel endcaps; Schedule 10 stainless steel casing; Stainless steel wire wrap screen
 (z) = Schedule 80 PVC blank and screen casing
 (aa) = Below filter pack, diameter of the original pilot borehole is 8 inches to total depth of boring. Lower borehole backfilled with cement/bentonite grout, Type I/II Portland, less than 5% bentonite
 (bb) = Neat cement
 (cc) = Depth of screen interval adjusted to account for loss at bottom of casing due to breakage in casing wall. Original casing (515 ft bls) was sealed at 505.2 ft bls
 (dd) = Schedule 40 Stainless steel endcaps; Schedule 80 polyvinyl chloride casing; Stainless steel wire wrap screen
 (ee) = Pilot borehole drilled to a total depth of 493 feet bls and backfilled with 5% bentonite-cement grout seal to 465 feet bls
 (ff) = Schedule 40 Stainless steel endcaps; Schedule 40 stainless steel casing; Stainless steel wire wrap screen; 2.5-foot stainless steel sump
 (gg) = Pilot borehole drilled to a total depth of 1,153 feet bls and backfilled with 5% bentonite-cement grout seal to 1,100 feet bls
 (hh) = Pilot borehole drilled to a total depth of 1,080 feet bls and backfilled with 5% bentonite-cement grout seal to 1,025 feet bls
 (ii) = Annular seal interval is composed of cement grout with approximately 5% bentonite from 720 to 924 feet bls and bentonite grout from near land surface to 720 feet bls
 (jj) = Pilot borehole drilled to a total depth of 1,100 feet bls and backfilled with 5% bentonite-cement grout seal to 1,006 feet bls
 (kk) = Schedule 40 Stainless steel endcaps; Schedule 40 stainless steel casing; Stainless steel wire wrap screen; 5-foot stainless steel sump
 (ll) = Bottom of borehole backfilled with approximately 5% bentonite-cement grout
 (mm) = Bottom of borehole backfilled with bentonite pellets
 (oo) = High solids bentonite grout
 (pp) = Bentonite chips
 (qq) = Portland cement with approximately 5% bentonite
 (rr) = Medium bentonite chips and #2/12 Sand; 1:1 dry volume mix
 (ss) = Portland cement with approximately 2.5% bentonite



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells</u>					
MW-06	01/27/97	174.27	144.62	29.65	
	02/18/97	174.27	142.26	32.01	
	02/26/97	174.27	141.97	32.30	
	03/06/97	174.27	141.52	32.75	
	03/12/97	174.27	141.24	33.03	
	03/28/97	174.27	140.90	33.37	
	05/19/97	174.27	142.85	31.42	
	10/16/97	174.27	158.05	16.22	
	05/13/98	174.27	143.00	31.27	
	05/27/98	174.27	143.49	30.78	
	06/11/98	174.27	144.43	29.84	
	07/14/98	174.27	147.46	26.81	
	11/11/98	174.27	155.60	18.67	
	11/18/98	174.27	154.82	19.45	SVE, DPE-H2O
	11/18/98	174.27	154.96	19.31	SVE, DPE-H2O
	11/19/98	174.27	154.82	19.45	SVE, DPE-H2O
	11/20/98	174.27	154.17	20.10	SVE, DPE, DPE-H2O
	11/23/98	174.27	154.43	19.84	SVE, DPE-H2O
	11/23/98	174.27	154.40	19.87	SVE, DPE-H2O
	11/24/98	174.27	154.44	19.83	SVE, DPE-H2O
	12/07/98	174.27	153.08	21.19	SVE, DPE-H2O
	12/10/98	174.27	152.56	21.71	SVE, DPE, DPE-H2O
	12/11/98	174.27	152.14	22.13	SVE, DPE, DPE-H2O
	12/14/98	174.27	151.82	22.45	SVE, DPE-H2O
	12/14/98	174.27	151.72	22.55	SVE, DPE-H2O
	12/16/98	174.27	151.73	22.54	SVE, DPE, DPE-H2O
	01/06/99	174.27	150.40	23.87	SVE, DPE, DPE-H2O
	01/20/99	174.27	149.92	24.35	
	01/25/99	174.27	149.58	24.69	DPE, DPE-H2O
	01/27/99	174.27	149.71	24.56	SVE, DPE, DPE-H2O
	02/01/99	174.27	149.37	24.90	DPE, DPE-H2O
	02/10/99	174.27	148.87	25.40	SVE, DPE, DPE-H2O
	02/23/99	174.27	148.30	25.97	
	03/01/99	174.27	148.33	25.94	DPE
	03/09/99	174.27	148.39	25.88	SVE, DPE, DPE-H2O
	03/10/99	174.27	148.35	25.92	SVE, DPE, DPE-H2O
	04/07/99	174.27	147.82	26.45	SVE, DPE-H2O
	04/23/99	174.27	147.00	27.27	SVE, DPE-H2O
	06/16/99	174.27	150.62	23.65	SVE, DPE-H2O
	06/25/99	174.27	151.91	22.36	SVE, DPE-H2O
	08/30/99	174.27	164.08	10.19	DPE-H2O
	09/27/99	174.27	166.78	7.49	
	11/02/99	174.27	169.28	4.99	
	12/06/99	174.27	158.87	15.40	
	02/07/00	174.27	164.21	10.06	
	03/08/00	174.27	160.82	13.45	
	05/08/01	174.23	155.05	19.18	
	06/26/01	174.23	161.99	12.24	
	10/24/01	188.33	DRY	--	
	01/15/02	188.33	183.41	4.92	
	03/19/02	188.33	177.86	10.47	
	04/15/02	188.33	176.83	11.50	
	11/18/02	188.33	182.81	5.52	
	01/17/03	188.33	173.82	14.51	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point	Depth to Water	Water Level	Remediation System On
		Elevation (a) (feet msl)	(feet bls)	Elevation (feet msl)	
Regional Groundwater System Monitor and Extraction Wells (continued)					
MW-06	05/08/03	188.33	174.07	14.26	
(Cont'd)	06/09/03	188.33	175.45	12.88	
	09/15/03	184.70	177.09	7.61	
	10/14/03	184.70	178.31	6.39	
	12/15/03	184.70	176.24	8.46	
	03/29/04	184.70	166.60	18.10	
	06/14/04	184.70	169.41	15.29	
	09/20/04	184.70	179.48	5.22	
	11/10/04	184.70	180.65	4.05	
	12/06/04	184.70	178.73	5.97	
	03/14/05	184.70	166.99	17.71	
	06/20/05	184.70	162.59	22.11	
	09/20/05	184.70	165.10	19.60	
	12/17/05	184.70	155.90	28.80	
	03/20/06	184.70	147.23	37.47	
	05/18/06	184.70	143.25	41.45	
	06/19/06	184.70	145.48	39.22	
	09/25/06	184.70	154.15	30.55	
	10/05/06	184.70	154.47	30.23	
	12/12/06	184.70	152.28	32.42	
	03/12/07	184.70	149.91	34.79	
	06/18/07	184.70	156.19	28.51	
	09/24/07	184.70	173.50	11.20	
	12/10/07	184.70	183.15	1.55	
	03/17/08	184.70	182.08	2.62	
	06/23/08	184.70	182.92	1.78	
	09/22/08	184.70	186.55	-1.85	
	12/15/08	184.70	188.45	-3.75	
	12/19/08	184.70	188.47	-3.77	
	03/16/09	184.70	187.58	-2.88	
	03/18/09	184.70	187.51	-2.81	
	06/22/09	184.70	186.43	-1.73	
	06/26/09	184.70	186.46	-1.76	
	08/31/09	184.70	187.31	-2.61	
	09/10/09	184.70	187.42	-2.72	
	12/07/09	184.70	187.82	-3.12	
	03/01/10	184.70	184.83	-0.13	
	03/22/10	184.70	182.35	2.35	
	06/07/10	184.70	178.27	6.43	
	09/07/10	184.70	180.20	4.50	
	12/06/10	184.70	178.75	5.95	
	03/24/11	184.70	UTM	--	
	06/20/11	184.70	164.20	20.50	
	08/01/11	184.70	160.31	24.39	
	10/31/11	184.70	153.73	30.97	
	02/06/12	184.70	150.51	34.19	
	05/07/12	184.70	149.37	35.33	
	08/06/12	184.70	154.85	29.85	
	11/05/12	184.70	161.82	22.88	
	02/04/13	184.70	157.85	26.85	
	05/13/13	184.70	158.14	26.56	
	08/12/13	184.70	167.29	17.41	
	11/11/13	184.70	175.48	9.22	
	02/03/14	184.70	174.60	10.10	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-08	01/27/97	169.53	150.66	18.87	
	02/18/97	169.53	149.78	19.75	
	02/26/97	169.53	149.60	19.93	
	03/06/97	169.53	149.62	19.91	
	03/12/97	169.53	149.55	19.98	
	03/28/97	169.53	149.46	20.07	
	05/19/97	169.53	149.33	20.20	
	05/13/98	169.53	149.54	19.99	
	05/27/98	169.53	149.40	20.13	
	06/11/98	169.53	149.30	20.23	
	08/30/99	169.53	155.13	14.40	DPE-H2O
	12/06/99	169.53	159.36	10.17	3.4 inches water in vaccum
	02/07/00	169.53	159.68	9.85	
	03/08/00	169.53	159.23	10.30	
	05/09/01	164.79	157.50	7.29	
	06/26/01	164.79	157.79	7.00	
	10/24/01	164.79	161.80	2.99	
	01/15/02	164.79	162.42	2.37	
	03/19/02	164.79	161.09	3.70	
	04/15/02	158.04	153.98	4.06	
	11/18/02	158.04	156.47	1.57	
	01/17/03	158.04	152.46	5.58	
	05/08/03	158.04	149.90	8.14	
	06/09/03	158.04	150.27	7.77	
	09/15/03	NA	UTM	--	
	10/14/03	NA	UTM	--	
	12/15/03	155.91	150.19	5.72	
	03/29/04	155.91	145.40	10.51	
	06/14/04	155.91	143.68	12.23	
	09/20/04	155.91	145.45	10.46	
	10/19/04	155.91	145.74	10.17	
	11/10/04	155.91	146.04	9.87	
	12/06/04	155.91	145.71	10.20	
	03/14/05	155.91	142.32	13.59	
	06/20/05	155.91	139.61	16.30	
	09/19/05	155.91	139.77	16.14	
	12/17/05	155.91	135.10	20.81	
	03/20/06	155.91	127.02	28.89	
	05/18/06	155.91	121.53	34.38	
	06/19/06	155.91	121.31	34.60	
	09/25/06	155.91	124.38	31.53	
	10/05/06	155.91	124.56	31.35	
	12/12/06	155.91	123.83	32.08	
	03/12/07	155.91	127.24	28.67	
	06/18/07	155.91	132.36	23.55	
	09/24/07	155.91	137.96	17.95	
	12/10/07	155.91	142.65	13.26	
	03/17/08	155.91	145.83	10.08	
	06/23/08	155.91	149.00	6.91	
	09/22/08	155.91	153.53	2.38	
	12/15/08	155.91	157.03	-1.12	
	12/19/08	155.91	157.39	-1.48	
	03/16/09	155.91	157.87	-1.96	
	03/18/09	155.91	157.92	-2.01	

TABLE 3
GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-08	06/22/09	155.91	157.63	-1.72	
(Cont'd)	06/26/09	155.91	157.70	-1.79	
	08/31/09	155.91	159.37	-3.46	
	09/10/09	155.91	159.45	-3.54	
	10/28/09	155.91	159.75	-3.84	
	10/30/09	155.91	159.73	-3.82	
	11/04/09	155.91	159.84	-3.93	
	12/07/09	155.91	159.17	-3.26	
	03/01/10	155.91	157.11	-1.20	
	03/03/10	155.91	157.08	-1.17	
	06/07/10	155.91	152.97	2.94	
	09/07/10	155.91	151.91	4.00	
	12/06/10	155.91	152.22	3.69	
	03/24/11	155.91	146.19	9.72	
	03/25/11	155.91	145.55	10.36	
	06/20/11	155.91	141.72	14.19	
	08/01/11	155.91	139.94	15.97	
	08/05/11	155.91	139.80	16.11	
	10/31/11	155.91	136.88	19.03	
	02/06/12	155.91	136.04	19.87	
	05/07/12	155.91	127.33	28.58	
	08/06/12	155.91	130.71	25.20	
	11/05/12	155.91	136.67	19.24	
	02/04/13	155.91	135.88	20.03	
	05/13/13	155.91	134.32	21.59	
	08/12/13	155.91	137.80	18.11	
	11/11/13	155.91	141.02	14.89	
	02/03/14	155.91	140.72	15.19	
MW-09	03/25/97	166.42	137.58	28.84	
	03/28/97	166.42	137.34	29.08	
	05/19/97	166.42	138.31	28.11	
	05/13/98	166.42	139.18	27.24	
	05/27/98	166.42	139.57	26.85	
	06/11/98	166.42	140.03	26.39	
	07/14/98	166.42	142.56	23.86	
	11/11/98	166.42	150.98	15.44	
	11/18/98	166.42	150.72	15.70	SVE, DPE-H2O
	11/18/98	166.42	150.57	15.85	SVE, DPE-H2O
	11/19/98	166.42	150.63	15.79	SVE, DPE-H2O
	11/20/98	166.42	150.64	15.78	SVE, DPE, DPE-H2O
	11/23/98	166.42	150.47	15.95	SVE, DPE-H2O
	11/23/98	166.42	150.43	15.99	SVE, DPE-H2O
	11/24/98	166.42	150.45	15.97	SVE, DPE-H2O
	12/07/98	166.42	149.98	16.44	SVE, DPE-H2O
	12/10/98	166.42	149.67	16.75	SVE, DPE, DPE-H2O
	12/11/98	166.42	149.68	16.74	SVE, DPE, DPE-H2O
	12/14/98	166.42	149.18	17.24	SVE, DPE-H2O
	12/16/98	166.42	148.97	17.45	SVE, DPE, DPE-H2O
	01/06/99	166.42	147.76	18.66	SVE, DPE, DPE-H2O
	01/20/99	166.42	147.18	19.24	
	01/25/99	166.42	146.80	19.62	DPE, DPE-H2O
	01/27/99	166.42	146.98	19.44	SVE, DPE, DPE-H2O
	02/01/99	166.42	146.85	19.57	SVE, DPE, DPE-H2O
	02/10/99	166.42	146.43	19.99	SVE, DPE, DPE-H2O



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-09	02/23/99	166.42	145.78	20.64	
(Cont'd)	03/01/99	166.42	145.68	20.74	DPE
	03/09/99	166.42	145.73	20.69	SVE, DPE, DPE-H2O
	03/10/99	166.42	145.70	20.72	SVE, DPE, DPE-H2O
	03/15/99	166.42	145.57	20.85	SVE, DPE, DPE-H2O
	04/07/99	166.42	145.35	21.07	SVE, DPE-H2O
	04/23/99	166.42	144.61	21.81	SVE, DPE-H2O
	06/16/99	166.42	147.11	19.31	SVE, DPE-H2O
	06/25/99	166.42	148.10	18.32	SVE, DPE-H2O
	08/30/99	166.42	156.90	9.52	DPE-H2O
	09/27/99	166.42	159.80	6.62	
	11/02/99	166.42	163.08	3.34	
	11/09/99	166.42	163.51	2.91	
	11/10/99	166.42	163.44	2.98	
	11/23/99	166.42	163.92	2.50	
	12/06/99	166.42	163.59	2.83	
	12/07/99	166.42	163.41	3.01	
	02/07/00	166.42	160.51	5.91	
	06/29/00	166.42	UTM	--	
	10/24/01	182.15	184.16	-2.01	
	01/15/02	182.15	182.12	0.03	
	03/19/02	182.15	177.57	4.58	
	04/15/02	182.15	176.29	5.86	
	11/18/02	182.28	181.80	0.48	
	01/17/03	182.28	174.44	7.84	
	05/08/03	182.28	172.56	9.72	
	06/09/03	182.28	173.57	8.71	
	09/15/03	182.28	178.03	4.25	
	09/24/03	182.28	178.46	3.82	
	10/14/03	182.28	179.10	3.18	
	12/15/03	182.28	178.00	4.28	
	03/29/04	180.10	166.90	13.20	
	06/14/04	180.10	168.36	11.74	
	09/20/04	180.10	176.29	3.81	
	10/19/04	180.10	178.00	2.10	
	11/10/04	180.10	177.75	2.35	
	12/06/04	180.10	176.64	3.46	
	03/14/05	180.10	167.00	13.10	
	06/20/05	180.10	162.13	17.97	
	09/19/05	180.10	164.58	15.52	
	12/17/05	180.10	156.29	23.81	
	03/20/06	180.10	146.90	33.20	
	05/18/06	180.10	142.77	37.33	
	06/19/06	180.10	144.64	35.46	
	09/25/06	180.10	151.96	28.14	
	10/05/06	180.10	152.33	27.77	
	12/19/06	180.10	150.40	29.70	
	03/12/07	180.10	148.81	31.29	
	06/18/07	180.10	UTM	--	
	09/24/07	180.10	171.33	8.77	
	12/10/07	180.10	179.73	0.37	
	03/17/08	180.10	180.71	-0.61	
	06/27/08	180.10	182.20	-2.10	
	09/22/08	180.10	187.53	-7.43	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-09	12/15/08	180.10	DRY	--	Dry @ 190.2 ft bls
(Cont'd)	03/16/09	180.10	DRY	--	Dry @ 190.0 ft bls
	06/23/09	180.10	187.69	-7.59	
	08/31/09	180.10	189.34	-9.24	
	12/07/09	180.10	189.35	-9.25	
	03/02/10	180.10	186.09	-5.99	
	03/03/10	180.10	186.08	-5.98	
	06/07/10	180.10	180.11	-0.01	
	09/07/10	180.10	180.51	-0.41	
	12/06/10	180.10	179.83	0.27	
	03/24/11	180.10	170.04	10.06	
	06/20/11	180.10	165.04	15.06	
	08/01/11	180.10	161.84	18.26	
	11/01/11	180.10	155.13	24.97	
	02/06/12	180.10	150.19	29.91	
	05/07/12	180.10	147.54	32.56	
	08/06/12	180.10	152.77	27.33	
	11/05/12	180.10	160.00	20.10	
	02/04/13	180.10	156.77	23.33	
	05/13/13	180.10	155.68	24.42	
	08/14/13	180.10	165.03	15.07	
	11/11/13	180.10	UTM	--	
	02/05/14	180.10	171.71	8.39	
MW-13	05/19/97	162.92	149.06	13.86	
	05/13/98	162.92	150.56	12.36	
	05/27/98	162.92	149.67	13.25	
	06/11/98	162.92	149.63	13.29	
	11/02/99	162.92	166.86	-3.94	
	11/09/99	162.92	167.25	-4.33	
	11/10/99	162.92	167.36	-4.44	
	11/11/99	162.92	167.36	-4.44	
	11/23/99	162.92	167.92	-5.00	
	12/06/99	162.92	168.35	-5.43	
	12/07/99	162.92	168.38	-5.46	
	02/07/00	162.92	167.88	-4.96	
	06/21/00	162.55	164.42	-1.87	
	07/05/00	162.55	165.68	-3.13	
	01/16/01	142.51	151.58	-9.07	
	03/19/01	142.51	149.31	-6.80	
	03/26/01	142.51	148.72	-6.21	
	04/03/01	142.51	148.30	-5.79	
	04/10/01	142.51	148.00	-5.49	
	04/17/01	142.51	147.90	-5.39	
	04/26/01	142.51	147.50	-4.99	
	05/07/01	142.51	147.14	-4.63	
	06/26/01	142.51	147.61	-5.10	
	09/10/01	142.19	151.32	-9.13	
	10/22/01	142.19	153.62	-11.43	
	10/24/01	142.19	153.68	-11.49	
	01/15/02	142.19	153.78	-11.59	
	01/15/02	142.19	153.76	-11.57	
	03/19/02	142.19	148.86	-6.67	
	04/15/02	142.19	148.29	-6.10	
	10/31/02	142.19	154.39	-12.20	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-13	10/31/02	142.19	154.38	-12.19	
(Cont'd)	11/07/02	142.19	153.97	-11.78	
	11/07/02	142.19	153.95	-11.76	
	11/18/02	142.19	153.20	-11.01	
	01/17/03	142.19	142.13	0.06	
	05/08/03	142.19	138.90	3.29	
	06/09/03	142.19	140.81	1.38	
	09/15/03	142.19	146.63	-4.44	
	10/14/03	142.19	147.73	-5.54	
	12/02/03	142.19	145.21	-3.02	
	12/15/03	142.19	143.91	-1.72	
	03/29/04	142.19	132.94	9.25	
	06/14/04	142.19	132.76	9.43	
	09/20/04	142.19	138.99	3.20	
	10/19/04	142.19	140.31	1.88	
	11/10/04	142.19	140.06	2.13	
	12/06/04	142.19	139.08	3.11	
	03/14/05	142.19	127.95	14.24	
	06/20/05	142.19	129.49	12.70	
	09/19/05	142.19	132.44	9.75	
	12/17/05	142.19	116.10	26.09	
	03/20/06	142.19	112.58	29.61	
	06/19/06	142.19	108.37	33.82	
	09/25/06	142.19	115.66	26.53	
	12/12/06	142.19	112.59	29.60	
	03/12/07	142.19	117.07	25.12	
	06/18/07	142.19	126.05	16.14	
	09/24/07	142.19	137.98	4.21	
	12/10/07	142.19	146.51	-4.32	
	03/17/08	142.19	147.13	-4.94	
	06/23/08	142.19	149.38	-7.19	
	09/22/08	142.19	153.18	-10.99	
	12/15/08	142.19	156.91	-14.72	
	03/16/09	142.19	155.95	-13.76	
	06/22/09	142.19	152.05	-9.86	
	08/31/09	142.19	154.42	-12.23	
	12/07/09	142.19	153.32	-11.13	
	03/01/10	142.19	148.41	-6.22	
	06/07/10	142.19	141.51	0.68	
	09/07/10	142.19	142.67	-0.48	
	12/06/10	142.19	144.25	-2.06	
	03/24/11	142.19	132.38	9.81	
	06/20/11	142.19	125.39	16.80	
	08/01/11	142.19	127.15	15.04	
	10/31/11	142.19	124.07	18.12	
	02/06/12	142.19	117.20	24.99	
	05/07/12	142.19	110.72	31.47	
	08/06/12	141.84	122.72	19.12	
	11/05/12	141.84	126.32	15.52	
	02/04/13	141.84	122.23	19.61	
	05/13/13	141.84	122.65	19.19	
	08/12/13	141.84	131.58	10.26	
	11/11/13	141.84	138.36	3.48	
	02/03/14	141.84	132.86	8.98	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bsl)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-15	05/27/98	159.20	153.83	5.37	
	06/11/98	159.20	153.16	6.04	
	11/09/99	159.20	165.47	-6.27	
	12/06/99	159.20	166.56	-7.36	
	02/07/00	159.20	167.68	-8.48	
	06/21/00	159.2	164.57	-5.37	
	07/05/00	159.2	164.94	-5.74	
	01/16/01	154.35	166.25	-11.90	
	03/19/01	154.35	165.42	-11.07	
	05/08/01	154.35	164.16	-9.81	
	06/26/01	154.35	164.09	-9.74	
	09/10/01	154.35	166.43	-12.08	
	10/24/01	154.35	168.27	-13.92	
	01/15/02	154.35	169.03	-14.68	
	03/19/02	154.35	167.33	-12.98	
	04/15/02	146.14	158.58	-12.44	
	11/18/02	146.14	160.67	-14.53	
	01/17/03	146.14	155.87	-9.73	
	05/08/03	NA	UTM	--	
	06/09/03	144.99	149.92	-4.93	
	09/15/03	144.99	152.72	-7.73	
	09/23/03	144.99	152.99	-8.00	
	10/14/03	144.99	153.64	-8.65	
	12/15/03	144.99	152.50	-7.51	
	03/29/04	144.99	146.10	-1.11	
	06/14/04	144.99	142.94	2.05	
	09/20/04	144.99	143.78	1.21	
	10/19/04	144.99	143.74	1.25	
	11/10/04	144.99	144.01	0.98	
	12/06/04	144.99	143.95	1.04	
	03/14/05	144.99	140.02	4.97	
	06/20/05	144.99	137.35	7.64	
	09/19/05	144.99	137.57	7.42	
	12/17/05	144.99	134.72	10.27	
	03/20/06	144.99	124.34	20.65	
	05/18/06	144.99	117.13	27.86	
	06/19/06	144.99	115.44	29.55	
	09/25/06	144.99	116.80	28.19	
	10/05/06	144.99	117.09	27.90	
	12/12/06	144.99	117.21	27.78	
	03/12/07	144.99	118.76	26.23	
	06/18/07	144.99	123.16	21.83	
	09/24/07	144.99	132.92	12.07	
	12/10/07	144.99	141.07	3.92	
	03/17/08	144.99	149.72	-4.73	
	06/23/08	144.99	154.59	-9.60	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-15	09/22/08	144.99	160.27	-15.28	
(Cont'd)	12/15/08	144.92	164.12	-19.20	
	12/19/08	144.92	164.61	-19.69	
	03/16/09	144.92	164.01	-19.09	
	03/18/09	144.92	165.33	-20.41	
	06/22/09	144.92	161.11	-16.19	
	06/26/09	144.92	161.17	-16.25	
	08/31/09	144.92	162.89	-17.97	
	09/10/09	144.92	163.05	-18.13	
	10/28/09	144.92	162.60	-17.68	
	10/30/09	144.92	162.66	-17.74	
	11/04/09	144.92	162.38	-17.46	
	12/07/09	144.92	161.33	-16.41	
	03/01/10	144.92	159.25	-14.33	
	03/03/10	144.92	159.08	-14.16	
	03/09/10	144.92	154.33	-9.41	
	06/07/10	144.92	154.43	-9.51	
	09/07/10	144.92	152.71	-7.79	
	12/06/10	144.92	153.09	-8.17	
	03/24/11	144.92	147.05	-2.13	
	03/25/11	144.92	146.74	-1.82	
	06/20/11	144.92	142.83	2.09	
	08/01/11	144.92	141.00	3.92	
	08/05/11	144.92	140.61	4.31	
	10/31/11	144.92	138.25	6.67	
	02/06/12	144.92	133.38	11.54	
	05/07/12	144.92	125.83	19.09	
	08/06/12	144.95	124.70	20.25	
	11/05/12	144.95	130.04	14.91	
	02/04/13	144.95	130.76	14.19	
	05/13/13	144.95	128.03	16.92	
	08/12/13	144.95	134.30	10.65	
	11/11/13	144.95	140.15	4.80	
	02/03/14	144.95	140.93	4.02	
MW-16	11/09/99	164.08	170.71	-6.63	
	11/09/99	164.08	170.84	-6.76	
	11/10/99	164.08	171.00	-6.92	
	11/10/99	164.08	174.01	-9.93	
	11/22/99	164.08	163.94	0.14	
	11/23/99	164.08	164.17	-0.09	
	12/06/99	164.08	164.36	-0.28	
	12/07/99	164.08	164.32	-0.24	
	12/07/99	164.08	172.50	-8.42	
	02/07/00	164.08	162.75	1.33	
	02/18/00	164.08	162.36	1.72	
	06/21/00	164.08	160.66	3.42	
	07/05/00	164.08	161.62	2.46	
	07/06/00	164.08	161.62	2.46	

TABLE 3
GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bsl)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-16	01/16/01	146.18	148.73	-2.55	
(Cont'd)	03/19/01	146.18	146.47	-0.29	
	03/26/01	146.18	146.07	0.11	
	04/03/01	146.18	145.80	0.38	
	04/10/01	146.18	145.50	0.68	
	04/17/01	146.18	145.20	0.98	
	04/26/01	146.18	145.50	0.68	
	05/10/01	146.18	144.70	1.48	
	06/26/01	146.18	149.09	-2.91	
	10/24/01	146.26	151.72	-5.46	
	01/15/02	142.73	148.36	-5.63	
	03/19/02	142.73	145.53	-2.80	
	04/15/02	142.73	145.24	-2.51	
	10/31/02	142.73	149.95	-7.22	
	11/18/02	142.73	147.11	-4.38	
	01/17/03	142.73	133.43	9.30	
	01/17/03	142.73	133.44	9.29	
	05/08/03	142.73	142.24	0.49	
	06/09/03	142.73	145.96	-3.23	
	09/15/03	142.73	150.25	-7.52	
	09/19/03	142.73	150.32	-7.59	
	09/24/03	142.73	150.37	-7.64	
	09/25/03	142.73	150.26	-7.53	
	10/14/03	142.73	149.51	-6.78	
	12/02/03	142.73	143.81	-1.08	
	12/03/03	142.73	143.52	-0.79	
	12/15/03	142.73	141.50	1.23	
	03/29/04	142.73	129.17	13.56	
	04/29/04	142.73	128.89	13.84	
	06/14/04	142.73	134.28	8.45	
	09/20/04	142.73	146.47	-3.74	
	10/19/04	142.73	146.25	-3.52	
	11/10/04	142.73	144.36	-1.63	
	12/06/04	142.73	141.31	1.42	
	03/14/05	142.73	127.49	15.24	
	06/20/05	142.73	132.93	9.80	
	07/13/05	142.73	130.66	12.07	
	09/19/05	142.73	140.08	2.65	
	09/21/05	142.73	140.27	2.46	
	12/17/05	142.73	119.28	23.45	
	12/19/05	142.73	118.95	23.78	
	03/20/06	142.73	112.82	29.91	
	06/19/06	142.73	108.54	34.19	
	09/25/06	142.73	118.38	24.35	
	10/05/06	142.73	118.60	24.13	
	12/11/06	142.73	116.26	26.47	
	03/12/07	142.73	122.91	19.82	
	06/18/07	142.73	123.16	19.57	
	09/24/07	142.73	153.25	-10.52	
	12/10/07	142.73	150.10	-7.37	
	12/20/07	142.73	150.49	-7.76	
	03/17/08	142.73	150.44	-7.71	
	06/23/08	142.73	152.46	-9.73	
	07/11/08	142.73	153.82	-11.09	
	07/14/08	142.73	153.73	-11.00	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-16	07/15/08	142.73	153.81	-11.08	
(Cont'd)	07/30/08	142.73	155.17	-12.44	
	09/22/08	142.73	159.91	-17.18	
	10/22/08	142.73	162.00	-19.27	
	12/15/08	142.73	164.63	-21.90	
	12/19/08	142.73	164.07	-21.34	
	02/25/09	142.73	159.44	-16.71	
	03/16/09	142.73	159.56	-16.83	
	03/18/09	142.73	160.35	-17.62	
	04/29/09	142.73	154.63	-11.90	
	04/29/09	142.73	154.68	-11.95	
	05/27/09	142.73	156.56	-13.83	
	06/22/09	142.73	157.90	-15.17	
	06/26/09	142.73	158.59	-15.86	
	08/31/09	142.73	160.61	-17.88	
	09/10/09	142.73	161.06	-18.33	
	10/23/09	142.73	158.83	-16.10	
	10/30/09	142.73	157.98	-15.25	
	11/04/09	142.73	157.58	-14.85	
	12/07/09	142.73	156.03	-13.30	
	01/19/10	142.73	154.70	-11.97	
	03/01/10	142.73	149.08	-6.35	
	03/03/10	142.73	148.71	-5.98	
	06/07/10	142.73	144.31	-1.58	
	09/07/10	142.73	151.63	-8.90	
	12/06/10	142.73	150.27	-7.54	
	03/24/11	142.73	134.07	8.66	
	06/20/11	142.73	129.99	12.74	
	08/01/11	142.73	130.92	11.81	
	08/05/11	142.73	131.23	11.50	
	10/31/11	142.73	128.83	13.90	
	02/06/12	142.73	121.44	21.29	
	05/07/12	142.73	115.07	27.66	
	08/06/12	142.40	127.03	15.37	
	11/05/12	142.40	137.88	4.52	
	12/10/12	142.40	134.83	7.57	
	02/04/13	142.40	130.18	12.22	
	05/13/13	142.40	128.52	13.88	
	08/12/13	142.40	147.17	-4.77	
	11/11/13	142.40	148.83	-6.43	
	02/03/14	142.40	140.85	1.55	
MW-17	06/21/00	158.77	163.65	-4.88	
	07/05/00	158.77	166.30	-7.53	
	01/16/01	145.28	154.14	-8.86	
	03/19/01	145.28	148.20	-2.92	
	03/26/01	145.28	147.96	-2.68	
	04/03/01	145.28	148.00	-2.72	
	04/10/01	145.28	147.80	-2.52	
	04/17/01	145.28	147.70	-2.42	
	04/26/01	145.28	147.90	-2.62	
	05/08/01	145.28	148.34	-3.06	
	06/26/01	145.28	152.88	-7.60	
	09/10/01	142.49	159.11	-16.62	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-17	10/22/01	142.49	162.45	-19.96	
(Cont'd)	10/24/01	142.49	162.52	-20.03	
	01/15/02	142.49	150.30	-7.81	
	03/19/02	142.49	146.31	-3.82	
	04/15/02	142.49	146.92	-4.43	
	11/18/02	142.49	145.21	-2.72	
	05/08/03	142.49	142.77	-0.28	
	06/09/03	142.49	146.12	-3.63	
	09/15/03	142.66	151.61	-8.95	
	10/14/03	142.66	152.31	-9.65	
	12/02/03	142.66	141.10	1.56	
	12/15/03	142.66	138.77	3.89	
	03/29/04	142.66	128.10	14.56	
	06/14/04	142.66	135.02	7.64	
	09/20/04	142.66	145.34	-2.68	
	10/19/04	142.66	144.94	-2.28	
	11/10/04	142.66	142.71	-0.05	
	12/06/04	142.66	138.67	3.99	
	03/14/05	142.66	125.49	17.17	
	06/20/05	142.66	132.60	10.06	
	09/19/05	142.66	137.49	5.17	
	12/17/05	142.66	116.68	25.98	
	03/20/06	142.66	113.20	29.46	
	06/19/06	142.66	108.97	33.69	
	09/25/06	142.66	116.20	26.46	
	12/12/06	142.66	113.17	29.49	
	03/12/07	142.66	117.46	25.20	
	06/18/07	142.66	129.43	13.23	
	09/24/07	142.66	149.29	-6.63	
	12/10/07	142.66	154.89	-12.23	
	03/17/08	142.66	149.19	-6.53	
	06/23/08	142.66	154.35	-11.69	
	09/22/08	142.66	162.79	-20.13	
	12/15/08	142.66	162.89	-20.23	
	03/16/09	142.66	151.39	-8.73	
	06/22/09	142.66	152.09	-9.43	
	08/31/09	142.66	156.35	-13.69	
	12/07/09	142.66	150.10	-7.44	
	03/01/10	142.66	145.46	-2.80	
	06/07/10	142.66	139.06	3.60	
	09/08/10	142.66	145.75	-3.09	
	12/06/10	142.66	143.89	-1.23	
	03/24/11	142.66	128.87	13.79	
	06/20/11	142.66	125.84	16.82	
	08/01/11	142.66	127.11	15.55	
	10/31/11	142.66	124.34	18.32	
	02/06/12	142.66	117.62	25.04	
	05/07/12	142.66	111.26	31.40	
	08/06/12	142.70	123.10	19.60	
	11/05/12	142.70	129.72	12.98	
	02/04/13	142.70	122.55	20.15	
	05/13/13	142.70	122.90	19.80	
	08/12/13	142.70	139.22	3.48	
	11/11/13	142.70	141.18	1.52	
	02/03/14	142.70	132.71	9.99	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-18	06/15/00	161.51	166.05	-4.54	
	06/21/00	161.51	167.18	-5.67	
	07/05/00	161.51	169.55	-8.04	
	01/16/01	144.03	153.83	-9.80	
	03/19/01	144.03	147.97	-3.94	
	03/26/01	144.03	147.72	-3.69	
	04/03/01	144.03	147.70	-3.67	
	04/10/01	144.03	147.40	-3.37	
	04/17/01	144.03	147.30	-3.27	
	04/26/01	144.03	147.60	-3.57	
	05/07/01	144.03	148.07	-4.04	
	06/26/01	144.03	152.56	-8.53	
	09/10/01	142.11	159.63	-17.52	
	10/22/01	142.11	162.83	-20.72	
	10/24/01	142.11	162.88	-20.77	
	01/15/02	142.11	150.89	-8.78	
	01/15/02	142.11	150.84	-8.73	
	03/19/02	142.11	146.87	-4.76	
	04/15/02	142.11	147.46	-5.35	
	10/31/02	142.11	151.28	-9.17	
	10/31/02	142.11	151.24	-9.13	
	11/07/02	142.11	149.20	-7.09	
	11/07/02	142.11	149.17	-7.06	
	11/18/02	142.11	145.66	-3.55	
	01/17/03	142.11	131.07	11.04	
	05/08/03	142.11	143.19	-1.08	
	06/09/03	142.11	146.59	-4.48	
	09/15/03	142.11	151.93	-9.82	
	10/14/03	142.11	152.61	-10.50	
	12/02/03	142.11	141.26	0.85	
	12/03/03	142.11	141.04	1.07	
	12/15/03	142.11	138.95	3.16	
	03/29/04	142.11	128.16	13.95	
	04/29/04	142.11	128.60	13.51	
	06/14/04	142.11	135.03	7.08	
	09/20/04	142.11	145.41	-3.30	
	10/19/04	142.11	145.00	-2.89	
	11/10/04	142.11	142.82	-0.71	
	12/06/04	142.11	138.22	3.89	
	03/14/05	142.11	125.47	16.64	
	06/20/05	142.11	131.58	10.53	
	07/13/05	142.11	128.64	13.47	
	09/19/05	142.11	137.61	4.50	
	09/21/05	142.11	137.79	4.32	
	12/17/05	142.11	116.61	25.50	
	02/24/06	142.11	108.75	33.36	
	03/20/06	142.11	112.98	29.13	
	05/18/06	142.11	106.02	36.09	
	06/19/06	142.11	108.73	33.38	
	09/25/06	142.11	116.04	26.07	
	12/12/06	142.11	112.97	29.14	
	03/12/07	142.11	117.39	24.72	
	06/18/07	142.11	129.43	12.68	
	09/24/07	142.11	149.48	-7.37	
	12/10/07	142.11	155.01	-12.90	

TABLE 3
GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-18	03/17/08	142.11	149.46	-7.35	
(Cont'd)	06/23/08	142.11	154.58	-12.47	
	09/22/08	142.11	162.96	-20.85	
	12/15/08	142.11	163.14	-21.03	
	03/16/09	142.11	151.76	-9.65	
	06/22/09	142.11	152.37	-10.26	
	08/31/09	142.11	156.67	-14.56	
	12/07/09	142.11	150.40	-8.29	
	03/01/10	142.11	145.68	-3.57	
	06/07/10	142.11	139.22	2.89	
	09/07/10	142.11	145.91	-3.80	
	12/06/10	142.11	144.09	-1.98	
	03/24/11	142.11	128.91	13.20	
	06/20/11	142.11	125.82	16.29	
	08/01/11	142.11	127.20	14.91	
	10/31/11	142.11	124.44	17.67	
	02/06/12	142.11	117.59	24.52	
	05/07/12	142.11	111.11	31.00	
	08/06/12	142.32	123.10	19.22	
	11/05/12	142.32	129.95	12.37	
	02/04/13	142.32	122.75	19.57	
	05/13/13	142.32	123.11	19.21	
	08/12/13	142.32	139.59	2.73	
	11/11/13	142.32	141.50	0.82	
	02/03/14	142.32	132.93	9.39	
MW-19	06/14/00	156.43	160.16	-3.73	
	06/21/00	156.43	161.53	-5.10	
	07/05/00	156.43	164.21	-7.78	
	01/16/01	145.28	UTM	--	
	03/19/01	145.28	UTM	--	
	05/08/01	145.28	148.50	-3.22	
	06/26/01	145.28	153.11	-7.83	
	09/10/01	142.55	159.50	-16.95	
	10/22/01	142.55	162.99	-20.44	
	10/24/01	142.55	162.98	-20.43	
	01/15/02	142.55	150.68	-8.13	
	03/19/02	142.55	146.60	-4.05	
	04/15/02	142.55	147.21	-4.66	
	11/18/02	142.55	145.68	-3.13	
	05/08/03	142.55	143.03	-0.48	
	06/09/03	142.55	146.39	-3.84	
	09/15/03	142.55	151.75	-9.20	
	09/19/03	142.55	151.85	-9.30	
	10/14/03	142.55	152.45	-9.90	
	12/02/03	142.55	141.40	1.15	
	12/15/03	142.72	139.07	3.65	
	03/29/04	142.72	128.10	14.62	
	06/14/04	142.72	135.09	7.63	
	09/20/04	142.72	145.55	-2.83	
	10/19/04	142.72	145.20	-2.48	
	11/10/04	142.72	142.94	-0.22	
	12/06/04	142.72	138.87	3.85	
	03/14/05	142.72	125.50	17.22	
	06/20/05	142.72	131.63	11.09	

TABLE 3
GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point	Depth to Water	Water Level	Remediation System On
		Elevation (a) (feet msl)	(feet bls)	Elevation (feet msl)	
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-19	09/19/05	142.72	137.49	5.23	
(Cont'd)	12/17/05	142.72	116.59	26.13	
	03/20/06	142.72	112.71	30.01	
	06/19/06	142.72	108.71	34.01	
	09/25/06	142.72	116.10	26.62	
	12/12/06	142.72	113.00	29.72	
	03/12/07	142.72	117.20	25.52	
	06/18/07	142.72	129.32	13.40	
	09/24/07	142.72	149.46	-6.74	
	12/10/07	142.72	155.15	-12.43	
	03/17/08	142.72	149.35	-6.63	
	06/23/08	142.72	154.47	-11.75	
	09/22/08	142.72	163.03	-20.31	
	12/15/08	142.72	163.18	-20.46	
	03/16/09	142.72	151.68	-8.96	
	06/22/09	142.72	152.41	-9.69	
	08/31/09	142.72	156.69	-13.97	
	12/07/09	142.72	150.42	-7.70	
	03/01/10	142.72	145.73	-3.01	
	06/07/10	142.72	139.20	3.52	
	09/08/10	142.72	145.97	-3.25	
	12/06/10	142.72	144.11	-1.39	
	03/24/11	142.72	128.79	13.93	
	06/20/11	142.72	125.82	16.90	
	08/01/11	142.72	127.06	15.66	
	10/31/11	142.72	124.19	18.53	
	02/06/12	142.72	117.41	25.31	
	05/07/12	142.72	111.03	31.69	
	08/06/12	142.06	122.99	19.07	
	11/05/12	142.06	129.73	12.33	
	02/04/13	142.06	122.49	19.57	
	05/13/13	142.06	122.76	19.30	
	08/12/13	142.06	139.28	2.78	
	11/11/13	142.06	141.43	0.63	
	02/03/14	142.06	132.91	9.15	
MW-20	06/30/03	184.19	168.22	15.97	
	09/15/03	184.19	171.58	12.61	
	09/23/03	184.19	171.95	12.24	
	10/08/03	184.19	172.43	11.76	
	10/14/03	184.19	172.83	11.36	
	12/15/03	184.19	172.34	11.85	
	03/29/04	184.19	163.81	20.38	
	06/14/04	184.19	165.21	18.98	
	09/20/04	184.19	174.15	10.04	
	11/10/04	184.19	176.60	7.59	
	12/06/04	184.19	175.49	8.70	
	03/14/05	184.19	165.05	19.14	
	06/20/05	184.19	158.60	25.59	
	09/19/05	184.19	160.38	23.81	
	12/17/05	184.19	153.77	30.42	
	03/20/06	184.19	144.52	39.67	
	06/19/06	184.19	142.00	42.19	
	09/25/06	184.19	149.33	34.86	

TABLE 3
GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-20	12/12/06	184.19	148.77	35.42	
(Con't)	03/12/07	184.19	146.04	38.15	
	06/18/07	184.19	150.00	34.19	
	09/24/07	184.19	166.46	17.73	
	12/10/07	184.19	176.76	7.43	
	03/17/08	184.19	177.00	7.19	
	06/23/08	184.19	176.53	7.66	
	09/22/08	184.19	182.60	1.59	
	12/15/08	184.19	185.69	-1.50	
	03/16/09	184.19	184.62	-0.43	
	06/22/09	184.19	182.07	2.12	
	08/31/09	184.19	183.50	0.69	
	12/07/09	184.19	184.31	-0.12	
	03/01/10	184.19	180.87	3.32	
	06/07/10	184.19	174.32	9.87	
	09/07/10	184.19	175.17	9.02	
	12/06/10	184.19	174.53	9.66	
	03/24/11	184.19	165.49	18.70	
	06/20/11	184.19	160.68	23.51	
	08/01/11	184.19	156.84	27.35	
	10/31/11	184.19	149.75	34.44	
	02/06/12	184.19	145.82	38.37	
	05/07/12	184.19	144.24	39.95	
	08/06/12	184.19	148.35	35.84	
	11/05/12	184.19	155.69	28.50	
	02/04/13	184.19	153.17	31.02	
	05/13/13	184.19	152.17	32.02	
	08/12/13	184.19	160.23	23.96	
	11/11/13	184.19	169.35	14.84	
	02/03/14	184.19	168.83	15.36	
MW-21	09/15/03	142.68	146.34	-3.66	
	09/19/03	142.68	146.53	-3.85	
	09/23/03	142.68	146.75	-4.07	
	09/25/03	142.68	147.05	-4.37	
	10/08/03	142.68	147.31	-4.63	
	10/14/03	142.68	147.72	-5.04	
	12/02/03	142.68	142.95	-0.27	
	12/03/03	142.68	142.65	0.03	
	12/15/03	142.68	141.34	1.34	
	03/29/04	142.68	130.83	11.85	
	04/29/04	142.68	129.48	13.20	
	06/14/04	142.68	131.21	11.47	
	09/20/04	142.68	138.15	4.53	
	10/19/04	142.68	138.75	3.93	
	11/10/04	142.68	138.82	3.86	
	12/06/04	142.68	137.64	5.04	
	03/14/05	142.68	128.64	14.04	
	06/20/05	142.68	127.83	14.85	
	07/13/05	142.68	126.82	15.86	
	09/19/05	142.68	131.31	11.37	
	09/21/05	142.68	131.51	11.17	
	12/17/05	142.68	120.26	22.42	
	12/19/05	142.68	120.13	22.55	
	03/20/06	142.68	113.24	29.44	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-21	06/19/06	142.68	107.60	35.08	
(Cont'd)	09/25/06	142.68	111.36	31.32	
	10/05/06	142.68	111.45	31.23	
	12/11/06	142.68	110.57	32.11	
	03/12/07	142.68	114.18	28.50	
	06/18/07	142.68	120.04	22.64	
	09/24/07	142.68	135.85	6.83	
	12/10/07	142.68	146.37	-3.69	
	01/21/08	142.68	148.51	-5.83	
	01/21/08	140.30	148.51	-8.2	
	03/17/08	140.30	146.90	-6.6	
	05/27/08	141.23	148.71	-7.48	Pilot GETS
	06/23/08	141.23	150.40	-9.17	
	07/09/08	141.18	160.02	-18.84	
	07/11/08	141.18	153.31	-12.13	Pilot GETS
	07/14/08	141.18	152.84	-11.66	Pilot GETS
	07/15/08	141.18	161.98	-20.8	Pilot GETS
	07/30/08	141.18	162.93	-21.75	Pilot GETS
	08/14/08	141.18	165.94	-24.76	Pilot GETS
	08/25/08	141.18	167.47	-26.29	
	09/22/08	141.18	170.65	-29.47	
	10/22/08	141.18	172.35	-31.17	
	12/15/08	141.18	168.21	-27.03	
	12/19/08	141.18	166.50	-25.32	Pilot GETS
	01/07/09	141.18	161.36	-20.18	Pilot GETS
	02/25/09	141.18	165.74	-24.56	Pilot GETS
	03/16/09	141.18	166.33	-25.15	
	03/18/09	141.18	164.52	-23.34	Pilot GETS
	04/29/09	141.18	156.91	-15.73	Pilot GETS
	04/29/09	141.18	162.95	-21.77	Pilot GETS
	05/27/09	141.18	162.71	-21.53	Pilot GETS
	06/22/09	141.18	163.25	-22.07	Pilot GETS
	06/26/09	141.18	163.49	-22.31	Pilot GETS
	06/29/09	141.18	163.93	-22.75	Pilot GETS
	07/22/09	141.18	166.47	-25.29	Pilot GETS
	08/14/09	141.18	170.24	-29.06	Pilot GETS
	08/31/09	141.18	166.80	-25.62	Pilot GETS
	09/10/09	141.18	168.29	-27.11	Pilot GETS
	09/11/09	141.18	167.13	-25.95	Pilot GETS
	10/08/09	141.18	166.65	-25.47	
	10/23/09	141.18	155.98	-14.80	
	10/30/09	141.18	154.90	-13.72	
	11/04/09	141.18	154.08	-12.90	
	12/07/09	141.18	150.92	-9.74	
	12/09/09	141.18	155.00	-13.82	
	03/01/10	141.18	144.78	-3.60	
	03/05/10	141.18	156.41	-15.23	
	06/07/10	141.18	137.88	3.30	
	09/07/10	141.18	139.87	1.31	
	12/06/10	141.18	141.05	0.13	
	03/24/11	141.18	129.59	11.59	
	06/20/11	141.18	124.57	16.61	
	08/01/11	141.18	123.72	17.46	
	08/05/11	141.18	123.64	17.54	
	10/14/11	141.18	120.69	20.49	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-21	10/31/11	141.18	120.89	20.29	Pilot GETS
(Cont'd)	12/08/11	141.18	131.77	9.41	Pilot GETS
	01/05/12	141.18	133.06	8.12	Pilot GETS
	01/06/12	141.18	133.19	7.99	Pilot GETS
	01/25/12	141.18	132.89	8.29	Pilot GETS
	02/06/12	141.18	132.30	8.88	Pilot GETS
	02/08/12	141.18	132.93	8.25	Pilot GETS
	03/09/12	141.18	131.41	9.77	Pilot GETS
	04/02/12	141.18	114.08	27.10	
	05/07/12	141.18	111.08	30.10	
	06/26/12	141.18	111.62	29.56	
	08/06/12	141.18	115.74	25.44	
	11/05/12	141.18	122.76	18.42	
	02/04/13	141.18	120.81	20.37	
	05/13/13	141.18	119.39	21.79	
	08/12/13	141.18	129.76	11.42	
	11/11/13	141.18	136.24	4.94	
	02/03/14	141.18	132.53	8.65	
MW-22	09/15/03	138.65	147.40	-8.75	
	09/15/03	138.65	148.23	-9.58	
	09/19/03	138.65	147.65	-9.00	
	09/23/03	138.65	147.77	-9.12	
	09/25/03	138.65	147.92	-9.27	
	10/08/03	138.65	148.08	-9.43	
	10/14/03	138.65	148.24	-9.59	
	12/02/03	138.65	136.80	1.85	
	12/03/03	138.65	136.56	2.09	
	12/15/03	138.65	134.47	4.18	
	03/29/04	138.65	123.84	14.81	
	04/29/04	138.65	124.38	14.27	
	06/14/04	138.65	130.80	7.85	
	09/20/04	138.65	141.03	-2.38	
	10/19/04	138.65	140.81	-2.16	
	11/10/04	138.65	138.43	0.22	
	12/06/04	138.65	134.38	4.27	
	03/14/05	138.65	121.17	17.48	
	06/20/05	138.65	127.33	11.32	
	07/13/05	138.65	124.37	14.28	
	09/19/05	138.65	133.55	5.10	
	09/21/05	138.65	133.66	4.99	
	12/17/05	138.65	112.37	26.28	
	03/20/06	138.65	109.01	29.64	
	06/19/06	138.65	104.82	33.83	
	09/25/06	138.65	112.02	26.63	
	12/12/06	138.65	108.93	29.72	
	03/12/07	138.65	113.44	25.21	
	06/18/07	138.65	125.49	13.16	
	09/24/07	138.65	145.19	-6.54	
	12/10/07	138.65	150.68	-12.03	
	12/20/07	138.65	150.54	-11.89	
	01/21/08	138.65	148.35	-9.70	
	03/17/08	138.65	145.11	-6.46	
	04/21/08	138.65	145.53	-6.88	
	05/27/08	138.65	148.00	-9.35	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-22	06/23/08	138.65	150.29	-11.64	
(Cont'd)	09/22/08	138.65	158.69	-20.04	
	12/15/08	138.65	158.75	-20.10	
	03/16/09	138.65	147.07	-8.42	
	06/22/09	138.65	147.84	-9.19	
	08/31/09	138.65	152.10	-13.45	
	12/07/09	138.65	145.84	-7.19	
	03/01/10	138.65	141.12	-2.47	
	03/02/10	138.65	140.97	-2.32	
	06/07/10	138.65	134.83	3.82	
	09/07/10	138.65	141.49	-2.84	
	12/06/10	138.65	139.63	-0.98	
	03/25/11	138.65	124.60	14.05	
	06/20/11	138.65	121.60	17.05	
	08/01/11	138.65	123.01	15.64	
	10/31/11	138.65	120.38	18.27	
	02/06/12	138.65	113.56	25.09	
	05/07/12	138.65	107.13	31.52	
	08/06/12	138.65	119.55	19.10	
	11/05/12	138.65	126.01	12.64	
	02/04/13	138.65	118.83	19.82	
	05/13/13	138.65	119.39	19.26	
	08/12/13	138.65	135.75	2.90	
	11/11/13	138.65	137.31	1.34	
	02/03/14	138.65	128.85	9.80	
MW-23	09/15/03	137.16	147.30	-10.14	
	09/19/03	137.33	147.75	-10.42	
	09/23/03	137.33	147.75	-10.42	
	09/25/03	137.33	147.87	-10.54	
	10/08/03	137.33	148.09	-10.76	
	10/14/03	137.33	148.21	-10.88	
	12/02/03	137.33	136.17	1.16	
	12/15/03	137.33	133.83	3.50	
	03/29/04	137.33	123.30	14.03	
	04/29/04	137.33	123.77	13.56	
	06/14/04	137.33	130.20	7.13	
	09/20/04	137.33	140.19	-2.86	
	10/19/04	137.33	UTM	--	
	11/10/04	137.33	137.76	-0.43	
	12/06/04	137.33	133.56	3.77	
	03/14/05	137.33	120.52	16.81	
	06/20/05	137.33	127.18	10.15	
	07/13/05	137.33	123.89	13.44	
	09/19/05	137.33	133.50	3.83	
	09/21/05	137.33	133.67	3.66	
	12/17/05	137.33	111.74	25.59	
	12/19/05	137.33	111.45	25.88	
	03/20/06	137.33	108.90	28.43	
	05/18/06	137.33	101.55	35.78	
	06/19/06	137.33	104.32	33.01	
	09/25/06	137.33	111.42	25.91	
	12/12/06	137.33	108.30	29.03	
	03/12/07	137.33	113.48	23.85	
	06/18/07	137.33	125.48	11.85	

TABLE 3
GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point	Depth to Water	Water Level	Remediation System On
		Elevation (a) (feet msl)	(feet bls)	Elevation (feet msl)	
Regional Groundwater System Monitor and Extraction Wells (continued)					
MW-23	09/24/07	137.33	144.94	-7.61	
(Cont'd)	12/10/07	137.33	150.40	-13.07	
	12/20/07	137.33	150.23	-12.90	
	03/17/08	137.33	145.00	-7.67	
	04/21/08	137.33	145.50	-8.17	
	06/23/08	137.33	150.33	-13.00	
	08/26/08	137.33	166.71	-29.38	
	09/22/08	137.33	158.58	-21.25	
	12/15/08	137.33	158.48	-21.15	
	03/16/09	137.33	146.43	-9.10	
	06/23/09	137.33	147.50	-10.17	
	08/31/09	137.33	151.58	-14.25	
	10/23/09	137.33	148.44	-11.11	
	10/30/09	137.33	147.82	-10.49	
	11/04/09	137.33	147.40	-10.07	
	12/07/09	137.33	145.18	-7.85	
	03/01/10	137.33	140.52	-3.19	
	03/02/10	137.33	140.20	-2.87	
	06/07/10	137.33	134.30	3.03	
	09/07/10	137.33	140.90	-3.57	
	12/06/10	137.33	139.15	-1.82	
	03/15/11	137.33	123.40	13.93	
	03/24/11	137.33	124.57	12.76	
	06/20/11	137.33	121.15	16.18	
	08/01/11	137.33	122.97	14.36	
	08/05/11	137.33	123.90	13.43	
	10/31/11	137.33	120.60	16.73	
	01/13/12	137.33	114.41	22.92	
	01/26/12	137.33	113.42	23.91	
	02/06/12	137.33	113.49	23.84	
	05/07/12	137.33	106.79	30.54	
	06/08/12	137.33	112.15	25.18	
	06/26/12	137.33	111.39	25.94	
	08/06/12	137.33	119.31	18.02	
	11/05/12	137.33	125.95	11.38	
	02/04/13	137.33	118.72	18.61	
	05/13/13	137.33	119.47	17.86	
	08/12/13	137.33	135.83	1.50	
	09/18/13	137.33	140.36	-3.03	
	11/11/13	137.33	136.76	0.57	
	02/03/14	137.33	128.32	9.01	
MW-24	09/23/04	142.83	139.35	3.48	
	10/19/04	142.83	141.09	1.74	
	11/10/04	142.83	140.60	2.23	
	12/06/04	142.83	139.34	3.49	
	03/14/05	142.83	129.12	13.71	
	06/20/05	142.83	124.62	18.21	
	07/13/05	142.83	124.60	18.23	
	09/19/05	142.83	127.51	15.32	
	09/21/05	142.83	127.00	15.83	
	12/17/05	142.83	118.37	24.46	
	12/19/05	142.83	118.32	24.51	
	03/20/06	142.83	109.25	33.58	
	06/19/06	142.83	107.30	35.53	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-24	09/25/06	142.83	115.04	27.79	
(Cont'd)	10/05/06	142.83	115.35	27.48	
	12/11/06	142.83	113.61	29.22	
	03/12/07	142.83	111.60	31.23	
	06/18/07	142.83	118.08	24.75	
	09/24/07	142.83	135.15	7.68	
	12/10/07	142.83	143.56	-0.73	
	03/17/08	142.83	143.70	-0.87	
	06/23/08	142.83	145.17	-2.34	
	07/11/08	142.83	146.50	-3.67	
	07/14/08	142.83	146.72	-3.89	
	07/15/08	142.83	146.84	-4.01	
	09/22/08	142.83	151.29	-8.46	
	10/22/08	142.83	152.72	-9.89	
	12/15/08	142.83	154.29	-11.46	
	12/19/08	142.83	154.81	-11.98	
	02/25/09	142.83	153.94	-11.11	
	03/16/09	142.83	152.94	-10.11	
	03/18/09	142.83	152.55	-9.72	
	05/27/09	142.83	150.38	-7.55	
	06/22/09	142.83	150.37	-7.54	
	06/26/09	142.83	150.42	-7.59	
	08/31/09	142.83	152.31	-9.48	
	09/10/09	142.83	152.59	-9.76	
	12/07/09	142.83	152.04	-9.21	
	02/10/10	142.83	149.58	-6.75	
	02/12/10	142.83	149.53	-6.70	
	03/01/10	142.83	148.54	-5.71	
	03/03/10	142.83	148.32	-5.49	
	06/07/10	142.83	142.20	0.63	
	09/07/10	142.83	143.41	-0.58	
	12/06/10	142.83	142.45	0.38	
	03/24/11	142.83	132.13	10.70	
	06/20/11	142.83	127.36	15.47	
	08/01/11	142.83	124.12	18.71	
	08/05/11	142.83	123.84	18.99	
	10/31/11	142.83	117.61	25.22	
	02/06/12	142.83	112.65	30.18	
	05/07/12	142.83	110.05	32.78	
	06/26/12	142.83	111.97	30.86	
	08/06/12	142.83	115.85	26.98	
	11/05/12	142.83	123.08	19.75	
	12/10/12	142.83	122.41	20.42	
	02/04/13	142.83	119.55	23.28	
	05/13/13	142.83	116.68	26.15	
	08/12/13	142.83	128.32	14.51	
	09/18/13	142.83	132.62	10.21	
	11/11/13	142.83	136.09	6.74	
	02/03/14	142.83	134.50	8.33	
MW-25	09/20/04	142.64	152.87	-10.23	
	10/19/04	142.64	145.96	-3.32	
	11/10/04	142.64	143.60	-0.96	
	12/06/04	142.64	140.84	1.80	
	03/14/05	142.64	129.79	12.85	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-25	06/20/05	142.64	125.06	17.58	
(Cont'd)	07/13/05	142.64	122.98	19.66	
	09/19/05	142.64	126.64	16.00	
	09/21/05	142.64	127.57	15.07	
	12/17/05	142.64	115.32	27.32	
	12/19/05	142.64	114.25	28.39	
	03/20/06	142.64	107.47	35.17	
	06/19/06	142.64	106.28	36.36	
	09/25/06	142.64	114.63	28.01	
	10/05/06	142.64	117.63	25.01	
	12/12/06	142.64	113.90	28.74	
	03/12/07	142.64	111.03	31.61	
	06/18/07	142.64	118.13	24.51	
	09/24/07	142.64	137.17	5.47	
	12/10/07	142.64	148.21	-5.57	
	12/20/07	142.64	151.34	-8.70	
	03/17/08	142.64	146.31	-3.67	
	06/23/08	142.64	147.94	-5.30	
	09/22/08	142.64	157.18	-14.54	
	10/22/08	142.64	158.43	-15.79	
	12/15/08	142.64	158.84	-16.20	
	12/19/08	142.64	158.79	-16.15	
	02/25/09	142.64	155.58	-12.94	
	03/16/09	142.64	153.43	-10.79	
	03/18/09	142.64	154.82	-12.18	
	05/27/09	142.64	150.45	-7.81	
	06/22/09	142.64	150.68	-8.04	
	06/26/09	142.64	151.00	-8.36	
	08/31/09	142.64	154.61	-11.97	
	09/10/09	142.64	154.66	-12.02	
	12/07/09	142.64	153.57	-10.93	
	03/01/10	142.64	146.59	-3.95	
	06/07/10	142.64	140.30	2.34	
	09/07/10	142.64	144.61	-1.97	
	12/06/10	142.64	141.89	0.75	
	03/24/11	142.64	125.44	17.20	
	06/20/11	142.64	125.12	17.52	
	08/01/11	142.64	120.05	22.59	
	10/31/11	142.64	113.28	29.36	
	02/06/12	142.64	109.05	33.59	
	05/07/12	142.64	107.92	34.72	
	08/06/12	142.64	140.61	2.03	
	11/05/12	142.64	122.83	19.81	
	02/04/13	142.64	120.54	22.10	
	05/13/13	142.64	118.04	24.60	
	08/12/13	142.64	130.68	11.96	
	11/11/13	142.64	140.56	2.08	
	02/03/14	142.64	136.95	5.69	
MW-26A	10/19/04	137.30	135.45	1.85	
	11/10/04	137.30	135.59	1.71	
	12/06/04	137.30	135.06	2.24	
	03/14/05	137.30	127.74	9.56	
	06/20/05	137.30	125.41	11.89	
	07/13/05	137.30	125.00	12.30	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-26A	09/19/05	137.30	127.22	10.08	
(Cont'd)	09/21/05	137.30	127.31	9.99	
	12/17/05	137.30	121.44	15.86	
	12/19/05	137.30	121.35	15.95	
	02/24/06	137.30	113.15	24.15	
	03/20/06	137.30	112.18	25.12	
	05/18/06	137.30	107.48	29.82	
	06/19/06	137.30	106.50	30.80	
	09/25/06	137.30	108.81	28.49	
	12/12/06	137.30	108.94	28.36	
	03/12/07	137.30	110.51	26.79	
	06/18/07	137.30	115.63	21.67	
	09/24/07	137.30	129.55	7.75	
	12/10/07	137.30	138.57	-1.27	
	12/20/07	137.30	139.55	-2.25	
	12/20/07	137.30	139.52	-2.22	
	01/21/08	137.30	141.21	-3.91	
	03/17/08	137.30	142.09	-4.79	
	04/21/08	137.30	142.34	-5.04	
	05/27/08	137.04	142.91	-5.87	
	06/23/08	137.04	144.94	-7.90	
	08/26/08	137.04	147.75	-10.71	
	09/22/08	137.04	149.54	-12.50	
	12/15/08	137.04	153.18	-16.14	
	03/16/09	137.04	151.38	-14.34	
	06/22/09	137.04	147.67	-10.63	
	08/31/09	137.04	150.21	-13.17	
	10/13/09	137.04	150.44	-13.40	
	10/30/09	137.04	149.92	-12.88	
	12/07/09	137.04	148.20	-11.16	
	03/01/10	137.04	145.68	-8.64	
	03/02/10	137.04	145.53	-8.49	
	03/22/10	137.04	144.06	-7.02	
	06/07/10	137.04	139.28	-2.24	
	09/07/10	137.04	139.18	-2.14	
	12/06/10	137.04	140.17	-3.13	
	03/24/11	137.04	130.88	6.16	
	06/20/11	137.04	126.68	10.36	
	08/01/11	137.04	125.09	11.95	
	10/31/11	137.04	122.65	14.39	
	02/06/12	137.04	117.96	19.08	
	05/07/12	137.04	112.82	24.22	
	08/06/12	137.04	114.42	22.62	
	11/05/12	137.04	120.59	16.45	
	02/04/13	137.04	119.79	17.25	
	05/13/13	137.04	117.02	20.02	
	08/12/13	137.04	125.12	11.92	
	11/11/13	137.04	133.05	3.99	
	02/03/14	137.04	130.15	6.89	
MW-26B	10/19/04	137.20	136.23	0.97	
	11/10/04	137.20	136.16	1.04	
	12/06/04	137.20	136.02	1.18	
	03/14/05	137.20	131.73	5.47	
	06/20/05	137.20	129.29	7.91	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point	Depth to Water	Water Level	Remediation System On
		Elevation (a) (feet msl)	(feet bls)	Elevation (feet msl)	
Regional Groundwater System Monitor and Extraction Wells (continued)					
MW-26B	07/13/05	137.20	129.00	8.20	
(Cont'd)	09/19/05	137.20	129.99	7.21	
	09/21/05	137.20	130.07	7.13	
	12/17/05	137.20	126.53	10.67	
	12/19/05	137.20	126.58	10.62	
	02/24/06	137.20	119.78	17.42	
	03/20/06	137.20	118.22	18.98	
	06/19/06	137.20	110.17	27.03	
	09/25/06	137.20	110.84	26.36	
	10/05/06	137.20	111.20	26.00	
	12/12/06	137.20	111.31	25.89	
	03/12/07	137.20	113.61	23.59	
	06/18/07	137.20	117.50	19.70	
	09/24/07	137.20	127.68	9.52	
	12/10/07	137.20	135.82	1.38	
	12/20/07	137.20	136.85	0.35	
	12/20/07	137.20	136.78	0.42	
	01/21/08	137.20	139.21	-2.01	
	03/17/08	137.20	142.10	-4.90	
	05/27/08	137.05	144.96	-7.91	
	06/23/08	137.05	146.29	-9.24	
	08/26/08	137.05	150.28	-13.23	
	09/22/08	137.05	151.94	-14.89	
	12/15/08	137.05	155.64	-18.59	
	12/19/08	137.05	156.13	-19.08	
	03/16/09	137.05	155.53	-18.48	
	03/18/09	137.05	155.16	-18.11	
	06/22/09	137.05	152.80	-15.75	
	08/31/09	137.05	154.60	-17.55	
	09/10/09	137.05	154.60	-17.55	
	10/13/09	137.05	154.75	-17.70	
	10/14/09	137.05	154.80	-17.75	
	10/30/09	137.05	154.41	-17.36	
	12/07/09	137.05	153.17	-16.12	
	02/10/10	137.05	151.63	-14.58	
	03/01/10	137.05	151.04	-13.99	
	03/02/10	137.05	150.90	-13.85	
	05/07/10	137.05	145.37	-8.32	
	06/07/10	137.05	146.22	-9.17	
	09/07/10	137.05	144.57	-7.52	
	12/06/10	137.05	144.78	-7.73	
	03/24/11	137.05	138.67	-1.62	
	06/20/11	137.05	134.45	2.60	
	08/01/11	137.05	132.83	4.22	
	08/05/11	137.05	132.55	4.50	
	10/31/11	137.05	129.89	7.16	
	02/06/12	137.05	125.63	11.42	
	05/07/12	137.05	120.17	16.88	
	08/06/12	137.05	118.61	18.44	
	11/05/12	137.05	122.68	14.37	
	02/04/13	137.05	123.42	13.63	
	05/13/13	137.05	121.73	15.32	
	08/12/13	137.05	126.75	10.30	
	11/11/13	137.05	133.00	4.05	
	02/03/14	137.05	133.00	4.05	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-26C	10/19/04	137.28	141.81	-4.53	
	11/10/04	137.28	139.83	-2.55	
	12/06/04	137.28	135.90	1.38	
	03/14/05	137.28	121.75	15.53	
	06/20/05	137.28	128.11	9.17	
	07/13/05	137.28	125.75	11.53	
	09/19/05	137.28	137.35	-0.07	
	09/21/05	137.28	137.45	-0.17	
	12/17/05	137.28	112.48	24.80	
	12/19/05	137.28	112.30	24.98	
	03/20/06	137.28	109.21	28.07	
	06/19/06	137.28	104.32	32.96	
	09/25/06	137.28	113.96	23.32	
	10/05/06	137.28	114.08	23.20	
	12/12/06	137.28	111.13	26.15	
	03/12/07	137.28	119.52	17.76	
	06/18/07	137.28	130.71	6.57	
	09/24/07	137.28	153.19	-15.91	
	12/10/07	137.28	160.43	-23.15	
	12/20/07	137.28	160.88	-23.60	
	01/21/08	137.28	157.99	-20.71	
	02/21/08	137.28	155.52	-18.24	
	03/17/08	137.28	154.73	-17.45	
	04/21/08	137.28	155.21	-17.93	
	05/27/08	137.06	158.25	-21.19	
	06/10/08	137.06	159.70	-22.64	
	06/23/08	137.06	161.15	-24.09	
	07/16/08	137.06	164.52	-27.46	
	08/26/08	137.06	169.10	-32.04	
	09/22/08	137.06	170.89	-33.83	
	10/22/08	137.06	171.58	-34.52	
	12/15/08	137.06	169.04	-31.98	
	12/19/08	137.06	169.36	-32.30	
	01/07/09	137.06	163.22	-26.16	
	03/16/09	137.06	153.10	-16.04	
	03/18/09	137.06	152.44	-15.38	
	04/29/09	137.06	148.57	-11.51	
	06/22/09	137.06	152.47	-15.41	
	06/26/09	137.06	155.40	-18.34	
	08/31/09	137.06	158.68	-21.62	
	09/10/09	137.06	161.04	-23.98	
	10/13/09	137.06	156.48	-19.42	
	10/14/09	137.06	156.42	-19.36	
	10/23/09	137.06	154.73	-17.67	
	10/30/09	137.06	154.12	-17.06	
	11/04/09	137.06	153.77	-16.71	
	12/07/09	137.06	150.92	-13.86	
	01/19/10	137.06	149.68	-12.62	
	02/10/10	137.06	145.81	-8.75	
	02/12/10	137.06	145.52	-8.46	
	03/01/10	137.06	143.18	-6.12	
	03/02/10	137.06	143.02	-5.96	
	06/07/10	137.06	140.37	-3.31	
	07/30/10	137.06	144.04	-6.98	
	09/07/10	137.22	147.97	-10.75	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bsl)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-26C	12/06/10	137.22	145.78	-8.56	
(Cont'd)	03/01/11	137.22	128.33	8.89	
	03/24/11	137.22	130.31	6.91	
	03/25/11	137.22	129.76	7.46	
	06/20/11	137.22	125.03	12.19	
	06/23/11	137.22	125.92	11.30	
	08/01/11	137.22	127.39	9.83	
	08/05/11	137.22	127.92	9.30	
	10/31/11	137.22	125.34	11.88	
	11/01/11	137.22	125.37	11.85	
	02/06/12	137.22	117.23	19.99	
	03/09/12	137.22	115.08	22.14	
	05/07/12	137.22	110.60	26.62	
	05/09/12	137.22	110.74	26.48	
	08/06/12	137.22	124.94	12.28	
	11/05/12	137.22	134.41	2.81	
	02/04/13	137.22	126.26	10.96	
	05/13/13	137.22	126.58	10.64	
	08/12/13	137.22	145.20	-7.98	
	09/18/13	137.22	150.32	-13.10	
	11/11/13	137.22	145.09	-7.87	
	02/03/14	137.22	137.00	0.22	
MW-27	05/27/08	137.16	157.80	-20.64	
	06/10/08	137.16	159.22	-22.06	
	06/23/08	137.16	160.75	-23.59	
	07/16/08	137.16	164.03	-26.87	
	08/26/08	137.16	168.65	-31.49	
	09/22/08	137.16	170.52	-33.36	
	10/22/08	137.16	171.19	-34.03	
	12/15/08	137.16	168.92	-31.76	
	12/19/08	137.16	169.05	-31.89	
	01/07/09	137.16	163.06	-25.90	
	03/16/09	137.16	153.24	-16.08	
	03/18/09	137.16	152.49	-15.33	
	04/29/09	137.16	148.59	-11.43	
	06/22/09	137.16	152.42	-15.26	
	06/24/09	137.16	154.08	-16.92	
	08/31/09	137.16	158.65	-21.49	
	09/10/09	137.16	160.81	-23.65	
	10/13/09	137.16	156.43	-19.27	
	10/14/09	137.16	156.35	-19.19	
	10/23/09	137.16	154.73	-17.57	
	10/30/09	137.16	154.10	-16.94	
	11/04/09	137.16	153.77	-16.61	
	12/07/09	137.16	150.98	-13.82	
	01/19/10	137.16	149.60	-12.44	
	03/01/10	137.16	143.25	-6.09	
	03/02/10	137.16	143.05	-5.89	
	06/07/10	137.16	139.74	-2.58	
	07/30/10	137.16	143.73	-6.57	
	09/07/10	137.16	147.75	-10.59	
	12/06/10	137.16	145.39	-8.23	
	03/01/11	137.16	127.65	9.51	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-27	03/24/11	137.16	129.57	7.59	
(Cont'd)	06/20/11	137.16	124.36	12.80	
	08/01/11	137.16	126.64	10.52	
	08/05/11	137.16	127.08	10.08	
	10/31/11	137.16	124.43	12.73	
	02/06/12	137.16	116.35	20.81	
	05/07/12	137.16	110.03	27.13	
	08/06/12	137.16	124.18	12.98	
	11/05/12	137.16	134.75	2.41	
	02/04/13	137.16	125.54	11.62	
	05/13/13	137.16	125.99	11.17	
	07/18/13	137.16	139.72	-2.56	
	07/19/13	137.16	139.21	-2.05	
	08/12/13	137.16	144.52	-7.36	
	11/11/13	137.16	144.52	-7.36	
	02/03/14	137.16	136.72	0.44	
MW-28	05/16/08	140.77	160.41	-19.64	
	05/27/08	140.77	161.69	-20.92	
	06/10/08	140.77	163.08	-22.31	
	06/23/08	140.77	164.55	-23.78	
	07/16/08	140.77	167.88	-27.11	
	08/26/08	140.77	174.46	-33.69	
	09/22/08	140.77	174.45	-33.68	
	10/22/08	140.77	175.11	-34.34	
	12/15/08	140.77	172.87	-32.10	
	12/19/08	140.77	172.97	-32.20	
	01/07/09	140.77	166.82	-26.05	
	03/16/09	140.77	157.25	-16.48	
	03/18/09	140.77	156.45	-15.68	
	04/29/09	140.77	152.49	-11.72	
	06/22/09	140.77	156.45	-15.68	
	06/24/09	140.77	157.74	-16.97	
	08/31/09	140.77	162.68	-21.91	
	09/10/09	140.77	164.54	-23.77	
	10/13/09	140.77	160.35	-19.58	
	10/14/09	140.77	160.32	-19.55	
	10/23/09	140.77	158.57	-17.80	
	10/30/09	140.77	158.02	-17.25	
	11/04/09	140.77	157.61	-16.84	
	12/07/09	140.77	154.74	-13.97	
	01/19/10	140.77	153.63	-12.86	
	03/01/10	140.77	147.29	-6.52	
	03/04/10	140.77	146.78	-6.01	
	03/04/10	140.77	146.80	-6.03	
	06/07/10	140.77	143.98	-3.21	
	07/30/10	140.77	147.43	-6.66	
	09/07/10	140.77	151.67	-10.90	
	12/06/10	140.77	149.96	-9.19	
	03/01/11	140.77	132.48	8.29	
	03/24/11	140.77	133.95	6.82	
	06/20/11	140.77	129.10	11.67	
	08/01/11	140.77	131.02	9.75	
	08/05/11	140.77	131.37	9.40	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-28	10/31/11	140.77	129.07	11.70	
(Cont'd)	02/06/12	140.77	120.98	19.79	
	05/07/12	140.77	114.45	26.32	
	08/06/12	140.77	128.07	12.70	
	11/05/12	140.77	138.26	2.51	
	02/04/13	140.77	130.17	10.60	
	05/13/13	140.77	129.64	11.13	
	08/12/13	140.77	148.39	-7.62	
	11/11/13	140.77	149.28	-8.51	
	02/03/14	140.77	140.85	-0.08	
MW-29	08/15/08	142.21	174.90	-32.69	
	08/19/08	142.21	174.44	-32.23	
	08/26/08	142.21	175.21	-33.00	
	09/22/08	142.21	177.31	-35.10	
	10/22/08	142.21	178.13	-35.92	
	12/15/08	142.34	176.26	-33.92	
	01/07/09	142.34	170.00	-27.66	
	03/16/09	142.34	160.00	-17.66	
	03/18/09	142.34	159.22	-16.88	
	04/29/09	142.34	154.91	-12.57	
	06/22/09	142.34	158.97	-16.63	
	06/24/09	142.34	159.99	-17.65	
	08/31/09	142.34	165.42	-23.08	
	09/10/09	142.34	167.01	-24.67	
	10/13/09	142.34	162.76	-20.42	
	10/14/09	142.34	162.78	-20.44	
	10/23/09	142.34	161.07	-18.73	
	10/30/09	142.34	160.59	-18.25	
	11/04/09	142.34	160.05	-17.71	
	12/07/09	142.34	156.92	-14.58	
	01/19/10	142.34	156.32	-13.98	
	03/01/10	142.34	149.84	-7.50	
	03/04/10	142.34	149.36	-7.02	
	06/07/10	142.34	146.45	-4.11	
	07/30/10	142.34	149.78	-7.44	
	09/07/10	142.34	154.30	-11.96	
	12/06/10	142.34	153.12	-10.78	
	03/01/11	142.34	135.43	6.91	
	03/24/11	142.34	136.86	5.48	
	03/30/11	142.34	135.81	6.53	
	06/20/11	142.34	131.87	10.47	
	08/01/11	142.34	134.23	8.11	
	08/05/11	142.34	134.61	7.73	
	10/31/11	142.34	132.65	9.69	
	02/06/12	142.34	124.12	18.22	
	05/07/12	142.34	117.12	25.22	
	08/06/12	142.34	130.62	11.72	
	11/05/12	142.34	141.32	1.02	
	02/04/13	142.34	133.48	8.86	
	05/13/13	142.34	132.32	10.02	
	08/12/13	142.34	151.61	-9.27	
	11/11/13	142.34	152.45	-10.11	
	02/03/14	142.34	143.46	-1.12	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-30A	12/04/08	129.44	164.15	-34.71	
	12/05/08	129.44	164.29	-34.85	
	12/15/08	129.44	162.77	-33.33	
	12/19/08	129.44	163.02	-33.58	
	01/07/09	129.44	156.65	-27.21	
	03/16/09	129.44	145.68	-16.24	
	03/18/09	129.44	144.93	-15.49	
	04/29/09	129.44	141.29	-11.85	
	06/22/09	129.44	145.32	-15.88	
	06/24/09	129.44	148.04	-18.60	
	08/31/09	129.44	151.45	-22.01	
	09/10/09	129.44	154.83	-25.39	
	10/13/09	129.44	149.24	-19.80	
	10/14/09	129.44	149.22	-19.78	
	10/23/09	129.44	147.49	-18.05	
	10/30/09	129.44	146.87	-17.43	
	11/04/09	129.44	146.56	-17.12	
	12/07/09	129.44	143.60	-14.16	
	01/19/10	129.44	142.52	-13.08	
	03/01/10	129.44	135.95	-6.51	
	03/03/10	129.44	135.69	-6.25	
	03/03/10	129.44	135.65	-6.21	
	06/07/10	129.44	133.44	-4.00	
	07/30/10	129.44	137.11	-7.67	
	09/07/10	129.44	140.90	-11.46	
	12/06/10	129.44	138.63	-9.19	
	03/01/11	129.44	120.97	8.47	
	03/15/11	129.44	123.10	6.34	
	03/24/11	129.44	123.64	5.80	
	06/20/11	129.44	117.99	11.45	
	08/01/11	129.44	121.07	8.37	
	08/05/11	129.44	121.58	7.86	
	10/31/11	129.44	119.19	10.25	
	02/06/12	129.44	110.70	18.74	
	05/07/12	129.44	103.59	25.85	
	08/06/12	129.44	119.04	10.40	
	11/05/12	129.44	127.77	1.67	
	01/03/13	129.44	119.71	9.73	
	02/04/13	129.44	119.49	9.95	
	05/13/13	129.44	121.67	7.77	
	08/12/13	129.44	139.38	-9.94	
	11/11/13	129.44	137.74	-8.30	
	02/03/14	129.44	129.96	-0.52	
MW-30B	12/04/08	129.39	160.82	-31.43	
	12/05/08	129.39	161.49	-32.10	
	12/15/08	129.39	160.27	-30.88	
	01/07/09	129.39	154.82	-25.43	
	03/16/09	129.39	144.60	-15.21	
	03/18/09	129.39	143.96	-14.57	
	04/29/09	129.39	141.03	-11.64	
	06/22/09	129.39	144.02	-14.63	
	06/24/09	129.39	147.85	-18.46	
	08/31/09	129.39	149.39	-20.00	
	09/10/09	129.39	154.06	-24.67	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-30B	10/13/09	129.39	147.92	-18.53	
(Cont'd)	10/14/09	129.39	147.93	-18.54	
	10/23/09	129.39	146.17	-16.78	
	10/30/09	129.39	145.42	-16.03	
	11/04/09	129.39	145.25	-15.86	
	12/07/09	129.39	142.39	-13.00	
	01/19/10	129.39	140.64	-11.25	
	03/01/10	129.39	134.60	-5.21	
	06/07/10	129.39	130.92	-1.53	
	09/07/10	129.39	136.39	-7.00	
	12/06/10	129.39	133.99	-4.60	
	03/15/11	129.39	122	7.39	
	03/24/11	129.39	121.97	7.42	
	06/20/11	129.39	115.40	13.99	
	08/01/11	129.39	118.29	11.10	
	08/05/11	129.39	119.13	10.26	
	10/31/11	129.39	116.07	13.32	
	01/20/12	129.39	109.57	19.82	
	02/06/12	129.39	109.28	20.11	
	05/07/12	129.39	101.72	27.67	
	08/06/12	129.39	115.80	13.59	
	11/05/12	129.39	122.38	7.01	
	01/03/13	129.39	115.74	13.65	
	01/09/13	129.39	116.81	12.58	
	02/04/13	129.39	115.71	13.68	
	05/13/13	129.39	118.10	11.29	
	08/12/13	129.39	134.12	-4.73	
	11/11/13	129.39	132.03	-2.64	
	02/03/14	129.39	126.67	2.72	
MW-31	10/13/09	123.7	140.92	-17.2	
	10/14/09	123.7	140.85	-17.1	
	10/23/09	119.60	136.95	-17.35	
	10/30/09	119.60	136.26	-16.66	
	11/02/09	119.60	136.18	-16.58	
	12/07/09	119.60	133.45	-13.85	
	01/19/10	119.60	131.88	-12.28	
	02/12/10	119.60	127.51	-7.91	
	03/01/10	119.60	124.99	-5.39	
	03/03/10	119.60	125.04	-5.44	
	06/07/10	119.60	122.62	-3.02	
	07/30/10	119.60	126.69	-7.09	
	09/07/10	119.60	129.42	-9.82	
	12/06/10	119.60	125.45	-5.85	
	03/01/11	119.60	108.80	10.80	
	03/24/11	119.60	112.56	7.04	
	06/20/11	119.60	106.02	13.58	
	08/01/11	119.60	110.28	9.32	
	08/05/11	119.60	111.32	8.28	
	10/31/11	119.60	107.84	11.76	
	02/06/12	119.60	99.66	19.94	
	05/07/12	119.60	92.21	27.39	
	08/06/12	119.60	109.72	9.88	
	11/05/12	119.60	116.38	3.22	
	02/04/13	119.60	107.58	12.02	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-31	05/13/13	119.60	111.61	7.99	
(Cont'd)	07/18/13	119.60	125.45	-5.85	
	07/19/13	119.60	122.71	-3.11	
	08/12/13	119.60	129.49	-9.89	
	09/18/13	119.60	133.82	-14.22	
	11/11/13	119.60	124.85	-5.25	
	02/03/14	119.60	118.31	1.29	
MW-32A	01/04/10	92.88	110.20	-17.32	
	01/19/10	92.88	107.34	-14.46	
	02/10/10	92.88	101.90	-9.02	
	02/12/10	92.88	102.03	-9.15	
	03/01/10	92.88	99.24	-6.36	
	03/04/10	92.88	99.28	-6.40	
	06/07/10	92.88	97.01	-4.13	
	09/07/10	92.88	104.02	-11.14	
	12/06/10	92.88	100.08	-7.20	
	03/24/11	92.88	87.97	4.91	
	06/20/11	92.88	80.19	12.69	
	08/01/11	92.88	87.56	5.32	
	08/03/11	92.88	89.69	3.19	
	10/14/11	92.88	84.70	8.18	
	10/31/11	92.88	85.17	7.71	
	02/06/12	92.88	75.40	17.48	
	05/07/12	92.88	66.57	26.31	
	08/06/12	92.88	88.32	4.56	
	11/05/12	92.88	93.88	-1.00	
	02/04/13	92.88	83.24	9.64	
	05/13/13	92.88	89.69	3.19	
	08/12/13	92.88	108.43	-15.55	
	11/11/13	92.88	98.90	-6.02	
	12/10/13	92.88	93.03	-0.15	
	02/03/14	92.88	92.68	0.20	
MW-32B	01/04/10	92.89	109.29	-16.40	
	01/19/10	92.89	106.40	-13.51	
	02/10/10	92.89	101.75	-8.86	
	02/12/10	92.89	101.68	-8.79	
	03/01/10	92.89	99.18	-6.29	
	03/05/10	92.89	99.22	-6.33	
	05/07/10	92.89	94.21	-1.32	
	06/07/10	92.89	96.71	-3.82	
	07/30/10	92.89	100.91	-8.02	
	09/07/10	92.89	103.45	-10.56	
	12/06/10	92.89	99.75	-6.86	
	03/01/11	92.89	82.87	10.02	
	03/24/11	92.89	87.67	5.22	
	06/20/11	92.89	80.34	12.55	
	08/01/11	92.89	86.35	6.54	
	08/03/11	92.89	88.72	4.17	
	10/14/11	92.89	83.95	8.94	
	10/31/11	92.89	84.01	8.88	
	02/06/12	92.89	74.84	18.05	
	05/07/12	92.89	66.54	26.35	
	08/06/12	92.89	86.18	6.71	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bsl)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-32B	11/05/12	92.89	92.20	0.69	
(Cont'd)	01/03/13	92.89	81.64	11.25	
	02/04/13	92.89	82.76	10.13	
	05/13/13	92.89	87.91	4.98	
	08/12/13	92.89	106.20	-13.31	
	11/11/13	92.89	98.62	-5.73	
	12/10/13	92.89	93.05	-0.16	
	02/03/14	92.89	92.55	0.34	
MW-32C	01/05/10	92.88	102.93	-10.05	
	01/19/10	92.88	102.03	-9.15	
	02/10/10	92.88	100.10	-7.22	
	02/12/10	92.88	100.03	-7.15	
	03/01/10	92.88	98.65	-5.77	
	03/05/10	92.88	98.15	-5.27	
	06/07/10	92.88	93.19	-0.31	
	09/07/10	92.88	96.89	-4.01	
	12/06/10	92.88	94.01	-1.13	
	03/24/11	92.88	81.27	11.61	
	06/20/11	92.88	77.32	15.56	
	08/01/11	92.88	74.40	18.48	
	08/03/11	92.88	201.55	-108.67	
	10/14/11	92.88	67.59	25.29	
	10/31/11	92.88	68.65	24.23	
	02/06/12	92.88	63.71	29.17	
	05/07/12	92.88	61.18	31.70	
	08/06/12	92.88	69.95	22.93	
	11/05/12	92.88	77.51	15.37	
	01/03/13	92.88	74.05	18.83	
	02/04/13	92.88	72.28	20.60	
	05/13/13	92.88	72.48	20.40	
	08/12/13	92.88	84.56	8.32	
	11/11/13	92.88	91.11	1.77	
	12/10/13	92.88	89.10	3.78	
	02/03/14	92.88	87.98	4.90	
MW-33	03/01/10	83.19	73.60	9.59	
	03/15/10	83.19	85.21	-2.02	
	07/16/10	83.19	89.80	-6.61	
	07/30/10	83.19	92.32	-9.13	
	09/07/10	83.19	94.86	-11.67	
	12/06/10	83.19	90.88	-7.69	
	03/01/11	83.19	73.60	9.59	
	03/15/11	83.19	85.21	-2.02	
	03/24/11	83.19	80.03	3.16	
	06/20/11	83.19	71.50	11.69	
	08/01/11	83.19	82.56	0.63	
	08/04/11	83.19	85.88	-2.69	
	10/14/11	83.19	80.82	2.37	
	10/31/11	83.19	77.92	5.27	
	02/06/12	83.19	68.13	15.06	
	05/07/12	83.19	57.78	25.41	
	08/06/12	83.19	83.31	-0.12	
	11/05/12	83.19	87.51	-4.32	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bsl)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-33	12/10/12	83.19	76.87	6.32	
(Cont'd)	01/04/13	83.19	75.02	8.17	
	02/04/13	83.19	78.41	4.78	
	05/13/13	83.19	85.06	-1.87	
	08/12/13	83.19	103.70	-20.51	
	11/11/13	83.19	89.67	-6.48	
	12/10/13	83.19	83.71	-0.52	
	02/03/14	83.19	83.47	-0.28	
MW-34A	02/25/11	153.25	142.78	10.47	
	03/10/11	153.25	142.26	10.99	
	03/15/11	153.25	143.61	9.64	
	03/24/11	153.25	144.68	8.57	
	06/20/11	153.25	140.26	12.99	
	08/01/11	153.25	143.63	9.62	
	08/04/11	153.25	144.33	8.92	
	10/14/11	153.25	140.77	12.48	
	10/31/11	153.25	141.95	11.30	
	02/06/12	153.25	134.13	19.12	
	05/07/12	153.25	126.22	27.03	
	06/26/12	153.25	130.37	22.88	
	08/06/12	153.25	139.39	13.86	
	11/05/12	153.25	146.00	7.25	
	02/04/13	153.25	138.95	14.30	
	05/13/13	153.25	139.67	13.58	
	08/12/13	153.25	156.14	-2.89	
	09/18/13	153.25	160.57	-7.32	
	11/11/13	153.25	155.60	-2.35	
	12/10/13	153.25	150.05	3.20	
	02/03/14	153.25	146.80	6.45	
MW-34B	02/25/11	153.11	146.89	6.22	
	03/01/11	153.11	146.32	6.79	
	03/10/11	153.11	146.80	6.31	
	03/15/11	153.11	147.91	5.20	
	03/24/11	153.11	148.84	4.27	
	06/20/11	153.11	142.81	10.30	
	06/21/11	153.11	143.15	9.96	
	08/01/11	153.11	147.20	5.91	
	08/04/11	153.11	148.27	4.84	
	09/30/11	153.11	146.12	6.99	
	10/14/11	153.11	144.55	8.56	
	10/31/11	153.11	146.19	6.92	
	02/06/12	153.11	136.92	16.19	
	05/07/12	153.11	127.89	25.22	
	06/26/12	153.11	132.73	20.38	
	08/06/12	153.11	144.08	9.03	
	11/05/12	153.11	153.67	-0.56	
	12/10/12	153.11	149.08	4.03	
	01/03/13	153.11	145.69	7.42	
	02/04/13	153.11	145.61	7.50	
	05/13/13	153.11	145.45	7.66	
	08/12/13	153.11	164.81	-11.70	
	09/18/13	153.11	169.84	-16.73	
	11/11/13	153.11	163.05	-9.94	

TABLE 3
GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-34B	12/10/13	153.11	156.82	-3.71	
(Cont'd)	02/03/14	153.11	153.48	-0.37	
MW-34C	02/25/11	153.29	145.40	7.89	
	03/10/11	153.29	148.34	4.95	
	03/15/11	153.29	149.75	3.54	
	03/24/11	153.29	149.08	4.21	
	03/29/11	153.29	145.51	7.78	
	06/20/11	153.29	141.68	11.61	
	06/21/11	153.29	144.05	9.24	
	08/01/11	153.29	146.36	6.93	
	08/04/11	153.29	148.5	4.79	
	10/14/11	153.29	144.06	9.23	
	10/31/11	153.29	144.52	8.77	
	02/06/12	153.29	136.08	17.21	
	05/07/12	153.29	128.1	25.19	
	06/26/12	153.29	132.07	21.22	
	08/06/12	153.29	144.46	8.83	
	11/05/12	153.29	150.45	2.84	
	12/10/12	153.29	144.11	9.18	
	01/03/13	153.29	143.18	10.11	
	02/04/13	153.29	143.01	10.28	
	05/13/13	153.29	146.64	6.65	
	08/12/13	153.29	162.95	-9.66	
	09/18/13	153.29	167.07	-13.78	
	11/11/13	153.29	158.03	-4.74	
	12/10/13	153.29	153.21	0.08	
	02/03/14	153.29	152.38	0.91	
MW-35A	01/19/11	93.57	77.69	15.88	
	02/03/11	93.57	77.51	16.06	
	03/24/11	93.57	76.01	17.56	
	05/26/11	93.57	74.25	19.32	
	06/20/11	93.57	71.74	21.83	
	08/01/11	93.57	75.29	18.28	
	08/04/11	93.57	76.44	17.13	
	10/31/11	93.57	71.55	22.02	
	02/06/12	93.57	64.46	29.11	
	05/07/12	93.57	60.11	33.46	
	06/26/12	93.57	64.03	29.54	
	08/06/12	93.57	72.82	20.75	
	11/05/12	93.57	76.05	17.52	
	02/04/13	93.57	68.48	25.09	
	05/13/13	93.57	73.46	20.11	
	08/12/13	93.57	86.05	7.52	
	11/11/13	93.57	84.11	9.46	
	12/10/13	93.57	80.20	13.37	
	02/03/14	93.57	79.11	14.46	
MW-35B	01/19/11	93.56	84.50	9.06	
	02/03/11	93.56	84.59	8.97	
	03/24/11	93.56	82.95	10.61	
	06/20/11	93.56	78.82	14.74	
	06/22/11	93.56	78.80	14.76	
	08/01/11	93.56	82.78	10.78	



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point	Depth to	Water Level	Remediation System On
		Elevation (a) (feet msl)	Water (feet bls)	Elevation (feet msl)	
Regional Groundwater System Monitor and Extraction Wells (continued)					
MW-35B	08/04/11	93.56	84.05	9.51	
Cont'd	10/31/11	93.56	79.67	13.89	
	02/06/12	93.56	72.06	21.50	
	05/07/12	93.56	65.67	27.89	
	06/26/12	93.56	70.36	23.20	
	08/06/12	93.56	80.68	12.88	
	11/05/12	93.56	85.02	8.54	
	02/04/13	93.56	77.70	15.86	
	05/13/13	93.56	81.25	12.31	
	08/12/13	93.56	97.17	-3.61	
	09/18/13	93.56	101.37	-7.81	
	11/11/13	93.56	94.21	-0.65	
	12/10/13	93.56	87.92	5.64	
	02/03/14	93.56	86.58	6.98	
MW-35C	01/19/11	93.55	88.79	4.76	
	02/03/11	93.55	88.62	4.93	
	03/01/11	93.55	82.54	11.01	
	03/24/11	93.55	87.38	6.17	
	06/20/11	93.55	80.47	13.08	
	08/01/11	93.55	86.38	7.17	
	08/04/11	93.55	88.72	4.83	
	10/31/11	93.55	83.44	10.11	
	02/06/12	93.55	74.42	19.13	
	05/07/12	93.55	66.84	26.71	
	06/26/12	93.55	72.84	20.71	
	08/06/12	93.55	88.31	5.24	
	11/05/12	93.55	92.71	0.84	
	02/04/13	93.55	83.56	9.99	
	05/13/13	93.55	89.47	4.08	
	08/12/13	93.55	107.84	-14.29	
	09/18/13	93.55	111.67	-18.12	
	11/11/13	93.55	99.35	-5.80	
	12/10/13	93.55	93.43	0.12	
	02/03/14	93.55	93.68	-0.13	
MW-36	01/13/12	86.65	76.60	10.05	
	01/26/12	86.65	76.55	10.10	
	02/06/12	86.65	76.62	10.03	
	05/07/12	86.65	61.99	24.66	
	08/06/12	86.65	88.09	-1.44	
	11/05/12	86.65	93.33	-6.68	
	01/04/13	86.65	81.65	5.00	
	02/04/13	86.65	84.54	2.11	
	05/13/13	86.65	89.88	-3.23	
	08/12/13	86.65	108.65	-22.00	
	11/11/13	86.65	93.68	-7.03	
	02/03/14	86.65	86.85	-0.20	
MW-37	10/26/12	155.60	144.62	10.98	
	11/05/12	155.60	142.07	13.53	
	12/10/12	155.60	140.12	15.48	
	01/03/13	155.60	137.21	18.39	
	02/04/13	155.60	136.18	19.42	
	05/13/13	155.60	136.80	18.80	

TABLE 3
GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
MW-37	08/12/13	155.60	149.41	6.19	
Cont'd	09/18/13	155.60	154.59	1.01	
	11/12/13	155.60	156.98	-1.38	
	02/03/14	155.60	153.22	2.38	
MW-38	08/07/13	154.90	156.80	-1.90	
	08/12/13	154.90	157.50	-2.60	
	09/18/13	154.90	162.55	-7.65	
	11/12/13	154.90	160.86	-5.96	
	02/03/14	154.90	150.50	4.40	
MW-39	08/08/13	84.25	106.13	-21.88	
	08/12/13	84.25	106.72	-22.47	
	11/11/13	84.25	90.90	-6.65	
	02/03/14	84.25	84.70	-0.45	
MW-40	07/19/13	123.40	124.37	-0.97	
	08/12/13	123.40	129.88	-6.48	
	11/11/13	123.40	127.22	-3.82	
	02/03/14	123.40	121.00	2.40	
EW-01	06/20/05	142.65	132.89	9.76	
	09/19/05	142.65	140.63	2.02	
	09/21/05	142.65	140.88	1.77	
	12/17/05	142.65	119.06	23.59	
	12/19/05	142.65	118.70	23.95	
	02/24/06	142.65	108.91	33.74	
	03/20/06	142.65	112.76	29.89	
	05/18/06	142.65	105.98	36.67	
	06/19/06	142.65	108.61	34.04	
	09/25/06	142.65	118.60	24.05	
	12/11/06	142.5	116.08	26.4	
	03/12/07	142.5	122.93	19.6	
	06/18/07	142.5	133.31	9.2	
	09/24/07	142.5	157.35	-14.9	
	12/10/07	142.5	164.54	-22.0	
	12/20/07	142.5	164.75	-22.3	
	01/21/08	142.5	162.41	-19.9	
	01/21/08	140.3	162.41	-22.1	
	03/17/08	140.3	156.96	-16.7	
	05/27/08	141.13	160.10	-18.97	
	06/10/08	141.13	161.48	-20.35	
	06/23/08	141.13	162.89	-21.76	
	07/09/08	141.07	165.87	-24.80	Pilot GETS
	07/11/08	141.07	165.59	-24.52	
	07/14/08	141.07	165.71	-24.64	
	07/15/08	141.07	167.64	-26.57	Pilot GETS
	07/30/08	141.07	168.45	-27.38	Pilot GETS
	08/14/08	141.07	> 172.65	< -31.58	Pilot GETS
	08/25/08	141.07	171.89	-30.82	Pilot GETS
	09/22/08	141.07	> 172.65	< -31.58	Pilot GETS
	10/22/08	141.07	> 172.65	< -31.58	Pilot GETS
	12/15/08	141.07	171.93	-30.86	
	12/19/08	141.07	171.74	-30.67	
	01/07/09	141.07	165.86	-24.79	

TABLE 3
GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bsl)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
EW-01	02/25/09	141.07	162.17	-21.10	Pilot GETS
(Cont'd)	03/16/09	141.07	157.84	-16.77	Pilot GETS
	03/18/09	141.07	158.69	-17.62	Pilot GETS
	04/29/09	141.07	152.31	-11.24	
	04/29/09	141.07	152.85	-11.78	Pilot GETS
	05/27/09	141.07	155.10	-14.03	Pilot GETS
	06/22/09	141.07	156.88	-15.81	Pilot GETS
	06/26/09	141.07	157.98	-16.91	Pilot GETS
	06/29/09	141.07	158.68	-17.61	Pilot GETS
	07/22/09	141.07	164.06	-22.99	Pilot GETS
	08/14/09	141.07	168.21	-27.14	Pilot GETS
	08/31/09	141.07	163.05	-21.98	Pilot GETS
	09/10/09	141.07	164.32	-23.25	Pilot GETS
	09/11/09	141.07	164.23	-23.16	Pilot GETS
	10/08/09	141.07	> 172.65	< -31.58	Pilot GETS
	10/23/09	141.07	158.25	-17.18	Pilot GETS
	10/30/09	141.07	157.75	-16.68	
	11/04/09	141.07	157.23	-16.16	
	12/07/09	141.07	154.56	-13.49	
	12/09/09	141.07	155.28	-14.21	
	01/19/10	141.07	153.29	-12.22	
	02/10/10	141.07	142.49	-1.42	
	03/01/10	141.07	147.07	-6.00	
	03/05/10	141.07	146.63	-5.56	
	03/09/10	141.07	142.50	-1.43	
	06/07/10	141.07	142.43	-1.36	
	09/07/10	141.07	150.09	-9.02	
	12/06/10	141.07	148.66	-7.59	
	03/01/11	141.07	131.68	9.39	
	03/24/11	141.07	132.08	8.99	
	06/20/11	141.07	127.90	13.17	
	08/01/11	141.07	128.94	12.13	
	08/05/11	141.07	129.27	11.80	
	10/14/11	141.07	125.48	15.59	
	10/31/11	141.07	126.74	14.33	
	01/05/12	141.07	121.24	19.83	
	02/06/12	141.07	119.36	21.71	
	05/07/12	141.07	113.04	28.03	
	06/26/12	141.07	117.34	23.73	
	08/06/12	141.07	125.45	15.62	
	11/05/12	141.07	136.31	4.76	
	02/04/13	141.07	128.42	12.65	
	05/13/13	141.07	126.97	14.10	
	07/18/13	141.07	141.66	-0.59	
	07/19/13	141.07	141.39	-0.32	
	08/12/13	141.07	145.78	-4.71	
	09/18/13	141.07	151.02	-9.95	
	11/11/13	141.07	147.97	-6.90	
	02/03/14	141.07	139.43	1.64	
EW-02	10/23/09	137.6	137.92	-0.3	
	10/30/09	137.6	156.81	-19.2	
	10/31/09	137.6	155.97	-18.3	
	11/04/09	136.2	153.21	-17.0	
	12/07/09	132.97	UTM	--	

TABLE 3
GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
EW-02	02/10/10	132.97	142.49	-9.52	
(Cond't)	03/01/10	132.97	139.89	-6.92	
	03/22/10	132.97	136.73	-3.76	Pre-Startup
	03/22/10	132.97	143.6	-10.6	Pilot GETS
	03/23/10	132.97	143.25	-10.28	Pilot GETS
	03/24/10	132.97	144.42	-11.45	Pilot GETS
	03/25/10	132.97	144.60	-11.63	Pilot GETS
	03/26/10	132.97	144.99	-12.02	Pilot GETS
	04/01/10	132.97	143.85	-10.88	
	04/09/10	132.97	143.40	-10.43	
	04/13/10	132.97	142.63	-9.66	
	04/23/10	132.97	143.15	-10.18	
	05/25/10	132.97	142.50	-9.53	
	06/07/10	132.97	143.34	-10.37	Pilot GETS
	06/10/10	132.97	143.42	-10.45	Pilot GETS
	07/08/10	132.97	144.76	-11.79	Pilot GETS
	07/30/10	132.97	145.5	-12.53	Pilot GETS
	08/02/10	132.97	146.95	-13.98	Pilot GETS
	09/02/10	132.97	150.82	-17.85	Pilot GETS
	09/07/10	132.97	150.46	-17.49	Pilot GETS
	10/07/10	132.97	153.49	-20.52	Pilot GETS
	11/11/10	132.97	153.63	-20.66	Pilot GETS
	12/06/10	132.97	148.10	-15.13	
	12/07/10	132.97	149.05	-16.08	
	12/07/10	132.97	148.62	-15.65	Pilot GETS
	01/13/11	132.97	138.52	-5.55	Pilot GETS
	01/13/11	132.97	138.74	-5.77	
	02/03/11	132.97	136.61	-3.64	Pilot GETS
	03/02/11	132.97	130.70	2.27	Pilot GETS
	03/24/11	132.97	133.23	-0.26	Pilot GETS
	04/01/11	132.97	132.74	0.23	Pilot GETS
	05/04/11	132.97	134.42	-1.45	Pilot GETS
	06/07/11	132.97	129.64	3.33	Pilot GETS
	06/20/11	132.97	128.12	4.85	Pilot GETS
	07/02/11	132.97	127.73	5.24	Pilot GETS
	08/01/11	132.97	130.41	2.56	Pilot GETS
	08/05/11	132.97	130.83	2.14	Pilot GETS
	09/09/11	132.97	131.13	1.84	Pilot GETS
	09/30/11	132.97	128.61	4.36	
	10/17/11	132.97	127.67	5.30	Pilot GETS
	10/31/11	132.97	128.83	4.14	Pilot GETS
	11/01/11	132.97	128.76	4.21	Pilot GETS
	12/07/11	132.97	122.0	10.97	Pilot GETS
	12/08/11	132.97	123.51	9.46	Pilot GETS
	01/06/12	132.97	119.6	13.37	Pilot GETS
	01/10/12	132.97	120.72	12.25	Pilot GETS
	02/06/12	132.97	118.95	14.02	Pilot GETS
	02/08/12	132.97	119.22	13.75	Pilot GETS
	03/09/12	132.97	113.25	19.72	Pilot GETS
	04/02/12	132.97	116.19	16.78	Pilot GETS
	04/16/12	132.97	114.57	18.40	Pilot GETS
	05/01/12	132.97	113.65	19.32	Pilot GETS
	05/07/12	132.97	113.55	19.42	Pilot GETS
	06/07/12	132.97	118.65	14.32	
	06/08/12	132.97	118.79	14.18	Pilot GETS



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Regional Groundwater System Monitor and Extraction Wells (continued)</u>					
EW-02	06/26/12	132.97	118.32	14.65	Pilot GETS
(Cond't)	07/11/12	132.97	121.79	11.18	Pilot GETS
	08/03/12	132.97	127.16	5.81	Pilot GETS
	08/06/12	132.97	127.42	5.55	Pilot GETS
	09/06/12	132.97	132.79	0.18	Pilot GETS
	10/15/12	132.97	156.45	-23.48	Pilot GETS
	11/05/12	132.97	137.50	-4.53	Pilot GETS
	12/10/12	132.97	133.49	-0.52	Pilot GETS
	02/04/13	132.97	129.53	3.44	Pilot GETS
	03/09/13	132.97	127.99	4.98	Pilot GETS
	04/15/13	132.97	121.61	11.36	Pilot GETS
	05/13/13	132.97	129.21	3.76	Pilot GETS
	06/13/13	132.97	136.67	-3.70	Pilot GETS
	07/02/13	132.97	139.40	-6.43	Pilot GETS
	08/12/13	132.97	147.57	-14.60	Pilot GETS
	09/03/13	132.97	150.15	-17.18	Pilot GETS
	10/05/13	132.97	153.60	-20.63	Pilot GETS
	11/11/13	132.97	148.57	-15.60	Pilot GETS
	12/11/13	132.97	142.69	-9.72	Pilot GETS
	01/17/14	132.97	139.97	-7.00	Pilot GETS
	02/03/14	132.97	140.12	-7.15	Pilot GETS
	02/11/14	132.97	139.58	-6.61	Pilot GETS
<u>Perched Zone Water Levels</u>					
P-07	06/12/97	165.34	135.20	30.14	
	05/13/98	165.34	135.11	30.23	
	05/27/98	165.34	135.12	30.22	
	06/11/98	165.34	135.15	30.19	
	07/14/98	165.34	135.26	30.08	
	11/11/98	165.34	135.39	29.95	
	11/18/98	165.34	135.42	29.92	SVE, DPE-H2O
	11/18/98	165.34	135.48	29.86	SVE, DPE-H2O
	11/19/98	165.34	135.36	29.98	SVE, DPE-H2O
	11/20/98	165.34	135.44	29.90	SVE, DPE, DPE-H2O
	11/23/98	165.34	135.36	29.98	SVE, DPE-H2O
	11/23/98	165.34	135.52	29.82	SVE, DPE-H2O
	11/24/98	165.34	135.53	29.81	SVE, DPE-H2O
	12/07/98	165.34	135.40	29.94	SVE, DPE-H2O
	12/07/98	165.34	135.52	29.82	SVE, DPE-H2O
	12/10/98	165.34	135.50	29.84	SVE, DPE, DPE-H2O
	12/11/98	165.34	135.37	29.97	SVE, DPE, DPE-H2O
	12/14/98	165.34	135.26	30.08	SVE, DPE-H2O
	12/14/98	165.34	135.27	30.07	SVE, DPE-H2O
	12/16/98	165.34	135.48	29.86	SVE, DPE, DPE-H2O
	01/06/99	165.34	135.36	29.98	SVE, DPE, DPE-H2O
	01/20/99	165.34	135.20	30.14	
	01/25/99	165.34	135.50	29.84	DPE, DPE-H2O
	01/27/99	165.34	135.51	29.83	SVE, DPE, DPE-H2O
	02/01/99	165.34	135.25	30.09	SVE, DPE, DPE-H2O
	02/10/99	165.34	135.56	29.78	SVE, DPE, DPE-H2O
	02/23/99	165.34	135.17	30.17	
	03/01/99	165.34	135.55	29.79	DPE
	03/09/99	165.34	135.19	30.15	
	03/10/99	165.34	135.57	29.77	
	03/12/99	165.34	135.51	29.83	SVE, DPE, DPE-H2O



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Perched Zone Water Levels (continued)</u>					
P-07	03/15/99	165.34	135.59	29.75	SVE, DPE, DPE-H2O
(Cont'd)	03/17/99	165.34	135.54	29.80	SVE, DPE, DPE-H2O
	03/29/99	165.34	135.34	30.00	SVE, DPE-H2O
	04/07/99	165.34	DRY	--	SVE, DPE-H2O
	04/12/99	165.34	135.58	29.76	SVE, DPE-H2O
	04/23/99	165.34	135.22	30.12	SVE, DPE-H2O
	04/29/99	165.34	DRY	--	SVE, DPE-H2O
	05/17/99	165.34	135.66	29.68	SVE, DPE-H2O
	06/16/99	165.34	135.66	29.68	SVE, DPE-H2O
	06/25/99	165.34	135.28	30.06	SVE, DPE-H2O
	07/15/99	165.34	135.57	29.77	DPE, DPE-H2O
	08/30/99	165.34	135.58	29.76	DPE-H2O
	09/27/99	165.34	135.58	29.76	5.6 inches water in vaccum
	11/02/99	165.34	135.56	29.78	5 inches water in vaccum
	11/09/99	165.34	135.73	29.61	
	11/23/99	165.34	135.27	30.07	
	11/23/99	165.34	135.13	30.21	
	11/23/99	165.34	135.14	30.20	
	12/06/99	165.34	135.70	29.64	
	01/26/00	165.34	136.71	28.63	
	02/07/00	165.34	135.49	29.85	
	07/05/00	165.34	135.03	30.31	
	01/16/01	145.52	115.25	30.27	
	03/19/01	145.52	115.34	30.18	
	03/26/01	145.52	115.24	30.28	
	04/03/01	145.52	115.30	30.22	
	04/10/01	145.52	115.20	30.32	
	04/17/01	145.52	115.20	30.32	
	04/26/01	145.52	115.30	30.22	
	05/10/01	145.52	115.35	30.17	
	06/26/01	145.52	115.16	30.36	
	09/10/01	142.31	111.91	30.40	
	10/24/01	142.31	112.04	30.27	
	01/15/02	142.31	111.98	30.33	
	03/19/02	142.31	111.92	30.39	
	04/15/02	142.31	112.04	30.27	
	10/31/02	142.31	112.13	30.18	
	11/18/02	142.31	112.11	30.20	
	05/08/03	142.31	112.48	29.83	
	06/09/03	142.31	112.94	29.37	
	09/15/03	142.31	113.65	28.66	
	09/25/03	142.31	113.75	28.56	
	10/14/03	142.31	113.82	28.49	
	12/15/03	142.31	114.04	28.27	
	03/29/04	142.31	112.42	29.89	
	06/14/04	142.31	113.91	28.40	
	09/20/04	142.31	DRY		Dry to 117.4 feet bls. Water level elevation <24.9 feet msl.
				--	
	10/19/04	142.31	116.30	26.01	
	11/10/04	142.31	115.78	26.53	
	12/06/04	142.31	115.65	26.66	
	03/15/05	142.31	DRY	--	Dry @ 116.8 ft.
	06/20/05	142.31	114.50	27.81	
	09/19/05	142.31	DRY	--	Dry @ 115.0 ft bls.



TABLE 3

GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Perched Zone Water Levels (continued)</u>					
P-07	12/17/05	142.31	112.26	30.05	
(Cont'd)	03/20/06	142.31	110.94	31.37	
	06/19/06	142.31	107.57	34.74	
	09/25/06	142.31	111.19	31.12	
	12/11/06	142.31	111.22	31.09	
	03/12/07	142.31	111.71	30.60	
	06/18/07	142.31	114.92	27.39	
	09/24/07	142.31	DRY	--	
	12/10/07	142.31	DRY	--	
	03/17/08	142.31	114.58	27.73	
	06/23/08	142.31	114.13	28.18	
	09/22/08	142.31	113.85	28.46	
	12/15/08	142.31	113.47	28.84	
	03/16/09	142.31	113.13	29.18	
	06/22/09	142.31	112.81	29.50	
	08/31/09	142.31	112.67	29.64	
	12/07/09	142.31	112.52	29.79	
	03/01/10	142.31	112.34	29.97	
	03/03/10	142.31	112.42	29.89	
	06/07/10	142.31	112.24	30.07	
	09/07/10	142.31	112.51	29.80	
	12/06/10	142.31	112.27	30.04	
	03/24/11	142.31	111.51	30.80	
	06/20/11	142.31	111.36	30.95	
	08/01/11	142.31	111.31	31.00	
	10/31/11	142.31	111.28	31.03	
	02/06/12	142.31	111.01	31.30	
	05/07/12	142.31	110.72	31.59	
	08/06/12	142.31	111.39	30.92	
	11/05/12	142.31	112.34	29.97	
	02/04/13	142.31	111.50	30.81	
	05/13/13	142.31	111.40	30.91	
	08/12/13	142.31	113.15	29.16	
	11/11/13	142.31	112.58	29.73	
	02/03/14	142.31	112.22	30.09	
P-09	09/15/03	183.86	121.85	62.01	
	10/08/03	183.86	121.68	62.18	
	10/14/03	183.86	121.53	62.33	
	12/15/03	183.86	122.09	61.77	
	03/29/04	183.86	122.03	61.83	
	06/14/04	183.86	122.29	61.57	
	09/20/04	183.86	122.49	61.37	
	11/10/04	183.86	122.00	61.86	
	12/06/04	183.86	121.85	62.01	
	03/14/05	183.86	121.45	62.41	
	06/20/05	183.86	121.50	62.36	
	09/19/05	183.86	121.34	62.52	
	12/17/05	183.86	121.32	62.54	
	03/20/06	183.86	121.20	62.66	
	06/19/06	183.86	120.96	62.90	
	09/25/06	183.86	120.85	63.01	
	12/12/06	183.86	120.94	62.92	
	03/12/07	183.86	120.93	62.93	
	06/18/07	183.86	120.80	63.06	

Dry @ 115.16 ft bls.

TABLE 3
GROUNDWATER LEVELS

Well Identifier	Date Measured	Reference Point Elevation (a) (feet msl)	Depth to Water (feet bls)	Water Level Elevation (feet msl)	Remediation System On
<u>Perched Zone Water Levels (continued)</u>					
P-09	09/24/07	183.86	120.91	62.95	
(Cont'd)	12/10/07	183.86	120.84	63.02	
	03/17/08	183.86	120.76	63.10	
	06/23/08	183.86	120.73	63.13	
	09/22/08	183.86	120.83	63.03	
	12/15/08	183.86	120.64	63.22	
	03/16/09	183.86	120.70	63.16	
	06/22/09	183.86	120.66	63.20	
	08/31/09	183.86	120.75	63.11	
	12/07/09	183.86	120.80	63.06	
	03/01/10	183.86	120.74	63.12	
	03/02/10	183.86	120.75	63.11	
	06/07/10	183.86	120.69	63.17	
	09/07/10	183.86	120.78	63.08	
	12/06/10	183.86	120.60	63.26	
	03/24/11	183.86	120.44	63.42	
	06/20/11	183.86	120.48	63.38	
	08/01/11	183.86	120.48	63.38	
	10/31/11	183.86	120.50	63.36	
	02/06/12	183.86	120.50	63.36	
	05/07/12	183.86	120.51	63.35	
	08/06/12	183.86	120.48	63.38	
	11/05/12	183.86	120.70	63.16	
	02/04/13	183.86	120.54	63.32	
	05/13/13	183.86	120.48	63.38	
	08/12/13	183.86	120.63	63.23	
	11/11/13	183.86	120.80	63.06	
	02/03/14	183.86	120.73	63.13	

FOOTNOTES

(a) Reference point elevations are relative to City of Fullerton datum.

(>) = Greater than

(<) = Less than

(--) = Not Calculated

bls = Below land surface

msl = Mean sea level

NA = Reference Point Not Available

SVE = Soil Vapor Extraction System On

DPE = Vapor Phase Dual Vapor Extraction System On

DPE-H2O = Water Phase Dual Vapor Extraction System On

Pilot GETS = Pilot Groundwater Extraction and Treatment System On

UTM = Unable to Measure

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells																
MW-06	01/30/97	ORG	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
MW-600	01/30/97	FD	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
MW-06	02/19/97	ORG	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
MW-06	02/09/00	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA
MW-06	05/08/01	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA
MW-06	04/17/02	ORG	< 0.50	< 0.50	1.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.5
MW-06	04/17/02	SPT	< 0.50	< 0.50	2.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0
MW-06	11/18/02	ORG	< 0.50	< 0.50	2.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-06	06/10/03	ORG	< 0.50	< 0.50	1.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.5
MW-06	12/17/03	ORG	< 0.50	< 0.50	1.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-06	06/16/04	ORG	< 0.50	< 0.50	2.2 U	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-06	12/09/04	ORG	< 0.50	< 0.50	2.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.1
MW-06	06/23/05	ORG	< 0.50	< 0.50	1.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-06	12/20/05	ORG	< 0.50	< 0.50	1.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-06	06/21/06	ORG	< 0.50	< 0.50	0.62	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-06	12/18/06	ORG	< 0.50	< 0.50	2.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-06	06/21/07	ORG	< 0.50	< 0.50	1.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-06	12/12/07	ORG	< 0.50	< 0.50	0.78	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-06	06/26/08	ORG	< 0.50	< 0.50	0.85 U	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-06	06/25/09	ORG	< 0.50	< 0.50	0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-06	12/08/09	ORG	< 0.50	< 0.50	0.53	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-06	06/08/10	ORG	< 0.50	< 0.50	0.56	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-06	12/10/10	ORG	< 0.50	< 0.50	0.62	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-06	02/08/12	ORG	< 0.50	< 0.50	1.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-06	02/05/13	ORG	< 0.50	< 0.50	1.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-06	02/04/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
Historical High/Low			Low													
MW-06 Historical Range***			< 0.50 - < 5.0	< 0.50 - < 5.0	0.52 - 2.8	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 2.0
MW-08	01/28/97	ORG	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.3	< 1.0	< 1.0	NA
MW-08	02/19/97	ORG	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.9	< 1.0	< 1.0	NA
MW-08	02/17/00	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA
MW-08	05/09/01	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.0	< 0.50	NA
MW-08	04/17/02	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.51	< 0.50	< 0.50	< 0.50	< 0.50	8.5	< 0.50	< 0.50	< 0.5
MW-08	04/17/02	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.0	< 0.50	< 0.50	< 1.0
MW-08	11/21/02	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.2	< 0.50	< 0.50	< 0.50	< 0.50	7.6	< 0.50	< 0.50	NA
MW-08	06/11/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.98	0.67	< 0.50	< 0.50	< 0.50	14	< 0.50	< 0.50	NA
MW-08	12/18/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.6	< 0.50	< 0.50	< 0.50	< 0.50	5.8	< 0.50	< 0.50	NA
MW-08	03/30/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	26	0.52	< 0.50	< 0.50	< 0.50	12	< 0.50	< 0.50	NA
MW-08	06/17/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	64	5.6	< 0.50	< 0.50	< 0.50	89	< 0.50	< 0.50	NA
MW-800	06/17/04	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	60	5.1	< 0.50	< 0.50	< 0.50	87	< 0.50	< 0.50	NA
MW-08	06/17/04	SPT	< 1	< 1	< 1	< 1	< 1	48	4.0	< 1	< 1	< 1	65	< 1	< 1	NA
MW-08	07/28/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	23 E	2.5	< 0.50	< 0.50	< 0.50	40 E	< 0.50	< 0.50	< 2
MW-800	07/28/04	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	23 E	2.1	< 0.50	< 0.50	< 0.50	39 E	< 0.50	< 0.50	< 2
MW-08	07/28/04	SPT	< 1	< 1	< 1	< 1	< 1	13 E	1.0	< 1	< 1	< 1	23 E	< 1	< 1	< 1

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)															Semi-VOCs	
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-08	09/21/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.4	1.0	< 0.50	< 0.50	< 0.50	19	< 0.50	< 0.50	NA
MW-08	12/15/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.7	0.61	< 0.50	< 0.50	< 0.50	13	< 0.50	< 0.50	< 2.2
MW-08	03/16/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.7	0.65	< 0.50	< 0.50	< 0.50	15	< 0.50	< 0.50	< 2.0
MW-08	06/24/05	ORG	0.85	< 0.50	< 0.50	< 0.50	< 0.50	180	7.7	< 0.50	< 0.50	< 0.50	130	< 0.50	< 0.50	< 2.0
MW-800	06/24/05	FD	0.87	< 0.50	< 0.50	< 0.50	< 0.50	160	7.6	< 0.50	< 0.50	< 0.50	130	< 0.50	< 0.50	< 2.0
MW-08	09/22/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	45 E	3.4	< 0.50	< 0.50	< 0.50	61 E	< 0.50	< 0.50	< 2.0
MW-800	09/22/05	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22 E	2.1	< 0.50	< 0.50	< 0.50	39	< 0.50	< 0.50	20 U
MW-08	09/22/05	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	15 E	2.0	< 0.50	< 0.50	< 0.50	33 E	0.90	< 0.50	< 1.0
MW-08	12/20/05	ORG	< 0.50	< 0.50	< 0.50	2.0	< 0.50	370	3.2	0.66	< 0.50	< 0.50	82	< 0.50	< 0.50	12
MW-08	12/20/05	SPT	< 0.50	0.5	< 0.50	2.0	< 0.50	350	3.0	< 0.50	< 0.50	< 0.50	76	0.50	< 0.50	13
MW-08	03/23/06	ORG	< 0.50	< 0.50	0.76	3.6	0.92	270	2.5	0.55	< 0.50	< 0.50	55	< 0.50	< 0.50	65
MW-800	03/23/06	FD	< 0.50	< 0.50	0.82	4.7	1.0	380	2.9	0.74	< 0.50	< 0.50	65	< 0.50	< 0.50	81
MW-08	06/22/06	ORG	< 0.50	< 0.50	0.69	5.1	0.99	500	2.6	1.3	< 0.50	< 0.50	69	< 0.50	< 0.50	130
MW-800	06/22/06	FD	< 0.50	< 0.50	0.69	5.0	1.0	410	2.5	1.2	< 0.50	< 0.50	69	< 0.50	< 0.50	110
MW-08	06/22/06	SPT	< 3.0	< 3.0	< 3.0	6.0	< 3.0	380	3.0	< 3.0	< 3.0	< 3.0	50	< 3.0	< 3.0	140
MW-08	09/28/06	ORG	0.95	< 0.50	< 0.50	< 0.50	< 0.50	27	6.5	< 0.50	< 0.50	< 0.50	120	< 0.50	< 0.50	< 2.0
MW-800	09/28/06	FD	1.1	< 0.50	< 0.50	< 0.50	< 0.50	24	7.7	< 0.50	< 0.50	< 0.50	110	< 0.50	< 0.50	< 2.0
MW-08	09/28/06	SPT	1.0	< 0.50	< 0.50	< 0.50	< 0.50	28	6.2	< 0.50	< 0.50	< 0.50	130	< 0.50	< 0.50	< 1
MW-08	12/19/06	ORG	0.93	< 0.50	< 0.50	< 0.50	< 0.50	13	7.1	< 0.50	< 0.50	< 0.50	130	< 0.50	< 0.50	< 2.0
MW-800	12/19/06	FD	0.95	< 0.50	< 0.50	< 0.50	< 0.50	14	7.1	< 0.50	< 0.50	< 0.50	110	< 0.50	< 0.50	< 2.0
MW-08	03/15/07	ORG	< 0.50	< 0.50	< 0.50	0.57	< 0.50	120	4.5	< 0.50	< 0.50	< 0.50	90	< 0.50	< 0.50	26
MW-08	06/22/07	ORG	< 0.50	< 0.50	0.50	0.51	< 0.50	87	4.4	< 0.50	< 0.50	< 0.50	92	< 0.50	< 0.50	25
MW-08	09/26/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	32 E	1.5	< 0.50	< 0.50	< 0.50	25	< 0.50	< 0.50	7.7
MW-800	09/26/07	FD	< 0.50	< 0.50	< 0.50	0.52	< 0.50	47 E	1.5	< 0.50	< 0.50	< 0.50	27	< 0.50	< 0.50	8.2
MW-08	09/26/07	SPT	< 1	< 1	< 1	< 1	< 1	42 E	1.0	< 1	< 1	< 1	26	< 1	< 1	11
MW-08	12/13/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	39	1.3	< 0.50	< 0.50	< 0.50	27	< 0.50	< 0.50	6.0
MW-08	03/18/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	28	0.97	< 0.50	< 0.50	< 0.50	19	< 0.50	< 0.50	5.4
MW-800	03/18/08	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	30	1.1	< 0.50	< 0.50	< 0.50	20	< 0.50	< 0.50	5.3
MW-08	03/18/08	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	27	0.9	< 0.50	< 0.50	< 0.50	21	0.60	< 0.50	7.0
MW-08	06/27/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	29	1.3	< 0.50	< 0.50	< 0.50	23	< 0.50	< 0.50	5.9
MW-08	09/26/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19	1.0	< 0.50	< 0.50	< 0.50	18	< 0.50	< 0.50	3.7 BU
MW-08	12/19/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	23	0.7	< 0.50	< 0.50	< 0.50	13	< 0.50	< 0.50	3.9
MW-08	03/17/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	26	1.2	< 0.50	< 0.50	< 0.50	21	< 0.50	< 0.50	3.9
MW-08	06/25/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19	1.1	< 0.50	< 0.50	< 0.50	23	< 0.50	< 0.50	2.7
MW-08	09/01/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	17	0.56	< 0.50	< 0.50	< 0.50	14	< 0.50	< 0.50	2.4
MW-08	12/10/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22	0.68	< 0.50	< 0.50	< 0.50	15	< 0.50	< 0.50	7.2
MW-08	03/03/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	33	0.87	< 0.50	< 0.50	< 0.50	21	< 0.50	< 0.50	8.4
MW-08	06/10/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	35	7.1	< 0.50	< 0.50	< 0.50	110	< 0.50	< 0.50	< 2.0
MW-08	09/10/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	36	9.8	< 0.50	< 0.50	< 0.50	200	< 0.50	< 0.50	2.4
MW-08	12/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	32	6.0	< 0.50	< 0.50	< 0.50	110	< 0.50	< 0.50	< 2.0
MW-08	03/30/11	ORG	0.84	< 0.50	0.69	< 0.50	< 0.50	38	10	< 0.50	< 0.50	< 0.50	230	< 0.50	< 0.50	< 0.20
MW-08	06/24/11	ORG	0.57	< 0.50	0.65	< 0.50	< 0.50	67	9.4	< 0.50	< 0.50	< 0.50	210	< 0.50	< 0.50	0.75
MW-800	06/24/11	FD	0.56	< 0.50	0.67	< 0.50	< 0.50	68	9.0	< 0.50	< 0.50	< 0.50	220	< 0.50	< 0.50	0.59
MW-08	08/02/11	ORG	0.64	< 0.50	0.86	< 0.50	< 0.50	190	13	< 0.50	< 0.50	< 0.50	480	< 0.50	< 0.50	0.69
MW-08	11/04/11	ORG	< 0.50	< 0.50	0.60	< 0.50	< 0.50	39.4	9.2	< 0.50	< 0.50	< 0.50	200	< 0.50	< 0.50	0.40

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-0800	11/04/11	FD	< 0.50	< 0.50	0.60	< 0.50	< 0.50	39.5	7.6	< 0.50	< 0.50	< 0.50	170	< 0.50	< 0.50	0.40
MW-08	02/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	29	8.4	< 0.50	< 0.50	< 0.50	170	< 0.50	< 0.50	0.94
MW-08	05/11/12	ORG	<1.0	<1.0	<1.0	1.4	<1.0	340	5.0	1.1	<1.0	<1.0	120	<1.0	<1.0	6.3
MW-08	08/09/2012	ORG	< 0.50	< 0.50	0.67	< 0.50	< 0.50	52	6.0	< 0.50	< 0.50	< 0.50	120	< 0.50	< 0.50	0.38
MW-08	11/7/2012	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22	2.6	< 0.50	< 0.50	< 0.50	57	< 0.50	< 0.50	4.4
MW-08	2/8/2013	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	16	1.8	< 0.50	< 0.50	< 0.50	41	< 0.50	< 0.50	1.1
MW-08	05/15/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	14	2.0	< 0.50	< 0.50	< 0.50	41	< 0.50	< 0.50	1.3
MW-08	8/15/2013	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	10	1.6	< 0.50	< 0.50	< 0.50	27	< 0.50	< 0.50	1.0
MW-08	11/12/2013	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.1	0.81	< 0.50	< 0.50	< 0.50	17	< 0.50	< 0.50	0.50
MW-08	2/6/2014	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.9	0.62	< 0.50	< 0.50	< 0.50	13	< 0.50	< 0.50	0.53
MW-08 Historical Range***			< 0.50 - 0.95	< 0.50 - <1.0	< 0.50 - 0.86	< 0.50 - 5.1	< 0.50 - 0.99	< 0.50 - 500	< 0.50 - 13	< 0.50 - 1.3	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 480	< 0.50 - 1.0	< 0.50 - < 5.0	<0.20 - 130
MW-09	03/26/97	ORG	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	4.9	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
MW-09	04/10/97	ORG	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
MW-09	02/17/00	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA
MW-09	11/21/02	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.3	< 0.50	7.6
MW-900	11/21/02	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.2	< 0.50	7.7
MW-09	11/21/02	SPT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	3.0	< 1.0	6.8
MW-09	06/10/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.3	< 0.50	4.0
MW-900	06/10/03	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.1	< 0.50	7.4
MW-09	06/10/03	SPT	< 1	< 1	< 1	< 1	< 1	2.0	< 1	< 1	< 1	< 1	< 1	2.0	< 1	3.8
MW-09	09/24/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	12/18/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.81	< 0.50	< 2.0
MW-900	12/18/03	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.7	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 0.50	< 2.0
MW-09	03/30/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.8	< 0.50	< 2.0
MW-09	06/16/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.7	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	09/21/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.77	< 0.50	< 2.0
MW-09	12/08/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.6	< 0.50	< 2.1
MW-09	03/15/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.69	< 0.50	< 2.2
MW-09	03/15/05	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.50	< 0.50	3.0
MW-09	06/23/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	09/21/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.82	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	12/20/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.85	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	03/22/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.77	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	06/21/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.80	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	09/28/06	ORG	< 0.50	< 0.50	< 0.50	0.79	< 0.50	32	< 0.50	< 0.50	< 0.50	< 0.50	0.96	< 0.50	< 0.50	52 E
MW-09	12/19/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0 E
MW-900	12/19/06	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.1 E
MW-09	03/14/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	09/26/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.70	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	12/12/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.75	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	03/18/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.65	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.0
MW-09	06/27/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.54	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	09/25/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	09/01/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	12/08/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-09	03/03/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	06/11/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	09/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	12/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-09	03/29/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-09	08/02/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.59
MW-09	02/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-09	08/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-09	02/08/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-09	8/14/2013	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.59	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-09	2/5/2014	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.30
MW-09 Historical Range***			< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 0.79	< 0.50 - < 5.0	< 0.50 - 4.9	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 0.96	< 0.50 - 5.3	< 0.50 - < 5.0	< 0.20 - 52 E
MW-13	04/22/97	ORG	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.3	< 1.0	NA
MW-13	05/21/97	ORG	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
MW-13	02/15/00	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA
MW-13	07/06/00	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 3.0
MW-13	05/07/01	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-13	10/24/01	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-13	04/17/02	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.5
MW-13	04/17/02	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0
MW-13	11/19/02	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.78	< 0.50	< 0.5
MW-13	06/10/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.4	< 0.50	< 0.5
MW-13	12/16/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.9	< 0.50	< 2.0
MW-13	06/15/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.2	< 0.50	< 2.0
MW-13	12/08/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.3	< 0.50	< 2.1
MW-13	06/23/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.60	3.8	< 0.50	< 2.0
MW-13	12/19/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.50	3.7	< 0.50	< 2.0
MW-13	06/22/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.58	3.5	< 0.50	2.4
MW-13	09/29/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.5	< 0.50	< 2.0
MW-13	09/29/06	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.50	3.0	< 0.50	< 1
MW-13	12/14/06	ORG	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.3	< 1.0	< 2.0
MW-13	06/21/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.4	< 0.50	< 2.0
MW-13	12/12/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-13	06/26/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.7	< 0.50	< 2.0
MW-13	12/18/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.4	< 0.50	< 2.5
MW-13	06/24/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.2	< 0.50	< 2.0
MW-13	12/08/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.4	< 0.50	< 2.0
MW-13	06/11/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.0	< 0.50	< 2.0
MW-13	12/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.2	< 0.50	< 2.0
MW-13	02/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.3	< 0.50	< 0.20
MW-13	02/06/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.0	< 0.50	< 0.20
MW-13	02/06/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.8	< 0.50	< 0.20
Historical High/Low														High		
MW-13 Historical Range***			< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 0.60	< 0.50 - 5.3	< 0.50 - < 5.0	< 0.20 - 2.4

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-15	05/27/98	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.0	< 5.0	< 5.0	NA
MW-15	06/11/98	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.5	20	< 5.0	NA
MW-15	02/16/00	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.9	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	9.6	< 5.0	NA
MW-1500	02/16/00	FD	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	6.7	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	9.8	< 5.0	NA
MW-15	07/05/00	ORG	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	8.4	< 1.0	< 1.0	< 1.0	< 1.0	1.9	4.7	< 1.0	NA
MW-15	07/05/00	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	10	< 1.0	< 1.0	< 1.0	< 1.0	2.4	< 0.50	< 1.0	< 3.0
MW-15	05/08/01	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 0.50	< 0.50	< 0.50	< 0.50	7.8	< 0.50	< 0.50	NA
MW-15	10/25/01	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-15	04/18/02	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	10.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.5
MW-15	04/18/02	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	10.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0
MW-15	11/21/02	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	14	< 0.50	< 0.50	< 0.50	< 0.50	0.53	< 0.50	< 0.50	NA
MW-15	06/11/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-15	09/23/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-15	12/18/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-15	03/30/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.60	< 0.50	NA
MW-15	06/17/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.2	5.1	< 0.50	NA
MW-15	09/21/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.6	10	< 0.50	NA
MW-15	12/15/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.7	11	< 0.50	NA
MW-15	03/15/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.0	9.4	< 0.50	NA
MW-15	03/15/05	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.0	7.5	< 0.50	NA
MW-15	06/23/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.4	11	< 0.50	NA
MW-15	09/22/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.1	13	< 0.50	NA
MW-15	12/20/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.1	9.2	< 0.50	NA
MW-15	03/22/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.6	11	< 0.50	NA
MW-15	06/22/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.7	10	< 0.50	NA
MW-15	09/29/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.3	< 0.50	< 0.50	NA
MW-1500	09/29/06	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.2	12	< 0.50	NA
MW-15	12/19/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.9	8.0	< 0.50	< 2.0
MW-15	03/15/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.4	5.8	< 0.50	< 2.0
MW-15	06/22/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.1	12	< 0.50	< 2.0
MW-15	09/26/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.5	5.9	< 0.50	< 2.0
MW-1500	09/26/07	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.6	6.6	< 0.50	< 2.0
MW-15	09/26/07	SPT	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3.0	5.0	< 1	< 1
MW-15	12/13/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.4	< 0.50	< 0.50	< 0.50	< 0.50	2.5	7.2	< 0.50	< 2.0
MW-15	03/18/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.5	5.5	< 0.50	< 2.0
MW-15	06/27/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.4	< 0.50	< 0.50	< 0.50	< 0.50	2.6	5.8	< 0.50	< 2.0
MW-15	09/26/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.7	< 0.50	< 0.50	< 0.50	< 0.50	1.8	3.3	< 0.50	< 2.0
MW-15	12/16/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.8	< 0.50	< 0.50	< 0.50	< 0.50	1.3	1.9	< 0.50	NA
MW-15	03/17/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12	< 0.50	< 0.50	< 0.50	< 0.50	1.4	2.6	< 0.50	NA
MW-15	06/24/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.8	< 0.50	< 0.50	< 0.50	< 0.50	1.0	1.9	< 0.50	NA
MW-15	09/01/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.4	< 0.50	< 0.50	< 0.50	< 0.50	1.2	2.1	< 0.50	NA
MW-15	12/10/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.5	< 0.50	< 0.50	< 0.50	< 0.50	0.94	2.0	< 0.50	NA
MW-15	03/03/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.2	< 0.50	< 0.50	< 0.50	< 0.50	0.73	1.6	< 0.50	NA
MW-15	06/11/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.4	< 0.50	< 2.0
MW-15	09/10/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.0	< 0.50	NA
MW-15	12/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.7	< 0.50	< 0.50	< 0.50	< 0.50	0.50	1.7	< 0.50	NA

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-15	03/28/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.88	< 0.50	< 0.50	< 0.50	< 0.50	3.4	6.8	< 0.50	NA
MW-15	08/02/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.9	7.7	< 0.50	NA
MW-15	02/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.0	9.1	< 0.50	NA
MW-15	08/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.1	14	< 0.50	NA
MW-15	02/07/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.0	5.8	< 0.50	NA
MW-15	08/14/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.4	8.6	< 0.50	NA
MW-15	02/06/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.9	8.4	< 0.50	NA
MW-15 Historical Range***			< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 12	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 7.8	< 0.50 - 20	< 0.50 - < 5.0	< 0.50 - < 2.0
MW-16 ^(a)	11/05/99	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	317	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA
MW-16 ^(a)	11/05/99	SPT	< 1.0	< 1.0	< 1.0	3.6	< 1.0	510	< 1.0	< 1.0	5	< 1.0	< 1.0	< 1.0	< 1.0	NA
MW-16	11/23/99	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	73	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA
MW-16 ^(b)	11/23/99	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	99	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA
MW-16	12/07/99	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	49	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	NA
MW-16	12/07/99	SPT	< 2	< 5.0	< 5.0	< 2	< 5.0	44	< 2	< 2	< 2	< 2	< 2	< 5.0	< 5.0	NA
MW-16	02/18/00	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	238	< 5.0	< 5.0	11	< 5.0	< 5.0	< 5.0	< 5.0	NA
MW-1600	02/18/00	FD	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	264	< 5.0	< 5.0	10	< 5.0	< 5.0	< 5.0	< 5.0	NA
MW-16	07/05/00	ORG	< 0.50	< 0.50	0.59	9.4	1.5	1,100 E	< 0.50	2.0	28 E	4.3	2.2	< 0.50	< 0.50	133
MW-1600	07/05/00	FD	0.54	< 0.50	0.56	9.2	1.5	1,100 E	< 0.50	1.7	26 E	4.0	2.0	< 0.50	< 0.50	77
MW-16	07/05/00	SPT	NA	0.80	0.80	13.4	1.9	2,400 E	NA	2.0	41.5 E	2.8	2.5	< 0.50	< 0.50	63.05
MW-1600	05/10/01	FD	< 5.0	< 5.0	< 5.0	12	2 J	870	< 5.0	2 J	20	3 J	2 J	< 5.0	< 5.0	174 E
MW-16	05/10/01	ORG	< 5.0	< 5.0	0.50 J	11	2.0 J	790	< 5.0	0.90 J	18	3.0 J	1.0 J	< 5.0	< 5.0	165 E
MW-16	05/10/01	SPT	< 5.0	< 5.0	< 5.0	9.0	< 5.0	940	< 5.0	< 5.0	20	< 5.0	< 5.0	< 5.0	< 5.0	270 E
MW-16	10/23/01	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	88	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 3.0
MW-16	10/23/01	SPT	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	99	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	2.0
MW-16	04/16/02	ORG	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	190
MW-1600	04/16/02	FD	< 5.0	< 5.0	< 5.0	6.0	< 5.0	420	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	190
MW-16	04/16/02	SPT	< 3.0	< 3.0	< 3.0	5.0	< 3.0	350	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	281
MW-16	11/20/02	ORG	< 2.5	< 2.5	< 2.5	7.1	< 2.5	440	< 2.5	< 2.5	3.6	3.7	< 2.5	< 2.5	< 2.5	420
MW-16	06/11/03	ORG	< 0.50	< 0.50	< 0.50	4.1	1.1	390	< 0.50	0.72	1.1	2.3	1.0	< 0.50	< 0.50	230
MW-16	09/24/03	ORG	< 0.50	< 0.50	< 0.50	1.2	< 0.50	120	< 0.50	< 0.50	< 0.50	< 0.50	0.61	< 0.50	< 0.50	12
MW-16	12/17/03	ORG	< 0.50	< 0.50	< 0.50	2.9	< 0.50	240	< 0.50	0.58	< 0.50	1.4	1.1	< 0.50	< 0.50	45
MW-16	12/17/03	SPT	< 1.0	< 1.0	< 1.0	3	< 1.0	200	< 1.0	< 1.0	< 1.0	1.0	< 1.0	< 1.0	< 1.0	100
MW-16	03/31/04	ORG	< 0.50	< 0.50	< 0.50	8.2	< 0.50	590	< 0.50	1.9	1.8	5.6	1.9	< 0.50	< 0.50	180
MW-1600	03/31/04	FD	< 0.50	< 0.50	< 0.50	8.3	< 0.50	590	< 0.50	1.9	1.8	5.6	1.8	< 0.50	< 0.50	180
MW-16	06/18/04	ORG	< 0.50	< 0.50	0.98 U	14	< 0.50	870	0.50	2.7	2.6	10	2.8	< 0.50	< 0.50	400
MW-16	09/22/04	ORG	< 0.50	< 0.50	< 0.50	2	< 0.50	260	< 0.50	< 0.50	< 0.50	0.51	1.0	< 0.50	< 0.50	11
MW-16	12/10/04	ORG	< 0.50	< 0.50	< 0.50	3.7	< 0.50	900	< 0.50	0.61	< 0.50	1.0	1.8	< 0.50	< 0.50	26
MW-16	03/17/05	ORG	< 0.50	0.58	1.1	18	4.5	1,900	0.57	2.9	2.0	10	3.7	< 0.50	< 0.50	250
MW-1600	03/17/05	FD	< 0.50	0.58	1.1	17	4.2	1,400	0.51	2.7	1.9	9.8	3.6	< 0.50	< 0.50	290
MW-16	06/24/05	ORG	< 0.50	< 0.50	< 0.50	6.9	1.7	710	< 0.50	1.3	< 0.50	4.2	2.3	< 0.50	< 0.50	110
MW-16	09/22/05	ORG	< 0.50	< 0.50	< 0.50	2.9	< 0.50	320	< 0.50	< 0.50	< 0.50	0.88	1.7	< 0.50	< 0.50	< 2.0
MW-16	12/21/05	ORG	< 0.50	< 0.50	< 0.50	4.3	1.2	370	< 0.50	1.1	< 0.50	2.2	1.2	< 0.50	< 0.50	190
MW-1600	12/21/05	FD	< 0.50	< 0.50	< 0.50	3.8	1.1	320	< 0.50	0.99	< 0.50	1.9	1.1	< 0.50	< 0.50	180
MW-16	03/22/06	ORG	< 0.50	< 0.50	< 0.50	3.1	1.1	210	< 0.50	0.70	< 0.50	1.4	0.63	< 0.50	< 0.50	110

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-16	06/22/06	ORG	< 0.50	< 0.50	< 0.50	2.7	0.85	240	< 0.50	0.95	< 0.50	1.7	0.86	< 0.50	< 0.50	140
MW-16	09/28/06	ORG	< 0.50	< 0.50	< 0.50	2.6	< 0.5	280	< 0.50	0.51	< 0.50	0.93	1.4	< 0.50	< 0.50	130
MW-16	12/15/06	ORG	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	220	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	64
MW-16	03/14/07	ORG	< 0.50	< 0.50	< 0.50	1.1	< 0.50	270	< 0.50	< 0.50	< 0.50	0.91	2.0	< 0.50	< 0.50	54
MW-16	03/14/07	SPT	< 2	< 2	< 2	2.0	< 2	270	< 2	< 2	< 2	< 2	< 2	< 2	< 2	71
MW-16	06/20/07	ORG	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	140	< 1.0	< 1.0	< 1.0	< 1.0	2.0	< 1.0	< 1.0	25
MW-16	09/27/07	ORG	< 0.50	< 0.50	< 0.50	2.4	< 0.50	330	< 0.50	< 0.50	< 0.50	< 0.50	3.2	< 0.50	< 0.50	14
MW-16	12/13/07	ORG	< 0.50	< 0.50	< 0.50	2.7	< 0.50	320	< 0.50	< 0.50	< 0.50	< 0.50	2.8	< 0.50	< 0.50	17
MW-16	03/19/08	ORG	< 0.50	< 0.50	< 0.50	2.2	< 0.50	330	< 0.50	< 0.50	< 0.50	< 0.50	2.3	< 0.50	< 0.50	30 U
MW-16	06/24/08	ORG	< 0.50	< 0.50	< 0.50	2.2	< 0.50	480	< 0.50	< 0.50	< 0.50	< 0.50	3.6	< 0.50	< 0.50	13
MW-16	09/25/08	ORG	< 0.50	< 0.50	< 0.50	5.2	< 0.50	820	< 0.50	< 0.50	< 0.50	< 0.50	1.6	< 0.50	< 0.50	19 B
MW-1600	09/25/08	FD	< 0.50	< 0.50	< 0.50	4.8	< 0.50	800	< 0.50	< 0.50	< 0.50	< 0.50	1.9	< 0.50	< 0.50	21 B
MW-16	09/25/08	SPT	< 1.0	< 1.0	< 1.0	4.0	< 1.0	880	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	26
MW-16	12/19/08	ORG	< 2.5	< 2.5	< 2.5	5.2	< 2.5	1,100	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	27
MW-1600	12/19/08	FD	< 2.5	< 2.5	< 2.5	5.4	< 2.5	1,100	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	29
MW-16	03/17/09	ORG	< 5.0	< 5.0	< 5.0	8.9	< 5.0	1,500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	65
MW-1600	03/17/09	FD	< 5.0	< 5.0	< 5.0	9.1	< 5.0	1,500	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	62
MW-16	06/24/09	ORG	< 2.5	< 2.5	< 2.5	6.1	< 2.5	790	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	360
MW-16	09/02/09	ORG	< 2.5	< 2.5	< 2.5	7.0	< 2.5	1,100	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	73
MW-16	12/09/09	ORG	< 2.5	< 2.5	< 2.5	5.5	< 2.5	910	< 2.5	< 2.5	< 2.5	< 2.5	3.0	< 2.5	< 2.5	100
MW-16	03/03/10	ORG	< 1.0	< 1.0	< 1.0	4.8	1.5	590	< 1.0	< 1.0	< 1.0	2.1	4.3	< 1.0	< 1.0	440
MW-16	06/11/10	ORG	< 1.0	< 1.0	< 1.0	4.6	< 1.0	560	< 1.0	< 1.0	< 1.0	1.3	4.5	< 1.0	< 1.0	180
MW-16	06/11/10	SPT	< 1.0	< 1.0	< 1.0	4.0	< 1.0	620	< 1.0	< 1.0	< 1.0	1.0	4.0	< 1.0	< 1.0	210
MW-16	09/09/10	ORG	< 1.0	< 1.0	< 1.0	3.1	< 1.0	540	< 1.0	< 1.0	< 1.0	< 1.0	4.9	< 1.0	< 1.0	45
MW-16	12/09/10	ORG	< 1.0	< 1.0	< 1.0	3.0	< 1.0	630	< 1.0	< 1.0	< 1.0	< 1.0	4.0	< 1.0	< 1.0	31
MW-16	03/28/11	ORG	< 1.0	< 1.0	< 1.0	7.8	1.7	680	< 1.0	1.5	3.6	< 1.0	4.1	< 1.0	< 1.0	99
MW-16	08/05/11	ORG	< 1.0	< 1.0	< 1.0	8.9	1.5	910	< 1.0	1.1	3.6	2.9	5.3	< 1.0	< 1.0	260
MW-16	02/07/12	ORG	< 1.0	< 1.0	< 1.0	2.3	< 1.0	95	< 1.0	< 1.0	< 1.0	1.3	< 1.0	< 1.0	< 1.0	44
MW-16	08/10/12	ORG	< 0.50	< 0.50	< 0.50	3.5	< 0.50	560	< 0.50	0.57	< 0.50	0.52	4.2	< 0.50	< 0.50	24
MW-16	02/06/13	ORG	< 1.0	< 1.0	< 1.0	3.9	< 1.0	680	< 1.0	< 1.0	< 1.0	< 1.0	4.5	< 1.0	< 1.0	49
MW-16	08/14/13	ORG	< 1.2	< 1.2	< 1.2	5.2	< 1.2	770	< 1.2	< 1.2	< 1.2	< 1.2	5.7	< 1.2	< 1.2	36
MW-16	02/05/14	ORG	< 1.0	< 1.0	< 1.0	4.9	< 1.0	750	< 1.0	< 1.0	< 1.0	< 1.0	5.4	< 1.0	< 1.0	33
MW-1600	02/05/14	FD	< 0.50	< 0.50	< 0.50	4.1	0.52	630	< 0.50	0.89	< 0.50	< 0.50	6.1	< 0.50	< 0.50	33
MW-16	02/05/14	SPT	< 0.50	< 0.50	< 1.0	5.1	< 0.50	780	< 1.0	< 1.0	< 1.0	< 1.0	5.8	< 1.0	< 1.0	45
MW-16 Historical Range***			< 0.50 - < 5.0	< 0.50 - 0.58	< 0.50 - 1.1	< 0.50 - 18	< 0.50 - 4.5	49 - 1,900 E	< 0.50 - 0.57	< 0.50 - 2.9	< 0.50 - 28 E	< 0.50 - 10	< 0.50 - 5.7	< 0.50 - < 5.0	< 0.50 - < 5.0	< 2.0 - 440
MW-17	06/15/00	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-17	06/15/00	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-17	07/06/00	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 3.0
MW-17	07/06/00	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-17	05/08/01	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-17	10/22/01	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-1700	10/22/01	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-17	04/16/02	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.5
MW-17	04/16/02	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-17	11/20/02	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.5
MW-17	06/09/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.5
MW-17	12/16/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17	06/16/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17	12/08/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.1
MW-17	06/22/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17	12/19/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17	06/21/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17	12/13/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17	06/18/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17	12/11/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17	06/25/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17	12/18/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17	06/24/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17	12/10/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17	06/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17	12/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-17 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - < 3.0
MW-18	06/15/00	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-1800	06/15/00	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.5	< 0.50	NA
MW-18	07/06/00	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.51	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.7	< 0.50	< 3.0
MW-18	05/07/01	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.9	< 0.50	NA
MW-18	10/23/01	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-18	04/16/02	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 0.50	< 0.5
MW-18	04/16/02	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0
MW-18	11/19/02	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.0	< 0.50	< 0.5
MW-18	06/10/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 0.50	< 0.5
MW-18	12/16/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 0.50	< 2.0
MW-18	06/15/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.3	< 0.50	< 2.0
MW-18	12/09/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.6	< 0.50	< 2.0
MW-18	06/22/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.3	< 0.50	< 2.0
MW-18	12/21/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.9	< 0.50	< 2.0
MW-18	06/20/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.5	< 0.50	< 2.0
MW-18	12/15/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.5	< 0.50	< 2.0
MW-18	06/18/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 0.50	< 2.0
MW-18	12/12/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-18	06/24/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.1	< 0.50	< 2.0
MW-18	12/17/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.65	< 0.50	6.9
MW-18	06/26/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.8	< 0.50	4.6
MW-1800	06/26/08	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.7	< 0.50	5.0
MW-18	12/10/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.8	< 0.50	7.7 E
MW-1800	12/10/09	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.6	< 0.50	7.0 E
MW-18	12/10/09	SPT	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3.0	< 1	1 E
MW-18	06/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.3	< 0.50	< 2.0

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-18	12/10/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.0	< 0.50	< 2.0
MW-18	08/03/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.8	< 0.50	< 0.20
MW-18	02/07/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.2	< 0.50	< 0.20
MW-18	08/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.5	< 0.50	< 0.20
MW-18	02/05/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 0.50	< 0.20
MW-18	08/14/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.2	< 0.50	< 0.20
MW-18	02/04/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.1	< 0.50	< 0.20
MW-18 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 0.51	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 6.3	< 0.50	< 0.20 - 7.7 E
MW-19	06/14/00	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-19	06/14/00	SPT	< 0.50	< 0.50	< 1.0	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 0.50	< 1.0	NA
MW-19	07/06/00	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 3.0
MW-19	05/08/01	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.64	< 0.50	NA
MW-19	10/22/01	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-19	04/16/02	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-19	04/16/02	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0
MW-19	11/20/02	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-19	06/10/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.5
MW-19	12/16/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	06/16/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	12/09/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	06/22/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	12/19/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	06/21/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	12/13/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	06/18/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	12/10/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	06/25/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	12/18/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	06/24/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	12/10/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	06/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	12/07/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-19	02/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-19	02/07/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-19 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 0.64	< 0.50	< 0.50 - < 3.0
MW-20	09/23/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	82	< 0.50	< 0.50	0.63	< 0.50	< 0.50	0.58	< 0.50	< 2.2
MW-20	10/08/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	68	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-20	12/18/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	44	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-20	12/29/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-20	06/24/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-20	12/21/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-20	06/21/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-20	12/13/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-20	06/21/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-20	12/11/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-20	06/23/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-20	12/18/08	ORG	< 0.50	< 0.50	0.70	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.9
MW-20	06/25/09	ORG	< 0.50	< 0.50	0.64	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-2000	06/25/09	FD	< 0.50	< 0.50	0.61	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-20	12/08/09	ORG	< 0.50	< 0.50	0.78	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
MW-20	06/10/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-20	12/08/10	ORG	< 0.50	< 0.50	0.59	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-20	08/05/11	ORG	< 0.50	< 0.50	0.59	< 0.50	< 0.50	0.80	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.80
MW-20	02/07/12	ORG	< 0.50	< 0.50	0.50	< 0.50	< 0.50	2.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-20	08/09/12	ORG	< 0.50	< 0.50	0.53	< 0.50	< 0.50	3.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-20	02/06/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-20	08/13/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-20	02/04/14	ORG	< 0.50	< 0.50	0.54	< 0.50	< 0.50	1.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-20 Historical Range***			< 0.50	< 0.50	< 0.50 - 0.78	< 0.50	< 0.50	< 0.50 - 82	< 0.50	< 0.50	< 0.50 - 0.63	< 0.50	< 0.50	< 0.50 - 0.58	< 0.50	< 0.20 - 3.9
MW-21-200	7/14/2003	ORG	< 0.50	< 0.50	< 0.50	4.4	< 0.50	300	< 0.50	< 0.50	< 0.50	0.99	0.96	< 0.50	< 0.50	43
MW-21	09/23/03	ORG	< 0.50	0.51	2.2	26	< 0.50	1,300	1.3	4.3	1.1	11	29	< 0.50	< 0.50	160
MW-2100	09/23/03	FD	< 0.50	0.53	2.4	26	< 0.50	1,700	1.2	4.7	1.1	12	29	< 0.50	< 0.50	160
MW-21	09/23/03	SPT	< 1.0	< 1.0	2	24	3 E	1,400	1.0	3.0	< 1.0	11	27	< 1.0	< 1.0	340
MW-21	10/08/03	ORG	< 25	< 25	< 25	< 25	< 25	1,600	< 25	< 25	< 25	< 25	30	< 25	< 25	160
MW-21	12/17/03	ORG	< 0.50	1.8	3.9	62	6.8	3,500	2.3	12	1.6	20	43	< 0.50	< 0.50	150
MW-2100	12/17/03	FD	< 0.50	1.8	4.1	64	7.0	3,500	2.4	14	1.7	21	45	< 0.50	< 0.50	150
MW-21	12/17/03	SPT	< 1.0	1.0	4.0	58	6.0	2,800	2.0	9.0	1.0	20	40	< 1.0	< 1.0	290
MW-21	03/31/04	ORG	< 5.0	< 5.0	< 5.0	30	< 5.0	2,200	< 5.0	8.1	< 5.0	8.9	23	< 5.0	< 5.0	64 E
MW-21	03/31/04	SPT	< 1.0	< 1.0	< 1.0	30	< 1.0	2,100	< 1.0	< 1.0	< 1.0	< 1.0	20	< 1.0	< 1.0	140 E
MW-21	06/18/04	ORG	< 5.0	< 5.0	< 5.0	23	< 5.0	1,600	< 5.0	6.0	< 5.0	6.6	22	< 5.0	< 5.0	40
MW-21	09/22/04	ORG	< 5.0	< 5.0	< 5.0	7.5	< 5.0	530	< 5.0	< 5.0	< 5.0	< 5.0	22	< 5.0	< 5.0	13
MW-21	12/10/04	ORG	< 5.0	< 5.0	< 5.0	26	< 5.0	1,700	< 5.0	5.3	< 5.0	8.8	30	< 5.0	< 5.0	35
MW-21	03/17/05	ORG	< 0.50	1.9	4.6	71	8.9	4,600	2.4	12	2.0	27	46	0.53	< 0.50	300
MW-2100	03/17/05	FD	< 0.50	1.8	4.3	66	8.7	4,600	2.3	12	1.9	27	44	< 0.50	< 0.50	330
MW-21	06/22/05	ORG	< 0.50	1.2	2.9	42	5.9	3,000	1.9	8.2	< 0.50	19	37	< 0.50	< 0.50	210 E
MW-21	06/22/05	SPT	< 1.0	1.1	2.9	42	6.2	2,400	1.7	7.2	1.2	18	35	< 1.0	< 1.0	1,100 JE
MW-21	09/22/05	ORG	< 0.50	0.64	1.8	26	4.4	1,700	1.4	4.0	< 0.50	12	33	< 0.50	< 0.50	250
MW-21	12/19/05	ORG	< 0.50	< 0.50	2.8	31	< 0.50	4,100	< 0.50	7.4	< 0.50	10	18	< 0.50	< 0.50	430
MW-21	03/23/06	ORG	< 5.0	< 5.0	< 5.0	52	< 5.0	4,000	< 5.0	11	< 5.0	14	30	< 5.0	< 5.0	240
MW-21	03/23/06	SPT	< 0.50	< 3.00	< 3.00	40	< 3.00	2,900	< 3.00	< 3.00	< 3.00	< 3.00	30	< 3.00	< 3.00	250
MW-21	06/22/06	ORG	< 0.50	0.89	1.6	22	2.3	2,000	1.2	8.5	< 0.50	6.9	31	< 0.50	< 0.50	120
MW-21	06/22/06	SPT	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	150
MW-21	09/27/06	ORG	< 2.5	< 2.5	< 2.5	17	< 2.5	1,400	< 2.5	3.3	< 2.5	4.2	30	< 2.5	< 2.5	1,100
MW-21	12/11/06	ORG	< 0.50	0.53	1.2	16	2.0	1,200	1.4	3.2	< 0.50	5.5	31	< 0.50	< 0.50	150
MW-21	12/11/06	SPT	< 7	< 7	< 7	10 E	< 7	1,000	< 7	< 7	< 7	< 7	30	< 7	< 7	180
MW-21	03/14/07	ORG	< 2.5	< 2.5	< 2.5	12 E	3.2	1,400	< 2.5	4.4	< 2.5	8.2	32	< 2.5	< 2.5	330
MW-2100	03/14/07	FD	< 2.5	< 2.5	< 2.5	18 E	3.2	1,400	< 2.5	4.3	< 2.5	8.6	33	< 2.5	< 2.5	320
MW-21	03/14/07	SPT	< 1.0	< 1.0	< 1.0	20 E	< 1.0	1,500	< 1.0	< 1.0	< 1.0	< 1.0	30	< 1.0	< 1.0	450

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

Concentration (micrograms per liter)																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																Semi-VOCs
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-21	06/20/07	ORG	< 1.0	< 1.0	< 1.0	19	< 1.0	1,400	< 1.0	< 1.0	< 1.0	< 1.0	35	< 1.0	< 1.0	240
MW-21	09/27/07	ORG	< 0.50	< 0.50	< 0.50	5.6	0.72	490	1.8	1.2	< 0.50	2.0	36	< 0.50	< 0.50	51
MW-21	12/13/07	ORG	< 0.50	< 0.50	0.50 U	4.8	< 0.50	320	1.8	0.96	< 0.50	1.4	41	< 0.50	< 0.50	47
MW-2100	12/13/07	FD	< 0.50	< 0.50	0.50 U	5.0	< 0.50	620	1.7	1.0	< 0.50	1.4	42	< 0.50	< 0.50	49
MW-21	12/13/07	SPT	< 5	< 5	< 5	< 5	< 5	480	< 5	< 5	< 5	< 5	40	< 5	< 5	54
MW-21	06/25/08	ORG	< 5	< 5	< 5	60	6.9	4,900	< 5	11	< 5	20	34	< 5	< 5	370
MW-2100	06/25/08	FD	< 5	< 5	< 5	60	7.0	5,100	< 5	11	< 5	20	34	< 5	< 5	380
MW-21	06/25/08	SPT	< 5	< 5	< 5	50	6.0	3,500	< 5	10	< 5	20	30	< 5	< 5	440
MW-21	07/08/08	ORG	< 10	< 10	< 10	47	< 10	3,500	< 10	11	< 10	16	26	< 10	< 10	410
MW-21	07/09/08	ORG	< 10	< 10	< 10	54	< 10	4,200	< 10	10	< 10	17	25	< 10	< 10	360
MW-21	07/10/08	ORG	< 5	< 5	< 5	38	5.2	3,800	< 5	12	< 5	13	23	< 5	< 5	330
MW-21	07/15/08	ORG	< 5	< 5	< 5	42	< 5	3,500	< 5	12	< 5	13	30	< 5	< 5	290
MW-21	07/16/08	ORG	< 5	< 5	< 5	47	5.5	4,800	< 5	9.7	< 5	14	26	< 5	< 5	310
MW-21	07/23/08	ORG	< 10	< 10	< 10	40	< 10	3,500	< 10	< 10	< 10	13	24	< 10	< 10	220
MW-21	07/30/08	ORG	< 10	< 10	< 10	41	< 10	3,400	< 10	< 10	< 10	10	20	< 10	< 10	230
MW-21	08/06/08	ORG	< 5	< 5	< 5	32	< 5	1,500	< 5	7.0	< 5	7.7	19	< 5	< 5	230
MW-21	08/25/08	ORG	< 5	< 5	< 5	21	< 5	1,800	< 5	5.1	< 5	6.3	16	< 5	< 5	150
MW-21	09/24/08	ORG	< 2.5	< 2.5	< 2.5	15	< 2.5	1,200	< 2.5	3.4	< 2.5	4.8	16	< 2.5	< 2.5	100
MW-21	10/22/08	ORG	< 2.5	< 2.5	< 2.5	13	< 2.5	1,200	< 2.5	3.2	< 2.5	3.0	14	< 2.5	< 2.5	95
MW-21	11/26/08	ORG	< 2.5	< 2.5	< 2.5	11	< 2.5	1,100	< 2.5	2.6	< 2.5	2.5	12	< 2.5	< 2.5	74
MW-21	02/25/09	ORG	< 2.5	< 2.5	< 2.5	6.6	< 2.5	720	< 2.5	< 2.5	< 2.5	< 2.5	12	< 2.5	< 2.5	83
MW-21	03/18/09	ORG	< 2.5	< 2.5	< 2.5	7.7	< 2.5	900	< 2.5	< 2.5	< 2.5	2.5	11	< 2.5	< 2.5	54
MW-21	04/29/09	ORG	< 2.5	< 2.5	< 2.5	7.8	< 2.5	860	< 2.5	< 2.5	< 2.5	< 2.5	14	< 2.5	< 2.5	65
MW-21	05/27/09	ORG	< 2.5	< 2.5	< 2.5	8.4	< 2.5	940	< 2.5	< 2.5	< 2.5	2.5	14	< 2.5	< 2.5	71
MW-21	06/29/09	ORG	< 0.5	< 0.5	0.64	7.4	0.81	860	0.63	2.1	< 0.5	2.1	17	< 0.5	< 0.5	68
MW-21	07/22/09	ORG	< 1.0	< 1.0	< 1.0	8.4	< 1.0	870	1.0	1.6	< 1.0	1.9	16	< 1.0	< 1.0	65
MW-21	08/14/09	ORG	< 2.5	< 2.5	< 2.5	8.8	< 2.5	900	< 2.5	< 2.5	< 2.5	< 2.5	18	< 2.5	< 2.5	72
MW-21	09/11/09	ORG	< 2.5	< 2.5	< 2.5	8.3	< 2.5	1,100	< 2.5	< 2.5	< 2.5	< 2.5	14	< 2.5	< 2.5	63
MW-21	10/08/09	ORG	< 2.5	< 2.5	< 2.5	9.2	< 2.5	830	< 2.5	< 2.5	< 2.5	< 2.5	19	< 2.5	< 2.5	76
MW-21	12/09/09	ORG	< 0.50	< 0.50	< 0.50	1.7	< 0.50	200	< 0.50	< 0.50	< 0.50	< 0.50	12	< 0.50	< 0.50	11
MW-21	03/05/10	ORG	< 1.0	< 1.0	< 1.0	2.9	< 1.0	370	< 1.0	< 1.0	< 1.0	< 1.0	14	< 1.0	< 1.0	21
MW-21	06/11/10	ORG	< 2.0	< 2.0	< 2.0	8.6	< 2.0	800	< 2.0	< 2.0	< 2.0	< 2.0	22	< 2.0	< 2.0	40
MW-21	06/11/10	SPT	< 1	< 1	< 1	7.0	< 1	850	< 1	1.0	< 1	2.0	21	< 1	< 1	47
MW-21	09/08/10	ORG	< 2.0	< 2.0	< 2.0	12	< 2.0	1,000	< 2.0	< 2.0	< 2.0	< 2.0	21	< 2.0	< 2.0	74
MW-21	12/06/10	ORG	< 5.0	< 5.0	< 5.0	25	< 5.0	2,300	< 5.0	< 5.0	< 5.0	7.6	23	< 5.0	< 5.0	250
MW-21	12/06/10	SPT	< 5	< 5	< 5	10	< 5	1,600	< 5	< 5	5.0	< 5	10	< 5	< 5	360
MW-21	03/24/11	ORG	< 5.0	< 5.0	< 5.0	38	5.7	2,800	< 5.0	8.7	< 5.0	13	23	< 5.0	< 5.0	93 E
MW-21	03/24/11	SPT	< 1	1.0	2.0	33	4.0	2,400	2.0	6.0	< 1	13	18	2	< 1	560 E
MW-21	06/23/11	ORG	< 5.0	< 5.0	< 5.0	33	5.0	2,700	< 5.0	5.8	< 5.0	12	24	< 5.0	< 5.0	400
MW-21	06/23/11	SPT	< 1	< 1	2.0	27	4.0	2,300	1.0	5.0	< 1	10	20	< 1	< 1	450
MW-21	08/02/11	ORG	< 5.0	< 5.0	< 5.0	34	< 5.0	2,400	< 5.0	5.6	< 5.0	11 E	24 E	< 5.0	< 5.0	360 E
MW-2100	08/02/11	FD	< 2.5	< 2.5	< 2.5	34	4.4	2,000	< 2.5	5.4	< 2.5	11 E	23 E	< 2.5	< 2.5	340 E
MW-21	08/02/11	SPT	< 1.0	< 1.0	2.0	22	3.0	1,800	< 1.0	4.0	< 1.0	8 E	17 E	< 1.0	< 1.0	430
MW-21	11/01/11	ORG	< 2.5	< 2.5	< 2.5	29	4.9	1,600	< 2.5	5.6	< 2.5	11	22	< 2.5	< 2.5	390
MW-21	12/07/11	ORG	< 10	< 10	< 10	43	< 10	3,200	< 10	< 10	< 10	< 10	20	< 10	< 10	450

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-21	01/06/12	ORG	< 10	< 10	< 10	15	< 10	1,400	< 10	< 10	< 10	< 10	13	< 10	< 10	120
MW-21	02/08/12	ORG	< 4.0	< 4.0	< 4.0	8.5	< 4.0	520	< 4.0	< 4.0	< 4.0	< 4.0	11	< 4.0	< 4.0	33
MW-21	03/09/12	ORG	< 4.0	< 4.0	< 4.0	8.6	< 4.0	860	< 4.0	< 4.0	< 4.0	< 4.0	14	< 4.0	< 4.0	61
MW-21	05/07/12	ORG	<4.0	<4.0	<4.0	6.5	<4.0	490	<4.0	<4.0	<4.0	<4.0	11	<4.0	<4.0	23
MW-2100	05/07/12	FD	<4.0	<4.0	<4.0	6.3	<4.0	480	<4.0	<4.0	<4.0	<4.0	12	<4.0	<4.0	19
MW-21	08/06/2012	ORG	< 5.0	< 5.0	< 5.0	10	< 5.0	1,300	< 5.0	< 5.0	< 5.0	< 5.0	12	< 5.0	< 5.0	60
MW-21	11/5/2012	ORG	< 5.0	< 5.0	< 5.0	24	< 5.0	2,000	< 5.0	6.1	< 5.0	6.8	16	< 5.0	< 5.0	240
MW-21	2/4/2013	ORG	<2.5	<2.5	<2.5	33	5.8	1,900	<2.5	5.1	<2.5	12	19	<2.5	<2.5	480
MW-21	5/13/2013	ORG	<2.5	<2.5	<2.5	23	3.4	1,600	<2.5	4.5	<2.5	8.8	15	<2.5	<2.5	450
MW-21	8/12/2013	ORG	<2.5	<2.5	<2.5	19	3.5	1,500	<2.5	3.4	<2.5	6.1	19	<2.5	<2.5	370
MW-21	11/11/2013	ORG	<2.5	<2.5	<2.5	21	4.2	1,000	<2.5	3.3	<2.5	8.8	13	<2.5	<2.5	430
MW-21	2/3/2013	ORG	<2.5	<2.5	<2.5	29	7.2	1,300	<2.5	5.2	<2.5	10	17	<2.5	<2.5	390
MW-21 Historical Range***			< 0.50 - < 25	< 0.50 - 1.9	< 0.50 - 4.6	< 0.50 - 71	< 0.50 - 8.9	200 - 4,900	< 0.50 - 2.4	< 0.50 - 12	< 0.50 - 2.0	< 0.50 - 27	0.96 - 46	< 0.50 - 0.53	< 0.50 - < 10	11 - 1,100
MW-22-203	07/28/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.5
MW-22	09/23/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-22	10/08/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-22	12/15/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	03/30/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	06/14/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	09/21/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	12/07/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	03/14/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	06/21/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	09/20/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	12/18/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	03/21/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	06/20/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	09/26/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	12/13/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	03/12/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	06/18/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	09/25/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	12/10/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	03/18/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	06/25/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	09/23/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	12/16/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	03/17/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	06/22/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	09/01/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	12/09/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	03/02/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	06/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-22	09/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

[illegible]

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

[illegible]

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

Concentration (micrograms per liter)																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																Semi-VOCs
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-26A	06/20/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	09/27/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	12/12/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	03/13/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	06/18/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	09/25/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	12/10/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	03/17/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	06/23/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	09/24/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	12/17/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	03/18/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	06/23/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	09/02/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	12/09/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	03/02/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	06/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	09/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	12/07/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A	03/25/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26A Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26B	10/20/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26B	11/10/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26B	12/08/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	12/08/04	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	03/16/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	06/21/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	09/21/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	12/18/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	03/21/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	06/20/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	09/27/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	12/12/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	03/13/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	06/18/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	09/25/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	12/10/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	03/17/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	06/23/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	09/24/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	12/17/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	03/18/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	06/23/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	09/02/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	12/09/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier /	Date	QA Code	Benzene	Carbon	Chloroform	1,1-DCA	1,2-DCA	1,1-DCE	cis-1,2-DCE	PCE	1,1,1-TCA	1,1,2-TCA	TCE	TCFM	Toulene	1,4-DIOXANE
Sample Identifier	Sampled		(5/1)	Tetrachloride	(80/80)	(-/5)	(-/-)	(7/6)	(70/6)	(5/5)	(200/200)	(5/5)	(5/5)	(-/150)	(1,000/150)	(3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-26B	03/02/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	06/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	09/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	12/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B	03/25/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26B Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	10/19/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	11/10/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	12/07/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-2600C	12/07/04	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-26C	03/16/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.1
MW-26C	06/21/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	09/21/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	12/18/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	03/21/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	06/20/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	09/27/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	12/12/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	03/13/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.55	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	06/19/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-2600C	06/19/07	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1
MW-26C	06/19/07	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	09/25/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	12/11/07	ORG	< 0.50	< 0.50	< 0.50	1.5	< 0.50	100	< 0.50	< 0.50	< 0.50	0.61	< 0.50	< 0.50	< 0.50	57
MW-26C	12/20/07	ORG	< 0.50	< 0.50	< 0.50	1.7	< 0.50	120	< 0.50	< 0.50	< 0.50	0.72	< 0.50	< 0.50	< 0.50	55 E
MW-2600C	12/20/07	FD	< 0.50	< 0.50	< 0.50	1.7	< 0.50	120	< 0.50	< 0.50	< 0.50	0.77	< 0.50	< 0.50	< 0.50	34 U
MW-26C	12/20/07	SPT	< 0.50	< 0.50	< 0.50	2.0	< 0.50	100	< 0.50	< 0.50	< 0.50	0.8	< 0.50	< 0.50	< 0.50	76 E
MW-26C	01/21/08	ORG	< 0.50	< 0.50	< 0.50	1.3	< 0.50	110	< 0.50	< 0.50	< 0.50	0.77	< 0.50	< 0.50	< 0.50	75
MW-26C	02/21/08	ORG	< 0.50	< 0.50	< 0.50	1.0	< 0.50	71	< 0.50	0.79	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	36
MW-26C	03/19/08	ORG	< 0.50	< 0.50	< 0.50	0.61	< 0.50	46	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	37 E
MW-2600C	03/19/08	FD	< 0.50	< 0.50	< 0.50	0.59	< 0.50	46	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	31 U
MW-26C	03/19/08	SPT	< 0.50	< 0.50	< 0.50	0.60	< 0.50	44	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22 U
MW-26C	04/21/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	11
MW-26C	05/27/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	38	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	13
MW-26C	06/24/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	15	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.9
MW-26C	07/16/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	13	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.3
MW-26C	08/26/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.9
MW-26C	09/25/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.1 BU
MW-26C	12/17/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	16	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.5
MW-26C	03/18/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	06/23/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	09/02/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.6
MW-26C	12/09/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.59	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	03/02/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-26C	06/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-26C	09/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.7	< 2.0
MW-26C	12/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22	< 2.0
MW-26C	03/25/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	15	0.91
MW-26C	06/24/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.9	< 0.20
MW-26C	08/04/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.7	0.34
MW-26C	11/01/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.1	< 0.20
MW-26C	02/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.5	< 0.20
MW-26C	05/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.6	< 0.20
MW-26C	08/07/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.95	< 0.20
MW-26C	11/07/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-26C	02/08/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-26C	05/15/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-26C	08/15/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-26C	11/12/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-26C	02/04/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-26C Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50 - 1.7	< 0.50	< 0.50 - 120	< 0.50	< 0.50 - 0.79	< 0.50	< 0.50 - 0.77	< 0.50	< 0.50	< 0.50 - 22	< 0.20 - 55 E
MW-27	05/27/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-2700	05/27/08	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	05/27/08	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1
MW-27	06/10/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	06/25/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	07/16/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	08/26/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	09/23/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	12/18/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	03/17/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	06/22/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	09/01/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	12/09/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	03/02/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	06/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	09/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	12/07/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-27	03/30/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.24
MW-27	02/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-27	02/07/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-27	02/06/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-27 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20 - 0.24
MW-28	05/16/08	ORG	< 0.50	< 0.50	< 0.50	0.94	< 0.50	76 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19
MW-2800	05/16/08	FD	< 0.50	< 0.50	< 0.50	0.98	< 0.50	78 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	20
MW-28	05/16/08	SPT	< 0.50	< 0.50	< 0.50	0.50	< 0.50	45 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	23
MW-28	05/27/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.2

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-28	06/27/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.3
MW-28	07/17/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.8
MW-28	08/26/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-28	09/25/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	23	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.2 BE
MW-28	12/18/08	ORG	< 0.50	< 0.50	< 0.50	0.70	< 0.50	60	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18
MW-28	03/17/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	41	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	14
MW-28	06/23/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	28	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.2
MW-28	09/01/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	27	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.1
MW-2800	09/01/09	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	33	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.4
MW-28	12/10/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	32	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.5
MW-28	03/04/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.0
MW-28	06/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.1
MW-2800	06/09/10	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.0
MW-28	09/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.1
MW-28	12/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-28	03/30/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.2
MW-28	06/21/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.49
MW-28	08/05/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.7	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.53
MW-28	11/03/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.30
MW-28	02/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.84	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-28	05/11/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.99	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.22
MW-28	08/10/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-28	11/07/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.2
MW-28	02/07/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-28	05/14/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-28	08/13/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3
MW-28	11/12/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.1
MW-28	02/04/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.84	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.25
MW-28 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50 - 0.94	< 0.50	< 0.50 - 76 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20 - 19
MW-29	08/26/08	ORG	< 0.50	< 0.50	< 0.50	1.5	< 0.50	150	< 0.50	< 0.50	< 0.50	0.50	0.60	< 0.50	< 0.50	54
MW-2900	08/26/08	FD	< 0.50	< 0.50	< 0.50	1.6	< 0.50	140	< 0.50	< 0.50	< 0.50	< 0.50	0.58	< 0.50	< 0.50	55
MW-29	08/26/08	SPT	< 1	< 1	< 1	1.0	< 1	120	< 1	< 1	< 1	< 1	< 1	< 1	< 1	67
MW-29	09/25/08	ORG	< 0.50	< 0.50	< 0.50	1.2 E	< 0.50	110 E	< 0.50	< 0.50	< 0.50	< 0.50	0.74 E	< 0.50	< 0.50	26 BE
MW-2900	09/25/08	FD	< 0.50	< 0.50	< 0.50	1.2	< 0.50	99	< 0.50	< 0.50	< 0.50	< 0.50	1.4	< 0.50	< 0.50	32 BE
MW-29	09/25/08	SPT	< 1	< 1	< 1	1.0	< 1	100	< 1	< 1	< 1	< 1	< 1	< 1	< 1	40 E
MW-29	12/18/08	ORG	< 1.0	< 1.0	< 1.0	4.7	1.0	400	< 1.0	1.3	< 1.0	1.4	4.3	< 1.0	< 1.0	98
MW-2900	12/18/08	FD	< 1.0	< 1.0	< 1.0	4.5	1.0	390	< 1.0	1.3	< 1.0	1.5	4.3	< 1.0	< 1.0	110
MW-29	03/17/09	ORG	< 0.50	< 0.50	0.62	5.2	1.0	530	< 0.50	1.5	< 0.50	1.9	4.0	0.81	< 0.50	110
MW-2900	03/17/09	FD	< 0.50	< 0.50	0.60	5.0	1.0	550	< 0.50	1.4	< 0.50	1.9	4.0	0.78	< 0.50	100
MW-29	06/24/09	ORG	< 0.50	< 0.50	< 0.50	2.7	0.55	320	< 0.50	1.1	< 0.50	0.91	3.3	0.60	< 0.50	84
MW-29	09/02/09	ORG	< 0.50	< 0.50	< 0.50	2.7	0.57	310	< 0.50	0.97	< 0.50	0.93	3.4	0.62	< 0.50	71
MW-2900	09/02/09	FD	< 0.50	< 0.50	< 0.50	3.0	0.64	340	< 0.50	1.0	< 0.50	0.89	3.6	0.68	< 0.50	75
MW-29	12/10/09	ORG	< 0.50	< 0.50	< 0.50	3.0	0.50	290	< 0.50	0.97	< 0.50	0.84	3.5	0.54	< 0.50	74
MW-29	03/04/10	ORG	< 0.50	< 0.50	< 0.50	3.0	0.52	340	< 0.50	1.2	< 0.50	0.73	3.6	0.61	< 0.50	95

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-2900	03/04/10	FD	< 0.50	< 0.50	< 0.50	3.0	0.50	320	< 0.50	1.1	< 0.50	0.64	3.9	0.58	< 0.50	96
MW-29	06/09/10	ORG	< 0.50	< 0.50	< 0.50	2.9	< 0.50	300	< 0.50	0.85	< 0.50	0.73	3.2	0.65	< 0.50	61
MW-29	09/09/10	ORG	< 0.50	< 0.50	< 0.50	1.1	< 0.50	140	< 0.50	< 0.50	< 0.50	< 0.50	1.0	< 0.50	< 0.50	30
MW-29	12/07/10	ORG	< 0.50	< 0.50	< 0.50	2.3	< 0.50	200	< 0.50	0.71	< 0.50	0.55	3.2	< 0.50	< 0.50	41
MW-2900	12/07/10	FD	< 0.50	< 0.50	< 0.50	2.2	< 0.50	220	< 0.50	0.71	< 0.50	0.53	3.1	< 0.50	< 0.50	43
MW-29	03/30/11	ORG	< 0.50	< 0.50	< 0.50	1.9	< 0.50	200	< 0.50	0.77	< 0.50	0.56	3.6	0.51	< 0.50	29
MW-29	06/21/11	ORG	< 0.50	< 0.50	< 0.50	2.0	< 0.50	220	< 0.50	0.85	< 0.50	0.55	4.5	0.71	< 0.50	30
MW-29	08/05/11	ORG	< 0.50	< 0.50	0.63	3.6	0.55	330	0.61	0.87	< 0.50	0.76	5.6	1.2	< 0.50	45 E
MW-2900	08/05/11	FD	< 0.50	< 0.50	0.62	3.6	0.54	370	0.57	0.84	< 0.50	0.75	5.7	1.2	< 0.50	54 E
MW-29	08/05/11	SPT	< 1.0	< 1.0	< 1.0	2.0	< 1.0	270	< 1.0	< 1.0	< 1.0	< 1.0	4.0	< 1.0	< 1.0	82 E
MW-29	11/03/11	ORG	< 0.50	< 0.50	0.80	7.8	1.4	804	0.60	1.3	< 0.50	2.3	6.0	1.0	< 0.50	301
MW-29	02/09/12	ORG	< 5.0	< 5.0	< 5.0	9.2	< 5.0	900 E	< 5.0	< 5.0	< 5.0	< 5.0	7.5	< 5.0	< 5.0	130 E
MW-2900	02/09/12	FD	< 5.0	< 5.0	< 5.0	9.0	< 5.0	910 E	< 5.0	< 5.0	< 5.0	< 5.0	7.1	< 5.0	< 5.0	120 E
MW-29	02/09/12	SPT	< 1.0	< 1.0	< 1.0	5.0	< 1.0	380 E	< 1.0	1.0	1.0	4.0	1.0	1.0	< 1.0	340 E
MW-29	05/11/12	ORG	< 4.0	< 4.0	< 4.0	8.3	< 4.0	780	< 4.0	5.7	< 4.0	< 4.0	6.2	< 4.0	< 4.0	300
MW-2900	05/11/12	FD	< 5.0	< 5.0	< 5.0	8.5	< 5.0	830	< 5.0	< 5.0	< 5.0	< 5.0	5.3	< 5.0	< 5.0	280
MW-29	05/11/12	SPT ^E	< 1	< 1	< 1	5.0	1.0	550	< 1	1.0	< 1	2.0	4.0	1.0	< 1	300
MW-29	05/11/12	SPT ^C	< 0.50	< 0.50	< 1.0	6.0	1.1	730	< 1.0	1.1	< 1.0	2.1	4.6	< 1.0	< 1.0	290
MW-29	08/06/12	ORG	< 1.0	< 1.0	< 1.0	3.8	< 1.0	440	< 1.0	1.2	< 1.0	1.1	2.2	1.0	< 1.0	110
MW-29	11/07/12	ORG	< 1.0	< 1.0	< 1.0	4.6	1.2	560	< 1.0	6.6	< 1.0	1.6	5.0	1.7	< 1.0	250
MW-29	02/07/13	ORG	< 1.0	< 1.0	< 1.0	3.8	< 1.0	410	< 1.0	1.0	< 1.0	1.2	8.3	1.9	< 1.0	130
MW-2900	02/07/13	FD	< 1.0	< 1.0	< 1.0	3.7	1.0	370	< 1.0	1.0	< 1.0	1.1	8.2	2.0	< 1.0	130
MW-29	02/07/13	SPT	< 1.0	< 1.0	< 2.0	2.6	< 1.0	290	< 2.0	< 2.0	< 2.0	3.0	7.3	< 2.0	< 2.0	160
MW-29	05/15/13	ORG	< 0.50	< 0.50	< 0.50	3.0	0.63	310	< 0.50	1.0	< 0.50	1.1	4.4	1.4	< 0.50	140
MW-29	08/15/13	ORG	< 0.50	< 0.50	< 0.50	3.6	0.59	370	< 0.50	0.97	< 0.50	1.1	3.8	1.2	< 0.50	120
MW-29	08/15/13	FD	< 0.50	< 0.50	< 0.50	3.9	0.64	400	< 0.50	0.84	< 0.50	1.1	4.0	1.3	< 0.50	120
MW-29	08/15/13	SPT	< 1.0	< 1.0	< 2.0	3.2	< 1.0	290	< 2.0	< 2.0	< 2.0	< 2.0	4.6	< 2.0	< 2.0	170
MW-29	11/13/13	ORG	< 0.50	< 0.50	0.53	3.4	0.63	260	< 0.50	0.81	< 0.50	1.1	5.9	1.8	< 0.50	99
MW-29	02/07/14	ORG	< 0.50	< 0.50	< 0.50	3.1	< 0.50	290	< 0.50	1.3	< 0.50	1.1	6.1	1.9	< 0.50	130
MW-29 Historical Range***			< 0.50 - < 5.0	< 0.50 - < 5.0	< 0.50 - 0.80	1.1 - 9.2	< 0.50 - 1.4	99 - 900 E	< 0.50 - 0.61	< 0.50 - 6.6	< 0.50 - < 5.0	< 0.50 - 2.3	0.58 - 8.3	< 0.50 - 1.9	< 0.50 - < 5.0	29 - 301
MW-30A	12/18/08	ORG	< 0.50	< 0.50	< 0.50	2.9	0.67	270	< 0.50	0.58	< 0.50	1.1	0.72	< 0.50	< 0.50	86
MW-30A	12/18/08	SPT	< 1	< 1	< 1	3.0	< 1	290	< 1	< 1	< 1	1.0	< 1	< 1	< 1	110
MW-30A	01/07/09	ORG	< 0.50	< 0.50	< 0.50	2.5	0.57	270	< 0.50	0.52	< 0.50	0.95	0.52	< 0.50	< 0.50	95
MW-30A	03/17/09	ORG	< 0.50	< 0.50	< 0.50	1.1	< 0.50	140 E	< 0.50	< 0.50	< 0.50	0.57	< 0.50	< 0.50	< 0.50	53
MW-30A	03/17/09	SPT	< 1	< 1	< 1	< 1	< 1	69 E	< 1	< 1	< 1	< 1	< 1	< 1	< 1	40
MW-30A	06/23/09	ORG	< 0.50	< 0.50	< 0.50	0.89	< 0.50	80	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	32
MW-30A	06/23/09	SPT	< 1	< 1	< 1	< 1	< 1	79	< 1	< 1	< 1	< 1	< 1	< 1	< 1	38
MW-30A	09/02/09	ORG	< 0.50	< 0.50	< 0.50	1.2	< 0.50	140	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	46
MW-30A	09/02/09	SPT	< 1	< 1	< 1	1.0	< 1	110	< 1	< 1	< 1	< 1	< 1	< 1	< 1	54
MW-30A	12/10/09	ORG	< 0.50	< 0.50	< 0.50	1.1	< 0.50	92	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	36
MW-30A	03/03/10	ORG	< 0.50	< 0.50	< 0.50	1.1	< 0.50	85 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	43
MW-3000A	03/03/10	FD	< 0.50	< 0.50	< 0.50	1.1	< 0.50	65 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	41
MW-30A	06/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	24	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	13
MW-30A	09/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.6

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier /	Date	QA Code	Benzene	Carbon	Chloroform	1,1-DCA	1,2-DCA	1,1-DCE	cis-1,2-DCE	PCE	1,1,1-TCA	1,1,2-TCA	TCE	TCFM	Toulene	1,4-DIOXANE
Sample Identifier	Sampled		(5/1)	Tetrachloride	(80/80)	(-/5)	(-/5)	(7/6)	(70/6)	(5/5)	(200/200)	(5/5)	(5/5)	(-/150)	(1,000/150)	(3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-30A	12/10/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-30A	03/30/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.44
MW-30A	06/21/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.21
MW-30A	08/05/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.93	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
MW-30A	11/02/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.30
MW-30A	02/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.66	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-30A	05/10/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-30A	08/10/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.9	< 0.50	< 0.50	< 0.50	< 0.50	1.8	< 0.50	< 0.50	< 0.20
MW-30A	11/06/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.84	< 0.50	< 0.50	< 0.50	< 0.50	0.98	< 0.50	< 0.50	< 0.20
MW-30A	01/03/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.51	< 0.50	< 0.50	< 0.50	< 0.50	0.62	< 0.50	< 0.50	< 0.20
MW-30A	02/06/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-30A	02/06/13	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-30A	05/15/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.69	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-30A	08/15/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.1	< 0.50	< 0.50	< 0.50	< 0.50	1.7	< 0.50	< 0.50	< 0.20
MW-30A	11/13/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.55	< 0.50	< 0.50	< 0.20
MW-30A	02/07/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.51	< 0.50	< 0.50	< 0.20
MW-30A Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50 - 2.9	< 0.50 - 0.67	< 0.50 - 270	< 0.50	< 0.50 - 0.58	< 0.50	< 0.50 - 1.1	< 0.50 - 1.8	< 0.50	< 0.50	< 0.20 - 95
MW-30B	12/18/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.1	1.3	< 0.50	< 0.50	< 0.50	26	< 0.50	< 0.50	< 2.0
MW-30B	12/18/08	SPT	< 1	< 1	< 1	< 1	< 1	4.0	1.0	< 1	< 1	< 1	24	< 1	< 1	< 1
MW-30B	01/07/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-30B	03/17/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.0	2.0	< 0.50	< 0.50	< 0.50	35	< 0.50	< 0.50	28E
MW-30B	03/17/09	SPT	< 1	< 1	< 1	< 1	< 1	5.0	2.0	< 1	< 1	< 1	30	< 1	< 1	< 1E
MW-30B	06/23/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.91	< 0.50	< 0.50	< 2.0
MW-30B	06/23/09	SPT	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
MW-30B	09/02/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.96	< 0.50	< 0.50	< 2.0
MW-30B	09/02/09	SPT	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
MW-30B	12/10/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.1	0.67	< 0.50	< 0.50	< 0.50	12	< 0.50	< 0.50	< 2.0
MW-3000B	12/10/09	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.1	0.70	< 0.50	< 0.50	< 0.50	12	< 0.50	< 0.50	< 2.0
MW-30B	12/10/09	SPT	< 1	< 1	< 1	< 1	< 1	1.0	< 1	< 1	< 1	< 1	10	< 1	< 1	< 1
MW-30B	03/30/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 0.50	< 0.50	< 0.50	< 0.50	9.4	< 0.50	< 0.50	< 2.0
MW-30B	06/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	13	4.3	< 0.50	< 0.50	< 0.50	78	< 0.50	< 0.50	< 2.0
MW-30B	09/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	11	3.4	< 0.50	< 0.50	< 0.50	65	< 0.50	< 0.50	< 2.0
MW-3000B	09/08/10	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	13	3.7	< 0.50	< 0.50	< 0.50	70	< 0.50	< 0.50	< 2.0
MW-30B	12/10/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.9	2.8	< 0.50	< 0.50	< 0.50	49	< 0.50	< 0.50	< 2.0
MW-30B	06/21/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	14	4.3	< 0.50	< 0.50	< 0.50	87	< 0.50	3.5	0.56
MW-30B	08/05/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18 E	5.6	< 0.50	< 0.50	< 0.50	87	< 0.50	4.5	< 0.20
MW-3000B	08/05/11	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19 E	5.6	< 0.50	< 0.50	< 0.50	87	< 0.50	4.7	< 0.20
MW-30B	08/05/11	SPT	< 1	< 1	< 1	< 1	< 1	10 E	3.0	< 1	< 1	< 1	73	< 1	3.0	< 1
MW-30B	11/02/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	13.6	4.2	< 0.50	< 0.50	< 0.50	80.7	< 0.50	3.2	0.40
MW-3000B	11/02/11	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	13.7	4.4	< 0.50	< 0.50	< 0.50	82.6	< 0.50	2.8	0.40
MW-30B	02/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	14	4.2	< 0.50	< 0.50	< 0.50	75	< 0.50	< 0.50	0.30
MW-30B	02/09/12	SPT	< 1	< 1	< 1	< 1	< 1	8.0	3.0	< 1	< 1	< 1	53	< 1	< 1	< 1
MW-30B	05/10/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12	3.8	< 0.50	< 0.50	< 0.50	63	< 0.50	1.8	0.27
MW-30B	08/10/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	21 E	4.4	< 0.50	< 0.50	< 0.50	88	< 0.50	2.0	< 0.20

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-30B	08/10/12	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	11 E	3.7	< 1.0	< 1.0	< 1.0	74	< 10	1.8	<1
MW-30B	11/06/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	14	3.2	< 0.50	< 0.50	< 0.50	68	< 0.50	1.6	< 0.20
MW-30B	01/03/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18	4.5	< 0.50	< 0.50	< 0.50	93	< 0.50	2.5	< 0.20
MW-30B	05/15/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	14	4.6	< 0.50	< 0.50	< 0.50	93	< 0.50	0.82	0.40
MW-3000B	05/15/13	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	13	4.5	< 0.50	< 0.50	< 0.50	89	< 0.50	0.77	0.37
MW-30B	05/15/13	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	15	4.5	< 1.0	< 1.0	< 1.0	94	< 10	1.4	<1.0
MW-30B	02/06/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	17	4.6	< 0.50	< 0.50	< 0.50	96	< 0.50	4.4	< 0.20
MW-30B	08/15/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	20	5.9	< 0.50	< 0.50	< 0.50	100	< 0.50	1.1	0.36
MW-3000B	08/15/13	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	20	5.7	< 0.50	< 0.50	< 0.50	100	< 0.50	1.0	0.29
MW-30B	08/15/13	SPT	< 0.50	< 0.50	<1.0	<1.0	<1.0	16	5.1	<1.0	<1.0	<1.0	100	<10	1.2	<1.0
MW-30B	11/13/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12	4.0	< 0.50	< 0.50	< 0.50	69	< 0.50	1.6	<0.20
MW-30B	02/07/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	15	4.6	< 0.50	< 0.50	< 0.50	92	< 0.50	1.0	0.68
MW-30B Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<0.50 - 21E	< 0.50 - 5.9	< 0.50	< 0.50	< 0.50	< 0.50 - 100	< 0.50	< 0.50 - 4.5	< 0.20 - 28 E
MW-31	10/13/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	74	< 0.50	< 0.50	< 0.50	< 0.50	3.7	< 0.50	< 0.50	< 2.0
MW-3100	10/13/09	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	72	< 0.50	< 0.50	< 0.50	< 0.50	3.6	< 0.50	< 0.50	< 2.0
MW-31	11/04/09	ORG	< 0.50	< 0.50	< 0.50	1.7	< 0.50	290	0.77	< 0.50	< 0.50	< 0.50	13	< 0.50	< 0.50	4.1
MW-3100	11/04/09	FD	< 0.50	< 0.50	< 0.50	1.6	< 0.50	270	0.73	< 0.50	< 0.50	< 0.50	12	< 0.50	< 0.50	3.9
MW-31	11/04/09	SPT	< 1	< 1	< 1	2.0	< 1	270	< 1	< 1	< 1	< 1	11	< 1	< 1	< 4
MW-31	12/10/09	ORG	< 0.50	< 0.50	< 0.50	1.6	< 0.50	240	0.73	< 0.50	< 0.50	< 0.50	10	< 0.50	< 0.50	2.8
MW-3100	12/10/09	FD	< 0.50	< 0.50	< 0.50	1.6	< 0.50	230	0.72	< 0.50	< 0.50	< 0.50	11	< 0.50	< 0.50	2.8
MW-31	12/10/09	SPT	< 1	< 1	< 1	1.0	< 1	190	< 1	< 1	< 1	< 1	8	< 1	< 1	3.0
MW-31	03/03/10	ORG	< 0.50	< 0.50	< 0.50	0.50	< 0.50	90	< 0.50	< 0.50	< 0.50	< 0.50	4.2	< 0.50	< 0.50	< 2.0
MW-31	03/03/10	SPT	< 1	< 1	< 1	< 1	< 1	87	< 1	< 1	< 1	< 1	4.0	< 1	< 1	1.0
MW-31	06/09/10	ORG	< 0.50	< 0.50	< 0.50	3.0	< 0.50	370	1.2	< 0.50	< 0.50	< 0.50	15	< 0.50	< 0.50	5.3
MW-3100	06/09/10	FD	< 0.50	< 0.50	< 0.50	2.9	< 0.50	360	1.1	< 0.50	< 0.50	< 0.50	15	< 0.50	< 0.50	5.2
MW-31	06/09/10	SPT	< 1	< 1	< 1	3.0	< 1	370	< 1	< 1	< 1	< 1	15	< 1	< 1	7.0
MW-31	09/09/10	ORG	< 1.0	< 1.0	< 1.0	3.6	< 1.0	430	1.2	< 1.0	< 1.0	< 1.0	17	< 1.0	< 1.0	5.6
MW-31	09/09/10	SPT	< 1	< 1	< 1	3.0	< 1	430	< 1	< 1	< 1	< 1	15	< 1	< 1	7.0
MW-31	12/08/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	68	< 0.50	< 0.50	< 0.50	< 0.50	2.2	< 0.50	< 0.50	< 2.0
MW-31	03/28/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	25	< 0.50	< 0.50	< 0.50	< 0.50	2.2	< 0.50	0.57	0.25
MW-3100	03/28/11	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	27	< 0.50	< 0.50	< 0.50	< 0.50	2.3	< 0.50	0.52	0.25
MW-31	06/24/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	61	< 0.50	< 0.50	< 0.50	< 0.50	5.1	< 0.50	0.83	0.51
MW-31	08/05/11	ORG	< 0.50	< 0.50	< 0.50	0.69	< 0.50	93	< 0.50	< 0.50	< 0.50	< 0.50	6.9	< 0.50	< 0.50	1.1
MW-31	11/03/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	32.6	< 0.50	< 0.50	< 0.50	< 0.50	4.4	< 0.50	0.6	< 2.0
MW-31	11/03/11	SPT	< 1	< 1	< 1	< 1	< 1	28	< 1	< 1	< 1	< 1	3.0	< 1	< 1	< 1
MW-31	02/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	26	< 0.50	< 0.50	< 0.50	< 0.50	3.8	< 0.50	0.52	< 0.20
MW-31	05/11/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	48	< 0.50	< 0.50	< 0.50	< 0.50	5.9	< 0.50	0.75	0.49
MW-31	08/06/12	ORG	< 0.50	< 0.50	< 0.50	1.3	< 0.50	190	0.57	< 0.50	< 0.50	< 0.50	10	< 0.50	< 0.50	0.37
MW-3100	08/06/12	FD	< 0.50	< 0.50	< 0.50	1.2	< 0.50	180	0.61	< 0.50	< 0.50	< 0.50	9.8	< 0.50	< 0.50	0.40
MW-31	11/06/12	ORG	< 0.50	< 0.50	< 0.50	0.81	< 0.50	170	< 0.50	< 0.50	< 0.50	< 0.50	9.2	< 0.50	< 0.50	2.3
MW-31	02/08/13	ORG	< 0.50	< 0.50	< 0.50	1.8	< 0.50	330	0.87	< 0.50	< 0.50	< 0.50	21	< 0.50	< 0.50	4.9
MW-31	05/14/13	ORG	< 0.50	< 0.50	< 0.50	1.2	< 0.50	130	0.55	< 0.50	< 0.50	< 0.50	9.2	< 0.50	< 0.50	2.4
MW-31	08/14/13	ORG	< 0.50	< 0.50	< 0.50	2.3	< 0.50	270	0.85	0.55	< 0.50	< 0.50	11	< 0.50	0.70	4.5
MW-31	11/12/13	ORG	< 0.50	< 0.50	< 0.50	1.2	< 0.50	110	< 0.50	< 0.50	< 0.50	< 0.50	7.6	< 0.50	1.0	4.6

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-31	02/07/14	ORG	< 0.50	< 0.50	< 0.50	3.3	< 0.50	380	1.2	0.77	< 0.50	< 0.50	19	< 0.50	< 0.50	13
Historical High/Low										High						High
MW-31 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50 - 3.6	< 0.50	25 - 430	< 0.50 - 1.2	< 0.50 - 0.55	< 0.50	< 0.50	2.2 - 21	< 0.50	< 0.50 - 1.0	< 0.20 - 7.0
MW-32A	01/04/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-32A	01/04/10	DUP	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-32A	01/04/10	SPT	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
MW-32A	01/19/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-32A	03/04/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-32A	06/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-32A	09/07/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-32A	12/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-32A	03/29/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32A	06/23/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.57
MW-32A	08/03/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32A	11/03/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32A	02/07/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32A	05/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32A	08/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32A	02/05/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32A	08/13/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32A	02/05/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32A Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20 - 0.57
MW-32B	01/04/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	31	4.0	< 0.50	< 0.50	< 0.50	55	< 0.50	< 0.50	< 2.0
MW-32B	01/04/10	DUP	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	32	4.0	< 0.50	< 0.50	< 0.50	57	< 0.50	< 0.50	2.0
MW-32B	01/04/10	SPT	< 1	< 1	< 1	< 1	< 1	27	3.0	< 1	< 1	< 1	44	< 1	< 1	3.0
MW-32B	01/19/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	38	4.2	< 0.50	< 0.50	< 0.50	59	< 0.50	< 0.50	< 2.0
MW-32B	01/19/10	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	38	4.2	< 0.50	< 0.50	< 0.50	59	< 0.50	< 0.50	< 2.0
MW-32B	03/05/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	16	1.9	< 0.50	< 0.50	< 0.50	24	< 0.50	< 0.50	< 2.0
MW-32B	03/05/10	SPT	< 1	< 1	< 1	< 1	< 1	15	2.0	< 1	< 1	< 1	21	< 1	< 1	1.0
MW-32B	06/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19	2.3	< 0.50	< 0.50	< 0.50	27	< 0.50	< 0.50	< 2.0
MW-3200B	06/09/10	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	26	3.0	< 0.50	< 0.50	< 0.50	33	< 0.50	< 0.50	< 2.0
MW-32B	09/07/10	ORG	< 0.50	< 0.50	< 0.50	0.50	< 0.50	58	5.7	< 0.50	< 0.50	< 0.50	63	< 0.50	< 0.50	3.0
MW-32B	12/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	44	4.2	< 0.50	< 0.50	< 0.50	45	< 0.50	< 0.50	< 2.0
MW-3200B	12/09/10	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	46	4.3	< 0.50	< 0.50	< 0.50	46	< 0.50	< 0.50	2.0
MW-32B	12/09/10	SPT	< 1	< 1	< 1	< 1	< 1	27	3	< 1	< 1	< 1	37	< 1	< 1	3
MW-32B	03/29/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	42	4.2	< 0.50	< 0.50	< 0.50	46	< 0.50	< 0.50	0.49
MW-32B	06/23/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	35	2.4	< 0.50	< 0.50	< 0.50	31	< 0.50	< 0.50	1.6
MW-32B	08/03/11	ORG	< 0.50	< 0.50	< 0.50	0.70	< 0.50	77	5.6	< 0.50	< 0.50	< 0.50	54	< 0.50	< 0.50	2.5
MW-32B	11/03/11	ORG	< 0.50	< 0.50	< 0.50	0.6	< 0.50	69.9	4.3	< 0.50	< 0.50	< 0.50	48.6	< 0.50	< 0.50	2.3
MW-32B	02/07/12	ORG	< 0.50	< 0.50	< 0.50	0.59	< 0.50	73	4.0	< 0.50	< 0.50	< 0.50	44	< 0.50	< 0.50	1.5
MW-3200B	02/07/12	FD	< 0.50	< 0.50	< 0.50	0.61	< 0.50	74	4.0	< 0.50	< 0.50	< 0.50	46	< 0.50	< 0.50	1.6
MW-32B	05/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	39	2.8	< 0.50	< 0.50	< 0.50	30	< 0.50	< 0.50	1.4
MW-32B	08/09/12	ORG	< 0.50	< 0.50	< 0.50	0.76	< 0.50	120	5.5	< 0.50	< 0.50	< 0.50	62	< 0.50	< 0.50	0.39

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier /	Date	QA Code	Benzene	Carbon	Chloroform	1,1-DCA	1,2-DCA	1,1-DCE	cis-1,2-DCE	PCE	1,1,1-TCA	1,1,2-TCA	TCE	TCFM	Toulene	1,4-DIOXANE
Sample Identifier	Sampled		(5/1)	Tetrachloride	(80/80)	(-/5)	(-/5)	(7/6)	(70/6)	(5/5)	(200/200)	(5/5)	(5/5)	(-/150)	(1,000/150)	(3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-32B	11/07/12	ORG	< 0.50	< 0.50	< 0.50	0.92	< 0.50	100	5.4	< 0.50	< 0.50	< 0.50	66	< 0.50	< 0.50	3.4
MW-32B	01/03/13	ORG	< 0.50	< 0.50	< 0.50	0.74	< 0.50	120	4.0	< 0.50	< 0.50	< 0.50	49	< 0.50	< 0.50	0.6
MW-32B	02/05/13	ORG	< 0.50	< 0.50	< 0.50	0.92	< 0.50	100	4.8	< 0.50	< 0.50	< 0.50	53	< 0.50	< 0.50	3.1
MW-3200B	02/05/13	FD	< 0.50	< 0.50	< 0.50	1.0	< 0.50	100	5.0	< 0.50	< 0.50	< 0.50	54	< 0.50	< 0.50	3.0
MW-32B	05/15/13	ORG	< 0.50	< 0.50	< 0.50	0.77	< 0.50	88	4.7	< 0.50	< 0.50	< 0.50	57	< 0.50	< 0.50	2.8
MW-32B	08/13/13	ORG	< 0.50	< 0.50	< 0.50	1.4	< 0.50	160	5.6	< 0.50	< 0.50	< 0.50	75	< 0.50	< 0.50	2.6
MW-32B	11/13/13	ORG	< 0.50	< 0.50	< 0.50	0.85	< 0.50	75	3.3	< 0.50	< 0.50	< 0.50	46	< 0.50	< 0.50	0.56E
MW-3200B	11/13/13	FD	< 0.50	< 0.50	< 0.50	0.86	< 0.50	75	3.1	< 0.50	< 0.50	< 0.50	47	< 0.50	< 0.50	0.6E
MW-32B	11/13/13	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	96	4.4	< 1.0	< 1.0	< 1.0	52	< 1.0	< 1.0	3.6E
MW-32B	02/05/14	ORG	< 0.50	< 0.50	< 0.50	0.62	< 0.50	66	2.7	< 0.50	< 0.50	< 0.50	35	< 0.50	< 0.50	2.7
MW-32B Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50 - 1.4	< 0.50	16 - 160	1.9 - 5.7	< 0.50	< 0.50	< 0.50	24 - 75	< 0.50	< 0.50	0.39 - 3.4
MW-32C	01/05/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-32C	01/05/10	DUP	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1
MW-32C	01/05/10	SPT	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 2.0
MW-32C	01/19/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-32C	03/05/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-32C	06/10/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-32C	09/07/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-32C	12/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-32C	03/29/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32C	06/23/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.0
MW-32C	08/03/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32C	11/03/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32C	02/07/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32C	05/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.56	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32C	08/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32C	01/03/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32C	02/05/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32C	08/13/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32C	02/05/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-32C Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 0.56	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20 - 1.0
MW-33	07/16/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.6	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 0.50	1.4	< 2.0
MW-3300	07/16/10	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.8	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 0.50	1.1	< 2.0
MW-33	07/16/10	SPT	< 1	< 1	< 1	< 1	< 1	4.0	< 1	< 1	< 1	< 1	1.0	< 1	1.0	< 1
MW-33	07/30/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.4	< 0.50	< 0.50	< 0.50	< 0.50	0.55	< 0.50	0.61	< 2.0
MW-33	09/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.3	< 0.50	< 0.50	< 0.50	< 0.50	0.69	< 0.50	0.65	< 2.0
MW-3300	09/09/10	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.4	< 0.50	< 0.50	< 0.50	< 0.50	0.74	< 0.50	0.55	< 2.0
MW-33	12/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12	< 0.50	< 0.50	< 0.50	< 0.50	1.6	< 0.50	< 0.50	< 2.0
MW-3300	12/09/10	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12	< 0.50	< 0.50	< 0.50	< 0.50	1.6	< 0.50	< 0.50	< 2.0
MW-33	03/28/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.0	< 0.50	< 0.50	< 0.50	< 0.50	1.4	< 0.50	< 0.50	< 0.20
MW-33	06/22/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.4	< 0.50	< 0.50	< 0.50	< 0.50	1.4	< 0.50	< 0.50	< 0.20
MW-33	08/04/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.7	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 0.50	< 0.50	< 0.20
MW-33	11/02/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.7	< 0.50	< 0.50	< 0.50	< 0.50	0.50	< 0.50	< 0.50	< 0.20

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (-/5)	1,2-DCA (-/5)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (-/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-33	02/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-33	05/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.2	< 0.50	< 0.50	< 0.50	< 0.50	0.83	< 0.50	< 0.50	< 0.20
MW-33	08/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.2	< 0.50	< 0.50	< 0.50	< 0.50	0.74	< 0.50	< 0.50	< 0.20
MW-33	11/06/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.6	< 0.50	< 0.50	< 0.50	< 0.50	0.79	< 0.50	< 0.50	< 0.20
MW-33	01/04/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.5	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 0.50	< 0.50	< 0.20
MW-33	02/06/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.0	< 0.50	< 0.50	< 0.50	< 0.50	0.92	< 0.50	< 0.50	< 0.20
MW-33	05/15/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.3	< 0.50	< 0.50	< 0.50	< 0.50	0.73	< 0.50	< 0.50	< 0.20
MW-33	08/14/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.2	< 0.50	< 0.50	< 0.50	< 0.50	0.90	< 0.50	< 0.50	< 0.20
MW-33	11/12/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.4	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 0.50	< 0.50	< 0.20
MW-33	02/05/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.5	< 0.50	< 0.50	< 0.50	< 0.50	0.80	< 0.50	< 0.50	< 0.20
MW-3300	02/05/14	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.3	< 0.50	< 0.50	< 0.50	< 0.50	0.65	< 0.50	< 0.50	< 0.20
MW-33	02/05/14	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	9.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0
MW-33 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.7 - 12	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 1.6	< 0.50	< 0.50 - 1.4	< 0.20 - < 2.0
MW-34A	02/25/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.6	1.7	< 2.0
MW-3400A	02/25/11	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.8	2.0	< 2.0
MW-34A	02/25/11	SPT	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.0	< 1
MW-34A	03/10/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.4	1.4	< 0.20
MW-34A	03/29/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.0	2.8	< 0.20
MW-34A	06/21/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.5	< 0.50	< 0.20
MW-34A	08/04/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.63	0.68	< 0.20
MW-34A	11/02/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-34A	02/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.75	< 0.50	< 0.20
MW-34A	05/10/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.1	< 0.50	< 0.20
MW-34A	08/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.77	< 0.50	< 0.20
MW-34A	11/06/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-34A	02/05/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.70	< 0.50	< 0.20
MW-34A	05/14/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.91	< 0.50	< 0.20
MW-34A	08/13/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-34A	02/06/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.1	< 0.50	< 0.20
MW-34A Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 1.6	< 0.50 - 2.8	< 0.20 - < 2.0
MW-34B	02/25/11	ORG	< 1.0	< 1.0	< 1.0	5.1	< 1.0	560	< 1.0	< 1.0	< 1.0	1.3	1.6	< 1.0	< 1.0	75
MW-3400B	02/25/11	FD	< 1.0	< 1.0	< 1.0	6.2	< 1.0	650	< 1.0	1.1	< 1.0	1.5	1.9	< 1.0	< 1.0	61
MW-34B	02/25/11	SPT	< 1	< 1	< 1	4.0	< 1	590	< 1	< 1	< 1	1.0	1.0	< 1	< 1	78
MW-34B	03/10/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	20 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.6	4.1
MW-3400B	03/10/11	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	25 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.7	4.3
MW-34B	03/10/11	SPT	< 1	< 1	< 1	< 1	< 1	12 E	< 1	< 1	< 1	< 1	< 1	< 1	2.0	6.0
MW-34B-1 ^(c)	03/15/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	28 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.0	4.9
MW-34B-1 ^(c)	03/15/11	SPT	< 1	< 1	< 1	< 1	< 1	18 E	< 1	< 1	< 1	< 1	< 1	< 1	1.0	7.0
MW-34B-2 ^(d)	03/15/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	23	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.4	NA
MW-34B-3 ^(e)	03/15/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	30	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.60	NA
MW-34B-4 ^(f)	03/15/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	31	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.57	5.0

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-34B	03/29/11	ORG	< 0.50	< 0.50	< 0.50	0.51	< 0.50	27 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.6	9.4 E
MW-3400B	03/29/11	FD	< 0.50	< 0.50	< 0.50	0.53	< 0.50	37 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.8	9.4 E
MW-34B	03/29/11	SPT	< 1	< 1	< 1	< 1	< 1	31 E	< 1	< 1	< 1	< 1	< 1	< 1	< 1	13 E
MW-34B	06/21/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	21 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.8	8.1
MW-34B	06/21/11	SPT	< 1	< 1	< 1	< 1	< 1	10 E	< 1	< 1	< 1	< 1	< 1	< 1	< 1	11
MW-34B	08/04/11	ORG	< 0.50	< 0.50	< 0.50	4.8	0.71	410	< 0.50	< 0.50	< 0.50	1.2	0.65	< 0.50	1.5	84 E
MW-34B	11/02/11	ORG	< 0.50	< 0.50	0.50	6.3	1.2	502	< 0.50	< 0.50	< 0.50	2.1	0.70	< 0.50	< 0.50	196
MW-34B	11/02/11	SPT	< 1	< 1	< 1	4.0	< 1	340	< 1	< 1	1.0	< 1	< 1	< 1	< 1	220
MW-34B	02/08/12	ORG	< 2.5	< 2.5	< 2.5	6.0	< 2.5	550 E	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	64 E
MW-3400B	02/08/12	FD	< 2.5	< 2.5	< 2.5	6.0	< 2.5	570 E	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	66 E
MW-34B	02/08/12	SPT	< 1	< 1	< 1	3.0	< 1	250 E	< 1	< 1	< 1	1.0	< 1	< 1	< 1	190 E
MW-34B	05/10/12	ORG	< 0.50	< 0.50	< 0.50	2.3	< 0.50	120	< 0.50	< 0.50	< 0.50	0.60	< 0.50	< 0.50	< 0.50	58
MW-34B	05/10/12	SPT ^E	< 1	< 1	< 1	1.0	< 1	120	< 1	< 1	< 1	< 1	< 1	< 1	< 1	63
MW-34B	05/10/12	SPT ^C	< 0.50	< 0.50	< 1.0	1.6	< 0.50	110	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	62
MW-34B	08/10/12	ORG	< 5.0	< 5.0	< 5.0	9.8	< 5.0	1,100	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	250
MW-34B	11/07/12	ORG	<1.0	<1.0	<1.0	7.9	1.7	590 E	<1.0	<1.0	<1.0	2.6	1.4	<1.0	<1.0	260
MW-34B	11/07/12	SPT	<0.50	<0.50	<1.0	6.4	1.5	180 E	<1.0	<1.0	<1.0	3.0	1.4	<1.0	<1.0	320
MW-34B	01/03/13	ORG	<1.0	<1.0	<1.0	5.3	1.1	580	<1.0	<1.0	<1.0	1.8	< 1.0	<1.0	<1.0	68
MW-34B	01/03/13	FD	<1.0	<1.0	<1.0	5.4	1.1	590	<1.0	<1.0	<1.0	1.7	< 1.0	<1.0	<1.0	74
MW-34B	02/06/13	ORG	<1.0	<1.0	<1.0	5.5	1.4	580	<1.0	<1.0	<1.0	1.7	< 1.0	<1.0	<1.0	180
MW-34B	02/06/13	FD	<1.0	<1.0	<1.0	5.6	1.4	550	<1.0	<1.0	<1.0	1.7	< 1.0	<1.0	<1.0	170
MW-34B	02/06/13	SPT	<0.50	<0.50	<1.0	4.6	1.0	440	<1.0	<1.0	<1.0	2.0	< 1.0	<1.0	<1.0	250
MW-34B	05/14/13	ORG	<0.50	<0.50	<0.50	3.6	0.87	300	<0.50	<0.50	<0.50	1.3	0.65	<0.50	<0.50	140
MW-34B	08/13/13	ORG	<1.0	<1.0	<1.0	4.9	1.1	540	<1.0	<1.0	<1.0	1.8	1.3	<1.0	<1.0	190
MW-34B	11/13/13	ORG	< 0.50	< 0.50	< 0.50	2.4	<0.50	150	< 0.50	< 0.50	< 0.50	1.1	0.50	< 0.50	< 0.50	73
MW-34B	02/06/14	ORG	< 0.50	< 0.50	< 0.50	3.3	0.72	290	< 0.50	< 0.50	< 0.50	1.0	0.56	< 0.50	< 0.50	130
MW-3400B	02/06/14	FD	< 0.50	< 0.50	< 0.50	3.3	0.81	230	< 0.50	< 0.50	< 0.50	0.97	0.64	< 0.50	< 0.50	110
MW-34B	02/06/14	SPT	<1.0	<1.0	<2.0	2.8	<1.0	240	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	120
MW-34B Historical Range***			< 0.50 - <5.0	< 0.50 - <5.0	< 0.50 - <5.0	< 0.50 - 9.8	< 0.50 - 1.1	20 - 1,100	< 0.50 - <5.0	< 0.50 - <5.0	< 0.50 - <5.0	< 0.50 - 2.6	< 0.50 - 1.6	< 0.50 - <5.0	< 0.50 - 2.6	4.1 - 250
MW-34C	02/25/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.1	< 2.0
MW-3400C	02/25/11	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.7	< 2.0
MW-34C	02/25/11	SPT	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
MW-34C	03/10/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.0	< 0.20
MW-34C	03/29/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.1	< 0.20
MW-34C	03/29/11	SPT	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	3	< 1
MW-34C	06/21/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.1	< 0.20
MW-34C	08/04/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.6	< 0.20
MW-34C	11/02/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-34C	02/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-34C	05/10/12	ORG	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.20
MW-34C	08/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-34C	11/06/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)															Semi-VOCs	
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-34C	01/03/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-34C	02/06/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-34C	05/14/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-34C	08/13/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-34C	02/07/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-34C Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 9.6	< 0.20 - < 2.0
MW-35A	01/19/11	ORG	< 0.50	< 0.50	67	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-3500A	01/19/11	FD	< 0.50	< 0.50	67	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-35A	01/19/11	SPT	< 1	< 1	50	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
MW-35A	02/03/11	ORG	< 0.50	< 0.50	46 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-3500A	02/03/11	FD	< 0.50	< 0.50	49 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-35A	02/03/11	SPT	< 1	< 1	33 E	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
MW-35A	03/28/11	ORG	< 0.50	< 0.50	20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35A	06/22/11	ORG	< 0.50	< 0.50	11	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35A	08/04/11	ORG	< 0.50	< 0.50	14	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35A	11/01/11	ORG	< 0.50	< 0.50	6.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35A	02/08/12	ORG	< 0.50	< 0.50	4.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35A	05/09/12	ORG	< 0.50	< 0.50	2.1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35A	08/07/12	ORG	< 0.50	< 0.50	1.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35A	11/06/12	ORG	< 0.50	< 0.50	0.72	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35A	02/06/13	ORG	< 0.50	< 0.50	0.74	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35A	05/14/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35A	08/14/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35A	02/07/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35A Historical Range***			< 0.50	< 0.50	< 0.50 - 67	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20 - < 2.0
MW-35B	01/19/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-3500B	01/19/11	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-35B	01/19/11	SPT	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
MW-35B	02/03/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-3500B	02/03/11	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-35B	02/03/11	SPT	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
MW-35B	03/28/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35B	06/22/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35B	08/04/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35B	11/01/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35B	02/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35B	05/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35B	08/07/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35B	11/06/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35B	02/05/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35B	05/14/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-35B	08/14/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35B	02/04/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35B Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20 - < 2.0
MW-35C	01/19/11	ORG	< 0.50	< 0.50	120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-3500C	01/19/11	FD	< 0.50	< 0.50	120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-35C	01/19/11	SPT	< 1	< 1	87	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
MW-35C	02/03/11	ORG	< 0.50	< 0.50	0.59	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-3500C	02/03/11	FD	< 0.50	< 0.50	0.67	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
MW-35C	02/03/11	SPT	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
MW-35C	03/28/11	ORG	< 0.50	< 0.50	1.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-3500C	03/28/11	FD	< 0.50	< 0.50	1.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C	06/22/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C	08/04/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C	11/01/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C	02/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C	05/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C	08/07/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C	11/06/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C	02/06/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C	05/14/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C	08/14/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C	11/12/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C	02/04/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-35C Historical Range***			< 0.50	< 0.50	< 0.50 - 120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20 - < 2.0
MW-36	01/13/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.9	<0.20
MW-3600	01/13/12	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.0	<0.20
MW-36	01/13/12	SPT	<1	<1	<1	<1	<1	2.0	<1	<1	<1	<1	<1	<1	4.0	<1
MW-36	01/26/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.3	<0.20
MW-3600	01/26/12	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.5	<0.20
MW-36	01/26/12	SPT	<1	<1	<1	<1	<1	3.0	<1	<1	<1	<1	<1	<1	3.0	<1
MW-36	02/08/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.2	<0.20
MW-3600	02/08/12	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.1	<0.20
MW-36	02/08/12	SPT	<1	<1	<1	<1	<1	2.0	<1	<1	<1	<1	<1	<1	3.0	<1
MW-36	05/10/12	ORG	< 0.50	< 0.50	< 0.50	0.52	< 0.50	45	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.1	2.8
MW-36	08/10/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-3600	08/10/12	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19 E	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-36	08/10/12	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	9.9 E	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	1.2	< 1.1
MW-36	11/07/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	27	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.88	1.4
MW-3600	11/07/12	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	25	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.59	1.4
MW-36	01/04/13	ORG	< 0.50	< 0.50	< 0.50	1.5	< 0.50	140	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.7
MW-36	02/07/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	28	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.8

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)															Semi-VOCs	
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-3600	02/07/13	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	26	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.5
MW-36	05/14/13	ORG	< 0.50	< 0.50	< 0.50	0.55	< 0.50	45	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.0
MW-36	08/15/13	ORG	< 0.50	< 0.50	< 0.50	1.4	< 0.50	130	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.5
MW-3600	08/15/13	FD	< 0.50	< 0.50	< 0.50	1.4	< 0.50	130	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.5
MW-36	08/15/13	SPT	< 0.50	< 0.50	< 1.0	1.2	< 0.50	110	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	9.4
MW-36	11/13/13	ORG	< 0.50	< 0.50	< 0.50	1.0	< 0.50	71	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.2E
MW-3600	11/13/13	FD	< 0.50	< 0.50	< 0.50	1.1	< 0.50	71	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.1E
MW-36	11/13/13	SPT	< 0.50	< 0.50	< 1.0	1.0	< 0.50	97	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	9.1E
MW-36	02/06/14	ORG	< 0.50	< 0.50	< 0.50	1.3	< 0.50	92	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	13
MW-3600	02/06/14	FD	< 0.50	< 0.50	< 0.50	1.2	< 0.50	89	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12
MW-36	02/06/14	SPT	< 0.50	< 0.50	< 1.0	1.3	< 0.50	110	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	8.3
Historical High/Low															High	
MW-36 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50 - 1.5	< 0.50	2.9 - 140	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 5.9	< 0.20 - 8.5
MW-37	10/26/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.73	< 2.0
MW-3700	10/26/12	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.3	< 2.0
MW-37	10/26/12	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	1.4	< 1.0
MW-37	11/07/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-3700	11/07/12	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-37	11/07/12	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0
MW-37	01/03/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.66	< 0.50	< 0.50	< 0.20
MW-37	01/03/13	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0
MW-37	02/06/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-37	02/06/13	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0
MW-37	05/15/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-3700	05/15/13	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-37	05/15/13	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0
MW-37	08/14/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-37	11/12/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-37	02/06/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-37 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 0.66	< 0.50	< 0.50 - 0.73	< 0.20
MW-38	08/07/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-3800	08/07/13	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-38	08/07/13	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0
MW-38	08/16/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-38	11/12/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-38	02/06/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-38 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
MW-39	08/08/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-3900	08/08/13	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-39	08/08/13	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-39	08/16/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.69	< 0.20
MW-39	11/12/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.83	< 0.20
MW-39	02/04/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.59	< 0.20
MW-39 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 0.83	< 0.20
MW-40	07/18/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-4000	07/18/13	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-40	07/18/13	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MW-40	08/16/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-40	11/12/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-40	02/06/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
MW-40 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
EW-01	6/22/2005	ORG	< 0.50	< 0.50	0.67	10	2.6	750	< 0.50	2.5	< 0.50	6.5	2.1	< 0.50	< 0.50	140 E
EW-100	6/22/2005	FD	< 0.50	< 0.50	0.65	11	2.6	740	< 0.50	2.5	< 0.50	6.8	2.2	< 0.50	< 0.50	150 E
EW-01	6/22/2005	SPT	< 1.0	< 1.0	< 1.0	10	2.5	600	< 1.0	2.2	< 1.0	6.3	1.9	< 1.0	< 1.0	600 E
EW-01	09/22/05	ORG	< 0.50	< 0.50	< 0.50	3.0	< 0.50	210 E	< 0.50	0.59	< 0.50	1.5	0.58	< 0.50	< 0.50	25 E
EW-100	09/22/05	FD	< 0.50	< 0.50	< 0.50	3.1	< 0.50	77 E	< 0.50	0.53	< 0.50	1.5	0.53	< 0.50	< 0.50	24 E
EW-01	09/22/05	SPT	< 0.50	< 0.50	< 0.50	2.0	< 0.50	120 E	< 0.50	0.5	< 0.50	1.0	< 0.50	< 0.50	< 0.50	73 E
EW-01	12/19/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.1
EW-100	12/19/05	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.74	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.5
EW-01	03/22/06	ORG	< 0.50	< 0.50	< 0.50	1.9	< 0.50	1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	83
EW-100	03/22/06	FD	< 0.50	< 0.50	< 0.50	2.0	0.90	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 0.50	< 0.50	< 0.50	78
EW-01	06/21/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	25
EW-100	06/21/06	FD	< 0.50	< 0.50	< 0.50	0.51	< 0.50	5.1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	27
EW-01	12/11/06	ORG	2.0	< 0.50	< 0.50	1.6	< 0.50	4.3 E	< 0.50	< 0.50	< 0.50	0.80	< 0.50	< 0.50	< 0.50	42
EW-01	12/11/06	SPT	2.0	< 0.50	< 0.50	1.0	< 0.50	68 E	< 0.50	< 0.50	< 0.50	0.60	< 0.50	< 0.50	0.5 U	48
EW-01	03/14/07	ORG	< 0.50	< 0.50	< 0.50	1.2	< 0.50	90	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	33
EW-100	03/14/07	FD	< 0.50	< 0.50	< 0.50	1.1	< 0.50	90	< 0.50	< 0.50	< 0.50	0.51	< 0.50	< 0.50	< 0.50	30
EW-01	06/22/07	ORG	< 0.50	< 0.50	0.57	< 0.50	< 0.50	24	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	15
EW-01	09/27/07	ORG	< 0.50	< 0.50	< 0.50	3.8	0.90	< 0.50	< 0.50	0.73	< 0.50	2.1	0.56	< 0.50	< 0.50	110
EW-01	12/13/07	ORG	< 0.50	0.53	1.2	16	4.0	820	0.52	3.3	< 0.50	10	2.8	< 0.50	< 0.50	660
EW-100	12/13/07	FD	< 0.50	0.55	1.1	16	4.2	710	< 0.50	3.4	< 0.50	9.7	2.7	< 0.50	< 0.50	650
EW-01	12/13/07	SPT	< 0.50	< 0.50	1.0	14	3.0	740	< 0.50	3.0	< 0.50	8.7	3.0	< 0.50	< 0.50	770
EW-01	06/25/08	ORG	< 0.50	< 0.50	0.61	9.5	2.2	1,600 E	< 0.50	2.6	< 0.50	5.7	2.0	< 0.50	4.6	710
EW-100	06/25/08	FD	< 1.0	< 1.0	< 1.0	8.8	2.2	840 E	1.1	2.6	< 1.0	5.7	1.8	< 1.0	2.8	800
EW-01	06/25/08	SPT	< 5	< 5	< 5	8.0	< 5	620 E	< 5	< 5	< 5	< 5	< 5	< 5	< 5	530
EW-01	07/08/08	ORG	< 2.5	< 2.5	< 2.5	8.5	< 2.5	720	< 2.5	2.6	< 2.5	5.5	< 2.5	< 2.5	< 2.5	490
EW-01	07/09/08	ORG	< 0.50	< 0.50	0.76	9.2	1.9	820	< 0.50	2.2	< 0.50	5.0	1.9	< 0.50	< 0.50	410
EW-01	07/10/08	ORG	< 0.50	< 0.50	< 0.50	6.1	1.5	580	< 0.50	2.1	< 0.50	3.2	1.3	< 0.50	< 0.50	340
EW-01	07/15/08	ORG	< 1.0	< 1.0	< 1.0	7.0	1.8	630	< 1.0	2.3	< 1.0	4.6	1.4	< 1.0	< 1.0	350

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
EW-01	07/16/08	ORG	< 1.0	< 1.0	< 1.0	7.2	1.7	1,000	< 1.0	1.8	< 1.0	3.9	1.9	< 1.0	< 1.0	320
EW-01	07/23/08	ORG	< 1.0	< 1.0	< 1.0	5.2	1.2	520	< 1.0	2.3	< 1.0	2.6	1.2	< 1.0	< 1.0	190
EW-01	07/30/08	ORG	< 1.0	< 1.0	< 1.0	5.5	1.1	360	< 1.0	1.2	< 1.0	2.6	1.0	< 1.0	< 1.0	200
EW-01	08/06/08	ORG	< 1.0	< 1.0	< 1.0	4.2	< 1.0	340	< 1.0	< 1.0	< 1.0	2.0	< 1.0	< 1.0	< 1.0	190
EW-01	08/25/08	ORG	< 0.50	< 0.50	< 0.50	3.0	0.62	230	< 0.50	0.84	< 0.50	1.5	0.65	< 0.50	< 0.50	130
EW-01	09/24/08	ORG	< 0.50	< 0.50	< 0.50	2.4	0.57	180	< 0.50	0.94	< 0.50	1.2	1.3	< 0.50	< 0.50	74
EW-01	10/22/08	ORG	< 0.50	< 0.50	< 0.50	2.7	0.5	200	< 0.50	0.66	< 0.50	1.2	0.54	< 0.50	< 0.50	120
EW-01	11/26/08	ORG	< 0.50	< 0.50	< 0.50	2.9	0.65	190	< 0.50	0.63	< 0.50	1.5	0.51	< 0.50	< 0.50	110
EW-01	02/25/09	ORG	< 0.50	< 0.50	< 0.50	4.8	0.93	360	< 0.50	< 0.50	< 0.50	3.0	1.0	< 0.50	< 0.50	160
EW-01	03/18/09	ORG	< 0.50	< 0.50	< 0.50	1.8	< 0.50	160	< 0.50	< 0.50	< 0.50	1.2	< 0.50	< 0.50	< 0.50	70
EW-01	04/29/09	ORG	< 0.50	< 0.50	< 0.50	1.6	< 0.50	150	< 0.50	0.60	< 0.50	0.86	< 0.50	< 0.50	< 0.50	80
EW-01	05/27/09	ORG	< 0.50	< 0.50	< 0.50	3.4	0.76	320	< 0.50	0.79	< 0.50	1.5	0.90	< 0.50	< 0.50	150
EW-01	06/29/09	ORG	< 0.50	< 0.50	< 0.50	2.2	0.53	200	< 0.50	0.76	< 0.50	1.2	0.58	< 0.50	< 0.50	120
EW-01	07/22/09	ORG	< 0.50	< 0.50	< 0.50	3.2	0.64	260	< 0.50	0.66	< 0.50	1.3	0.62	< 0.50	< 0.50	120
EW-01	08/14/09	ORG	< 0.50	< 0.50	< 0.50	2.2	< 0.50	190	< 0.50	< 0.50	< 0.50	0.98	< 0.50	< 0.50	< 0.50	81
EW-01	09/11/09	ORG	< 0.50	< 0.50	< 0.50	3.1	0.70	280	< 0.50	0.66	< 0.50	1.3	0.60	< 0.50	< 0.50	120
EW-01	10/08/09	ORG	< 0.50	< 0.50	< 0.50	2.0	< 0.50	150	< 0.50	< 0.50	< 0.50	0.92	< 0.50	< 0.50	< 0.50	87
EW-01	12/09/09	ORG	< 0.50	< 0.50	0.65	9.2	2.1	720	< 0.50	2.0	< 0.50	5.1	1.7	< 0.50	< 0.50	490
EW-01	03/05/10	ORG	< 1.0	< 1.0	< 1.0	6.7	1.6	500	< 1.0	1.9	< 1.0	3.2	1.6	< 1.0	< 1.0	370
EW-01	06/11/10	ORG	< 1.0	< 1.0	< 1.0	9.7	1.9	720	< 1.0	1.9	< 1.0	4.7	1.6	< 1.0	< 1.0	400
EW-01	09/08/10	ORG	< 1.0	< 1.0	< 1.0	10	2.4	720	< 1.0	2.0	< 1.0	4.7	2.0	< 1.0	< 1.0	370
EW-01	12/07/10	ORG	< 1.0	< 1.0	< 1.0	7.5	1.4	600 E	< 1.0	1.4	< 1.0	2.7	1.2	< 1.0	< 1.0	220
EW-01	12/07/10	SPT	< 5	< 5	< 5	< 5	< 5	340 E	< 5	< 5	< 5	< 5	< 5	< 5	< 5	290
EW-01	03/24/11	ORG	< 0.50	< 0.50	< 0.50	2.6	0.59	200	< 0.50	0.82	< 0.50	1.3	0.54	< 0.50	< 0.50	64
EW-01	06/23/11	ORG	< 0.50	< 0.50	< 0.50	2.1	< 0.50	180	< 0.50	0.50	< 0.50	0.83	0.52	< 0.50	< 0.50	59
EW-100	06/23/11	FD	< 0.50	< 0.50	< 0.50	2.0	< 0.50	180	< 0.50	< 0.50	< 0.50	0.96	< 0.50	< 0.50	< 0.50	68
EW-01	08/02/11	ORG	< 0.50	< 0.50	< 0.50	3.1	0.61	370	< 0.50	0.67	< 0.50	1.4	0.55	< 0.50	< 0.50	80 E
EW-01	11/01/11	ORG	< 0.50	< 0.50	< 0.50	1.6	< 0.50	82	< 0.50	< 0.50	< 0.50	0.64	< 0.50	< 0.50	< 0.50	54
EW-01	02/06/12	ORG	< 0.50	< 0.50	< 0.50	0.85	< 0.50	59	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	11
EW-01	05/07/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18	< 0.50	0.78	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.0
EW-01	08/06/12	ORG	1	< 0.50	< 0.50	1.2	< 0.50	94	< 0.50	< 0.50	< 0.50	0.56	< 0.50	< 0.50	< 0.50	42 E
EW-0100	08/06/12	FD	< 0.50	< 0.50	< 0.50	1.2	< 0.50	99	< 0.50	< 0.50	< 0.50	0.55	< 0.50	< 0.50	< 0.50	44 E
EW-01	08/06/12	SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	64	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	65 E
EW-01	11/05/12	ORG	< 0.50	< 0.50	< 0.50	1.8	< 0.50	190	< 0.50	< 0.50	< 0.50	0.75	< 0.50	< 0.50	< 0.50	83
EW-01	02/04/13	ORG	< 0.50	< 0.50	< 0.50	1.9	< 0.50	130	< 0.50	< 0.50	< 0.50	0.67	< 0.50	< 0.50	< 0.50	58
EW-01	05/13/13	ORG	< 0.50	< 0.50	< 0.50	0.78	< 0.50	57	< 0.50	< 0.50	< 0.50	< 0.50	0.52	< 0.50	< 0.50	41
EW-01	08/12/13	ORG	< 0.50	< 0.50	< 0.50	2.9	0.56	220	< 0.50	0.76	< 0.50	0.85	< 0.50	< 0.50	< 0.50	81
EW-01	11/11/13	ORG	< 0.50	< 0.50	< 0.50	2.8	< 0.50	160	< 0.50	0.55	< 0.50	1.3	0.54	< 0.50	< 0.50	130
EW-01	02/03/14	ORG	< 0.50	< 0.50	< 0.50	3.5	1.1	190	< 0.50	1.1	< 0.50	1.4	0.81	< 0.50	< 0.50	140
EW-01 Historical Range***			< 0.50 - 2	< 0.50 - 0.55	< 0.50 - 1.2	< 0.50 - 16	< 0.50 - 4.0	< 0.50 - 1,600 E	< 0.50 - 0.52	< 0.50 - 3.3	< 0.50 - < 2.5	< 0.50 - 10	< 0.50 - 2.8	< 0.50 - 0.52	< 0.50 - 4.6	5.1 - 710
EW-02	10/30/09	ORG	< 0.50	< 0.50	< 0.50	0.70	< 0.50	52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.85	24
EW-200	10/30/09	FD	< 0.50	< 0.50	< 0.50	0.73	< 0.50	55	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.78	23
EW-02	03/22/10	ORG	< 0.50	< 0.50	< 0.50	0.92	< 0.50	82	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22
EW-02	03/23/10	ORG	< 0.50	< 0.50	< 0.50	0.94	< 0.50	82	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	24
EW-02	03/24/10	ORG	< 0.50	< 0.50	< 0.50	0.85	< 0.50	74	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	25

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

Concentration (micrograms per liter)																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
EW-02	03/25/10	ORG	< 0.50	< 0.50	< 0.50	0.79	< 0.50	70	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22
EW-02	03/26/10	ORG	< 0.50	< 0.50	< 0.50	0.83	< 0.50	76	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19
EW-02	04/01/10	ORG	< 0.50	< 0.50	< 0.50	0.88	< 0.50	81	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	29
EW-02	04/09/10	ORG	< 0.50	< 0.50	< 0.50	0.90	< 0.50	85	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	31
EW-02	04/13/10	ORG	< 0.50	< 0.50	< 0.50	1.4	< 0.50	120	< 0.50	< 0.50	< 0.50	0.59	< 0.50	< 0.50	< 0.50	43
EW-02	04/23/10	ORG	< 0.50	< 0.50	< 0.50	1.0	< 0.50	91	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	35
EW-02	05/25/10	ORG	< 0.50	< 0.50	< 0.50	1.1	< 0.50	100	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	38
EW-02	06/10/10	ORG	< 0.50	< 0.50	< 0.50	1.4	< 0.50	120	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0	< 5.0	40
EW-02	07/08/10	ORG	< 0.50	< 0.50	< 0.50	1.5	< 0.50	160	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	48
EW-02	08/02/10	ORG	< 0.50	< 0.50	< 0.50	1.3	< 0.50	150	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	42
EW-02	09/02/10	ORG	< 0.50	< 0.50	< 0.50	1.4	< 0.50	160	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	42
EW-02	10/07/10	ORG	< 0.50	< 0.50	< 0.50	1.4	< 0.50	140	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	39
EW-02	11/11/10	ORG	< 0.50	< 0.50	< 0.50	1.1	< 0.50	140	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	33
EW-02	12/07/10	ORG	< 0.50	< 0.50	< 0.50	1.0	< 0.50	130	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	29
EW-02	01/13/11	ORG	< 0.50	< 0.50	< 0.50	1.0	< 0.50	99	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	29
EW-02	02/03/11	ORG	< 0.50	< 0.50	< 0.50	0.88	< 0.50	83	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22
EW-02	03/02/11	ORG	< 0.50	< 0.50	< 0.50	0.71	< 0.50	77	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	16
EW-02	04/01/11	ORG	< 0.50	< 0.50	< 0.50	0.76	< 0.50	82	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	16
EW-02	05/04/11	ORG	< 0.50	< 0.50	< 0.50	0.79	< 0.50	83	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19
EW-02	06/07/11	ORG	< 0.50	< 0.50	< 0.50	0.65	< 0.50	67	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	20
EW-02	07/02/11	ORG	< 0.50	< 0.50	< 0.50	0.73	< 0.50	87	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18
EW-02	08/01/11	ORG	< 0.50	< 0.50	< 0.50	0.91	< 0.50	75	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	21
EW-02	09/09/11	ORG	< 0.50	< 0.50	< 0.50	0.82	< 0.50	90	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	20
EW-02	10/17/11	ORG	< 0.50	< 0.50	< 0.50	0.62	< 0.50	67	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19
EW-02	11/01/11	ORG	< 0.50	< 0.50	< 0.50	0.69	< 0.50	55	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22
EW-02	12/07/11	ORG	< 0.50	< 0.50	< 0.50	0.62	< 0.50	62	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	20
EW-02	01/06/12	ORG	< 0.50	< 0.50	< 0.50	0.53	< 0.50	85	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	15
EW-02	02/08/12	ORG	< 0.50	< 0.50	< 0.50	0.53	< 0.50	54	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.4
EW-02	03/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	59	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12
EW-02	04/16/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	45	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	14
EW-02	05/01/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	37	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	13
EW-02	06/08/2012	ORG	< 0.50	< 0.50	< 0.50	0.62	< 0.50	67	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19
EW-02	07/11/2012	ORG	< 0.50	< 0.50	< 0.50	0.53	< 0.50	64	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19
EW-02	08/03/2012	ORG	< 0.50	< 0.50	< 0.50	0.55	< 0.50	67	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	16
EW-02	09/06/12	ORG	< 0.50	< 0.50	< 0.50	0.58	< 0.50	62	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	11
EW-02	10/15/12	ORG	< 0.50	< 0.50	< 0.50	0.74	< 0.50	75	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18
EW-02	11/05/12	ORG	< 0.50	< 0.50	< 0.50	0.52	< 0.50	63	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12
EW-02	12/10/12	ORG	< 0.50	< 0.50	< 0.50	0.68	< 0.50	72	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	17
EW-02	01/04/13	ORG	< 0.50	< 0.50	< 0.50	0.60	< 0.50	63	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	10
EW-02	02/09/13	ORG	< 0.50	< 0.50	< 0.50	0.52	< 0.50	39	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	25
EW-02	9/6/12	ORG	< 0.50	< 0.50	< 0.50	0.60	< 0.50	50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18
EW-02	4/15/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	32	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	13
EW-02	5/7/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	46	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22
EW-02	6/13/13	ORG	< 0.50	< 0.50	< 0.50	0.64	< 0.50	54	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	25
EW-02	7/2/13	ORG	< 0.50	< 0.50	< 0.50	0.72	< 0.50	64	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	27
EW-02	8/10/13	ORG	< 0.50	< 0.50	< 0.50	0.76	< 0.50	80	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	24
EW-02	9/3/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	26	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	9.7
EW-02	10/5/13	ORG	< 0.50	< 0.50	< 0.50	1.0	< 0.50	75	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	31

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)															Semi-VOCs	
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Regional Groundwater System Monitor and Extraction Wells (cont'd)																
EW-02	11/1/13	ORG	< 0.50	< 0.50	< 0.50	0.64	< 0.50	54	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	28
EW-02	12/11/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	49	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	22
EW-02	1/17/14	ORG	< 0.50	< 0.50	< 0.50	0.55	< 0.50	34	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	21
EW-02	2/11/14	ORG	< 0.50	< 0.50	< 0.50	0.63	< 0.50	49	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	26
EW-02 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50 - 1.5	< 0.50	26 - 160	< 0.50	< 0.50	< 0.50	< 0.50 - 0.59	< 0.50	< 0.50	< 0.50 - 0.85	6.4 - 48
Perched Zone Piezometers																
P-07	06/23/97	ORG	< 1.0	14	8.3	154	< 1.0	23,300	5.1	52	1,400	22	39	< 1.0	< 1.0	NA
P-07	08/16/99	ORG	< 1,000	< 1,000	< 1,000	< 1,000	< 1,000	22,600	< 1,000	< 1,000	1,180	< 1,000	< 1,000	< 1,000	< 1,000	NA
P-07	01/26/00	ORG	6.0	< 5.0	< 5.0	64	< 5.0	4,730	< 5.0	17	270	17	17	< 5.0	< 5.0	NA
P-07	05/18/00	ORG	12	7.7	5.8	98	17	13,000	< 5.0	36	355	25	37	< 5.0	< 5.0	NA
P-07	05/10/01	ORG	3.0 J	2.0 J	3.0 J	44	11	4,100	< 5.0	12	54	14	34	< 5.0	< 5.0	2,020
P-07	10/24/01	ORG	< 25	< 25	< 25	< 25	< 25	930	< 25	< 25	< 25	< 25	< 25	< 25	< 25	1,560
P-07	04/18/02	ORG	< 5.0	< 5.0	< 5.0	23	7.0	2,200	< 5.0	6.0	14	7.7	9.3	< 5.0	< 5.0	2,200 J
P-07	04/18/02	SPT	0.90	1.1	2.1	27.2	7.1	1,360	0.9	5.4	13	6.8	9.8	2.1	< 0.50	1,960
P-07	11/21/02	ORG	0.82	< 0.50	2.1	24	7.4	1,900	1.2	7.7	< 0.50	8.0	12	3.8	< 0.50	2,800
P-07	06/11/03	ORG	0.84	< 0.50	1.9	25	7.0	1,600	0.98	7.3	7.6	7.6	10	3.8	< 0.50	3,100
P-07	09/25/03	ORG	0.57	< 0.50	1.9	17	< 0.50	890	0.75	3.5	3.2	7.1	5.8	1.8	< 0.50	1,300
P-07	12/17/03	ORG	0.68	1.0	1.8	25	6.8	1,400	1.1	6.1	6.5	7.3	9.6	1.3	< 1.0	990
P-07	03/31/04	ORG	< 5.0	< 5.0	< 5.0	26	< 5.0	2,100	< 5.0	7.8	6.7	6.0	11	< 5.0	< 5.0	920
P-07	06/17/04	ORG	< 5.0	< 5.0	< 5.0	23	< 5.0	1,600	< 5.0	< 5.0	< 5.0	7.0	7.9	< 5.0	< 5.0	990
P-07	12/15/04	ORG	< 5.0	< 5.0	0.72	8.3	3.4	640	< 5.0	1.9	< 0.50	3.3	3.1	< 5.0	< 0.50	360
P-07	03/23/06	ORG	1.3	3.4	3.7	45	10	3,900	1.8	12	< 0.50	6.7	16	3.4	< 0.50	2,100
P-07	03/23/06	SPT	< 3	< 3	< 3	30	< 3	3,200	< 3	< 3	< 3	< 3	< 3	< 3	< 3	1,900 J
P-07	06/22/06	ORG	< 5.0	< 5.0	< 5.0	32	8.7	4,200	< 5.0	14	< 5.0	6.0	18	< 5.0	< 5.0	1,400
P-07	06/22/06	SPT	< 20	< 20	< 20	30	< 20	3,100	< 20	< 20	< 20	< 20	< 20	< 20	< 20	NA
P-07	09/28/06	ORG	< 5.0	< 5.0	< 5.0	44	< 5.0	5,300	< 5.0	12	< 5.0	6.1	17	< 5.0	< 5.0	2,300
P-07	12/19/06	ORG	< 1.0	< 1.0	< 1.0	38	< 1.0	3,600	< 1.0	13	< 1.0	< 1.0	13	< 1.0	< 1.0	2,300
P-07	03/13/07	ORG	1.1	2.4	2.8	31	8.0	3,100	1.7	10	< 0.50	7.2	13	2.4	< 0.50	2,300
P-07	03/19/08	ORG	< 2.5	< 2.5	3.9	31	8.4	3,200	< 2.5	8.4	< 2.5	7.0	11	5.2	< 2.5	2,300
P-07	06/27/08	ORG	0.95	2.6	3.8 U	36	11	4,500	1.9	9.4	< 0.50	9.3	15	10	< 0.50	2,500
P-07	09/25/08	ORG	< 5.0	< 5.0	< 5.0	30	6.8	3,000	< 5.0	7.9	< 5.0	7.1	17	17	< 5.0	2,500 B
P-07	12/18/08	ORG	< 5.0	< 5.0	< 5.0	30	8.0	2,800	< 5.0	6.8	< 5.0	8.2	8.4	< 5.0	< 5.0	2,600
P-07	03/17/09	ORG	< 10	< 10	< 10	40	< 10	3,500	< 10	< 10	< 10	12	14	< 10	< 10	2,600
P-07	06/25/09	ORG	< 10	< 10	< 10	29	< 10	3,100	< 10	< 10	< 10	11	10	< 10	< 10	2,900
P-07	09/01/09	ORG	< 5.0	< 5.0	< 5.0	27	7.0	2,500	< 5.0	7.4	< 5.0	8.7	10	< 5.0	< 5.0	2,600
P-07	12/10/09	ORG	< 5.0	< 5.0	< 5.0	37	8.8	3,300	< 5.0	9.7	< 5.0	11	11	< 5.0	< 5.0	2,800
P-07	03/03/10	ORG	< 5.0	< 5.0	< 5.0	35	9.8	3,500	< 5.0	9.9	< 5.0	14	12	< 5.0	< 5.0	3,100
P-07	06/11/10	ORG	< 5.0	< 5.0	< 5.0	33	7.4	2,400	< 5.0	5.6	< 5.0	12	9.7	< 5.0	< 5.0	2,500
P-07	09/10/10	ORG	< 5.0	< 5.0	< 5.0	28	7.1	1,900	< 5.0	6.7	< 5.0	7.8	13	< 5.0	< 5.0	2,500
P-07	12/10/10	ORG	< 5.0	< 5.0	< 5.0	29	6.0	2,700	< 5.0	7.1	< 5.0	9.1	8.9	< 5.0	< 5.0	2,000
P-07	03/30/11	ORG	< 5.0	< 5.0	< 5.0	29	7.9	2,400	< 5.0	9.6	< 5.0	12	11	< 5.0	< 5.0	1,000
P-07	02/09/12	ORG	< 20	< 20	< 20	33	< 20	2,800	< 20	< 20	< 20	< 20	< 20	< 20	< 20	2,200
P-07	02/07/13	ORG	< 2.5	< 2.5	< 2.5	22	6.6	1,600	< 2.5	4.8	< 2.5	7.2	5.9	2.8	< 2.5	1,900
P-07	02/05/14	ORG	< 1.0	1.1	1.6	17	4.9	1,100	< 1.0	5.7	< 1.0	5.4	4.9	3.1	< 1.0	1,400
P-07 Historical Range***			0.57 - 12	1 - 14	0.72 - 8.3	8.3 - 154	< 0.50 - 17	640 - 23,300	0.75 - 5.1	1.9 - 52	< 0.50 - 1,400	< 1.0 - 25	3.1 - 39	< 1.0 - 17	< 0.50	360 - 3,100

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)															Semi-VOCs	
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
Perched Zone Piezometers (continued)																
P-09	09/25/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	10/08/03	ORG	< 0.50	< 0.50	< 0.50	0.87	< 0.50	67	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	12/18/03	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	32	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	03/30/04	ORG	< 0.50	< 0.50	< 0.50	0.76	< 0.50	130	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	06/17/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-900	06/17/04	FD	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.2
P-09	06/17/04	SPT	< 1	< 1	< 1	< 1	< 1	2.0	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1.0
P-09	09/21/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.1
P-09	12/15/04	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.2
P-09	03/16/05	ORG	< 0.50	< 0.50	< 0.50	0.65	< 0.50	88	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.2
P-09	06/24/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	43 E	< 0.50	< 0.50	< 0.50	< 0.50	0.58	< 0.50	< 0.50	< 2.0
P-09	09/22/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	25	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	12/20/05	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	27	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.2
P-09	12/20/05	SPT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	29	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.0
P-09	03/22/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	8.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.8
P-09	06/21/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	09/28/06	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	19	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.2
P-09	12/18/06	ORG	< 0.50	< 0.50	< 0.50	0.53	< 0.50	37	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	03/13/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	14	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	06/21/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	09/26/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	12/12/07	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	1.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	03/18/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.3	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	06/26/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	3.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	09/26/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	12/16/08	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	17	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	03/17/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	7.1
P-09	06/25/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	12	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.7
P-09	09/01/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	6.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	12/08/09	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	18	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.5
P-09	03/02/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	4.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	06/10/10	ORG	< 0.50	< 0.50	< 0.50	0.51	< 0.50	30	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	09/09/10	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	13	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	12/08/10	ORG	< 0.50	< 0.50	< 0.50	0.52	< 0.50	21	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 2.0
P-09	03/30/11	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	10	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.86
P-09	02/09/12	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	2.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.68
P-09	02/07/13	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	5.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20
P-09	02/05/14	ORG	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.56	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.35
Historical High/Low								Low								
P-09 Historical Range***			< 0.50	< 0.50	< 0.50	< 0.50 - 0.87	< 0.50	1.2 - 130	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 - 0.58	< 0.50	< 0.50	< 0.20 - 7.1
Perched Zone Grab Samples (From Regional Groundwater System Monitor Well Boring)																
MW-6-W-104	01/16/97	ORG	< 1.0	12	33	500	< 1.0	19,000	24	89	2,800	223	73	< 1.0	< 1.0	NA
MW-9-113-PW	03/21/97	ORG	< 1.0	10	15	210	< 1.0	27,300	8.2	65	4,500	120	48	11	< 1.0	NA

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)															Semi-VOCs	
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)
QUALITY ASSURANCE/QUALITY CONTROL SAMPLES																
TB-030913	3/9/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-041513	4/15/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-050713	5/7/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-051313	5/13/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-051513A	5/15/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-051513B	5/15/2013	TB-SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
TB-061313	6/13/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-070213	7/2/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-07182013	7/18/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-07182013A	7/18/13	TB-SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
TB-080713A	8/7/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-080713B	8/7/13	TB-SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
TB-080813A	8/8/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-080813B	8/8/13	TB-SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
TB-081013	8/10/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-081213	8/12/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-081413	8/14/03	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-081513A	8/15/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-081513B	8/15/13	TB-SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
TB-08162013	8/16/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
RB-08142013	8/14/13	RB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
RB-08142013B	8/14/13	RB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-090313	9/3/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-100513	10/5/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-110113	11/1/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-111113	11/11/03	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-111313A	11/13/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-111313B	11/13/13	TB-SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
TB-121113	12/11/13	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-011714	1/17/14	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-020314	2/3/14	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
RB-020414	2/4/14	RB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-020514A	2/5/14	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-020514B	2/5/14	TB-SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
RB-020514	2/5/14	RB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-020614A	2/6/14	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-020614B	2/6/14	TB-SPT	< 0.50	< 0.50	< 1.0	< 1.0	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	NA
TB-020714	2/7/14	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA
TB-021114	2/11/2014	TB	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NA

TABLE 4
PREVALENT VOLATILE ORGANIC COMPOUNDS AND 1,4-DIOXANE IN GROUNDWATER

.....Concentration (micrograms per liter).....																
VOLATILE ORGANIC COMPOUNDS (FEDERAL MCL/CALIFORNIA MCL)																Semi-VOCs
Well Identifier / Sample Identifier	Date Sampled	QA Code	Benzene (5/1)	Carbon Tetrachloride (5/0.5)	Chloroform (80/80)	1,1-DCA (--/5)	1,2-DCA (--/--)	1,1-DCE (7/6)	cis-1,2-DCE (70/6)	PCE (5/5)	1,1,1-TCA (200/200)	1,1,2-TCA (5/5)	TCE (5/5)	TCFM (--/150)	Toulene (1,000/150)	1,4-DIOXANE (3*/1**)

NOTE: Detections are shown in **BOLD** type.

FOOTNOTES

- ^(a) Reconnaissance groundwater sample; results should be considered qualitative.
- ^(b) Groundwater sample collected after purging two additional casing volumes.
- ^(c) Groundwater sample collected after standard 3 purge volumes.
- ^(d) Groundwater sample collected after 10 purge volumes.
- ^(e) Groundwater sample collected after 30 purge volumes.
- ^(f) Groundwater sample collected after 50 purge volumes.
- 1,1-DCA = 1,1-Dichloroethane
- 1,2-DCA = 1,2-Dichloroethane
- 1,1-DCE = 1,1-Dichloroethylene
- cis-1,2-DCE = cis-1,2-Dichloroethylene
- PCE = Tetrachloroethylene
- 1,1,1-TCA = 1,1,1-Trichloroethane
- 1,1,2-TCA = 1,1,2-Trichloroethane
- TCE = Trichloroethylene
- TCFM = Trichlorofluoromethane
- (<) = Less than; the value is the Limit of Detection for that compound
- (--) = Not promulgated

- Semi-VOCs = Semivolatile organic compounds
- E = Data qualified as estimated in accordance with quality control criteria.
- NA = Not analyzed for constituent
- FD = Field duplicate sample
- J = Data qualified as Estimated; does not meet calibration range acceptance criteria.
- ORG = Original sample
- QA = Quality Assurance
- RB = Rinsate blank sample
- SPT = Split sample
- TB = Trip blank sample
- U = Data qualified as unusable in accordance with quality control criteria.
- ug/l = Micrograms per liter
- MCL = Maximum contaminant level
- * = 1,4-Dioxane Action Level of 3 ug/l
- ** = California Notification Level for 1,4-dioxane of 1 ug/l
- *** = Historical Range determined using original samples exclusively
- B = Analyte detected in the associated Method Blank

TABLE 5
OTHER VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER

WELL IDENTIFIER	DATE SAMPLED	QUALITY ASSURANCE CODE	COMPOUNDS	CONCENTRATION (micrograms per liter)
<u>Regional Groundwater System Monitor and Extraction Wells</u>				
EW-01	12/11/2006	SPT	Methylene chloride	4
EW-01	12/13/2007	ORG	Vinyl chloride	0.58
EW-01	12/13/2007	FD	Vinyl chloride	0.6
EW-02	12/7/2011	ORG	Naphthalene	6.4
EW-02	12/10/2012	ORG	Chloromethane	1.2
MW-08	12/20/2005	SPT	Methylene chloride	3
MW-08	6/22/2006	ORG	Methylene chloride	0.62
MW-08	6/22/2006	FD	Methylene chloride	0.69
MW-16	4/16/2002	SPT	2-butanone	7
MW-16	4/16/2002	SPT	Acetone	20
MW-16	6/18/2004	ORG	Chlorobenzene	1.0
MW-16	12/10/2004	ORG	Methylene chloride	1.3
MW-18	11/19/2002	ORG	m,p-Xylene	0.54
MW-21	9/23/2003	FD	1,3-Dichloropropane	0.8
MW-21	12/17/2003	ORG	trans-1,2-Dichloroethylene	0.62
MW-21	3/17/2005	ORG	trans-1,2-Dichloroethylene	0.57
MW-21	12/11/2006	SPT	Acetone	40
MW-21	12/11/2006	SPT	Methylene chloride	50 E
MW-21	6/24/2011	SPT	1,2,2-trichlorotrifluoroethane	2
MW-21	2/3/2014	SPT	Methylene chloride	8.4
MW-26C	12/20/2007	ORG	1,1-dichloropropene	0.93
MW-26C	8/15/2013	ORG	Chloroethane	0.87
MW-28	5/27/2008	ORG	Vinyl chloride	0.58
MW-28	3/30/2011	ORG	Chloromethane	0.91
MW29	5/11/2012	SPT	Tert-Butyl Alcohol	10
MW-30B	8/5/2011	SPT	1,2,2-trichlorotrifluoroethane	2
MW-34A	2/25/2011	SPT	Acetone	6 U
MW-34B	2/25/2011	SPT	Acetone	6 U
MW-34B	3/10/2011	SPT	Acetone	6 U
MW-34C	2/25/2011	SPT	Acetone	7 U
MW-34C	11/2/2011	ORG	Chloromethane	0.5
MW-35A	1/19/2011	ORG	Bromodichloromethane	4.3
MW-35A	1/19/2011	ORG	Bromoform	1.5
MW-35A	1/19/2011	ORG	Bromomethane	0.75
MW-35A	1/19/2011	ORG	Chloromethane	0.78
MW-35A	1/19/2011	ORG	Dibromochloromethane	2.5
MW-35A	1/19/2011	FD	Bromodichloromethane	4.0
MW-35A	1/19/2011	FD	Bromoform	1.4
MW-35A	1/19/2011	FD	Chloromethane	0.73
MW-35A	1/19/2011	FD	Dibromochloromethane	2.4

TABLE 5
OTHER VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER

WELL IDENTIFIER	DATE SAMPLED	QUALITY ASSURANCE CODE	COMPOUNDS	CONCENTRATION (micrograms per liter)
<u>Regional Groundwater System Monitor and Extraction Wells (Continued)</u>				
MW-35A	1/19/2011	SPT	Bromodichloromethane	3
MW-35A	1/19/2011	SPT	Bromoform	2
MW-35A	1/19/2011	SPT	Dibromochloromethane	2
MW-35A	2/3/2011	ORG	Bromodichloromethane	3.6
MW-35A	2/3/2011	ORG	Bromoform	0.65
MW-35A	2/3/2011	ORG	Dibromochloromethane	1.7
MW-35A	2/3/2011	FD	Bromodichloromethane	4.1
MW-35A	2/3/2011	FD	Bromoform	0.69
MW-35A	2/3/2011	FD	Dibromochloromethane	2.0
MW-35A	2/3/2011	SPT	Bromodichloromethane	2
MW-35A	2/3/2011	SPT	Dibromochloromethane	1
MW-35A	3/28/2011	ORG	Bromodichloromethane	0.90
MW-35A	6/22/2011	ORG	Bromodichloromethane	0.59
MW-35A	11/1/2011	ORG	Chloromethane	0.59
MW-35C	1/19/2011	ORG	Bromodichloromethane	11 E
MW-35C	1/19/2011	ORG	Bromoform	1.1
MW-35C	1/19/2011	ORG	Bromomethane	0.52
MW-35C	1/19/2011	ORG	Dibromochloromethane	3.6
MW-35C	1/19/2011	FD	Bromodichloromethane	10 E
MW-35C	1/19/2011	FD	Bromoform	1.1
MW-35C	1/19/2011	FD	Bromomethane	0.90
MW-35C	1/19/2011	FD	Chloromethane	0.64
MW-35C	1/19/2011	FD	Dibromochloromethane	3.5
MW-35C	1/19/2011	SPT	Bromodichloromethane	8 E
MW-35C	1/19/2011	SPT	Bromoform	1
MW-35C	1/19/2011	SPT	Dibromochloromethane	3
<u>Perched Zone Piezometers</u>				
P-07	6/22/2006	ORG	Methylene chloride	7.4
P-07	3/13/2007	ORG	Vinyl chloride	1.2
P-07	6/27/2008	ORG	Vinyl chloride	1.8
P-07	9/25/2008	ORG	Vinyl chloride	7.8
P-09	12/20/2005	SPT	Methylene chloride	3 U
<u>Perched Zone Grab Samples (From Regional Groundwater System Monitor Well Boring)</u>				
MW-6-W-104	1/16/1997	ORG	1,1,1,2-tetrachloroethane	1.6
MW-6-W-104	1/16/1997	ORG	1,2-Dichloropropane	2.1
<u>Quality Assurance/Quality Control Samples</u>				
RB-08142013	8/14/2013	ORG	Methylene chloride	3.7
RB-08142013B	8/14/2013	ORG	Methylene chloride	3.4

FOOTNOTES

E = Estimated

FD = Field duplicate sample

ORG = Original sample

SPT = Split sample

U = Unusable

TABLE 6

PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLING SCHEDULE

				SAMPLE FREQUENCY AND LOCATION																	
COMPOUND(S) / CONSTITUENT	ANALYTICAL METHOD	SAMPLE CONTAINER	REPORTING DETECTION LIMITS (milligrams per liter)	Daily Samples ¹ : Days 1-5				Weekly Samples ¹ : Weeks 1-4				Monthly Samples: Week 5+				Quarterly Samples: Week 1+					
				Extraction Well head (EW-02) ²	Post-Filter (PF)	Post-Oxidation (POX)	Carbon Breakthrough (CBT) ³	Post-Carbon (CEFF)	Extraction Well head (EW-02) ²	Post-Filter (PF)	Post-Oxidation (POX)	Carbon Breakthrough (CBT) ³	Post-Carbon (CEFF)	Extraction Well head (EW-02) ²	Post-Filter (PF)	Post-Oxidation (POX)	Carbon Breakthrough (CBT) ³	Post-Carbon (CEFF)	Extraction Well head (EW-02) ²	Post-Oxidation (POX)	
COMPOUNDS/CONSTITUENTS NORMALLY REQUIRED AS PART OF NPDES OR WDR PERMITS, PURSUANT TO CRWQCB REGION 8 ORDER NO. R8-2003-008⁴:																					
Volatile Organic Compounds	EPA 8260B	3 - 40 mL VOA, HCl	QAPP ⁴	X		X	X	X		X	X	X	X		X		X	X			
1,4-Dioxane	EPA 8270 Modified	1 L Amber	0.002	X						X					X						
1,4-Dioxane	EPA 8270 SIM	1L Amber	0.0002			X					X					X					
Total Suspended Solids	SM2540D	250 mL poly	10	(a)	(a)										X	X					
Total Dissolved Solids	SM2540C	250 mL poly	10	(a)											X		X		X		
SELECTED METALS																					
Dissolved Metals (Iron, Manganese, Calcium, Sodium, Magnesium)	EPA 6010B	500 mL poly	QAPP ⁴	(a)																X	
Selenium	EPA 6010B	500 mL poly, HNO ₃	QAPP ^a																	X	
SELECTED INORGANIC CONSTITUENTS																					
Hydroxide Alkalinity	SM2320B	250 mL poly	2.0	(a)																X	
Bicarbonate Alkalinity	SM2320B	250 mL poly	2.0	(a)																X	
Carbonate Alkalinity	SM2320B	250 mL poly	2.0	(a)																X	
Total Alkalinity	SM2320B	250 mL poly	2.0	(a)																X	
BROMATE EVALUATION																					
Bromate	EPA 317.0	125 mL poly	0.0005	X		X		X		X		X	X		X		X		X		
Bromide	EPA 300.0	125 mL poly	0.05	X		X		X		X		X	X		X		X		X		
OTHER CONSTITUENTS/COMPOUNDS																					
Total Organic Carbon	SM5310B	3 - 40 mL VOA, HCl	3.0	(a)																X	X
Anions (Chloride, Sulfate, Nitrate, Nitrite, and Phosphate)	EPA 300.0	500 mL poly	Varies	(a)																X	X
Chemical Oxygen Demand	EPA 410.4	125 mL poly, H ₂ SO ₄	5.0	(a)																X	X
Field Parameters																					
Dissolve Oxygen (DO)	N/A	N/A	N/A	X		X		X		X		X	X		X		X	X	X		
Electrical Conductance (EC)	N/A	N/A	N/A	X		X	X	X		X		X	X	X	X		X	X	X	X	
Redox Potential	N/A	N/A	N/A	X		X		X		X		X	X	X	X		X	X	X	X	
Temperature	N/A	N/A	N/A	X		X	X	X	X	X		X	X	X	X		X	X	X	X	
pH	N/A	N/A	N/A	X		X		X	X	X		X	X	X	X		X	X	X	X	
Turbidity	N/A	N/A	N/A	X	X					X	X					X	X				
Flow-Meter	N/A	N/A	N/A	X				X		X			X		X				X		

FOOTNOTES

(a) Only one sample to be collected during sampling period.

¹ Daily and weekly samples collected during the first month of operation will be repeated after major modifications to system equipment or operating parameters, as detailed in the Workplan.² If more than one extraction well is in operation, combined influent samples will be collected in addition to extraction wellhead samples, with the same sampling schedule as the extraction wellheads.³ Carbon breakthrough will be collected from the effluent of the first carbon unit in series; when breakthrough of the first unit is detected, the breakthrough sample will be collected from the effluent of the second carbon unit in series.⁴ QAPP, Quality Assurance Project Plan, Appendix B of Additional Groundwater Assessment Workplan, Hargis + Associates, Inc., April 25, 2003.

CRWQCB = California Regional Water Quality Control Board, Santa Ana Region 8

NPDES = National Pollutant Discharge Elimination System

WDR = Waste Discharge Requirement

N/A = Not applicable

mL = Milliliter

VOA = Volatile organic analysis

HCl = Hydrochloric acid

HNO₃ = Nitric acidH₂SO₄ = Sulfuric acid

EPA = U.S. Environmental Protection Agency

SM = Standard Method

L = Liter

poly = High density polyethylene bottle

TABLE 7
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM OPERATIONAL SUMMARY

OPERATIONAL PERIOD (MONTH/QUARTER/YEAR)	WELLFIELD PRODUCTION ^(a) (gallons)	AVERAGE DISCHARGE RATE ^(b) (gpm)	AVERAGE OPERATIONAL DISCHARGE RATE ^(c) (gpm)	OPERATIONAL HOURS DURING OPERATIONAL PERIOD	HOURS IN OPERATIONAL PERIOD	% OPERATIONAL
2008^(d)	3,659,562	13.8	18.2	3,358	4,416	76%
2009	5,787,848	11.0	18.1	5,319	8,760	61%
2010	14,295,261	27.2	46.4	5,131	8,760	59%
2011	20,456,899	38.9	45.8	7,442	8,760	85%
2012^(e)	19,378,122	40.2	47.2	6,850	8,040	85%
2013^(f)	21,148,029	40.2	45.7	7,713	8,760	88%
Dec-13	1,948,113	43.6	46.7	695	744	93%
Jan-14	2,021,062	45.3	46.5	725	744	97%
Feb-14	1,622,421	40.2	46.0	588	672	88%
1Q2014	5,591,595	43.1	46.4	2,007	2,160	93%
SINCE INCEPTION	90,317,316	30.3	39.8	37,820	49,656	76%

Notes:

(a) Based on Effluent totalizer readings from CEFF, which also includes relatively small amounts of monitor well purge water from quarterly sampling events, well installations, and aquifer testing.

(b) Total volume of water treated during the operational period divided by the total number of minutes in that operational period.

(c) Total volume of water treated during the operational period divided by the minutes of operation in that operational period.

(d) Operational period beginning 7/1/2008 (first month of system operation).

(e) 2012 Calendar year is from 1/1/2012 through 11/30/2012.

(f) 2013 Calendar year is from 12/1/2012 through 11/30/2013.

gpm = gallons per minute

Refer to previous quarterly reports for detail of 2008 thru 2012 operational summary

Treatment of groundwater from EW-02 initiated in 2010

CEFF = Carbon effluent

TABLE 8
SELECT COMPOUNDS MONITORED IN
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SAMPLES
FIRST QUARTER 2014

Compound	Date	Units	MW-21	EW-01	EW-02	INF*	PF	POX	CBT	CEFF
1,1,2-Trichloroethane (5 ug/L MCL)	12/11/13	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	01/17/14	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	02/03/14	ug/L	10	1.4	--	--	--	--	--	--
	02/11/14	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
1,1-Dichloroethane (5 ug/L MCL)	12/11/13	ug/L	--	--	<0.50	--	--	<0.50	0.58	0.58
	01/17/14	ug/L	--	--	0.55	--	--	<0.50	<0.50	<0.50
	02/03/14	ug/L	29	3.5	--	--	--	--	--	--
	02/11/14	ug/L	--	--	0.63	--	--	<0.50	0.50	<0.50
1,1-Dichloroethene (6 ug/L MCL)	12/11/13	ug/L	--	--	49	--	--	<0.50	<0.50	<0.50
	01/17/14	ug/L	--	--	34	--	--	1.3	<0.50	<0.50
	02/03/14	ug/L	1,300	190	--	--	--	--	--	--
	02/11/14	ug/L	--	--	49	--	--	<0.50	<0.50	<0.50
1,2-Dichloroethane (0.5 ug/L MCL)	12/11/13	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	01/17/14	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	02/03/14	ug/L	7.2	1.1	--	--	--	--	--	--
	02/11/14	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene (6 ug/L MCL)	12/11/13	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	01/17/14	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	02/03/14	ug/L	<2.5	<0.50	--	--	--	--	--	--
	02/11/14	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
Tetrachloroethene (5 ug/L MCL)	12/11/13	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	01/17/14	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	02/03/14	ug/L	5.2	1.1	--	--	--	--	--	--
	02/11/14	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
Trichloroethene (5 ug/L MCL)	12/11/13	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	01/17/14	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
	02/03/14	ug/L	17	0.81	--	--	--	--	--	--
	02/11/14	ug/L	--	--	<0.50	--	--	<0.50	<0.50	<0.50
1,4-Dioxane (1 ug/L California Notification Level)	12/11/13	ug/L	--	--	22	--	--	0.47	--	--
	01/17/14	ug/L	--	--	21	--	--	4.6	--	--
	02/03/14	ug/L	390	140	--	--	--	--	--	--
	02/11/14	ug/L	--	--	26	--	--	0.99	--	--
Bromide	12/11/13	ug/L	--	--	220	--	--	210	--	200
	01/17/14	ug/L	--	--	210	--	--	210	--	210
	02/11/14	ug/L	--	--	240	--	--	220	--	200
Bromate (10 ug/L MCL)	12/11/13	ug/L	--	--	0.4	--	--	8	--	6.5
	01/17/14	ug/L	--	--	0.3	--	--	5	--	5.0
	02/11/14	ug/L	--	--	0.3	--	--	6	--	5.7
Total Non-Filterable Residue	12/11/13	mg/L	--	--	<3.8	--	<3.9	--	--	--
	01/17/14	mg/L	--	--	<3.7	--	<3.7	--	--	--
	02/11/14	mg/L	--	--	<3.7	--	<3.7	--	--	--
Total Filterable Residue (500 mg/L MCL)	12/11/13	mg/L	--	--	620	--	--	620	--	620
	01/17/14	mg/L	--	--	610	--	--	620	--	620
	02/11/14	mg/L	--	--	590	--	--	590	--	590

FOOTNOTES

MCL = Maximum Contaminant Level or Drinking Water Action Level, if applicable

ug/L = Micrograms per liter

mg/L = Milligrams per liter

(--) = Not scheduled for performance monitoring

(<) = Less than; the numerical value is the Limit of Detection for that compound

INF* = Influent (same as EW-02, when active)

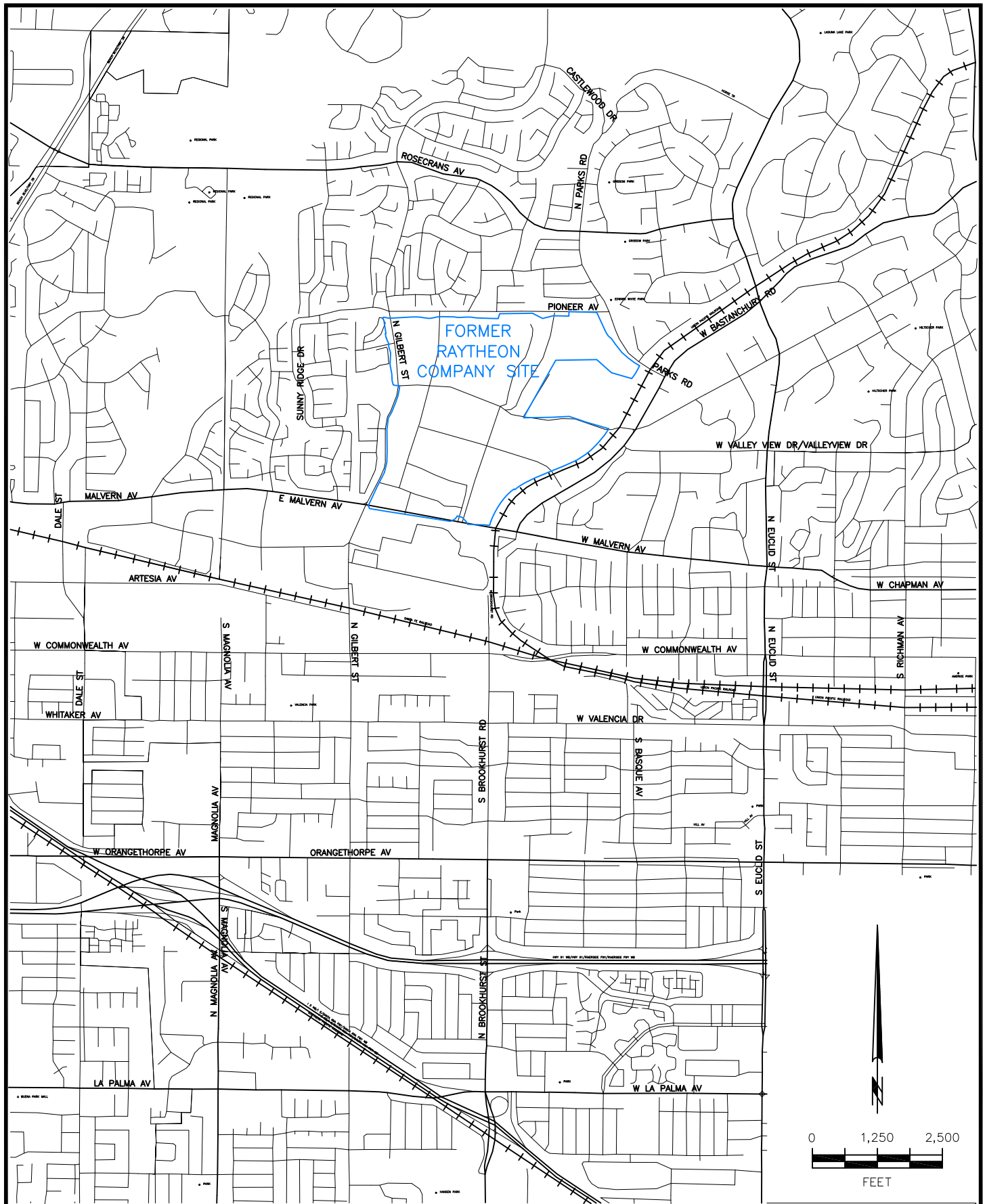
PF = Post Particulate Filter

POX = Post Hypox Oxidation

CBT = Carbon Breakthrough

CEFF = Carbon Effluent

May 11, 2011 - 10:09am ADE - T: \2011\500-599\532 Raytheon\Hydrogeology\H+A Base\Maps\410-8281.dwg



HARGIS+ASSOCIATES, INC.
Hydrogeology/Engineering

5/11 | RPT NO. 532.31 | 410-8281 | A

FIGURE 1. SITE LOCATION

Sep 09, 2013 - 9:57am ADE - T:\2013\500-599\532 Raytheon\Hydrogeology\H+A BaseMaps\410-9054.dwg

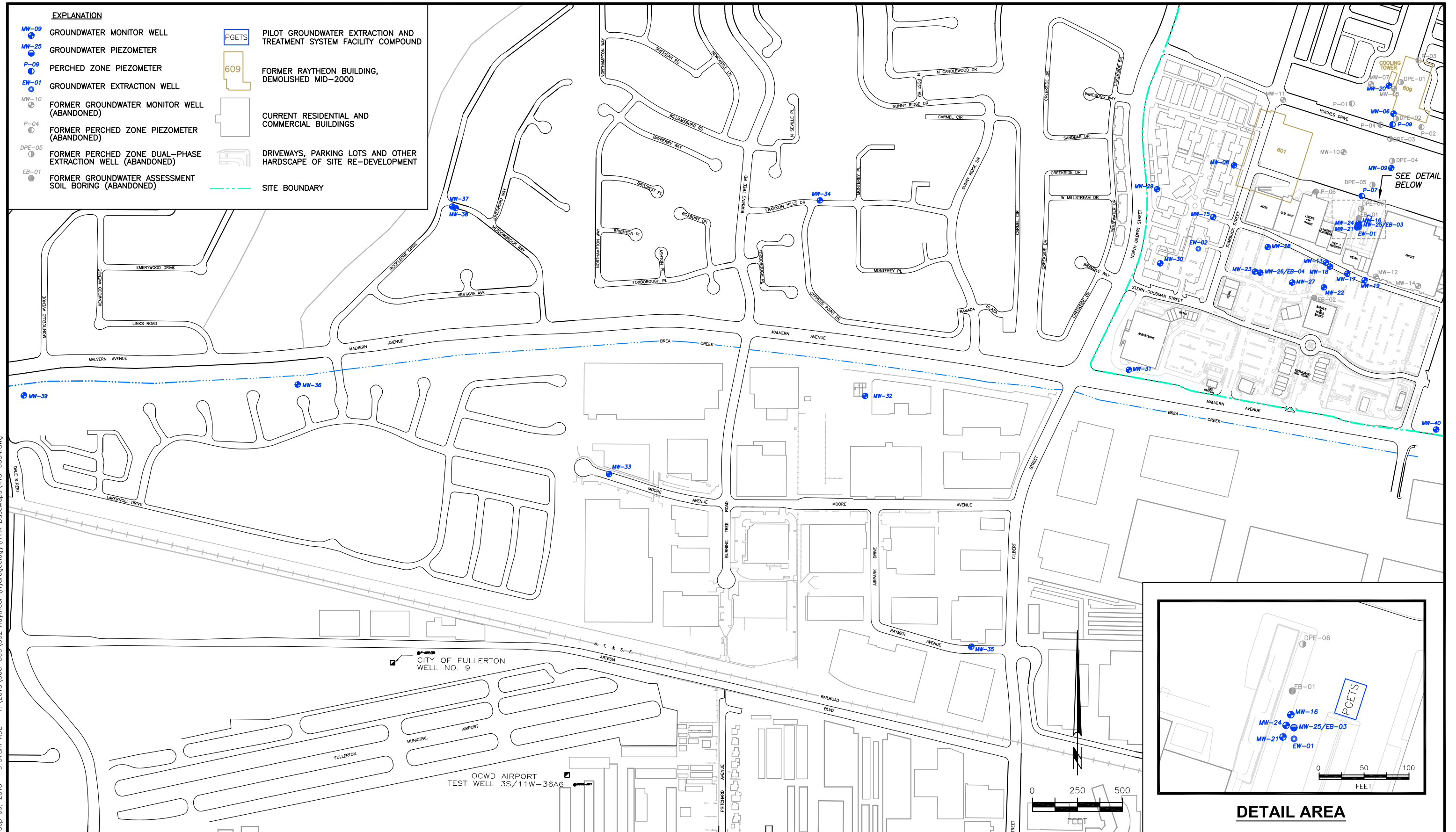


FIGURE 2.
WELL AND PIEZOMETER LOCATIONS

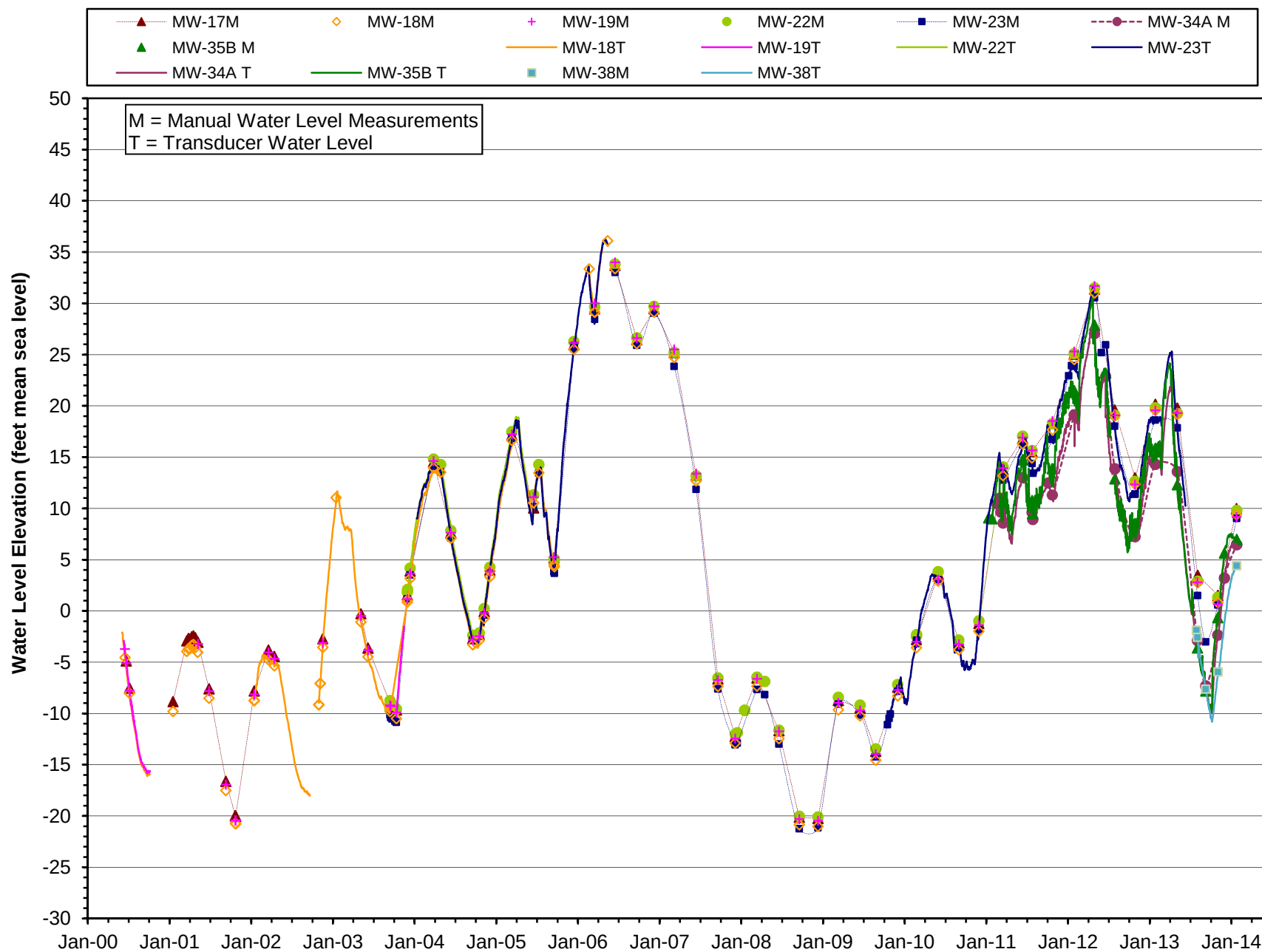


**FIGURE 3. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
UNIT A MONITOR WELLS**

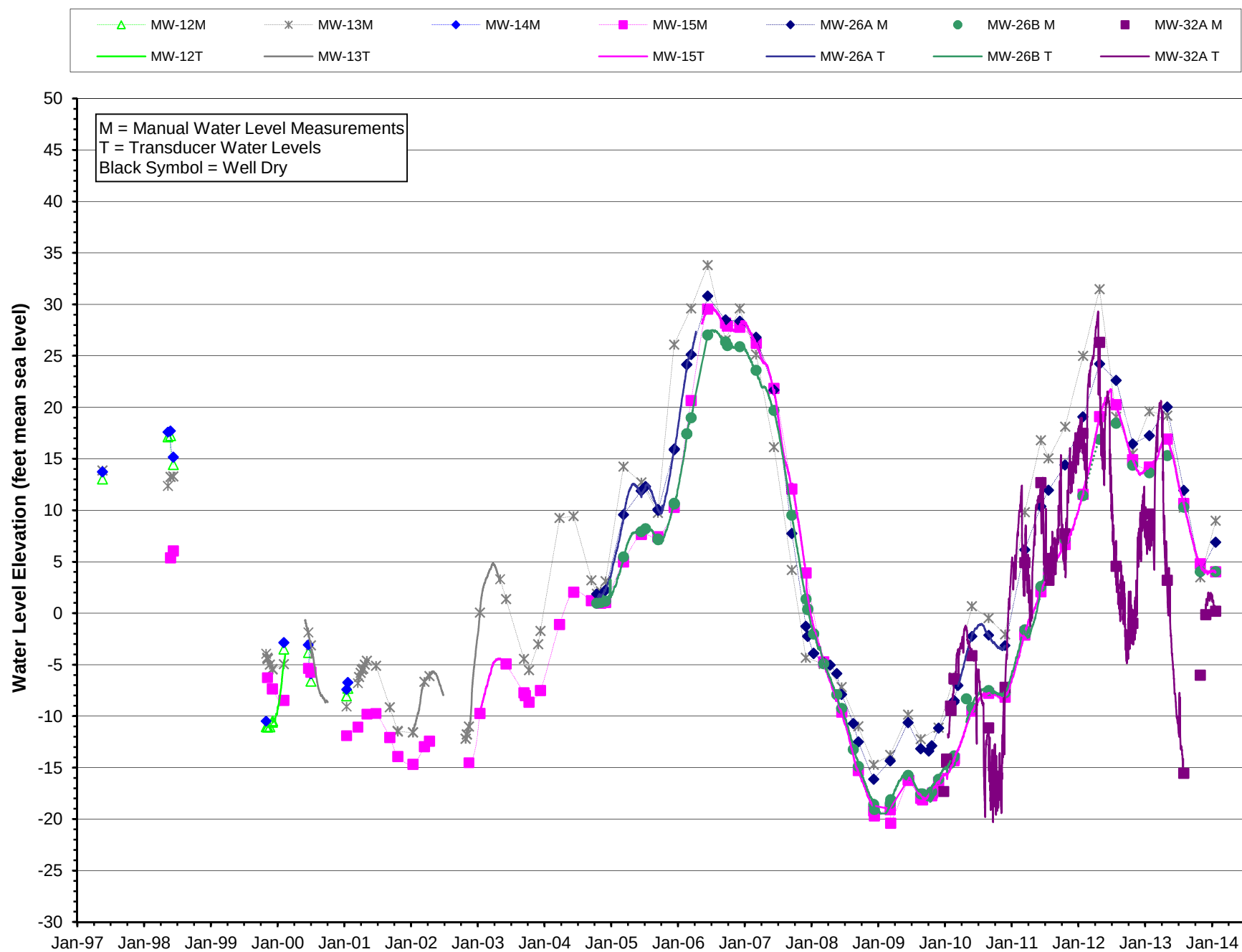


FIGURE 4. REGIONAL GROUNDWATER SYSTEM WATER LEVELS, UNIT AB MONITOR WELLS

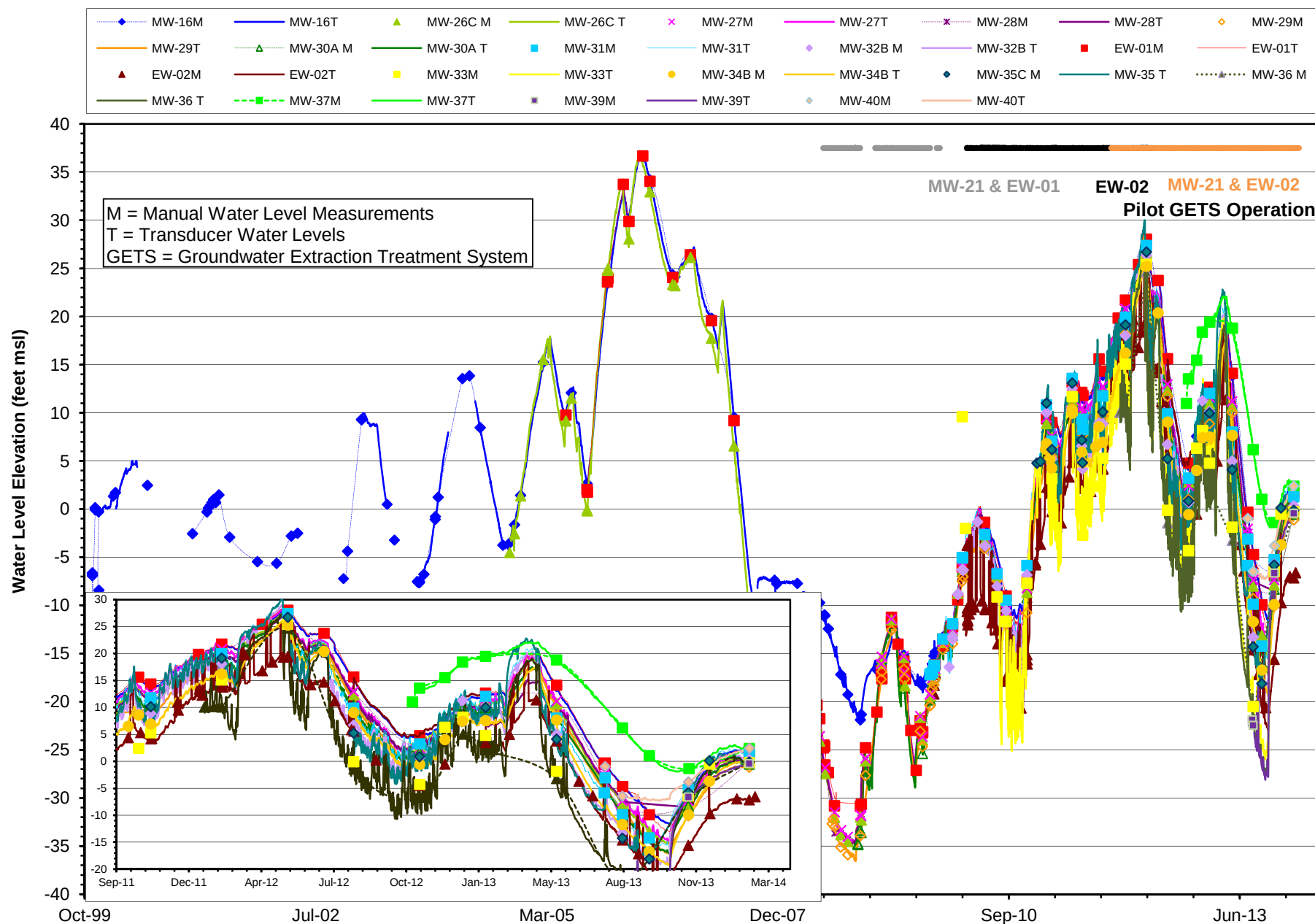


FIGURE 5. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
UNIT B MONITOR AND EXTRACTION WELLS

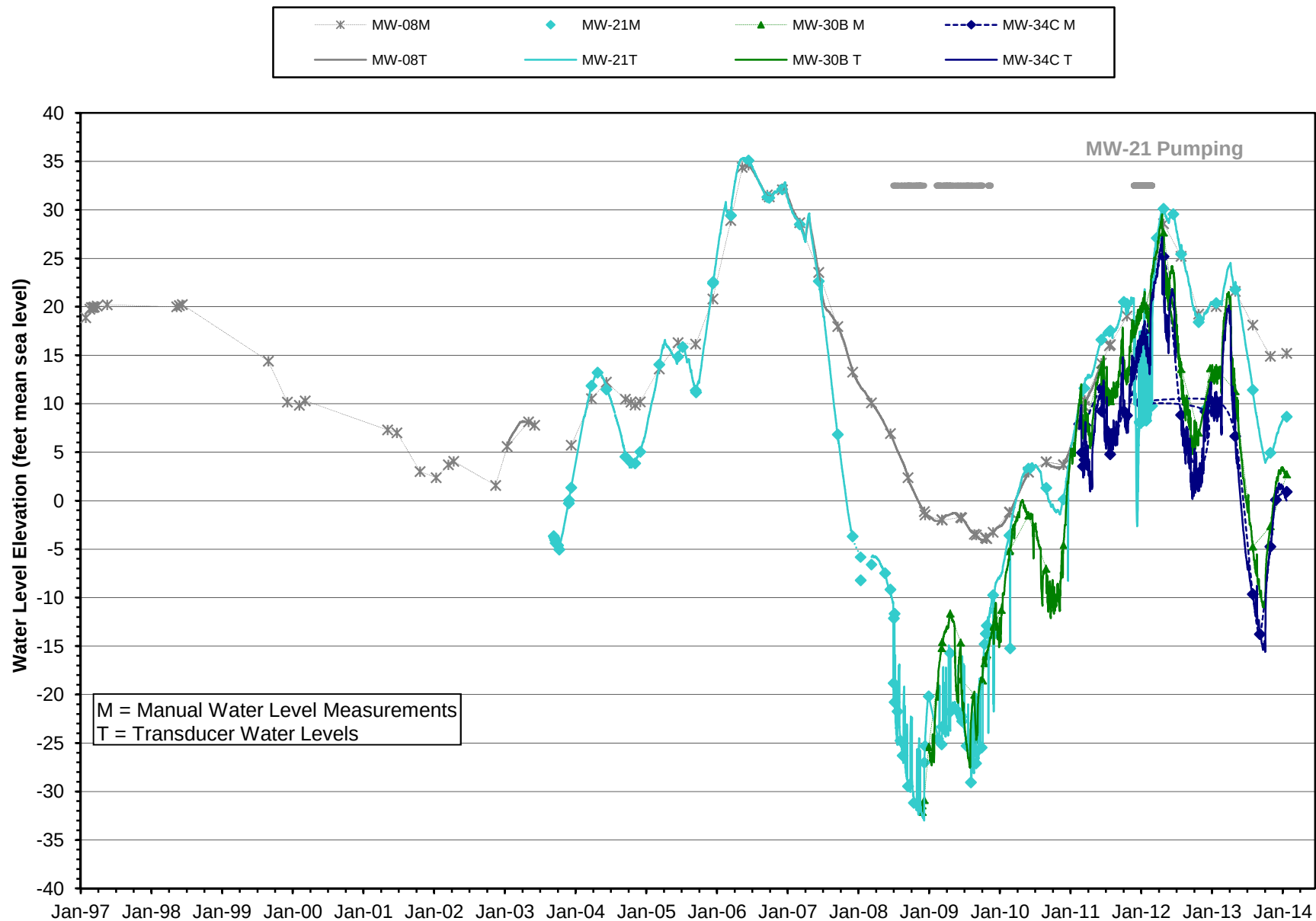


**FIGURE 6. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
UNIT BC MONITOR AND EXTRACTION WELLS**

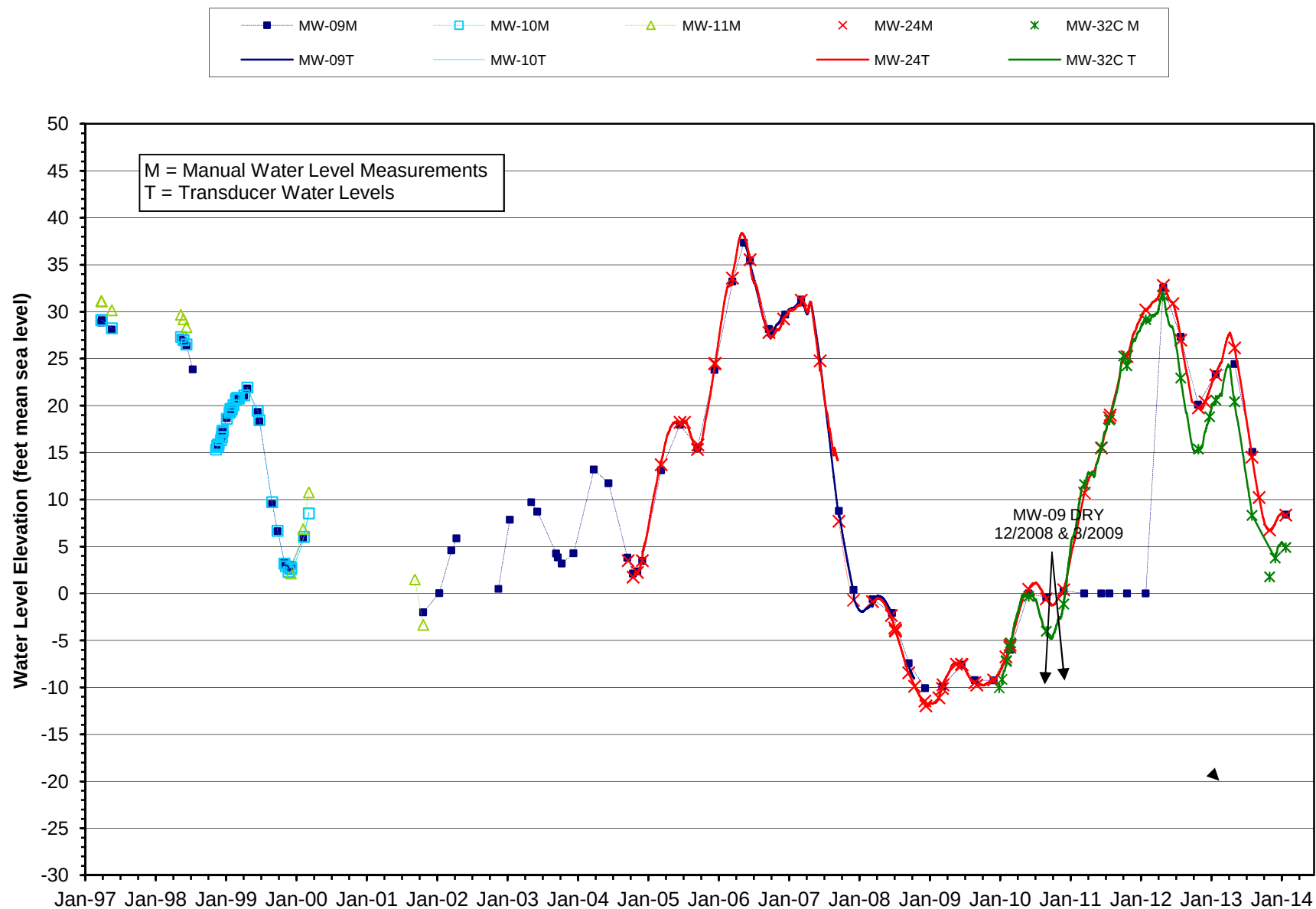


FIGURE 7. REGIONAL GROUNDWATER SYSTEM WATER LEVELS, UNIT C MONITOR WELLS

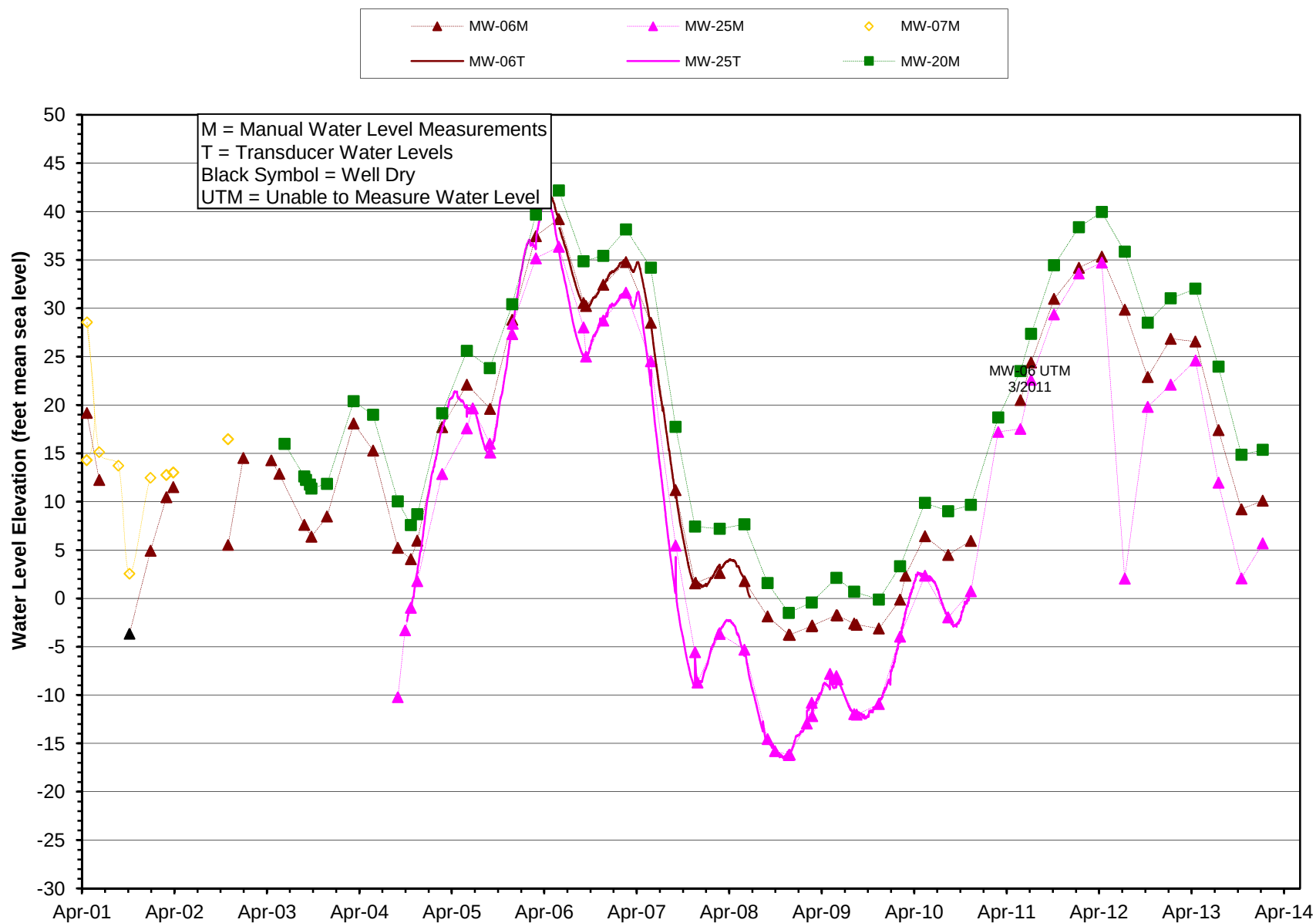
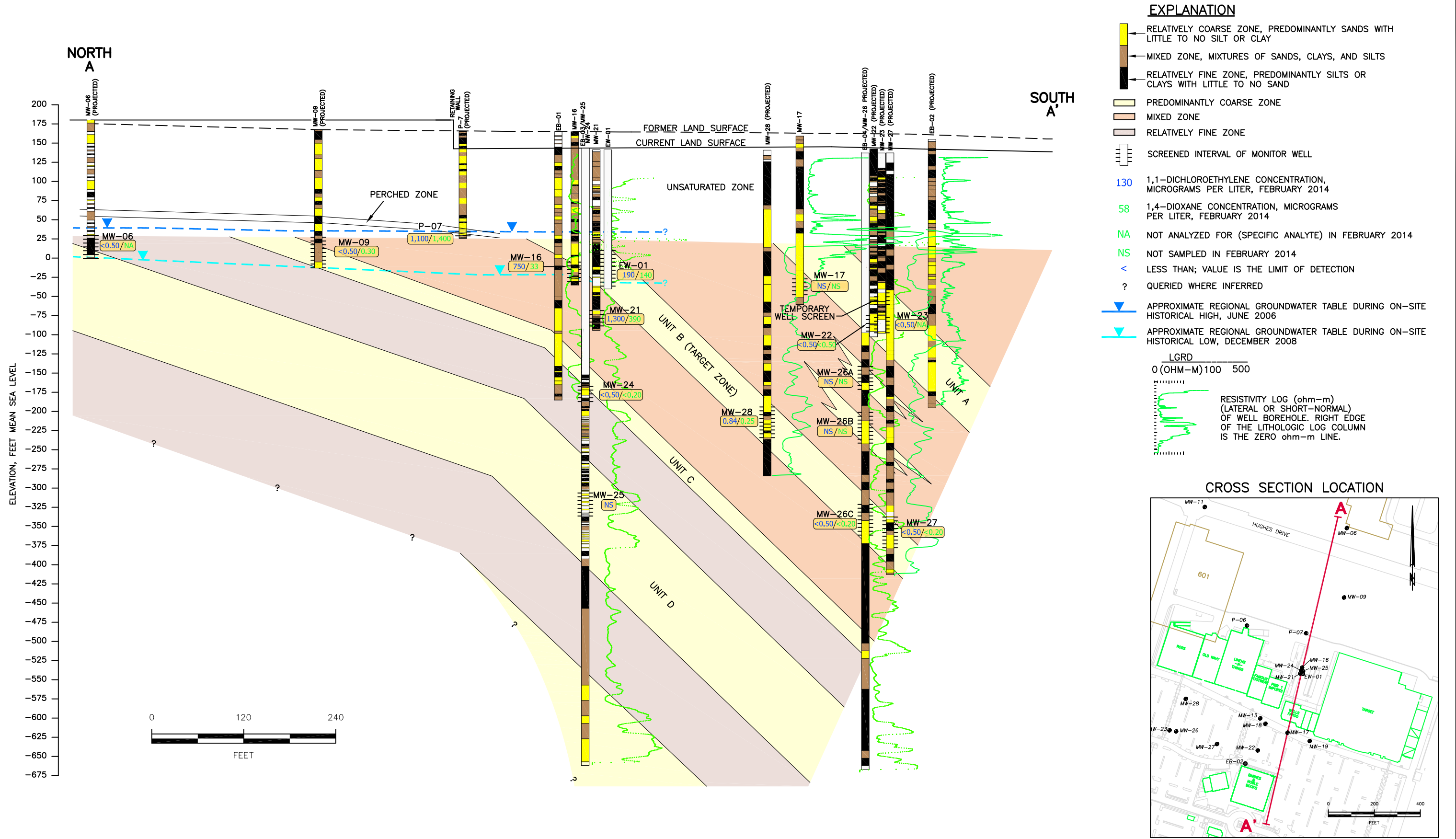
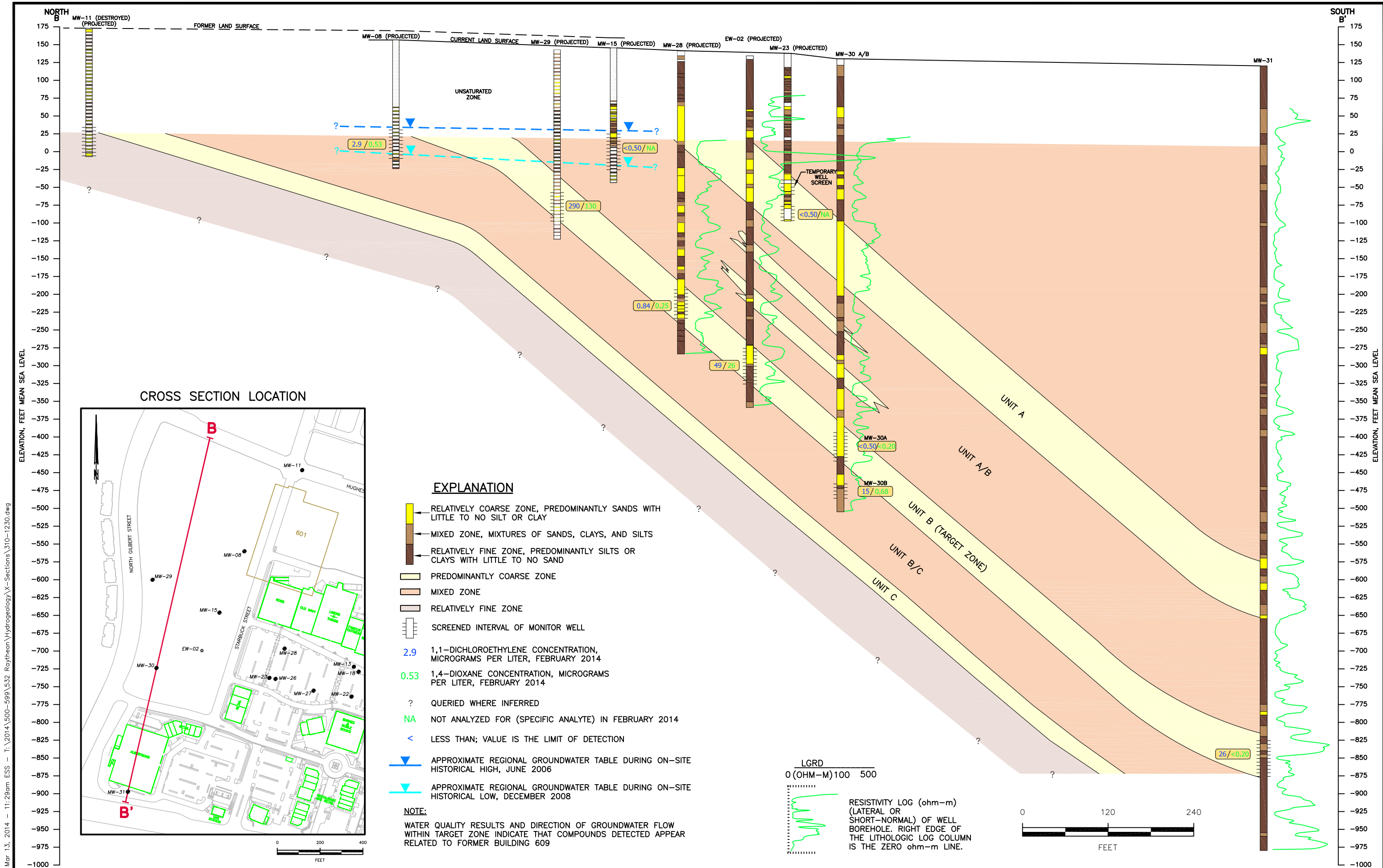


FIGURE 8. REGIONAL GROUNDWATER SYSTEM WATER LEVELS, UNIT D MONITOR WELLS

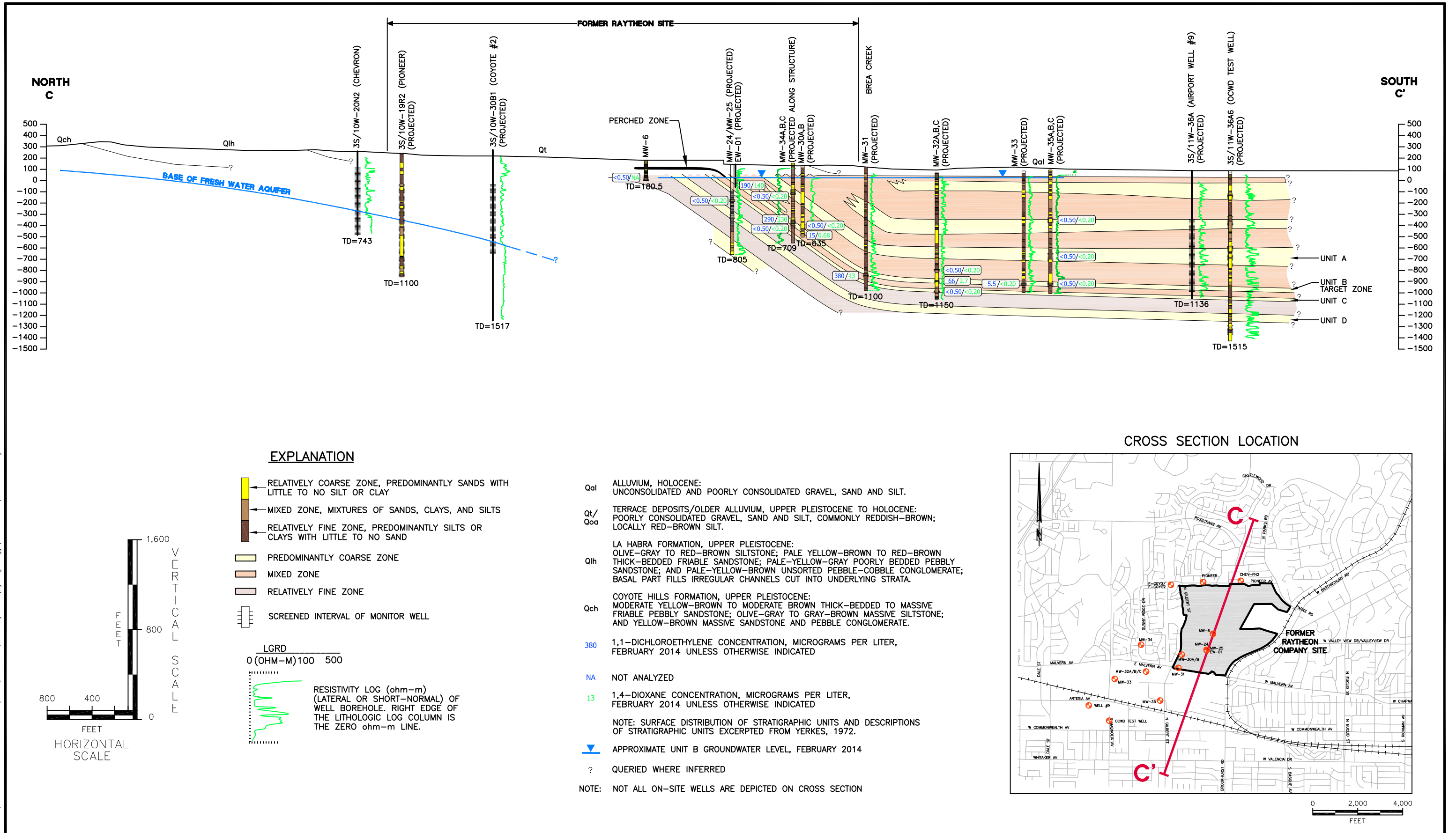
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Mar 13, 2014 - 11:29am ESS - T:\2014\500-599\532 Roytheon\Hydrogeology\X-Sections\310-1230.dwg

Mar 13, 2014 - 11:31am ESS - T:\2014\500-599\532 Raytheon\Hydrogeology\X-Sections\310-1231.dwg



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FIGURE 11.
REGIONAL CONCEPTUAL GROUNDWATER MODEL HYDROGEOLOGIC CROSS-SECTION C-C'

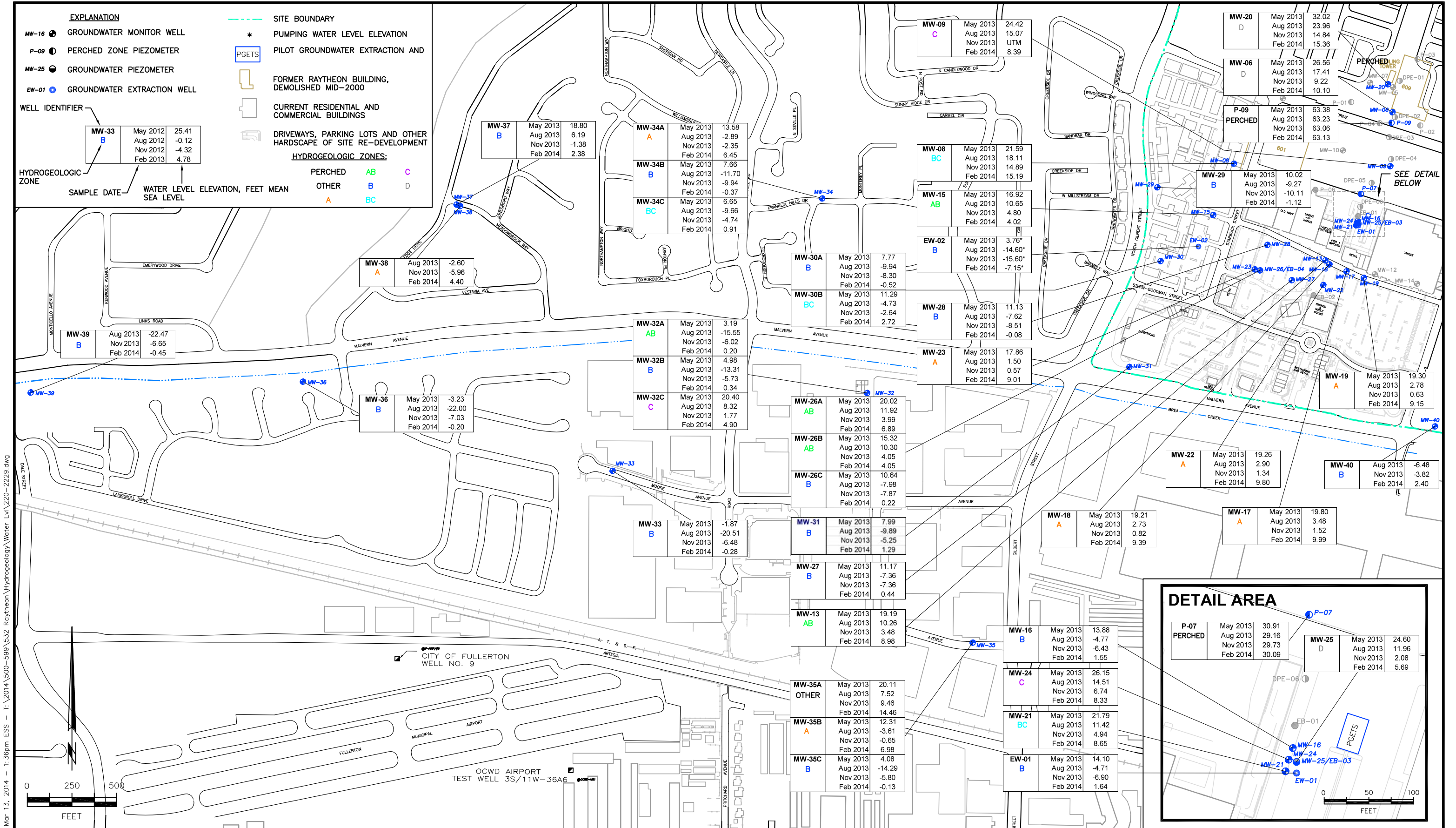
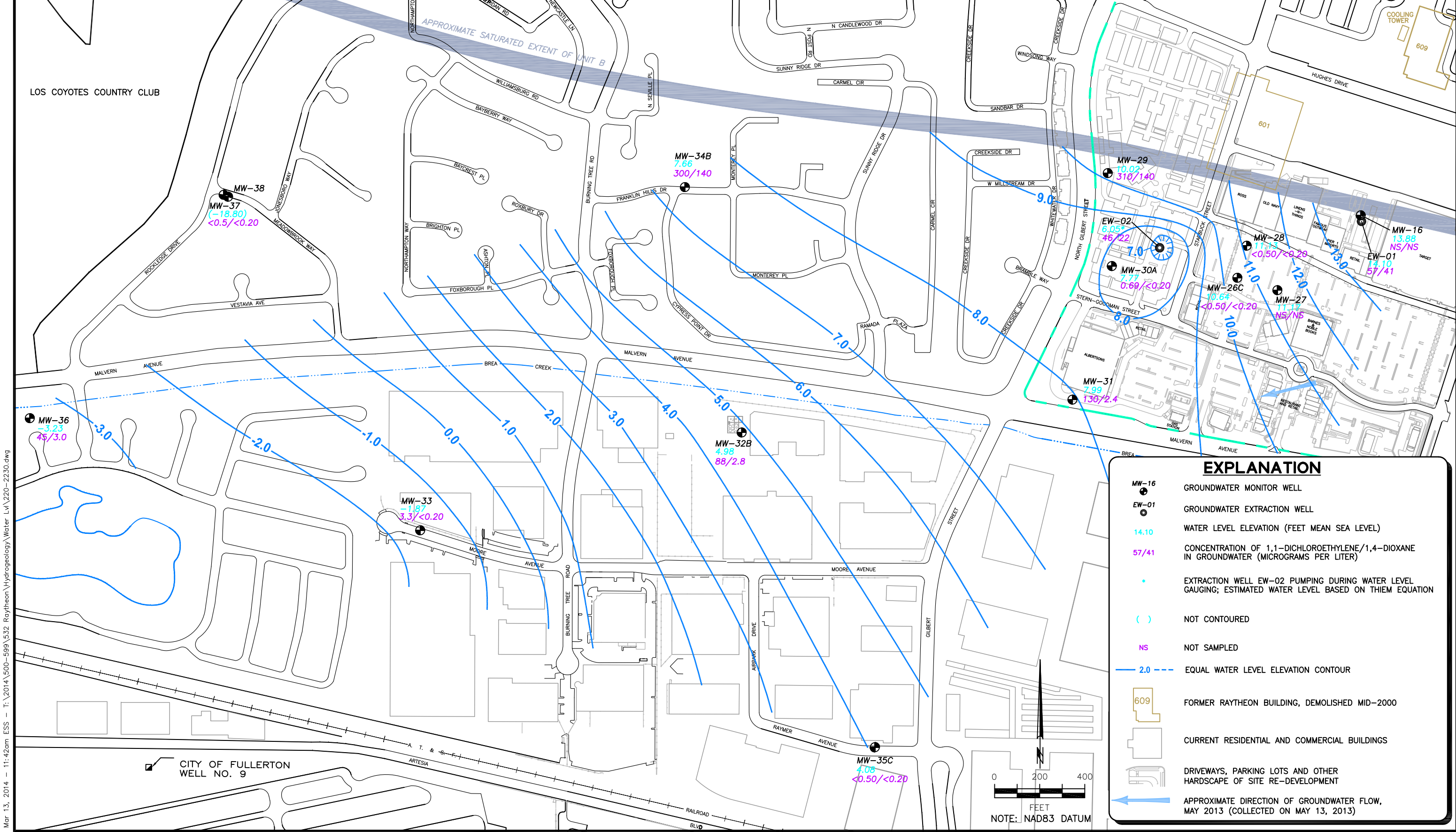
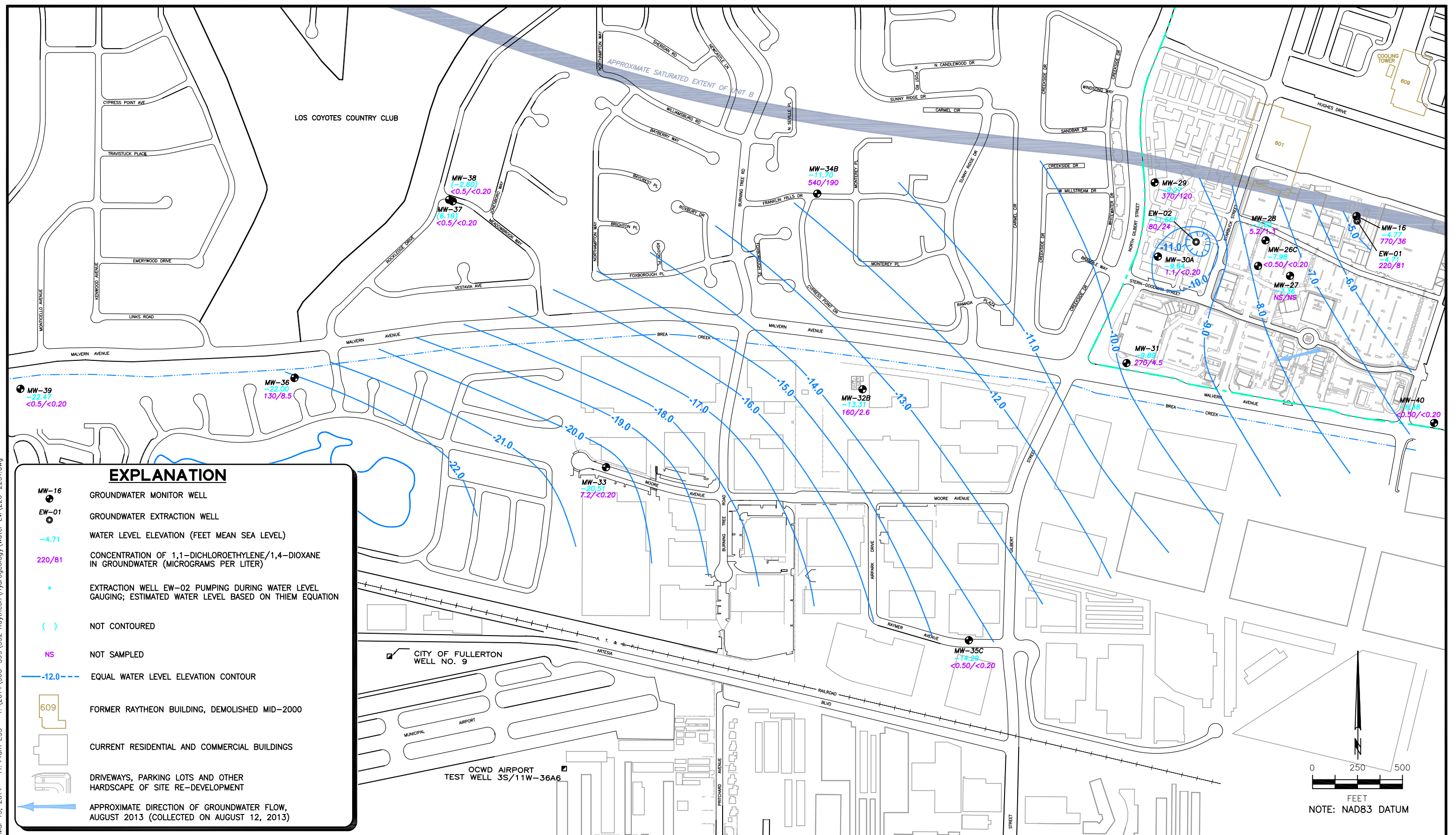


FIGURE 12.
WATER LEVEL ELEVATIONS
MAY 2013 THROUGH FEBRUARY 2014



Mar 13, 2014 - 11:42am ESS - T:\2014\500-599\532 Raytheon\Hydrogeology\Water Lvl\220-2230.dwg

Mar 13, 2014 - 11:44am ESS - T:\2014\500-599\532 Raytheon\Hydrogeology\Water Lvl\220-2231.dwg



Mar 13, 2014 - 11:45am ESS - T:\2014\500-599\532 Raytheon\Hydrogeology\Water Lvl\220-2232.dwg

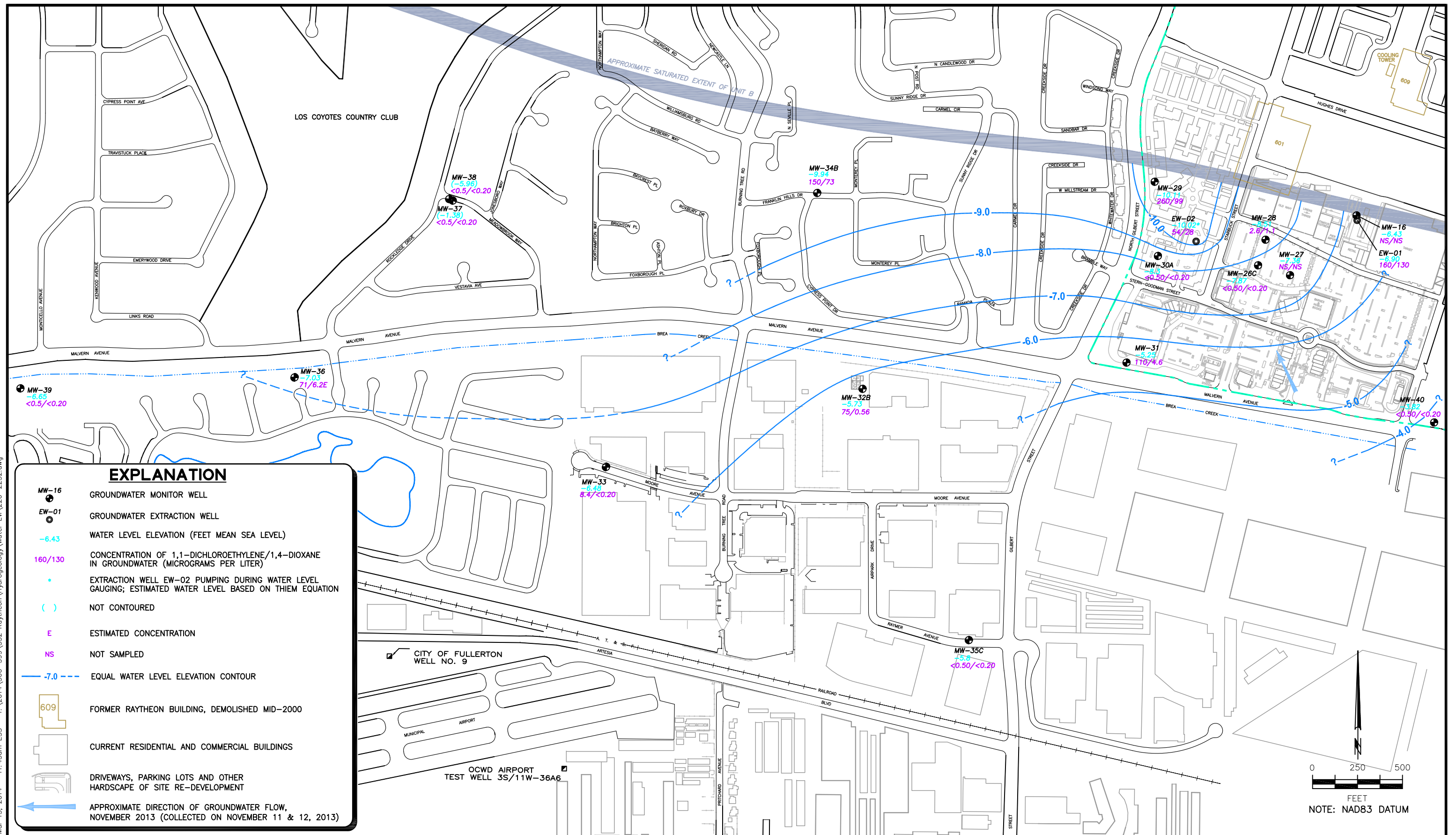


FIGURE 13C.
WATER LEVEL AND WATER QUALITY UNIT B
NOVEMBER 2013

Mar 13, 2014 - 11:45am ESS - T:\2014\500-599\532 Raytheon\Hydrogeology\Water Lvl\220-2233.dwg

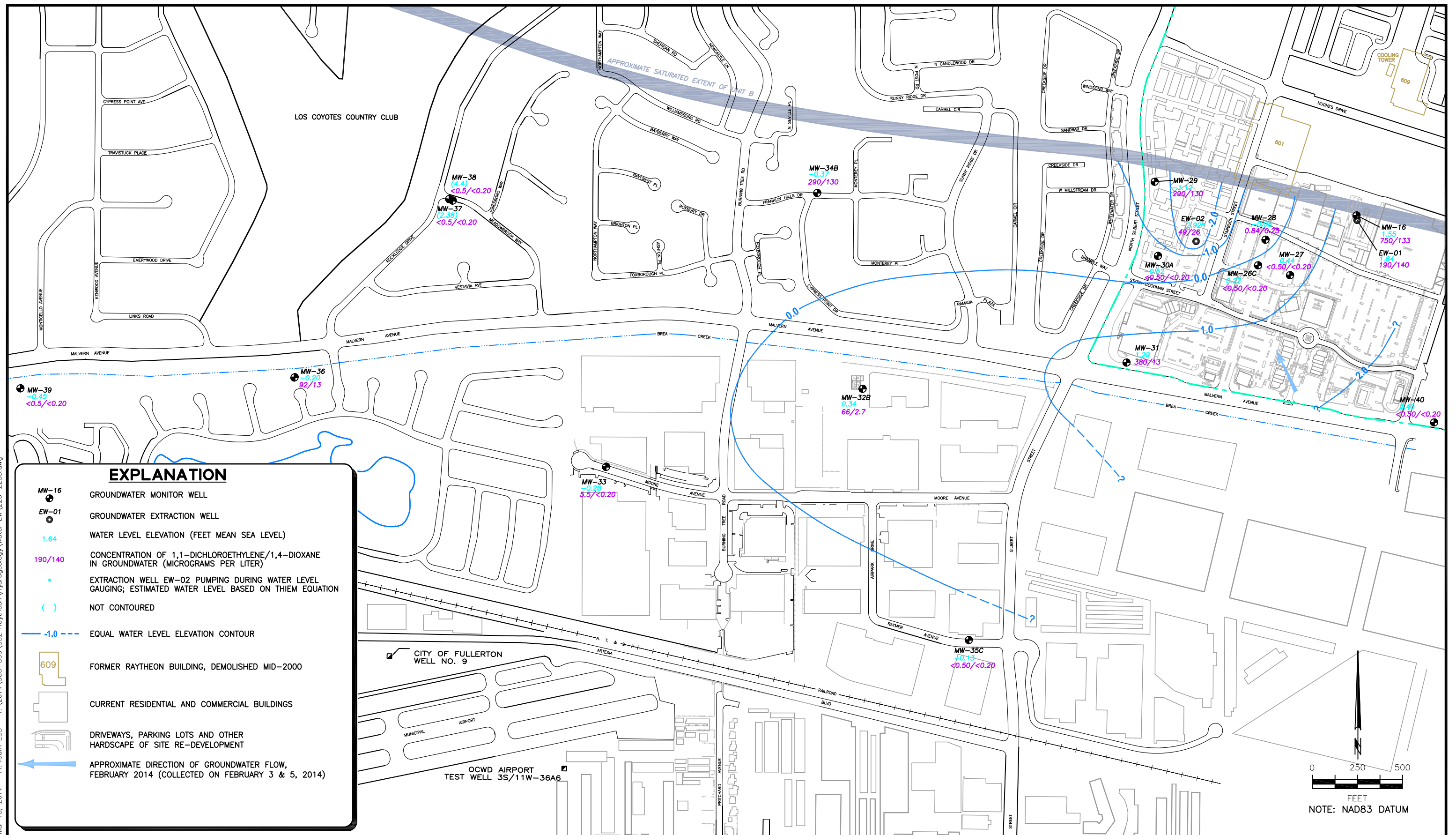


FIGURE 13D.
WATER LEVEL AND WATER QUALITY UNIT B
FEBRUARY 2014

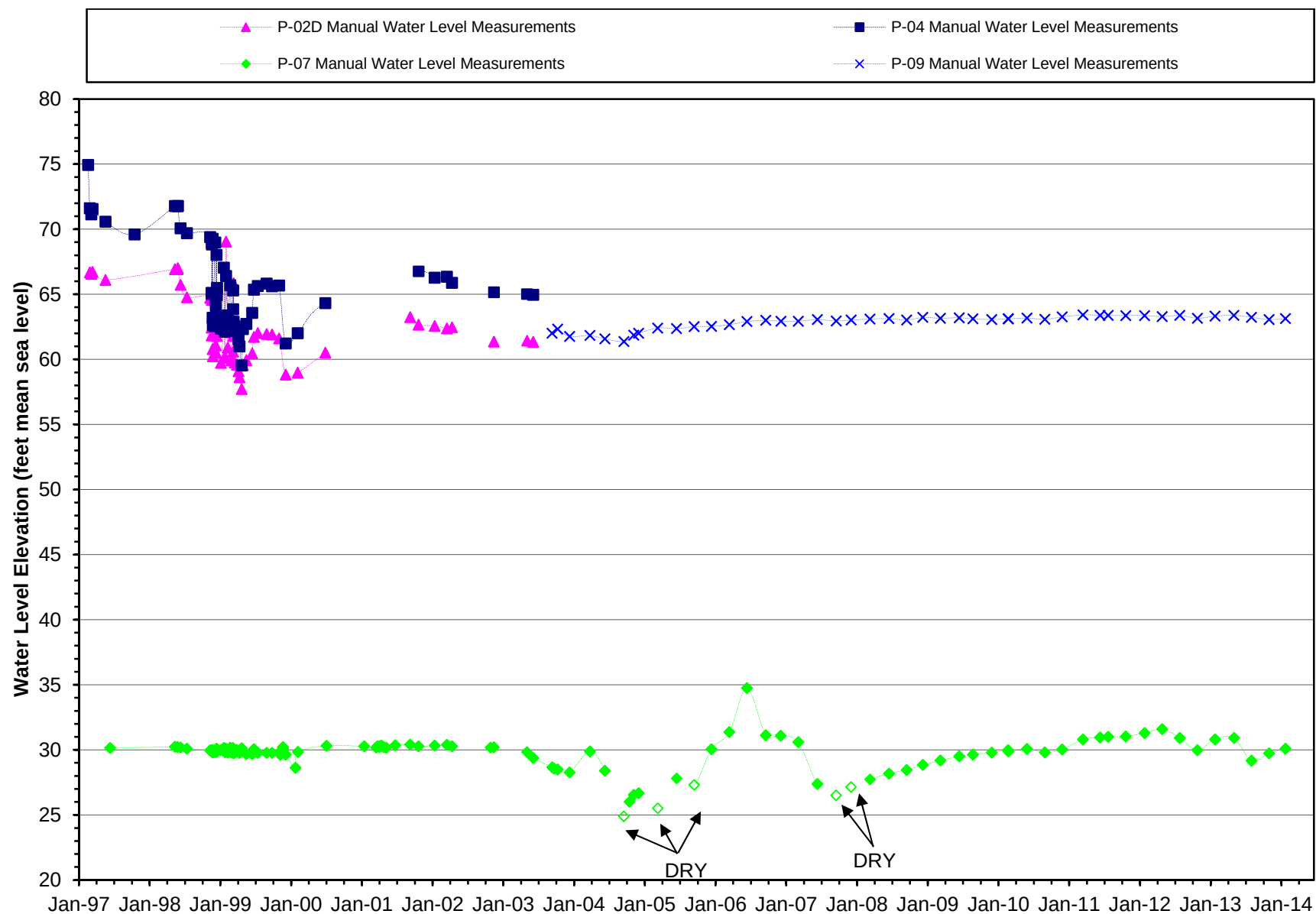


FIGURE 14. PERCHED ZONE WATER LEVELS, CENTRAL PORTION OF SITE

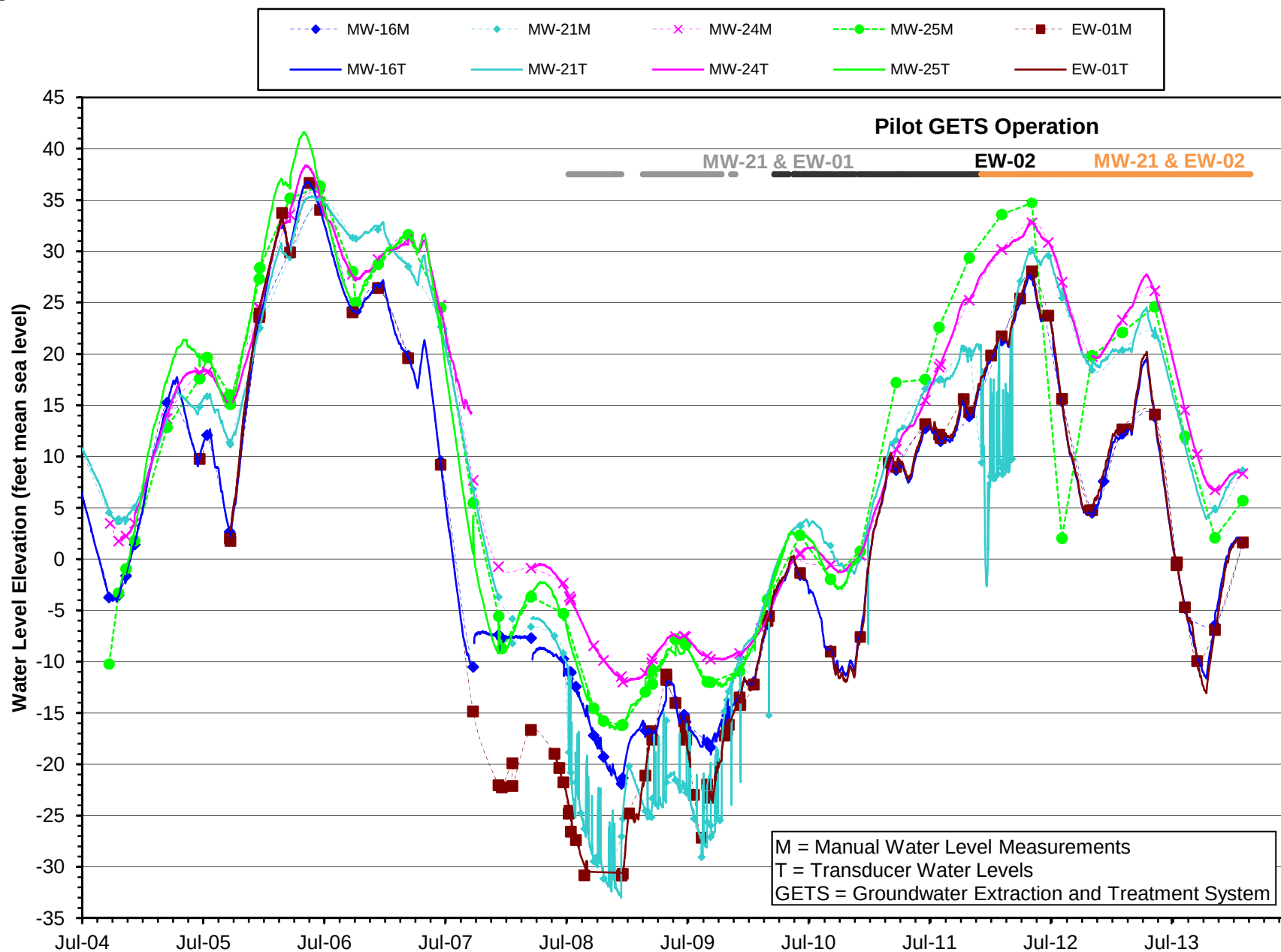


**FIGURE 15. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
MONITOR AND EXTRACTION WELL CLUSTER EW-01/MW-16/21/24/25**

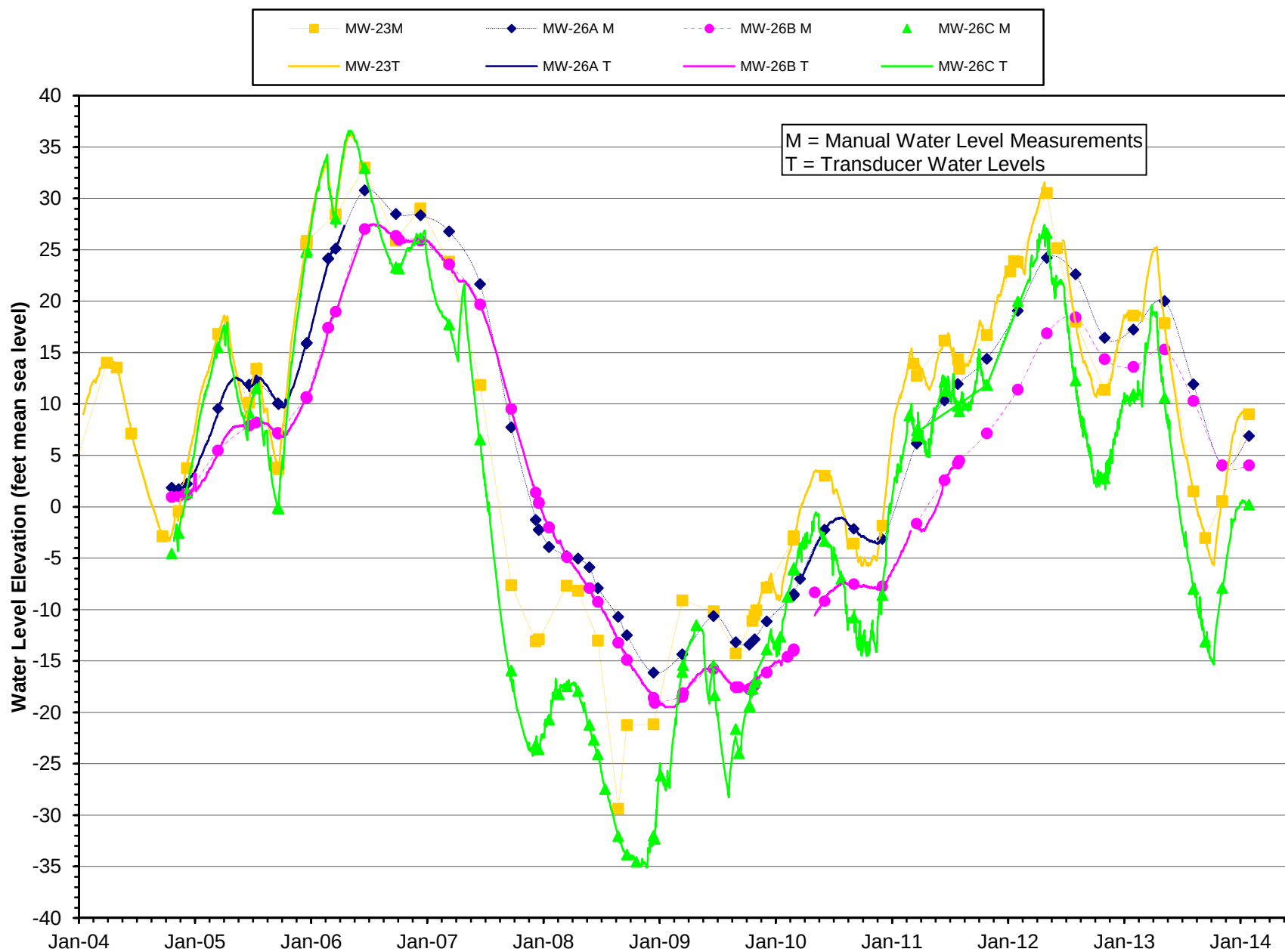


**FIGURE 16. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
MONITOR WELL CLUSTER MW-23/26A/26B/26C**

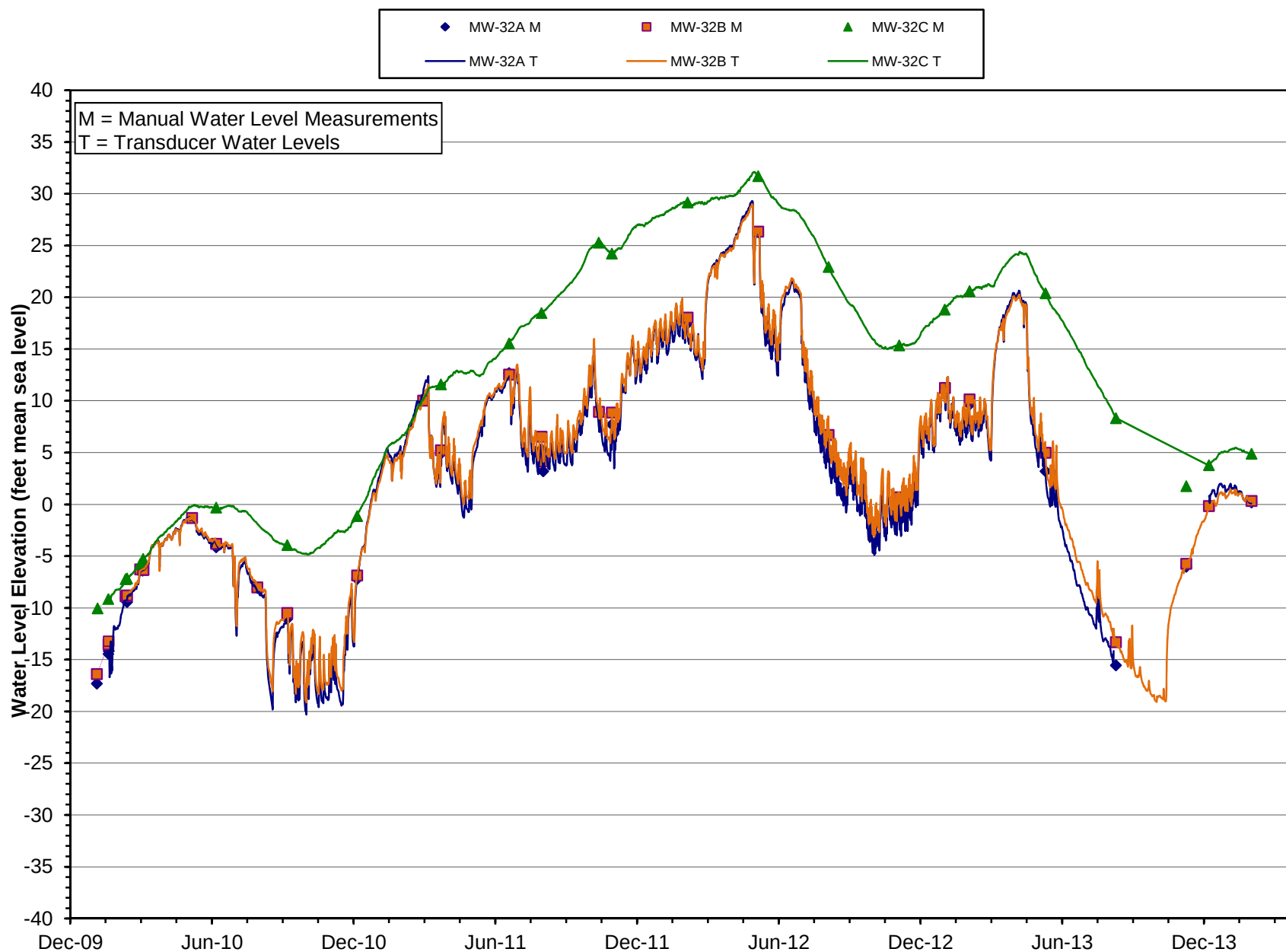


**FIGURE 17. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
NESTED MONITOR WELLS MW-32A/32B/32C**

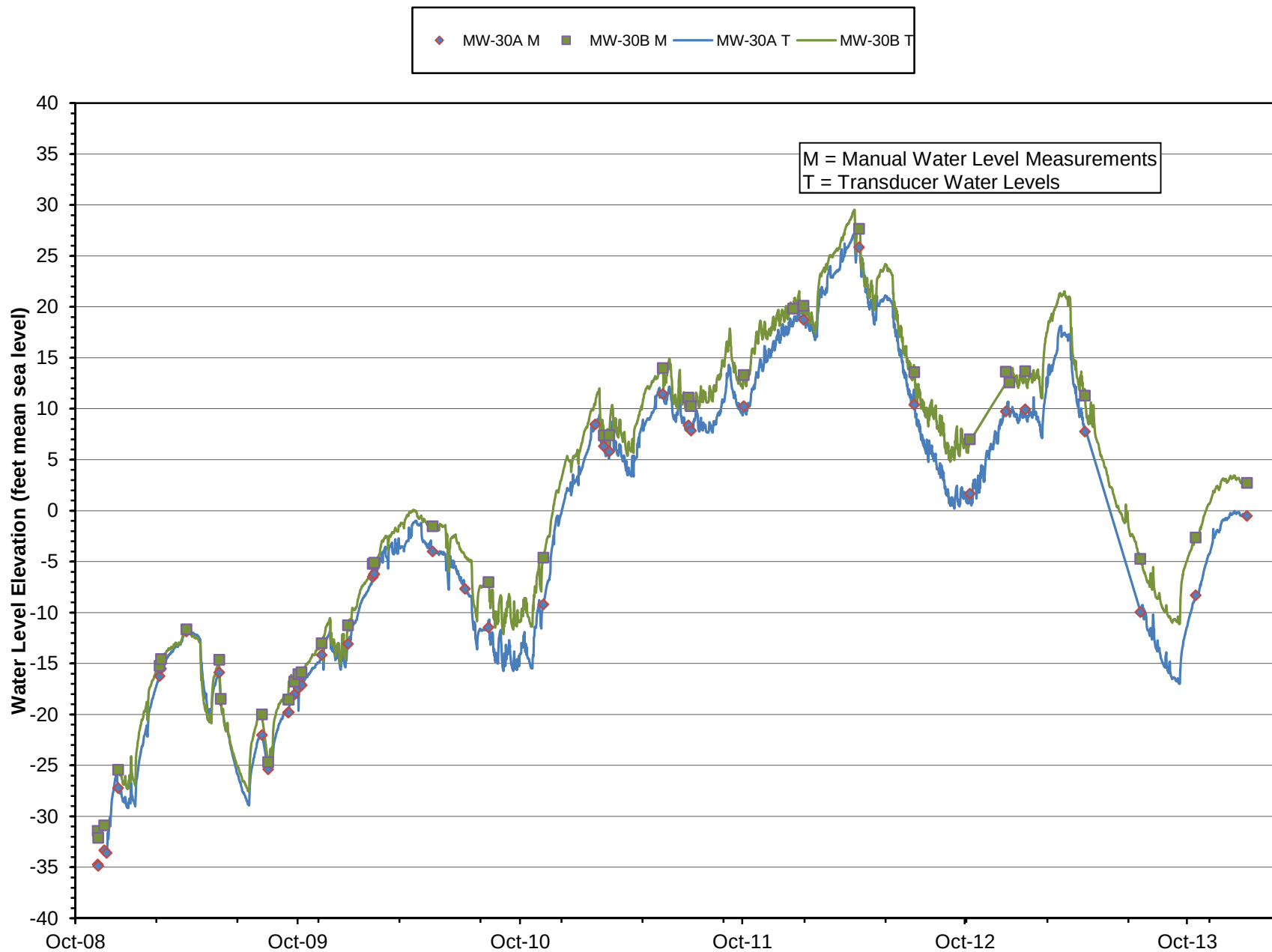


**FIGURE 18. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
NESTED MONITOR WELLS MW-30A/30B**

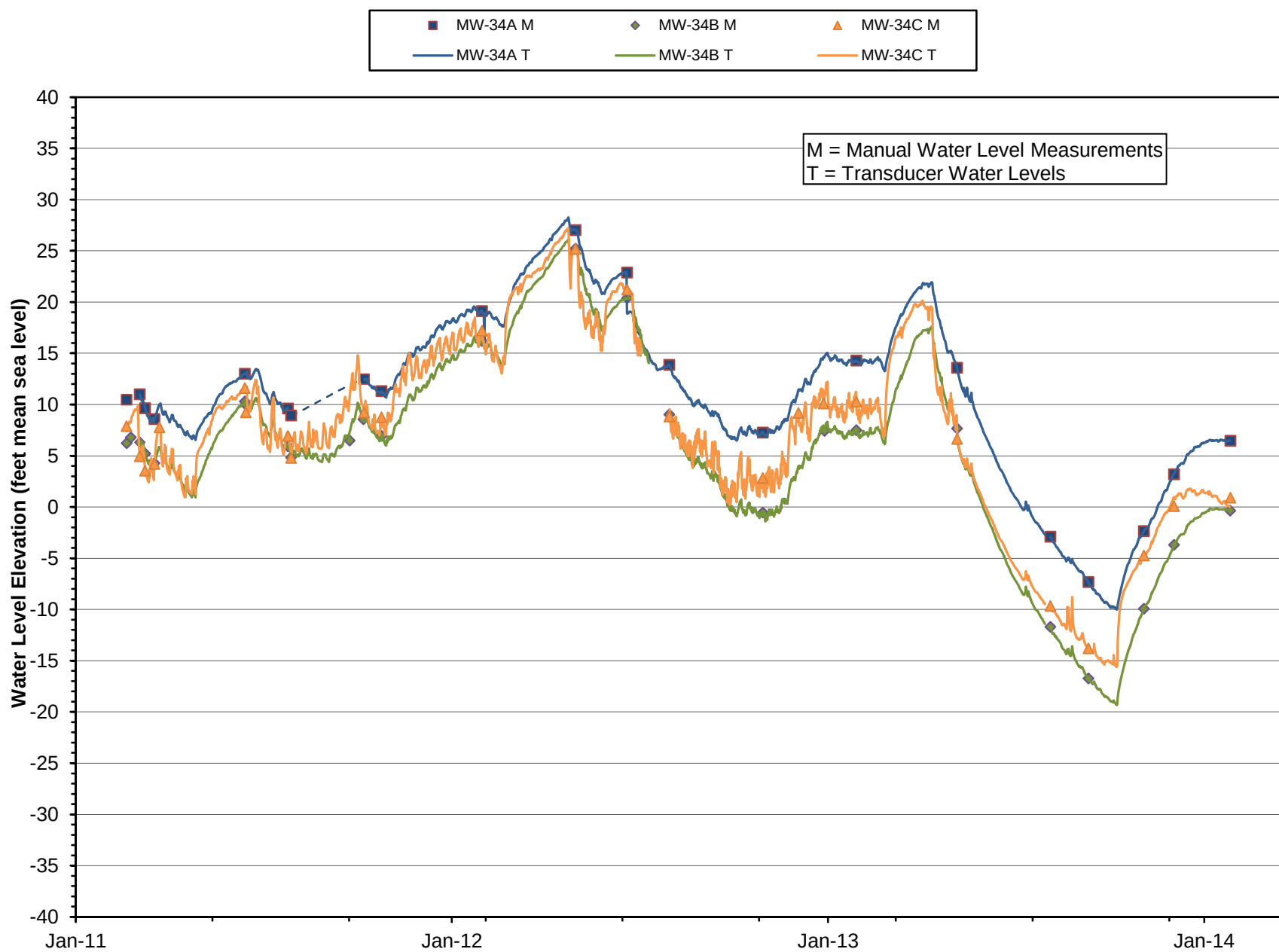


**FIGURE 19. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
MONITOR WELL CLUSTER MW-34A/34B/34C**

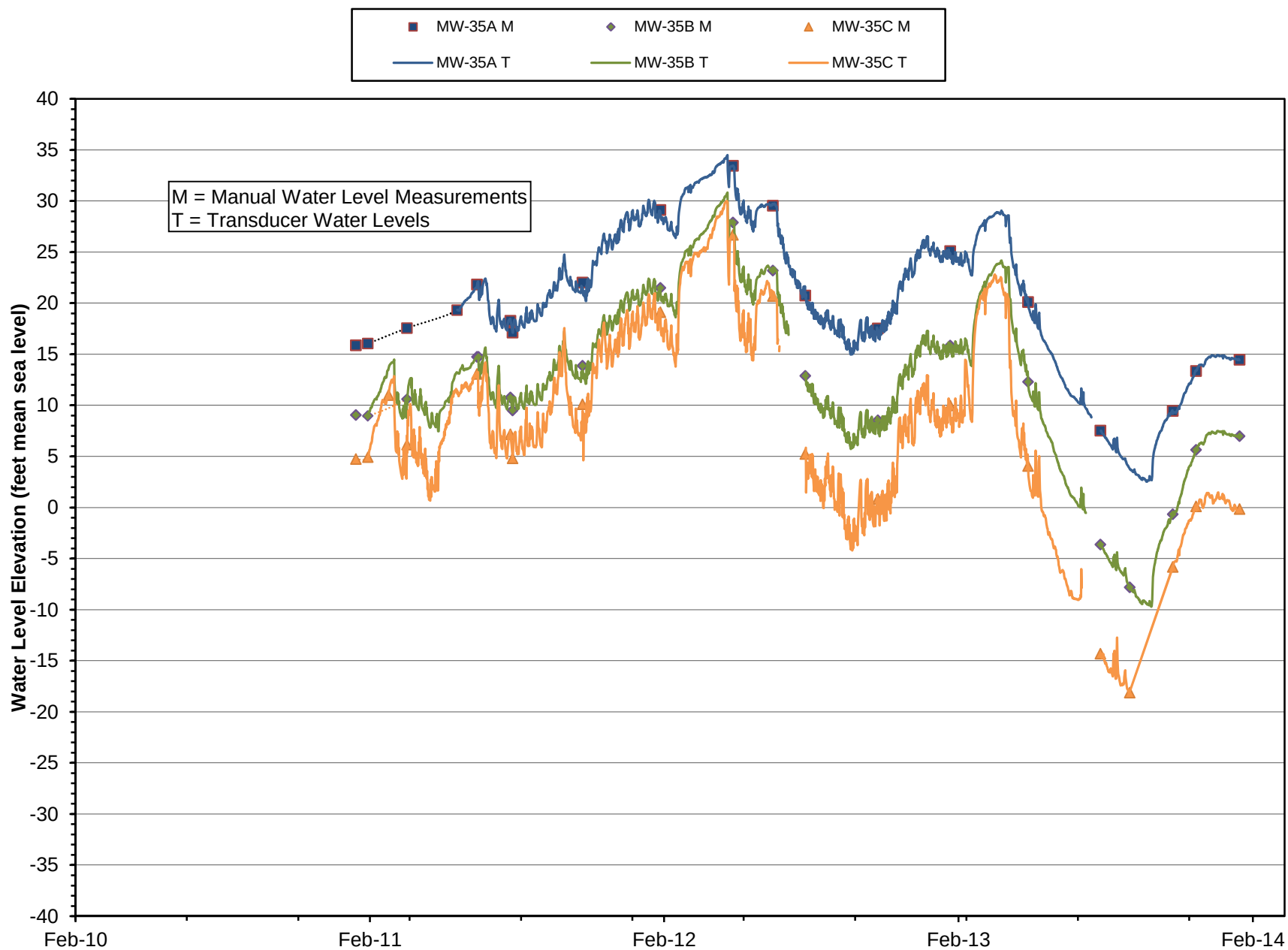
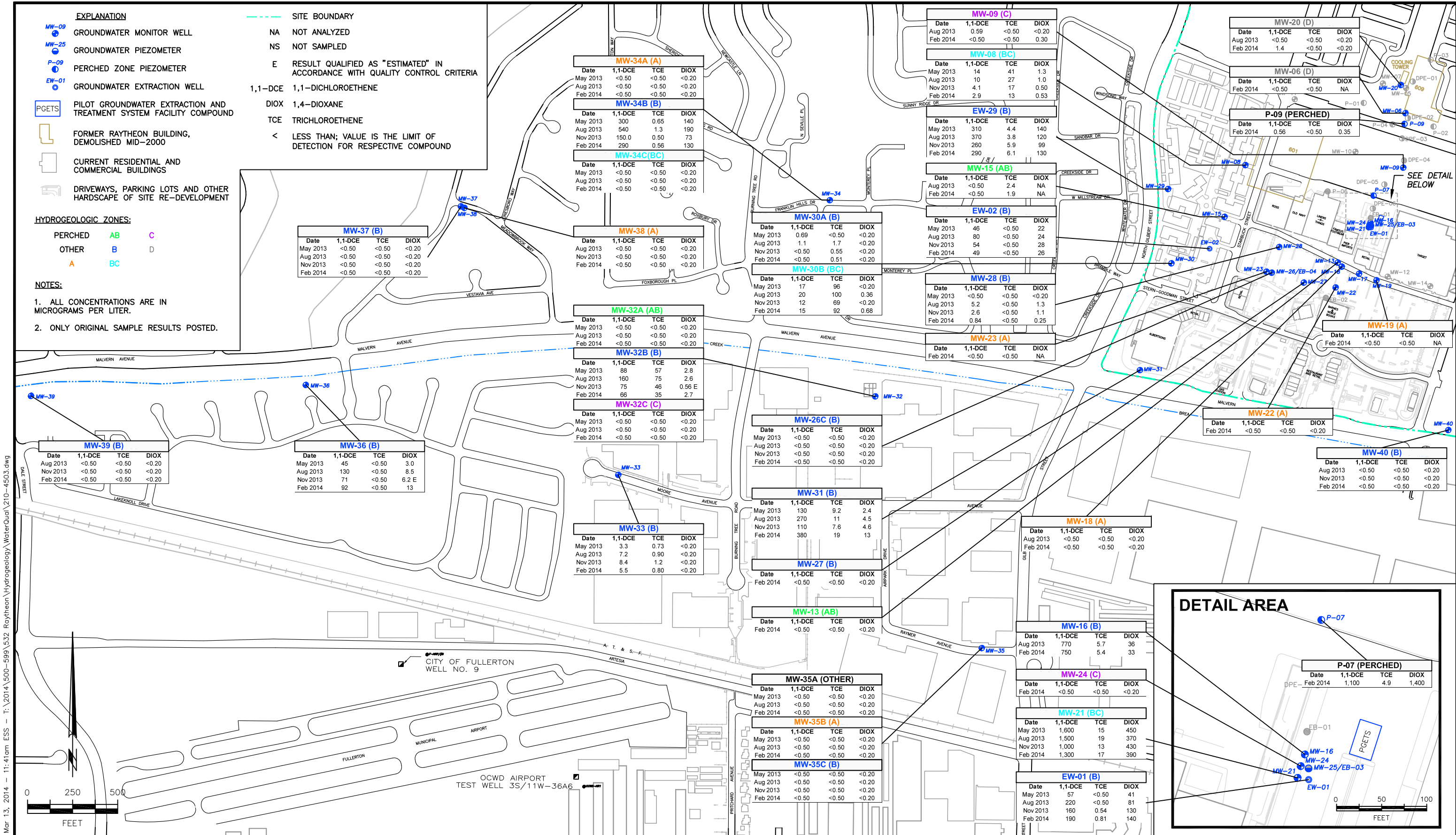


**FIGURE 20. REGIONAL GROUNDWATER SYSTEM WATER LEVELS,
NESTED MONITOR WELLS MW-35A/35B/35C**



Mar 13, 2014 - 11:41am ESS - T:\2014\500-599\532 Raytheon\Hydrogeology\WaterQual\210-4503.dwg

FIGURE 21.
1,1-DICHLOROETHYLENE, TRICHLOROETHYLENE, AND 1,4-DIOXANE
IN THE REGIONAL GROUNDWATER SYSTEM MAY 2013 THROUGH FEBRUARY 2014

Mar 12, 2014 -- 2:26pm ESS -- T:\2014\500-599\532 Roytheon\Hydrogeology\H+A BaseMaps\410-9200.dwg

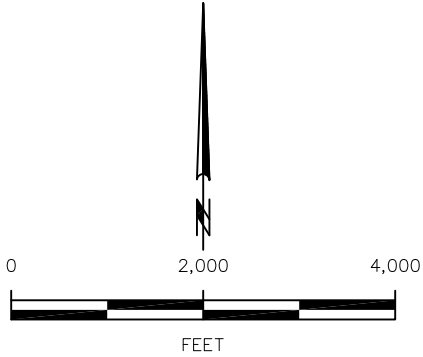
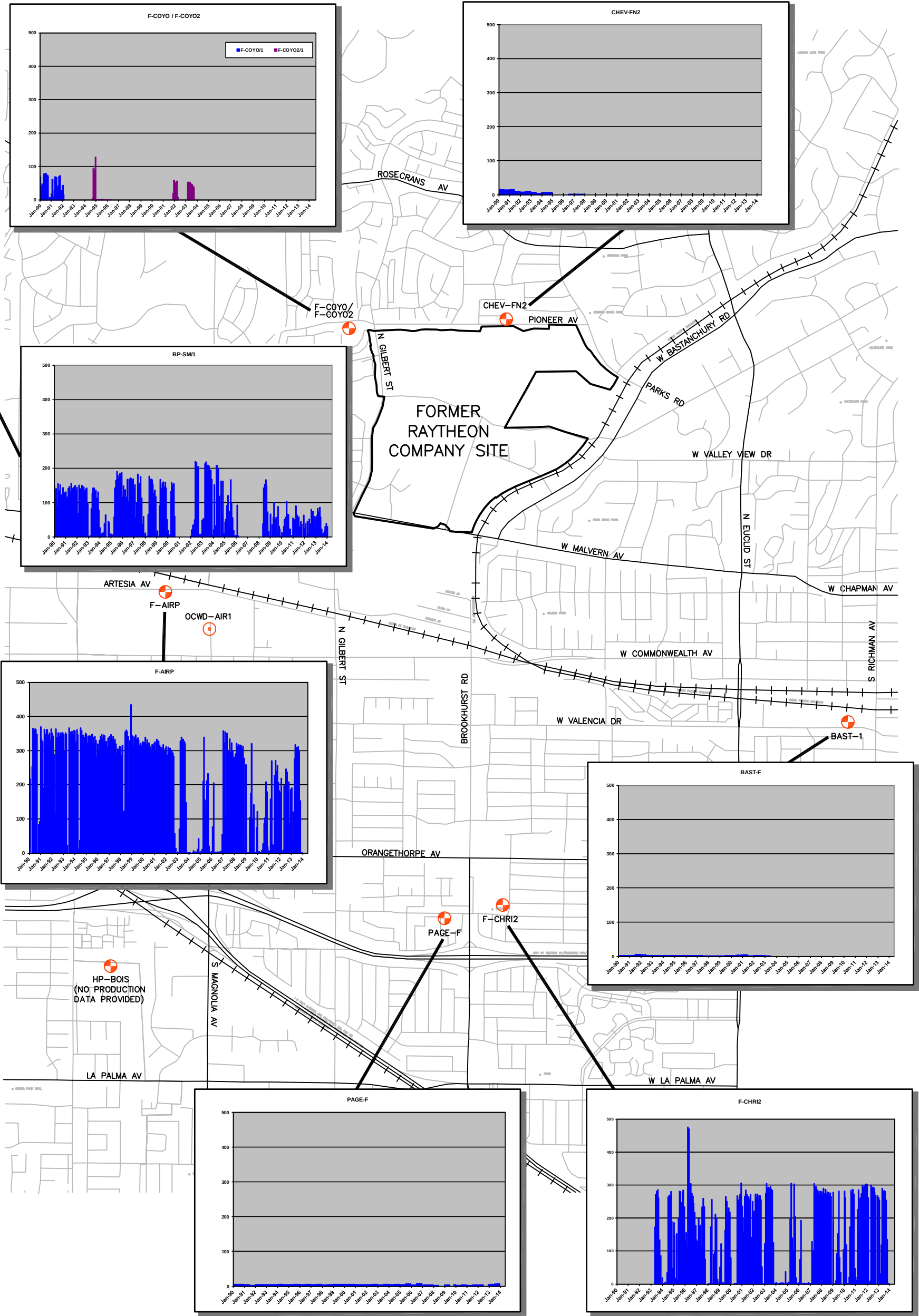
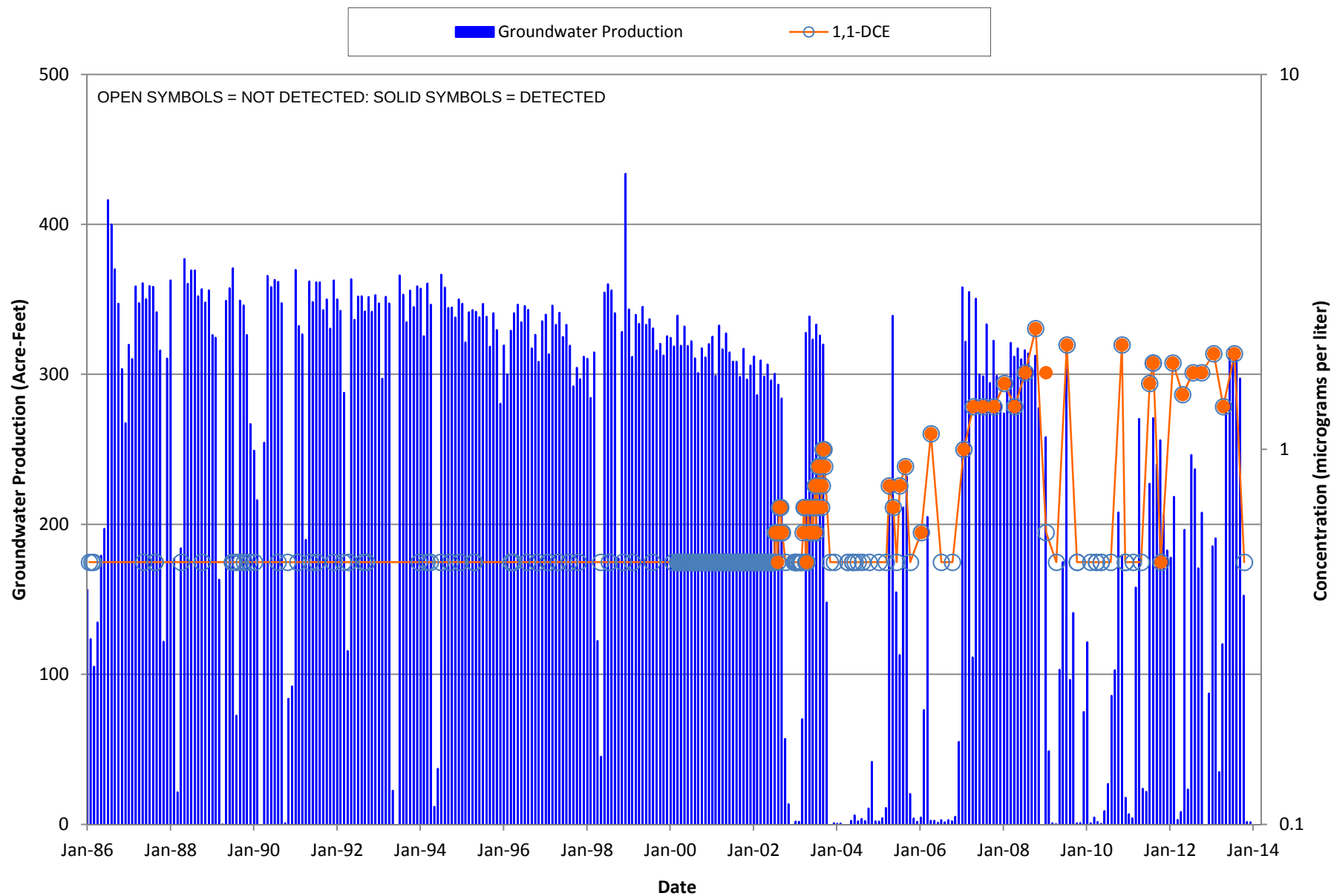


FIGURE 22.
REGIONAL PRODUCTION WELLS



FIGURE 23: F-AIRP Well Production and 1,1-Dichloroethylene Concentrations



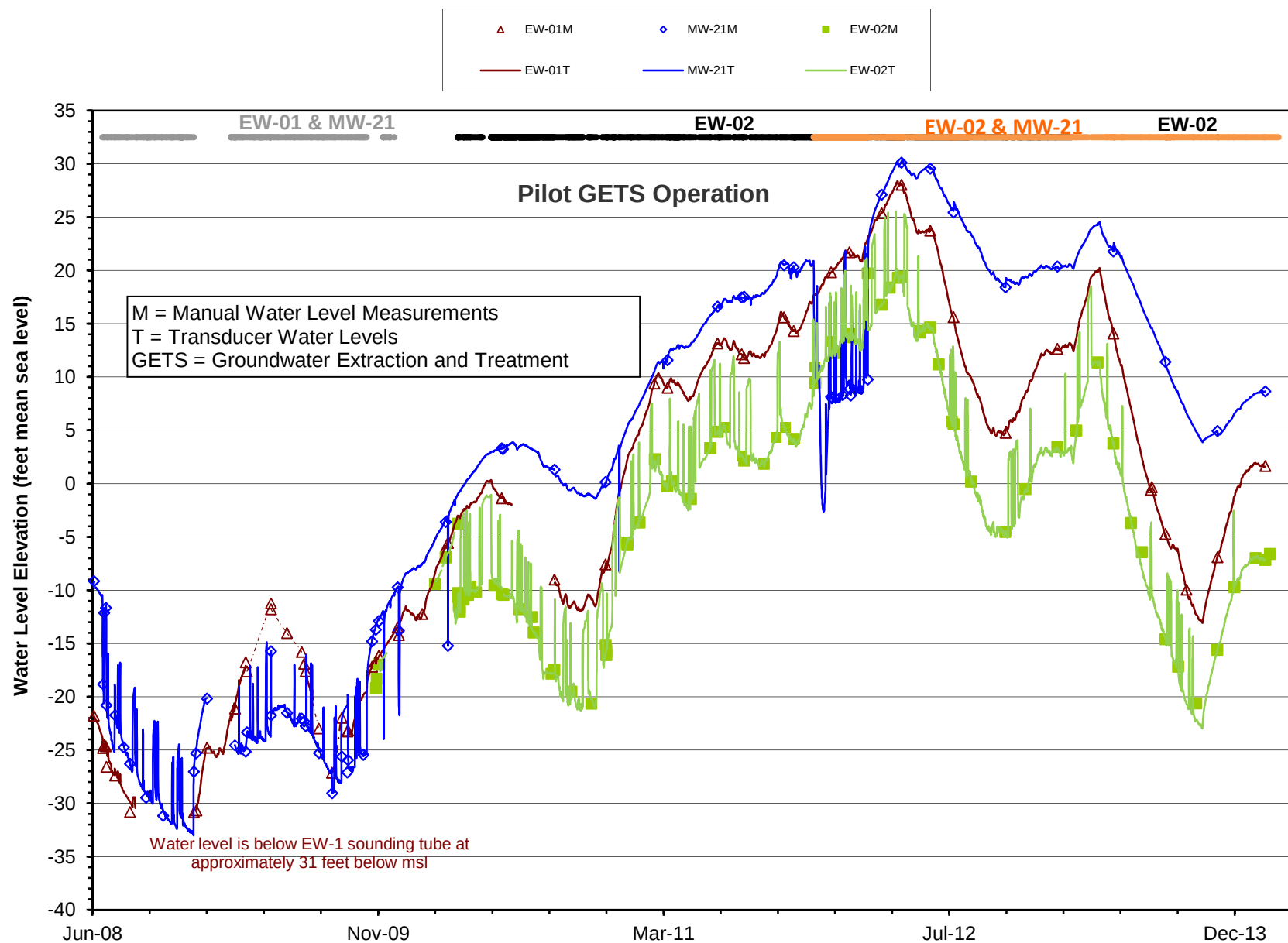


FIGURE 24.
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM OPERATION
AND EXTRACTION WELL WATER LEVELS

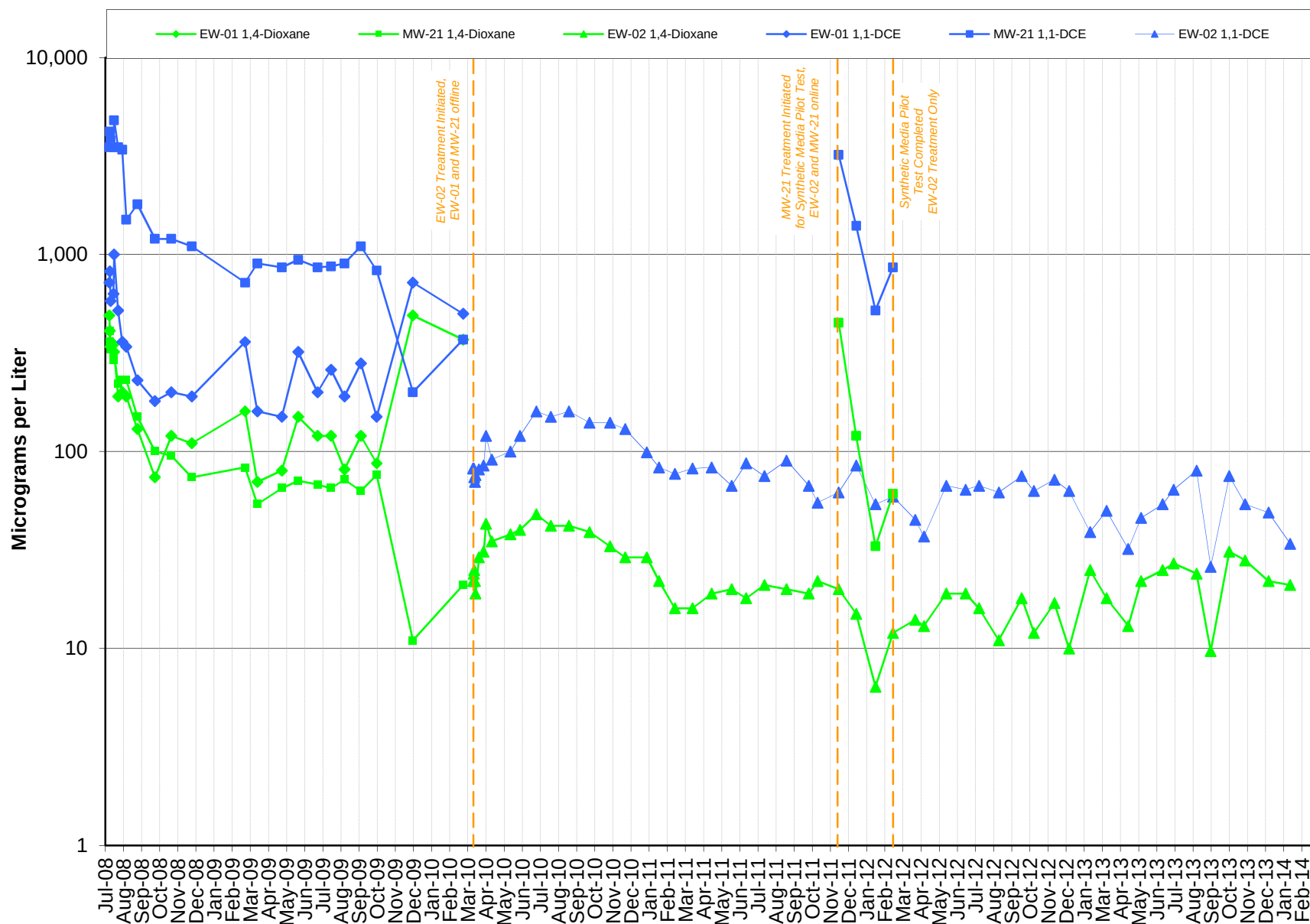


FIGURE 25.
1,1-DICHLOROETHYLENE AND 1,4-DIOXANE CONCENTRATIONS IN
EXTRACTION WELLS

1,1-DCE = 1,1-Dichloroethylene

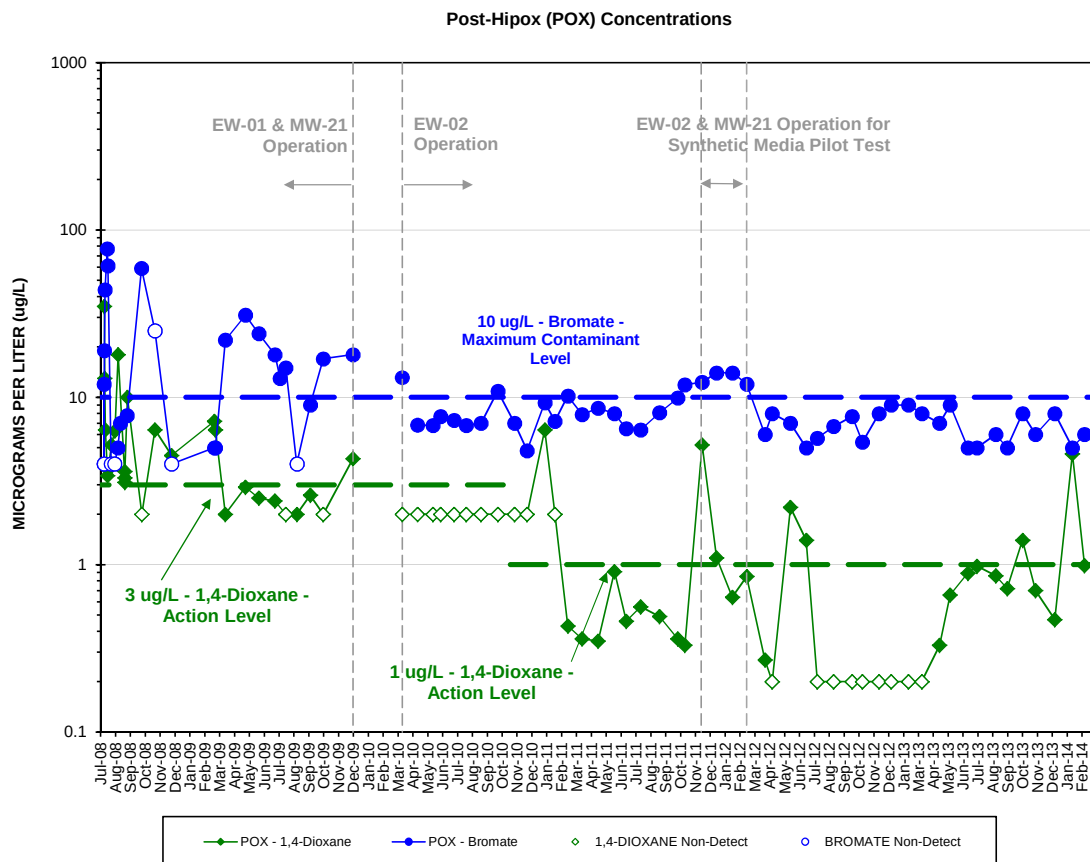
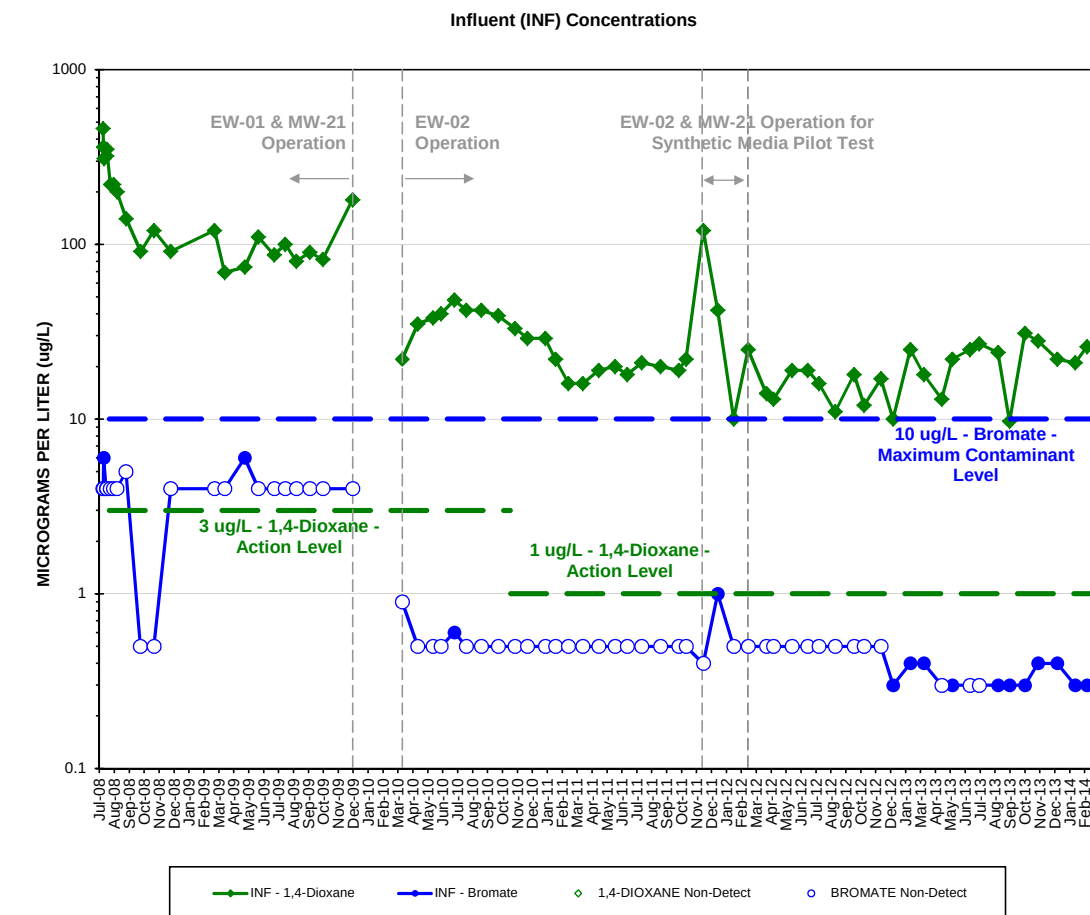


FIGURE 26.
1,4-DIOXANE AND BROMATE IN INFLUENT AND POST-OXIDATION SAMPLES

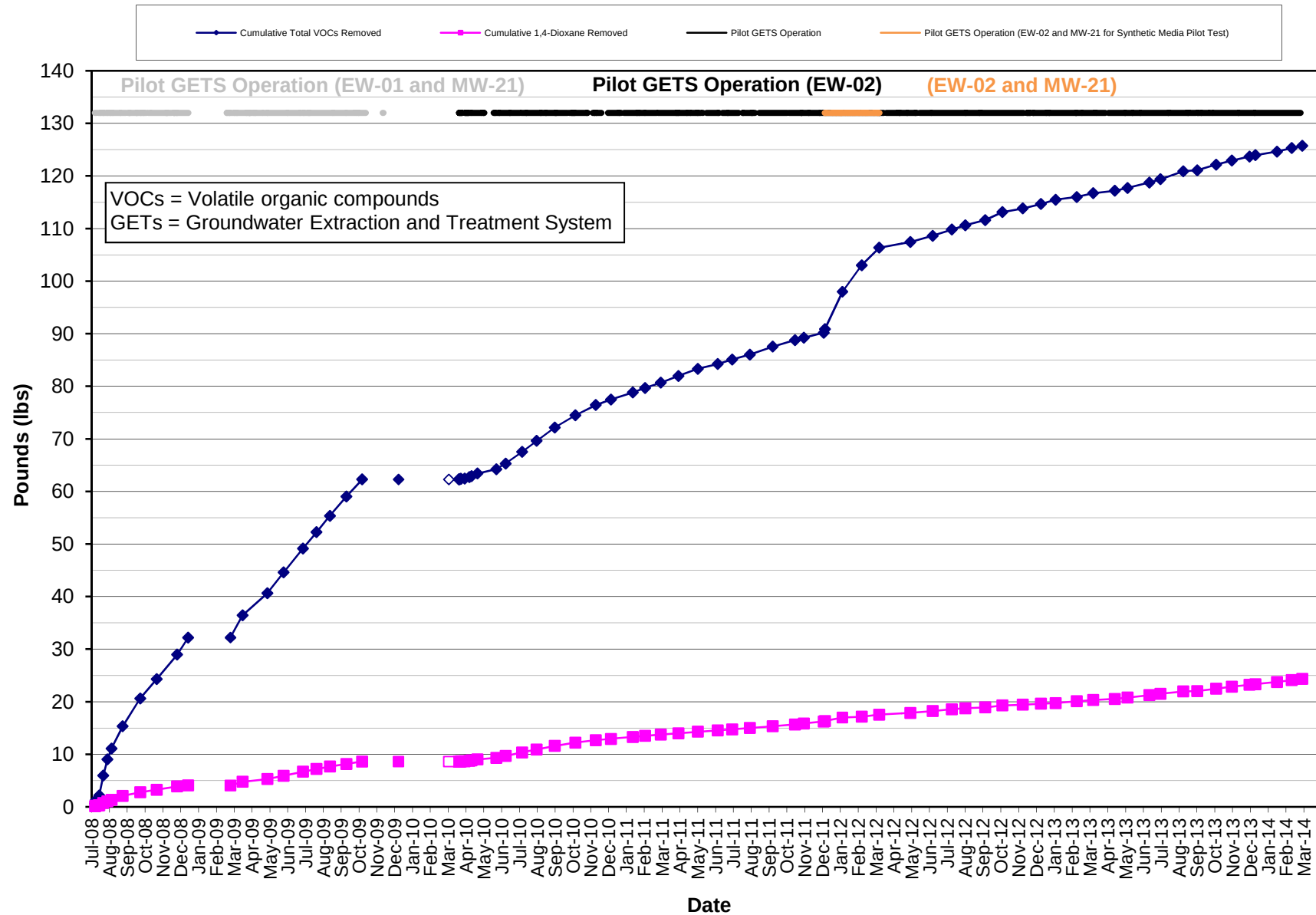


FIGURE 27.
PILOT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM MASS REMOVAL

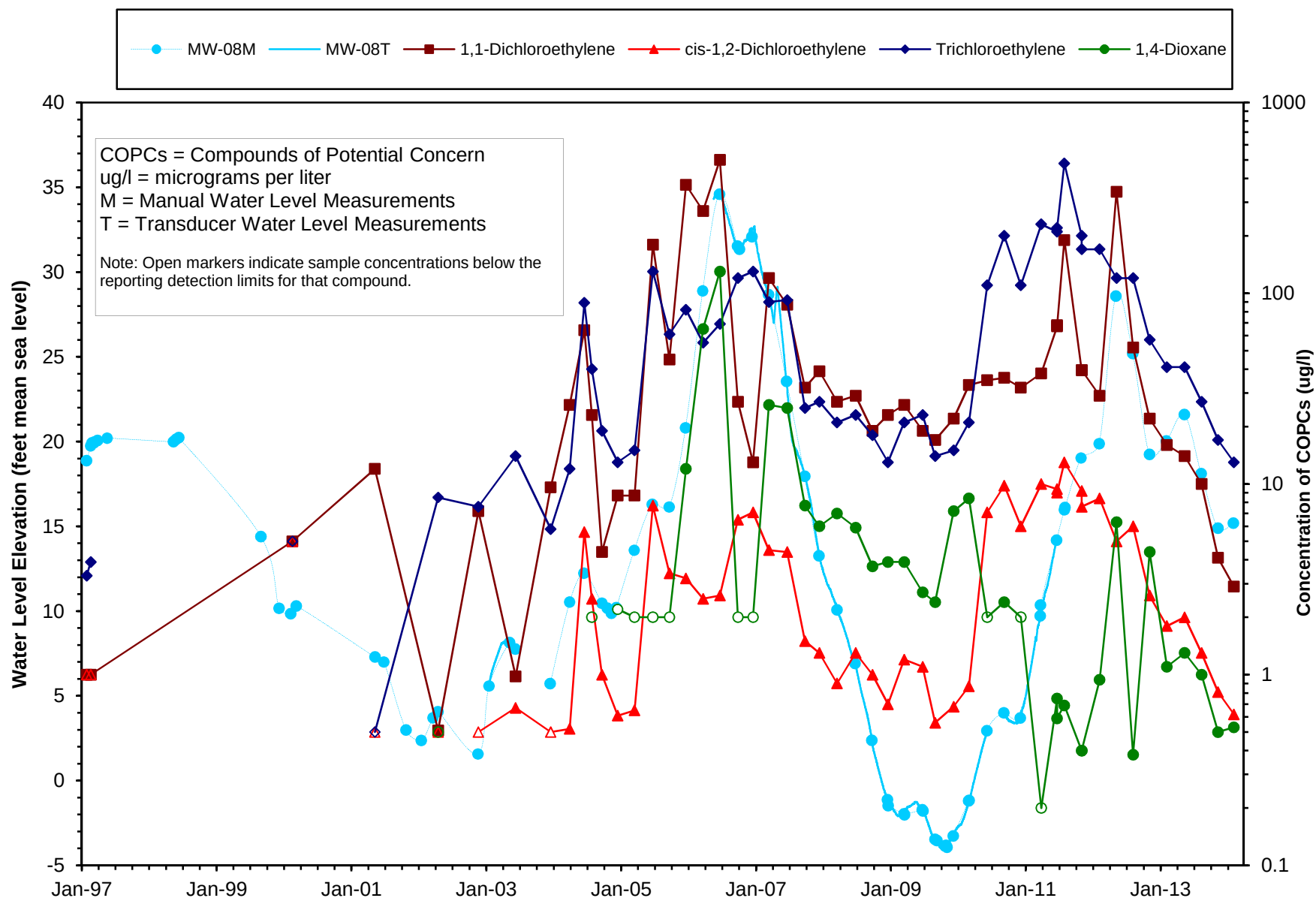


FIGURE 28. WATER LEVEL AND WATER QUALITY, MONITOR WELL MW-08



HARGIS + ASSOCIATES, INC.

APPENDIX A

LABORATORY ANALYTICAL REPORTS

GROUNDWATER ANALYTICAL RESULTS

February 12, 2014

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax: (858) 455-6533


ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No.: T104704502

Re: ATL Work Order Number : 1400345
Client Reference : RAYTHEON, 532.30

Enclosed are the results for sample(s) received on February 04, 2014 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-020314	1400345-01	Lab H2O	2/03/14 8:00	2/04/14 16:50
MW-21	1400345-02	Groundwater	2/03/14 14:00	2/04/14 16:50
EW-01	1400345-03	Groundwater	2/03/14 14:20	2/04/14 16:50
MW-18	1400345-04	Groundwater	2/04/14 11:12	2/04/14 16:50
MW-26C	1400345-05	Groundwater	2/04/14 13:05	2/04/14 16:50
RB-020414	1400345-06	Groundwater	2/04/14 13:20	2/04/14 16:50
MW-20	1400345-07	Groundwater	2/04/14 14:27	2/04/14 16:50
MW-06	1400345-08	Groundwater	2/04/14 15:40	2/04/14 16:50
MW-35B	1400345-09	Groundwater	2/04/14 10:35	2/04/14 16:50
MW-35C	1400345-10	Groundwater	2/04/14 13:20	2/04/14 16:50
MW-35A	1400345-11	Groundwater	2/04/14 14:05	2/04/14 16:50
MW-39	1400345-12	Groundwater	2/04/14 16:10	2/04/14 16:50
MW-28	1400345-13	Groundwater	2/04/14 16:30	2/04/14 16:50



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID TB-020314

Lab ID: 1400345-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
2-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
4-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Benzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Bromobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Bromodichloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Bromoform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Bromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Carbon tetrachloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Chlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Chloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Chloroform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Chloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Dibromochloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID TB-020314

Lab ID: 1400345-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Ethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Isopropylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
m,p-Xylene	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Methylene chloride	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
n-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
n-Propylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Naphthalene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
o-Xylene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
sec-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Styrene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
tert-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Tetrachloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Toluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Trichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Vinyl chloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 15:21	
Surrogate: 1,2-Dichloroethane-d4	129 %		64 - 146		B4B0074	02/06/2014	02/06/14 15:21	
Surrogate: 4-Bromofluorobenzene	73.2 %		60 - 128		B4B0074	02/06/2014	02/06/14 15:21	
Surrogate: Dibromofluoromethane	93.4 %		72 - 141		B4B0074	02/06/2014	02/06/14 15:21	
Surrogate: Toluene-d8	73.6 %		61 - 124		B4B0074	02/06/2014	02/06/14 15:21	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-21

Lab ID: 1400345-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,1,1-Trichloroethane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,1,2,2-Tetrachloroethane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,1,2-Trichloroethane	10	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,1-Dichloroethane	29	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,1-Dichloroethene	1300	25	NA	50	B4B0074	02/06/2014	02/06/14 15:45	
1,1-Dichloropropene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,2,3-Trichloropropane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,2,3-Trichlorobenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,2,4-Trichlorobenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,2,4-Trimethylbenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,2-Dibromo-3-chloropropane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,2-Dibromoethane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,2-Dichlorobenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,2-Dichloroethane	7.2	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,2-Dichloropropane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,3,5-Trimethylbenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,3-Dichlorobenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,3-Dichloropropane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
1,4-Dichlorobenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
2,2-Dichloropropane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
2-Chlorotoluene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
4-Chlorotoluene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
4-Isopropyltoluene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Benzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Bromobenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Bromodichloromethane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Bromoform	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Bromomethane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Carbon tetrachloride	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Chlorobenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Chloroethane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Chloroform	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Chloromethane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
cis-1,2-Dichloroethene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
cis-1,3-Dichloropropene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Dibromochloromethane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-21

Lab ID: 1400345-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Dichlorodifluoromethane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Ethylbenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Hexachlorobutadiene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Isopropylbenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
m,p-Xylene	ND	5.0	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Methylene chloride	8.4	5.0	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
n-Butylbenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
n-Propylbenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Naphthalene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
o-Xylene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
sec-Butylbenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Styrene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
tert-Butylbenzene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Tetrachloroethene	5.2	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Toluene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
trans-1,2-Dichloroethene	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Trichloroethene	17	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Trichlorofluoromethane	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
Vinyl chloride	ND	2.5	NA	5	B4B0090	02/07/2014	02/07/14 14:38	D6
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>127 %</i>		<i>64 - 146</i>		B4B0074	02/06/2014	<i>02/06/14 15:45</i>	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>129 %</i>		<i>64 - 146</i>		B4B0090	02/07/2014	<i>02/07/14 14:38</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>74.0 %</i>		<i>60 - 128</i>		B4B0074	02/06/2014	<i>02/06/14 15:45</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>72.8 %</i>		<i>60 - 128</i>		B4B0090	02/07/2014	<i>02/07/14 14:38</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>94.8 %</i>		<i>72 - 141</i>		B4B0090	02/07/2014	<i>02/07/14 14:38</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>95.5 %</i>		<i>72 - 141</i>		B4B0074	02/06/2014	<i>02/06/14 15:45</i>	
<i>Surrogate: Toluene-d8</i>	<i>75.6 %</i>		<i>61 - 124</i>		B4B0090	02/07/2014	<i>02/07/14 14:38</i>	
<i>Surrogate: Toluene-d8</i>	<i>75.7 %</i>		<i>61 - 124</i>		B4B0074	02/06/2014	<i>02/06/14 15:45</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-21

Lab ID: 1400345-02

1,4-Dioxane by EPA 8270: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	390	2.0	NA	1	B4B0123	02/10/2014	02/10/14 23:22	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>74.3 %</i>		<i>37 - 93</i>		B4B0123	02/10/2014	<i>02/10/14 23:22</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>76.6 %</i>		<i>51 - 100</i>		B4B0123	02/10/2014	<i>02/10/14 23:22</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>97.5 %</i>		<i>58 - 113</i>		B4B0123	02/10/2014	<i>02/10/14 23:22</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>87.8 %</i>		<i>39 - 95</i>		B4B0123	02/10/2014	<i>02/10/14 23:22</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID EW-01

Lab ID: 1400345-03

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,1,2-Trichloroethane	1.4	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,1-Dichloroethane	3.5	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,1-Dichloroethene	190	1.2	NA	2.5	B4B0074	02/06/2014	02/06/14 19:51	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,2-Dichloroethane	1.1	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
2-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
4-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Benzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Bromobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Bromodichloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Bromoform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Bromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Carbon tetrachloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Chlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Chloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Chloroform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Chloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Dibromochloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID EW-01

Lab ID: 1400345-03

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Ethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Isopropylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
m,p-Xylene	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Methylene chloride	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
n-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
n-Propylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Naphthalene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
o-Xylene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
sec-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Styrene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
tert-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Tetrachloroethene	1.1	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Toluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Trichloroethene	0.81	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
Vinyl chloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:44	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>136 %</i>	<i>64 - 146</i>			B4B0074	02/06/2014	<i>02/06/14 19:51</i>	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>121 %</i>	<i>64 - 146</i>			B4B0074	02/06/2014	<i>02/06/14 13:44</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>74.1 %</i>	<i>60 - 128</i>			B4B0074	02/06/2014	<i>02/06/14 19:51</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>71.6 %</i>	<i>60 - 128</i>			B4B0074	02/06/2014	<i>02/06/14 13:44</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>90.6 %</i>	<i>72 - 141</i>			B4B0074	02/06/2014	<i>02/06/14 13:44</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>98.1 %</i>	<i>72 - 141</i>			B4B0074	02/06/2014	<i>02/06/14 19:51</i>	
<i>Surrogate: Toluene-d8</i>	<i>73.3 %</i>	<i>61 - 124</i>			B4B0074	02/06/2014	<i>02/06/14 13:44</i>	
<i>Surrogate: Toluene-d8</i>	<i>76.4 %</i>	<i>61 - 124</i>			B4B0074	02/06/2014	<i>02/06/14 19:51</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID EW-01

Lab ID: 1400345-03

1,4-Dioxane by EPA 8270: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	140	2.0	NA	1	B4B0123	02/10/2014	02/10/14 22:02	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>65.6 %</i>		<i>37 - 93</i>		B4B0123	02/10/2014	<i>02/10/14 22:02</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>72.0 %</i>		<i>51 - 100</i>		B4B0123	02/10/2014	<i>02/10/14 22:02</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>101 %</i>		<i>58 - 113</i>		B4B0123	02/10/2014	<i>02/10/14 22:02</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>81.0 %</i>		<i>39 - 95</i>		B4B0123	02/10/2014	<i>02/10/14 22:02</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-18

Lab ID: 1400345-04

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
2-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
4-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Benzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Bromobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Bromodichloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Bromoform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Bromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Carbon tetrachloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Chlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Chloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Chloroform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Chloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Dibromochloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-18

Lab ID: 1400345-04

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Ethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Isopropylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
m,p-Xylene	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Methylene chloride	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
n-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
n-Propylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Naphthalene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
o-Xylene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
sec-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Styrene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
tert-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Tetrachloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Toluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Trichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Trichlorofluoromethane	2.1	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
Vinyl chloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>135 %</i>		<i>64 - 146</i>		B4B0074	02/06/2014	<i>02/06/14 19:26</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>75.5 %</i>		<i>60 - 128</i>		B4B0074	02/06/2014	<i>02/06/14 19:26</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>95.0 %</i>		<i>72 - 141</i>		B4B0074	02/06/2014	<i>02/06/14 19:26</i>	
<i>Surrogate: Toluene-d8</i>	<i>73.1 %</i>		<i>61 - 124</i>		B4B0074	02/06/2014	<i>02/06/14 19:26</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-18

Lab ID: 1400345-04

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0082	02/06/2014	02/08/14 16:41	
Surrogate: 1,2-Dichlorobenzene-d4	72.4 %		47 - 117		B4B0082	02/06/2014	02/08/14 16:41	
Surrogate: 2-Fluorobiphenyl	82.0 %		48 - 121		B4B0082	02/06/2014	02/08/14 16:41	
Surrogate: 4-Terphenyl-d14	108 %		58 - 142		B4B0082	02/06/2014	02/08/14 16:41	
Surrogate: Nitrobenzene-d5	92.6 %		27 - 151		B4B0082	02/06/2014	02/08/14 16:41	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-26C

Lab ID: 1400345-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
2-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
4-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Benzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Bromobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Bromodichloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Bromoform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Bromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Carbon tetrachloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Chlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Chloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Chloroform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Chloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Dibromochloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-26C

Lab ID: 1400345-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Ethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Isopropylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
m,p-Xylene	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Methylene chloride	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
n-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
n-Propylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Naphthalene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
o-Xylene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
sec-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Styrene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
tert-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Tetrachloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Toluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Trichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Vinyl chloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:10	
Surrogate: 1,2-Dichloroethane-d4	128 %		64 - 146		B4B0074	02/06/2014	02/06/14 16:10	
Surrogate: 4-Bromofluorobenzene	76.1 %		60 - 128		B4B0074	02/06/2014	02/06/14 16:10	
Surrogate: Dibromofluoromethane	92.1 %		72 - 141		B4B0074	02/06/2014	02/06/14 16:10	
Surrogate: Toluene-d8	73.5 %		61 - 124		B4B0074	02/06/2014	02/06/14 16:10	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-26C

Lab ID: 1400345-05

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0082	02/06/2014	02/08/14 17:08	
Surrogate: 1,2-Dichlorobenzene-d4	71.6 %		47 - 117		B4B0082	02/06/2014	02/08/14 17:08	
Surrogate: 2-Fluorobiphenyl	76.6 %		48 - 121		B4B0082	02/06/2014	02/08/14 17:08	
Surrogate: 4-Terphenyl-d14	116 %		58 - 142		B4B0082	02/06/2014	02/08/14 17:08	
Surrogate: Nitrobenzene-d5	88.7 %		27 - 151		B4B0082	02/06/2014	02/08/14 17:08	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID RB-020414

Lab ID: 1400345-06

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
2-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
4-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Benzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Bromobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Bromodichloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Bromoform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Bromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Carbon tetrachloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Chlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Chloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Chloroform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Chloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Dibromochloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID RB-020414

Lab ID: 1400345-06

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Ethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Isopropylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
m,p-Xylene	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Methylene chloride	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
n-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
n-Propylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Naphthalene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
o-Xylene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
sec-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Styrene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
tert-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Tetrachloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Toluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Trichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Vinyl chloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:34	
Surrogate: 1,2-Dichloroethane-d4	127 %		64 - 146		B4B0074	02/06/2014	02/06/14 16:34	
Surrogate: 4-Bromofluorobenzene	71.2 %		60 - 128		B4B0074	02/06/2014	02/06/14 16:34	
Surrogate: Dibromofluoromethane	93.2 %		72 - 141		B4B0074	02/06/2014	02/06/14 16:34	
Surrogate: Toluene-d8	74.3 %		61 - 124		B4B0074	02/06/2014	02/06/14 16:34	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-20

Lab ID: 1400345-07

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,1-Dichloroethene	1.4	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
2-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
4-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Benzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Bromobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Bromodichloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Bromoform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Bromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Carbon tetrachloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Chlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Chloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Chloroform	0.54	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Chloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Dibromochloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-20

Lab ID: 1400345-07

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Ethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Isopropylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
m,p-Xylene	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Methylene chloride	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
n-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
n-Propylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Naphthalene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
o-Xylene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
sec-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Styrene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
tert-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Tetrachloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Toluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Trichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Vinyl chloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 16:59	
Surrogate: 1,2-Dichloroethane-d4	133 %		64 - 146		B4B0074	02/06/2014	02/06/14 16:59	
Surrogate: 4-Bromofluorobenzene	69.7 %		60 - 128		B4B0074	02/06/2014	02/06/14 16:59	
Surrogate: Dibromofluoromethane	97.3 %		72 - 141		B4B0074	02/06/2014	02/06/14 16:59	
Surrogate: Toluene-d8	73.2 %		61 - 124		B4B0074	02/06/2014	02/06/14 16:59	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-20

Lab ID: 1400345-07

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0082	02/06/2014	02/08/14 17:35	
Surrogate: 1,2-Dichlorobenzene-d4	80.5 %		47 - 117		B4B0082	02/06/2014	02/08/14 17:35	
Surrogate: 2-Fluorobiphenyl	88.9 %		48 - 121		B4B0082	02/06/2014	02/08/14 17:35	
Surrogate: 4-Terphenyl-d14	117 %		58 - 142		B4B0082	02/06/2014	02/08/14 17:35	
Surrogate: Nitrobenzene-d5	107 %		27 - 151		B4B0082	02/06/2014	02/08/14 17:35	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-06

Lab ID: 1400345-08

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
2-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
4-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Benzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Bromobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Bromodichloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Bromoform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Bromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Carbon tetrachloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Chlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Chloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Chloroform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Chloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Dibromochloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-06

Lab ID: 1400345-08

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Ethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Isopropylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
m,p-Xylene	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Methylene chloride	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
n-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
n-Propylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Naphthalene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
o-Xylene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
sec-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Styrene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
tert-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Tetrachloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Toluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Trichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Vinyl chloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:23	
Surrogate: 1,2-Dichloroethane-d4	133 %		64 - 146		B4B0074	02/06/2014	02/06/14 17:23	
Surrogate: 4-Bromofluorobenzene	79.7 %		60 - 128		B4B0074	02/06/2014	02/06/14 17:23	
Surrogate: Dibromofluoromethane	99.8 %		72 - 141		B4B0074	02/06/2014	02/06/14 17:23	
Surrogate: Toluene-d8	80.5 %		61 - 124		B4B0074	02/06/2014	02/06/14 17:23	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-35B

Lab ID: 1400345-09

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
2-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
4-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Benzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Bromobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Bromodichloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Bromoform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Bromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Carbon tetrachloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Chlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Chloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Chloroform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Chloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Dibromochloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-35B

Lab ID: 1400345-09

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Ethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Isopropylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
m,p-Xylene	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Methylene chloride	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
n-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
n-Propylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Naphthalene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
o-Xylene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
sec-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Styrene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
tert-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Tetrachloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Toluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Trichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Vinyl chloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 17:48	
Surrogate: 1,2-Dichloroethane-d4	138 %		64 - 146		B4B0074	02/06/2014	02/06/14 17:48	
Surrogate: 4-Bromofluorobenzene	71.7 %		60 - 128		B4B0074	02/06/2014	02/06/14 17:48	
Surrogate: Dibromofluoromethane	101 %		72 - 141		B4B0074	02/06/2014	02/06/14 17:48	
Surrogate: Toluene-d8	77.2 %		61 - 124		B4B0074	02/06/2014	02/06/14 17:48	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-35B

Lab ID: 1400345-09

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0082	02/06/2014	02/08/14 18:01	
Surrogate: 1,2-Dichlorobenzene-d4	76.8 %		47 - 117		B4B0082	02/06/2014	02/08/14 18:01	
Surrogate: 2-Fluorobiphenyl	83.3 %		48 - 121		B4B0082	02/06/2014	02/08/14 18:01	
Surrogate: 4-Terphenyl-d14	113 %		58 - 142		B4B0082	02/06/2014	02/08/14 18:01	
Surrogate: Nitrobenzene-d5	98.8 %		27 - 151		B4B0082	02/06/2014	02/08/14 18:01	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-35C

Lab ID: 1400345-10

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
2-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
4-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Benzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Bromobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Bromodichloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Bromoform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Bromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Carbon tetrachloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Chlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Chloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Chloroform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Chloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Dibromochloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-35C

Lab ID: 1400345-10

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Ethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Isopropylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
m,p-Xylene	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Methylene chloride	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
n-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
n-Propylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Naphthalene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
o-Xylene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
sec-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Styrene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
tert-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Tetrachloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Toluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Trichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Vinyl chloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 13:17	
Surrogate: 1,2-Dichloroethane-d4	128 %		64 - 146		B4B0074	02/06/2014	02/06/14 13:17	
Surrogate: 4-Bromofluorobenzene	78.1 %		60 - 128		B4B0074	02/06/2014	02/06/14 13:17	
Surrogate: Dibromofluoromethane	99.6 %		72 - 141		B4B0074	02/06/2014	02/06/14 13:17	
Surrogate: Toluene-d8	79.2 %		61 - 124		B4B0074	02/06/2014	02/06/14 13:17	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-35C

Lab ID: 1400345-10

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0082	02/06/2014	02/08/14 18:28	
Surrogate: 1,2-Dichlorobenzene-d4	77.4 %		47 - 117		B4B0082	02/06/2014	02/08/14 18:28	
Surrogate: 2-Fluorobiphenyl	86.1 %		48 - 121		B4B0082	02/06/2014	02/08/14 18:28	
Surrogate: 4-Terphenyl-d14	112 %		58 - 142		B4B0082	02/06/2014	02/08/14 18:28	
Surrogate: Nitrobenzene-d5	101 %		27 - 151		B4B0082	02/06/2014	02/08/14 18:28	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-35A

Lab ID: 1400345-11

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
2-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
4-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Benzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Bromobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Bromodichloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Bromoform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Bromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Carbon tetrachloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Chlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Chloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Chloroform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Chloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Dibromochloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-35A

Lab ID: 1400345-11

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Ethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Isopropylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
m,p-Xylene	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Methylene chloride	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
n-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
n-Propylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Naphthalene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
o-Xylene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
sec-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Styrene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
tert-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Tetrachloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Toluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Trichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Vinyl chloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:12	
Surrogate: 1,2-Dichloroethane-d4	127 %		64 - 146		B4B0074	02/06/2014	02/06/14 18:12	
Surrogate: 4-Bromofluorobenzene	74.2 %		60 - 128		B4B0074	02/06/2014	02/06/14 18:12	
Surrogate: Dibromofluoromethane	96.1 %		72 - 141		B4B0074	02/06/2014	02/06/14 18:12	
Surrogate: Toluene-d8	73.4 %		61 - 124		B4B0074	02/06/2014	02/06/14 18:12	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-35A

Lab ID: 1400345-11

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0082	02/06/2014	02/08/14 18:55	
Surrogate: 1,2-Dichlorobenzene-d4	78.2 %		47 - 117		B4B0082	02/06/2014	02/08/14 18:55	
Surrogate: 2-Fluorobiphenyl	89.3 %		48 - 121		B4B0082	02/06/2014	02/08/14 18:55	
Surrogate: 4-Terphenyl-d14	120 %		58 - 142		B4B0082	02/06/2014	02/08/14 18:55	
Surrogate: Nitrobenzene-d5	103 %		27 - 151		B4B0082	02/06/2014	02/08/14 18:55	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-39

Lab ID: 1400345-12

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
2-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
4-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Benzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Bromobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Bromodichloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Bromoform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Bromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Carbon tetrachloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Chlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Chloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Chloroform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Chloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Dibromochloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-39

Lab ID: 1400345-12

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Ethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Isopropylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
m,p-Xylene	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Methylene chloride	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
n-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
n-Propylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Naphthalene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
o-Xylene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
sec-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Styrene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
tert-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Tetrachloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Toluene	0.59	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Trichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
Vinyl chloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 18:37	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>129 %</i>		<i>64 - 146</i>		B4B0074	02/06/2014	<i>02/06/14 18:37</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>72.0 %</i>		<i>60 - 128</i>		B4B0074	02/06/2014	<i>02/06/14 18:37</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>96.4 %</i>		<i>72 - 141</i>		B4B0074	02/06/2014	<i>02/06/14 18:37</i>	
<i>Surrogate: Toluene-d8</i>	<i>72.3 %</i>		<i>61 - 124</i>		B4B0074	02/06/2014	<i>02/06/14 18:37</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-39

Lab ID: 1400345-12

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0082	02/06/2014	02/08/14 19:21	
Surrogate: 1,2-Dichlorobenzene-d4	83.4 %		47 - 117		B4B0082	02/06/2014	02/08/14 19:21	
Surrogate: 2-Fluorobiphenyl	89.0 %		48 - 121		B4B0082	02/06/2014	02/08/14 19:21	
Surrogate: 4-Terphenyl-d14	119 %		58 - 142		B4B0082	02/06/2014	02/08/14 19:21	
Surrogate: Nitrobenzene-d5	102 %		27 - 151		B4B0082	02/06/2014	02/08/14 19:21	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-28

Lab ID: 1400345-13

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,1-Dichloroethene	0.84	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
2-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
4-Chlorotoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Benzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Bromobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Bromodichloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Bromoform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Bromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Carbon tetrachloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Chlorobenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Chloroethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Chloroform	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Chloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Dibromochloromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-28

Lab ID: 1400345-13

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Ethylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Isopropylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
m,p-Xylene	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Methylene chloride	ND	1.0	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
n-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
n-Propylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Naphthalene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
o-Xylene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
sec-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Styrene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
tert-Butylbenzene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Tetrachloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Toluene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Trichloroethene	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Vinyl chloride	ND	0.50	NA	1	B4B0074	02/06/2014	02/06/14 19:01	
Surrogate: 1,2-Dichloroethane-d4	132 %		64 - 146		B4B0074	02/06/2014	02/06/14 19:01	
Surrogate: 4-Bromofluorobenzene	70.0 %		60 - 128		B4B0074	02/06/2014	02/06/14 19:01	
Surrogate: Dibromofluoromethane	97.3 %		72 - 141		B4B0074	02/06/2014	02/06/14 19:01	
Surrogate: Toluene-d8	72.3 %		61 - 124		B4B0074	02/06/2014	02/06/14 19:01	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Client Sample ID MW-28

Lab ID: 1400345-13

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	0.25	0.20	NA	1	B4B0082	02/06/2014	02/08/14 19:48	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>78.8 %</i>		<i>47 - 117</i>		B4B0082	02/06/2014	<i>02/08/14 19:48</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>85.4 %</i>		<i>48 - 121</i>		B4B0082	02/06/2014	<i>02/08/14 19:48</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>116 %</i>		<i>58 - 142</i>		B4B0082	02/06/2014	<i>02/08/14 19:48</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>99.2 %</i>		<i>27 - 151</i>		B4B0082	02/06/2014	<i>02/08/14 19:48</i>	



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Project Number : RAYTHEON, 532.30

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QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0074 - MSVOAW_LL

Blank (B4B0074-BLK1)

Prepared: 2/6/2014 Analyzed: 2/6/2014

1,1,1,2-Tetrachloroethane	ND	0.50			NR			
1,1,1-Trichloroethane	ND	0.50			NR			
1,1,2,2-Tetrachloroethane	ND	0.50			NR			
1,1,2-Trichloroethane	ND	0.50			NR			
1,1-Dichloroethane	ND	0.50			NR			
1,1-Dichloroethene	ND	0.50			NR			
1,1-Dichloropropene	ND	0.50			NR			
1,2,3-Trichloropropane	ND	0.50			NR			
1,2,3-Trichlorobenzene	ND	0.50			NR			
1,2,4-Trichlorobenzene	ND	0.50			NR			
1,2,4-Trimethylbenzene	ND	0.50			NR			
1,2-Dibromo-3-chloropropane	ND	0.50			NR			
1,2-Dibromoethane	ND	0.50			NR			
1,2-Dichlorobenzene	ND	0.50			NR			
1,2-Dichloroethane	ND	0.50			NR			
1,2-Dichloropropane	ND	0.50			NR			
1,3,5-Trimethylbenzene	ND	0.50			NR			
1,3-Dichlorobenzene	ND	0.50			NR			
1,3-Dichloropropane	ND	0.50			NR			
1,4-Dichlorobenzene	ND	0.50			NR			
2,2-Dichloropropane	ND	0.50			NR			
2-Chlorotoluene	ND	0.50			NR			
4-Chlorotoluene	ND	0.50			NR			
4-Isopropyltoluene	ND	0.50			NR			
Benzene	ND	0.50			NR			
Bromobenzene	ND	0.50			NR			
Bromodichloromethane	ND	0.50			NR			
Bromoform	ND	0.50			NR			
Bromomethane	ND	0.50			NR			
Carbon tetrachloride	ND	0.50			NR			
Chlorobenzene	ND	0.50			NR			
Chloroethane	ND	0.50			NR			
Chloroform	ND	0.50			NR			
Chloromethane	ND	0.50			NR			
cis-1,2-Dichloroethene	ND	0.50			NR			
cis-1,3-Dichloropropene	ND	0.50			NR			
Dibromochloromethane	ND	0.50			NR			
Dibromomethane	ND	0.50			NR			
Dichlorodifluoromethane	ND	0.50			NR			



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

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Reported : 02/12/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0074 - MSVOAW_LL (continued)

Blank (B4B0074-BLK1) - Continued

Prepared: 2/6/2014 Analyzed: 2/6/2014

Ethylbenzene	ND	0.50			NR				
Hexachlorobutadiene	ND	0.50			NR				
Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	32.19		25.0000		129	64 - 146			
Surrogate: 4-Bromofluorobenzene	18.52		25.0000		74.1	60 - 128			
Surrogate: Dibromofluoromethane	24.30		25.0000		97.2	72 - 141			
Surrogate: Toluene-d8	19.88		25.0000		79.5	61 - 124			

LCS (B4B0074-BS1)

Prepared: 2/6/2014 Analyzed: 2/6/2014

1,1,1,2-Tetrachloroethane	28.0200		20.0000		140	74 - 148			
1,1,1-Trichloroethane	24.1200		20.0000		121	74 - 136			
1,1,2,2-Tetrachloroethane	21.7300		20.0000		109	44 - 147			
1,1,2-Trichloroethane	18.8700		20.0000		94.4	46 - 135			
1,1-Dichloroethane	23.5900		20.0000		118	71 - 154			
1,1-Dichloroethene	17.3400		20.0000		86.7	56 - 131			
1,1-Dichloropropene	23.4000		20.0000		117	64 - 157			
1,2,3-Trichloropropane	24.4300		20.0000		122	45 - 147			
1,2,3-Trichlorobenzene	33.4600		20.0000		167	22 - 212			
1,2,4-Trichlorobenzene	26.7200		20.0000		134	34 - 198			
1,2,4-Trimethylbenzene	20.3900		20.0000		102	75 - 131			
1,2-Dibromo-3-chloropropane	38.3900		20.0000		192	9 - 217			
1,2-Dibromoethane	18.2100		20.0000		91.0	45 - 136			
1,2-Dichlorobenzene	22.7200		20.0000		114	75 - 142			
1,2-Dichloroethane	31.7500		20.0000		159	73 - 139			L4
1,2-Dichloropropane	21.3500		20.0000		107	61 - 145			
1,3,5-Trimethylbenzene	21.2600		20.0000		106	76 - 132			



Certificate of Analysis

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Project Number : RAYTHEON, 532.30

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0074 - MSVOAW_LL (continued)

LCS (B4B0074-BS1) - Continued

Prepared: 2/6/2014 Analyzed: 2/6/2014

1,3-Dichlorobenzene	17.5400		20.0000		87.7	56 - 149			
1,3-Dichloropropane	18.3900		20.0000		92.0	49 - 146			
1,4-Dichlorobenzene	18.5700		20.0000		92.8	70 - 127			
2,2-Dichloropropane	19.9500		20.0000		99.8	32 - 153			
2-Chlorotoluene	19.6100		20.0000		98.0	67 - 135			
4-Chlorotoluene	17.3500		20.0000		86.8	61 - 138			
4-Isopropyltoluene	18.4200		20.0000		92.1	66 - 137			
Benzene	22.5300		20.0000		113	69 - 139			
Bromobenzene	19.1800		20.0000		95.9	60 - 138			
Bromodichloromethane	26.0800		20.0000		130	74 - 135			
Bromoform	37.7900		20.0000		189	41 - 200			
Bromomethane	10.3000		20.0000		51.5	1 - 125			
Carbon tetrachloride	30.1600		20.0000		151	74 - 153			
Chlorobenzene	19.6700		20.0000		98.4	73 - 127			
Chloroethane	18.1000		20.0000		90.5	40 - 150			
Chloroform	24.4000		20.0000		122	69 - 142			
Chloromethane	24.5600		20.0000		123	7 - 150			
cis-1,2-Dichloroethene	18.5200		20.0000		92.6	69 - 127			
cis-1,3-Dichloropropene	18.5300		20.0000		92.6	52 - 128			
Dibromochloromethane	26.3400		20.0000		132	72 - 142			
Dibromomethane	23.2300		20.0000		116	72 - 125			
Dichlorodifluoromethane	15.5200		20.0000		77.6	0 - 135			
Ethylbenzene	19.6400		20.0000		98.2	69 - 139			
Hexachlorobutadiene	29.3000		20.0000		146	46 - 206			
Isopropylbenzene	21.1900		20.0000		106	73 - 136			
m,p-Xylene	41.7400		40.0000		104	73 - 140			
Methylene chloride	19.2200		20.0000		96.1	71 - 137			
MTBE	19.3400		20.0000		96.7	68 - 133			
n-Butylbenzene	17.9300		20.0000		89.6	75 - 132			
n-Propylbenzene	18.2300		20.0000		91.2	64 - 140			
Naphthalene	27.7200		20.0000		139	18 - 202			
o-Xylene	22.8300		20.0000		114	78 - 138			
sec-Butylbenzene	21.8900		20.0000		109	80 - 138			
Styrene	17.7300		20.0000		88.6	65 - 130			
tert-Butylbenzene	19.9900		20.0000		100	69 - 136			
Tetrachloroethene	25.0000		20.0000		125	68 - 151			
Toluene	19.3700		20.0000		96.8	62 - 133			
trans-1,2-Dichloroethene	18.2700		20.0000		91.4	67 - 130			
Trichloroethene	22.9900		20.0000		115	72 - 139			
Trichlorofluoromethane	27.8200		20.0000		139	67 - 157			
Vinyl chloride	21.6900		20.0000		108	37 - 144			



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Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0074 - MSVOAW_LL (continued)

LCS (B4B0074-BS1) - Continued

Prepared: 2/6/2014 Analyzed: 2/6/2014

Surrogate: 1,2-Dichloroethane-d4	31.96		25.0000		128	64 - 146			
Surrogate: 4-Bromofluorobenzene	18.63		25.0000		74.5	60 - 128			
Surrogate: Dibromofluoromethane	24.45		25.0000		97.8	72 - 141			
Surrogate: Toluene-d8	20.49		25.0000		82.0	61 - 124			

LCS Dup (B4B0074-BS1)

Prepared: 2/6/2014 Analyzed: 2/6/2014

1,1,1,2-Tetrachloroethane	29.0800		20.0000		145	74 - 148	3.71	20	
1,1,1-Trichloroethane	25.5900		20.0000		128	74 - 136	5.91	20	
1,1,2,2-Tetrachloroethane	20.0900		20.0000		100	44 - 147	7.84	20	
1,1,2-Trichloroethane	17.1000		20.0000		85.5	46 - 135	9.84	20	
1,1-Dichloroethane	24.1000		20.0000		120	71 - 154	2.14	20	
1,1-Dichloroethene	18.2800		20.0000		91.4	56 - 131	5.28	20	
1,1-Dichloropropene	22.6500		20.0000		113	64 - 157	3.26	20	
1,2,3-Trichloropropane	21.8800		20.0000		109	45 - 147	11.0	20	
1,2,3-Trichlorobenzene	37.7200		20.0000		189	22 - 212	12.0	20	
1,2,4-Trichlorobenzene	28.1300		20.0000		141	34 - 198	5.14	20	
1,2,4-Trimethylbenzene	20.1600		20.0000		101	75 - 131	1.13	20	
1,2-Dibromo-3-chloropropane	39.1100		20.0000		196	9 - 217	1.86	20	
1,2-Dibromoethane	17.1600		20.0000		85.8	45 - 136	5.94	20	
1,2-Dichlorobenzene	22.2900		20.0000		111	75 - 142	1.91	20	
1,2-Dichloroethane	30.0900		20.0000		150	73 - 139	5.37	20	L4
1,2-Dichloropropane	21.4800		20.0000		107	61 - 145	0.607	20	
1,3,5-Trimethylbenzene	21.5800		20.0000		108	76 - 132	1.49	20	
1,3-Dichlorobenzene	17.8700		20.0000		89.4	56 - 149	1.86	20	
1,3-Dichloropropane	17.3400		20.0000		86.7	49 - 146	5.88	20	
1,4-Dichlorobenzene	17.4800		20.0000		87.4	70 - 127	6.05	20	
2,2-Dichloropropane	21.5700		20.0000		108	32 - 153	7.80	20	
2-Chlorotoluene	19.8700		20.0000		99.4	67 - 135	1.32	20	
4-Chlorotoluene	17.2800		20.0000		86.4	61 - 138	0.404	20	
4-Isopropyltoluene	19.5900		20.0000		98.0	66 - 137	6.16	20	
Benzene	22.9300		20.0000		115	69 - 139	1.76	20	
Bromobenzene	18.3000		20.0000		91.5	60 - 138	4.70	20	
Bromodichloromethane	26.2200		20.0000		131	74 - 135	0.535	20	
Bromoform	35.8100		20.0000		179	41 - 200	5.38	20	
Bromomethane	11.6000		20.0000		58.0	1 - 125	11.9	20	
Carbon tetrachloride	31.5900		20.0000		158	74 - 153	4.63	20	L5
Chlorobenzene	19.1300		20.0000		95.6	73 - 127	2.78	20	
Chloroethane	20.8600		20.0000		104	40 - 150	14.2	20	
Chloroform	24.1300		20.0000		121	69 - 142	1.11	20	
Chloromethane	27.0600		20.0000		135	7 - 150	9.69	20	
cis-1,2-Dichloroethene	18.9700		20.0000		94.8	69 - 127	2.40	20	
cis-1,3-Dichloropropene	17.3100		20.0000		86.6	52 - 128	6.81	20	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0074 - MSVOAW_LL (continued)

LCS Dup (B4B0074-BSD1) - Continued

Prepared: 2/6/2014 Analyzed: 2/6/2014

Dibromochloromethane	25.9400		20.0000		130	72 - 142	1.53	20	
Dibromomethane	23.3400		20.0000		117	72 - 125	0.472	20	
Dichlorodifluoromethane	16.7500		20.0000		83.8	0 - 135	7.62	20	
Ethylbenzene	19.8600		20.0000		99.3	69 - 139	1.11	20	
Hexachlorobutadiene	32.8000		20.0000		164	46 - 206	11.3	20	
Isopropylbenzene	21.6700		20.0000		108	73 - 136	2.24	20	
m,p-Xylene	42.2000		40.0000		106	73 - 140	1.10	20	
Methylene chloride	19.5700		20.0000		97.8	71 - 137	1.80	20	
MTBE	19.6300		20.0000		98.2	68 - 133	1.49	20	
n-Butylbenzene	18.2600		20.0000		91.3	75 - 132	1.82	20	
n-Propylbenzene	18.3400		20.0000		91.7	64 - 140	0.602	20	
Naphthalene	29.7200		20.0000		149	18 - 202	6.96	20	
o-Xylene	23.6600		20.0000		118	78 - 138	3.57	20	
sec-Butylbenzene	22.4400		20.0000		112	80 - 138	2.48	20	
Styrene	16.7300		20.0000		83.6	65 - 130	5.80	20	
tert-Butylbenzene	21.1200		20.0000		106	69 - 136	5.50	20	
Tetrachloroethene	25.8100		20.0000		129	68 - 151	3.19	20	
Toluene	19.3300		20.0000		96.6	62 - 133	0.207	20	
trans-1,2-Dichloroethene	19.2400		20.0000		96.2	67 - 130	5.17	20	
Trichloroethene	23.5500		20.0000		118	72 - 139	2.41	20	
Trichlorofluoromethane	29.9200		20.0000		150	67 - 157	7.27	20	
Vinyl chloride	23.6500		20.0000		118	37 - 144	8.65	20	

Surrogate: 1,2-Dichloroethane-d4	30.20		25.0000		121	64 - 146			
Surrogate: 4-Bromofluorobenzene	18.21		25.0000		72.8	60 - 128			
Surrogate: Dibromofluoromethane	23.15		25.0000		92.6	72 - 141			
Surrogate: Toluene-d8	19.92		25.0000		79.7	61 - 124			

Matrix Spike (B4B0074-MS1)

Source: 1400345-10

Prepared: 2/6/2014 Analyzed: 2/6/2014

1,1,1,2-Tetrachloroethane	28.3200		20.0000	ND	142	74 - 148			
1,1,1-Trichloroethane	22.8400		20.0000	ND	114	74 - 136			
1,1,2,2-Tetrachloroethane	19.2400		20.0000	ND	96.2	44 - 147			
1,1,2-Trichloroethane	16.8900		20.0000	ND	84.4	46 - 135			
1,1-Dichloroethane	21.2800		20.0000	ND	106	71 - 154			
1,1-Dichloroethene	14.3600		20.0000	ND	71.8	56 - 131			
1,1-Dichloropropene	20.7100		20.0000	ND	104	64 - 157			
1,2,3-Trichloropropane	20.6300		20.0000	ND	103	45 - 147			
1,2,3-Trichlorobenzene	21.6000		20.0000	ND	108	22 - 212			
1,2,4-Trichlorobenzene	20.4200		20.0000	ND	102	34 - 198			
1,2,4-Trimethylbenzene	18.2000		20.0000	ND	91.0	75 - 131			
1,2-Dibromo-3-chloropropane	33.4500		20.0000	ND	167	9 - 217			
1,2-Dibromoethane	16.5500		20.0000	ND	82.8	45 - 136			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0074 - MSVOAW_LL (continued)

Matrix Spike (B4B0074-MS1) - Continued

Source: 1400345-10

Prepared: 2/6/2014 Analyzed: 2/6/2014

1,2-Dichlorobenzene	20.6000		20.0000	ND	103	75 - 142			
1,2-Dichloroethane	30.9200		20.0000	ND	155	73 - 139			M1
1,2-Dichloropropane	20.0000		20.0000	ND	100	61 - 145			
1,3,5-Trimethylbenzene	18.6900		20.0000	ND	93.4	76 - 132			
1,3-Dichlorobenzene	16.8400		20.0000	ND	84.2	56 - 149			
1,3-Dichloropropane	17.0500		20.0000	ND	85.2	49 - 146			
1,4-Dichlorobenzene	15.5800		20.0000	ND	77.9	70 - 127			
2,2-Dichloropropane	18.0600		20.0000	ND	90.3	32 - 153			
2-Chlorotoluene	17.5800		20.0000	ND	87.9	67 - 135			
4-Chlorotoluene	15.6900		20.0000	ND	78.4	61 - 138			
4-Isopropyltoluene	16.8200		20.0000	ND	84.1	66 - 137			
Benzene	20.9300		20.0000	ND	105	69 - 139			
Bromobenzene	17.6600		20.0000	ND	88.3	60 - 138			
Bromodichloromethane	25.0400		20.0000	ND	125	74 - 135			
Bromoform	36.9000		20.0000	ND	184	41 - 200			
Bromomethane	8.15000		20.0000	ND	40.8	1 - 125			
Carbon tetrachloride	29.4300		20.0000	ND	147	74 - 153			
Chlorobenzene	18.4900		20.0000	ND	92.4	73 - 127			
Chloroethane	15.2200		20.0000	ND	76.1	40 - 150			
Chloroform	22.5500		20.0000	ND	113	69 - 142			
Chloromethane	19.7800		20.0000	ND	98.9	7 - 150			
cis-1,2-Dichloroethene	16.4400		20.0000	ND	82.2	69 - 127			
cis-1,3-Dichloropropene	15.1600		20.0000	ND	75.8	52 - 128			
Dibromochloromethane	26.1900		20.0000	ND	131	72 - 142			
Dibromomethane	22.7400		20.0000	ND	114	72 - 125			
Dichlorodifluoromethane	13.2600		20.0000	ND	66.3	0 - 135			
Ethylbenzene	19.0900		20.0000	ND	95.4	69 - 139			
Hexachlorobutadiene	24.4700		20.0000	ND	122	46 - 206			
Isopropylbenzene	18.4800		20.0000	ND	92.4	73 - 136			
m,p-Xylene	38.9800		40.0000	ND	97.4	73 - 140			
Methylene chloride	16.3900		20.0000	ND	82.0	71 - 137			
MTBE	16.9300		20.0000	ND	84.6	68 - 133			
n-Butylbenzene	15.8300		20.0000	ND	79.2	75 - 132			
n-Propylbenzene	16.1800		20.0000	ND	80.9	64 - 140			
Naphthalene	18.7600		20.0000	ND	93.8	18 - 202			
o-Xylene	21.1600		20.0000	ND	106	78 - 138			
sec-Butylbenzene	19.6900		20.0000	ND	98.4	80 - 138			
Styrene	16.5900		20.0000	ND	83.0	65 - 130			
tert-Butylbenzene	17.8800		20.0000	ND	89.4	69 - 136			
Tetrachloroethene	24.0100		20.0000	ND	120	68 - 151			
Toluene	18.0200		20.0000	ND	90.1	62 - 133			
trans-1,2-Dichloroethene	16.2700		20.0000	ND	81.4	67 - 130			



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0074 - MSVOAW_LL (continued)

Matrix Spike (B4B0074-MS1) - Continued

Source: 1400345-10

Prepared: 2/6/2014 Analyzed: 2/6/2014

Trichloroethene	21.4800		20.0000	ND	107	72 - 139			
Trichlorofluoromethane	25.3700		20.0000	ND	127	67 - 157			
Vinyl chloride	17.1300		20.0000	ND	85.6	37 - 144			
Surrogate: 1,2-Dichloroethane-d4	31.25		25.0000		125	64 - 146			
Surrogate: 4-Bromofluorobenzene	18.86		25.0000		75.4	60 - 128			
Surrogate: Dibromofluoromethane	22.01		25.0000		88.0	72 - 141			
Surrogate: Toluene-d8	18.96		25.0000		75.8	61 - 124			

Matrix Spike (B4B0074-MS2)

Source: 1400345-03

Prepared: 2/6/2014 Analyzed: 2/6/2014

1,1,1,2-Tetrachloroethane	29.9000		20.0000	ND	150	74 - 148			M2
1,1,1-Trichloroethane	24.7700		20.0000	ND	124	74 - 136			
1,1,2,2-Tetrachloroethane	19.5800		20.0000	ND	97.9	44 - 147			
1,1,2-Trichloroethane	19.9800		20.0000	1.36000	93.1	46 - 135			
1,1-Dichloroethane	27.1600		20.0000	3.46000	118	71 - 154			
1,1-Dichloroethene	193.890		20.0000	165.010	144	56 - 131			M3
1,1-Dichloropropene	23.6300		20.0000	ND	118	64 - 157			
1,2,3-Trichloropropane	22.7800		20.0000	ND	114	45 - 147			
1,2,3-Trichlorobenzene	32.0400		20.0000	ND	160	22 - 212			
1,2,4-Trichlorobenzene	24.9800		20.0000	ND	125	34 - 198			
1,2,4-Trimethylbenzene	18.6500		20.0000	ND	93.2	75 - 131			
1,2-Dibromo-3-chloropropane	37.0300		20.0000	ND	185	9 - 217			
1,2-Dibromoethane	18.2000		20.0000	ND	91.0	45 - 136			
1,2-Dichlorobenzene	21.7500		20.0000	ND	109	75 - 142			
1,2-Dichloroethane	36.5100		20.0000	1.11000	177	73 - 139			M1
1,2-Dichloropropane	22.1000		20.0000	ND	110	61 - 145			
1,3,5-Trimethylbenzene	19.2400		20.0000	ND	96.2	76 - 132			
1,3-Dichlorobenzene	17.8500		20.0000	ND	89.2	56 - 149			
1,3-Dichloropropane	18.5800		20.0000	ND	92.9	49 - 146			
1,4-Dichlorobenzene	17.6700		20.0000	ND	88.4	70 - 127			
2,2-Dichloropropane	19.8800		20.0000	ND	99.4	32 - 153			
2-Chlorotoluene	18.0200		20.0000	ND	90.1	67 - 135			
4-Chlorotoluene	16.7000		20.0000	ND	83.5	61 - 138			
4-Isopropyltoluene	17.0300		20.0000	ND	85.2	66 - 137			
Benzene	23.3500		20.0000	ND	117	69 - 139			
Bromobenzene	17.8500		20.0000	ND	89.2	60 - 138			
Bromodichloromethane	27.8800		20.0000	ND	139	74 - 135			M2
Bromoform	39.1500		20.0000	ND	196	41 - 200			
Bromomethane	11.8600		20.0000	ND	59.3	1 - 125			
Carbon tetrachloride	32.8000		20.0000	ND	164	74 - 153			M2
Chlorobenzene	20.2700		20.0000	ND	101	73 - 127			
Chloroethane	18.8300		20.0000	ND	94.2	40 - 150			



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Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0074 - MSVOAW_LL (continued)

Matrix Spike (B4B0074-MS2) - Continued

Source: 1400345-03

Prepared: 2/6/2014 Analyzed: 2/6/2014

Chloroform	24.4100		20.0000	ND	122	69 - 142			
Chloromethane	25.1900		20.0000	ND	126	7 - 150			
cis-1,2-Dichloroethene	18.3400		20.0000	ND	91.7	69 - 127			
cis-1,3-Dichloropropene	17.0400		20.0000	ND	85.2	52 - 128			
Dibromochloromethane	26.8000		20.0000	ND	134	72 - 142			
Dibromomethane	24.7000		20.0000	ND	124	72 - 125			
Dichlorodifluoromethane	14.9500		20.0000	ND	74.8	0 - 135			
Ethylbenzene	20.5500		20.0000	ND	103	69 - 139			
Hexachlorobutadiene	25.4500		20.0000	ND	127	46 - 206			
Isopropylbenzene	19.2300		20.0000	ND	96.2	73 - 136			
m,p-Xylene	42.3400		40.0000	ND	106	73 - 140			
Methylene chloride	18.3700		20.0000	ND	91.8	71 - 137			
MTBE	20.3500		20.0000	ND	102	68 - 133			
n-Butylbenzene	16.5800		20.0000	ND	82.9	75 - 132			
n-Propylbenzene	16.9500		20.0000	ND	84.8	64 - 140			
Naphthalene	25.1000		20.0000	ND	126	18 - 202			
o-Xylene	23.0300		20.0000	ND	115	78 - 138			
sec-Butylbenzene	19.2600		20.0000	ND	96.3	80 - 138			
Styrene	17.9800		20.0000	ND	89.9	65 - 130			
tert-Butylbenzene	17.9200		20.0000	ND	89.6	69 - 136			
Tetrachloroethene	25.9300		20.0000	1.09000	124	68 - 151			
Toluene	19.7800		20.0000	ND	98.9	62 - 133			
trans-1,2-Dichloroethene	18.3900		20.0000	ND	92.0	67 - 130			
Trichloroethene	24.3900		20.0000	0.810000	118	72 - 139			
Trichlorofluoromethane	29.8600		20.0000	ND	149	67 - 157			
Vinyl chloride	21.6500		20.0000	ND	108	37 - 144			
Surrogate: 1,2-Dichloroethane-d4	33.38		25.0000		134	64 - 146			
Surrogate: 4-Bromofluorobenzene	19.05		25.0000		76.2	60 - 128			
Surrogate: Dibromofluoromethane	23.12		25.0000		92.5	72 - 141			
Surrogate: Toluene-d8	19.97		25.0000		79.9	61 - 124			

Matrix Spike Dup (B4B0074-MSD1)

Source: 1400345-10

Prepared: 2/6/2014 Analyzed: 2/6/2014

1,1,1,2-Tetrachloroethane	29.7500		20.0000	ND	149	74 - 148	4.93	20	M2
1,1,1-Trichloroethane	25.7900		20.0000	ND	129	74 - 136	12.1	20	
1,1,2,2-Tetrachloroethane	18.8500		20.0000	ND	94.2	44 - 147	2.05	20	
1,1,2-Trichloroethane	16.1400		20.0000	ND	80.7	46 - 135	4.54	20	
1,1-Dichloroethane	24.0600		20.0000	ND	120	71 - 154	12.3	20	
1,1-Dichloroethene	17.9600		20.0000	ND	89.8	56 - 131	22.3	20	R
1,1-Dichloropropene	23.0100		20.0000	ND	115	64 - 157	10.5	20	
1,2,3-Trichloropropane	21.8400		20.0000	ND	109	45 - 147	5.70	20	
1,2,3-Trichlorobenzene	30.1700		20.0000	ND	151	22 - 212	33.1	20	M2



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0074 - MSVOAW_LL (continued)

Matrix Spike Dup (B4B0074-MSD1) - Continued

Source: 1400345-10

Prepared: 2/6/2014 Analyzed: 2/6/2014

1,2,4-Trichlorobenzene	24.2800		20.0000	ND	121	34 - 198	17.3	20	
1,2,4-Trimethylbenzene	18.6000		20.0000	ND	93.0	75 - 131	2.17	20	
1,2-Dibromo-3-chloropropane	34.4700		20.0000	ND	172	9 - 217	3.00	20	
1,2-Dibromoethane	16.4300		20.0000	ND	82.2	45 - 136	0.728	20	
1,2-Dichlorobenzene	21.4300		20.0000	ND	107	75 - 142	3.95	20	
1,2-Dichloroethane	31.7900		20.0000	ND	159	73 - 139	2.77	20	M1
1,2-Dichloropropane	20.6000		20.0000	ND	103	61 - 145	2.96	20	
1,3,5-Trimethylbenzene	19.3700		20.0000	ND	96.8	76 - 132	3.57	20	
1,3-Dichlorobenzene	17.2700		20.0000	ND	86.4	56 - 149	2.52	20	
1,3-Dichloropropane	15.8900		20.0000	ND	79.4	49 - 146	7.04	20	
1,4-Dichlorobenzene	17.1200		20.0000	ND	85.6	70 - 127	9.42	20	
2,2-Dichloropropane	20.5600		20.0000	ND	103	32 - 153	12.9	20	
2-Chlorotoluene	17.6900		20.0000	ND	88.4	67 - 135	0.624	20	
4-Chlorotoluene	16.2600		20.0000	ND	81.3	61 - 138	3.57	20	
4-Isopropyltoluene	17.1800		20.0000	ND	85.9	66 - 137	2.12	20	
Benzene	22.2800		20.0000	ND	111	69 - 139	6.25	20	
Bromobenzene	17.5200		20.0000	ND	87.6	60 - 138	0.796	20	
Bromodichloromethane	26.0600		20.0000	ND	130	74 - 135	3.99	20	
Bromoform	37.4600		20.0000	ND	187	41 - 200	1.51	20	
Bromomethane	12.1500		20.0000	ND	60.8	1 - 125	39.4	20	R2
Carbon tetrachloride	33.8600		20.0000	ND	169	74 - 153	14.0	20	M2
Chlorobenzene	19.2300		20.0000	ND	96.2	73 - 127	3.92	20	
Chloroethane	19.3900		20.0000	ND	97.0	40 - 150	24.1	20	R2
Chloroform	24.4500		20.0000	ND	122	69 - 142	8.09	20	
Chloromethane	26.3700		20.0000	ND	132	7 - 150	28.6	20	R2
cis-1,2-Dichloroethene	18.7400		20.0000	ND	93.7	69 - 127	13.1	20	
cis-1,3-Dichloropropene	15.1300		20.0000	ND	75.6	52 - 128	0.198	20	
Dibromochloromethane	24.8600		20.0000	ND	124	72 - 142	5.21	20	
Dibromomethane	22.0900		20.0000	ND	110	72 - 125	2.90	20	
Dichlorodifluoromethane	16.2300		20.0000	ND	81.2	0 - 135	20.1	20	R2
Ethylbenzene	19.8100		20.0000	ND	99.0	69 - 139	3.70	20	
Hexachlorobutadiene	27.4900		20.0000	ND	137	46 - 206	11.6	20	
Isopropylbenzene	18.7500		20.0000	ND	93.8	73 - 136	1.45	20	
m,p-Xylene	41.1700		40.0000	ND	103	73 - 140	5.46	20	
Methylene chloride	18.9500		20.0000	ND	94.8	71 - 137	14.5	20	
MTBE	19.2000		20.0000	ND	96.0	68 - 133	12.6	20	
n-Butylbenzene	16.8500		20.0000	ND	84.2	75 - 132	6.24	20	
n-Propylbenzene	16.8000		20.0000	ND	84.0	64 - 140	3.76	20	
Naphthalene	23.7200		20.0000	ND	119	18 - 202	23.4	20	R2
o-Xylene	22.6500		20.0000	ND	113	78 - 138	6.80	20	
sec-Butylbenzene	20.4500		20.0000	ND	102	80 - 138	3.79	20	
Styrene	16.9300		20.0000	ND	84.6	65 - 130	2.03	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0074 - MSVOAW_LL (continued)

Matrix Spike Dup (B4B0074-MSD1) - Continued

Source: 1400345-10

Prepared: 2/6/2014 Analyzed: 2/6/2014

tert-Butylbenzene	18.5600		20.0000	ND	92.8	69 - 136	3.73	20	
Tetrachloroethene	24.3200		20.0000	ND	122	68 - 151	1.28	20	
Toluene	18.8000		20.0000	ND	94.0	62 - 133	4.24	20	
trans-1,2-Dichloroethene	18.9600		20.0000	ND	94.8	67 - 130	15.3	20	
Trichloroethene	23.5100		20.0000	ND	118	72 - 139	9.02	20	
Trichlorofluoromethane	30.8300		20.0000	ND	154	67 - 157	19.4	20	
Vinyl chloride	22.5400		20.0000	ND	113	37 - 144	27.3	20	R2
Surrogate: 1,2-Dichloroethane-d4	30.49		25.0000		122	64 - 146			
Surrogate: 4-Bromofluorobenzene	17.97		25.0000		71.9	60 - 128			
Surrogate: Dibromofluoromethane	22.96		25.0000		91.8	72 - 141			
Surrogate: Toluene-d8	18.46		25.0000		73.8	61 - 124			

Matrix Spike Dup (B4B0074-MSD2)

Source: 1400345-03

Prepared: 2/6/2014 Analyzed: 2/6/2014

1,1,1,2-Tetrachloroethane	30.5900		20.0000	ND	153	74 - 148	2.28	20	M2
1,1,1-Trichloroethane	26.4800		20.0000	ND	132	74 - 136	6.67	20	
1,1,2,2-Tetrachloroethane	19.2200		20.0000	ND	96.1	44 - 147	1.86	20	
1,1,2-Trichloroethane	18.0900		20.0000	1.36000	83.6	46 - 135	9.93	20	
1,1-Dichloroethane	27.2400		20.0000	3.46000	119	71 - 154	0.294	20	
1,1-Dichloroethene	206.770		20.0000	165.010	209	56 - 131	6.43	20	M3
1,1-Dichloropropene	23.6000		20.0000	ND	118	64 - 157	0.127	20	
1,2,3-Trichloropropane	20.3500		20.0000	ND	102	45 - 147	11.3	20	
1,2,3-Trichlorobenzene	35.8700		20.0000	ND	179	22 - 212	11.3	20	
1,2,4-Trichlorobenzene	26.1000		20.0000	ND	130	34 - 198	4.39	20	
1,2,4-Trimethylbenzene	19.9700		20.0000	ND	99.8	75 - 131	6.84	20	
1,2-Dibromo-3-chloropropane	37.8200		20.0000	ND	189	9 - 217	2.11	20	
1,2-Dibromoethane	16.4400		20.0000	ND	82.2	45 - 136	10.2	20	
1,2-Dichlorobenzene	22.7500		20.0000	ND	114	75 - 142	4.49	20	
1,2-Dichloroethane	34.7100		20.0000	1.11000	168	73 - 139	5.05	20	M1
1,2-Dichloropropane	20.3600		20.0000	ND	102	61 - 145	8.20	20	
1,3,5-Trimethylbenzene	21.5200		20.0000	ND	108	76 - 132	11.2	20	
1,3-Dichlorobenzene	17.4000		20.0000	ND	87.0	56 - 149	2.55	20	
1,3-Dichloropropane	17.0700		20.0000	ND	85.4	49 - 146	8.47	20	
1,4-Dichlorobenzene	17.6800		20.0000	ND	88.4	70 - 127	0.0566	20	
2,2-Dichloropropane	20.9900		20.0000	ND	105	32 - 153	5.43	20	
2-Chlorotoluene	19.0700		20.0000	ND	95.4	67 - 135	5.66	20	
4-Chlorotoluene	17.2500		20.0000	ND	86.2	61 - 138	3.24	20	
4-Isopropyltoluene	18.7700		20.0000	ND	93.8	66 - 137	9.72	20	
Benzene	22.9800		20.0000	ND	115	69 - 139	1.60	20	
Bromobenzene	18.6100		20.0000	ND	93.0	60 - 138	4.17	20	
Bromodichloromethane	26.4700		20.0000	ND	132	74 - 135	5.19	20	
Bromoform	35.3600		20.0000	ND	177	41 - 200	10.2	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0074 - MSVOAW_LL (continued)

Matrix Spike Dup (B4B0074-MSD2) - Continued

Source: 1400345-03

Prepared: 2/6/2014 Analyzed: 2/6/2014

Bromomethane	13.3000		20.0000	ND	66.5	1 - 125	11.4	20	
Carbon tetrachloride	35.3200		20.0000	ND	177	74 - 153	7.40	20	M2
Chlorobenzene	20.0900		20.0000	ND	100	73 - 127	0.892	20	
Chloroethane	21.0300		20.0000	ND	105	40 - 150	11.0	20	
Chloroform	24.2900		20.0000	ND	121	69 - 142	0.493	20	
Chloromethane	27.5100		20.0000	ND	138	7 - 150	8.80	20	
cis-1,2-Dichloroethene	18.9200		20.0000	ND	94.6	69 - 127	3.11	20	
cis-1,3-Dichloropropene	16.3900		20.0000	ND	82.0	52 - 128	3.89	20	
Dibromochloromethane	25.4200		20.0000	ND	127	72 - 142	5.29	20	
Dibromomethane	23.3500		20.0000	ND	117	72 - 125	5.62	20	
Dichlorodifluoromethane	16.7800		20.0000	ND	83.9	0 - 135	11.5	20	
Ethylbenzene	20.6400		20.0000	ND	103	69 - 139	0.437	20	
Hexachlorobutadiene	30.6800		20.0000	ND	153	46 - 206	18.6	20	
Isopropylbenzene	21.1800		20.0000	ND	106	73 - 136	9.65	20	
m,p-Xylene	42.4800		40.0000	ND	106	73 - 140	0.330	20	
Methylene chloride	19.2200		20.0000	ND	96.1	71 - 137	4.52	20	
MTBE	18.8500		20.0000	ND	94.2	68 - 133	7.65	20	
n-Butylbenzene	17.4900		20.0000	ND	87.4	75 - 132	5.34	20	
n-Propylbenzene	18.0400		20.0000	ND	90.2	64 - 140	6.23	20	
Naphthalene	27.2000		20.0000	ND	136	18 - 202	8.03	20	
o-Xylene	23.9900		20.0000	ND	120	78 - 138	4.08	20	
sec-Butylbenzene	22.4600		20.0000	ND	112	80 - 138	15.3	20	
Styrene	17.9100		20.0000	ND	89.6	65 - 130	0.390	20	
tert-Butylbenzene	21.3600		20.0000	ND	107	69 - 136	17.5	20	
Tetrachloroethene	26.4600		20.0000	1.09000	127	68 - 151	2.02	20	
Toluene	19.1200		20.0000	ND	95.6	62 - 133	3.39	20	
trans-1,2-Dichloroethene	19.2400		20.0000	ND	96.2	67 - 130	4.52	20	
Trichloroethene	24.7500		20.0000	0.810000	120	72 - 139	1.47	20	
Trichlorofluoromethane	31.3100		20.0000	ND	157	67 - 157	4.74	20	
Vinyl chloride	22.9200		20.0000	ND	115	37 - 144	5.70	20	

Surrogate: 1,2-Dichloroethane-d4	30.34	25.0000	121	64 - 146
Surrogate: 4-Bromofluorobenzene	18.05	25.0000	72.2	60 - 128
Surrogate: Dibromofluoromethane	22.38	25.0000	89.5	72 - 141
Surrogate: Toluene-d8	18.93	25.0000	75.7	61 - 124

Batch B4B0090 - MSVOAW_LL

Blank (B4B0090-BLK1)

Prepared: 2/7/2014 Analyzed: 2/7/2014

1,1,1,2-Tetrachloroethane	ND	0.50	NR
1,1,1-Trichloroethane	ND	0.50	NR
1,1,2,2-Tetrachloroethane	ND	0.50	NR



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0090 - MSVOAW_LL (continued)

Blank (B4B0090-BLK1) - Continued

Prepared: 2/7/2014 Analyzed: 2/7/2014

1,1,2-Trichloroethane	ND	0.50			NR
1,1-Dichloroethane	ND	0.50			NR
1,1-Dichloroethene	ND	0.50			NR
1,1-Dichloropropene	ND	0.50			NR
1,2,3-Trichloropropane	ND	0.50			NR
1,2,3-Trichlorobenzene	ND	0.50			NR
1,2,4-Trichlorobenzene	ND	0.50			NR
1,2,4-Trimethylbenzene	ND	0.50			NR
1,2-Dibromo-3-chloropropane	ND	0.50			NR
1,2-Dibromoethane	ND	0.50			NR
1,2-Dichlorobenzene	ND	0.50			NR
1,2-Dichloroethane	ND	0.50			NR
1,2-Dichloropropane	ND	0.50			NR
1,3,5-Trimethylbenzene	ND	0.50			NR
1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR
Dichlorodifluoromethane	ND	0.50			NR
Ethylbenzene	ND	0.50			NR
Hexachlorobutadiene	ND	0.50			NR
Isopropylbenzene	ND	0.50			NR
m,p-Xylene	ND	1.0			NR
Methylene chloride	ND	1.0			NR
n-Butylbenzene	ND	0.50			NR



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0090 - MSVOAW_LL (continued)

Blank (B4B0090-BLK1) - Continued

Prepared: 2/7/2014 Analyzed: 2/7/2014

n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	33.50		25.0000		134	64 - 146			
Surrogate: 4-Bromofluorobenzene	19.01		25.0000		76.0	60 - 128			
Surrogate: Dibromofluoromethane	24.35		25.0000		97.4	72 - 141			
Surrogate: Toluene-d8	18.87		25.0000		75.5	61 - 124			

LCS (B4B0090-BS1)

Prepared: 2/7/2014 Analyzed: 2/7/2014

1,1,1,2-Tetrachloroethane	34.0200		20.0000		170	74 - 148			L5
1,1,1-Trichloroethane	27.2600		20.0000		136	74 - 136			L5
1,1,2,2-Tetrachloroethane	20.8600		20.0000		104	44 - 147			
1,1,2-Trichloroethane	16.8500		20.0000		84.2	46 - 135			
1,1-Dichloroethane	26.2700		20.0000		131	71 - 154			
1,1-Dichloroethene	17.7800		20.0000		88.9	56 - 131			
1,1-Dichloropropene	25.0800		20.0000		125	64 - 157			
1,2,3-Trichloropropane	23.3800		20.0000		117	45 - 147			
1,2,3-Trichlorobenzene	39.2100		20.0000		196	22 - 212			
1,2,4-Trichlorobenzene	29.8600		20.0000		149	34 - 198			
1,2,4-Trimethylbenzene	21.4000		20.0000		107	75 - 131			
1,2-Dibromo-3-chloropropane	38.4200		20.0000		192	9 - 217			
1,2-Dibromoethane	16.5700		20.0000		82.8	45 - 136			
1,2-Dichlorobenzene	24.2500		20.0000		121	75 - 142			
1,2-Dichloroethane	33.0800		20.0000		165	73 - 139			L4
1,2-Dichloropropane	21.4400		20.0000		107	61 - 145			
1,3,5-Trimethylbenzene	23.2800		20.0000		116	76 - 132			
1,3-Dichlorobenzene	19.0300		20.0000		95.2	56 - 149			
1,3-Dichloropropane	17.5100		20.0000		87.6	49 - 146			
1,4-Dichlorobenzene	18.7900		20.0000		94.0	70 - 127			
2,2-Dichloropropane	22.7300		20.0000		114	32 - 153			
2-Chlorotoluene	20.5900		20.0000		103	67 - 135			
4-Chlorotoluene	17.5300		20.0000		87.6	61 - 138			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0090 - MSVOAW_LL (continued)

LCS (B4B0090-BS1) - Continued

Prepared: 2/7/2014 Analyzed: 2/7/2014

4-Isopropyltoluene	21.1100		20.0000		106	66 - 137			
Benzene	24.4600		20.0000		122	69 - 139			
Bromobenzene	18.3400		20.0000		91.7	60 - 138			
Bromodichloromethane	28.0600		20.0000		140	74 - 135			L4
Bromoform	39.9600		20.0000		200	41 - 200			
Bromomethane	12.2600		20.0000		61.3	1 - 125			
Carbon tetrachloride	37.1300		20.0000		186	74 - 153			L5
Chlorobenzene	20.2800		20.0000		101	73 - 127			
Chloroethane	20.4500		20.0000		102	40 - 150			
Chloroform	26.1000		20.0000		130	69 - 142			
Chloromethane	27.6100		20.0000		138	7 - 150			
cis-1,2-Dichloroethene	19.7100		20.0000		98.6	69 - 127			
cis-1,3-Dichloropropene	17.1600		20.0000		85.8	52 - 128			
Dibromochloromethane	27.1500		20.0000		136	72 - 142			
Dibromomethane	24.4000		20.0000		122	72 - 125			
Dichlorodifluoromethane	15.3500		20.0000		76.8	0 - 135			
Ethylbenzene	21.6200		20.0000		108	69 - 139			
Hexachlorobutadiene	36.0400		20.0000		180	46 - 206			
Isopropylbenzene	22.6900		20.0000		113	73 - 136			
m,p-Xylene	44.8700		40.0000		112	73 - 140			
Methylene chloride	20.1700		20.0000		101	71 - 137			
MTBE	19.6800		20.0000		98.4	68 - 133			
n-Butylbenzene	19.7500		20.0000		98.8	75 - 132			
n-Propylbenzene	19.0700		20.0000		95.4	64 - 140			
Naphthalene	29.8000		20.0000		149	18 - 202			
o-Xylene	25.8600		20.0000		129	78 - 138			
sec-Butylbenzene	24.5300		20.0000		123	80 - 138			
Styrene	18.5000		20.0000		92.5	65 - 130			
tert-Butylbenzene	22.8600		20.0000		114	69 - 136			
Tetrachloroethene	27.0700		20.0000		135	68 - 151			
Toluene	19.4700		20.0000		97.4	62 - 133			
trans-1,2-Dichloroethene	20.6700		20.0000		103	67 - 130			
Trichloroethene	24.7700		20.0000		124	72 - 139			
Trichlorofluoromethane	29.9100		20.0000		150	67 - 157			
Vinyl chloride	23.9500		20.0000		120	37 - 144			
Surrogate: 1,2-Dichloroethane-d4	30.35		25.0000		121	64 - 146			
Surrogate: 4-Bromofluorobenzene	19.38		25.0000		77.5	60 - 128			
Surrogate: Dibromofluoromethane	24.15		25.0000		96.6	72 - 141			
Surrogate: Toluene-d8	19.27		25.0000		77.1	61 - 124			

LCS Dup (B4B0090-BSD1)

Prepared: 2/7/2014 Analyzed: 2/7/2014



Certificate of Analysis

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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0090 - MSVOAW_LL (continued)

LCS Dup (B4B0090-BSD1) - Continued

Prepared: 2/7/2014 Analyzed: 2/7/2014

1,1,1,2-Tetrachloroethane	28.6200		20.0000		143	74 - 148	17.2	20	
1,1,1-Trichloroethane	23.0500		20.0000		115	74 - 136	16.7	20	
1,1,2,2-Tetrachloroethane	20.9700		20.0000		105	44 - 147	0.526	20	
1,1,2-Trichloroethane	17.6600		20.0000		88.3	46 - 135	4.69	20	
1,1-Dichloroethane	22.8400		20.0000		114	71 - 154	14.0	20	
1,1-Dichloroethene	15.4000		20.0000		77.0	56 - 131	14.3	20	
1,1-Dichloropropene	23.8600		20.0000		119	64 - 157	4.99	20	
1,2,3-Trichloropropane	24.0100		20.0000		120	45 - 147	2.66	20	
1,2,3-Trichlorobenzene	36.0500		20.0000		180	22 - 212	8.40	20	
1,2,4-Trichlorobenzene	28.9000		20.0000		144	34 - 198	3.27	20	
1,2,4-Trimethylbenzene	20.3800		20.0000		102	75 - 131	4.88	20	
1,2-Dibromo-3-chloropropane	42.1300		20.0000		211	9 - 217	9.21	20	
1,2-Dibromoethane	18.1700		20.0000		90.8	45 - 136	9.21	20	
1,2-Dichlorobenzene	23.0700		20.0000		115	75 - 142	4.99	20	
1,2-Dichloroethane	31.8600		20.0000		159	73 - 139	3.76	20	L4
1,2-Dichloropropane	21.5000		20.0000		108	61 - 145	0.279	20	
1,3,5-Trimethylbenzene	21.2000		20.0000		106	76 - 132	9.35	20	
1,3-Dichlorobenzene	18.4900		20.0000		92.4	56 - 149	2.88	20	
1,3-Dichloropropane	17.9100		20.0000		89.6	49 - 146	2.26	20	
1,4-Dichlorobenzene	18.5600		20.0000		92.8	70 - 127	1.23	20	
2,2-Dichloropropane	18.7300		20.0000		93.6	32 - 153	19.3	20	
2-Chlorotoluene	20.0000		20.0000		100	67 - 135	2.91	20	
4-Chlorotoluene	17.9000		20.0000		89.5	61 - 138	2.09	20	
4-Isopropyltoluene	19.2000		20.0000		96.0	66 - 137	9.48	20	
Benzene	22.5300		20.0000		113	69 - 139	8.21	20	
Bromobenzene	19.8600		20.0000		99.3	60 - 138	7.96	20	
Bromodichloromethane	26.8700		20.0000		134	74 - 135	4.33	20	
Bromoform	38.2700		20.0000		191	41 - 200	4.32	20	
Bromomethane	10.9100		20.0000		54.6	1 - 125	11.7	20	
Carbon tetrachloride	30.9300		20.0000		155	74 - 153	18.2	20	L5
Chlorobenzene	19.1800		20.0000		95.9	73 - 127	5.58	20	
Chloroethane	18.4200		20.0000		92.1	40 - 150	10.4	20	
Chloroform	23.3100		20.0000		117	69 - 142	11.3	20	
Chloromethane	25.5100		20.0000		128	7 - 150	7.91	20	
cis-1,2-Dichloroethene	17.6000		20.0000		88.0	69 - 127	11.3	20	
cis-1,3-Dichloropropene	17.9900		20.0000		90.0	52 - 128	4.72	20	
Dibromochloromethane	27.0400		20.0000		135	72 - 142	0.406	20	
Dibromomethane	23.2900		20.0000		116	72 - 125	4.66	20	
Dichlorodifluoromethane	14.6600		20.0000		73.3	0 - 135	4.60	20	
Ethylbenzene	19.7400		20.0000		98.7	69 - 139	9.09	20	
Hexachlorobutadiene	30.9300		20.0000		155	46 - 206	15.3	20	
Isopropylbenzene	21.2100		20.0000		106	73 - 136	6.74	20	



Certificate of Analysis

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Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0090 - MSVOAW_LL (continued)

LCS Dup (B4B0090-BSD1) - Continued

Prepared: 2/7/2014 Analyzed: 2/7/2014

m,p-Xylene	40.9400		40.0000		102	73 - 140	9.16	20	
Methylene chloride	18.2000		20.0000		91.0	71 - 137	10.3	20	
MTBE	18.8100		20.0000		94.0	68 - 133	4.52	20	
n-Butylbenzene	18.3000		20.0000		91.5	75 - 132	7.62	20	
n-Propylbenzene	18.4100		20.0000		92.0	64 - 140	3.52	20	
Naphthalene	29.2300		20.0000		146	18 - 202	1.93	20	
o-Xylene	22.3100		20.0000		112	78 - 138	14.7	20	
sec-Butylbenzene	22.3000		20.0000		112	80 - 138	9.52	20	
Styrene	17.5500		20.0000		87.8	65 - 130	5.27	20	
tert-Butylbenzene	20.6100		20.0000		103	69 - 136	10.4	20	
Tetrachloroethene	24.9900		20.0000		125	68 - 151	7.99	20	
Toluene	19.0300		20.0000		95.2	62 - 133	2.29	20	
trans-1,2-Dichloroethene	17.5300		20.0000		87.6	67 - 130	16.4	20	
Trichloroethene	22.9500		20.0000		115	72 - 139	7.63	20	
Trichlorofluoromethane	27.3000		20.0000		136	67 - 157	9.12	20	
Vinyl chloride	20.4800		20.0000		102	37 - 144	15.6	20	
Surrogate: 1,2-Dichloroethane-d4	30.67		25.0000		123	64 - 146			
Surrogate: 4-Bromofluorobenzene	17.45		25.0000		69.8	60 - 128			
Surrogate: Dibromofluoromethane	21.35		25.0000		85.4	72 - 141			
Surrogate: Toluene-d8	19.24		25.0000		77.0	61 - 124			



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Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0123 - MSSEMI_ISOTOPEDILN

Blank (B4B0123-BLK1)

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	ND	2.0				NR			
Surrogate: 1,2-Dichlorobenzene-d4	77.78		100.000		77.8	37 - 93			
Surrogate: 2-Fluorobiphenyl	83.14		100.000		83.1	51 - 100			
Surrogate: 4-Terphenyl-d14	102.5		100.000		102	58 - 113			
Surrogate: Nitrobenzene-d5	92.56		100.000		92.6	39 - 95			

LCS (B4B0123-BS1)

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	82.6000	2.0	100.000		82.6	70 - 130			
Surrogate: 1,2-Dichlorobenzene-d4	77.95		100.000		78.0	37 - 93			
Surrogate: 2-Fluorobiphenyl	81.99		100.000		82.0	51 - 100			
Surrogate: 4-Terphenyl-d14	95.47		100.000		95.5	58 - 113			
Surrogate: Nitrobenzene-d5	100.1		100.000		100	39 - 95			S5

Matrix Spike (B4B0123-MS1)

Source: 1400345-03

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	227.760	2.0	100.000	137.040	90.7	70 - 130			
Surrogate: 1,2-Dichlorobenzene-d4	79.56		100.000		79.6	37 - 93			
Surrogate: 2-Fluorobiphenyl	84.10		100.000		84.1	51 - 100			
Surrogate: 4-Terphenyl-d14	91.37		100.000		91.4	58 - 113			
Surrogate: Nitrobenzene-d5	99.06		100.000		99.1	39 - 95			S5

Matrix Spike (B4B0123-MS2)

Source: 1400396-03

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	217.290	2.0	100.000	126.880	90.4	70 - 130			
Surrogate: 1,2-Dichlorobenzene-d4	62.93		100.000		62.9	37 - 93			
Surrogate: 2-Fluorobiphenyl	74.76		100.000		74.8	51 - 100			
Surrogate: 4-Terphenyl-d14	88.60		100.000		88.6	58 - 113			
Surrogate: Nitrobenzene-d5	83.75		100.000		83.8	39 - 95			

Matrix Spike Dup (B4B0123-MSD1)

Source: 1400345-03

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	217.260	2.0	100.000	137.040	80.2	70 - 130	4.72	20	
Surrogate: 1,2-Dichlorobenzene-d4	58.59		100.000		58.6	37 - 93			
Surrogate: 2-Fluorobiphenyl	67.79		100.000		67.8	51 - 100			
Surrogate: 4-Terphenyl-d14	89.56		100.000		89.6	58 - 113			
Surrogate: Nitrobenzene-d5	78.31		100.000		78.3	39 - 95			

Matrix Spike Dup (B4B0123-MSD2)

Source: 1400396-03

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	217.950	2.0	100.000	126.880	91.1	70 - 130	0.303	20	
Surrogate: 1,2-Dichlorobenzene-d4	77.87		100.000		77.9	37 - 93			
Surrogate: 2-Fluorobiphenyl	87.78		100.000		87.8	51 - 100			
Surrogate: 4-Terphenyl-d14	97.29		100.000		97.3	58 - 113			
Surrogate: Nitrobenzene-d5	98.10		100.000		98.1	39 - 95			S5



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0082 - MSSEMI_ISOTOPEDILN

Blank (B4B0082-BLK1)

Prepared: 2/6/2014 Analyzed: 2/8/2014

1,4-Dioxane	ND	0.20			NR				
Surrogate: 1,2-Dichlorobenzene-d4	0.8360		1.00000		83.6	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.8886		1.00000		88.9	48 - 121			
Surrogate: 4-Terphenyl-d14	1.214		1.00000		121	58 - 142			
Surrogate: Nitrobenzene-d5	0.9793		1.00000		97.9	27 - 151			

LCS (B4B0082-BS1)

Prepared: 2/6/2014 Analyzed: 2/8/2014

1,4-Dioxane	1.23234	0.20			NR	58 - 151			
Surrogate: 1,2-Dichlorobenzene-d4	0.7702		1.00000		77.0	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.8624		1.00000		86.2	48 - 121			
Surrogate: 4-Terphenyl-d14	1.169		1.00000		117	58 - 142			
Surrogate: Nitrobenzene-d5	0.9654		1.00000		96.5	27 - 151			

Matrix Spike (B4B0082-MS1)

Source: 1400345-10

Prepared: 2/6/2014 Analyzed: 2/8/2014

1,4-Dioxane	1.20950	0.20	1.00000	ND	121	58 - 151			
Surrogate: 1,2-Dichlorobenzene-d4	0.7700		1.00000		77.0	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.8278		1.00000		82.8	48 - 121			
Surrogate: 4-Terphenyl-d14	1.130		1.00000		113	58 - 142			
Surrogate: Nitrobenzene-d5	0.9636		1.00000		96.4	27 - 151			

Matrix Spike Dup (B4B0082-MSD1)

Source: 1400345-10

Prepared: 2/6/2014 Analyzed: 2/8/2014

1,4-Dioxane	1.34332	0.20	1.00000	ND	134	58 - 151	10.5	20	
Surrogate: 1,2-Dichlorobenzene-d4	0.7687		1.00000		76.9	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.8119		1.00000		81.2	48 - 121			
Surrogate: 4-Terphenyl-d14	1.152		1.00000		115	58 - 142			
Surrogate: Nitrobenzene-d5	0.9355		1.00000		93.6	27 - 151			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/12/2014

Notes and Definitions

S5	Surrogate recovery was above laboratory acceptance limit. Sample reanalysis showed the same high recovery.
R2	RPD value outside acceptance criteria due to possible matrix interference.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M3	Matrix spike recovery outside of acceptance limit due to disproportionate concentration of the analyte to spike level. The analytical batch was validated by the laboratory control sample.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L5	Laboratory Control Sample high biased. Sample result/s was non-detect (ND) for the target analyte; therefore reanalysis was not necessary.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
D6	Sample required dilution due to high concentration of target analyte.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

- Notes:
- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
 - (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
 - (3) Results are wet unless otherwise specified.

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM

DATE 2/3/14 PAGE 1 OF 2

PROJECT NAME RAYTHEON		PROJECT No./TASK No. 532.30		SAMPLE CONTAINERS		ANALYSIS REQUESTED		ESTIMATED CONCENTRATION RANGE (ppb) FOR VOA'S		SPECIAL HANDLING		LABORATORY INFORMATION									
PROJECT MANAGER STEVE NETTO		Phone No. 858-455-6500										ATL									
QA MANAGER		Fax No. 858-455-6533										Attn: Rachelle Arada									
SAMPLER (SIGNATURE) <i>[Signature]</i>		SAMPLER (PRINTED) ERIN HUNTER																			
SAMPLER (SIGNATURE) <i>[Signature]</i>		SAMPLER (PRINTED) SHAYNE KAPPUS																			
LAB ID	SAMPLE ID	SAMPLE COLLECTION		MATRIX		PRESERVATION		40 ml VOA	1 L Amber	VOCs 8260B	1,4-Dioxane 8270 MDD	1,4-Dioxane 8270 SIM	0-10	10-100	100-1,000	1,000-10,000	>10,000	STANDARD TAT	MS	MSD	REMARKS
		Date	Time	Soil	Ground water	Surface water	Lab H2O														
1400345 -1	TB-020314	2/3/14	0800					X													
-2	MW-21		1400	X				X													
	↓		↓	X				X													
-3	EW-01		1420	X				X													
	↓		↓	X				X													
-4	MW-13	2/4/14	1112	X				X													
	↓		↓	X				X													
-5	MW-76C		1305	X				X													
	↓		↓	X				X													
-6	RB-0204114		1320	X				X													
	↓		↓	X				X													
-7	MW-20		1427	X				X													
	↓		↓	X				X													
-8	MW-06		1540	X				X													
	↓		↓	X				X													
Total number of Containers per analysis:								23	5									Total No. of Containers: <u>28/50</u>			

Relinquished by: <i>[Signature]</i> H4A, Inc. Company		Date <u>2/4/14</u> Time <u>10:50</u>	Received by: <i>[Signature]</i> Advanced Tech Labs Company		Date <u>2-11-14</u> Time <u>11:50</u>	INSTRUCTIONS 1. Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness. 2. Complete in ballpoint pen. Draw one line through errors, initial and date correction. 3. Indicate number of sample containers in analysis request space; indicate choice with ✓ or x. 4. Note applicable preservatives, special instructions, and deviations from typical environmental samples. 5. Consult project QA documents for specific instructions.	Shipment Method: <u>courier</u> Send Results to: <u>Steve Netto</u> ☒ 9171 TOWNE CENTRE DRIVE, SUITE 375 SAN DIEGO, CA 92122 (858) 455-6500 ☐ 1640 SOUTH STAPLEY DRIVE, SUITE 209 MESA, AZ 85204 (480) 345-0888 ☐ 1820 EAST RIVER ROAD, SUITE 220 TUCSON, AZ 85718 (520) 881-7300	
Relinquished by: <i>[Signature]</i> Advanced Tech Labs Company		Date <u>2-4-14</u> Time <u>17:40</u>	Received by: <i>[Signature]</i> Company		Date <u>2/4/14</u> Time <u>1740</u>		Sample Receipt: ☐ No. of containers correct ☐ custody seals secure Temp. @ receipt <u>5.5, 5.5</u> °C ☒ received good condition/cold ☐ conforms to COC document	

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM

DATE 2/4/14 PAGE 2 OF 2

PROJECT NAME		PROJECT No./TASK No.		SAMPLE CONTAINERS		ANALYSIS REQUESTED		ESTIMATED CONCENTRATION RANGE (ppb) FOR VOA'S		SPECIAL HANDLING		LABORATORY INFORMATION									
RAYTHEON		532.30										ATL									
PROJECT MANAGER STEVE NETTO		Phone No. 858-455-6500										Attn: Rachelle Arada									
QA MANAGER		Fax No. 858-455-6533																			
SAMPLER (SIGNATURE)		SAMPLER (PRINTED)																			
		Anelle Ferber																			
		CHRIS PENNINGTON																			
LAB ID	SAMPLE ID	SAMPLE COLLECTION		MATRIX		PRESERVATION		40 ml VOA	1 L Amber	VOCS 8260B	1,4-Dioxane 8270 H0B	1,4-Dioxane 8270 S1H	0-10	10-100	100-1,000	1,000-10,000	>10,000	STANDARD TAT	MS	MSD	REMARKS
		Date	Time	Soil	Ground water	Surface water	Lab H2O														
1400345-9	MW-35B	2/4/14	10:35	X			X			X			X					X			
	↓		↓	X			X		1		X							X			
	-10 MW-35C		13:20	X			X		9	X			X					X	X	X	
	↓		↓	X			X		3			X						X	X	X	
	-11 MW-35A		14:05	X			X		3	X			X					X	X	X	
	↓		↓	X			X		1		X							X	X	X	
	-12 MW-39		16:10	X			X		3	X			X					X	X	X	
	↓		↓	X			X		1		X							X	X	X	
	-13 MW-28		16:30	X			X		3	X			X					X	X	X	
	↓		↓	X			X		1		X										
Total number of Containers per analysis:								21	7	Total No. of Containers: <u>28</u>											

Relinquished by:		Date	Received by:		Date	INSTRUCTIONS		Shipment Method: <u>COURIER</u>	
<u>Anelle Ferber</u>		<u>2/4/14</u>	<u>Edward Rodriguez</u>		<u>2/4/14</u>				
<u>H+A, Inc.</u>		Time	<u>Advanced Tech Labs</u>		Time	- Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness. - Complete in ballpoint pen. Draw one line through errors, initial and date correction. - Indicate number of sample containers in analysis request space; indicate choice with ✓ or x. - Note applicable preservatives, special instructions, and deviations from typical environmental samples. - Consult project QA documents for specific instructions.		☒ 9171 TOWNE CENTRE DRIVE, SUITE 375 SAN DIEGO, CA 92122 (858) 455-6500 ☐ 1640 SOUTH STAPLEY DRIVE, SUITE 209 MESA, AZ 85204 (480) 345-0888 ☐ 1820 EAST RIVER ROAD, SUITE 220 TUCSON, AZ 85718 (520) 881-7300	
Company		<u>10:50</u>	Company		<u>16:50</u>				
Relinquished by:		Date	Received by:		Date	Sample Receipt: ☐ No. of containers correct ☐ custody seals secure		Temp. @ receipt _____ °C ☒ received good condition/cold ☐ conforms to COC document	
<u>Edward Rodriguez</u>		<u>2-4-14</u>	<u>[Signature]</u>		<u>2/4/14</u>				
<u>Advanced Tech Labs</u>		Time	<u>AT</u>		Time	Send invoice to San Diego, CA Attn: Accounts Payable			
Company		<u>17:40</u>	Company		<u>17:40</u>				



February 14, 2014

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax: (858) 455-6533



Re: ATL Work Order Number : 1400358
Client Reference : RAYTHEON, 532.30

Enclosed are the results for sample(s) received on February 05, 2014 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'E Rodriguez'.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-020514A	1400358-01	Lab H2O	2/05/14 8:15	2/05/14 16:50
MW-32A	1400358-02	Groundwater	2/05/14 9:58	2/05/14 16:50
MW-32C	1400358-03	Groundwater	2/05/14 12:45	2/05/14 16:50
MW-32B	1400358-04	Groundwater	2/05/14 14:25	2/05/14 16:50
MW-33	1400358-05	Groundwater	2/05/14 16:25	2/05/14 16:50
MW-3300	1400358-06	Groundwater	2/05/14 16:35	2/05/14 16:50
MW-16	1400358-07	Groundwater	2/05/14 9:33	2/05/14 16:50
MW-1600	1400358-08	Groundwater	2/05/14 9:35	2/05/14 16:50
RB-020514	1400358-09	Lab H2O	2/05/14 10:00	2/05/14 16:50
MW-09	1400358-10	Groundwater	2/05/14 13:00	2/05/14 16:50
P-07	1400358-11	Groundwater	2/05/14 11:55	2/05/14 16:50
P-09	1400358-12	Groundwater	2/05/14 14:17	2/05/14 16:50
MW-23	1400358-13	Groundwater	2/05/14 15:19	2/05/14 16:50



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID TB-020514A

Lab ID: 1400358-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
2-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
4-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Benzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Bromobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Bromodichloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Bromoform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Bromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Carbon tetrachloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Chlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Chloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Chloroform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Chloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Dibromochloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID TB-020514A

Lab ID: 1400358-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Ethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Isopropylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
m,p-Xylene	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Methylene chloride	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
n-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
n-Propylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Naphthalene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
o-Xylene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
sec-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Styrene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
tert-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Tetrachloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Toluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Trichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Vinyl chloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:23	
Surrogate: 1,2-Dichloroethane-d4	113 %		64 - 146		B4B0148	02/12/2014	02/12/14 20:23	
Surrogate: 4-Bromofluorobenzene	71.0 %		60 - 128		B4B0148	02/12/2014	02/12/14 20:23	
Surrogate: Dibromofluoromethane	97.6 %		72 - 141		B4B0148	02/12/2014	02/12/14 20:23	
Surrogate: Toluene-d8	84.3 %		61 - 124		B4B0148	02/12/2014	02/12/14 20:23	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-32A

Lab ID: 1400358-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
2-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
4-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Benzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Bromobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Bromodichloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Bromoform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Bromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Carbon tetrachloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Chlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Chloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Chloroform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Chloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Dibromochloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-32A

Lab ID: 1400358-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Ethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Isopropylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
m,p-Xylene	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Methylene chloride	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
n-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
n-Propylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Naphthalene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
o-Xylene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
sec-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Styrene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
tert-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Tetrachloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Toluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Trichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Vinyl chloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 20:47	
Surrogate: 1,2-Dichloroethane-d4	114 %		64 - 146		B4B0148	02/12/2014	02/12/14 20:47	
Surrogate: 4-Bromofluorobenzene	66.4 %		60 - 128		B4B0148	02/12/2014	02/12/14 20:47	
Surrogate: Dibromofluoromethane	97.4 %		72 - 141		B4B0148	02/12/2014	02/12/14 20:47	
Surrogate: Toluene-d8	79.0 %		61 - 124		B4B0148	02/12/2014	02/12/14 20:47	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-32A

Lab ID: 1400358-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0099	02/07/2014	02/11/14 22:17	
Surrogate: 1,2-Dichlorobenzene-d4	83.8 %		47 - 117		B4B0099	02/07/2014	02/11/14 22:17	
Surrogate: 2-Fluorobiphenyl	92.1 %		48 - 121		B4B0099	02/07/2014	02/11/14 22:17	
Surrogate: 4-Terphenyl-d14	108 %		58 - 142		B4B0099	02/07/2014	02/11/14 22:17	
Surrogate: Nitrobenzene-d5	125 %		27 - 151		B4B0099	02/07/2014	02/11/14 22:17	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-32C

Lab ID: 1400358-03

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
2-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
4-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Benzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Bromobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Bromodichloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Bromoform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Bromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Carbon tetrachloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Chlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Chloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Chloroform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Chloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Dibromochloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-32C

Lab ID: 1400358-03

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Ethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Isopropylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
m,p-Xylene	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Methylene chloride	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
n-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
n-Propylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Naphthalene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
o-Xylene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
sec-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Styrene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
tert-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Tetrachloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Toluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Trichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
Vinyl chloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:12	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>113 %</i>		<i>64 - 146</i>		B4B0148	02/12/2014	<i>02/12/14 21:12</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>67.9 %</i>		<i>60 - 128</i>		B4B0148	02/12/2014	<i>02/12/14 21:12</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>76.5 %</i>		<i>72 - 141</i>		B4B0148	02/12/2014	<i>02/12/14 21:12</i>	
<i>Surrogate: Toluene-d8</i>	<i>80.0 %</i>		<i>61 - 124</i>		B4B0148	02/12/2014	<i>02/12/14 21:12</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-32C

Lab ID: 1400358-03

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0099	02/07/2014	02/11/14 22:44	
Surrogate: 1,2-Dichlorobenzene-d4	90.7 %		47 - 117		B4B0099	02/07/2014	02/11/14 22:44	
Surrogate: 2-Fluorobiphenyl	97.6 %		48 - 121		B4B0099	02/07/2014	02/11/14 22:44	
Surrogate: 4-Terphenyl-d14	114 %		58 - 142		B4B0099	02/07/2014	02/11/14 22:44	
Surrogate: Nitrobenzene-d5	129 %		27 - 151		B4B0099	02/07/2014	02/11/14 22:44	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-32B

Lab ID: 1400358-04

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,1-Dichloroethane	0.62	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,1-Dichloroethene	66	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
2-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
4-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Benzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Bromobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Bromodichloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Bromoform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Bromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Carbon tetrachloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Chlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Chloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Chloroform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Chloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
cis-1,2-Dichloroethene	2.7	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Dibromochloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-32B

Lab ID: 1400358-04

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Ethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Isopropylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
m,p-Xylene	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Methylene chloride	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
n-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
n-Propylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Naphthalene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
o-Xylene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
sec-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Styrene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
tert-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Tetrachloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Toluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Trichloroethene	35	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
Vinyl chloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:01	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>133 %</i>		<i>64 - 146</i>		B4B0170	02/13/2014	<i>02/13/14 22:01</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>73.2 %</i>		<i>60 - 128</i>		B4B0170	02/13/2014	<i>02/13/14 22:01</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>90.7 %</i>		<i>72 - 141</i>		B4B0170	02/13/2014	<i>02/13/14 22:01</i>	
<i>Surrogate: Toluene-d8</i>	<i>83.6 %</i>		<i>61 - 124</i>		B4B0170	02/13/2014	<i>02/13/14 22:01</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-32B

Lab ID: 1400358-04

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	2.7	0.20	NA	1	B4B0099	02/07/2014	02/11/14 23:10	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>85.4 %</i>		<i>47 - 117</i>		B4B0099	02/07/2014	<i>02/11/14 23:10</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>97.0 %</i>		<i>48 - 121</i>		B4B0099	02/07/2014	<i>02/11/14 23:10</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>119 %</i>		<i>58 - 142</i>		B4B0099	02/07/2014	<i>02/11/14 23:10</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>125 %</i>		<i>27 - 151</i>		B4B0099	02/07/2014	<i>02/11/14 23:10</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-33

Lab ID: 1400358-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,1-Dichloroethene	5.5	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
2-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
4-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Benzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Bromobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Bromodichloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Bromoform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Bromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Carbon tetrachloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Chlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Chloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Chloroform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Chloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Dibromochloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-33

Lab ID: 1400358-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Ethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Isopropylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
m,p-Xylene	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Methylene chloride	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
n-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
n-Propylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Naphthalene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
o-Xylene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
sec-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Styrene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
tert-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Tetrachloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Toluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Trichloroethene	0.80	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
Vinyl chloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 21:36	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>113 %</i>		<i>64 - 146</i>		B4B0148	02/12/2014	<i>02/12/14 21:36</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>65.6 %</i>		<i>60 - 128</i>		B4B0148	02/12/2014	<i>02/12/14 21:36</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>80.0 %</i>		<i>72 - 141</i>		B4B0148	02/12/2014	<i>02/12/14 21:36</i>	
<i>Surrogate: Toluene-d8</i>	<i>78.2 %</i>		<i>61 - 124</i>		B4B0148	02/12/2014	<i>02/12/14 21:36</i>	



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Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-33

Lab ID: 1400358-05

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0099	02/07/2014	02/11/14 23:37	
Surrogate: 1,2-Dichlorobenzene-d4	83.0 %		47 - 117		B4B0099	02/07/2014	02/11/14 23:37	
Surrogate: 2-Fluorobiphenyl	90.8 %		48 - 121		B4B0099	02/07/2014	02/11/14 23:37	
Surrogate: 4-Terphenyl-d14	114 %		58 - 142		B4B0099	02/07/2014	02/11/14 23:37	
Surrogate: Nitrobenzene-d5	121 %		27 - 151		B4B0099	02/07/2014	02/11/14 23:37	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-3300

Lab ID: 1400358-06

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,1-Dichloroethene	6.3	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
2-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
4-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Benzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Bromobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Bromodichloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Bromoform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Bromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Carbon tetrachloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Chlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Chloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Chloroform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Chloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Dibromochloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-3300

Lab ID: 1400358-06

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Ethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Isopropylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
m,p-Xylene	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Methylene chloride	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
n-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
n-Propylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Naphthalene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
o-Xylene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
sec-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Styrene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
tert-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Tetrachloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Toluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Trichloroethene	0.65	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
Vinyl chloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:02	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>112 %</i>		<i>64 - 146</i>		B4B0148	02/12/2014	<i>02/12/14 22:02</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>67.3 %</i>		<i>60 - 128</i>		B4B0148	02/12/2014	<i>02/12/14 22:02</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>96.6 %</i>		<i>72 - 141</i>		B4B0148	02/12/2014	<i>02/12/14 22:02</i>	
<i>Surrogate: Toluene-d8</i>	<i>79.8 %</i>		<i>61 - 124</i>		B4B0148	02/12/2014	<i>02/12/14 22:02</i>	



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Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-3300

Lab ID: 1400358-06

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0099	02/07/2014	02/12/14 00:04	
Surrogate: 1,2-Dichlorobenzene-d4	86.2 %		47 - 117		B4B0099	02/07/2014	02/12/14 00:04	
Surrogate: 2-Fluorobiphenyl	91.4 %		48 - 121		B4B0099	02/07/2014	02/12/14 00:04	
Surrogate: 4-Terphenyl-d14	117 %		58 - 142		B4B0099	02/07/2014	02/12/14 00:04	
Surrogate: Nitrobenzene-d5	127 %		27 - 151		B4B0099	02/07/2014	02/12/14 00:04	



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Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-16

Lab ID: 1400358-07

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,1,1-Trichloroethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,1,2,2-Tetrachloroethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,1,2-Trichloroethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,1-Dichloroethane	4.9	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,1-Dichloroethene	750	5.0	NA	10	B4B0170	02/13/2014	02/13/14 19:57	
1,1-Dichloropropene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,2,3-Trichloropropane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,2,3-Trichlorobenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,2,4-Trichlorobenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,2,4-Trimethylbenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,2-Dibromo-3-chloropropane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,2-Dibromoethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,2-Dichlorobenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,2-Dichloroethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,2-Dichloropropane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,3,5-Trimethylbenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,3-Dichlorobenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,3-Dichloropropane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
1,4-Dichlorobenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
2,2-Dichloropropane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
2-Chlorotoluene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
4-Chlorotoluene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
4-Isopropyltoluene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Benzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Bromobenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Bromodichloromethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Bromoform	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Bromomethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Carbon tetrachloride	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Chlorobenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Chloroethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Chloroform	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Chloromethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
cis-1,2-Dichloroethene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
cis-1,3-Dichloropropene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Dibromochloromethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-16

Lab ID: 1400358-07

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Dichlorodifluoromethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Ethylbenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Hexachlorobutadiene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Isopropylbenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
m,p-Xylene	ND	2.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Methylene chloride	ND	2.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
n-Butylbenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
n-Propylbenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Naphthalene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
o-Xylene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
sec-Butylbenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Styrene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
tert-Butylbenzene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Tetrachloroethene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Toluene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
trans-1,2-Dichloroethene	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Trichloroethene	5.4	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Trichlorofluoromethane	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6
Vinyl chloride	ND	1.0	NA	2	B4B0170	02/13/2014	02/13/14 23:38	D6

Surrogate: 1,2-Dichloroethane-d4	135 %	64 - 146	B4B0170	02/13/2014	02/13/14 23:38
Surrogate: 1,2-Dichloroethane-d4	134 %	64 - 146	B4B0170	02/13/2014	02/13/14 19:57
Surrogate: 4-Bromofluorobenzene	74.4 %	60 - 128	B4B0170	02/13/2014	02/13/14 23:38
Surrogate: 4-Bromofluorobenzene	72.1 %	60 - 128	B4B0170	02/13/2014	02/13/14 19:57
Surrogate: Dibromofluoromethane	102 %	72 - 141	B4B0170	02/13/2014	02/13/14 19:57
Surrogate: Dibromofluoromethane	103 %	72 - 141	B4B0170	02/13/2014	02/13/14 23:38
Surrogate: Toluene-d8	92.2 %	61 - 124	B4B0170	02/13/2014	02/13/14 19:57
Surrogate: Toluene-d8	91.2 %	61 - 124	B4B0170	02/13/2014	02/13/14 23:38



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-16

Lab ID: 1400358-07

1,4-Dioxane by EPA 8270: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	33	2.0	NA	1	B4B0123	02/10/2014	02/10/14 23:49	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>77.6 %</i>		<i>37 - 93</i>		B4B0123	02/10/2014	<i>02/10/14 23:49</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>82.8 %</i>		<i>51 - 100</i>		B4B0123	02/10/2014	<i>02/10/14 23:49</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>99.8 %</i>		<i>58 - 113</i>		B4B0123	02/10/2014	<i>02/10/14 23:49</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>97.5 %</i>		<i>39 - 95</i>		B4B0123	02/10/2014	<i>02/10/14 23:49</i>	S5



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-1600

Lab ID: 1400358-08

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,1-Dichloroethane	4.1	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,1-Dichloroethene	630	5.0	NA	10	B4B0170	02/13/2014	02/13/14 20:21	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,2-Dichloroethane	0.52	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
2-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
4-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Benzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Bromobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Bromodichloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Bromoform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Bromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Carbon tetrachloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Chlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Chloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Chloroform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Chloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Dibromochloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-1600

Lab ID: 1400358-08

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Ethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Isopropylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
m,p-Xylene	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Methylene chloride	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
n-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
n-Propylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Naphthalene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
o-Xylene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
sec-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Styrene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
tert-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Tetrachloroethene	0.89	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Toluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Trichloroethene	6.1	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	
Vinyl chloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 22:27	

Surrogate: 1,2-Dichloroethane-d4	132 %	64 - 146	B4B0170	02/13/2014	02/13/14 20:21
Surrogate: 1,2-Dichloroethane-d4	110 %	64 - 146	B4B0148	02/12/2014	02/12/14 22:27
Surrogate: 4-Bromofluorobenzene	71.8 %	60 - 128	B4B0170	02/13/2014	02/13/14 20:21
Surrogate: 4-Bromofluorobenzene	64.2 %	60 - 128	B4B0148	02/12/2014	02/12/14 22:27
Surrogate: Dibromofluoromethane	93.7 %	72 - 141	B4B0148	02/12/2014	02/12/14 22:27
Surrogate: Dibromofluoromethane	102 %	72 - 141	B4B0170	02/13/2014	02/13/14 20:21
Surrogate: Toluene-d8	88.9 %	61 - 124	B4B0170	02/13/2014	02/13/14 20:21
Surrogate: Toluene-d8	80.6 %	61 - 124	B4B0148	02/12/2014	02/12/14 22:27



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-1600

Lab ID: 1400358-08

1,4-Dioxane by EPA 8270: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	33	2.0	NA	1	B4B0123	02/10/2014	02/11/14 00:16	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>75.3 %</i>		<i>37 - 93</i>		B4B0123	02/10/2014	<i>02/11/14 00:16</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>77.6 %</i>		<i>51 - 100</i>		B4B0123	02/10/2014	<i>02/11/14 00:16</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>98.2 %</i>		<i>58 - 113</i>		B4B0123	02/10/2014	<i>02/11/14 00:16</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>90.1 %</i>		<i>39 - 95</i>		B4B0123	02/10/2014	<i>02/11/14 00:16</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID RB-020514

Lab ID: 1400358-09

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
2-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
4-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Benzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Bromobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Bromodichloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Bromoform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Bromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Carbon tetrachloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Chlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Chloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Chloroform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Chloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Dibromochloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID RB-020514

Lab ID: 1400358-09

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Ethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Isopropylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
m,p-Xylene	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Methylene chloride	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
n-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
n-Propylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Naphthalene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
o-Xylene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
sec-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Styrene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
tert-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Tetrachloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Toluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Trichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Vinyl chloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 18:20	
Surrogate: 1,2-Dichloroethane-d4	122 %		64 - 146		B4B0170	02/13/2014	02/13/14 18:20	
Surrogate: 4-Bromofluorobenzene	74.1 %		60 - 128		B4B0170	02/13/2014	02/13/14 18:20	
Surrogate: Dibromofluoromethane	100 %		72 - 141		B4B0170	02/13/2014	02/13/14 18:20	
Surrogate: Toluene-d8	92.0 %		61 - 124		B4B0170	02/13/2014	02/13/14 18:20	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-09

Lab ID: 1400358-10

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
2-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
4-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Benzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Bromobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Bromodichloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Bromoform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Bromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Carbon tetrachloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Chlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Chloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Chloroform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Chloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Dibromochloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-09

Lab ID: 1400358-10

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Ethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Isopropylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
m,p-Xylene	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Methylene chloride	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
n-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
n-Propylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Naphthalene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
o-Xylene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
sec-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Styrene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
tert-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Tetrachloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Toluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Trichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Vinyl chloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:17	
Surrogate: 1,2-Dichloroethane-d4	117 %		64 - 146		B4B0148	02/12/2014	02/12/14 23:17	
Surrogate: 4-Bromofluorobenzene	62.7 %		60 - 128		B4B0148	02/12/2014	02/12/14 23:17	
Surrogate: Dibromofluoromethane	96.5 %		72 - 141		B4B0148	02/12/2014	02/12/14 23:17	
Surrogate: Toluene-d8	80.1 %		61 - 124		B4B0148	02/12/2014	02/12/14 23:17	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-09

Lab ID: 1400358-10

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	0.30	0.20	NA	1	B4B0099	02/07/2014	02/12/14 00:30	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>83.2 %</i>		<i>47 - 117</i>		B4B0099	02/07/2014	<i>02/12/14 00:30</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>95.8 %</i>		<i>48 - 121</i>		B4B0099	02/07/2014	<i>02/12/14 00:30</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>121 %</i>		<i>58 - 142</i>		B4B0099	02/07/2014	<i>02/12/14 00:30</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>126 %</i>		<i>27 - 151</i>		B4B0099	02/07/2014	<i>02/12/14 00:30</i>	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID P-07

Lab ID: 1400358-11

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,1,1-Trichloroethane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,1,2,2-Tetrachloroethane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,1,2-Trichloroethane	5.4	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,1-Dichloroethane	17	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,1-Dichloroethene	1100	25	NA	50	B4B0195	02/14/2014	02/14/14 09:05	
1,1-Dichloropropene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,2,3-Trichloropropane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,2,3-Trichlorobenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,2,4-Trichlorobenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,2,4-Trimethylbenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,2-Dibromo-3-chloropropane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,2-Dibromoethane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,2-Dichlorobenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,2-Dichloroethane	4.9	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,2-Dichloropropane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,3,5-Trimethylbenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,3-Dichlorobenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,3-Dichloropropane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
1,4-Dichlorobenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
2,2-Dichloropropane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
2-Chlorotoluene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
4-Chlorotoluene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
4-Isopropyltoluene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Benzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Bromobenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Bromodichloromethane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Bromoform	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Bromomethane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Carbon tetrachloride	1.1	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Chlorobenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Chloroethane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Chloroform	1.6	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Chloromethane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
cis-1,2-Dichloroethene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
cis-1,3-Dichloropropene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Dibromochloromethane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID P-07

Lab ID: 1400358-11

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Dichlorodifluoromethane	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Ethylbenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Hexachlorobutadiene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Isopropylbenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
m,p-Xylene	ND	2.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Methylene chloride	ND	2.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
n-Butylbenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
n-Propylbenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Naphthalene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
o-Xylene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
sec-Butylbenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Styrene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
tert-Butylbenzene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Tetrachloroethene	5.7	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Toluene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
trans-1,2-Dichloroethene	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Trichloroethene	4.9	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Trichlorofluoromethane	3.1	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
Vinyl chloride	ND	1.0	NA	2	B4B0170	02/14/2014	02/14/14 00:02	D6
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>152 %</i>		<i>64 - 146</i>		B4B0195	02/14/2014	<i>02/14/14 09:05</i>	S5
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>129 %</i>		<i>64 - 146</i>		B4B0170	02/14/2014	<i>02/14/14 00:02</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>94.3 %</i>		<i>60 - 128</i>		B4B0195	02/14/2014	<i>02/14/14 09:05</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>75.6 %</i>		<i>60 - 128</i>		B4B0170	02/14/2014	<i>02/14/14 00:02</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>123 %</i>		<i>72 - 141</i>		B4B0195	02/14/2014	<i>02/14/14 09:05</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>104 %</i>		<i>72 - 141</i>		B4B0170	02/14/2014	<i>02/14/14 00:02</i>	
<i>Surrogate: Toluene-d8</i>	<i>118 %</i>		<i>61 - 124</i>		B4B0195	02/14/2014	<i>02/14/14 09:05</i>	
<i>Surrogate: Toluene-d8</i>	<i>93.0 %</i>		<i>61 - 124</i>		B4B0170	02/14/2014	<i>02/14/14 00:02</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID P-07

Lab ID: 1400358-11

1,4-Dioxane by EPA 8270: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	1400	20	NA	10	B4B0123	02/10/2014	02/11/14 10:21	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>64.2 %</i>		<i>37 - 93</i>		B4B0123	02/10/2014	<i>02/11/14 10:21</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>60.5 %</i>		<i>51 - 100</i>		B4B0123	02/10/2014	<i>02/11/14 10:21</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>82.1 %</i>		<i>58 - 113</i>		B4B0123	02/10/2014	<i>02/11/14 10:21</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>73.9 %</i>		<i>39 - 95</i>		B4B0123	02/10/2014	<i>02/11/14 10:21</i>	



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Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID P-09

Lab ID: 1400358-12

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,1-Dichloroethene	0.56	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
2-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
4-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Benzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Bromobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Bromodichloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Bromoform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Bromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Carbon tetrachloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Chlorobenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Chloroethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Chloroform	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Chloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Dibromochloromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID P-09

Lab ID: 1400358-12

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Ethylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Isopropylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
m,p-Xylene	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Methylene chloride	ND	1.0	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
n-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
n-Propylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Naphthalene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
o-Xylene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
sec-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Styrene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
tert-Butylbenzene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Tetrachloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Toluene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Trichloroethene	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Vinyl chloride	ND	0.50	NA	1	B4B0148	02/12/2014	02/12/14 23:41	
Surrogate: 1,2-Dichloroethane-d4	111 %		64 - 146		B4B0148	02/12/2014	02/12/14 23:41	
Surrogate: 4-Bromofluorobenzene	65.9 %		60 - 128		B4B0148	02/12/2014	02/12/14 23:41	
Surrogate: Dibromofluoromethane	78.2 %		72 - 141		B4B0148	02/12/2014	02/12/14 23:41	
Surrogate: Toluene-d8	78.8 %		61 - 124		B4B0148	02/12/2014	02/12/14 23:41	



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID P-09

Lab ID: 1400358-12

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	0.35	0.20	NA	1	B4B0099	02/07/2014	02/12/14 00:57	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>77.7 %</i>		<i>47 - 117</i>		B4B0099	02/07/2014	<i>02/12/14 00:57</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>90.9 %</i>		<i>48 - 121</i>		B4B0099	02/07/2014	<i>02/12/14 00:57</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>121 %</i>		<i>58 - 142</i>		B4B0099	02/07/2014	<i>02/12/14 00:57</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>127 %</i>		<i>27 - 151</i>		B4B0099	02/07/2014	<i>02/12/14 00:57</i>	



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-23

Lab ID: 1400358-13

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
2-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
4-Chlorotoluene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Benzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Bromobenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Bromodichloromethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Bromoform	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Bromomethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Carbon tetrachloride	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Chlorobenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Chloroethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Chloroform	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Chloromethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Dibromochloromethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Client Sample ID MW-23

Lab ID: 1400358-13

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Ethylbenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Isopropylbenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
m,p-Xylene	ND	1.0	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Methylene chloride	ND	1.0	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
n-Butylbenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
n-Propylbenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Naphthalene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
o-Xylene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
sec-Butylbenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Styrene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
tert-Butylbenzene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Tetrachloroethene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Toluene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Trichloroethene	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Vinyl chloride	ND	0.50	NA	1	B4B0148	02/13/2014	02/13/14 00:05	
Surrogate: 1,2-Dichloroethane-d4	117 %		64 - 146		B4B0148	02/13/2014	02/13/14 00:05	
Surrogate: 4-Bromofluorobenzene	65.3 %		60 - 128		B4B0148	02/13/2014	02/13/14 00:05	
Surrogate: Dibromofluoromethane	103 %		72 - 141		B4B0148	02/13/2014	02/13/14 00:05	
Surrogate: Toluene-d8	81.0 %		61 - 124		B4B0148	02/13/2014	02/13/14 00:05	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

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QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0148 - MSVOAW_LL

Blank (B4B0148-BLK1)

Prepared: 2/12/2014 Analyzed: 2/12/2014

1,1,1,2-Tetrachloroethane	ND	0.50		NR
1,1,1-Trichloroethane	ND	0.50		NR
1,1,2,2-Tetrachloroethane	ND	0.50		NR
1,1,2-Trichloroethane	ND	0.50		NR
1,1-Dichloroethane	ND	0.50		NR
1,1-Dichloroethene	ND	0.50		NR
1,1-Dichloropropene	ND	0.50		NR
1,2,3-Trichloropropane	ND	0.50		NR
1,2,3-Trichlorobenzene	ND	0.50		NR
1,2,4-Trichlorobenzene	ND	0.50		NR
1,2,4-Trimethylbenzene	ND	0.50		NR
1,2-Dibromo-3-chloropropane	ND	0.50		NR
1,2-Dibromoethane	ND	0.50		NR
1,2-Dichlorobenzene	ND	0.50		NR
1,2-Dichloroethane	ND	0.50		NR
1,2-Dichloropropane	ND	0.50		NR
1,3,5-Trimethylbenzene	ND	0.50		NR
1,3-Dichlorobenzene	ND	0.50		NR
1,3-Dichloropropane	ND	0.50		NR
1,4-Dichlorobenzene	ND	0.50		NR
2,2-Dichloropropane	ND	0.50		NR
2-Chlorotoluene	ND	0.50		NR
4-Chlorotoluene	ND	0.50		NR
4-Isopropyltoluene	ND	0.50		NR
Benzene	ND	0.50		NR
Bromobenzene	ND	0.50		NR
Bromodichloromethane	ND	0.50		NR
Bromoform	ND	0.50		NR
Bromomethane	ND	0.50		NR
Carbon tetrachloride	ND	0.50		NR
Chlorobenzene	ND	0.50		NR
Chloroethane	ND	0.50		NR
Chloroform	ND	0.50		NR
Chloromethane	ND	0.50		NR
cis-1,2-Dichloroethene	ND	0.50		NR
cis-1,3-Dichloropropene	ND	0.50		NR
Dibromochloromethane	ND	0.50		NR
Dibromomethane	ND	0.50		NR
Dichlorodifluoromethane	ND	0.50		NR



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Project Number : RAYTHEON, 532.30

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes

Batch B4B0148 - MSVOAW_LL (continued)

Blank (B4B0148-BLK1) - Continued

Prepared: 2/12/2014 Analyzed: 2/12/2014

Ethylbenzene	ND	0.50			NR				
Hexachlorobutadiene	ND	0.50			NR				
Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	30.83		25.0000		123	64 - 146			
Surrogate: 4-Bromofluorobenzene	19.52		25.0000		78.1	60 - 128			
Surrogate: Dibromofluoromethane	26.23		25.0000		105	72 - 141			
Surrogate: Toluene-d8	29.59		25.0000		118	61 - 124			

LCS (B4B0148-BS1)

Prepared: 2/12/2014 Analyzed: 2/12/2014

1,1,1,2-Tetrachloroethane	32.5400		20.0000		163	74 - 148			L5
1,1,1-Trichloroethane	25.7300		20.0000		129	74 - 136			
1,1,2,2-Tetrachloroethane	23.5700		20.0000		118	44 - 147			
1,1,2-Trichloroethane	18.7200		20.0000		93.6	46 - 135			
1,1-Dichloroethane	18.4500		20.0000		92.2	71 - 154			
1,1-Dichloroethene	18.6500		20.0000		93.2	56 - 131			
1,1-Dichloropropene	26.3300		20.0000		132	64 - 157			
1,2,3-Trichloropropane	24.7000		20.0000		124	45 - 147			
1,2,3-Trichlorobenzene	51.1700		20.0000		256	22 - 212			L5
1,2,4-Trichlorobenzene	36.9100		20.0000		185	34 - 198			
1,2,4-Trimethylbenzene	21.9800		20.0000		110	75 - 131			
1,2-Dibromo-3-chloropropane	43.9400		20.0000		220	9 - 217			L4
1,2-Dibromoethane	18.8700		20.0000		94.4	45 - 136			
1,2-Dichlorobenzene	27.5900		20.0000		138	75 - 142			
1,2-Dichloroethane	27.7500		20.0000		139	73 - 139			
1,2-Dichloropropane	21.3500		20.0000		107	61 - 145			
1,3,5-Trimethylbenzene	23.2800		20.0000		116	76 - 132			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0148 - MSVOAW_LL (continued)

LCS (B4B0148-BS1) - Continued

Prepared: 2/12/2014 Analyzed: 2/12/2014

1,3-Dichlorobenzene	20.5800		20.0000		103	56 - 149			
1,3-Dichloropropane	19.1600		20.0000		95.8	49 - 146			
1,4-Dichlorobenzene	21.4200		20.0000		107	70 - 127			
2,2-Dichloropropane	21.0200		20.0000		105	32 - 153			
2-Chlorotoluene	20.8800		20.0000		104	67 - 135			
4-Chlorotoluene	18.9900		20.0000		95.0	61 - 138			
4-Isopropyltoluene	20.3600		20.0000		102	66 - 137			
Benzene	24.7900		20.0000		124	69 - 139			
Bromobenzene	21.2800		20.0000		106	60 - 138			
Bromodichloromethane	25.9200		20.0000		130	74 - 135			
Bromoform	40.9500		20.0000		205	41 - 200			L4
Bromomethane	19.6900		20.0000		98.4	1 - 125			
Carbon tetrachloride	35.3300		20.0000		177	74 - 153			L5
Chlorobenzene	21.9800		20.0000		110	73 - 127			
Chloroethane	24.3300		20.0000		122	40 - 150			
Chloroform	24.9600		20.0000		125	69 - 142			
Chloromethane	28.5200		20.0000		143	7 - 150			
cis-1,2-Dichloroethene	17.3400		20.0000		86.7	69 - 127			
cis-1,3-Dichloropropene	18.3200		20.0000		91.6	52 - 128			
Dibromochloromethane	28.1800		20.0000		141	72 - 142			
Dibromomethane	22.6500		20.0000		113	72 - 125			
Dichlorodifluoromethane	23.2300		20.0000		116	0 - 135			
Ethylbenzene	22.9900		20.0000		115	69 - 139			
Hexachlorobutadiene	45.7200		20.0000		229	46 - 206			L4
Isopropylbenzene	24.1500		20.0000		121	73 - 136			
m,p-Xylene	48.4400		40.0000		121	73 - 140			
Methylene chloride	15.2100		20.0000		76.0	71 - 137			
MTBE	19.3900		20.0000		97.0	68 - 133			
n-Butylbenzene	18.9200		20.0000		94.6	75 - 132			
n-Propylbenzene	19.8300		20.0000		99.2	64 - 140			
Naphthalene	36.7000		20.0000		184	18 - 202			
o-Xylene	26.9000		20.0000		134	78 - 138			
sec-Butylbenzene	24.3200		20.0000		122	80 - 138			
Styrene	20.7900		20.0000		104	65 - 130			
tert-Butylbenzene	22.1300		20.0000		111	69 - 136			
Tetrachloroethene	28.5400		20.0000		143	68 - 151			
Toluene	21.5300		20.0000		108	62 - 133			
trans-1,2-Dichloroethene	18.9600		20.0000		94.8	67 - 130			
Trichloroethene	24.2900		20.0000		121	72 - 139			
Trichlorofluoromethane	31.1700		20.0000		156	67 - 157			
Vinyl chloride	24.9000		20.0000		124	37 - 144			



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Hargis & Associates, Inc.

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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0148 - MSVOAW_LL (continued)

LCS (B4B0148-BS1) - Continued

Prepared: 2/12/2014 Analyzed: 2/12/2014

Surrogate: 1,2-Dichloroethane-d4	26.56		25.0000		106	64 - 146			
Surrogate: 4-Bromofluorobenzene	17.90		25.0000		71.6	60 - 128			
Surrogate: Dibromofluoromethane	23.85		25.0000		95.4	72 - 141			
Surrogate: Toluene-d8	21.57		25.0000		86.3	61 - 124			

LCS Dup (B4B0148-BS1)

Prepared: 2/12/2014 Analyzed: 2/12/2014

1,1,1,2-Tetrachloroethane	33.1700		20.0000		166	74 - 148	1.92	20	L5
1,1,1-Trichloroethane	26.3500		20.0000		132	74 - 136	2.38	20	
1,1,2,2-Tetrachloroethane	22.9000		20.0000		114	44 - 147	2.88	20	
1,1,2-Trichloroethane	18.8900		20.0000		94.4	46 - 135	0.904	20	
1,1-Dichloroethane	16.9200		20.0000		84.6	71 - 154	8.65	20	
1,1-Dichloroethene	21.4000		20.0000		107	56 - 131	13.7	20	
1,1-Dichloropropene	25.4700		20.0000		127	64 - 157	3.32	20	
1,2,3-Trichloropropane	23.2800		20.0000		116	45 - 147	5.92	20	
1,2,3-Trichlorobenzene	51.6800		20.0000		258	22 - 212	0.992	20	L5
1,2,4-Trichlorobenzene	37.4400		20.0000		187	34 - 198	1.43	20	
1,2,4-Trimethylbenzene	22.0800		20.0000		110	75 - 131	0.454	20	
1,2-Dibromo-3-chloropropane	42.7700		20.0000		214	9 - 217	2.70	20	
1,2-Dibromoethane	19.9000		20.0000		99.5	45 - 136	5.31	20	
1,2-Dichlorobenzene	26.3400		20.0000		132	75 - 142	4.64	20	
1,2-Dichloroethane	27.0500		20.0000		135	73 - 139	2.55	20	
1,2-Dichloropropane	21.1600		20.0000		106	61 - 145	0.894	20	
1,3,5-Trimethylbenzene	23.0700		20.0000		115	76 - 132	0.906	20	
1,3-Dichlorobenzene	20.1400		20.0000		101	56 - 149	2.16	20	
1,3-Dichloropropane	19.0100		20.0000		95.0	49 - 146	0.786	20	
1,4-Dichlorobenzene	20.4000		20.0000		102	70 - 127	4.88	20	
2,2-Dichloropropane	21.3700		20.0000		107	32 - 153	1.65	20	
2-Chlorotoluene	20.6400		20.0000		103	67 - 135	1.16	20	
4-Chlorotoluene	18.2900		20.0000		91.4	61 - 138	3.76	20	
4-Isopropyltoluene	19.8600		20.0000		99.3	66 - 137	2.49	20	
Benzene	24.6600		20.0000		123	69 - 139	0.526	20	
Bromobenzene	21.2100		20.0000		106	60 - 138	0.329	20	
Bromodichloromethane	26.0100		20.0000		130	74 - 135	0.347	20	
Bromoform	41.4400		20.0000		207	41 - 200	1.19	20	L4
Bromomethane	19.6500		20.0000		98.2	1 - 125	0.203	20	
Carbon tetrachloride	34.4800		20.0000		172	74 - 153	2.44	20	L5
Chlorobenzene	21.9600		20.0000		110	73 - 127	0.0910	20	
Chloroethane	24.0100		20.0000		120	40 - 150	1.32	20	
Chloroform	19.6900		20.0000		98.4	69 - 142	23.6	20	R
Chloromethane	29.1500		20.0000		146	7 - 150	2.18	20	
cis-1,2-Dichloroethene	18.0900		20.0000		90.4	69 - 127	4.23	20	
cis-1,3-Dichloropropene	18.3200		20.0000		91.6	52 - 128	0.00	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0148 - MSVOAW_LL (continued)

LCS Dup (B4B0148-BSD1) - Continued

Prepared: 2/12/2014 Analyzed: 2/12/2014

Dibromochloromethane	27.5500		20.0000		138	72 - 142	2.26	20	
Dibromomethane	22.1200		20.0000		111	72 - 125	2.37	20	
Dichlorodifluoromethane	23.7600		20.0000		119	0 - 135	2.26	20	
Ethylbenzene	23.4500		20.0000		117	69 - 139	1.98	20	
Hexachlorobutadiene	44.6300		20.0000		223	46 - 206	2.41	20	L4
Isopropylbenzene	23.5400		20.0000		118	73 - 136	2.56	20	
m,p-Xylene	49.8600		40.0000		125	73 - 140	2.89	20	
Methylene chloride	14.5400		20.0000		72.7	71 - 137	4.50	20	
MTBE	16.7000		20.0000		83.5	68 - 133	14.9	20	
n-Butylbenzene	18.5300		20.0000		92.6	75 - 132	2.08	20	
n-Propylbenzene	19.1900		20.0000		96.0	64 - 140	3.28	20	
Naphthalene	35.0800		20.0000		175	18 - 202	4.51	20	
o-Xylene	27.4600		20.0000		137	78 - 138	2.06	20	
sec-Butylbenzene	23.7900		20.0000		119	80 - 138	2.20	20	
Styrene	20.6300		20.0000		103	65 - 130	0.773	20	
tert-Butylbenzene	21.9700		20.0000		110	69 - 136	0.726	20	
Tetrachloroethene	29.5400		20.0000		148	68 - 151	3.44	20	
Toluene	21.7200		20.0000		109	62 - 133	0.879	20	
trans-1,2-Dichloroethene	16.2400		20.0000		81.2	67 - 130	15.5	20	
Trichloroethene	23.4600		20.0000		117	72 - 139	3.48	20	
Trichlorofluoromethane	32.0700		20.0000		160	67 - 157	2.85	20	L4
Vinyl chloride	25.4200		20.0000		127	37 - 144	2.07	20	

Surrogate: 1,2-Dichloroethane-d4	26.53		25.0000		106	64 - 146			
Surrogate: 4-Bromofluorobenzene	18.02		25.0000		72.1	60 - 128			
Surrogate: Dibromofluoromethane	23.54		25.0000		94.2	72 - 141			
Surrogate: Toluene-d8	21.31		25.0000		85.2	61 - 124			

Matrix Spike (B4B0148-MS1)

Source: 1400358-02

Prepared: 2/12/2014 Analyzed: 2/12/2014

1,1,1,2-Tetrachloroethane	27.7900		20.0000	ND	139	74 - 148			
1,1,1-Trichloroethane	17.9600		20.0000	ND	89.8	74 - 136			
1,1,2,2-Tetrachloroethane	22.3500		20.0000	ND	112	44 - 147			
1,1,2-Trichloroethane	18.0000		20.0000	ND	90.0	46 - 135			
1,1-Dichloroethane	14.1000		20.0000	ND	70.5	71 - 154			M2
1,1-Dichloroethene	15.4800		20.0000	ND	77.4	56 - 131			
1,1-Dichloropropene	17.8400		20.0000	ND	89.2	64 - 157			
1,2,3-Trichloropropane	22.8600		20.0000	ND	114	45 - 147			
1,2,3-Trichlorobenzene	49.4100		20.0000	ND	247	22 - 212			M2
1,2,4-Trichlorobenzene	35.2300		20.0000	ND	176	34 - 198			
1,2,4-Trimethylbenzene	19.8300		20.0000	ND	99.2	75 - 131			
1,2-Dibromo-3-chloropropane	43.7700		20.0000	ND	219	9 - 217			M2
1,2-Dibromoethane	18.8000		20.0000	ND	94.0	45 - 136			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0148 - MSVOAW_LL (continued)

Matrix Spike (B4B0148-MS1) - Continued

Source: 1400358-02

Prepared: 2/12/2014 Analyzed: 2/12/2014

1,2-Dichlorobenzene	24.4600		20.0000	ND	122	75 - 142			
1,2-Dichloroethane	26.0100		20.0000	ND	130	73 - 139			
1,2-Dichloropropane	19.5700		20.0000	ND	97.8	61 - 145			
1,3,5-Trimethylbenzene	20.5200		20.0000	ND	103	76 - 132			
1,3-Dichlorobenzene	18.6000		20.0000	ND	93.0	56 - 149			
1,3-Dichloropropane	18.2300		20.0000	ND	91.2	49 - 146			
1,4-Dichlorobenzene	19.5700		20.0000	ND	97.8	70 - 127			
2,2-Dichloropropane	16.0200		20.0000	ND	80.1	32 - 153			
2-Chlorotoluene	18.9900		20.0000	ND	95.0	67 - 135			
4-Chlorotoluene	17.1100		20.0000	ND	85.6	61 - 138			
4-Isopropyltoluene	17.8800		20.0000	ND	89.4	66 - 137			
Benzene	22.4300		20.0000	ND	112	69 - 139			
Bromobenzene	19.7000		20.0000	ND	98.5	60 - 138			
Bromodichloromethane	24.2700		20.0000	ND	121	74 - 135			
Bromoform	39.0200		20.0000	ND	195	41 - 200			
Bromomethane	17.3100		20.0000	ND	86.6	1 - 125			
Carbon tetrachloride	24.4100		20.0000	ND	122	74 - 153			
Chlorobenzene	19.9700		20.0000	ND	99.8	73 - 127			
Chloroethane	21.4400		20.0000	ND	107	40 - 150			
Chloroform	16.4600		20.0000	ND	82.3	69 - 142			
Chloromethane	25.2100		20.0000	ND	126	7 - 150			
cis-1,2-Dichloroethene	13.5600		20.0000	ND	67.8	69 - 127			M1
cis-1,3-Dichloropropene	16.5500		20.0000	ND	82.8	52 - 128			
Dibromochloromethane	25.8200		20.0000	ND	129	72 - 142			
Dibromomethane	21.4900		20.0000	ND	107	72 - 125			
Dichlorodifluoromethane	19.4500		20.0000	ND	97.2	0 - 135			
Ethylbenzene	20.2700		20.0000	ND	101	69 - 139			
Hexachlorobutadiene	38.7400		20.0000	ND	194	46 - 206			
Isopropylbenzene	21.1700		20.0000	ND	106	73 - 136			
m,p-Xylene	42.6800		40.0000	ND	107	73 - 140			
Methylene chloride	15.8100		20.0000	ND	79.0	71 - 137			
MTBE	14.7100		20.0000	ND	73.6	68 - 133			
n-Butylbenzene	16.5300		20.0000	ND	82.6	75 - 132			
n-Propylbenzene	17.7500		20.0000	ND	88.8	64 - 140			
Naphthalene	33.8200		20.0000	ND	169	18 - 202			
o-Xylene	23.4500		20.0000	ND	117	78 - 138			
sec-Butylbenzene	20.7600		20.0000	ND	104	80 - 138			
Styrene	18.1400		20.0000	ND	90.7	65 - 130			
tert-Butylbenzene	19.3300		20.0000	ND	96.6	69 - 136			
Tetrachloroethene	25.8200		20.0000	ND	129	68 - 151			
Toluene	19.4500		20.0000	ND	97.2	62 - 133			
trans-1,2-Dichloroethene	13.6700		20.0000	ND	68.4	67 - 130			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0148 - MSVOAW_LL (continued)

Matrix Spike (B4B0148-MS1) - Continued

Source: 1400358-02

Prepared: 2/12/2014 Analyzed: 2/12/2014

Trichloroethene	21.6000		20.0000	ND	108	72 - 139			
Trichlorofluoromethane	27.5100		20.0000	ND	138	67 - 157			
Vinyl chloride	21.7800		20.0000	ND	109	37 - 144			
Surrogate: 1,2-Dichloroethane-d4	35.44		25.0000		142	64 - 146			
Surrogate: 4-Bromofluorobenzene	22.69		25.0000		90.8	60 - 128			
Surrogate: Dibromofluoromethane	23.25		25.0000		93.0	72 - 141			
Surrogate: Toluene-d8	27.49		25.0000		110	61 - 124			

Matrix Spike Dup (B4B0148-MSD1)

Source: 1400358-02

Prepared: 2/12/2014 Analyzed: 2/12/2014

1,1,1,2-Tetrachloroethane	28.7100		20.0000	ND	144	74 - 148	3.26	20	
1,1,1-Trichloroethane	24.1800		20.0000	ND	121	74 - 136	29.5	20	R2
1,1,2,2-Tetrachloroethane	21.1300		20.0000	ND	106	44 - 147	5.61	20	
1,1,2-Trichloroethane	16.7100		20.0000	ND	83.6	46 - 135	7.43	20	
1,1-Dichloroethane	14.9800		20.0000	ND	74.9	71 - 154	6.05	20	
1,1-Dichloroethene	16.8800		20.0000	ND	84.4	56 - 131	8.65	20	
1,1-Dichloropropene	23.1600		20.0000	ND	116	64 - 157	26.0	20	R2
1,2,3-Trichloropropane	21.7300		20.0000	ND	109	45 - 147	5.07	20	
1,2,3-Trichlorobenzene	47.7300		20.0000	ND	239	22 - 212	3.46	20	M2
1,2,4-Trichlorobenzene	35.1000		20.0000	ND	176	34 - 198	0.370	20	
1,2,4-Trimethylbenzene	20.6600		20.0000	ND	103	75 - 131	4.10	20	
1,2-Dibromo-3-chloropropane	38.9900		20.0000	ND	195	9 - 217	11.6	20	
1,2-Dibromoethane	16.2100		20.0000	ND	81.0	45 - 136	14.8	20	
1,2-Dichlorobenzene	24.5000		20.0000	ND	122	75 - 142	0.163	20	
1,2-Dichloroethane	24.2800		20.0000	ND	121	73 - 139	6.88	20	
1,2-Dichloropropane	18.8100		20.0000	ND	94.0	61 - 145	3.96	20	
1,3,5-Trimethylbenzene	21.5200		20.0000	ND	108	76 - 132	4.76	20	
1,3-Dichlorobenzene	18.8700		20.0000	ND	94.4	56 - 149	1.44	20	
1,3-Dichloropropane	16.7200		20.0000	ND	83.6	49 - 146	8.64	20	
1,4-Dichlorobenzene	18.7500		20.0000	ND	93.8	70 - 127	4.28	20	
2,2-Dichloropropane	17.5100		20.0000	ND	87.6	32 - 153	8.89	20	
2-Chlorotoluene	19.3200		20.0000	ND	96.6	67 - 135	1.72	20	
4-Chlorotoluene	17.1400		20.0000	ND	85.7	61 - 138	0.175	20	
4-Isopropyltoluene	18.9400		20.0000	ND	94.7	66 - 137	5.76	20	
Benzene	22.0700		20.0000	ND	110	69 - 139	1.62	20	
Bromobenzene	19.4100		20.0000	ND	97.0	60 - 138	1.48	20	
Bromodichloromethane	23.3200		20.0000	ND	117	74 - 135	3.99	20	
Bromoform	35.9000		20.0000	ND	180	41 - 200	8.33	20	
Bromomethane	18.4600		20.0000	ND	92.3	1 - 125	6.43	20	
Carbon tetrachloride	31.6000		20.0000	ND	158	74 - 153	25.7	20	M2, R2
Chlorobenzene	19.4500		20.0000	ND	97.2	73 - 127	2.64	20	
Chloroethane	21.6000		20.0000	ND	108	40 - 150	0.743	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0148 - MSVOAW_LL (continued)

Matrix Spike Dup (B4B0148-MSD1) - Continued

Source: 1400358-02

Prepared: 2/12/2014 Analyzed: 2/12/2014

Chloroform	18.3200		20.0000	ND	91.6	69 - 142	10.7	20	
Chloromethane	27.5900		20.0000	ND	138	7 - 150	9.02	20	
cis-1,2-Dichloroethene	14.1800		20.0000	ND	70.9	69 - 127	4.47	20	
cis-1,3-Dichloropropene	15.2100		20.0000	ND	76.0	52 - 128	8.44	20	
Dibromochloromethane	23.5400		20.0000	ND	118	72 - 142	9.24	20	
Dibromomethane	20.5900		20.0000	ND	103	72 - 125	4.28	20	
Dichlorodifluoromethane	20.4400		20.0000	ND	102	0 - 135	4.96	20	
Ethylbenzene	20.4700		20.0000	ND	102	69 - 139	0.982	20	
Hexachlorobutadiene	42.2000		20.0000	ND	211	46 - 206	8.55	20	M2
Isopropylbenzene	22.0900		20.0000	ND	110	73 - 136	4.25	20	
m,p-Xylene	42.8100		40.0000	ND	107	73 - 140	0.304	20	
Methylene chloride	13.3900		20.0000	ND	67.0	71 - 137	16.6	20	M2
MTBE	16.6600		20.0000	ND	83.3	68 - 133	12.4	20	
n-Butylbenzene	17.1600		20.0000	ND	85.8	75 - 132	3.74	20	
n-Propylbenzene	18.2700		20.0000	ND	91.4	64 - 140	2.89	20	
Naphthalene	32.7100		20.0000	ND	164	18 - 202	3.34	20	
o-Xylene	23.6100		20.0000	ND	118	78 - 138	0.680	20	
sec-Butylbenzene	22.4500		20.0000	ND	112	80 - 138	7.82	20	
Styrene	18.2700		20.0000	ND	91.4	65 - 130	0.714	20	
tert-Butylbenzene	20.6100		20.0000	ND	103	69 - 136	6.41	20	
Tetrachloroethene	25.5700		20.0000	ND	128	68 - 151	0.973	20	
Toluene	18.8600		20.0000	ND	94.3	62 - 133	3.08	20	
trans-1,2-Dichloroethene	17.2100		20.0000	ND	86.0	67 - 130	22.9	20	R2
Trichloroethene	21.3100		20.0000	ND	107	72 - 139	1.35	20	
Trichlorofluoromethane	29.7700		20.0000	ND	149	67 - 157	7.89	20	
Vinyl chloride	23.2900		20.0000	ND	116	37 - 144	6.70	20	
Surrogate: 1,2-Dichloroethane-d4	34.23		25.0000		137	64 - 146			
Surrogate: 4-Bromofluorobenzene	22.41		25.0000		89.6	60 - 128			
Surrogate: Dibromofluoromethane	31.01		25.0000		124	72 - 141			
Surrogate: Toluene-d8	27.03		25.0000		108	61 - 124			

Batch B4B0170 - MSVOAW_LL

Blank (B4B0170-BLK1)

Prepared: 2/13/2014 Analyzed: 2/13/2014

1,1,1,2-Tetrachloroethane	ND	0.50		NR
1,1,1-Trichloroethane	ND	0.50		NR
1,1,2,2-Tetrachloroethane	ND	0.50		NR
1,1,2-Trichloroethane	ND	0.50		NR
1,1-Dichloroethane	ND	0.50		NR
1,1-Dichloroethene	ND	0.50		NR
1,1-Dichloropropene	ND	0.50		NR



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

Blank (B4B0170-BLK1) - Continued

Prepared: 2/13/2014 Analyzed: 2/13/2014

1,2,3-Trichloropropane	ND	0.50			NR
1,2,3-Trichlorobenzene	ND	0.50			NR
1,2,4-Trichlorobenzene	ND	0.50			NR
1,2,4-Trimethylbenzene	ND	0.50			NR
1,2-Dibromo-3-chloropropane	ND	0.50			NR
1,2-Dibromoethane	ND	0.50			NR
1,2-Dichlorobenzene	ND	0.50			NR
1,2-Dichloroethane	ND	0.50			NR
1,2-Dichloropropane	ND	0.50			NR
1,3,5-Trimethylbenzene	ND	0.50			NR
1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR
Dichlorodifluoromethane	ND	0.50			NR
Ethylbenzene	ND	0.50			NR
Hexachlorobutadiene	ND	0.50			NR
Isopropylbenzene	ND	0.50			NR
m,p-Xylene	ND	1.0			NR
Methylene chloride	ND	1.0			NR
n-Butylbenzene	ND	0.50			NR
n-Propylbenzene	ND	0.50			NR
Naphthalene	ND	0.50			NR
o-Xylene	ND	0.50			NR
sec-Butylbenzene	ND	0.50			NR



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

Blank (B4B0170-BLK1) - Continued

Prepared: 2/13/2014 Analyzed: 2/13/2014

Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				

Surrogate: 1,2-Dichloroethane-d4	30.40		25.0000		122	64 - 146			
Surrogate: 4-Bromofluorobenzene	20.21		25.0000		80.8	60 - 128			
Surrogate: Dibromofluoromethane	25.09		25.0000		100	72 - 141			
Surrogate: Toluene-d8	23.70		25.0000		94.8	61 - 124			

LCS (B4B0170-BS1)

Prepared: 2/13/2014 Analyzed: 2/13/2014

1,1,1,2-Tetrachloroethane	25.7800		20.0000		129	74 - 148			
1,1,1-Trichloroethane	23.3300		20.0000		117	74 - 136			
1,1,2,2-Tetrachloroethane	25.6100		20.0000		128	44 - 147			
1,1,2-Trichloroethane	17.9700		20.0000		89.8	46 - 135			
1,1-Dichloroethane	18.9600		20.0000		94.8	71 - 154			
1,1-Dichloroethene	16.6700		20.0000		83.4	56 - 131			
1,1-Dichloropropene	21.6300		20.0000		108	64 - 157			
1,2,3-Trichloropropane	25.1700		20.0000		126	45 - 147			
1,2,3-Trichlorobenzene	46.5600		20.0000		233	22 - 212			L4
1,2,4-Trichlorobenzene	32.3300		20.0000		162	34 - 198			
1,2,4-Trimethylbenzene	20.1300		20.0000		101	75 - 131			
1,2-Dibromo-3-chloropropane	43.0600		20.0000		215	9 - 217			
1,2-Dibromoethane	16.5500		20.0000		82.8	45 - 136			
1,2-Dichlorobenzene	23.1400		20.0000		116	75 - 142			
1,2-Dichloroethane	25.4600		20.0000		127	73 - 139			
1,2-Dichloropropane	20.9200		20.0000		105	61 - 145			
1,3,5-Trimethylbenzene	20.7800		20.0000		104	76 - 132			
1,3-Dichlorobenzene	17.3300		20.0000		86.6	56 - 149			
1,3-Dichloropropane	19.1200		20.0000		95.6	49 - 146			
1,4-Dichlorobenzene	17.5000		20.0000		87.5	70 - 127			
2,2-Dichloropropane	18.5700		20.0000		92.8	32 - 153			
2-Chlorotoluene	20.4300		20.0000		102	67 - 135			
4-Chlorotoluene	18.0800		20.0000		90.4	61 - 138			
4-Isopropyltoluene	17.6800		20.0000		88.4	66 - 137			
Benzene	23.7500		20.0000		119	69 - 139			
Bromobenzene	18.2400		20.0000		91.2	60 - 138			
Bromodichloromethane	24.7000		20.0000		124	74 - 135			



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Project Number : RAYTHEON, 532.30

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

LCS (B4B0170-BS1) - Continued

Prepared: 2/13/2014 Analyzed: 2/13/2014

Bromoform	38.0900		20.0000		190	41 - 200			
Bromomethane	16.6600		20.0000		83.3	1 - 125			
Carbon tetrachloride	27.7800		20.0000		139	74 - 153			
Chlorobenzene	19.1600		20.0000		95.8	73 - 127			
Chloroethane	17.4600		20.0000		87.3	40 - 150			
Chloroform	23.7900		20.0000		119	69 - 142			
Chloromethane	29.1800		20.0000		146	7 - 150			
cis-1,2-Dichloroethene	16.3000		20.0000		81.5	69 - 127			
cis-1,3-Dichloropropene	17.7600		20.0000		88.8	52 - 128			
Dibromochloromethane	23.9400		20.0000		120	72 - 142			
Dibromomethane	22.0000		20.0000		110	72 - 125			
Dichlorodifluoromethane	17.3500		20.0000		86.8	0 - 135			
Ethylbenzene	21.8500		20.0000		109	69 - 139			
Hexachlorobutadiene	35.8100		20.0000		179	46 - 206			
Isopropylbenzene	21.9300		20.0000		110	73 - 136			
m,p-Xylene	44.9200		40.0000		112	73 - 140			
Methylene chloride	19.9500		20.0000		99.8	71 - 137			
MTBE	19.8800		20.0000		99.4	68 - 133			
n-Butylbenzene	18.2700		20.0000		91.4	75 - 132			
n-Propylbenzene	19.5800		20.0000		97.9	64 - 140			
Naphthalene	30.8000		20.0000		154	18 - 202			
o-Xylene	23.7100		20.0000		119	78 - 138			
sec-Butylbenzene	21.8000		20.0000		109	80 - 138			
Styrene	17.9200		20.0000		89.6	65 - 130			
tert-Butylbenzene	19.1100		20.0000		95.6	69 - 136			
Tetrachloroethene	25.0200		20.0000		125	68 - 151			
Toluene	20.1800		20.0000		101	62 - 133			
trans-1,2-Dichloroethene	18.6800		20.0000		93.4	67 - 130			
Trichloroethene	19.2700		20.0000		96.4	72 - 139			
Trichlorofluoromethane	20.8500		20.0000		104	67 - 157			
Vinyl chloride	23.8000		20.0000		119	37 - 144			

Surrogate: 1,2-Dichloroethane-d4	28.90		25.0000		116	64 - 146			
Surrogate: 4-Bromofluorobenzene	18.46		25.0000		73.8	60 - 128			
Surrogate: Dibromofluoromethane	22.91		25.0000		91.6	72 - 141			
Surrogate: Toluene-d8	22.68		25.0000		90.7	61 - 124			

LCS Dup (B4B0170-BSD1)

Prepared: 2/13/2014 Analyzed: 2/13/2014

1,1,1,2-Tetrachloroethane	27.5100		20.0000		138	74 - 148	6.49	20	
1,1,1-Trichloroethane	21.5900		20.0000		108	74 - 136	7.75	20	
1,1,2,2-Tetrachloroethane	24.0300		20.0000		120	44 - 147	6.37	20	
1,1,2-Trichloroethane	18.3100		20.0000		91.6	46 - 135	1.87	20	



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Project Number : RAYTHEON, 532.30

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Reported : 02/14/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

LCS Dup (B4B0170-BSD1) - Continued

Prepared: 2/13/2014 Analyzed: 2/13/2014

1,1-Dichloroethane	20.0300		20.0000		100	71 - 154	5.49	20	
1,1-Dichloroethene	18.7600		20.0000		93.8	56 - 131	11.8	20	
1,1-Dichloropropene	22.8500		20.0000		114	64 - 157	5.49	20	
1,2,3-Trichloropropane	24.2300		20.0000		121	45 - 147	3.81	20	
1,2,3-Trichlorobenzene	43.1800		20.0000		216	22 - 212	7.53	20	L4
1,2,4-Trichlorobenzene	31.8500		20.0000		159	34 - 198	1.50	20	
1,2,4-Trimethylbenzene	21.1600		20.0000		106	75 - 131	4.99	20	
1,2-Dibromo-3-chloropropane	42.0500		20.0000		210	9 - 217	2.37	20	
1,2-Dibromoethane	15.6000		20.0000		78.0	45 - 136	5.91	20	
1,2-Dichlorobenzene	23.1500		20.0000		116	75 - 142	0.0432	20	
1,2-Dichloroethane	24.5700		20.0000		123	73 - 139	3.56	20	
1,2-Dichloropropane	20.2000		20.0000		101	61 - 145	3.50	20	
1,3,5-Trimethylbenzene	22.0400		20.0000		110	76 - 132	5.89	20	
1,3-Dichlorobenzene	18.0900		20.0000		90.4	56 - 149	4.29	20	
1,3-Dichloropropane	18.2500		20.0000		91.2	49 - 146	4.66	20	
1,4-Dichlorobenzene	17.7700		20.0000		88.8	70 - 127	1.53	20	
2,2-Dichloropropane	21.2800		20.0000		106	32 - 153	13.6	20	
2-Chlorotoluene	21.0000		20.0000		105	67 - 135	2.75	20	
4-Chlorotoluene	18.2700		20.0000		91.4	61 - 138	1.05	20	
4-Isopropyltoluene	18.6800		20.0000		93.4	66 - 137	5.50	20	
Benzene	25.0100		20.0000		125	69 - 139	5.17	20	
Bromobenzene	17.6100		20.0000		88.0	60 - 138	3.51	20	
Bromodichloromethane	23.8700		20.0000		119	74 - 135	3.42	20	
Bromoform	36.1000		20.0000		180	41 - 200	5.36	20	
Bromomethane	17.4600		20.0000		87.3	1 - 125	4.69	20	
Carbon tetrachloride	27.5300		20.0000		138	74 - 153	0.904	20	
Chlorobenzene	19.3100		20.0000		96.6	73 - 127	0.780	20	
Chloroethane	19.9400		20.0000		99.7	40 - 150	13.3	20	
Chloroform	19.5900		20.0000		98.0	69 - 142	19.4	20	
Chloromethane	27.7000		20.0000		138	7 - 150	5.20	20	
cis-1,2-Dichloroethene	18.0600		20.0000		90.3	69 - 127	10.2	20	
cis-1,3-Dichloropropene	17.5300		20.0000		87.6	52 - 128	1.30	20	
Dibromochloromethane	23.1600		20.0000		116	72 - 142	3.31	20	
Dibromomethane	21.3200		20.0000		107	72 - 125	3.14	20	
Dichlorodifluoromethane	19.2600		20.0000		96.3	0 - 135	10.4	20	
Ethylbenzene	22.6600		20.0000		113	69 - 139	3.64	20	
Hexachlorobutadiene	39.7600		20.0000		199	46 - 206	10.5	20	
Isopropylbenzene	22.7800		20.0000		114	73 - 136	3.80	20	
m,p-Xylene	47.8100		40.0000		120	73 - 140	6.23	20	
Methylene chloride	19.7700		20.0000		98.8	71 - 137	0.906	20	
MTBE	17.2300		20.0000		86.2	68 - 133	14.3	20	
n-Butylbenzene	19.5900		20.0000		98.0	75 - 132	6.97	20	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

LCS Dup (B4B0170-BSD1) - Continued

Prepared: 2/13/2014 Analyzed: 2/13/2014

n-Propylbenzene	20.3200		20.0000		102	64 - 140	3.71	20	
Naphthalene	29.8800		20.0000		149	18 - 202	3.03	20	
o-Xylene	26.3300		20.0000		132	78 - 138	10.5	20	
sec-Butylbenzene	23.1900		20.0000		116	80 - 138	6.18	20	
Styrene	17.8200		20.0000		89.1	65 - 130	0.560	20	
tert-Butylbenzene	19.7500		20.0000		98.8	69 - 136	3.29	20	
Tetrachloroethene	26.0100		20.0000		130	68 - 151	3.88	20	
Toluene	20.8100		20.0000		104	62 - 133	3.07	20	
trans-1,2-Dichloroethene	16.1200		20.0000		80.6	67 - 130	14.7	20	
Trichloroethene	19.5200		20.0000		97.6	72 - 139	1.29	20	
Trichlorofluoromethane	22.5900		20.0000		113	67 - 157	8.01	20	
Vinyl chloride	23.5900		20.0000		118	37 - 144	0.886	20	
Surrogate: 1,2-Dichloroethane-d4	27.95		25.0000		112	64 - 146			
Surrogate: 4-Bromofluorobenzene	19.25		25.0000		77.0	60 - 128			
Surrogate: Dibromofluoromethane	19.68		25.0000		78.7	72 - 141			
Surrogate: Toluene-d8	22.87		25.0000		91.5	61 - 124			

Matrix Spike (B4B0170-MS1)

Source: 1400383-08

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	25.8700		20.0000	ND	129	74 - 148			
1,1,1-Trichloroethane	22.9600		20.0000	ND	115	74 - 136			
1,1,2,2-Tetrachloroethane	25.7200		20.0000	ND	129	44 - 147			
1,1,2-Trichloroethane	21.1600		20.0000	ND	106	46 - 135			
1,1-Dichloroethane	19.1300		20.0000	ND	95.6	71 - 154			
1,1-Dichloroethene	17.7100		20.0000	ND	88.6	56 - 131			
1,1-Dichloropropene	21.9000		20.0000	ND	110	64 - 157			
1,2,3-Trichloropropane	26.7700		20.0000	ND	134	45 - 147			
1,2,3-Trichlorobenzene	27.6100		20.0000	ND	138	22 - 212			
1,2,4-Trichlorobenzene	24.8900		20.0000	ND	124	34 - 198			
1,2,4-Trimethylbenzene	19.7300		20.0000	ND	98.6	75 - 131			
1,2-Dibromo-3-chloropropane	41.7800		20.0000	ND	209	9 - 217			
1,2-Dibromoethane	18.5500		20.0000	ND	92.8	45 - 136			
1,2-Dichlorobenzene	22.4400		20.0000	ND	112	75 - 142			
1,2-Dichloroethane	28.8300		20.0000	ND	144	73 - 139			M1
1,2-Dichloropropane	21.6800		20.0000	ND	108	61 - 145			
1,3,5-Trimethylbenzene	20.3700		20.0000	ND	102	76 - 132			
1,3-Dichlorobenzene	17.3100		20.0000	ND	86.6	56 - 149			
1,3-Dichloropropane	20.4400		20.0000	ND	102	49 - 146			
1,4-Dichlorobenzene	17.3800		20.0000	ND	86.9	70 - 127			
2,2-Dichloropropane	18.1000		20.0000	ND	90.5	32 - 153			
2-Chlorotoluene	20.6600		20.0000	ND	103	67 - 135			
4-Chlorotoluene	18.4400		20.0000	ND	92.2	61 - 138			



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Reported : 02/14/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

Matrix Spike (B4B0170-MS1) - Continued

Source: 1400383-08

Prepared: 2/14/2014 Analyzed: 2/14/2014

4-Isopropyltoluene	16.8400		20.0000	ND	84.2	66 - 137			
Benzene	24.1700		20.0000	ND	121	69 - 139			
Bromobenzene	18.4500		20.0000	ND	92.2	60 - 138			
Bromodichloromethane	26.2400		20.0000	ND	131	74 - 135			
Bromoform	39.5900		20.0000	ND	198	41 - 200			
Bromomethane	14.2700		20.0000	ND	71.4	1 - 125			
Carbon tetrachloride	28.4100		20.0000	ND	142	74 - 153			
Chlorobenzene	19.3400		20.0000	ND	96.7	73 - 127			
Chloroethane	20.9100		20.0000	ND	105	40 - 150			
Chloroform	23.8100		20.0000	ND	119	69 - 142			
Chloromethane	24.9400		20.0000	ND	125	7 - 150			
cis-1,2-Dichloroethene	18.1800		20.0000	ND	90.9	69 - 127			
cis-1,3-Dichloropropene	17.7000		20.0000	ND	88.5	52 - 128			
Dibromochloromethane	24.8700		20.0000	ND	124	72 - 142			
Dibromomethane	23.7300		20.0000	ND	119	72 - 125			
Dichlorodifluoromethane	14.7600		20.0000	ND	73.8	0 - 135			
Ethylbenzene	21.5700		20.0000	ND	108	69 - 139			
Hexachlorobutadiene	29.2200		20.0000	ND	146	46 - 206			
Isopropylbenzene	21.0200		20.0000	ND	105	73 - 136			
m,p-Xylene	45.5600		40.0000	ND	114	73 - 140			
Methylene chloride	17.6700		20.0000	ND	88.4	71 - 137			
MTBE	20.3300		20.0000	ND	102	68 - 133			
n-Butylbenzene	17.7800		20.0000	ND	88.9	75 - 132			
n-Propylbenzene	19.2200		20.0000	ND	96.1	64 - 140			
Naphthalene	21.8200		20.0000	ND	109	18 - 202			
o-Xylene	24.0900		20.0000	ND	120	78 - 138			
sec-Butylbenzene	21.0300		20.0000	ND	105	80 - 138			
Styrene	17.8100		20.0000	ND	89.0	65 - 130			
tert-Butylbenzene	18.1600		20.0000	ND	90.8	69 - 136			
Tetrachloroethene	25.6800		20.0000	ND	128	68 - 151			
Toluene	20.8200		20.0000	ND	104	62 - 133			
trans-1,2-Dichloroethene	17.3500		20.0000	ND	86.8	67 - 130			
Trichloroethene	20.0100		20.0000	ND	100	72 - 139			
Trichlorofluoromethane	20.0400		20.0000	ND	100	67 - 157			
Vinyl chloride	19.6300		20.0000	ND	98.2	37 - 144			

Surrogate: 1,2-Dichloroethane-d4	32.43		25.0000		130	64 - 146			
Surrogate: 4-Bromofluorobenzene	19.16		25.0000		76.6	60 - 128			
Surrogate: Dibromofluoromethane	24.17		25.0000		96.7	72 - 141			
Surrogate: Toluene-d8	23.18		25.0000		92.7	61 - 124			

Matrix Spike Dup (B4B0170-MSD1)

Source: 1400383-08

Prepared: 2/14/2014 Analyzed: 2/14/2014



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

Matrix Spike Dup (B4B0170-MSD1) - Continued

Source: 1400383-08

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	28.8000		20.0000	ND	144	74 - 148	10.7	20	
1,1,1-Trichloroethane	25.8200		20.0000	ND	129	74 - 136	11.7	20	
1,1,2,2-Tetrachloroethane	26.0300		20.0000	ND	130	44 - 147	1.20	20	
1,1,2-Trichloroethane	20.3500		20.0000	ND	102	46 - 135	3.90	20	
1,1-Dichloroethane	25.4700		20.0000	ND	127	71 - 154	28.4	20	R2
1,1-Dichloroethene	20.7000		20.0000	ND	104	56 - 131	15.6	20	
1,1-Dichloropropene	24.5400		20.0000	ND	123	64 - 157	11.4	20	
1,2,3-Trichloropropane	26.6800		20.0000	ND	133	45 - 147	0.337	20	
1,2,3-Trichlorobenzene	40.4700		20.0000	ND	202	22 - 212	37.8	20	R2
1,2,4-Trichlorobenzene	30.2400		20.0000	ND	151	34 - 198	19.4	20	
1,2,4-Trimethylbenzene	21.8200		20.0000	ND	109	75 - 131	10.1	20	
1,2-Dibromo-3-chloropropane	41.2200		20.0000	ND	206	9 - 217	1.35	20	
1,2-Dibromoethane	18.4300		20.0000	ND	92.2	45 - 136	0.649	20	
1,2-Dichlorobenzene	23.7700		20.0000	ND	119	75 - 142	5.76	20	
1,2-Dichloroethane	27.5400		20.0000	ND	138	73 - 139	4.58	20	
1,2-Dichloropropane	21.7700		20.0000	ND	109	61 - 145	0.414	20	
1,3,5-Trimethylbenzene	22.7600		20.0000	ND	114	76 - 132	11.1	20	
1,3-Dichlorobenzene	18.5300		20.0000	ND	92.6	56 - 149	6.81	20	
1,3-Dichloropropane	20.3900		20.0000	ND	102	49 - 146	0.245	20	
1,4-Dichlorobenzene	18.1900		20.0000	ND	91.0	70 - 127	4.55	20	
2,2-Dichloropropane	21.0800		20.0000	ND	105	32 - 153	15.2	20	
2-Chlorotoluene	22.0300		20.0000	ND	110	67 - 135	6.42	20	
4-Chlorotoluene	19.2200		20.0000	ND	96.1	61 - 138	4.14	20	
4-Isopropyltoluene	18.8400		20.0000	ND	94.2	66 - 137	11.2	20	
Benzene	26.0400		20.0000	ND	130	69 - 139	7.45	20	
Bromobenzene	19.4800		20.0000	ND	97.4	60 - 138	5.43	20	
Bromodichloromethane	27.4200		20.0000	ND	137	74 - 135	4.40	20	M1
Bromoform	38.1200		20.0000	ND	191	41 - 200	3.78	20	
Bromomethane	18.3600		20.0000	ND	91.8	1 - 125	25.1	20	R2
Carbon tetrachloride	32.3700		20.0000	ND	162	74 - 153	13.0	20	M1
Chlorobenzene	21.2700		20.0000	ND	106	73 - 127	9.51	20	
Chloroethane	19.4000		20.0000	ND	97.0	40 - 150	7.49	20	
Chloroform	26.0200		20.0000	ND	130	69 - 142	8.87	20	
Chloromethane	29.9800		20.0000	ND	150	7 - 150	18.4	20	
cis-1,2-Dichloroethene	19.6800		20.0000	ND	98.4	69 - 127	7.92	20	
cis-1,3-Dichloropropene	17.9200		20.0000	ND	89.6	52 - 128	1.24	20	
Dibromochloromethane	25.1400		20.0000	ND	126	72 - 142	1.08	20	
Dibromomethane	24.1000		20.0000	ND	120	72 - 125	1.55	20	
Dichlorodifluoromethane	19.0800		20.0000	ND	95.4	0 - 135	25.5	20	R2
Ethylbenzene	23.4600		20.0000	ND	117	69 - 139	8.39	20	
Hexachlorobutadiene	38.9400		20.0000	ND	195	46 - 206	28.5	20	R2
Isopropylbenzene	23.0200		20.0000	ND	115	73 - 136	9.08	20	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

Matrix Spike Dup (B4B0170-MSD1) - Continued

Source: 1400383-08

Prepared: 2/14/2014 Analyzed: 2/14/2014

m,p-Xylene	50.4400		40.0000	ND	126	73 - 140	10.2	20	
Methylene chloride	18.2900		20.0000	ND	91.4	71 - 137	3.45	20	
MTBE	20.7800		20.0000	ND	104	68 - 133	2.19	20	
n-Butylbenzene	19.4400		20.0000	ND	97.2	75 - 132	8.92	20	
n-Propylbenzene	20.7400		20.0000	ND	104	64 - 140	7.61	20	
Naphthalene	29.4800		20.0000	ND	147	18 - 202	29.9	20	R2
o-Xylene	26.2100		20.0000	ND	131	78 - 138	8.43	20	
sec-Butylbenzene	23.5400		20.0000	ND	118	80 - 138	11.3	20	
Styrene	19.1600		20.0000	ND	95.8	65 - 130	7.30	20	
tert-Butylbenzene	20.3900		20.0000	ND	102	69 - 136	11.6	20	
Tetrachloroethene	27.4000		20.0000	ND	137	68 - 151	6.48	20	
Toluene	22.1700		20.0000	ND	111	62 - 133	6.28	20	
trans-1,2-Dichloroethene	21.7400		20.0000	ND	109	67 - 130	22.5	20	R2
Trichloroethene	20.8100		20.0000	ND	104	72 - 139	3.92	20	
Trichlorofluoromethane	22.4900		20.0000	ND	112	67 - 157	11.5	20	
Vinyl chloride	24.9500		20.0000	ND	125	37 - 144	23.9	20	R2
Surrogate: 1,2-Dichloroethane-d4	30.81		25.0000		123	64 - 146			
Surrogate: 4-Bromofluorobenzene	19.54		25.0000		78.2	60 - 128			
Surrogate: Dibromofluoromethane	23.74		25.0000		95.0	72 - 141			
Surrogate: Toluene-d8	23.55		25.0000		94.2	61 - 124			

Batch B4B0195 - MSVOAW_LL

Blank (B4B0195-BLK1)

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	ND	0.50		NR
1,1,1-Trichloroethane	ND	0.50		NR
1,1,2,2-Tetrachloroethane	ND	0.50		NR
1,1,2-Trichloroethane	ND	0.50		NR
1,1-Dichloroethane	ND	0.50		NR
1,1-Dichloroethene	ND	0.50		NR
1,1-Dichloropropene	ND	0.50		NR
1,2,3-Trichloropropane	ND	0.50		NR
1,2,3-Trichlorobenzene	ND	0.50		NR
1,2,4-Trichlorobenzene	ND	0.50		NR
1,2,4-Trimethylbenzene	ND	0.50		NR
1,2-Dibromo-3-chloropropane	ND	0.50		NR
1,2-Dibromoethane	ND	0.50		NR
1,2-Dichlorobenzene	ND	0.50		NR
1,2-Dichloroethane	ND	0.50		NR
1,2-Dichloropropane	ND	0.50		NR
1,3,5-Trimethylbenzene	ND	0.50		NR



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0195 - MSVOAW_LL (continued)

Blank (B4B0195-BLK1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR
Dichlorodifluoromethane	ND	0.50			NR
Ethylbenzene	ND	0.50			NR
Hexachlorobutadiene	ND	0.50			NR
Isopropylbenzene	ND	0.50			NR
m,p-Xylene	ND	1.0			NR
Methylene chloride	ND	1.0			NR
n-Butylbenzene	ND	0.50			NR
n-Propylbenzene	ND	0.50			NR
Naphthalene	ND	0.50			NR
o-Xylene	ND	0.50			NR
sec-Butylbenzene	ND	0.50			NR
Styrene	ND	0.50			NR
tert-Butylbenzene	ND	0.50			NR
Tetrachloroethene	ND	0.50			NR
Toluene	ND	0.50			NR
trans-1,2-Dichloroethene	ND	0.50			NR
Trichloroethene	ND	0.50			NR
Trichlorofluoromethane	ND	0.50			NR
Vinyl chloride	ND	0.50			NR

Surrogate: 1,2-Dichloroethane-d4

43.12

25.0000

172

64 - 146

S1



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0195 - MSVOAW_LL (continued)

Blank (B4B0195-BLK1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

Surrogate: 4-Bromofluorobenzene	24.27		25.0000		97.1	60 - 128			
Surrogate: Dibromofluoromethane	33.51		25.0000		134	72 - 141			
Surrogate: Toluene-d8	30.21		25.0000		121	61 - 124			

LCS (B4B0195-BS1)

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	30.2600		20.0000		151	74 - 148			L4
1,1,1-Trichloroethane	26.0600		20.0000		130	74 - 136			
1,1,2,2-Tetrachloroethane	28.9100		20.0000		145	44 - 147			
1,1,2-Trichloroethane	22.3800		20.0000		112	46 - 135			
1,1-Dichloroethane	25.4100		20.0000		127	71 - 154			
1,1-Dichloroethene	19.7300		20.0000		98.6	56 - 131			
1,1-Dichloropropene	24.4000		20.0000		122	64 - 157			
1,2,3-Trichloropropane	29.6300		20.0000		148	45 - 147			L5
1,2,3-Trichlorobenzene	41.4300		20.0000		207	22 - 212			
1,2,4-Trichlorobenzene	30.6200		20.0000		153	34 - 198			
1,2,4-Trimethylbenzene	21.0900		20.0000		105	75 - 131			
1,2-Dibromo-3-chloropropane	50.2200		20.0000		251	9 - 217			L5
1,2-Dibromoethane	20.0000		20.0000		100	45 - 136			
1,2-Dichlorobenzene	24.2500		20.0000		121	75 - 142			
1,2-Dichloroethane	31.8100		20.0000		159	73 - 139			L5
1,2-Dichloropropane	23.5000		20.0000		118	61 - 145			
1,3,5-Trimethylbenzene	21.7900		20.0000		109	76 - 132			
1,3-Dichlorobenzene	18.1900		20.0000		91.0	56 - 149			
1,3-Dichloropropane	23.1300		20.0000		116	49 - 146			
1,4-Dichlorobenzene	18.6600		20.0000		93.3	70 - 127			
2,2-Dichloropropane	22.0800		20.0000		110	32 - 153			
2-Chlorotoluene	22.0100		20.0000		110	67 - 135			
4-Chlorotoluene	19.5900		20.0000		98.0	61 - 138			
4-Isopropyltoluene	17.7000		20.0000		88.5	66 - 137			
Benzene	27.8800		20.0000		139	69 - 139			L4
Bromobenzene	20.7600		20.0000		104	60 - 138			
Bromodichloromethane	30.2000		20.0000		151	74 - 135			L5
Bromoform	41.6500		20.0000		208	41 - 200			L5
Bromomethane	18.8400		20.0000		94.2	1 - 125			
Carbon tetrachloride	32.5700		20.0000		163	74 - 153			L4
Chlorobenzene	21.5600		20.0000		108	73 - 127			
Chloroethane	24.2700		20.0000		121	40 - 150			
Chloroform	27.0900		20.0000		135	69 - 142			
Chloromethane	30.6000		20.0000		153	7 - 150			L5
cis-1,2-Dichloroethene	20.3900		20.0000		102	69 - 127			
cis-1,3-Dichloropropene	19.9400		20.0000		99.7	52 - 128			
Dibromochloromethane	27.7100		20.0000		139	72 - 142			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0195 - MSVOAW_LL (continued)

LCS (B4B0195-BS1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

Dibromomethane	25.9000		20.0000		130	72 - 125			L5
Dichlorodifluoromethane	17.8700		20.0000		89.4	0 - 135			
Ethylbenzene	23.8400		20.0000		119	69 - 139			
Hexachlorobutadiene	33.8700		20.0000		169	46 - 206			
Isopropylbenzene	22.3900		20.0000		112	73 - 136			
m,p-Xylene	49.4700		40.0000		124	73 - 140			
Methylene chloride	19.4300		20.0000		97.2	71 - 137			
MTBE	22.4200		20.0000		112	68 - 133			
n-Butylbenzene	17.1400		20.0000		85.7	75 - 132			
n-Propylbenzene	19.9900		20.0000		100	64 - 140			
Naphthalene	29.9400		20.0000		150	18 - 202			
o-Xylene	27.5400		20.0000		138	78 - 138			
sec-Butylbenzene	21.4900		20.0000		107	80 - 138			
Styrene	19.8400		20.0000		99.2	65 - 130			
tert-Butylbenzene	19.9800		20.0000		99.9	69 - 136			
Tetrachloroethene	25.7200		20.0000		129	68 - 151			
Toluene	23.2400		20.0000		116	62 - 133			
trans-1,2-Dichloroethene	19.4700		20.0000		97.4	67 - 130			
Trichloroethene	22.1300		20.0000		111	72 - 139			
Trichlorofluoromethane	22.1300		20.0000		111	67 - 157			
Vinyl chloride	25.2500		20.0000		126	37 - 144			
Surrogate: 1,2-Dichloroethane-d4	39.46		25.0000		158	64 - 146			S10
Surrogate: 4-Bromofluorobenzene	24.03		25.0000		96.1	60 - 128			
Surrogate: Dibromofluoromethane	29.89		25.0000		120	72 - 141			
Surrogate: Toluene-d8	29.34		25.0000		117	61 - 124			

LCS Dup (B4B0195-BSD1)

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	27.3100		20.0000		137	74 - 148	10.2	20	
1,1,1-Trichloroethane	24.9400		20.0000		125	74 - 136	4.39	20	
1,1,2,2-Tetrachloroethane	26.8000		20.0000		134	44 - 147	7.57	20	
1,1,2-Trichloroethane	19.4900		20.0000		97.4	46 - 135	13.8	20	
1,1-Dichloroethane	25.2900		20.0000		126	71 - 154	0.473	20	
1,1-Dichloroethene	17.4300		20.0000		87.2	56 - 131	12.4	20	
1,1-Dichloropropene	22.5200		20.0000		113	64 - 157	8.01	20	
1,2,3-Trichloropropane	25.1100		20.0000		126	45 - 147	16.5	20	
1,2,3-Trichlorobenzene	39.0400		20.0000		195	22 - 212	5.94	20	
1,2,4-Trichlorobenzene	27.8800		20.0000		139	34 - 198	9.37	20	
1,2,4-Trimethylbenzene	20.2500		20.0000		101	75 - 131	4.06	20	
1,2-Dibromo-3-chloropropane	44.0900		20.0000		220	9 - 217	13.0	20	L5
1,2-Dibromoethane	17.7800		20.0000		88.9	45 - 136	11.8	20	
1,2-Dichlorobenzene	22.5900		20.0000		113	75 - 142	7.09	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0195 - MSVOAW_LL (continued)

LCS Dup (B4B0195-BSD1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,2-Dichloroethane	28.0100		20.0000		140	73 - 139	12.7	20	L4
1,2-Dichloropropane	21.4500		20.0000		107	61 - 145	9.12	20	
1,3,5-Trimethylbenzene	20.8100		20.0000		104	76 - 132	4.60	20	
1,3-Dichlorobenzene	17.0300		20.0000		85.2	56 - 149	6.59	20	
1,3-Dichloropropane	19.6600		20.0000		98.3	49 - 146	16.2	20	
1,4-Dichlorobenzene	17.6100		20.0000		88.0	70 - 127	5.79	20	
2,2-Dichloropropane	20.6600		20.0000		103	32 - 153	6.64	20	
2-Chlorotoluene	21.1200		20.0000		106	67 - 135	4.13	20	
4-Chlorotoluene	18.1700		20.0000		90.8	61 - 138	7.52	20	
4-Isopropyltoluene	16.9500		20.0000		84.8	66 - 137	4.33	20	
Benzene	25.6300		20.0000		128	69 - 139	8.41	20	
Bromobenzene	18.1100		20.0000		90.6	60 - 138	13.6	20	
Bromodichloromethane	26.2800		20.0000		131	74 - 135	13.9	20	
Bromoform	36.9800		20.0000		185	41 - 200	11.9	20	
Bromomethane	18.7100		20.0000		93.6	1 - 125	0.692	20	
Carbon tetrachloride	31.5600		20.0000		158	74 - 153	3.15	20	L4
Chlorobenzene	19.4100		20.0000		97.0	73 - 127	10.5	20	
Chloroethane	20.9800		20.0000		105	40 - 150	14.5	20	
Chloroform	24.9000		20.0000		124	69 - 142	8.42	20	
Chloromethane	29.0700		20.0000		145	7 - 150	5.13	20	
cis-1,2-Dichloroethene	19.5500		20.0000		97.8	69 - 127	4.21	20	
cis-1,3-Dichloropropene	17.3300		20.0000		86.6	52 - 128	14.0	20	
Dibromochloromethane	24.3700		20.0000		122	72 - 142	12.8	20	
Dibromomethane	23.3400		20.0000		117	72 - 125	10.4	20	
Dichlorodifluoromethane	17.7400		20.0000		88.7	0 - 135	0.730	20	
Ethylbenzene	21.6600		20.0000		108	69 - 139	9.58	20	
Hexachlorobutadiene	33.8200		20.0000		169	46 - 206	0.148	20	
Isopropylbenzene	21.5600		20.0000		108	73 - 136	3.78	20	
m,p-Xylene	44.2000		40.0000		110	73 - 140	11.3	20	
Methylene chloride	18.0800		20.0000		90.4	71 - 137	7.20	20	
MTBE	18.3400		20.0000		91.7	68 - 133	20.0	20	R
n-Butylbenzene	16.7200		20.0000		83.6	75 - 132	2.48	20	
n-Propylbenzene	19.0100		20.0000		95.0	64 - 140	5.03	20	
Naphthalene	28.3300		20.0000		142	18 - 202	5.53	20	
o-Xylene	24.7500		20.0000		124	78 - 138	10.7	20	
sec-Butylbenzene	21.3000		20.0000		106	80 - 138	0.888	20	
Styrene	17.9500		20.0000		89.8	65 - 130	10.0	20	
tert-Butylbenzene	19.7200		20.0000		98.6	69 - 136	1.31	20	
Tetrachloroethene	23.0100		20.0000		115	68 - 151	11.1	20	
Toluene	21.3400		20.0000		107	62 - 133	8.52	20	
trans-1,2-Dichloroethene	17.5500		20.0000		87.8	67 - 130	10.4	20	
Trichloroethene	20.2000		20.0000		101	72 - 139	9.12	20	



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Reported : 02/14/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0195 - MSVOAW_LL (continued)

LCS Dup (B4B0195-BSD1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

Trichlorofluoromethane	21.2000		20.0000		106	67 - 157	4.29	20	
Vinyl chloride	24.4600		20.0000		122	37 - 144	3.18	20	
Surrogate: 1,2-Dichloroethane-d4	37.93		25.0000		152	64 - 146			S10
Surrogate: 4-Bromofluorobenzene	24.08		25.0000		96.3	60 - 128			
Surrogate: Dibromofluoromethane	30.78		25.0000		123	72 - 141			
Surrogate: Toluene-d8	30.09		25.0000		120	61 - 124			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0123 - MSSEMI_ISOTOPEDILN

Blank (B4B0123-BLK1)

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	ND	2.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	77.78		100.000		77.8	37 - 93			
Surrogate: 2-Fluorobiphenyl	83.14		100.000		83.1	51 - 100			
Surrogate: 4-Terphenyl-d14	102.5		100.000		102	58 - 113			
Surrogate: Nitrobenzene-d5	92.56		100.000		92.6	39 - 95			

LCS (B4B0123-BS1)

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	82.6000	2.0	100.000		82.6	70 - 130			
Surrogate: 1,2-Dichlorobenzene-d4	77.95		100.000		78.0	37 - 93			
Surrogate: 2-Fluorobiphenyl	81.99		100.000		82.0	51 - 100			
Surrogate: 4-Terphenyl-d14	95.47		100.000		95.5	58 - 113			
Surrogate: Nitrobenzene-d5	100.1		100.000		100	39 - 95			S5

Matrix Spike (B4B0123-MS1)

Source: 1400345-03

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	227.760	2.0	100.000	137.040	90.7	70 - 130			
Surrogate: 1,2-Dichlorobenzene-d4	79.56		100.000		79.6	37 - 93			
Surrogate: 2-Fluorobiphenyl	84.10		100.000		84.1	51 - 100			
Surrogate: 4-Terphenyl-d14	91.37		100.000		91.4	58 - 113			
Surrogate: Nitrobenzene-d5	99.06		100.000		99.1	39 - 95			S5

Matrix Spike (B4B0123-MS2)

Source: 1400396-03

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	217.290	2.0	100.000	126.880	90.4	70 - 130			
Surrogate: 1,2-Dichlorobenzene-d4	62.93		100.000		62.9	37 - 93			
Surrogate: 2-Fluorobiphenyl	74.76		100.000		74.8	51 - 100			
Surrogate: 4-Terphenyl-d14	88.60		100.000		88.6	58 - 113			
Surrogate: Nitrobenzene-d5	83.75		100.000		83.8	39 - 95			

Matrix Spike Dup (B4B0123-MSD1)

Source: 1400345-03

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	217.260	2.0	100.000	137.040	80.2	70 - 130	4.72	20	
Surrogate: 1,2-Dichlorobenzene-d4	58.59		100.000		58.6	37 - 93			
Surrogate: 2-Fluorobiphenyl	67.79		100.000		67.8	51 - 100			
Surrogate: 4-Terphenyl-d14	89.56		100.000		89.6	58 - 113			
Surrogate: Nitrobenzene-d5	78.31		100.000		78.3	39 - 95			

Matrix Spike Dup (B4B0123-MSD2)

Source: 1400396-03

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	217.950	2.0	100.000	126.880	91.1	70 - 130	0.303	20	
Surrogate: 1,2-Dichlorobenzene-d4	77.87		100.000		77.9	37 - 93			
Surrogate: 2-Fluorobiphenyl	87.78		100.000		87.8	51 - 100			
Surrogate: 4-Terphenyl-d14	97.29		100.000		97.3	58 - 113			
Surrogate: Nitrobenzene-d5	98.10		100.000		98.1	39 - 95			S5



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0099 - MSSEMI_ISOTOPEDILN

Blank (B4B0099-BLK1)

Prepared: 2/7/2014 Analyzed: 2/11/2014

1,4-Dioxane	ND	0.20		NR					
Surrogate: 1,2-Dichlorobenzene-d4	0.8910		1.00000	89.1	47 - 117				
Surrogate: 2-Fluorobiphenyl	0.9856		1.00000	98.6	48 - 121				
Surrogate: 4-Terphenyl-d14	1.251		1.00000	125	58 - 142				
Surrogate: Nitrobenzene-d5	1.270		1.00000	127	27 - 151				

LCS (B4B0099-BS1)

Prepared: 2/7/2014 Analyzed: 2/11/2014

1,4-Dioxane	1.47139	0.20	1.00000	147	58 - 151				
Surrogate: 1,2-Dichlorobenzene-d4	0.9140		1.00000	91.4	47 - 117				
Surrogate: 2-Fluorobiphenyl	0.9756		1.00000	97.6	48 - 121				
Surrogate: 4-Terphenyl-d14	1.222		1.00000	122	58 - 142				
Surrogate: Nitrobenzene-d5	1.276		1.00000	128	27 - 151				

Matrix Spike (B4B0099-MS1)

Source: 1400358-02

Prepared: 2/7/2014 Analyzed: 2/11/2014

1,4-Dioxane	1.34340	0.20	1.00000	ND	134	58 - 151			
Surrogate: 1,2-Dichlorobenzene-d4	0.8770		1.00000	87.7	47 - 117				
Surrogate: 2-Fluorobiphenyl	0.9494		1.00000	94.9	48 - 121				
Surrogate: 4-Terphenyl-d14	1.157		1.00000	116	58 - 142				
Surrogate: Nitrobenzene-d5	1.252		1.00000	125	27 - 151				

Matrix Spike Dup (B4B0099-MSD1)

Source: 1400358-02

Prepared: 2/7/2014 Analyzed: 2/11/2014

1,4-Dioxane	1.30484	0.20	1.00000	ND	130	58 - 151	2.91	20	
Surrogate: 1,2-Dichlorobenzene-d4	0.8784		1.00000	87.8	47 - 117				
Surrogate: 2-Fluorobiphenyl	0.9828		1.00000	98.3	48 - 121				
Surrogate: 4-Terphenyl-d14	1.200		1.00000	120	58 - 142				
Surrogate: Nitrobenzene-d5	1.283		1.00000	128	27 - 151				



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/14/2014

Notes and Definitions

S5	Surrogate recovery was above laboratory acceptance limit. Sample reanalysis showed the same high recovery.
S10	Surrogate recovery outside of laboratory acceptance limit possibly due to matrix interference.
S1	Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
R2	RPD value outside acceptance criteria due to possible matrix interference.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L5	Laboratory Control Sample high biased. Sample result/s was non-detect (ND) for the target analyte; therefore reanalysis was not necessary.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
D6	Sample required dilution due to high concentration of target analyte.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

- Notes:
- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
 - (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
 - (3) Results are wet unless otherwise specified.

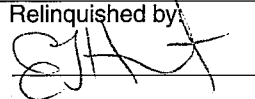
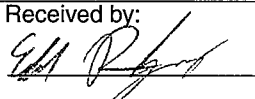
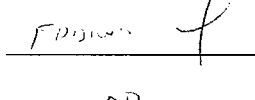
CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM

DATE 2/5/14 PAGE 1 OF 2

PROJECT NAME		PROJECT No./TASK No.		SAMPLE CONTAINERS		ANALYSIS REQUESTED		ESTIMATED CONCENTRATION RANGE (ppb) FOR VOA'S		SPECIAL HANDLING		LABORATORY INFORMATION																		
RAYTHEON		532.30										ATL																		
PROJECT MANAGER		Phone No.										Attn: Rachelle Arada																		
QA MANAGER		Fax No.																												
SAMPLER (SIGNATURE)		SAMPLER (PRINTED)																												
		ERIN HUNTER																												
		ARIELLE FERBER																												
LAB ID	SAMPLE ID	SAMPLE COLLECTION		MATRIX			PRESERVATION					40 ml VOA	1 L Amber	VOCS 8260B	1,4-Dioxane 8270 MOD	1,4-Dioxane 8270 SIM	10-100	100-1,000	1,000-10,000	>10,000	STANDARD TAT	MS	MSD	REMARKS						
		Date	Time	Soil	Ground-water	Surface water	Lab H2O	HCl	HNO3	NaOH	H2SO4														Ice					
140035V - 1	TB-020514A	2/5/14	8:15				X	X			X	2						X				X								
-2	MW-32A		9:58	X			X				X	9						X				X	X	X						MS/MSD COLLECTED
	↓		↓	X							X	3				X		X			X	X	X							MS/MSD COLLECTED
-3	MW-32C		12:45	X				X			X	3						X			X	X	X							
	↓		↓	X							X	1				X		X			X	X	X							
-4	MW-32B		14:25	X				X			X	3						X			X	X	X							
	↓		↓	X							X	1				X		X			X	X	X							
-5	MW-33		16:25	X				X			X	3						X			X	X	X							
	↓		↓	X							X	1				X		X			X	X	X							
-6	MW-3300		16:35	X				X			X	3						X			X	X	X							
	↓		↓	X							X	1				X		X			X	X	X							
Total number of Containers per analysis:												13	7	Total No. of Containers: <u>20</u>																
Relinquished by:		Date	Received by:		Date	INSTRUCTIONS												Shipment Method: <u>COURIER</u>												
		2/5/14			2-5-14	1. Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness.												Send Results to: <u>Steve Netto</u>												
H+H, Inc.		Time	Advanced Tech Labs		Time	2. Complete in ballpoint pen. Draw one line through errors, initial and date correction.												☒ 9171 TOWNE CENTRE DRIVE, SUITE 375 SAN DIEGO, CA 92122 (858) 455-6500												
Company		16:50	Company		16:50	3. Indicate number of sample containers in analysis request space; indicate choice with ✓ or x.												☐ 1640 SOUTH STAPLEY DRIVE, SUITE 209 MESA, AZ 85204 (480) 345-0888												
Relinquished by:		Date	Received by:		Date	4. Note applicable preservatives, special instructions, and deviations from typical environmental samples.												☐ 1820 EAST RIVER ROAD, SUITE 220 TUCSON, AZ 85718 (520) 881-7300												
		2-5-14			2-5-14	5. Consult project QA documents for specific instructions.												Send invoice to San Diego, CA Attn: Accounts Payable												
Advanced Tech Labs		Time	Company		Time	Sample Receipt:																								
Company		17:45	Company		17:45	☐ No. of containers correct												☒ received good condition/cold												
						☐ custody seals secure												☐ conforms to COC document												

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM

DATE 02/05/14 PAGE 2 OF 2

PROJECT NAME RAYTHEON		PROJECT No./TASK No. 532.30		SAMPLE CONTAINERS		ANALYSIS REQUESTED		ESTIMATED CONCENTRATION RANGE (ppb) FOR VOAS		SPECIAL HANDLING		LABORATORY INFORMATION									
PROJECT MANAGER STEVE NETTO		Phone No. 858-455-6500										ATL									
QA MANAGER		Fax No. 858-455-6533										Attn: Racheile Arada									
SAMPLER (SIGNATURE) 		SAMPLER (PRINTED) Shayne Keppus DANIEL MORA																			
LAB ID	SAMPLE ID	SAMPLE COLLECTION		MATRIX		PRESERVATION		40 ml VOA	1 L Amber	VOCs 8260B	1,4-Dioxane 8270 MOD	1,4-Dioxane 8270 SIM	0-10	10-100	100-1,000	1,000-10,000	>10,000	STANDARD TAT	MS	MSD	REMARKS
		Date	Time	Soil	Ground water	Surface water	Lab H2O														
1400358-7	MW-16	02/05/14	0933	X			X			X	X			X				X			
	-8 MW-1600		0935	X			X			X	X			X				X			
	-9 RB-020514		1000			X	X			X			X					X			
	-10 MW-09		1300	X			X			X		X	X					X			
	-11 P-07		1155	X			X			X	X				X			X			
	-12 P-09		1417	X			X			X		X	X					X			
	-13 MW-23		1519	X			X			X			X					X			
Total number of Containers per analysis:								21	5									Total No. of Containers: 26/40			
Relinquished by:  H+H, Inc. Company		Date 2/5/14	Received by:  Advanced Tech Labs Company	Date 2-5-14	INSTRUCTIONS										Shipment Method: <u>Courier</u> Send Results to: <u>Steve Netto</u>						
		Time 16:50		Time 16:50	- Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness. - Complete in ballpoint pen. Draw one line through errors, initial and date correction. - Indicate number of sample containers in analysis request space; indicate choice with ✓ or x. - Note applicable preservatives, special instructions, and deviations from typical environmental samples. - Consult project QA documents for specific instructions.										☒ 9171 TOWNE CENTRE DRIVE, SUITE 375 SAN DIEGO, CA 92122 (858) 455-6500 ☐ 1640 SOUTH STAPLEY DRIVE, SUITE 209 MESA, AZ 85204 (480) 345-0888 ☐ 1820 EAST RIVER ROAD, SUITE 220 TUCSON, AZ 85718 (520) 881-7300						
Relinquished by:  Advanced Tech Labs Company		Date 2-5-14	Received by:  Advanced Tech Labs Company	Date 2/5/14	Sample Receipt:										Temp. @ receipt _____ °C						
		Time 17:45		Time 17:45	☐ No. of containers correct ☐ custody seals secure										☐ received good condition/cold ☐ conforms to COC document						

February 19, 2014

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax: (858) 455-6533


ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No.: T104704502

Re: ATL Work Order Number : 1400383
Client Reference : RAYTHEON, 532.30

Enclosed are the results for sample(s) received on February 06, 2014 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-020614A	1400383-01	Lab H2O	2/06/14 7:30	2/06/14 17:00
MW-40	1400383-02	Groundwater	2/06/14 10:10	2/06/14 17:00
MW-22	1400383-03	Groundwater	2/06/14 11:12	2/06/14 17:00
MW-08	1400383-04	Groundwater	2/06/14 13:16	2/06/14 17:00
MW-15	1400383-05	Groundwater	2/06/14 14:00	2/06/14 17:00
MW-27	1400383-06	Groundwater	2/06/14 14:52	2/06/14 17:00
MW-13	1400383-07	Groundwater	2/06/14 15:27	2/06/14 17:00
MW-24	1400383-08	Groundwater	2/06/14 16:40	2/06/14 17:00
MW-37	1400383-09	Groundwater	2/06/14 9:26	2/06/14 17:00
MW-38	1400383-10	Groundwater	2/06/14 10:20	2/06/14 17:00
MW-34B	1400383-11	Groundwater	2/06/14 11:30	2/06/14 17:00
MW-3400B	1400383-12	Groundwater	2/06/14 12:00	2/06/14 17:00
MW-36	1400383-13	Groundwater	2/06/14 14:40	2/06/14 17:00
MW-3600	1400383-14	Groundwater	2/06/14 15:40	2/06/14 17:00
MW-34A	1400383-15	Groundwater	2/06/14 16:35	2/06/14 17:00



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID TB-020614A

Lab ID: 1400383-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
2-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
4-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Benzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Bromobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Bromodichloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Bromoform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Bromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Carbon tetrachloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Chlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Chloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Chloroform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Chloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Dibromochloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID TB-020614A

Lab ID: 1400383-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Ethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Isopropylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
m,p-Xylene	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Methylene chloride	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
n-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
n-Propylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Naphthalene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
o-Xylene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
sec-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Styrene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
tert-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Tetrachloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Toluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Trichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Vinyl chloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:11	
Surrogate: 1,2-Dichloroethane-d4	133 %		64 - 146		B4B0170	02/13/2014	02/13/14 21:11	
Surrogate: 4-Bromofluorobenzene	74.6 %		60 - 128		B4B0170	02/13/2014	02/13/14 21:11	
Surrogate: Dibromofluoromethane	102 %		72 - 141		B4B0170	02/13/2014	02/13/14 21:11	
Surrogate: Toluene-d8	91.8 %		61 - 124		B4B0170	02/13/2014	02/13/14 21:11	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-40

Lab ID: 1400383-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
2-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
4-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Benzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Bromobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Bromodichloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Bromoform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Bromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Carbon tetrachloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Chlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Chloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Chloroform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Chloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Dibromochloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-40

Lab ID: 1400383-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Ethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Isopropylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
m,p-Xylene	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Methylene chloride	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
n-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
n-Propylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Naphthalene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
o-Xylene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
sec-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Styrene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
tert-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Tetrachloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Toluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Trichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Vinyl chloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 21:35	
Surrogate: 1,2-Dichloroethane-d4	132 %		64 - 146		B4B0170	02/13/2014	02/13/14 21:35	
Surrogate: 4-Bromofluorobenzene	79.9 %		60 - 128		B4B0170	02/13/2014	02/13/14 21:35	
Surrogate: Dibromofluoromethane	109 %		72 - 141		B4B0170	02/13/2014	02/13/14 21:35	
Surrogate: Toluene-d8	93.9 %		61 - 124		B4B0170	02/13/2014	02/13/14 21:35	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-40

Lab ID: 1400383-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0099	02/07/2014	02/12/14 01:24	
Surrogate: 1,2-Dichlorobenzene-d4	81.0 %		47 - 117		B4B0099	02/07/2014	02/12/14 01:24	
Surrogate: 2-Fluorobiphenyl	93.0 %		48 - 121		B4B0099	02/07/2014	02/12/14 01:24	
Surrogate: 4-Terphenyl-d14	128 %		58 - 142		B4B0099	02/07/2014	02/12/14 01:24	
Surrogate: Nitrobenzene-d5	133 %		27 - 151		B4B0099	02/07/2014	02/12/14 01:24	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-22

Lab ID: 1400383-03

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
2-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
4-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Benzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Bromobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Bromodichloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Bromoform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Bromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Carbon tetrachloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Chlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Chloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Chloroform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Chloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Dibromochloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-22

Lab ID: 1400383-03

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Ethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Isopropylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
m,p-Xylene	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Methylene chloride	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
n-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
n-Propylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Naphthalene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
o-Xylene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
sec-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Styrene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
tert-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Tetrachloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Toluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Trichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Vinyl chloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:26	
Surrogate: 1,2-Dichloroethane-d4	128 %		64 - 146		B4B0170	02/13/2014	02/13/14 22:26	
Surrogate: 4-Bromofluorobenzene	74.4 %		60 - 128		B4B0170	02/13/2014	02/13/14 22:26	
Surrogate: Dibromofluoromethane	106 %		72 - 141		B4B0170	02/13/2014	02/13/14 22:26	
Surrogate: Toluene-d8	92.1 %		61 - 124		B4B0170	02/13/2014	02/13/14 22:26	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-22

Lab ID: 1400383-03

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0099	02/07/2014	02/12/14 01:50	
Surrogate: 1,2-Dichlorobenzene-d4	78.1 %		47 - 117		B4B0099	02/07/2014	02/12/14 01:50	
Surrogate: 2-Fluorobiphenyl	89.1 %		48 - 121		B4B0099	02/07/2014	02/12/14 01:50	
Surrogate: 4-Terphenyl-d14	122 %		58 - 142		B4B0099	02/07/2014	02/12/14 01:50	
Surrogate: Nitrobenzene-d5	123 %		27 - 151		B4B0099	02/07/2014	02/12/14 01:50	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-08

Lab ID: 1400383-04

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,1-Dichloroethene	2.9	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
2-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
4-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Benzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Bromobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Bromodichloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Bromoform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Bromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Carbon tetrachloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Chlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Chloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Chloroform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Chloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
cis-1,2-Dichloroethene	0.62	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Dibromochloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-08

Lab ID: 1400383-04

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Ethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Isopropylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
m,p-Xylene	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Methylene chloride	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
n-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
n-Propylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Naphthalene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
o-Xylene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
sec-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Styrene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
tert-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Tetrachloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Toluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Trichloroethene	13	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
Vinyl chloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 22:50	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>133 %</i>		<i>64 - 146</i>		B4B0170	02/13/2014	<i>02/13/14 22:50</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>75.2 %</i>		<i>60 - 128</i>		B4B0170	02/13/2014	<i>02/13/14 22:50</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>104 %</i>		<i>72 - 141</i>		B4B0170	02/13/2014	<i>02/13/14 22:50</i>	
<i>Surrogate: Toluene-d8</i>	<i>88.1 %</i>		<i>61 - 124</i>		B4B0170	02/13/2014	<i>02/13/14 22:50</i>	



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Project Number : RAYTHEON, 532.30

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Client Sample ID MW-08

Lab ID: 1400383-04

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	0.53	0.20	NA	1	B4B0099	02/07/2014	02/12/14 02:17	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>79.7 %</i>		<i>47 - 117</i>		B4B0099	02/07/2014	<i>02/12/14 02:17</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>91.4 %</i>		<i>48 - 121</i>		B4B0099	02/07/2014	<i>02/12/14 02:17</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>125 %</i>		<i>58 - 142</i>		B4B0099	02/07/2014	<i>02/12/14 02:17</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>126 %</i>		<i>27 - 151</i>		B4B0099	02/07/2014	<i>02/12/14 02:17</i>	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-15

Lab ID: 1400383-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
2-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
4-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Benzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Bromobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Bromodichloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Bromoform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Bromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Carbon tetrachloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Chlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Chloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Chloroform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Chloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Dibromochloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-15

Lab ID: 1400383-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Ethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Isopropylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
m,p-Xylene	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Methylene chloride	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
n-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
n-Propylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Naphthalene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
o-Xylene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
sec-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Styrene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
tert-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Tetrachloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Toluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Trichloroethene	1.9	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Trichlorofluoromethane	8.4	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
Vinyl chloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 23:14	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>132 %</i>		<i>64 - 146</i>		B4B0170	02/13/2014	<i>02/13/14 23:14</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>77.2 %</i>		<i>60 - 128</i>		B4B0170	02/13/2014	<i>02/13/14 23:14</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>105 %</i>		<i>72 - 141</i>		B4B0170	02/13/2014	<i>02/13/14 23:14</i>	
<i>Surrogate: Toluene-d8</i>	<i>91.2 %</i>		<i>61 - 124</i>		B4B0170	02/13/2014	<i>02/13/14 23:14</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-27

Lab ID: 1400383-06

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
2-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
4-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Benzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Bromobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Bromodichloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Bromoform	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Bromomethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Carbon tetrachloride	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Chlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Chloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Chloroform	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Chloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Dibromochloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-27

Lab ID: 1400383-06

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Ethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Isopropylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
m,p-Xylene	ND	1.0	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Methylene chloride	ND	1.0	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
n-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
n-Propylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Naphthalene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
o-Xylene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
sec-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Styrene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
tert-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Tetrachloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Toluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Trichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Vinyl chloride	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:28	
Surrogate: 1,2-Dichloroethane-d4	135 %		64 - 146		B4B0214	02/14/2014	02/14/14 20:28	
Surrogate: 4-Bromofluorobenzene	88.3 %		60 - 128		B4B0214	02/14/2014	02/14/14 20:28	
Surrogate: Dibromofluoromethane	110 %		72 - 141		B4B0214	02/14/2014	02/14/14 20:28	
Surrogate: Toluene-d8	110 %		61 - 124		B4B0214	02/14/2014	02/14/14 20:28	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-27

Lab ID: 1400383-06

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0099	02/07/2014	02/12/14 02:44	
Surrogate: 1,2-Dichlorobenzene-d4	57.1 %		47 - 117		B4B0099	02/07/2014	02/12/14 02:44	
Surrogate: 2-Fluorobiphenyl	64.1 %		48 - 121		B4B0099	02/07/2014	02/12/14 02:44	
Surrogate: 4-Terphenyl-d14	106 %		58 - 142		B4B0099	02/07/2014	02/12/14 02:44	
Surrogate: Nitrobenzene-d5	93.0 %		27 - 151		B4B0099	02/07/2014	02/12/14 02:44	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-13

Lab ID: 1400383-07

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
2-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
4-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Benzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Bromobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Bromodichloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Bromoform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Bromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Carbon tetrachloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Chlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Chloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Chloroform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Chloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Dibromochloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-13

Lab ID: 1400383-07

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Ethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Isopropylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
m,p-Xylene	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Methylene chloride	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
n-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
n-Propylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Naphthalene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
o-Xylene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
sec-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Styrene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
tert-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Tetrachloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Toluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Trichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Trichlorofluoromethane	5.8	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
Vinyl chloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:07	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>143 %</i>		<i>64 - 146</i>		B4B0218	02/17/2014	<i>02/17/14 15:07</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>83.8 %</i>		<i>60 - 128</i>		B4B0218	02/17/2014	<i>02/17/14 15:07</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>118 %</i>		<i>72 - 141</i>		B4B0218	02/17/2014	<i>02/17/14 15:07</i>	
<i>Surrogate: Toluene-d8</i>	<i>96.1 %</i>		<i>61 - 124</i>		B4B0218	02/17/2014	<i>02/17/14 15:07</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-13

Lab ID: 1400383-07

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0099	02/07/2014	02/12/14 03:10	
Surrogate: 1,2-Dichlorobenzene-d4	63.7 %		47 - 117		B4B0099	02/07/2014	02/12/14 03:10	
Surrogate: 2-Fluorobiphenyl	70.9 %		48 - 121		B4B0099	02/07/2014	02/12/14 03:10	
Surrogate: 4-Terphenyl-d14	100 %		58 - 142		B4B0099	02/07/2014	02/12/14 03:10	
Surrogate: Nitrobenzene-d5	108 %		27 - 151		B4B0099	02/07/2014	02/12/14 03:10	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-24

Lab ID: 1400383-08

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
2-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
4-Chlorotoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Benzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Bromobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Bromodichloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Bromoform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Bromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Carbon tetrachloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Chlorobenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Chloroethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Chloroform	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Chloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Dibromochloromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-24

Lab ID: 1400383-08

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Ethylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Isopropylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
m,p-Xylene	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Methylene chloride	ND	1.0	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
n-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
n-Propylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Naphthalene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
o-Xylene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
sec-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Styrene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
tert-Butylbenzene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Tetrachloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Toluene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Trichloroethene	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Vinyl chloride	ND	0.50	NA	1	B4B0170	02/13/2014	02/13/14 17:54	
Surrogate: 1,2-Dichloroethane-d4	132 %		64 - 146		B4B0170	02/13/2014	02/13/14 17:54	
Surrogate: 4-Bromofluorobenzene	77.4 %		60 - 128		B4B0170	02/13/2014	02/13/14 17:54	
Surrogate: Dibromofluoromethane	109 %		72 - 141		B4B0170	02/13/2014	02/13/14 17:54	
Surrogate: Toluene-d8	95.5 %		61 - 124		B4B0170	02/13/2014	02/13/14 17:54	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-24

Lab ID: 1400383-08

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0136	02/11/2014	02/12/14 06:17	
Surrogate: 1,2-Dichlorobenzene-d4	87.2 %		47 - 117		B4B0136	02/11/2014	02/12/14 06:17	
Surrogate: 2-Fluorobiphenyl	96.2 %		48 - 121		B4B0136	02/11/2014	02/12/14 06:17	
Surrogate: 4-Terphenyl-d14	117 %		58 - 142		B4B0136	02/11/2014	02/12/14 06:17	
Surrogate: Nitrobenzene-d5	133 %		27 - 151		B4B0136	02/11/2014	02/12/14 06:17	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-37

Lab ID: 1400383-09

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
2-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
4-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Benzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Bromobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Bromodichloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Bromoform	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Bromomethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Carbon tetrachloride	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Chlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Chloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Chloroform	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Chloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Dibromochloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-37

Lab ID: 1400383-09

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Ethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Isopropylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
m,p-Xylene	ND	1.0	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Methylene chloride	ND	1.0	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
n-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
n-Propylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Naphthalene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
o-Xylene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
sec-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Styrene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
tert-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Tetrachloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Toluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Trichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Vinyl chloride	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:16	
Surrogate: 1,2-Dichloroethane-d4	149 %		64 - 146		B4B0214	02/14/2014	02/14/14 21:16	S1
Surrogate: 4-Bromofluorobenzene	91.8 %		60 - 128		B4B0214	02/14/2014	02/14/14 21:16	
Surrogate: Dibromofluoromethane	124 %		72 - 141		B4B0214	02/14/2014	02/14/14 21:16	
Surrogate: Toluene-d8	121 %		61 - 124		B4B0214	02/14/2014	02/14/14 21:16	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-37

Lab ID: 1400383-09

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0099	02/07/2014	02/12/14 03:37	
Surrogate: 1,2-Dichlorobenzene-d4	73.8 %		47 - 117		B4B0099	02/07/2014	02/12/14 03:37	
Surrogate: 2-Fluorobiphenyl	84.2 %		48 - 121		B4B0099	02/07/2014	02/12/14 03:37	
Surrogate: 4-Terphenyl-d14	123 %		58 - 142		B4B0099	02/07/2014	02/12/14 03:37	
Surrogate: Nitrobenzene-d5	119 %		27 - 151		B4B0099	02/07/2014	02/12/14 03:37	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-38

Lab ID: 1400383-10

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
2-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
4-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Benzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Bromobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Bromodichloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Bromoform	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Bromomethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Carbon tetrachloride	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Chlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Chloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Chloroform	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Chloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Dibromochloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-38

Lab ID: 1400383-10

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Ethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Isopropylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
m,p-Xylene	ND	1.0	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Methylene chloride	ND	1.0	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
n-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
n-Propylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Naphthalene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
o-Xylene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
sec-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Styrene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
tert-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Tetrachloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Toluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Trichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Vinyl chloride	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 21:40	
Surrogate: 1,2-Dichloroethane-d4	144 %		64 - 146		B4B0214	02/14/2014	02/14/14 21:40	
Surrogate: 4-Bromofluorobenzene	84.4 %		60 - 128		B4B0214	02/14/2014	02/14/14 21:40	
Surrogate: Dibromofluoromethane	115 %		72 - 141		B4B0214	02/14/2014	02/14/14 21:40	
Surrogate: Toluene-d8	108 %		61 - 124		B4B0214	02/14/2014	02/14/14 21:40	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-38

Lab ID: 1400383-10

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0099	02/07/2014	02/12/14 04:03	
Surrogate: 1,2-Dichlorobenzene-d4	73.3 %		47 - 117		B4B0099	02/07/2014	02/12/14 04:03	
Surrogate: 2-Fluorobiphenyl	83.9 %		48 - 121		B4B0099	02/07/2014	02/12/14 04:03	
Surrogate: 4-Terphenyl-d14	115 %		58 - 142		B4B0099	02/07/2014	02/12/14 04:03	
Surrogate: Nitrobenzene-d5	117 %		27 - 151		B4B0099	02/07/2014	02/12/14 04:03	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-34B

Lab ID: 1400383-11

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,1,2-Trichloroethane	1.0	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,1-Dichloroethane	3.3	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,1-Dichloroethene	290	2.5	NA	5	B4B0293	02/19/2014	02/19/14 12:33	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,2-Dichloroethane	0.72	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
2-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
4-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Benzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Bromobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Bromodichloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Bromoform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Bromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Carbon tetrachloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Chlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Chloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Chloroform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Chloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Dibromochloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-34B

Lab ID: 1400383-11

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Ethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Isopropylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
m,p-Xylene	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Methylene chloride	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
n-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
n-Propylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Naphthalene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
o-Xylene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
sec-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Styrene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
tert-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Tetrachloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Toluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Trichloroethene	0.56	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
Vinyl chloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 15:31	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>114 %</i>		<i>64 - 146</i>		B4B0293	02/19/2014	<i>02/19/14 12:33</i>	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>143 %</i>		<i>64 - 146</i>		B4B0218	02/17/2014	<i>02/17/14 15:31</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>103 %</i>		<i>60 - 128</i>		B4B0293	02/19/2014	<i>02/19/14 12:33</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>78.4 %</i>		<i>60 - 128</i>		B4B0218	02/17/2014	<i>02/17/14 15:31</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>121 %</i>		<i>72 - 141</i>		B4B0218	02/17/2014	<i>02/17/14 15:31</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>96.6 %</i>		<i>72 - 141</i>		B4B0293	02/19/2014	<i>02/19/14 12:33</i>	
<i>Surrogate: Toluene-d8</i>	<i>93.4 %</i>		<i>61 - 124</i>		B4B0218	02/17/2014	<i>02/17/14 15:31</i>	
<i>Surrogate: Toluene-d8</i>	<i>87.3 %</i>		<i>61 - 124</i>		B4B0293	02/19/2014	<i>02/19/14 12:33</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-34B

Lab ID: 1400383-11

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	130	2.0	NA	10	B4B0136	02/11/2014	02/13/14 15:33	E4
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>0%</i>		<i>47 - 117</i>		B4B0136	02/11/2014	<i>02/13/14 15:33</i>	<i>S4</i>
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0%</i>		<i>48 - 121</i>		B4B0136	02/11/2014	<i>02/13/14 15:33</i>	<i>S4</i>
<i>Surrogate: 4-Terphenyl-d14</i>	<i>0%</i>		<i>58 - 142</i>		B4B0136	02/11/2014	<i>02/13/14 15:33</i>	<i>S4</i>
<i>Surrogate: Nitrobenzene-d5</i>	<i>0%</i>		<i>27 - 151</i>		B4B0136	02/11/2014	<i>02/13/14 15:33</i>	<i>S4</i>



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-3400B

Lab ID: 1400383-12

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,1,2-Trichloroethane	0.97	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,1-Dichloroethane	3.3	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,1-Dichloroethene	230	2.5	NA	5	B4B0218	02/17/2014	02/17/14 18:25	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,2-Dichloroethane	0.81	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
2-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
4-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Benzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Bromobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Bromodichloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Bromoform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Bromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Carbon tetrachloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Chlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Chloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Chloroform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Chloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Dibromochloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-3400B

Lab ID: 1400383-12

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Ethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Isopropylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
m,p-Xylene	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Methylene chloride	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
n-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
n-Propylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Naphthalene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
o-Xylene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
sec-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Styrene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
tert-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Tetrachloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Toluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Trichloroethene	0.64	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
Vinyl chloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 16:46	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>134 %</i>	<i>64 - 146</i>			B4B0218	02/17/2014	<i>02/17/14 16:46</i>	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>147 %</i>	<i>64 - 146</i>			B4B0218	02/17/2014	<i>02/17/14 18:25</i>	S5
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>81.5 %</i>	<i>60 - 128</i>			B4B0218	02/17/2014	<i>02/17/14 16:46</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>78.4 %</i>	<i>60 - 128</i>			B4B0218	02/17/2014	<i>02/17/14 18:25</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>122 %</i>	<i>72 - 141</i>			B4B0218	02/17/2014	<i>02/17/14 18:25</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>110 %</i>	<i>72 - 141</i>			B4B0218	02/17/2014	<i>02/17/14 16:46</i>	
<i>Surrogate: Toluene-d8</i>	<i>89.0 %</i>	<i>61 - 124</i>			B4B0218	02/17/2014	<i>02/17/14 16:46</i>	
<i>Surrogate: Toluene-d8</i>	<i>96.9 %</i>	<i>61 - 124</i>			B4B0218	02/17/2014	<i>02/17/14 18:25</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-3400B

Lab ID: 1400383-12

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	110	2.0	NA	10	B4B0136	02/11/2014	02/13/14 16:00	E4
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>0%</i>		<i>47 - 117</i>		B4B0136	02/11/2014	<i>02/13/14 16:00</i>	<i>S4</i>
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>0%</i>		<i>48 - 121</i>		B4B0136	02/11/2014	<i>02/13/14 16:00</i>	<i>S4</i>
<i>Surrogate: 4-Terphenyl-d14</i>	<i>0%</i>		<i>58 - 142</i>		B4B0136	02/11/2014	<i>02/13/14 16:00</i>	<i>S4</i>
<i>Surrogate: Nitrobenzene-d5</i>	<i>0%</i>		<i>27 - 151</i>		B4B0136	02/11/2014	<i>02/13/14 16:00</i>	<i>S4</i>



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-36

Lab ID: 1400383-13

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,1-Dichloroethane	1.3	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,1-Dichloroethene	92	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
2-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
4-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Benzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Bromobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Bromodichloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Bromoform	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Bromomethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Carbon tetrachloride	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Chlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Chloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Chloroform	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Chloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Dibromochloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-36

Lab ID: 1400383-13

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Ethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Isopropylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
m,p-Xylene	ND	1.0	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Methylene chloride	ND	1.0	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
n-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
n-Propylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Naphthalene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
o-Xylene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
sec-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Styrene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
tert-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Tetrachloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Toluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Trichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Vinyl chloride	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:08	
Surrogate: 1,2-Dichloroethane-d4	137 %		64 - 146		B4B0214	02/14/2014	02/14/14 22:08	
Surrogate: 4-Bromofluorobenzene	85.7 %		60 - 128		B4B0214	02/14/2014	02/14/14 22:08	
Surrogate: Dibromofluoromethane	116 %		72 - 141		B4B0214	02/14/2014	02/14/14 22:08	
Surrogate: Toluene-d8	109 %		61 - 124		B4B0214	02/14/2014	02/14/14 22:08	



Certificate of Analysis

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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-36

Lab ID: 1400383-13

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	13	0.40	NA	2	B4B0136	02/11/2014	02/14/14 11:10	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>79.6 %</i>		<i>47 - 117</i>		B4B0136	02/11/2014	<i>02/14/14 11:10</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>95.2 %</i>		<i>48 - 121</i>		B4B0136	02/11/2014	<i>02/14/14 11:10</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>123 %</i>		<i>58 - 142</i>		B4B0136	02/11/2014	<i>02/14/14 11:10</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>118 %</i>		<i>27 - 151</i>		B4B0136	02/11/2014	<i>02/14/14 11:10</i>	



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-3600

Lab ID: 1400383-14

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,1-Dichloroethane	1.2	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,1-Dichloroethene	89	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
2-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
4-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Benzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Bromobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Bromodichloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Bromoform	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Bromomethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Carbon tetrachloride	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Chlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Chloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Chloroform	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Chloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Dibromochloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-3600

Lab ID: 1400383-14

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Ethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Isopropylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
m,p-Xylene	ND	1.0	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Methylene chloride	ND	1.0	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
n-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
n-Propylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Naphthalene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
o-Xylene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
sec-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Styrene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
tert-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Tetrachloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Toluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Trichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Vinyl chloride	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 22:33	
Surrogate: 1,2-Dichloroethane-d4	140 %		64 - 146		B4B0214	02/14/2014	02/14/14 22:33	
Surrogate: 4-Bromofluorobenzene	84.2 %		60 - 128		B4B0214	02/14/2014	02/14/14 22:33	
Surrogate: Dibromofluoromethane	114 %		72 - 141		B4B0214	02/14/2014	02/14/14 22:33	
Surrogate: Toluene-d8	110 %		61 - 124		B4B0214	02/14/2014	02/14/14 22:33	



Certificate of Analysis

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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-3600

Lab ID: 1400383-14

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	12	0.40	NA	2	B4B0136	02/11/2014	02/13/14 16:55	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>89.6 %</i>		<i>47 - 117</i>		B4B0136	02/11/2014	<i>02/13/14 16:55</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>105 %</i>		<i>48 - 121</i>		B4B0136	02/11/2014	<i>02/13/14 16:55</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>131 %</i>		<i>58 - 142</i>		B4B0136	02/11/2014	<i>02/13/14 16:55</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>126 %</i>		<i>27 - 151</i>		B4B0136	02/11/2014	<i>02/13/14 16:55</i>	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-34A

Lab ID: 1400383-15

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
2-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
4-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Benzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Bromobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Bromodichloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Bromoform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Bromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Carbon tetrachloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Chlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Chloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Chloroform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Chloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Dibromochloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-34A

Lab ID: 1400383-15

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Ethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Isopropylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
m,p-Xylene	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Methylene chloride	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
n-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
n-Propylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Naphthalene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
o-Xylene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
sec-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Styrene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
tert-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Tetrachloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Toluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Trichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Trichlorofluoromethane	1.1	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
Vinyl chloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 12:36	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>141 %</i>		<i>64 - 146</i>		B4B0218	02/17/2014	<i>02/17/14 12:36</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>83.0 %</i>		<i>60 - 128</i>		B4B0218	02/17/2014	<i>02/17/14 12:36</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>119 %</i>		<i>72 - 141</i>		B4B0218	02/17/2014	<i>02/17/14 12:36</i>	
<i>Surrogate: Toluene-d8</i>	<i>98.8 %</i>		<i>61 - 124</i>		B4B0218	02/17/2014	<i>02/17/14 12:36</i>	



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Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-34A

Lab ID: 1400383-15

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0136	02/11/2014	02/14/14 10:16	
Surrogate: 1,2-Dichlorobenzene-d4	87.9 %		47 - 117		B4B0136	02/11/2014	02/14/14 10:16	
Surrogate: 2-Fluorobiphenyl	107 %		48 - 121		B4B0136	02/11/2014	02/14/14 10:16	
Surrogate: 4-Terphenyl-d14	131 %		58 - 142		B4B0136	02/11/2014	02/14/14 10:16	
Surrogate: Nitrobenzene-d5	110 %		27 - 151		B4B0136	02/11/2014	02/14/14 10:16	



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Project Number : RAYTHEON, 532.30

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QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL

Blank (B4B0170-BLK1)

Prepared: 2/13/2014 Analyzed: 2/13/2014

1,1,1,2-Tetrachloroethane	ND	0.50			NR
1,1,1-Trichloroethane	ND	0.50			NR
1,1,2,2-Tetrachloroethane	ND	0.50			NR
1,1,2-Trichloroethane	ND	0.50			NR
1,1-Dichloroethane	ND	0.50			NR
1,1-Dichloroethene	ND	0.50			NR
1,1-Dichloropropene	ND	0.50			NR
1,2,3-Trichloropropane	ND	0.50			NR
1,2,3-Trichlorobenzene	ND	0.50			NR
1,2,4-Trichlorobenzene	ND	0.50			NR
1,2,4-Trimethylbenzene	ND	0.50			NR
1,2-Dibromo-3-chloropropane	ND	0.50			NR
1,2-Dibromoethane	ND	0.50			NR
1,2-Dichlorobenzene	ND	0.50			NR
1,2-Dichloroethane	ND	0.50			NR
1,2-Dichloropropane	ND	0.50			NR
1,3,5-Trimethylbenzene	ND	0.50			NR
1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR
Dichlorodifluoromethane	ND	0.50			NR



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

Blank (B4B0170-BLK1) - Continued

Prepared: 2/13/2014 Analyzed: 2/13/2014

Ethylbenzene	ND	0.50			NR				
Hexachlorobutadiene	ND	0.50			NR				
Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	30.40		25.0000		122	64 - 146			
Surrogate: 4-Bromofluorobenzene	20.21		25.0000		80.8	60 - 128			
Surrogate: Dibromofluoromethane	25.09		25.0000		100	72 - 141			
Surrogate: Toluene-d8	23.70		25.0000		94.8	61 - 124			

LCS (B4B0170-BS1)

Prepared: 2/13/2014 Analyzed: 2/13/2014

1,1,1,2-Tetrachloroethane	25.7800		20.0000		129	74 - 148			
1,1,1-Trichloroethane	23.3300		20.0000		117	74 - 136			
1,1,2,2-Tetrachloroethane	25.6100		20.0000		128	44 - 147			
1,1,2-Trichloroethane	17.9700		20.0000		89.8	46 - 135			
1,1-Dichloroethane	18.9600		20.0000		94.8	71 - 154			
1,1-Dichloroethene	16.6700		20.0000		83.4	56 - 131			
1,1-Dichloropropene	21.6300		20.0000		108	64 - 157			
1,2,3-Trichloropropane	25.1700		20.0000		126	45 - 147			
1,2,3-Trichlorobenzene	46.5600		20.0000		233	22 - 212			L4
1,2,4-Trichlorobenzene	32.3300		20.0000		162	34 - 198			
1,2,4-Trimethylbenzene	20.1300		20.0000		101	75 - 131			
1,2-Dibromo-3-chloropropane	43.0600		20.0000		215	9 - 217			
1,2-Dibromoethane	16.5500		20.0000		82.8	45 - 136			
1,2-Dichlorobenzene	23.1400		20.0000		116	75 - 142			
1,2-Dichloroethane	25.4600		20.0000		127	73 - 139			
1,2-Dichloropropane	20.9200		20.0000		105	61 - 145			
1,3,5-Trimethylbenzene	20.7800		20.0000		104	76 - 132			



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Hargis & Associates, Inc.

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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

LCS (B4B0170-BS1) - Continued

Prepared: 2/13/2014 Analyzed: 2/13/2014

1,3-Dichlorobenzene	17.3300		20.0000		86.6	56 - 149			
1,3-Dichloropropane	19.1200		20.0000		95.6	49 - 146			
1,4-Dichlorobenzene	17.5000		20.0000		87.5	70 - 127			
2,2-Dichloropropane	18.5700		20.0000		92.8	32 - 153			
2-Chlorotoluene	20.4300		20.0000		102	67 - 135			
4-Chlorotoluene	18.0800		20.0000		90.4	61 - 138			
4-Isopropyltoluene	17.6800		20.0000		88.4	66 - 137			
Benzene	23.7500		20.0000		119	69 - 139			
Bromobenzene	18.2400		20.0000		91.2	60 - 138			
Bromodichloromethane	24.7000		20.0000		124	74 - 135			
Bromoform	38.0900		20.0000		190	41 - 200			
Bromomethane	16.6600		20.0000		83.3	1 - 125			
Carbon tetrachloride	27.7800		20.0000		139	74 - 153			
Chlorobenzene	19.1600		20.0000		95.8	73 - 127			
Chloroethane	17.4600		20.0000		87.3	40 - 150			
Chloroform	23.7900		20.0000		119	69 - 142			
Chloromethane	29.1800		20.0000		146	7 - 150			
cis-1,2-Dichloroethene	16.3000		20.0000		81.5	69 - 127			
cis-1,3-Dichloropropene	17.7600		20.0000		88.8	52 - 128			
Dibromochloromethane	23.9400		20.0000		120	72 - 142			
Dibromomethane	22.0000		20.0000		110	72 - 125			
Dichlorodifluoromethane	17.3500		20.0000		86.8	0 - 135			
Ethylbenzene	21.8500		20.0000		109	69 - 139			
Hexachlorobutadiene	35.8100		20.0000		179	46 - 206			
Isopropylbenzene	21.9300		20.0000		110	73 - 136			
m,p-Xylene	44.9200		40.0000		112	73 - 140			
Methylene chloride	19.9500		20.0000		99.8	71 - 137			
MTBE	19.8800		20.0000		99.4	68 - 133			
n-Butylbenzene	18.2700		20.0000		91.4	75 - 132			
n-Propylbenzene	19.5800		20.0000		97.9	64 - 140			
Naphthalene	30.8000		20.0000		154	18 - 202			
o-Xylene	23.7100		20.0000		119	78 - 138			
sec-Butylbenzene	21.8000		20.0000		109	80 - 138			
Styrene	17.9200		20.0000		89.6	65 - 130			
tert-Butylbenzene	19.1100		20.0000		95.6	69 - 136			
Tetrachloroethene	25.0200		20.0000		125	68 - 151			
Toluene	20.1800		20.0000		101	62 - 133			
trans-1,2-Dichloroethene	18.6800		20.0000		93.4	67 - 130			
Trichloroethene	19.2700		20.0000		96.4	72 - 139			
Trichlorofluoromethane	20.8500		20.0000		104	67 - 157			
Vinyl chloride	23.8000		20.0000		119	37 - 144			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

LCS (B4B0170-BS1) - Continued

Prepared: 2/13/2014 Analyzed: 2/13/2014

Surrogate: 1,2-Dichloroethane-d4	28.90		25.0000		116	64 - 146			
Surrogate: 4-Bromofluorobenzene	18.46		25.0000		73.8	60 - 128			
Surrogate: Dibromofluoromethane	22.91		25.0000		91.6	72 - 141			
Surrogate: Toluene-d8	22.68		25.0000		90.7	61 - 124			

LCS Dup (B4B0170-BS1)

Prepared: 2/13/2014 Analyzed: 2/13/2014

1,1,1,2-Tetrachloroethane	27.5100		20.0000		138	74 - 148	6.49	20	
1,1,1-Trichloroethane	21.5900		20.0000		108	74 - 136	7.75	20	
1,1,2,2-Tetrachloroethane	24.0300		20.0000		120	44 - 147	6.37	20	
1,1,2-Trichloroethane	18.3100		20.0000		91.6	46 - 135	1.87	20	
1,1-Dichloroethane	20.0300		20.0000		100	71 - 154	5.49	20	
1,1-Dichloroethene	18.7600		20.0000		93.8	56 - 131	11.8	20	
1,1-Dichloropropene	22.8500		20.0000		114	64 - 157	5.49	20	
1,2,3-Trichloropropane	24.2300		20.0000		121	45 - 147	3.81	20	
1,2,3-Trichlorobenzene	43.1800		20.0000		216	22 - 212	7.53	20	L4
1,2,4-Trichlorobenzene	31.8500		20.0000		159	34 - 198	1.50	20	
1,2,4-Trimethylbenzene	21.1600		20.0000		106	75 - 131	4.99	20	
1,2-Dibromo-3-chloropropane	42.0500		20.0000		210	9 - 217	2.37	20	
1,2-Dibromoethane	15.6000		20.0000		78.0	45 - 136	5.91	20	
1,2-Dichlorobenzene	23.1500		20.0000		116	75 - 142	0.0432	20	
1,2-Dichloroethane	24.5700		20.0000		123	73 - 139	3.56	20	
1,2-Dichloropropane	20.2000		20.0000		101	61 - 145	3.50	20	
1,3,5-Trimethylbenzene	22.0400		20.0000		110	76 - 132	5.89	20	
1,3-Dichlorobenzene	18.0900		20.0000		90.4	56 - 149	4.29	20	
1,3-Dichloropropane	18.2500		20.0000		91.2	49 - 146	4.66	20	
1,4-Dichlorobenzene	17.7700		20.0000		88.8	70 - 127	1.53	20	
2,2-Dichloropropane	21.2800		20.0000		106	32 - 153	13.6	20	
2-Chlorotoluene	21.0000		20.0000		105	67 - 135	2.75	20	
4-Chlorotoluene	18.2700		20.0000		91.4	61 - 138	1.05	20	
4-Isopropyltoluene	18.6800		20.0000		93.4	66 - 137	5.50	20	
Benzene	25.0100		20.0000		125	69 - 139	5.17	20	
Bromobenzene	17.6100		20.0000		88.0	60 - 138	3.51	20	
Bromodichloromethane	23.8700		20.0000		119	74 - 135	3.42	20	
Bromoform	36.1000		20.0000		180	41 - 200	5.36	20	
Bromomethane	17.4600		20.0000		87.3	1 - 125	4.69	20	
Carbon tetrachloride	27.5300		20.0000		138	74 - 153	0.904	20	
Chlorobenzene	19.3100		20.0000		96.6	73 - 127	0.780	20	
Chloroethane	19.9400		20.0000		99.7	40 - 150	13.3	20	
Chloroform	19.5900		20.0000		98.0	69 - 142	19.4	20	
Chloromethane	27.7000		20.0000		138	7 - 150	5.20	20	
cis-1,2-Dichloroethene	18.0600		20.0000		90.3	69 - 127	10.2	20	
cis-1,3-Dichloropropene	17.5300		20.0000		87.6	52 - 128	1.30	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

LCS Dup (B4B0170-BSD1) - Continued

Prepared: 2/13/2014 Analyzed: 2/13/2014

Dibromochloromethane	23.1600		20.0000		116	72 - 142	3.31	20	
Dibromomethane	21.3200		20.0000		107	72 - 125	3.14	20	
Dichlorodifluoromethane	19.2600		20.0000		96.3	0 - 135	10.4	20	
Ethylbenzene	22.6600		20.0000		113	69 - 139	3.64	20	
Hexachlorobutadiene	39.7600		20.0000		199	46 - 206	10.5	20	
Isopropylbenzene	22.7800		20.0000		114	73 - 136	3.80	20	
m,p-Xylene	47.8100		40.0000		120	73 - 140	6.23	20	
Methylene chloride	19.7700		20.0000		98.8	71 - 137	0.906	20	
MTBE	17.2300		20.0000		86.2	68 - 133	14.3	20	
n-Butylbenzene	19.5900		20.0000		98.0	75 - 132	6.97	20	
n-Propylbenzene	20.3200		20.0000		102	64 - 140	3.71	20	
Naphthalene	29.8800		20.0000		149	18 - 202	3.03	20	
o-Xylene	26.3300		20.0000		132	78 - 138	10.5	20	
sec-Butylbenzene	23.1900		20.0000		116	80 - 138	6.18	20	
Styrene	17.8200		20.0000		89.1	65 - 130	0.560	20	
tert-Butylbenzene	19.7500		20.0000		98.8	69 - 136	3.29	20	
Tetrachloroethene	26.0100		20.0000		130	68 - 151	3.88	20	
Toluene	20.8100		20.0000		104	62 - 133	3.07	20	
trans-1,2-Dichloroethene	16.1200		20.0000		80.6	67 - 130	14.7	20	
Trichloroethene	19.5200		20.0000		97.6	72 - 139	1.29	20	
Trichlorofluoromethane	22.5900		20.0000		113	67 - 157	8.01	20	
Vinyl chloride	23.5900		20.0000		118	37 - 144	0.886	20	

Surrogate: 1,2-Dichloroethane-d4	27.95		25.0000		112	64 - 146			
Surrogate: 4-Bromofluorobenzene	19.25		25.0000		77.0	60 - 128			
Surrogate: Dibromofluoromethane	19.68		25.0000		78.7	72 - 141			
Surrogate: Toluene-d8	22.87		25.0000		91.5	61 - 124			

Matrix Spike (B4B0170-MS1)

Source: 1400383-08

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	25.8700		20.0000	ND	129	74 - 148			
1,1,1-Trichloroethane	22.9600		20.0000	ND	115	74 - 136			
1,1,2,2-Tetrachloroethane	25.7200		20.0000	ND	129	44 - 147			
1,1,2-Trichloroethane	21.1600		20.0000	ND	106	46 - 135			
1,1-Dichloroethane	19.1300		20.0000	ND	95.6	71 - 154			
1,1-Dichloroethene	17.7100		20.0000	ND	88.6	56 - 131			
1,1-Dichloropropene	21.9000		20.0000	ND	110	64 - 157			
1,2,3-Trichloropropane	26.7700		20.0000	ND	134	45 - 147			
1,2,3-Trichlorobenzene	27.6100		20.0000	ND	138	22 - 212			
1,2,4-Trichlorobenzene	24.8900		20.0000	ND	124	34 - 198			
1,2,4-Trimethylbenzene	19.7300		20.0000	ND	98.6	75 - 131			
1,2-Dibromo-3-chloropropane	41.7800		20.0000	ND	209	9 - 217			
1,2-Dibromoethane	18.5500		20.0000	ND	92.8	45 - 136			



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Reported : 02/19/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

Matrix Spike (B4B0170-MS1) - Continued

Source: 1400383-08

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,2-Dichlorobenzene	22.4400		20.0000	ND	112	75 - 142			M1
1,2-Dichloroethane	28.8300		20.0000	ND	144	73 - 139			
1,2-Dichloropropane	21.6800		20.0000	ND	108	61 - 145			
1,3,5-Trimethylbenzene	20.3700		20.0000	ND	102	76 - 132			
1,3-Dichlorobenzene	17.3100		20.0000	ND	86.6	56 - 149			
1,3-Dichloropropane	20.4400		20.0000	ND	102	49 - 146			
1,4-Dichlorobenzene	17.3800		20.0000	ND	86.9	70 - 127			
2,2-Dichloropropane	18.1000		20.0000	ND	90.5	32 - 153			
2-Chlorotoluene	20.6600		20.0000	ND	103	67 - 135			
4-Chlorotoluene	18.4400		20.0000	ND	92.2	61 - 138			
4-Isopropyltoluene	16.8400		20.0000	ND	84.2	66 - 137			
Benzene	24.1700		20.0000	ND	121	69 - 139			
Bromobenzene	18.4500		20.0000	ND	92.2	60 - 138			
Bromodichloromethane	26.2400		20.0000	ND	131	74 - 135			
Bromoform	39.5900		20.0000	ND	198	41 - 200			
Bromomethane	14.2700		20.0000	ND	71.4	1 - 125			
Carbon tetrachloride	28.4100		20.0000	ND	142	74 - 153			
Chlorobenzene	19.3400		20.0000	ND	96.7	73 - 127			
Chloroethane	20.9100		20.0000	ND	105	40 - 150			
Chloroform	23.8100		20.0000	ND	119	69 - 142			
Chloromethane	24.9400		20.0000	ND	125	7 - 150			
cis-1,2-Dichloroethene	18.1800		20.0000	ND	90.9	69 - 127			
cis-1,3-Dichloropropene	17.7000		20.0000	ND	88.5	52 - 128			
Dibromochloromethane	24.8700		20.0000	ND	124	72 - 142			
Dibromomethane	23.7300		20.0000	ND	119	72 - 125			
Dichlorodifluoromethane	14.7600		20.0000	ND	73.8	0 - 135			
Ethylbenzene	21.5700		20.0000	ND	108	69 - 139			
Hexachlorobutadiene	29.2200		20.0000	ND	146	46 - 206			
Isopropylbenzene	21.0200		20.0000	ND	105	73 - 136			
m,p-Xylene	45.5600		40.0000	ND	114	73 - 140			
Methylene chloride	17.6700		20.0000	ND	88.4	71 - 137			
MTBE	20.3300		20.0000	ND	102	68 - 133			
n-Butylbenzene	17.7800		20.0000	ND	88.9	75 - 132			
n-Propylbenzene	19.2200		20.0000	ND	96.1	64 - 140			
Naphthalene	21.8200		20.0000	ND	109	18 - 202			
o-Xylene	24.0900		20.0000	ND	120	78 - 138			
sec-Butylbenzene	21.0300		20.0000	ND	105	80 - 138			
Styrene	17.8100		20.0000	ND	89.0	65 - 130			
tert-Butylbenzene	18.1600		20.0000	ND	90.8	69 - 136			
Tetrachloroethene	25.6800		20.0000	ND	128	68 - 151			
Toluene	20.8200		20.0000	ND	104	62 - 133			
trans-1,2-Dichloroethene	17.3500		20.0000	ND	86.8	67 - 130			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

Matrix Spike (B4B0170-MS1) - Continued

Source: 1400383-08

Prepared: 2/14/2014 Analyzed: 2/14/2014

Trichloroethene	20.0100		20.0000	ND	100	72 - 139			
Trichlorofluoromethane	20.0400		20.0000	ND	100	67 - 157			
Vinyl chloride	19.6300		20.0000	ND	98.2	37 - 144			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>32.43</i>		<i>25.0000</i>		<i>130</i>	<i>64 - 146</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>19.16</i>		<i>25.0000</i>		<i>76.6</i>	<i>60 - 128</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>24.17</i>		<i>25.0000</i>		<i>96.7</i>	<i>72 - 141</i>			
<i>Surrogate: Toluene-d8</i>	<i>23.18</i>		<i>25.0000</i>		<i>92.7</i>	<i>61 - 124</i>			

Matrix Spike Dup (B4B0170-MSD1)

Source: 1400383-08

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	28.8000		20.0000	ND	144	74 - 148	10.7	20	
1,1,1-Trichloroethane	25.8200		20.0000	ND	129	74 - 136	11.7	20	
1,1,2,2-Tetrachloroethane	26.0300		20.0000	ND	130	44 - 147	1.20	20	
1,1,2-Trichloroethane	20.3500		20.0000	ND	102	46 - 135	3.90	20	
1,1-Dichloroethane	25.4700		20.0000	ND	127	71 - 154	28.4	20	R2
1,1-Dichloroethene	20.7000		20.0000	ND	104	56 - 131	15.6	20	
1,1-Dichloropropene	24.5400		20.0000	ND	123	64 - 157	11.4	20	
1,2,3-Trichloropropane	26.6800		20.0000	ND	133	45 - 147	0.337	20	
1,2,3-Trichlorobenzene	40.4700		20.0000	ND	202	22 - 212	37.8	20	R2
1,2,4-Trichlorobenzene	30.2400		20.0000	ND	151	34 - 198	19.4	20	
1,2,4-Trimethylbenzene	21.8200		20.0000	ND	109	75 - 131	10.1	20	
1,2-Dibromo-3-chloropropane	41.2200		20.0000	ND	206	9 - 217	1.35	20	
1,2-Dibromoethane	18.4300		20.0000	ND	92.2	45 - 136	0.649	20	
1,2-Dichlorobenzene	23.7700		20.0000	ND	119	75 - 142	5.76	20	
1,2-Dichloroethane	27.5400		20.0000	ND	138	73 - 139	4.58	20	
1,2-Dichloropropane	21.7700		20.0000	ND	109	61 - 145	0.414	20	
1,3,5-Trimethylbenzene	22.7600		20.0000	ND	114	76 - 132	11.1	20	
1,3-Dichlorobenzene	18.5300		20.0000	ND	92.6	56 - 149	6.81	20	
1,3-Dichloropropane	20.3900		20.0000	ND	102	49 - 146	0.245	20	
1,4-Dichlorobenzene	18.1900		20.0000	ND	91.0	70 - 127	4.55	20	
2,2-Dichloropropane	21.0800		20.0000	ND	105	32 - 153	15.2	20	
2-Chlorotoluene	22.0300		20.0000	ND	110	67 - 135	6.42	20	
4-Chlorotoluene	19.2200		20.0000	ND	96.1	61 - 138	4.14	20	
4-Isopropyltoluene	18.8400		20.0000	ND	94.2	66 - 137	11.2	20	
Benzene	26.0400		20.0000	ND	130	69 - 139	7.45	20	
Bromobenzene	19.4800		20.0000	ND	97.4	60 - 138	5.43	20	
Bromodichloromethane	27.4200		20.0000	ND	137	74 - 135	4.40	20	M1
Bromoform	38.1200		20.0000	ND	191	41 - 200	3.78	20	
Bromomethane	18.3600		20.0000	ND	91.8	1 - 125	25.1	20	R2
Carbon tetrachloride	32.3700		20.0000	ND	162	74 - 153	13.0	20	M1
Chlorobenzene	21.2700		20.0000	ND	106	73 - 127	9.51	20	
Chloroethane	19.4000		20.0000	ND	97.0	40 - 150	7.49	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0170 - MSVOAW_LL (continued)

Matrix Spike Dup (B4B0170-MSD1) - Continued

Source: 1400383-08

Prepared: 2/14/2014 Analyzed: 2/14/2014

Chloroform	26.0200		20.0000	ND	130	69 - 142	8.87	20	
Chloromethane	29.9800		20.0000	ND	150	7 - 150	18.4	20	
cis-1,2-Dichloroethene	19.6800		20.0000	ND	98.4	69 - 127	7.92	20	
cis-1,3-Dichloropropene	17.9200		20.0000	ND	89.6	52 - 128	1.24	20	
Dibromochloromethane	25.1400		20.0000	ND	126	72 - 142	1.08	20	
Dibromomethane	24.1000		20.0000	ND	120	72 - 125	1.55	20	
Dichlorodifluoromethane	19.0800		20.0000	ND	95.4	0 - 135	25.5	20	R2
Ethylbenzene	23.4600		20.0000	ND	117	69 - 139	8.39	20	
Hexachlorobutadiene	38.9400		20.0000	ND	195	46 - 206	28.5	20	R2
Isopropylbenzene	23.0200		20.0000	ND	115	73 - 136	9.08	20	
m,p-Xylene	50.4400		40.0000	ND	126	73 - 140	10.2	20	
Methylene chloride	18.2900		20.0000	ND	91.4	71 - 137	3.45	20	
MTBE	20.7800		20.0000	ND	104	68 - 133	2.19	20	
n-Butylbenzene	19.4400		20.0000	ND	97.2	75 - 132	8.92	20	
n-Propylbenzene	20.7400		20.0000	ND	104	64 - 140	7.61	20	
Naphthalene	29.4800		20.0000	ND	147	18 - 202	29.9	20	R2
o-Xylene	26.2100		20.0000	ND	131	78 - 138	8.43	20	
sec-Butylbenzene	23.5400		20.0000	ND	118	80 - 138	11.3	20	
Styrene	19.1600		20.0000	ND	95.8	65 - 130	7.30	20	
tert-Butylbenzene	20.3900		20.0000	ND	102	69 - 136	11.6	20	
Tetrachloroethene	27.4000		20.0000	ND	137	68 - 151	6.48	20	
Toluene	22.1700		20.0000	ND	111	62 - 133	6.28	20	
trans-1,2-Dichloroethene	21.7400		20.0000	ND	109	67 - 130	22.5	20	R2
Trichloroethene	20.8100		20.0000	ND	104	72 - 139	3.92	20	
Trichlorofluoromethane	22.4900		20.0000	ND	112	67 - 157	11.5	20	
Vinyl chloride	24.9500		20.0000	ND	125	37 - 144	23.9	20	R2
Surrogate: 1,2-Dichloroethane-d4	30.81		25.0000		123	64 - 146			
Surrogate: 4-Bromofluorobenzene	19.54		25.0000		78.2	60 - 128			
Surrogate: Dibromofluoromethane	23.74		25.0000		95.0	72 - 141			
Surrogate: Toluene-d8	23.55		25.0000		94.2	61 - 124			

Batch B4B0214 - MSVOAW_LL

Blank (B4B0214-BLK1)

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	ND	0.50		NR
1,1,1-Trichloroethane	ND	0.50		NR
1,1,2,2-Tetrachloroethane	ND	0.50		NR
1,1,2-Trichloroethane	ND	0.50		NR
1,1-Dichloroethane	ND	0.50		NR
1,1-Dichloroethene	ND	0.50		NR
1,1-Dichloropropene	ND	0.50		NR



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

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Reported : 02/19/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

Blank (B4B0214-BLK1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,2,3-Trichloropropane	ND	0.50			NR
1,2,3-Trichlorobenzene	ND	0.50			NR
1,2,4-Trichlorobenzene	ND	0.50			NR
1,2,4-Trimethylbenzene	ND	0.50			NR
1,2-Dibromo-3-chloropropane	ND	0.50			NR
1,2-Dibromoethane	ND	0.50			NR
1,2-Dichlorobenzene	ND	0.50			NR
1,2-Dichloroethane	ND	0.50			NR
1,2-Dichloropropane	ND	0.50			NR
1,3,5-Trimethylbenzene	ND	0.50			NR
1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR
Dichlorodifluoromethane	ND	0.50			NR
Ethylbenzene	ND	0.50			NR
Hexachlorobutadiene	ND	0.50			NR
Isopropylbenzene	ND	0.50			NR
m,p-Xylene	ND	1.0			NR
Methylene chloride	ND	1.0			NR
n-Butylbenzene	ND	0.50			NR
n-Propylbenzene	ND	0.50			NR
Naphthalene	ND	0.50			NR
o-Xylene	ND	0.50			NR
sec-Butylbenzene	ND	0.50			NR



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

Blank (B4B0214-BLK1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				

Surrogate: 1,2-Dichloroethane-d4	33.82		25.0000		135	64 - 146			
Surrogate: 4-Bromofluorobenzene	22.16		25.0000		88.6	60 - 128			
Surrogate: Dibromofluoromethane	28.51		25.0000		114	72 - 141			
Surrogate: Toluene-d8	28.68		25.0000		115	61 - 124			

LCS (B4B0214-BS1)

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	25.1200	0.50	20.0000		126	74 - 148			
1,1,1-Trichloroethane	18.9200	0.50	20.0000		94.6	74 - 136			
1,1,2,2-Tetrachloroethane	21.8000	0.50	20.0000		109	44 - 147			
1,1,2-Trichloroethane	17.2100	0.50	20.0000		86.0	46 - 135			
1,1-Dichloroethane	21.3000	0.50	20.0000		106	71 - 154			
1,1-Dichloroethene	17.7100	0.50	20.0000		88.6	56 - 131			
1,1-Dichloropropene	22.1500	0.50	20.0000		111	64 - 157			
1,2,3-Trichloropropane	21.1400	0.50	20.0000		106	45 - 147			
1,2,3-Trichlorobenzene	40.8700	0.50	20.0000		204	22 - 212			
1,2,4-Trichlorobenzene	31.0300	0.50	20.0000		155	34 - 198			
1,2,4-Trimethylbenzene	19.0300	0.50	20.0000		95.2	75 - 131			
1,2-Dibromo-3-chloropropane	36.2400	0.50	20.0000		181	9 - 217			
1,2-Dibromoethane	16.6600	0.50	20.0000		83.3	45 - 136			
1,2-Dichlorobenzene	22.0600	0.50	20.0000		110	75 - 142			
1,2-Dichloroethane	21.7900	0.50	20.0000		109	73 - 139			
1,2-Dichloropropane	18.1700	0.50	20.0000		90.8	61 - 145			
1,3,5-Trimethylbenzene	19.7800	0.50	20.0000		98.9	76 - 132			
1,3-Dichlorobenzene	17.3300	0.50	20.0000		86.6	56 - 149			
1,3-Dichloropropane	17.3200	0.50	20.0000		86.6	49 - 146			
1,4-Dichlorobenzene	17.4700	0.50	20.0000		87.4	70 - 127			
2,2-Dichloropropane	18.3600	0.50	20.0000		91.8	32 - 153			
2-Chlorotoluene	18.5600	0.50	20.0000		92.8	67 - 135			
4-Chlorotoluene	16.7700	0.50	20.0000		83.8	61 - 138			
4-Isopropyltoluene	17.6200	0.50	20.0000		88.1	66 - 137			
Benzene	21.3900	0.50	20.0000		107	69 - 139			
Bromobenzene	18.9800	0.50	20.0000		94.9	60 - 138			
Bromodichloromethane	22.2400	0.50	20.0000		111	74 - 135			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

LCS (B4B0214-BS1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

Bromoform	36.0200	0.50	20.0000		180	41 - 200		
Bromomethane	10.6000	0.50	20.0000		53.0	1 - 125		
Carbon tetrachloride	27.4200	0.50	20.0000		137	74 - 153		
Chlorobenzene	18.0100	0.50	20.0000		90.0	73 - 127		
Chloroethane	17.8900	0.50	20.0000		89.4	40 - 150		
Chloroform	20.0300	0.50	20.0000		100	69 - 142		
Chloromethane	17.2400	0.50	20.0000		86.2	7 - 150		
cis-1,2-Dichloroethene	18.5000	0.50	20.0000		92.5	69 - 127		
cis-1,3-Dichloropropene	16.4500	0.50	20.0000		82.2	52 - 128		
Dibromochloromethane	23.2000	0.50	20.0000		116	72 - 142		
Dibromomethane	19.8000	0.50	20.0000		99.0	72 - 125		
Dichlorodifluoromethane	13.5000	0.50	20.0000		67.5	0 - 135		
Ethylbenzene	19.3900	0.50	20.0000		97.0	69 - 139		
Hexachlorobutadiene	35.6300	0.50	20.0000		178	46 - 206		
Isopropylbenzene	20.9200	0.50	20.0000		105	73 - 136		
m,p-Xylene	40.2400	1.0	40.0000		101	73 - 140		
Methylene chloride	18.5300	1.0	20.0000		92.6	71 - 137		
MTBE	19.2600	0.50	20.0000		96.3	68 - 133		
n-Butylbenzene	16.5500	0.50	20.0000		82.8	75 - 132		
n-Propylbenzene	17.7700	0.50	20.0000		88.8	64 - 140		
Naphthalene	30.4900	0.50	20.0000		152	18 - 202		
o-Xylene	21.7100	0.50	20.0000		109	78 - 138		
sec-Butylbenzene	20.0500	0.50	20.0000		100	80 - 138		
Styrene	17.0000	0.50	20.0000		85.0	65 - 130		
tert-Butylbenzene	19.0000	0.50	20.0000		95.0	69 - 136		
Tetrachloroethene	24.6400	0.50	20.0000		123	68 - 151		
Toluene	19.1800	0.50	20.0000		95.9	62 - 133		
trans-1,2-Dichloroethene	17.9200	0.50	20.0000		89.6	67 - 130		
Trichloroethene	20.2700	0.50	20.0000		101	72 - 139		
Trichlorofluoromethane	19.3500	0.50	20.0000		96.8	67 - 157		
Vinyl chloride	17.4200	0.50	20.0000		87.1	37 - 144		

Surrogate: 1,2-Dichloroethane-d4	30.37		25.0000		121	64 - 146		
Surrogate: 4-Bromofluorobenzene	21.55		25.0000		86.2	60 - 128		
Surrogate: Dibromofluoromethane	26.84		25.0000		107	72 - 141		
Surrogate: Toluene-d8	27.50		25.0000		110	61 - 124		

LCS Dup (B4B0214-BSD1)

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	25.3600	0.50	20.0000		127	74 - 148	0.951	20
1,1,1-Trichloroethane	18.7900	0.50	20.0000		94.0	74 - 136	0.689	20
1,1,2,2-Tetrachloroethane	22.4900	0.50	20.0000		112	44 - 147	3.12	20
1,1,2-Trichloroethane	16.8700	0.50	20.0000		84.4	46 - 135	2.00	20



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

LCS Dup (B4B0214-BSD1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1-Dichloroethane	21.2500	0.50	20.0000		106	71 - 154	0.235	20	
1,1-Dichloroethene	18.1300	0.50	20.0000		90.6	56 - 131	2.34	20	
1,1-Dichloropropene	22.3600	0.50	20.0000		112	64 - 157	0.944	20	
1,2,3-Trichloropropane	21.7200	0.50	20.0000		109	45 - 147	2.71	20	
1,2,3-Trichlorobenzene	43.0000	0.50	20.0000		215	22 - 212	5.08	20	L5
1,2,4-Trichlorobenzene	31.3200	0.50	20.0000		157	34 - 198	0.930	20	
1,2,4-Trimethylbenzene	19.5500	0.50	20.0000		97.8	75 - 131	2.70	20	
1,2-Dibromo-3-chloropropane	36.7400	0.50	20.0000		184	9 - 217	1.37	20	
1,2-Dibromoethane	15.7700	0.50	20.0000		78.8	45 - 136	5.49	20	
1,2-Dichlorobenzene	22.6500	0.50	20.0000		113	75 - 142	2.64	20	
1,2-Dichloroethane	22.0900	0.50	20.0000		110	73 - 139	1.37	20	
1,2-Dichloropropane	18.0600	0.50	20.0000		90.3	61 - 145	0.607	20	
1,3,5-Trimethylbenzene	20.8200	0.50	20.0000		104	76 - 132	5.12	20	
1,3-Dichlorobenzene	17.4200	0.50	20.0000		87.1	56 - 149	0.518	20	
1,3-Dichloropropane	16.7900	0.50	20.0000		84.0	49 - 146	3.11	20	
1,4-Dichlorobenzene	16.2800	0.50	20.0000		81.4	70 - 127	7.05	20	
2,2-Dichloropropane	17.9300	0.50	20.0000		89.6	32 - 153	2.37	20	
2-Chlorotoluene	19.6900	0.50	20.0000		98.4	67 - 135	5.91	20	
4-Chlorotoluene	17.3000	0.50	20.0000		86.5	61 - 138	3.11	20	
4-Isopropyltoluene	18.0000	0.50	20.0000		90.0	66 - 137	2.13	20	
Benzene	21.4900	0.50	20.0000		107	69 - 139	0.466	20	
Bromobenzene	18.9500	0.50	20.0000		94.8	60 - 138	0.158	20	
Bromodichloromethane	22.2300	0.50	20.0000		111	74 - 135	0.0450	20	
Bromoform	34.4400	0.50	20.0000		172	41 - 200	4.48	20	
Bromomethane	11.0800	0.50	20.0000		55.4	1 - 125	4.43	20	
Carbon tetrachloride	27.1600	0.50	20.0000		136	74 - 153	0.953	20	
Chlorobenzene	18.5000	0.50	20.0000		92.5	73 - 127	2.68	20	
Chloroethane	18.0300	0.50	20.0000		90.2	40 - 150	0.780	20	
Chloroform	19.5000	0.50	20.0000		97.5	69 - 142	2.68	20	
Chloromethane	17.8300	0.50	20.0000		89.2	7 - 150	3.36	20	
cis-1,2-Dichloroethene	18.4600	0.50	20.0000		92.3	69 - 127	0.216	20	
cis-1,3-Dichloropropene	16.2100	0.50	20.0000		81.0	52 - 128	1.47	20	
Dibromochloromethane	23.2300	0.50	20.0000		116	72 - 142	0.129	20	
Dibromomethane	19.9100	0.50	20.0000		99.6	72 - 125	0.554	20	
Dichlorodifluoromethane	13.5700	0.50	20.0000		67.8	0 - 135	0.517	20	
Ethylbenzene	19.5600	0.50	20.0000		97.8	69 - 139	0.873	20	
Hexachlorobutadiene	39.9500	0.50	20.0000		200	46 - 206	11.4	20	
Isopropylbenzene	21.5800	0.50	20.0000		108	73 - 136	3.11	20	
m,p-Xylene	40.5100	1.0	40.0000		101	73 - 140	0.669	20	
Methylene chloride	18.3100	1.0	20.0000		91.6	71 - 137	1.19	20	
MTBE	18.5800	0.50	20.0000		92.9	68 - 133	3.59	20	
n-Butylbenzene	17.0400	0.50	20.0000		85.2	75 - 132	2.92	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

LCS Dup (B4B0214-BSD1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

n-Propylbenzene	18.3200	0.50	20.0000		91.6	64 - 140	3.05	20	
Naphthalene	30.1100	0.50	20.0000		151	18 - 202	1.25	20	
o-Xylene	21.3100	0.50	20.0000		107	78 - 138	1.86	20	
sec-Butylbenzene	21.5300	0.50	20.0000		108	80 - 138	7.12	20	
Styrene	16.7700	0.50	20.0000		83.8	65 - 130	1.36	20	
tert-Butylbenzene	19.6500	0.50	20.0000		98.2	69 - 136	3.36	20	
Tetrachloroethene	26.3500	0.50	20.0000		132	68 - 151	6.71	20	
Toluene	19.2000	0.50	20.0000		96.0	62 - 133	0.104	20	
trans-1,2-Dichloroethene	18.2500	0.50	20.0000		91.2	67 - 130	1.82	20	
Trichloroethene	20.3900	0.50	20.0000		102	72 - 139	0.590	20	
Trichlorofluoromethane	19.1200	0.50	20.0000		95.6	67 - 157	1.20	20	
Vinyl chloride	18.1000	0.50	20.0000		90.5	37 - 144	3.83	20	
Surrogate: 1,2-Dichloroethane-d4	30.11		25.0000		120	64 - 146			
Surrogate: 4-Bromofluorobenzene	20.80		25.0000		83.2	60 - 128			
Surrogate: Dibromofluoromethane	26.34		25.0000		105	72 - 141			
Surrogate: Toluene-d8	27.21		25.0000		109	61 - 124			

Matrix Spike (B4B0214-MS1)

Source: 1400396-03

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	25.6500	0.50	20.0000	ND	128	74 - 148			
1,1,1-Trichloroethane	20.3400	0.50	20.0000	ND	102	74 - 136			
1,1,2,2-Tetrachloroethane	23.3400	0.50	20.0000	ND	117	44 - 147			
1,1,2-Trichloroethane	18.3300	0.50	20.0000	1.06000	86.4	46 - 135			
1,1-Dichloroethane	25.4500	0.50	20.0000	3.14000	112	71 - 154			
1,1-Dichloroethene	294.530	0.50	20.0000	252.320	211	56 - 131			M3
1,1-Dichloropropene	23.3300	0.50	20.0000	ND	117	64 - 157			
1,2,3-Trichloropropane	23.5500	0.50	20.0000	ND	118	45 - 147			
1,2,3-Trichlorobenzene	43.5200	0.50	20.0000	ND	218	22 - 212			M1
1,2,4-Trichlorobenzene	33.0600	0.50	20.0000	ND	165	34 - 198			
1,2,4-Trimethylbenzene	20.0900	0.50	20.0000	ND	100	75 - 131			
1,2-Dibromo-3-chloropropane	38.8600	0.50	20.0000	ND	194	9 - 217			
1,2-Dibromoethane	16.8000	0.50	20.0000	ND	84.0	45 - 136			
1,2-Dichlorobenzene	23.7300	0.50	20.0000	ND	119	75 - 142			
1,2-Dichloroethane	23.6400	0.50	20.0000	ND	118	73 - 139			
1,2-Dichloropropane	18.9600	0.50	20.0000	ND	94.8	61 - 145			
1,3,5-Trimethylbenzene	21.1200	0.50	20.0000	ND	106	76 - 132			
1,3-Dichlorobenzene	18.5600	0.50	20.0000	ND	92.8	56 - 149			
1,3-Dichloropropane	17.5200	0.50	20.0000	ND	87.6	49 - 146			
1,4-Dichlorobenzene	18.4600	0.50	20.0000	ND	92.3	70 - 127			
2,2-Dichloropropane	19.6400	0.50	20.0000	ND	98.2	32 - 153			
2-Chlorotoluene	19.9300	0.50	20.0000	ND	99.6	67 - 135			
4-Chlorotoluene	17.5200	0.50	20.0000	ND	87.6	61 - 138			



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

Matrix Spike (B4B0214-MS1) - Continued

Source: 1400396-03

Prepared: 2/14/2014 Analyzed: 2/14/2014

4-Isopropyltoluene	18.4700	0.50	20.0000	ND	92.4	66 - 137			
Benzene	21.9100	0.50	20.0000	ND	110	69 - 139			
Bromobenzene	20.1100	0.50	20.0000	ND	101	60 - 138			
Bromodichloromethane	22.4100	0.50	20.0000	ND	112	74 - 135			
Bromoform	36.2900	0.50	20.0000	ND	181	41 - 200			
Bromomethane	12.4600	0.50	20.0000	ND	62.3	1 - 125			
Carbon tetrachloride	29.7600	0.50	20.0000	ND	149	74 - 153			
Chlorobenzene	18.9400	0.50	20.0000	ND	94.7	73 - 127			
Chloroethane	20.7700	0.50	20.0000	ND	104	40 - 150			
Chloroform	20.6800	0.50	20.0000	ND	103	69 - 142			
Chloromethane	20.4000	0.50	20.0000	ND	102	7 - 150			
cis-1,2-Dichloroethene	18.9200	0.50	20.0000	0.490000	92.2	69 - 127			
cis-1,3-Dichloropropene	16.5700	0.50	20.0000	ND	82.8	52 - 128			
Dibromochloromethane	23.3700	0.50	20.0000	ND	117	72 - 142			
Dibromomethane	20.4400	0.50	20.0000	ND	102	72 - 125			
Dichlorodifluoromethane	15.7500	0.50	20.0000	ND	78.8	0 - 135			
Ethylbenzene	20.2200	0.50	20.0000	ND	101	69 - 139			
Hexachlorobutadiene	42.8600	0.50	20.0000	ND	214	46 - 206			M1
Isopropylbenzene	22.2900	0.50	20.0000	ND	111	73 - 136			
m,p-Xylene	41.4300	1.0	40.0000	ND	104	73 - 140			
Methylene chloride	18.5800	1.0	20.0000	ND	92.9	71 - 137			
MTBE	18.7400	0.50	20.0000	ND	93.7	68 - 133			
n-Butylbenzene	17.1300	0.50	20.0000	ND	85.6	75 - 132			
n-Propylbenzene	18.9300	0.50	20.0000	ND	94.6	64 - 140			
Naphthalene	31.6000	0.50	20.0000	ND	158	18 - 202			
o-Xylene	22.6200	0.50	20.0000	ND	113	78 - 138			
sec-Butylbenzene	21.7500	0.50	20.0000	ND	109	80 - 138			
Styrene	16.9600	0.50	20.0000	ND	84.8	65 - 130			
tert-Butylbenzene	20.2500	0.50	20.0000	ND	101	69 - 136			
Tetrachloroethene	27.9700	0.50	20.0000	1.34000	133	68 - 151			
Toluene	19.4400	0.50	20.0000	ND	97.2	62 - 133			
trans-1,2-Dichloroethene	19.3900	0.50	20.0000	ND	97.0	67 - 130			
Trichloroethene	27.8400	0.50	20.0000	6.07000	109	72 - 139			
Trichlorofluoromethane	22.5600	0.50	20.0000	1.87000	103	67 - 157			
Vinyl chloride	20.6400	0.50	20.0000	ND	103	37 - 144			
Surrogate: 1,2-Dichloroethane-d4	31.90		25.0000		128	64 - 146			
Surrogate: 4-Bromofluorobenzene	22.38		25.0000		89.5	60 - 128			
Surrogate: Dibromofluoromethane	28.38		25.0000		114	72 - 141			
Surrogate: Toluene-d8	29.11		25.0000		116	61 - 124			

Matrix Spike Dup (B4B0214-MSD1)

Source: 1400396-03

Prepared: 2/14/2014 Analyzed: 2/14/2014



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Project Number : RAYTHEON, 532.30

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

Matrix Spike Dup (B4B0214-MSD1) - Continued

Source: 1400396-03

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	24.4200	0.50	20.0000	ND	122	74 - 148	4.91	20	
1,1,1-Trichloroethane	18.3800	0.50	20.0000	ND	91.9	74 - 136	10.1	20	
1,1,2,2-Tetrachloroethane	23.3500	0.50	20.0000	ND	117	44 - 147	0.0428	20	
1,1,2-Trichloroethane	18.9600	0.50	20.0000	1.06000	89.5	46 - 135	3.38	20	
1,1-Dichloroethane	24.8000	0.50	20.0000	3.14000	108	71 - 154	2.59	20	
1,1-Dichloroethene	263.020	0.50	20.0000	252.320	53.5	56 - 131	11.3	20	M3
1,1-Dichloropropene	21.9300	0.50	20.0000	ND	110	64 - 157	6.19	20	
1,2,3-Trichloropropane	23.8400	0.50	20.0000	ND	119	45 - 147	1.22	20	
1,2,3-Trichlorobenzene	44.4800	0.50	20.0000	ND	222	22 - 212	2.18	20	M1
1,2,4-Trichlorobenzene	32.7600	0.50	20.0000	ND	164	34 - 198	0.912	20	
1,2,4-Trimethylbenzene	18.7100	0.50	20.0000	ND	93.6	75 - 131	7.11	20	
1,2-Dibromo-3-chloropropane	33.5200	0.50	20.0000	ND	168	9 - 217	14.8	20	
1,2-Dibromoethane	17.5900	0.50	20.0000	ND	88.0	45 - 136	4.59	20	
1,2-Dichlorobenzene	22.7700	0.50	20.0000	ND	114	75 - 142	4.13	20	
1,2-Dichloroethane	24.5400	0.50	20.0000	ND	123	73 - 139	3.74	20	
1,2-Dichloropropane	18.7200	0.50	20.0000	ND	93.6	61 - 145	1.27	20	
1,3,5-Trimethylbenzene	19.2200	0.50	20.0000	ND	96.1	76 - 132	9.42	20	
1,3-Dichlorobenzene	17.4200	0.50	20.0000	ND	87.1	56 - 149	6.34	20	
1,3-Dichloropropane	17.8800	0.50	20.0000	ND	89.4	49 - 146	2.03	20	
1,4-Dichlorobenzene	17.9500	0.50	20.0000	ND	89.8	70 - 127	2.80	20	
2,2-Dichloropropane	18.4200	0.50	20.0000	ND	92.1	32 - 153	6.41	20	
2-Chlorotoluene	18.4700	0.50	20.0000	ND	92.4	67 - 135	7.60	20	
4-Chlorotoluene	17.0000	0.50	20.0000	ND	85.0	61 - 138	3.01	20	
4-Isopropyltoluene	17.0300	0.50	20.0000	ND	85.2	66 - 137	8.11	20	
Benzene	21.3600	0.50	20.0000	ND	107	69 - 139	2.54	20	
Bromobenzene	19.2800	0.50	20.0000	ND	96.4	60 - 138	4.21	20	
Bromodichloromethane	22.8500	0.50	20.0000	ND	114	74 - 135	1.94	20	
Bromoform	38.6400	0.50	20.0000	ND	193	41 - 200	6.27	20	
Bromomethane	10.8100	0.50	20.0000	ND	54.0	1 - 125	14.2	20	
Carbon tetrachloride	26.9800	0.50	20.0000	ND	135	74 - 153	9.80	20	
Chlorobenzene	18.4200	0.50	20.0000	ND	92.1	73 - 127	2.78	20	
Chloroethane	17.6100	0.50	20.0000	ND	88.0	40 - 150	16.5	20	
Chloroform	19.8800	0.50	20.0000	ND	99.4	69 - 142	3.94	20	
Chloromethane	20.2200	0.50	20.0000	ND	101	7 - 150	0.886	20	
cis-1,2-Dichloroethene	17.8800	0.50	20.0000	0.490000	87.0	69 - 127	5.65	20	
cis-1,3-Dichloropropene	16.6200	0.50	20.0000	ND	83.1	52 - 128	0.301	20	
Dibromochloromethane	24.5400	0.50	20.0000	ND	123	72 - 142	4.88	20	
Dibromomethane	20.6000	0.50	20.0000	ND	103	72 - 125	0.780	20	
Dichlorodifluoromethane	13.8500	0.50	20.0000	ND	69.2	0 - 135	12.8	20	
Ethylbenzene	19.5300	0.50	20.0000	ND	97.6	69 - 139	3.47	20	
Hexachlorobutadiene	37.7300	0.50	20.0000	ND	189	46 - 206	12.7	20	
Isopropylbenzene	20.3300	0.50	20.0000	ND	102	73 - 136	9.20	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

Matrix Spike Dup (B4B0214-MSD1) - Continued

Source: 1400396-03

Prepared: 2/14/2014 Analyzed: 2/14/2014

m,p-Xylene	40.0300	1.0	40.0000	ND	100	73 - 140	3.44	20	
Methylene chloride	17.5900	1.0	20.0000	ND	88.0	71 - 137	5.47	20	
MTBE	19.5100	0.50	20.0000	ND	97.6	68 - 133	4.03	20	
n-Butylbenzene	16.0000	0.50	20.0000	ND	80.0	75 - 132	6.82	20	
n-Propylbenzene	17.5100	0.50	20.0000	ND	87.6	64 - 140	7.79	20	
Naphthalene	32.6900	0.50	20.0000	ND	163	18 - 202	3.39	20	
o-Xylene	20.7400	0.50	20.0000	ND	104	78 - 138	8.67	20	
sec-Butylbenzene	19.8400	0.50	20.0000	ND	99.2	80 - 138	9.18	20	
Styrene	16.8800	0.50	20.0000	ND	84.4	65 - 130	0.473	20	
tert-Butylbenzene	18.4500	0.50	20.0000	ND	92.2	69 - 136	9.30	20	
Tetrachloroethene	26.8300	0.50	20.0000	1.34000	127	68 - 151	4.16	20	
Toluene	19.2500	0.50	20.0000	ND	96.2	62 - 133	0.982	20	
trans-1,2-Dichloroethene	17.4500	0.50	20.0000	ND	87.2	67 - 130	10.5	20	
Trichloroethene	26.7100	0.50	20.0000	6.07000	103	72 - 139	4.14	20	
Trichlorofluoromethane	20.8800	0.50	20.0000	1.87000	95.0	67 - 157	7.73	20	
Vinyl chloride	18.2000	0.50	20.0000	ND	91.0	37 - 144	12.6	20	

Surrogate: 1,2-Dichloroethane-d4	31.60		25.0000		126	64 - 146			
Surrogate: 4-Bromofluorobenzene	21.95		25.0000		87.8	60 - 128			
Surrogate: Dibromofluoromethane	26.82		25.0000		107	72 - 141			
Surrogate: Toluene-d8	27.89		25.0000		112	61 - 124			

Batch B4B0218 - MSVOAW_LL

Blank (B4B0218-BLK1)

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,1,1,2-Tetrachloroethane	ND	0.50			NR				
1,1,1-Trichloroethane	ND	0.50			NR				
1,1,2,2-Tetrachloroethane	ND	0.50			NR				
1,1,2-Trichloroethane	ND	0.50			NR				
1,1-Dichloroethane	ND	0.50			NR				
1,1-Dichloroethene	ND	0.50			NR				
1,1-Dichloropropene	ND	0.50			NR				
1,2,3-Trichloropropane	ND	0.50			NR				
1,2,3-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trimethylbenzene	ND	0.50			NR				
1,2-Dibromo-3-chloropropane	ND	0.50			NR				
1,2-Dibromoethane	ND	0.50			NR				
1,2-Dichlorobenzene	ND	0.50			NR				
1,2-Dichloroethane	ND	0.50			NR				
1,2-Dichloropropane	ND	0.50			NR				
1,3,5-Trimethylbenzene	ND	0.50			NR				



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

Blank (B4B0218-BLK1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR
Dichlorodifluoromethane	ND	0.50			NR
Ethylbenzene	ND	0.50			NR
Hexachlorobutadiene	ND	0.50			NR
Isopropylbenzene	ND	0.50			NR
m,p-Xylene	ND	1.0			NR
Methylene chloride	ND	1.0			NR
n-Butylbenzene	ND	0.50			NR
n-Propylbenzene	ND	0.50			NR
Naphthalene	ND	0.50			NR
o-Xylene	ND	0.50			NR
sec-Butylbenzene	ND	0.50			NR
Styrene	ND	0.50			NR
tert-Butylbenzene	ND	0.50			NR
Tetrachloroethene	ND	0.50			NR
Toluene	ND	0.50			NR
trans-1,2-Dichloroethene	ND	0.50			NR
Trichloroethene	ND	0.50			NR
Trichlorofluoromethane	ND	0.50			NR
Vinyl chloride	ND	0.50			NR

Surrogate: 1,2-Dichloroethane-d4

17.92

25.0000

71.7

64 - 146



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

Blank (B4B0218-BLK1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

Surrogate: 4-Bromofluorobenzene	20.87		25.0000		83.5	60 - 128			
Surrogate: Dibromofluoromethane	30.52		25.0000		122	72 - 141			
Surrogate: Toluene-d8	25.04		25.0000		100	61 - 124			

LCS (B4B0218-BS1)

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,1,1,2-Tetrachloroethane	30.3600		20.0000		152	74 - 148			L5
1,1,1-Trichloroethane	22.8100		20.0000		114	74 - 136			
1,1,2,2-Tetrachloroethane	21.0500		20.0000		105	44 - 147			
1,1,2-Trichloroethane	17.5700		20.0000		87.8	46 - 135			
1,1-Dichloroethane	22.5000		20.0000		112	71 - 154			
1,1-Dichloroethene	18.9700		20.0000		94.8	56 - 131			
1,1-Dichloropropene	24.5300		20.0000		123	64 - 157			
1,2,3-Trichloropropane	22.6400		20.0000		113	45 - 147			
1,2,3-Trichlorobenzene	47.3500		20.0000		237	22 - 212			L5
1,2,4-Trichlorobenzene	36.6000		20.0000		183	34 - 198			
1,2,4-Trimethylbenzene	19.8800		20.0000		99.4	75 - 131			
1,2-Dibromo-3-chloropropane	37.5500		20.0000		188	9 - 217			
1,2-Dibromoethane	18.1200		20.0000		90.6	45 - 136			
1,2-Dichlorobenzene	24.7000		20.0000		124	75 - 142			
1,2-Dichloroethane	27.7700		20.0000		139	73 - 139			
1,2-Dichloropropane	19.7700		20.0000		98.8	61 - 145			
1,3,5-Trimethylbenzene	21.0800		20.0000		105	76 - 132			
1,3-Dichlorobenzene	18.9700		20.0000		94.8	56 - 149			
1,3-Dichloropropane	17.4900		20.0000		87.4	49 - 146			
1,4-Dichlorobenzene	18.9400		20.0000		94.7	70 - 127			
2,2-Dichloropropane	22.6500		20.0000		113	32 - 153			
2-Chlorotoluene	19.3000		20.0000		96.5	67 - 135			
4-Chlorotoluene	16.9700		20.0000		84.8	61 - 138			
4-Isopropyltoluene	19.2800		20.0000		96.4	66 - 137			
Benzene	23.5100		20.0000		118	69 - 139			
Bromobenzene	20.3300		20.0000		102	60 - 138			
Bromodichloromethane	24.8700		20.0000		124	74 - 135			
Bromoform	44.4200		20.0000		222	41 - 200			L5
Bromomethane	12.7900		20.0000		64.0	1 - 125			
Carbon tetrachloride	33.9400		20.0000		170	74 - 153			L5
Chlorobenzene	19.3600		20.0000		96.8	73 - 127			
Chloroethane	20.9800		20.0000		105	40 - 150			
Chloroform	21.9300		20.0000		110	69 - 142			
Chloromethane	22.1800		20.0000		111	7 - 150			
cis-1,2-Dichloroethene	19.7100		20.0000		98.6	69 - 127			
cis-1,3-Dichloropropene	16.5500		20.0000		82.8	52 - 128			
Dibromochloromethane	27.0900		20.0000		135	72 - 142			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

LCS (B4B0218-BS1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

Dibromomethane	22.3400		20.0000		112	72 - 125			
Dichlorodifluoromethane	16.8300		20.0000		84.2	0 - 135			
Ethylbenzene	20.9500		20.0000		105	69 - 139			
Hexachlorobutadiene	49.2900		20.0000		246	46 - 206			L5
Isopropylbenzene	20.8600		20.0000		104	73 - 136			
m,p-Xylene	43.7200		40.0000		109	73 - 140			
Methylene chloride	20.2100		20.0000		101	71 - 137			
MTBE	20.9700		20.0000		105	68 - 133			
n-Butylbenzene	18.1900		20.0000		91.0	75 - 132			
n-Propylbenzene	17.8500		20.0000		89.2	64 - 140			
Naphthalene	31.7400		20.0000		159	18 - 202			
o-Xylene	24.2000		20.0000		121	78 - 138			
sec-Butylbenzene	22.3200		20.0000		112	80 - 138			
Styrene	18.6800		20.0000		93.4	65 - 130			
tert-Butylbenzene	20.4200		20.0000		102	69 - 136			
Tetrachloroethene	27.8300		20.0000		139	68 - 151			
Toluene	19.8500		20.0000		99.2	62 - 133			
trans-1,2-Dichloroethene	19.8900		20.0000		99.4	67 - 130			
Trichloroethene	23.2600		20.0000		116	72 - 139			
Trichlorofluoromethane	29.2900		20.0000		146	67 - 157			
Vinyl chloride	23.1700		20.0000		116	37 - 144			
Surrogate: 1,2-Dichloroethane-d4	32.37		25.0000		129	64 - 146			
Surrogate: 4-Bromofluorobenzene	22.78		25.0000		91.1	60 - 128			
Surrogate: Dibromofluoromethane	27.15		25.0000		109	72 - 141			
Surrogate: Toluene-d8	26.38		25.0000		106	61 - 124			

LCS Dup (B4B0218-BSD1)

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,1,1,2-Tetrachloroethane	32.3400		20.0000		162	74 - 148	6.32	20	L5
1,1,1-Trichloroethane	23.9500		20.0000		120	74 - 136	4.88	20	
1,1,2,2-Tetrachloroethane	19.9000		20.0000		99.5	44 - 147	5.62	20	
1,1,2-Trichloroethane	15.7800		20.0000		78.9	46 - 135	10.7	20	
1,1-Dichloroethane	23.0200		20.0000		115	71 - 154	2.28	20	
1,1-Dichloroethene	19.5500		20.0000		97.8	56 - 131	3.01	20	
1,1-Dichloropropene	25.8900		20.0000		129	64 - 157	5.39	20	
1,2,3-Trichloropropane	21.1300		20.0000		106	45 - 147	6.90	20	
1,2,3-Trichlorobenzene	49.3200		20.0000		247	22 - 212	4.08	20	L5
1,2,4-Trichlorobenzene	36.3600		20.0000		182	34 - 198	0.658	20	
1,2,4-Trimethylbenzene	19.3900		20.0000		97.0	75 - 131	2.50	20	
1,2-Dibromo-3-chloropropane	42.8300		20.0000		214	9 - 217	13.1	20	
1,2-Dibromoethane	16.2200		20.0000		81.1	45 - 136	11.1	20	
1,2-Dichlorobenzene	23.6100		20.0000		118	75 - 142	4.51	20	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

LCS Dup (B4B0218-BSD1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,2-Dichloroethane	27.4900		20.0000		137	73 - 139	1.01	20	
1,2-Dichloropropane	18.5500		20.0000		92.8	61 - 145	6.37	20	
1,3,5-Trimethylbenzene	20.6900		20.0000		103	76 - 132	1.87	20	
1,3-Dichlorobenzene	17.5500		20.0000		87.8	56 - 149	7.78	20	
1,3-Dichloropropane	15.6100		20.0000		78.0	49 - 146	11.4	20	
1,4-Dichlorobenzene	17.8100		20.0000		89.0	70 - 127	6.15	20	
2,2-Dichloropropane	22.9800		20.0000		115	32 - 153	1.45	20	
2-Chlorotoluene	17.9700		20.0000		89.8	67 - 135	7.14	20	
4-Chlorotoluene	15.4600		20.0000		77.3	61 - 138	9.31	20	
4-Isopropyltoluene	19.0600		20.0000		95.3	66 - 137	1.15	20	
Benzene	23.5300		20.0000		118	69 - 139	0.0850	20	
Bromobenzene	17.4200		20.0000		87.1	60 - 138	15.4	20	
Bromodichloromethane	24.1700		20.0000		121	74 - 135	2.85	20	
Bromoform	41.3400		20.0000		207	41 - 200	7.18	20	L5
Bromomethane	12.8700		20.0000		64.4	1 - 125	0.624	20	
Carbon tetrachloride	35.9900		20.0000		180	74 - 153	5.86	20	L5
Chlorobenzene	18.0800		20.0000		90.4	73 - 127	6.84	20	
Chloroethane	23.0700		20.0000		115	40 - 150	9.49	20	
Chloroform	21.9300		20.0000		110	69 - 142	0.00	20	
Chloromethane	21.8100		20.0000		109	7 - 150	1.68	20	
cis-1,2-Dichloroethene	20.5300		20.0000		103	69 - 127	4.08	20	
cis-1,3-Dichloropropene	14.8600		20.0000		74.3	52 - 128	10.8	20	
Dibromochloromethane	24.4600		20.0000		122	72 - 142	10.2	20	
Dibromomethane	21.8800		20.0000		109	72 - 125	2.08	20	
Dichlorodifluoromethane	15.0200		20.0000		75.1	0 - 135	11.4	20	
Ethylbenzene	19.9500		20.0000		99.8	69 - 139	4.89	20	
Hexachlorobutadiene	50.5100		20.0000		253	46 - 206	2.44	20	L5
Isopropylbenzene	20.4900		20.0000		102	73 - 136	1.79	20	
m,p-Xylene	41.7000		40.0000		104	73 - 140	4.73	20	
Methylene chloride	21.0300		20.0000		105	71 - 137	3.98	20	
MTBE	20.7600		20.0000		104	68 - 133	1.01	20	
n-Butylbenzene	17.8500		20.0000		89.2	75 - 132	1.89	20	
n-Propylbenzene	16.2500		20.0000		81.2	64 - 140	9.38	20	
Naphthalene	32.7500		20.0000		164	18 - 202	3.13	20	
o-Xylene	24.2500		20.0000		121	78 - 138	0.206	20	
sec-Butylbenzene	22.7700		20.0000		114	80 - 138	2.00	20	
Styrene	17.1100		20.0000		85.6	65 - 130	8.77	20	
tert-Butylbenzene	20.6900		20.0000		103	69 - 136	1.31	20	
Tetrachloroethene	26.5300		20.0000		133	68 - 151	4.78	20	
Toluene	18.2700		20.0000		91.4	62 - 133	8.29	20	
trans-1,2-Dichloroethene	21.3600		20.0000		107	67 - 130	7.13	20	
Trichloroethene	22.8400		20.0000		114	72 - 139	1.82	20	



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Reported : 02/19/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

LCS Dup (B4B0218-BSD1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

Trichlorofluoromethane	28.0500		20.0000		140	67 - 157	4.33	20	
Vinyl chloride	23.0800		20.0000		115	37 - 144	0.389	20	
Surrogate: 1,2-Dichloroethane-d4	31.64		25.0000		127	64 - 146			
Surrogate: 4-Bromofluorobenzene	21.31		25.0000		85.2	60 - 128			
Surrogate: Dibromofluoromethane	27.04		25.0000		108	72 - 141			
Surrogate: Toluene-d8	24.37		25.0000		97.5	61 - 124			

Batch B4B0293 - MSVOAW_LL

Blank (B4B0293-BLK1)

Prepared: 2/19/2014 Analyzed: 2/19/2014

1,1,1,2-Tetrachloroethane	ND	0.50		NR
1,1,1-Trichloroethane	ND	0.50		NR
1,1,2,2-Tetrachloroethane	ND	0.50		NR
1,1,2-Trichloroethane	ND	0.50		NR
1,1-Dichloroethane	ND	0.50		NR
1,1-Dichloroethene	ND	0.50		NR
1,1-Dichloropropene	ND	0.50		NR
1,2,3-Trichloropropane	ND	0.50		NR
1,2,3-Trichlorobenzene	ND	0.50		NR
1,2,4-Trichlorobenzene	ND	0.50		NR
1,2,4-Trimethylbenzene	ND	0.50		NR
1,2-Dibromo-3-chloropropane	ND	0.50		NR
1,2-Dibromoethane	ND	0.50		NR
1,2-Dichlorobenzene	ND	0.50		NR
1,2-Dichloroethane	ND	0.50		NR
1,2-Dichloropropane	ND	0.50		NR
1,3,5-Trimethylbenzene	ND	0.50		NR
1,3-Dichlorobenzene	ND	0.50		NR
1,3-Dichloropropane	ND	0.50		NR
1,4-Dichlorobenzene	ND	0.50		NR
2,2-Dichloropropane	ND	0.50		NR
2-Chlorotoluene	ND	0.50		NR
4-Chlorotoluene	ND	0.50		NR
4-Isopropyltoluene	ND	0.50		NR
Benzene	ND	0.50		NR
Bromobenzene	ND	0.50		NR
Bromodichloromethane	ND	0.50		NR
Bromoform	ND	0.50		NR
Bromomethane	ND	0.50		NR
Carbon tetrachloride	ND	0.50		NR
Chlorobenzene	ND	0.50		NR



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0293 - MSVOAW_LL (continued)

Blank (B4B0293-BLK1) - Continued

Prepared: 2/19/2014 Analyzed: 2/19/2014

Chloroethane	ND	0.50			NR				
Chloroform	ND	0.50			NR				
Chloromethane	ND	0.50			NR				
cis-1,2-Dichloroethene	ND	0.50			NR				
cis-1,3-Dichloropropene	ND	0.50			NR				
Dibromochloromethane	ND	0.50			NR				
Dibromomethane	ND	0.50			NR				
Dichlorodifluoromethane	ND	0.50			NR				
Ethylbenzene	ND	0.50			NR				
Hexachlorobutadiene	ND	0.50			NR				
Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				

Surrogate: 1,2-Dichloroethane-d4	27.00	25.0000	108	64 - 146
Surrogate: 4-Bromofluorobenzene	25.09	25.0000	100	60 - 128
Surrogate: Dibromofluoromethane	23.51	25.0000	94.0	72 - 141
Surrogate: Toluene-d8	21.43	25.0000	85.7	61 - 124

LCS (B4B0293-BS1)

Prepared: 2/19/2014 Analyzed: 2/19/2014

1,1,1,2-Tetrachloroethane	14.7200	20.0000	73.6	74 - 148	L4
1,1,1-Trichloroethane	21.1500	20.0000	106	74 - 136	
1,1,2,2-Tetrachloroethane	18.4200	20.0000	92.1	44 - 147	
1,1,2-Trichloroethane	17.2300	20.0000	86.2	46 - 135	
1,1-Dichloroethane	16.9800	20.0000	84.9	71 - 154	
1,1-Dichloroethene	17.7200	20.0000	88.6	56 - 131	
1,1-Dichloropropene	18.5100	20.0000	92.6	64 - 157	
1,2,3-Trichloropropane	18.7000	20.0000	93.5	45 - 147	
1,2,3-Trichlorobenzene	19.1200	20.0000	95.6	22 - 212	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0293 - MSVOAW_LL (continued)

LCS (B4B0293-BS1) - Continued

Prepared: 2/19/2014 Analyzed: 2/19/2014

1,2,4-Trichlorobenzene	19.3200		20.0000		96.6	34 - 198			
1,2,4-Trimethylbenzene	21.7900		20.0000		109	75 - 131			
1,2-Dibromo-3-chloropropane	17.2700		20.0000		86.4	9 - 217			
1,2-Dibromoethane	18.4200		20.0000		92.1	45 - 136			
1,2-Dichlorobenzene	19.5100		20.0000		97.6	75 - 142			
1,2-Dichloroethane	22.0400		20.0000		110	73 - 139			
1,2-Dichloropropane	17.6300		20.0000		88.2	61 - 145			
1,3,5-Trimethylbenzene	21.8400		20.0000		109	76 - 132			
1,3-Dichlorobenzene	19.8300		20.0000		99.2	56 - 149			
1,3-Dichloropropane	19.1200		20.0000		95.6	49 - 146			
1,4-Dichlorobenzene	20.2300		20.0000		101	70 - 127			
2,2-Dichloropropane	19.5200		20.0000		97.6	32 - 153			
2-Chlorotoluene	20.9800		20.0000		105	67 - 135			
4-Chlorotoluene	21.2100		20.0000		106	61 - 138			
4-Isopropyltoluene	22.2000		20.0000		111	66 - 137			
Benzene	18.4500		20.0000		92.2	69 - 139			
Bromobenzene	19.7400		20.0000		98.7	60 - 138			
Bromodichloromethane	20.5200		20.0000		103	74 - 135			
Bromoform	11.7000		20.0000		58.5	41 - 200			
Bromomethane	20.6200		20.0000		103	1 - 125			
Carbon tetrachloride	18.4000		20.0000		92.0	74 - 153			
Chlorobenzene	19.0100		20.0000		95.0	73 - 127			
Chloroethane	19.9800		20.0000		99.9	40 - 150			
Chloroform	18.5000		20.0000		92.5	69 - 142			
Chloromethane	19.7800		20.0000		98.9	7 - 150			
cis-1,2-Dichloroethene	18.1800		20.0000		90.9	69 - 127			
cis-1,3-Dichloropropene	17.1300		20.0000		85.6	52 - 128			
Dibromochloromethane	14.5800		20.0000		72.9	72 - 142			
Dibromomethane	21.6500		20.0000		108	72 - 125			
Dichlorodifluoromethane	20.2600		20.0000		101	0 - 135			
Ethylbenzene	21.4400		20.0000		107	69 - 139			
Hexachlorobutadiene	19.0300		20.0000		95.2	46 - 206			
Isopropylbenzene	21.8000		20.0000		109	73 - 136			
m,p-Xylene	47.0200		40.0000		118	73 - 140			
Methylene chloride	18.1400		20.0000		90.7	71 - 137			
MTBE	20.0400		20.0000		100	68 - 133			
n-Butylbenzene	22.5800		20.0000		113	75 - 132			
n-Propylbenzene	23.1400		20.0000		116	64 - 140			
Naphthalene	20.8700		20.0000		104	18 - 202			
o-Xylene	21.2400		20.0000		106	78 - 138			
sec-Butylbenzene	22.4400		20.0000		112	80 - 138			
Styrene	20.0500		20.0000		100	65 - 130			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0293 - MSVOAW_LL (continued)

LCS (B4B0293-BS1) - Continued

Prepared: 2/19/2014 Analyzed: 2/19/2014

tert-Butylbenzene	20.8900		20.0000		104	69 - 136			
Tetrachloroethene	21.7100		20.0000		109	68 - 151			
Toluene	16.5700		20.0000		82.8	62 - 133			
trans-1,2-Dichloroethene	18.1500		20.0000		90.8	67 - 130			
Trichloroethene	18.1600		20.0000		90.8	72 - 139			
Trichlorofluoromethane	22.6600		20.0000		113	67 - 157			
Vinyl chloride	20.0600		20.0000		100	37 - 144			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>25.73</i>		<i>25.0000</i>		<i>103</i>	<i>64 - 146</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>23.40</i>		<i>25.0000</i>		<i>93.6</i>	<i>60 - 128</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>22.68</i>		<i>25.0000</i>		<i>90.7</i>	<i>72 - 141</i>			
<i>Surrogate: Toluene-d8</i>	<i>20.02</i>		<i>25.0000</i>		<i>80.1</i>	<i>61 - 124</i>			

LCS Dup (B4B0293-BSD1)

Prepared: 2/19/2014 Analyzed: 2/19/2014

1,1,1,2-Tetrachloroethane	14.2500		20.0000		71.2	74 - 148	3.24	20	L4
1,1,1-Trichloroethane	19.6700		20.0000		98.4	74 - 136	7.25	20	
1,1,2,2-Tetrachloroethane	18.0900		20.0000		90.4	44 - 147	1.81	20	
1,1,2-Trichloroethane	16.8200		20.0000		84.1	46 - 135	2.41	20	
1,1-Dichloroethane	15.6900		20.0000		78.4	71 - 154	7.90	20	
1,1-Dichloroethene	16.1600		20.0000		80.8	56 - 131	9.21	20	
1,1-Dichloropropene	16.9200		20.0000		84.6	64 - 157	8.98	20	
1,2,3-Trichloropropane	18.1100		20.0000		90.6	45 - 147	3.21	20	
1,2,3-Trichlorobenzene	17.6000		20.0000		88.0	22 - 212	8.28	20	
1,2,4-Trichlorobenzene	18.0500		20.0000		90.2	34 - 198	6.80	20	
1,2,4-Trimethylbenzene	20.3000		20.0000		102	75 - 131	7.08	20	
1,2-Dibromo-3-chloropropane	17.3400		20.0000		86.7	9 - 217	0.405	20	
1,2-Dibromoethane	17.9100		20.0000		89.6	45 - 136	2.81	20	
1,2-Dichlorobenzene	18.5000		20.0000		92.5	75 - 142	5.31	20	
1,2-Dichloroethane	21.0800		20.0000		105	73 - 139	4.45	20	
1,2-Dichloropropane	16.3300		20.0000		81.6	61 - 145	7.66	20	
1,3,5-Trimethylbenzene	20.1700		20.0000		101	76 - 132	7.95	20	
1,3-Dichlorobenzene	18.6300		20.0000		93.2	56 - 149	6.24	20	
1,3-Dichloropropane	18.4300		20.0000		92.2	49 - 146	3.68	20	
1,4-Dichlorobenzene	18.9500		20.0000		94.8	70 - 127	6.53	20	
2,2-Dichloropropane	18.1000		20.0000		90.5	32 - 153	7.55	20	
2-Chlorotoluene	19.4700		20.0000		97.4	67 - 135	7.47	20	
4-Chlorotoluene	19.7800		20.0000		98.9	61 - 138	6.98	20	
4-Isopropyltoluene	20.4200		20.0000		102	66 - 137	8.35	20	
Benzene	17.2800		20.0000		86.4	69 - 139	6.55	20	
Bromobenzene	17.5800		20.0000		87.9	60 - 138	11.6	20	
Bromodichloromethane	19.9800		20.0000		99.9	74 - 135	2.67	20	
Bromoform	12.2100		20.0000		61.0	41 - 200	4.27	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0293 - MSVOAW_LL (continued)

LCS Dup (B4B0293-BS01) - Continued

Prepared: 2/19/2014 Analyzed: 2/19/2014

Bromomethane	20.2100		20.0000		101	1 - 125	2.01	20	
Carbon tetrachloride	17.8100		20.0000		89.0	74 - 153	3.26	20	
Chlorobenzene	17.8900		20.0000		89.4	73 - 127	6.07	20	
Chloroethane	18.7900		20.0000		94.0	40 - 150	6.14	20	
Chloroform	17.3400		20.0000		86.7	69 - 142	6.47	20	
Chloromethane	17.6300		20.0000		88.2	7 - 150	11.5	20	
cis-1,2-Dichloroethene	17.1000		20.0000		85.5	69 - 127	6.12	20	
cis-1,3-Dichloropropene	16.4700		20.0000		82.4	52 - 128	3.93	20	
Dibromochloromethane	14.7800		20.0000		73.9	72 - 142	1.36	20	
Dibromomethane	20.7200		20.0000		104	72 - 125	4.39	20	
Dichlorodifluoromethane	18.4900		20.0000		92.4	0 - 135	9.14	20	
Ethylbenzene	20.1400		20.0000		101	69 - 139	6.25	20	
Hexachlorobutadiene	17.0200		20.0000		85.1	46 - 206	11.2	20	
Isopropylbenzene	20.3100		20.0000		102	73 - 136	7.08	20	
m,p-Xylene	44.7300		40.0000		112	73 - 140	4.99	20	
Methylene chloride	16.9000		20.0000		84.5	71 - 137	7.08	20	
MTBE	19.1400		20.0000		95.7	68 - 133	4.59	20	
n-Butylbenzene	20.6900		20.0000		103	75 - 132	8.74	20	
n-Propylbenzene	21.3400		20.0000		107	64 - 140	8.09	20	
Naphthalene	20.0000		20.0000		100	18 - 202	4.26	20	
o-Xylene	19.7800		20.0000		98.9	78 - 138	7.12	20	
sec-Butylbenzene	20.6300		20.0000		103	80 - 138	8.40	20	
Styrene	19.0400		20.0000		95.2	65 - 130	5.17	20	
tert-Butylbenzene	19.2200		20.0000		96.1	69 - 136	8.33	20	
Tetrachloroethene	19.3500		20.0000		96.8	68 - 151	11.5	20	
Toluene	15.4700		20.0000		77.4	62 - 133	6.87	20	
trans-1,2-Dichloroethene	16.5900		20.0000		83.0	67 - 130	8.98	20	
Trichloroethene	17.1300		20.0000		85.6	72 - 139	5.84	20	
Trichlorofluoromethane	20.9800		20.0000		105	67 - 157	7.70	20	
Vinyl chloride	18.0700		20.0000		90.4	37 - 144	10.4	20	

Surrogate: 1,2-Dichloroethane-d4	24.47		25.0000		97.9	64 - 146			
Surrogate: 4-Bromofluorobenzene	21.91		25.0000		87.6	60 - 128			
Surrogate: Dibromofluoromethane	21.40		25.0000		85.6	72 - 141			
Surrogate: Toluene-d8	18.55		25.0000		74.2	61 - 124			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0099 - MSSEMI_ISOTOPEDILN

Blank (B4B0099-BLK1)

Prepared: 2/7/2014 Analyzed: 2/11/2014

1,4-Dioxane	ND	0.20		NR					
Surrogate: 1,2-Dichlorobenzene-d4	0.8910		1.00000	89.1	47 - 117				
Surrogate: 2-Fluorobiphenyl	0.9856		1.00000	98.6	48 - 121				
Surrogate: 4-Terphenyl-d14	1.251		1.00000	125	58 - 142				
Surrogate: Nitrobenzene-d5	1.270		1.00000	127	27 - 151				

LCS (B4B0099-BS1)

Prepared: 2/7/2014 Analyzed: 2/11/2014

1,4-Dioxane	1.47139	0.20	1.00000	147	58 - 151				
Surrogate: 1,2-Dichlorobenzene-d4	0.9140		1.00000	91.4	47 - 117				
Surrogate: 2-Fluorobiphenyl	0.9756		1.00000	97.6	48 - 121				
Surrogate: 4-Terphenyl-d14	1.222		1.00000	122	58 - 142				
Surrogate: Nitrobenzene-d5	1.276		1.00000	128	27 - 151				

Matrix Spike (B4B0099-MS1)

Source: 1400358-02

Prepared: 2/7/2014 Analyzed: 2/11/2014

1,4-Dioxane	1.34340	0.20	1.00000	ND	134	58 - 151			
Surrogate: 1,2-Dichlorobenzene-d4	0.8770		1.00000	87.7	47 - 117				
Surrogate: 2-Fluorobiphenyl	0.9494		1.00000	94.9	48 - 121				
Surrogate: 4-Terphenyl-d14	1.157		1.00000	116	58 - 142				
Surrogate: Nitrobenzene-d5	1.252		1.00000	125	27 - 151				

Matrix Spike Dup (B4B0099-MSD1)

Source: 1400358-02

Prepared: 2/7/2014 Analyzed: 2/11/2014

1,4-Dioxane	1.30484	0.20	1.00000	ND	130	58 - 151	2.91	20	
Surrogate: 1,2-Dichlorobenzene-d4	0.8784		1.00000	87.8	47 - 117				
Surrogate: 2-Fluorobiphenyl	0.9828		1.00000	98.3	48 - 121				
Surrogate: 4-Terphenyl-d14	1.200		1.00000	120	58 - 142				
Surrogate: Nitrobenzene-d5	1.283		1.00000	128	27 - 151				

Batch B4B0136 - MSSEMI_ISOTOPEDILN

Blank (B4B0136-BLK1)

Prepared: 2/11/2014 Analyzed: 2/12/2014

1,4-Dioxane	ND	0.20		NR					
Surrogate: 1,2-Dichlorobenzene-d4	0.8581		1.00000	85.8	47 - 117				
Surrogate: 2-Fluorobiphenyl	0.9794		1.00000	97.9	48 - 121				
Surrogate: 4-Terphenyl-d14	1.271		1.00000	127	58 - 142				
Surrogate: Nitrobenzene-d5	1.267		1.00000	127	27 - 151				

LCS (B4B0136-BS1)

Prepared: 2/11/2014 Analyzed: 2/12/2014

1,4-Dioxane	1.20195	0.20	1.00000	120	58 - 151				
Surrogate: 1,2-Dichlorobenzene-d4	0.8951		1.00000	89.5	47 - 117				
Surrogate: 2-Fluorobiphenyl	0.9869		1.00000	98.7	48 - 121				
Surrogate: 4-Terphenyl-d14	1.252		1.00000	125	58 - 142				



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Project Number : RAYTHEON, 532.30

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Reported : 02/19/2014

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0136 - MSSEMI_ISOTOPEDILN (continued)

LCS (B4B0136-BS1) - Continued

Prepared: 2/11/2014 Analyzed: 2/12/2014

Surrogate: Nitrobenzene-d5 1.336 1.00000 134 27 - 151

Matrix Spike (B4B0136-MS1)

Source: 1400383-08

Prepared: 2/11/2014 Analyzed: 2/12/2014

1,4-Dioxane 1.40111 0.20 1.00000 ND 140 58 - 151

Surrogate: 1,2-Dichlorobenzene-d4 0.7273 1.00000 72.7 47 - 117

Surrogate: 2-Fluorobiphenyl 0.8035 1.00000 80.3 48 - 121

Surrogate: 4-Terphenyl-d14 1.024 1.00000 102 58 - 142

Surrogate: Nitrobenzene-d5 1.107 1.00000 111 27 - 151

Matrix Spike Dup (B4B0136-MSD1)

Source: 1400383-08

Prepared: 2/11/2014 Analyzed: 2/12/2014

1,4-Dioxane 1.34714 0.20 1.00000 ND 135 58 - 151 3.93 20

Surrogate: 1,2-Dichlorobenzene-d4 0.8534 1.00000 85.3 47 - 117

Surrogate: 2-Fluorobiphenyl 0.9499 1.00000 95.0 48 - 121

Surrogate: 4-Terphenyl-d14 1.168 1.00000 117 58 - 142

Surrogate: Nitrobenzene-d5 1.272 1.00000 127 27 - 151



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Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Notes and Definitions

S5	Surrogate recovery was above laboratory acceptance limit. Sample reanalysis showed the same high recovery.
S4	Surrogate was diluted out.
S1	Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
R2	RPD value outside acceptance criteria due to possible matrix interference.
M3	Matrix spike recovery outside of acceptance limit due to disproportionate concentration of the analyte to spike level. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L5	Laboratory Control Sample high biased. Sample result/s was non-detect (ND) for the target analyte; therefore reanalysis was not necessary.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
E4	Result value is estimated.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM

DATE 2/6/14 PAGE 1 OF 2

PROJECT NAME RAYTHEON		PROJECT No./TASK No. 532.30		SAMPLE CONTAINERS		ANALYSIS REQUESTED		ESTIMATED CONCENTRATION RANGE (ppb) FOR VOAs		SPECIAL HANDLING		LABORATORY INFORMATION			
PROJECT MANAGER STEVE NETTO		Phone No. 858-455-6500		40 ml VOA 1 L Amber VOCs 8260B 1,4-Dioxane 8270 MOD 1,4-Dioxane 8270 SIN		0-10 10-100 100-1,000 1,000-10,000 >10,000		STANDARD TAT MS MSD		ATL Attn: Rachelle Arada					
QA MANAGER		Fax No. 858-455-6533													
SAMPLER (SIGNATURE) <i>[Signature]</i>		SAMPLER (PRINTED) ERIN HUNTER													
LAB ID	SAMPLE ID	SAMPLE COLLECTION		MATRIX		PRESERVATION									
		Date	Time	Soil	Ground water	Surface water	Lab H2O	HCl	HNO3	NaOH	H2SO4	Ice			
1400383 - 1	TB-020614A	2/6/14	0730				X	X				X			
- 2	MW-40		1010	X			X				X				
	MW-40		1010	X							X				
- 3	MW-22		1112	X			X				X				
	MW-22		1112	X							X				
- 4	MW-08		1316	X			X				X				
	↓		↓	X							X				
- 5	MW-15		1400	X			X				X				
- 6	MW-27		1452	X			X				X				
	↓		↓	X							X				
- 7	MW-13		1527	X			X				X				
	↓		↓	X							X				
- 8	MW-24		1640	X							X				
	↓		↓	X							X				
Total number of Containers per analysis:				13				60				Total No. of Containers: 29/57			

Relinquished by: <i>Anelle Fender</i>		Date 2/6/14	Received by: <i>[Signature]</i>	Date 2/6/14	INSTRUCTIONS 1. Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness. 2. Complete in ballpoint pen. Draw one line through errors, initial and date correction. 3. Indicate number of sample containers in analysis request space; indicate choice with ✓ or x. 4. Note applicable preservatives, special instructions, and deviations from typical environmental samples. 5. Consult project QA documents for specific instructions.	Shipment Method:	
H+A, Inc.		Time 17:15	ATL	Time 1700		Send Results to: Steve Netto	
Company		Company					
Relinquished by: <i>[Signature]</i>		Date 2/6/14	Received by: <i>[Signature]</i>	Date 2/6/14		☒ 9171 TOWNE CENTRE DRIVE, SUITE 375 SAN DIEGO, CA 92122 (858) 455-6500 ☐ 1640 SOUTH STAPLEY DRIVE, SUITE 209 MESA, AZ 85204 (480) 345-0888 ☐ 1820 EAST RIVER ROAD, SUITE 220 TUCSON, AZ 85718 (520) 881-7300	
ATL		Time 1802	ATL	Time 1802		Send invoice to San Diego, CA Attn: Accounts Payable	
Company		Company					

Sample Receipt:		Temp. @ receipt <u>13, 14</u> °C	
☐ No. of containers correct	☐ received good condition/cold		
☐ custody seals secure	☐ conforms to COC document		

February 19, 2014

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax: (858) 455-6533


ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No.: T104704502

Re: ATL Work Order Number : 1400396
Client Reference : RAYTHEON, 532.30

Enclosed are the results for sample(s) received on February 07, 2014 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-020714	1400396-01	Lab H2O	2/07/14 7:30	2/07/14 13:14
MW-31	1400396-02	Groundwater	2/07/14 8:37	2/07/14 13:14
MW-29	1400396-03	Groundwater	2/07/14 9:23	2/07/14 13:14
MW-19	1400396-04	Groundwater	2/07/14 9:55	2/07/14 13:14
MW-34C	1400396-05	Groundwater	2/07/14 8:53	2/07/14 13:14
MW-30A	1400396-06	Groundwater	2/07/14 9:35	2/07/14 13:14
MW-30B	1400396-07	Groundwater	2/07/14 10:15	2/07/14 13:14



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID TB-020714

Lab ID: 1400396-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
2-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
4-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Benzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Bromobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Bromodichloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Bromoform	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Bromomethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Carbon tetrachloride	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Chlorobenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Chloroethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Chloroform	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Chloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Dibromochloromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID TB-020714

Lab ID: 1400396-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Ethylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Isopropylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
m,p-Xylene	ND	1.0	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Methylene chloride	ND	1.0	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
n-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
n-Propylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Naphthalene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
o-Xylene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
sec-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Styrene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
tert-Butylbenzene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Tetrachloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Toluene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Trichloroethene	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Vinyl chloride	ND	0.50	NA	1	B4B0214	02/14/2014	02/14/14 20:03	
Surrogate: 1,2-Dichloroethane-d4	141 %		64 - 146		B4B0214	02/14/2014	02/14/14 20:03	
Surrogate: 4-Bromofluorobenzene	88.6 %		60 - 128		B4B0214	02/14/2014	02/14/14 20:03	
Surrogate: Dibromofluoromethane	117 %		72 - 141		B4B0214	02/14/2014	02/14/14 20:03	
Surrogate: Toluene-d8	116 %		61 - 124		B4B0214	02/14/2014	02/14/14 20:03	



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-31

Lab ID: 1400396-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,1-Dichloroethane	3.3	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,1-Dichloroethene	380	5.0	NA	10	B4B0293	02/19/2014	02/19/14 12:55	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
2-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
4-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Benzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Bromobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Bromodichloromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Bromoform	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Bromomethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Carbon tetrachloride	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Chlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Chloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Chloroform	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Chloromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
cis-1,2-Dichloroethene	1.2	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Dibromochloromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-31

Lab ID: 1400396-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Ethylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Isopropylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
m,p-Xylene	ND	1.0	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Methylene chloride	ND	1.0	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
n-Butylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
n-Propylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Naphthalene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
o-Xylene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
sec-Butylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Styrene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
tert-Butylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Tetrachloroethene	0.77	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Toluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Trichloroethene	19	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	
Vinyl chloride	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:10	

Surrogate: 1,2-Dichloroethane-d4	89.5 %	64 - 146	B4B0293	02/19/2014	02/19/14 12:55
Surrogate: 1,2-Dichloroethane-d4	143 %	64 - 146	B4B0214	02/15/2014	02/15/14 00:10
Surrogate: 4-Bromofluorobenzene	84.6 %	60 - 128	B4B0293	02/19/2014	02/19/14 12:55
Surrogate: 4-Bromofluorobenzene	83.9 %	60 - 128	B4B0214	02/15/2014	02/15/14 00:10
Surrogate: Dibromofluoromethane	119 %	72 - 141	B4B0214	02/15/2014	02/15/14 00:10
Surrogate: Dibromofluoromethane	79.3 %	72 - 141	B4B0293	02/19/2014	02/19/14 12:55
Surrogate: Toluene-d8	73.7 %	61 - 124	B4B0293	02/19/2014	02/19/14 12:55
Surrogate: Toluene-d8	111 %	61 - 124	B4B0214	02/15/2014	02/15/14 00:10



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-31

Lab ID: 1400396-02

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	13	0.40	NA	2	B4B0136	02/11/2014	02/13/14 18:16	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>86.5 %</i>		<i>47 - 117</i>		B4B0136	02/11/2014	<i>02/13/14 18:16</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>101 %</i>		<i>48 - 121</i>		B4B0136	02/11/2014	<i>02/13/14 18:16</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>131 %</i>		<i>58 - 142</i>		B4B0136	02/11/2014	<i>02/13/14 18:16</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>126 %</i>		<i>27 - 151</i>		B4B0136	02/11/2014	<i>02/13/14 18:16</i>	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-29

Lab ID: 1400396-03

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,1,2-Trichloroethane	1.1	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,1-Dichloroethane	3.1	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,1-Dichloroethene	290	2.5	NA	5	B4B0218	02/17/2014	02/17/14 18:00	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
2-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
4-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Benzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Bromobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Bromodichloromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Bromoform	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Bromomethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Carbon tetrachloride	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Chlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Chloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Chloroform	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Chloromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Dibromochloromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-29

Lab ID: 1400396-03

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Ethylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Isopropylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
m,p-Xylene	ND	1.0	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Methylene chloride	ND	1.0	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
n-Butylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
n-Propylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Naphthalene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
o-Xylene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
sec-Butylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Styrene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
tert-Butylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Tetrachloroethene	1.3	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Toluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Trichloroethene	6.1	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Trichlorofluoromethane	1.9	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	
Vinyl chloride	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 00:59	

<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>142 %</i>	<i>64 - 146</i>		B4B0218	02/17/2014	<i>02/17/14 18:00</i>	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>151 %</i>	<i>64 - 146</i>		B4B0214	02/15/2014	<i>02/15/14 00:59</i>	S10
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>81.0 %</i>	<i>60 - 128</i>		B4B0218	02/17/2014	<i>02/17/14 18:00</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>81.6 %</i>	<i>60 - 128</i>		B4B0214	02/15/2014	<i>02/15/14 00:59</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>116 %</i>	<i>72 - 141</i>		B4B0214	02/15/2014	<i>02/15/14 00:59</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>119 %</i>	<i>72 - 141</i>		B4B0218	02/17/2014	<i>02/17/14 18:00</i>	
<i>Surrogate: Toluene-d8</i>	<i>108 %</i>	<i>61 - 124</i>		B4B0214	02/15/2014	<i>02/15/14 00:59</i>	
<i>Surrogate: Toluene-d8</i>	<i>94.2 %</i>	<i>61 - 124</i>		B4B0218	02/17/2014	<i>02/17/14 18:00</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-29

Lab ID: 1400396-03

1,4-Dioxane by EPA 8270: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	130	2.0	NA	1	B4B0123	02/10/2014	02/10/14 22:29	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>81.3 %</i>		<i>37 - 93</i>		B4B0123	02/10/2014	<i>02/10/14 22:29</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>82.7 %</i>		<i>51 - 100</i>		B4B0123	02/10/2014	<i>02/10/14 22:29</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>103 %</i>		<i>58 - 113</i>		B4B0123	02/10/2014	<i>02/10/14 22:29</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>93.5 %</i>		<i>39 - 95</i>		B4B0123	02/10/2014	<i>02/10/14 22:29</i>	



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-19

Lab ID: 1400396-04

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
2-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
4-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Benzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Bromobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Bromodichloromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Bromoform	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Bromomethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Carbon tetrachloride	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Chlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Chloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Chloroform	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Chloromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Dibromochloromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-19

Lab ID: 1400396-04

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Ethylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Isopropylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
m,p-Xylene	ND	1.0	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Methylene chloride	ND	1.0	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
n-Butylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
n-Propylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Naphthalene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
o-Xylene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
sec-Butylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Styrene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
tert-Butylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Tetrachloroethene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Toluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Trichloroethene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Vinyl chloride	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 02:36	
Surrogate: 1,2-Dichloroethane-d4	150 %	64 - 146			B4B0214	02/15/2014	02/15/14 02:36	S1
Surrogate: 4-Bromofluorobenzene	85.4 %	60 - 128			B4B0214	02/15/2014	02/15/14 02:36	
Surrogate: Dibromofluoromethane	118 %	72 - 141			B4B0214	02/15/2014	02/15/14 02:36	
Surrogate: Toluene-d8	112 %	61 - 124			B4B0214	02/15/2014	02/15/14 02:36	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-19

Lab ID: 1400396-04

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0136	02/11/2014	02/14/14 11:37	
Surrogate: 1,2-Dichlorobenzene-d4	73.3 %		47 - 117		B4B0136	02/11/2014	02/14/14 11:37	
Surrogate: 2-Fluorobiphenyl	87.4 %		48 - 121		B4B0136	02/11/2014	02/14/14 11:37	
Surrogate: 4-Terphenyl-d14	118 %		58 - 142		B4B0136	02/11/2014	02/14/14 11:37	
Surrogate: Nitrobenzene-d5	97.4 %		27 - 151		B4B0136	02/11/2014	02/14/14 11:37	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-34C

Lab ID: 1400396-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
2-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
4-Chlorotoluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Benzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Bromobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Bromodichloromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Bromoform	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Bromomethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Carbon tetrachloride	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Chlorobenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Chloroethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Chloroform	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Chloromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Dibromochloromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-34C

Lab ID: 1400396-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Ethylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Isopropylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
m,p-Xylene	ND	1.0	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Methylene chloride	ND	1.0	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
n-Butylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
n-Propylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Naphthalene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
o-Xylene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
sec-Butylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Styrene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
tert-Butylbenzene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Tetrachloroethene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Toluene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Trichloroethene	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Vinyl chloride	ND	0.50	NA	1	B4B0214	02/15/2014	02/15/14 03:01	
Surrogate: 1,2-Dichloroethane-d4	143 %		64 - 146		B4B0214	02/15/2014	02/15/14 03:01	
Surrogate: 4-Bromofluorobenzene	83.4 %		60 - 128		B4B0214	02/15/2014	02/15/14 03:01	
Surrogate: Dibromofluoromethane	117 %		72 - 141		B4B0214	02/15/2014	02/15/14 03:01	
Surrogate: Toluene-d8	112 %		61 - 124		B4B0214	02/15/2014	02/15/14 03:01	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-34C

Lab ID: 1400396-05

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0136	02/11/2014	02/14/14 12:03	
Surrogate: 1,2-Dichlorobenzene-d4	81.8 %		47 - 117		B4B0136	02/11/2014	02/14/14 12:03	
Surrogate: 2-Fluorobiphenyl	96.9 %		48 - 121		B4B0136	02/11/2014	02/14/14 12:03	
Surrogate: 4-Terphenyl-d14	122 %		58 - 142		B4B0136	02/11/2014	02/14/14 12:03	
Surrogate: Nitrobenzene-d5	104 %		27 - 151		B4B0136	02/11/2014	02/14/14 12:03	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-30A

Lab ID: 1400396-06

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
2-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
4-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Benzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Bromobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Bromodichloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Bromoform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Bromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Carbon tetrachloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Chlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Chloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Chloroform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Chloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Dibromochloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-30A

Lab ID: 1400396-06

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Ethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Isopropylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
m,p-Xylene	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Methylene chloride	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
n-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
n-Propylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Naphthalene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
o-Xylene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
sec-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Styrene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
tert-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Tetrachloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Toluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Trichloroethene	0.51	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
Vinyl chloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:18	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>139 %</i>		<i>64 - 146</i>		B4B0218	02/17/2014	<i>02/17/14 14:18</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>77.4 %</i>		<i>60 - 128</i>		B4B0218	02/17/2014	<i>02/17/14 14:18</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>111 %</i>		<i>72 - 141</i>		B4B0218	02/17/2014	<i>02/17/14 14:18</i>	
<i>Surrogate: Toluene-d8</i>	<i>93.0 %</i>		<i>61 - 124</i>		B4B0218	02/17/2014	<i>02/17/14 14:18</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-30A

Lab ID: 1400396-06

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	ND	0.20	NA	1	B4B0136	02/11/2014	02/14/14 13:15	
Surrogate: 1,2-Dichlorobenzene-d4	73.1 %		47 - 117		B4B0136	02/11/2014	02/14/14 13:15	
Surrogate: 2-Fluorobiphenyl	91.6 %		48 - 121		B4B0136	02/11/2014	02/14/14 13:15	
Surrogate: 4-Terphenyl-d14	120 %		58 - 142		B4B0136	02/11/2014	02/14/14 13:15	
Surrogate: Nitrobenzene-d5	97.3 %		27 - 151		B4B0136	02/11/2014	02/14/14 13:15	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-30B

Lab ID: 1400396-07

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,1-Dichloroethene	15	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
2-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
4-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Benzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Bromobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Bromodichloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Bromoform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Bromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Carbon tetrachloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Chlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Chloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Chloroform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Chloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
cis-1,2-Dichloroethene	4.6	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Dibromochloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-30B

Lab ID: 1400396-07

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Ethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Isopropylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
m,p-Xylene	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Methylene chloride	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
n-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
n-Propylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Naphthalene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
o-Xylene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
sec-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Styrene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
tert-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Tetrachloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Toluene	1.0	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Trichloroethene	92	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
Vinyl chloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 14:42	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>136 %</i>		<i>64 - 146</i>		B4B0218	02/17/2014	<i>02/17/14 14:42</i>	
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>83.5 %</i>		<i>60 - 128</i>		B4B0218	02/17/2014	<i>02/17/14 14:42</i>	
<i>Surrogate: Dibromofluoromethane</i>	<i>115 %</i>		<i>72 - 141</i>		B4B0218	02/17/2014	<i>02/17/14 14:42</i>	
<i>Surrogate: Toluene-d8</i>	<i>91.8 %</i>		<i>61 - 124</i>		B4B0218	02/17/2014	<i>02/17/14 14:42</i>	



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Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Client Sample ID MW-30B

Lab ID: 1400396-07

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	0.68	0.20	NA	1	B4B0136	02/11/2014	02/14/14 14:11	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>79.9 %</i>		<i>47 - 117</i>		B4B0136	02/11/2014	<i>02/14/14 14:11</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>93.1 %</i>		<i>48 - 121</i>		B4B0136	02/11/2014	<i>02/14/14 14:11</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>112 %</i>		<i>58 - 142</i>		B4B0136	02/11/2014	<i>02/14/14 14:11</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>109 %</i>		<i>27 - 151</i>		B4B0136	02/11/2014	<i>02/14/14 14:11</i>	



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

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QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL

Blank (B4B0214-BLK1)

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	ND	0.50			NR
1,1,1-Trichloroethane	ND	0.50			NR
1,1,2,2-Tetrachloroethane	ND	0.50			NR
1,1,2-Trichloroethane	ND	0.50			NR
1,1-Dichloroethane	ND	0.50			NR
1,1-Dichloroethene	ND	0.50			NR
1,1-Dichloropropene	ND	0.50			NR
1,2,3-Trichloropropane	ND	0.50			NR
1,2,3-Trichlorobenzene	ND	0.50			NR
1,2,4-Trichlorobenzene	ND	0.50			NR
1,2,4-Trimethylbenzene	ND	0.50			NR
1,2-Dibromo-3-chloropropane	ND	0.50			NR
1,2-Dibromoethane	ND	0.50			NR
1,2-Dichlorobenzene	ND	0.50			NR
1,2-Dichloroethane	ND	0.50			NR
1,2-Dichloropropane	ND	0.50			NR
1,3,5-Trimethylbenzene	ND	0.50			NR
1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR
Dichlorodifluoromethane	ND	0.50			NR



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

Blank (B4B0214-BLK1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

Ethylbenzene	ND	0.50			NR				
Hexachlorobutadiene	ND	0.50			NR				
Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	33.82		25.0000		135	64 - 146			
Surrogate: 4-Bromofluorobenzene	22.16		25.0000		88.6	60 - 128			
Surrogate: Dibromofluoromethane	28.51		25.0000		114	72 - 141			
Surrogate: Toluene-d8	28.68		25.0000		115	61 - 124			

LCS (B4B0214-BS1)

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	25.1200	0.50	20.0000		126	74 - 148			
1,1,1-Trichloroethane	18.9200	0.50	20.0000		94.6	74 - 136			
1,1,2,2-Tetrachloroethane	21.8000	0.50	20.0000		109	44 - 147			
1,1,2-Trichloroethane	17.2100	0.50	20.0000		86.0	46 - 135			
1,1-Dichloroethane	21.3000	0.50	20.0000		106	71 - 154			
1,1-Dichloroethene	17.7100	0.50	20.0000		88.6	56 - 131			
1,1-Dichloropropene	22.1500	0.50	20.0000		111	64 - 157			
1,2,3-Trichloropropane	21.1400	0.50	20.0000		106	45 - 147			
1,2,3-Trichlorobenzene	40.8700	0.50	20.0000		204	22 - 212			
1,2,4-Trichlorobenzene	31.0300	0.50	20.0000		155	34 - 198			
1,2,4-Trimethylbenzene	19.0300	0.50	20.0000		95.2	75 - 131			
1,2-Dibromo-3-chloropropane	36.2400	0.50	20.0000		181	9 - 217			
1,2-Dibromoethane	16.6600	0.50	20.0000		83.3	45 - 136			
1,2-Dichlorobenzene	22.0600	0.50	20.0000		110	75 - 142			
1,2-Dichloroethane	21.7900	0.50	20.0000		109	73 - 139			
1,2-Dichloropropane	18.1700	0.50	20.0000		90.8	61 - 145			
1,3,5-Trimethylbenzene	19.7800	0.50	20.0000		98.9	76 - 132			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

LCS (B4B0214-BS1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,3-Dichlorobenzene	17.3300	0.50	20.0000		86.6	56 - 149			
1,3-Dichloropropane	17.3200	0.50	20.0000		86.6	49 - 146			
1,4-Dichlorobenzene	17.4700	0.50	20.0000		87.4	70 - 127			
2,2-Dichloropropane	18.3600	0.50	20.0000		91.8	32 - 153			
2-Chlorotoluene	18.5600	0.50	20.0000		92.8	67 - 135			
4-Chlorotoluene	16.7700	0.50	20.0000		83.8	61 - 138			
4-Isopropyltoluene	17.6200	0.50	20.0000		88.1	66 - 137			
Benzene	21.3900	0.50	20.0000		107	69 - 139			
Bromobenzene	18.9800	0.50	20.0000		94.9	60 - 138			
Bromodichloromethane	22.2400	0.50	20.0000		111	74 - 135			
Bromoform	36.0200	0.50	20.0000		180	41 - 200			
Bromomethane	10.6000	0.50	20.0000		53.0	1 - 125			
Carbon tetrachloride	27.4200	0.50	20.0000		137	74 - 153			
Chlorobenzene	18.0100	0.50	20.0000		90.0	73 - 127			
Chloroethane	17.8900	0.50	20.0000		89.4	40 - 150			
Chloroform	20.0300	0.50	20.0000		100	69 - 142			
Chloromethane	17.2400	0.50	20.0000		86.2	7 - 150			
cis-1,2-Dichloroethene	18.5000	0.50	20.0000		92.5	69 - 127			
cis-1,3-Dichloropropene	16.4500	0.50	20.0000		82.2	52 - 128			
Dibromochloromethane	23.2000	0.50	20.0000		116	72 - 142			
Dibromomethane	19.8000	0.50	20.0000		99.0	72 - 125			
Dichlorodifluoromethane	13.5000	0.50	20.0000		67.5	0 - 135			
Ethylbenzene	19.3900	0.50	20.0000		97.0	69 - 139			
Hexachlorobutadiene	35.6300	0.50	20.0000		178	46 - 206			
Isopropylbenzene	20.9200	0.50	20.0000		105	73 - 136			
m,p-Xylene	40.2400	1.0	40.0000		101	73 - 140			
Methylene chloride	18.5300	1.0	20.0000		92.6	71 - 137			
MTBE	19.2600	0.50	20.0000		96.3	68 - 133			
n-Butylbenzene	16.5500	0.50	20.0000		82.8	75 - 132			
n-Propylbenzene	17.7700	0.50	20.0000		88.8	64 - 140			
Naphthalene	30.4900	0.50	20.0000		152	18 - 202			
o-Xylene	21.7100	0.50	20.0000		109	78 - 138			
sec-Butylbenzene	20.0500	0.50	20.0000		100	80 - 138			
Styrene	17.0000	0.50	20.0000		85.0	65 - 130			
tert-Butylbenzene	19.0000	0.50	20.0000		95.0	69 - 136			
Tetrachloroethene	24.6400	0.50	20.0000		123	68 - 151			
Toluene	19.1800	0.50	20.0000		95.9	62 - 133			
trans-1,2-Dichloroethene	17.9200	0.50	20.0000		89.6	67 - 130			
Trichloroethene	20.2700	0.50	20.0000		101	72 - 139			
Trichlorofluoromethane	19.3500	0.50	20.0000		96.8	67 - 157			
Vinyl chloride	17.4200	0.50	20.0000		87.1	37 - 144			



Certificate of Analysis

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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

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Reported : 02/19/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

LCS (B4B0214-BS1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

Surrogate: 1,2-Dichloroethane-d4	30.37		25.0000		121	64 - 146			
Surrogate: 4-Bromofluorobenzene	21.55		25.0000		86.2	60 - 128			
Surrogate: Dibromofluoromethane	26.84		25.0000		107	72 - 141			
Surrogate: Toluene-d8	27.50		25.0000		110	61 - 124			

LCS Dup (B4B0214-BS1)

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	25.3600	0.50	20.0000		127	74 - 148	0.951	20	
1,1,1-Trichloroethane	18.7900	0.50	20.0000		94.0	74 - 136	0.689	20	
1,1,2,2-Tetrachloroethane	22.4900	0.50	20.0000		112	44 - 147	3.12	20	
1,1,2-Trichloroethane	16.8700	0.50	20.0000		84.4	46 - 135	2.00	20	
1,1-Dichloroethane	21.2500	0.50	20.0000		106	71 - 154	0.235	20	
1,1-Dichloroethene	18.1300	0.50	20.0000		90.6	56 - 131	2.34	20	
1,1-Dichloropropene	22.3600	0.50	20.0000		112	64 - 157	0.944	20	
1,2,3-Trichloropropane	21.7200	0.50	20.0000		109	45 - 147	2.71	20	
1,2,3-Trichlorobenzene	43.0000	0.50	20.0000		215	22 - 212	5.08	20	L5
1,2,4-Trichlorobenzene	31.3200	0.50	20.0000		157	34 - 198	0.930	20	
1,2,4-Trimethylbenzene	19.5500	0.50	20.0000		97.8	75 - 131	2.70	20	
1,2-Dibromo-3-chloropropane	36.7400	0.50	20.0000		184	9 - 217	1.37	20	
1,2-Dibromoethane	15.7700	0.50	20.0000		78.8	45 - 136	5.49	20	
1,2-Dichlorobenzene	22.6500	0.50	20.0000		113	75 - 142	2.64	20	
1,2-Dichloroethane	22.0900	0.50	20.0000		110	73 - 139	1.37	20	
1,2-Dichloropropane	18.0600	0.50	20.0000		90.3	61 - 145	0.607	20	
1,3,5-Trimethylbenzene	20.8200	0.50	20.0000		104	76 - 132	5.12	20	
1,3-Dichlorobenzene	17.4200	0.50	20.0000		87.1	56 - 149	0.518	20	
1,3-Dichloropropane	16.7900	0.50	20.0000		84.0	49 - 146	3.11	20	
1,4-Dichlorobenzene	16.2800	0.50	20.0000		81.4	70 - 127	7.05	20	
2,2-Dichloropropane	17.9300	0.50	20.0000		89.6	32 - 153	2.37	20	
2-Chlorotoluene	19.6900	0.50	20.0000		98.4	67 - 135	5.91	20	
4-Chlorotoluene	17.3000	0.50	20.0000		86.5	61 - 138	3.11	20	
4-Isopropyltoluene	18.0000	0.50	20.0000		90.0	66 - 137	2.13	20	
Benzene	21.4900	0.50	20.0000		107	69 - 139	0.466	20	
Bromobenzene	18.9500	0.50	20.0000		94.8	60 - 138	0.158	20	
Bromodichloromethane	22.2300	0.50	20.0000		111	74 - 135	0.0450	20	
Bromoform	34.4400	0.50	20.0000		172	41 - 200	4.48	20	
Bromomethane	11.0800	0.50	20.0000		55.4	1 - 125	4.43	20	
Carbon tetrachloride	27.1600	0.50	20.0000		136	74 - 153	0.953	20	
Chlorobenzene	18.5000	0.50	20.0000		92.5	73 - 127	2.68	20	
Chloroethane	18.0300	0.50	20.0000		90.2	40 - 150	0.780	20	
Chloroform	19.5000	0.50	20.0000		97.5	69 - 142	2.68	20	
Chloromethane	17.8300	0.50	20.0000		89.2	7 - 150	3.36	20	
cis-1,2-Dichloroethene	18.4600	0.50	20.0000		92.3	69 - 127	0.216	20	
cis-1,3-Dichloropropene	16.2100	0.50	20.0000		81.0	52 - 128	1.47	20	



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Reported : 02/19/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

LCS Dup (B4B0214-BSD1) - Continued

Prepared: 2/14/2014 Analyzed: 2/14/2014

Dibromochloromethane	23.2300	0.50	20.0000		116	72 - 142	0.129	20	
Dibromomethane	19.9100	0.50	20.0000		99.6	72 - 125	0.554	20	
Dichlorodifluoromethane	13.5700	0.50	20.0000		67.8	0 - 135	0.517	20	
Ethylbenzene	19.5600	0.50	20.0000		97.8	69 - 139	0.873	20	
Hexachlorobutadiene	39.9500	0.50	20.0000		200	46 - 206	11.4	20	
Isopropylbenzene	21.5800	0.50	20.0000		108	73 - 136	3.11	20	
m,p-Xylene	40.5100	1.0	40.0000		101	73 - 140	0.669	20	
Methylene chloride	18.3100	1.0	20.0000		91.6	71 - 137	1.19	20	
MTBE	18.5800	0.50	20.0000		92.9	68 - 133	3.59	20	
n-Butylbenzene	17.0400	0.50	20.0000		85.2	75 - 132	2.92	20	
n-Propylbenzene	18.3200	0.50	20.0000		91.6	64 - 140	3.05	20	
Naphthalene	30.1100	0.50	20.0000		151	18 - 202	1.25	20	
o-Xylene	21.3100	0.50	20.0000		107	78 - 138	1.86	20	
sec-Butylbenzene	21.5300	0.50	20.0000		108	80 - 138	7.12	20	
Styrene	16.7700	0.50	20.0000		83.8	65 - 130	1.36	20	
tert-Butylbenzene	19.6500	0.50	20.0000		98.2	69 - 136	3.36	20	
Tetrachloroethene	26.3500	0.50	20.0000		132	68 - 151	6.71	20	
Toluene	19.2000	0.50	20.0000		96.0	62 - 133	0.104	20	
trans-1,2-Dichloroethene	18.2500	0.50	20.0000		91.2	67 - 130	1.82	20	
Trichloroethene	20.3900	0.50	20.0000		102	72 - 139	0.590	20	
Trichlorofluoromethane	19.1200	0.50	20.0000		95.6	67 - 157	1.20	20	
Vinyl chloride	18.1000	0.50	20.0000		90.5	37 - 144	3.83	20	

Surrogate: 1,2-Dichloroethane-d4	30.11		25.0000		120	64 - 146			
Surrogate: 4-Bromofluorobenzene	20.80		25.0000		83.2	60 - 128			
Surrogate: Dibromofluoromethane	26.34		25.0000		105	72 - 141			
Surrogate: Toluene-d8	27.21		25.0000		109	61 - 124			

Matrix Spike (B4B0214-MS1)

Source: 1400396-03

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	25.6500	0.50	20.0000	ND	128	74 - 148			
1,1,1-Trichloroethane	20.3400	0.50	20.0000	ND	102	74 - 136			
1,1,2,2-Tetrachloroethane	23.3400	0.50	20.0000	ND	117	44 - 147			
1,1,2-Trichloroethane	18.3300	0.50	20.0000	1.06000	86.4	46 - 135			
1,1-Dichloroethane	25.4500	0.50	20.0000	3.14000	112	71 - 154			
1,1-Dichloroethene	294.530	0.50	20.0000	252.320	211	56 - 131			M3
1,1-Dichloropropene	23.3300	0.50	20.0000	ND	117	64 - 157			
1,2,3-Trichloropropane	23.5500	0.50	20.0000	ND	118	45 - 147			
1,2,3-Trichlorobenzene	43.5200	0.50	20.0000	ND	218	22 - 212			M1
1,2,4-Trichlorobenzene	33.0600	0.50	20.0000	ND	165	34 - 198			
1,2,4-Trimethylbenzene	20.0900	0.50	20.0000	ND	100	75 - 131			
1,2-Dibromo-3-chloropropane	38.8600	0.50	20.0000	ND	194	9 - 217			
1,2-Dibromoethane	16.8000	0.50	20.0000	ND	84.0	45 - 136			



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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

Matrix Spike (B4B0214-MS1) - Continued

Source: 1400396-03

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,2-Dichlorobenzene	23.7300	0.50	20.0000	ND	119	75 - 142			
1,2-Dichloroethane	23.6400	0.50	20.0000	ND	118	73 - 139			
1,2-Dichloropropane	18.9600	0.50	20.0000	ND	94.8	61 - 145			
1,3,5-Trimethylbenzene	21.1200	0.50	20.0000	ND	106	76 - 132			
1,3-Dichlorobenzene	18.5600	0.50	20.0000	ND	92.8	56 - 149			
1,3-Dichloropropane	17.5200	0.50	20.0000	ND	87.6	49 - 146			
1,4-Dichlorobenzene	18.4600	0.50	20.0000	ND	92.3	70 - 127			
2,2-Dichloropropane	19.6400	0.50	20.0000	ND	98.2	32 - 153			
2-Chlorotoluene	19.9300	0.50	20.0000	ND	99.6	67 - 135			
4-Chlorotoluene	17.5200	0.50	20.0000	ND	87.6	61 - 138			
4-Isopropyltoluene	18.4700	0.50	20.0000	ND	92.4	66 - 137			
Benzene	21.9100	0.50	20.0000	ND	110	69 - 139			
Bromobenzene	20.1100	0.50	20.0000	ND	101	60 - 138			
Bromodichloromethane	22.4100	0.50	20.0000	ND	112	74 - 135			
Bromoform	36.2900	0.50	20.0000	ND	181	41 - 200			
Bromomethane	12.4600	0.50	20.0000	ND	62.3	1 - 125			
Carbon tetrachloride	29.7600	0.50	20.0000	ND	149	74 - 153			
Chlorobenzene	18.9400	0.50	20.0000	ND	94.7	73 - 127			
Chloroethane	20.7700	0.50	20.0000	ND	104	40 - 150			
Chloroform	20.6800	0.50	20.0000	ND	103	69 - 142			
Chloromethane	20.4000	0.50	20.0000	ND	102	7 - 150			
cis-1,2-Dichloroethene	18.9200	0.50	20.0000	0.490000	92.2	69 - 127			
cis-1,3-Dichloropropene	16.5700	0.50	20.0000	ND	82.8	52 - 128			
Dibromochloromethane	23.3700	0.50	20.0000	ND	117	72 - 142			
Dibromomethane	20.4400	0.50	20.0000	ND	102	72 - 125			
Dichlorodifluoromethane	15.7500	0.50	20.0000	ND	78.8	0 - 135			
Ethylbenzene	20.2200	0.50	20.0000	ND	101	69 - 139			
Hexachlorobutadiene	42.8600	0.50	20.0000	ND	214	46 - 206			M1
Isopropylbenzene	22.2900	0.50	20.0000	ND	111	73 - 136			
m,p-Xylene	41.4300	1.0	40.0000	ND	104	73 - 140			
Methylene chloride	18.5800	1.0	20.0000	ND	92.9	71 - 137			
MTBE	18.7400	0.50	20.0000	ND	93.7	68 - 133			
n-Butylbenzene	17.1300	0.50	20.0000	ND	85.6	75 - 132			
n-Propylbenzene	18.9300	0.50	20.0000	ND	94.6	64 - 140			
Naphthalene	31.6000	0.50	20.0000	ND	158	18 - 202			
o-Xylene	22.6200	0.50	20.0000	ND	113	78 - 138			
sec-Butylbenzene	21.7500	0.50	20.0000	ND	109	80 - 138			
Styrene	16.9600	0.50	20.0000	ND	84.8	65 - 130			
tert-Butylbenzene	20.2500	0.50	20.0000	ND	101	69 - 136			
Tetrachloroethene	27.9700	0.50	20.0000	1.34000	133	68 - 151			
Toluene	19.4400	0.50	20.0000	ND	97.2	62 - 133			
trans-1,2-Dichloroethene	19.3900	0.50	20.0000	ND	97.0	67 - 130			



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Report To : Steve Netto

Reported : 02/19/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

Matrix Spike (B4B0214-MS1) - Continued

Source: 1400396-03

Prepared: 2/14/2014 Analyzed: 2/14/2014

Trichloroethene	27.8400	0.50	20.0000	6.07000	109	72 - 139			
Trichlorofluoromethane	22.5600	0.50	20.0000	1.87000	103	67 - 157			
Vinyl chloride	20.6400	0.50	20.0000	ND	103	37 - 144			
Surrogate: 1,2-Dichloroethane-d4	31.90		25.0000		128	64 - 146			
Surrogate: 4-Bromofluorobenzene	22.38		25.0000		89.5	60 - 128			
Surrogate: Dibromofluoromethane	28.38		25.0000		114	72 - 141			
Surrogate: Toluene-d8	29.11		25.0000		116	61 - 124			

Matrix Spike Dup (B4B0214-MSD1)

Source: 1400396-03

Prepared: 2/14/2014 Analyzed: 2/14/2014

1,1,1,2-Tetrachloroethane	24.4200	0.50	20.0000	ND	122	74 - 148	4.91	20	
1,1,1-Trichloroethane	18.3800	0.50	20.0000	ND	91.9	74 - 136	10.1	20	
1,1,2,2-Tetrachloroethane	23.3500	0.50	20.0000	ND	117	44 - 147	0.0428	20	
1,1,2-Trichloroethane	18.9600	0.50	20.0000	1.06000	89.5	46 - 135	3.38	20	
1,1-Dichloroethane	24.8000	0.50	20.0000	3.14000	108	71 - 154	2.59	20	
1,1-Dichloroethene	263.020	0.50	20.0000	252.320	53.5	56 - 131	11.3	20	M3
1,1-Dichloropropene	21.9300	0.50	20.0000	ND	110	64 - 157	6.19	20	
1,2,3-Trichloropropane	23.8400	0.50	20.0000	ND	119	45 - 147	1.22	20	
1,2,3-Trichlorobenzene	44.4800	0.50	20.0000	ND	222	22 - 212	2.18	20	M1
1,2,4-Trichlorobenzene	32.7600	0.50	20.0000	ND	164	34 - 198	0.912	20	
1,2,4-Trimethylbenzene	18.7100	0.50	20.0000	ND	93.6	75 - 131	7.11	20	
1,2-Dibromo-3-chloropropane	33.5200	0.50	20.0000	ND	168	9 - 217	14.8	20	
1,2-Dibromoethane	17.5900	0.50	20.0000	ND	88.0	45 - 136	4.59	20	
1,2-Dichlorobenzene	22.7700	0.50	20.0000	ND	114	75 - 142	4.13	20	
1,2-Dichloroethane	24.5400	0.50	20.0000	ND	123	73 - 139	3.74	20	
1,2-Dichloropropane	18.7200	0.50	20.0000	ND	93.6	61 - 145	1.27	20	
1,3,5-Trimethylbenzene	19.2200	0.50	20.0000	ND	96.1	76 - 132	9.42	20	
1,3-Dichlorobenzene	17.4200	0.50	20.0000	ND	87.1	56 - 149	6.34	20	
1,3-Dichloropropane	17.8800	0.50	20.0000	ND	89.4	49 - 146	2.03	20	
1,4-Dichlorobenzene	17.9500	0.50	20.0000	ND	89.8	70 - 127	2.80	20	
2,2-Dichloropropane	18.4200	0.50	20.0000	ND	92.1	32 - 153	6.41	20	
2-Chlorotoluene	18.4700	0.50	20.0000	ND	92.4	67 - 135	7.60	20	
4-Chlorotoluene	17.0000	0.50	20.0000	ND	85.0	61 - 138	3.01	20	
4-Isopropyltoluene	17.0300	0.50	20.0000	ND	85.2	66 - 137	8.11	20	
Benzene	21.3600	0.50	20.0000	ND	107	69 - 139	2.54	20	
Bromobenzene	19.2800	0.50	20.0000	ND	96.4	60 - 138	4.21	20	
Bromodichloromethane	22.8500	0.50	20.0000	ND	114	74 - 135	1.94	20	
Bromoform	38.6400	0.50	20.0000	ND	193	41 - 200	6.27	20	
Bromomethane	10.8100	0.50	20.0000	ND	54.0	1 - 125	14.2	20	
Carbon tetrachloride	26.9800	0.50	20.0000	ND	135	74 - 153	9.80	20	
Chlorobenzene	18.4200	0.50	20.0000	ND	92.1	73 - 127	2.78	20	
Chloroethane	17.6100	0.50	20.0000	ND	88.0	40 - 150	16.5	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0214 - MSVOAW_LL (continued)

Matrix Spike Dup (B4B0214-MSD1) - Continued

Source: 1400396-03

Prepared: 2/14/2014 Analyzed: 2/14/2014

Chloroform	19.8800	0.50	20.0000	ND	99.4	69 - 142	3.94	20	
Chloromethane	20.2200	0.50	20.0000	ND	101	7 - 150	0.886	20	
cis-1,2-Dichloroethene	17.8800	0.50	20.0000	0.490000	87.0	69 - 127	5.65	20	
cis-1,3-Dichloropropene	16.6200	0.50	20.0000	ND	83.1	52 - 128	0.301	20	
Dibromochloromethane	24.5400	0.50	20.0000	ND	123	72 - 142	4.88	20	
Dibromomethane	20.6000	0.50	20.0000	ND	103	72 - 125	0.780	20	
Dichlorodifluoromethane	13.8500	0.50	20.0000	ND	69.2	0 - 135	12.8	20	
Ethylbenzene	19.5300	0.50	20.0000	ND	97.6	69 - 139	3.47	20	
Hexachlorobutadiene	37.7300	0.50	20.0000	ND	189	46 - 206	12.7	20	
Isopropylbenzene	20.3300	0.50	20.0000	ND	102	73 - 136	9.20	20	
m,p-Xylene	40.0300	1.0	40.0000	ND	100	73 - 140	3.44	20	
Methylene chloride	17.5900	1.0	20.0000	ND	88.0	71 - 137	5.47	20	
MTBE	19.5100	0.50	20.0000	ND	97.6	68 - 133	4.03	20	
n-Butylbenzene	16.0000	0.50	20.0000	ND	80.0	75 - 132	6.82	20	
n-Propylbenzene	17.5100	0.50	20.0000	ND	87.6	64 - 140	7.79	20	
Naphthalene	32.6900	0.50	20.0000	ND	163	18 - 202	3.39	20	
o-Xylene	20.7400	0.50	20.0000	ND	104	78 - 138	8.67	20	
sec-Butylbenzene	19.8400	0.50	20.0000	ND	99.2	80 - 138	9.18	20	
Styrene	16.8800	0.50	20.0000	ND	84.4	65 - 130	0.473	20	
tert-Butylbenzene	18.4500	0.50	20.0000	ND	92.2	69 - 136	9.30	20	
Tetrachloroethene	26.8300	0.50	20.0000	1.34000	127	68 - 151	4.16	20	
Toluene	19.2500	0.50	20.0000	ND	96.2	62 - 133	0.982	20	
trans-1,2-Dichloroethene	17.4500	0.50	20.0000	ND	87.2	67 - 130	10.5	20	
Trichloroethene	26.7100	0.50	20.0000	6.07000	103	72 - 139	4.14	20	
Trichlorofluoromethane	20.8800	0.50	20.0000	1.87000	95.0	67 - 157	7.73	20	
Vinyl chloride	18.2000	0.50	20.0000	ND	91.0	37 - 144	12.6	20	
Surrogate: 1,2-Dichloroethane-d4	31.60		25.0000		126	64 - 146			
Surrogate: 4-Bromofluorobenzene	21.95		25.0000		87.8	60 - 128			
Surrogate: Dibromofluoromethane	26.82		25.0000		107	72 - 141			
Surrogate: Toluene-d8	27.89		25.0000		112	61 - 124			

Batch B4B0218 - MSVOAW_LL

Blank (B4B0218-BLK1)

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,1,1,2-Tetrachloroethane	ND	0.50		NR
1,1,1-Trichloroethane	ND	0.50		NR
1,1,2,2-Tetrachloroethane	ND	0.50		NR
1,1,2-Trichloroethane	ND	0.50		NR
1,1-Dichloroethane	ND	0.50		NR
1,1-Dichloroethene	ND	0.50		NR
1,1-Dichloropropene	ND	0.50		NR



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

Blank (B4B0218-BLK1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,2,3-Trichloropropane	ND	0.50			NR
1,2,3-Trichlorobenzene	ND	0.50			NR
1,2,4-Trichlorobenzene	ND	0.50			NR
1,2,4-Trimethylbenzene	ND	0.50			NR
1,2-Dibromo-3-chloropropane	ND	0.50			NR
1,2-Dibromoethane	ND	0.50			NR
1,2-Dichlorobenzene	ND	0.50			NR
1,2-Dichloroethane	ND	0.50			NR
1,2-Dichloropropane	ND	0.50			NR
1,3,5-Trimethylbenzene	ND	0.50			NR
1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR
Dichlorodifluoromethane	ND	0.50			NR
Ethylbenzene	ND	0.50			NR
Hexachlorobutadiene	ND	0.50			NR
Isopropylbenzene	ND	0.50			NR
m,p-Xylene	ND	1.0			NR
Methylene chloride	ND	1.0			NR
n-Butylbenzene	ND	0.50			NR
n-Propylbenzene	ND	0.50			NR
Naphthalene	ND	0.50			NR
o-Xylene	ND	0.50			NR
sec-Butylbenzene	ND	0.50			NR



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

Blank (B4B0218-BLK1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				

Surrogate: 1,2-Dichloroethane-d4	17.92		25.0000		71.7	64 - 146			
Surrogate: 4-Bromofluorobenzene	20.87		25.0000		83.5	60 - 128			
Surrogate: Dibromofluoromethane	30.52		25.0000		122	72 - 141			
Surrogate: Toluene-d8	25.04		25.0000		100	61 - 124			

LCS (B4B0218-BS1)

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,1,1,2-Tetrachloroethane	30.3600		20.0000		152	74 - 148			L5
1,1,1-Trichloroethane	22.8100		20.0000		114	74 - 136			
1,1,2,2-Tetrachloroethane	21.0500		20.0000		105	44 - 147			
1,1,2-Trichloroethane	17.5700		20.0000		87.8	46 - 135			
1,1-Dichloroethane	22.5000		20.0000		112	71 - 154			
1,1-Dichloroethene	18.9700		20.0000		94.8	56 - 131			
1,1-Dichloropropene	24.5300		20.0000		123	64 - 157			
1,2,3-Trichloropropane	22.6400		20.0000		113	45 - 147			
1,2,3-Trichlorobenzene	47.3500		20.0000		237	22 - 212			L5
1,2,4-Trichlorobenzene	36.6000		20.0000		183	34 - 198			
1,2,4-Trimethylbenzene	19.8800		20.0000		99.4	75 - 131			
1,2-Dibromo-3-chloropropane	37.5500		20.0000		188	9 - 217			
1,2-Dibromoethane	18.1200		20.0000		90.6	45 - 136			
1,2-Dichlorobenzene	24.7000		20.0000		124	75 - 142			
1,2-Dichloroethane	27.7700		20.0000		139	73 - 139			
1,2-Dichloropropane	19.7700		20.0000		98.8	61 - 145			
1,3,5-Trimethylbenzene	21.0800		20.0000		105	76 - 132			
1,3-Dichlorobenzene	18.9700		20.0000		94.8	56 - 149			
1,3-Dichloropropane	17.4900		20.0000		87.4	49 - 146			
1,4-Dichlorobenzene	18.9400		20.0000		94.7	70 - 127			
2,2-Dichloropropane	22.6500		20.0000		113	32 - 153			
2-Chlorotoluene	19.3000		20.0000		96.5	67 - 135			
4-Chlorotoluene	16.9700		20.0000		84.8	61 - 138			
4-Isopropyltoluene	19.2800		20.0000		96.4	66 - 137			
Benzene	23.5100		20.0000		118	69 - 139			
Bromobenzene	20.3300		20.0000		102	60 - 138			
Bromodichloromethane	24.8700		20.0000		124	74 - 135			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

LCS (B4B0218-BS1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

Bromoform	44.4200		20.0000		222	41 - 200			L5
Bromomethane	12.7900		20.0000		64.0	1 - 125			
Carbon tetrachloride	33.9400		20.0000		170	74 - 153			L5
Chlorobenzene	19.3600		20.0000		96.8	73 - 127			
Chloroethane	20.9800		20.0000		105	40 - 150			
Chloroform	21.9300		20.0000		110	69 - 142			
Chloromethane	22.1800		20.0000		111	7 - 150			
cis-1,2-Dichloroethene	19.7100		20.0000		98.6	69 - 127			
cis-1,3-Dichloropropene	16.5500		20.0000		82.8	52 - 128			
Dibromochloromethane	27.0900		20.0000		135	72 - 142			
Dibromomethane	22.3400		20.0000		112	72 - 125			
Dichlorodifluoromethane	16.8300		20.0000		84.2	0 - 135			
Ethylbenzene	20.9500		20.0000		105	69 - 139			
Hexachlorobutadiene	49.2900		20.0000		246	46 - 206			L5
Isopropylbenzene	20.8600		20.0000		104	73 - 136			
m,p-Xylene	43.7200		40.0000		109	73 - 140			
Methylene chloride	20.2100		20.0000		101	71 - 137			
MTBE	20.9700		20.0000		105	68 - 133			
n-Butylbenzene	18.1900		20.0000		91.0	75 - 132			
n-Propylbenzene	17.8500		20.0000		89.2	64 - 140			
Naphthalene	31.7400		20.0000		159	18 - 202			
o-Xylene	24.2000		20.0000		121	78 - 138			
sec-Butylbenzene	22.3200		20.0000		112	80 - 138			
Styrene	18.6800		20.0000		93.4	65 - 130			
tert-Butylbenzene	20.4200		20.0000		102	69 - 136			
Tetrachloroethene	27.8300		20.0000		139	68 - 151			
Toluene	19.8500		20.0000		99.2	62 - 133			
trans-1,2-Dichloroethene	19.8900		20.0000		99.4	67 - 130			
Trichloroethene	23.2600		20.0000		116	72 - 139			
Trichlorofluoromethane	29.2900		20.0000		146	67 - 157			
Vinyl chloride	23.1700		20.0000		116	37 - 144			
Surrogate: 1,2-Dichloroethane-d4	32.37		25.0000		129	64 - 146			
Surrogate: 4-Bromofluorobenzene	22.78		25.0000		91.1	60 - 128			
Surrogate: Dibromofluoromethane	27.15		25.0000		109	72 - 141			
Surrogate: Toluene-d8	26.38		25.0000		106	61 - 124			

LCS Dup (B4B0218-BSD1)

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,1,1,2-Tetrachloroethane	32.3400		20.0000		162	74 - 148	6.32	20	L5
1,1,1-Trichloroethane	23.9500		20.0000		120	74 - 136	4.88	20	
1,1,2,2-Tetrachloroethane	19.9000		20.0000		99.5	44 - 147	5.62	20	
1,1,2-Trichloroethane	15.7800		20.0000		78.9	46 - 135	10.7	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

LCS Dup (B4B0218-BSD1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,1-Dichloroethane	23.0200		20.0000		115	71 - 154	2.28	20	
1,1-Dichloroethene	19.5500		20.0000		97.8	56 - 131	3.01	20	
1,1-Dichloropropene	25.8900		20.0000		129	64 - 157	5.39	20	
1,2,3-Trichloropropane	21.1300		20.0000		106	45 - 147	6.90	20	
1,2,3-Trichlorobenzene	49.3200		20.0000		247	22 - 212	4.08	20	L5
1,2,4-Trichlorobenzene	36.3600		20.0000		182	34 - 198	0.658	20	
1,2,4-Trimethylbenzene	19.3900		20.0000		97.0	75 - 131	2.50	20	
1,2-Dibromo-3-chloropropane	42.8300		20.0000		214	9 - 217	13.1	20	
1,2-Dibromoethane	16.2200		20.0000		81.1	45 - 136	11.1	20	
1,2-Dichlorobenzene	23.6100		20.0000		118	75 - 142	4.51	20	
1,2-Dichloroethane	27.4900		20.0000		137	73 - 139	1.01	20	
1,2-Dichloropropane	18.5500		20.0000		92.8	61 - 145	6.37	20	
1,3,5-Trimethylbenzene	20.6900		20.0000		103	76 - 132	1.87	20	
1,3-Dichlorobenzene	17.5500		20.0000		87.8	56 - 149	7.78	20	
1,3-Dichloropropane	15.6100		20.0000		78.0	49 - 146	11.4	20	
1,4-Dichlorobenzene	17.8100		20.0000		89.0	70 - 127	6.15	20	
2,2-Dichloropropane	22.9800		20.0000		115	32 - 153	1.45	20	
2-Chlorotoluene	17.9700		20.0000		89.8	67 - 135	7.14	20	
4-Chlorotoluene	15.4600		20.0000		77.3	61 - 138	9.31	20	
4-Isopropyltoluene	19.0600		20.0000		95.3	66 - 137	1.15	20	
Benzene	23.5300		20.0000		118	69 - 139	0.0850	20	
Bromobenzene	17.4200		20.0000		87.1	60 - 138	15.4	20	
Bromodichloromethane	24.1700		20.0000		121	74 - 135	2.85	20	
Bromoform	41.3400		20.0000		207	41 - 200	7.18	20	L5
Bromomethane	12.8700		20.0000		64.4	1 - 125	0.624	20	
Carbon tetrachloride	35.9900		20.0000		180	74 - 153	5.86	20	L5
Chlorobenzene	18.0800		20.0000		90.4	73 - 127	6.84	20	
Chloroethane	23.0700		20.0000		115	40 - 150	9.49	20	
Chloroform	21.9300		20.0000		110	69 - 142	0.00	20	
Chloromethane	21.8100		20.0000		109	7 - 150	1.68	20	
cis-1,2-Dichloroethene	20.5300		20.0000		103	69 - 127	4.08	20	
cis-1,3-Dichloropropene	14.8600		20.0000		74.3	52 - 128	10.8	20	
Dibromochloromethane	24.4600		20.0000		122	72 - 142	10.2	20	
Dibromomethane	21.8800		20.0000		109	72 - 125	2.08	20	
Dichlorodifluoromethane	15.0200		20.0000		75.1	0 - 135	11.4	20	
Ethylbenzene	19.9500		20.0000		99.8	69 - 139	4.89	20	
Hexachlorobutadiene	50.5100		20.0000		253	46 - 206	2.44	20	L5
Isopropylbenzene	20.4900		20.0000		102	73 - 136	1.79	20	
m,p-Xylene	41.7000		40.0000		104	73 - 140	4.73	20	
Methylene chloride	21.0300		20.0000		105	71 - 137	3.98	20	
MTBE	20.7600		20.0000		104	68 - 133	1.01	20	
n-Butylbenzene	17.8500		20.0000		89.2	75 - 132	1.89	20	



Certificate of Analysis

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

LCS Dup (B4B0218-BSD1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

n-Propylbenzene	16.2500		20.0000		81.2	64 - 140	9.38	20	
Naphthalene	32.7500		20.0000		164	18 - 202	3.13	20	
o-Xylene	24.2500		20.0000		121	78 - 138	0.206	20	
sec-Butylbenzene	22.7700		20.0000		114	80 - 138	2.00	20	
Styrene	17.1100		20.0000		85.6	65 - 130	8.77	20	
tert-Butylbenzene	20.6900		20.0000		103	69 - 136	1.31	20	
Tetrachloroethene	26.5300		20.0000		133	68 - 151	4.78	20	
Toluene	18.2700		20.0000		91.4	62 - 133	8.29	20	
trans-1,2-Dichloroethene	21.3600		20.0000		107	67 - 130	7.13	20	
Trichloroethene	22.8400		20.0000		114	72 - 139	1.82	20	
Trichlorofluoromethane	28.0500		20.0000		140	67 - 157	4.33	20	
Vinyl chloride	23.0800		20.0000		115	37 - 144	0.389	20	
Surrogate: 1,2-Dichloroethane-d4	31.64		25.0000		127	64 - 146			
Surrogate: 4-Bromofluorobenzene	21.31		25.0000		85.2	60 - 128			
Surrogate: Dibromofluoromethane	27.04		25.0000		108	72 - 141			
Surrogate: Toluene-d8	24.37		25.0000		97.5	61 - 124			

Batch B4B0293 - MSVOAW_LL

Blank (B4B0293-BLK1)

Prepared: 2/19/2014 Analyzed: 2/19/2014

1,1,1,2-Tetrachloroethane	ND	0.50			NR				
1,1,1-Trichloroethane	ND	0.50			NR				
1,1,2,2-Tetrachloroethane	ND	0.50			NR				
1,1,2-Trichloroethane	ND	0.50			NR				
1,1-Dichloroethane	ND	0.50			NR				
1,1-Dichloroethene	ND	0.50			NR				
1,1-Dichloropropene	ND	0.50			NR				
1,2,3-Trichloropropane	ND	0.50			NR				
1,2,3-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trichlorobenzene	ND	0.50			NR				
1,2,4-Trimethylbenzene	ND	0.50			NR				
1,2-Dibromo-3-chloropropane	ND	0.50			NR				
1,2-Dibromoethane	ND	0.50			NR				
1,2-Dichlorobenzene	ND	0.50			NR				
1,2-Dichloroethane	ND	0.50			NR				
1,2-Dichloropropane	ND	0.50			NR				
1,3,5-Trimethylbenzene	ND	0.50			NR				
1,3-Dichlorobenzene	ND	0.50			NR				
1,3-Dichloropropane	ND	0.50			NR				
1,4-Dichlorobenzene	ND	0.50			NR				
2,2-Dichloropropane	ND	0.50			NR				



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0293 - MSVOAW_LL (continued)

Blank (B4B0293-BLK1) - Continued

Prepared: 2/19/2014 Analyzed: 2/19/2014

2-Chlorotoluene	ND	0.50			NR				
4-Chlorotoluene	ND	0.50			NR				
4-Isopropyltoluene	ND	0.50			NR				
Benzene	ND	0.50			NR				
Bromobenzene	ND	0.50			NR				
Bromodichloromethane	ND	0.50			NR				
Bromoform	ND	0.50			NR				
Bromomethane	ND	0.50			NR				
Carbon tetrachloride	ND	0.50			NR				
Chlorobenzene	ND	0.50			NR				
Chloroethane	ND	0.50			NR				
Chloroform	ND	0.50			NR				
Chloromethane	ND	0.50			NR				
cis-1,2-Dichloroethene	ND	0.50			NR				
cis-1,3-Dichloropropene	ND	0.50			NR				
Dibromochloromethane	ND	0.50			NR				
Dibromomethane	ND	0.50			NR				
Dichlorodifluoromethane	ND	0.50			NR				
Ethylbenzene	ND	0.50			NR				
Hexachlorobutadiene	ND	0.50			NR				
Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				

Surrogate: 1,2-Dichloroethane-d4	27.00	25.0000	108	64 - 146
Surrogate: 4-Bromofluorobenzene	25.09	25.0000	100	60 - 128
Surrogate: Dibromofluoromethane	23.51	25.0000	94.0	72 - 141
Surrogate: Toluene-d8	21.43	25.0000	85.7	61 - 124

LCS (B4B0293-BS1)

Prepared: 2/19/2014 Analyzed: 2/19/2014



Certificate of Analysis

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B4B0293 - MSVOAW_LL (continued)									
1,1,1,2-Tetrachloroethane	14.7200		20.0000		73.6	74 - 148			L4
1,1,1-Trichloroethane	21.1500		20.0000		106	74 - 136			
1,1,2,2-Tetrachloroethane	18.4200		20.0000		92.1	44 - 147			
1,1,2-Trichloroethane	17.2300		20.0000		86.2	46 - 135			
1,1-Dichloroethane	16.9800		20.0000		84.9	71 - 154			
1,1-Dichloroethene	17.7200		20.0000		88.6	56 - 131			
1,1-Dichloropropene	18.5100		20.0000		92.6	64 - 157			
1,2,3-Trichloropropane	18.7000		20.0000		93.5	45 - 147			
1,2,3-Trichlorobenzene	19.1200		20.0000		95.6	22 - 212			
1,2,4-Trichlorobenzene	19.3200		20.0000		96.6	34 - 198			
1,2,4-Trimethylbenzene	21.7900		20.0000		109	75 - 131			
1,2-Dibromo-3-chloropropane	17.2700		20.0000		86.4	9 - 217			
1,2-Dibromoethane	18.4200		20.0000		92.1	45 - 136			
1,2-Dichlorobenzene	19.5100		20.0000		97.6	75 - 142			
1,2-Dichloroethane	22.0400		20.0000		110	73 - 139			
1,2-Dichloropropane	17.6300		20.0000		88.2	61 - 145			
1,3,5-Trimethylbenzene	21.8400		20.0000		109	76 - 132			
1,3-Dichlorobenzene	19.8300		20.0000		99.2	56 - 149			
1,3-Dichloropropane	19.1200		20.0000		95.6	49 - 146			
1,4-Dichlorobenzene	20.2300		20.0000		101	70 - 127			
2,2-Dichloropropane	19.5200		20.0000		97.6	32 - 153			
2-Chlorotoluene	20.9800		20.0000		105	67 - 135			
4-Chlorotoluene	21.2100		20.0000		106	61 - 138			
4-Isopropyltoluene	22.2000		20.0000		111	66 - 137			
Benzene	18.4500		20.0000		92.2	69 - 139			
Bromobenzene	19.7400		20.0000		98.7	60 - 138			
Bromodichloromethane	20.5200		20.0000		103	74 - 135			
Bromoform	11.7000		20.0000		58.5	41 - 200			
Bromomethane	20.6200		20.0000		103	1 - 125			
Carbon tetrachloride	18.4000		20.0000		92.0	74 - 153			
Chlorobenzene	19.0100		20.0000		95.0	73 - 127			
Chloroethane	19.9800		20.0000		99.9	40 - 150			
Chloroform	18.5000		20.0000		92.5	69 - 142			
Chloromethane	19.7800		20.0000		98.9	7 - 150			
cis-1,2-Dichloroethene	18.1800		20.0000		90.9	69 - 127			
cis-1,3-Dichloropropene	17.1300		20.0000		85.6	52 - 128			
Dibromochloromethane	14.5800		20.0000		72.9	72 - 142			
Dibromomethane	21.6500		20.0000		108	72 - 125			
Dichlorodifluoromethane	20.2600		20.0000		101	0 - 135			
Ethylbenzene	21.4400		20.0000		107	69 - 139			
Hexachlorobutadiene	19.0300		20.0000		95.2	46 - 206			
Isopropylbenzene	21.8000		20.0000		109	73 - 136			
m,p-Xylene	47.0200		40.0000		118	73 - 140			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0293 - MSVOAW_LL (continued)

LCS (B4B0293-BS1) - Continued

Prepared: 2/19/2014 Analyzed: 2/19/2014

Methylene chloride	18.1400		20.0000		90.7	71 - 137			
MTBE	20.0400		20.0000		100	68 - 133			
n-Butylbenzene	22.5800		20.0000		113	75 - 132			
n-Propylbenzene	23.1400		20.0000		116	64 - 140			
Naphthalene	20.8700		20.0000		104	18 - 202			
o-Xylene	21.2400		20.0000		106	78 - 138			
sec-Butylbenzene	22.4400		20.0000		112	80 - 138			
Styrene	20.0500		20.0000		100	65 - 130			
tert-Butylbenzene	20.8900		20.0000		104	69 - 136			
Tetrachloroethene	21.7100		20.0000		109	68 - 151			
Toluene	16.5700		20.0000		82.8	62 - 133			
trans-1,2-Dichloroethene	18.1500		20.0000		90.8	67 - 130			
Trichloroethene	18.1600		20.0000		90.8	72 - 139			
Trichlorofluoromethane	22.6600		20.0000		113	67 - 157			
Vinyl chloride	20.0600		20.0000		100	37 - 144			
Surrogate: 1,2-Dichloroethane-d4	25.73		25.0000		103	64 - 146			
Surrogate: 4-Bromofluorobenzene	23.40		25.0000		93.6	60 - 128			
Surrogate: Dibromofluoromethane	22.68		25.0000		90.7	72 - 141			
Surrogate: Toluene-d8	20.02		25.0000		80.1	61 - 124			

LCS Dup (B4B0293-BSD1)

Prepared: 2/19/2014 Analyzed: 2/19/2014

1,1,1,2-Tetrachloroethane	14.2500		20.0000		71.2	74 - 148	3.24	20	L4
1,1,1-Trichloroethane	19.6700		20.0000		98.4	74 - 136	7.25	20	
1,1,2,2-Tetrachloroethane	18.0900		20.0000		90.4	44 - 147	1.81	20	
1,1,2-Trichloroethane	16.8200		20.0000		84.1	46 - 135	2.41	20	
1,1-Dichloroethane	15.6900		20.0000		78.4	71 - 154	7.90	20	
1,1-Dichloroethene	16.1600		20.0000		80.8	56 - 131	9.21	20	
1,1-Dichloropropene	16.9200		20.0000		84.6	64 - 157	8.98	20	
1,2,3-Trichloropropane	18.1100		20.0000		90.6	45 - 147	3.21	20	
1,2,3-Trichlorobenzene	17.6000		20.0000		88.0	22 - 212	8.28	20	
1,2,4-Trichlorobenzene	18.0500		20.0000		90.2	34 - 198	6.80	20	
1,2,4-Trimethylbenzene	20.3000		20.0000		102	75 - 131	7.08	20	
1,2-Dibromo-3-chloropropane	17.3400		20.0000		86.7	9 - 217	0.405	20	
1,2-Dibromoethane	17.9100		20.0000		89.6	45 - 136	2.81	20	
1,2-Dichlorobenzene	18.5000		20.0000		92.5	75 - 142	5.31	20	
1,2-Dichloroethane	21.0800		20.0000		105	73 - 139	4.45	20	
1,2-Dichloropropane	16.3300		20.0000		81.6	61 - 145	7.66	20	
1,3,5-Trimethylbenzene	20.1700		20.0000		101	76 - 132	7.95	20	
1,3-Dichlorobenzene	18.6300		20.0000		93.2	56 - 149	6.24	20	
1,3-Dichloropropane	18.4300		20.0000		92.2	49 - 146	3.68	20	
1,4-Dichlorobenzene	18.9500		20.0000		94.8	70 - 127	6.53	20	



Certificate of Analysis

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San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0293 - MSVOAW_LL (continued)

LCS Dup (B4B0293-BSD1) - Continued

Prepared: 2/19/2014 Analyzed: 2/19/2014

2,2-Dichloropropane	18.1000		20.0000		90.5	32 - 153	7.55	20	
2-Chlorotoluene	19.4700		20.0000		97.4	67 - 135	7.47	20	
4-Chlorotoluene	19.7800		20.0000		98.9	61 - 138	6.98	20	
4-Isopropyltoluene	20.4200		20.0000		102	66 - 137	8.35	20	
Benzene	17.2800		20.0000		86.4	69 - 139	6.55	20	
Bromobenzene	17.5800		20.0000		87.9	60 - 138	11.6	20	
Bromodichloromethane	19.9800		20.0000		99.9	74 - 135	2.67	20	
Bromoform	12.2100		20.0000		61.0	41 - 200	4.27	20	
Bromomethane	20.2100		20.0000		101	1 - 125	2.01	20	
Carbon tetrachloride	17.8100		20.0000		89.0	74 - 153	3.26	20	
Chlorobenzene	17.8900		20.0000		89.4	73 - 127	6.07	20	
Chloroethane	18.7900		20.0000		94.0	40 - 150	6.14	20	
Chloroform	17.3400		20.0000		86.7	69 - 142	6.47	20	
Chloromethane	17.6300		20.0000		88.2	7 - 150	11.5	20	
cis-1,2-Dichloroethene	17.1000		20.0000		85.5	69 - 127	6.12	20	
cis-1,3-Dichloropropene	16.4700		20.0000		82.4	52 - 128	3.93	20	
Dibromochloromethane	14.7800		20.0000		73.9	72 - 142	1.36	20	
Dibromomethane	20.7200		20.0000		104	72 - 125	4.39	20	
Dichlorodifluoromethane	18.4900		20.0000		92.4	0 - 135	9.14	20	
Ethylbenzene	20.1400		20.0000		101	69 - 139	6.25	20	
Hexachlorobutadiene	17.0200		20.0000		85.1	46 - 206	11.2	20	
Isopropylbenzene	20.3100		20.0000		102	73 - 136	7.08	20	
m,p-Xylene	44.7300		40.0000		112	73 - 140	4.99	20	
Methylene chloride	16.9000		20.0000		84.5	71 - 137	7.08	20	
MTBE	19.1400		20.0000		95.7	68 - 133	4.59	20	
n-Butylbenzene	20.6900		20.0000		103	75 - 132	8.74	20	
n-Propylbenzene	21.3400		20.0000		107	64 - 140	8.09	20	
Naphthalene	20.0000		20.0000		100	18 - 202	4.26	20	
o-Xylene	19.7800		20.0000		98.9	78 - 138	7.12	20	
sec-Butylbenzene	20.6300		20.0000		103	80 - 138	8.40	20	
Styrene	19.0400		20.0000		95.2	65 - 130	5.17	20	
tert-Butylbenzene	19.2200		20.0000		96.1	69 - 136	8.33	20	
Tetrachloroethene	19.3500		20.0000		96.8	68 - 151	11.5	20	
Toluene	15.4700		20.0000		77.4	62 - 133	6.87	20	
trans-1,2-Dichloroethene	16.5900		20.0000		83.0	67 - 130	8.98	20	
Trichloroethene	17.1300		20.0000		85.6	72 - 139	5.84	20	
Trichlorofluoromethane	20.9800		20.0000		105	67 - 157	7.70	20	
Vinyl chloride	18.0700		20.0000		90.4	37 - 144	10.4	20	
Surrogate: 1,2-Dichloroethane-d4	24.47		25.0000		97.9	64 - 146			
Surrogate: 4-Bromofluorobenzene	21.91		25.0000		87.6	60 - 128			
Surrogate: Dibromofluoromethane	21.40		25.0000		85.6	72 - 141			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0293 - MSVOAW_LL (continued)

LCS Dup (B4B0293-BSD1) - Continued

Prepared: 2/19/2014 Analyzed: 2/19/2014

Surrogate: Toluene-d8

18.55

25.0000

74.2

61 - 124



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0123 - MSSEMI_ISOTOPEDILN

Blank (B4B0123-BLK1)

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	ND	2.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	77.78		100.000		77.8	37 - 93			
Surrogate: 2-Fluorobiphenyl	83.14		100.000		83.1	51 - 100			
Surrogate: 4-Terphenyl-d14	102.5		100.000		102	58 - 113			
Surrogate: Nitrobenzene-d5	92.56		100.000		92.6	39 - 95			

LCS (B4B0123-BS1)

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	82.6000	2.0	100.000		82.6	70 - 130			
Surrogate: 1,2-Dichlorobenzene-d4	77.95		100.000		78.0	37 - 93			
Surrogate: 2-Fluorobiphenyl	81.99		100.000		82.0	51 - 100			
Surrogate: 4-Terphenyl-d14	95.47		100.000		95.5	58 - 113			
Surrogate: Nitrobenzene-d5	100.1		100.000		100	39 - 95			S5

Matrix Spike (B4B0123-MS1)

Source: 1400345-03

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	227.760	2.0	100.000	137.040	90.7	70 - 130			
Surrogate: 1,2-Dichlorobenzene-d4	79.56		100.000		79.6	37 - 93			
Surrogate: 2-Fluorobiphenyl	84.10		100.000		84.1	51 - 100			
Surrogate: 4-Terphenyl-d14	91.37		100.000		91.4	58 - 113			
Surrogate: Nitrobenzene-d5	99.06		100.000		99.1	39 - 95			S5

Matrix Spike (B4B0123-MS2)

Source: 1400396-03

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	217.290	2.0	100.000	126.880	90.4	70 - 130			
Surrogate: 1,2-Dichlorobenzene-d4	62.93		100.000		62.9	37 - 93			
Surrogate: 2-Fluorobiphenyl	74.76		100.000		74.8	51 - 100			
Surrogate: 4-Terphenyl-d14	88.60		100.000		88.6	58 - 113			
Surrogate: Nitrobenzene-d5	83.75		100.000		83.8	39 - 95			

Matrix Spike Dup (B4B0123-MSD1)

Source: 1400345-03

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	217.260	2.0	100.000	137.040	80.2	70 - 130	4.72	20	
Surrogate: 1,2-Dichlorobenzene-d4	58.59		100.000		58.6	37 - 93			
Surrogate: 2-Fluorobiphenyl	67.79		100.000		67.8	51 - 100			
Surrogate: 4-Terphenyl-d14	89.56		100.000		89.6	58 - 113			
Surrogate: Nitrobenzene-d5	78.31		100.000		78.3	39 - 95			

Matrix Spike Dup (B4B0123-MSD2)

Source: 1400396-03

Prepared: 2/10/2014 Analyzed: 2/10/2014

1,4-Dioxane	217.950	2.0	100.000	126.880	91.1	70 - 130	0.303	20	
Surrogate: 1,2-Dichlorobenzene-d4	77.87		100.000		77.9	37 - 93			
Surrogate: 2-Fluorobiphenyl	87.78		100.000		87.8	51 - 100			
Surrogate: 4-Terphenyl-d14	97.29		100.000		97.3	58 - 113			
Surrogate: Nitrobenzene-d5	98.10		100.000		98.1	39 - 95			S5



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0136 - MSSEMI_ISOTOPEDILN

Blank (B4B0136-BLK1)

Prepared: 2/11/2014 Analyzed: 2/12/2014

1,4-Dioxane	ND	0.20		NR					
Surrogate: 1,2-Dichlorobenzene-d4	0.8581		1.00000		85.8	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.9794		1.00000		97.9	48 - 121			
Surrogate: 4-Terphenyl-d14	1.271		1.00000		127	58 - 142			
Surrogate: Nitrobenzene-d5	1.267		1.00000		127	27 - 151			

LCS (B4B0136-BS1)

Prepared: 2/11/2014 Analyzed: 2/12/2014

1,4-Dioxane	1.20195	0.20	1.00000		120	58 - 151			
Surrogate: 1,2-Dichlorobenzene-d4	0.8951		1.00000		89.5	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.9869		1.00000		98.7	48 - 121			
Surrogate: 4-Terphenyl-d14	1.252		1.00000		125	58 - 142			
Surrogate: Nitrobenzene-d5	1.336		1.00000		134	27 - 151			

Matrix Spike (B4B0136-MS1)

Source: 1400383-08

Prepared: 2/11/2014 Analyzed: 2/12/2014

1,4-Dioxane	1.40111	0.20	1.00000	ND	140	58 - 151			
Surrogate: 1,2-Dichlorobenzene-d4	0.7273		1.00000		72.7	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.8035		1.00000		80.3	48 - 121			
Surrogate: 4-Terphenyl-d14	1.024		1.00000		102	58 - 142			
Surrogate: Nitrobenzene-d5	1.107		1.00000		111	27 - 151			

Matrix Spike Dup (B4B0136-MSD1)

Source: 1400383-08

Prepared: 2/11/2014 Analyzed: 2/12/2014

1,4-Dioxane	1.34714	0.20	1.00000	ND	135	58 - 151	3.93	20	
Surrogate: 1,2-Dichlorobenzene-d4	0.8534		1.00000		85.3	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.9499		1.00000		95.0	48 - 121			
Surrogate: 4-Terphenyl-d14	1.168		1.00000		117	58 - 142			
Surrogate: Nitrobenzene-d5	1.272		1.00000		127	27 - 151			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : RAYTHEON, 532.30

Report To : Steve Netto

Reported : 02/19/2014

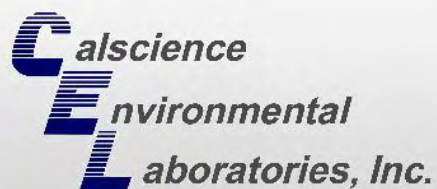
Notes and Definitions

S5	Surrogate recovery was above laboratory acceptance limit. Sample reanalysis showed the same high recovery.
S10	Surrogate recovery outside of laboratory acceptance limit possibly due to matrix interference.
S1	Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
M3	Matrix spike recovery outside of acceptance limit due to disproportionate concentration of the analyte to spike level. The analytical batch was validated by the laboratory control sample.
M1	Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
L5	Laboratory Control Sample high biased. Sample result/s was non-detect (ND) for the target analyte; therefore reanalysis was not necessary.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

- Notes:
- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
 - (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
 - (3) Results are wet unless otherwise specified.

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CALSCIENCE

WORK ORDER NUMBER: 14-02-0269

The difference is service



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Analytical Report For

Client: Hargis + Associates, Inc.

Client Project Name: Raytheon Main / 532.30

Attention: Steve Netto
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Approved for release on 02/12/2014 by:
Virendra 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.



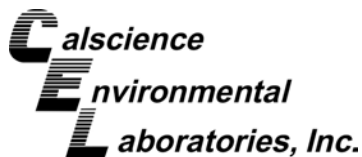
7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501 • www.calscience.com

NELAP ID: 03220CA | DoD-ELAP ID: L10-41 | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

Contents

Client Project Name: Raytheon Main / 532.30
Work Order Number: 14-02-0269

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Work Order Narrative

Work Order: 14-02-0269

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 02/05/14. They were assigned to Work Order 14-02-0269.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the CalScience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

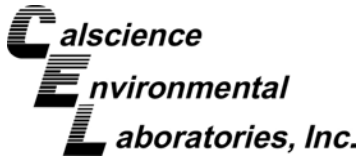
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

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

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

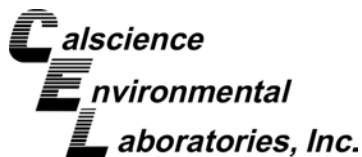


Sample Summary

Client:	Hargis + Associates, Inc.	Work Order:	14-02-0269
	9171 Towne Centre Drive, Suite 375	Project Name:	Raytheon Main / 532.30
	San Diego, CA 92122-6215	PO Number:	
		Date/Time Received:	02/05/14 17:15
		Number of Containers:	10

Attn: Steve Netto

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TB-020514B	14-02-0269-1	02/05/14 08:15	2	Aqueous
MW-16	14-02-0269-2	02/05/14 09:33	4	Aqueous
MW-33	14-02-0269-3	02/05/14 16:25	4	Aqueous



Detections Summary

Client: Hargis + Associates, Inc.
 9171 Towne Centre Drive, Suite 375
 San Diego, CA 92122-6215

Work Order: 14-02-0269
 Project Name: Raytheon Main / 532.30
 Received: 02/05/14

Attn: Steve Netto

Page 1 of 1

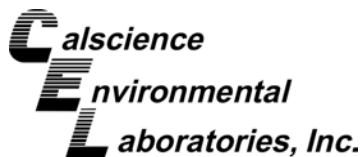
Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
MW-16 (14-02-0269-2)						
1,1-Dichloroethane	5.1		1.0	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	780		10	ug/L	EPA 8260B	EPA 5030C
Trichloroethene	5.8		1.0	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	45		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
MW-33 (14-02-0269-3)						
1,1-Dichloroethene	9.1		1.0	ug/L	EPA 8260B	EPA 5030C

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


 Return to Contents

* MDL is shown



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 3510C
Method: EPA 8270C (M) Isotope Dilution
Units: ug/L

Project: Raytheon Main / 532.30

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-16	14-02-0269-2-D	02/05/14 09:33	Aqueous	GC/MS DDD	02/06/14	02/06/14 20:41	140206L06

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	45	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	108	56-123	
1,4-Dioxane-d8(IDS-IS)	42	30-120	

MW-33	14-02-0269-3-D	02/05/14 16:25	Aqueous	GC/MS DDD	02/06/14	02/06/14 20:56	140206L06

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	ND	1.0	1	

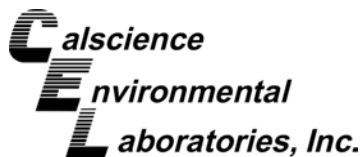
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	115	56-123	
1,4-Dioxane-d8(IDS-IS)	43	30-120	

Method Blank	099-16-216-31	N/A	Aqueous	GC/MS DDD	02/06/14	02/06/14 20:09	140206L06

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	102	56-123	
1,4-Dioxane-d8(IDS-IS)	52	30-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

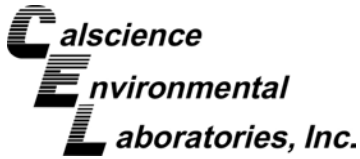
Project: Raytheon Main / 532.30

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-020514B	14-02-0269-1-A	02/05/14 08:15	Aqueous	GC/MS XX	02/06/14	02/06/14 15:28	140206L01

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

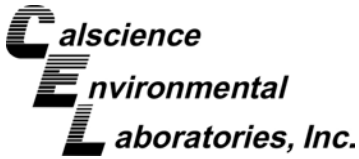
Project: Raytheon Main / 532.30

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	90	80-120	
Dibromofluoromethane	110	78-126	
1,2-Dichloroethane-d4	123	75-135	
Toluene-d8	103	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

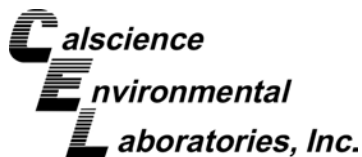
Project: Raytheon Main / 532.30

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-16	14-02-0269-2-A	02/05/14 09:33	Aqueous	GC/MS XX	02/06/14	02/06/14 13:34	140206L01

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	5.1	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	
1,1-Dichloropropene	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

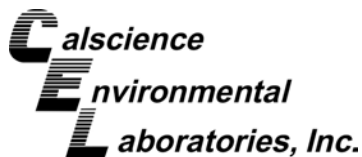
Project: Raytheon Main / 532.30

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	5.8	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	90	80-120	
Dibromofluoromethane	110	78-126	
1,2-Dichloroethane-d4	121	75-135	
Toluene-d8	103	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

Project: Raytheon Main / 532.30

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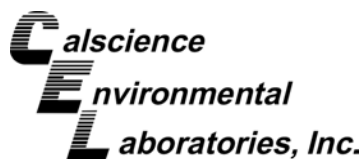
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-16	14-02-0269-2-A	02/05/14 09:33	Aqueous	GC/MS XX	02/06/14	02/06/14 18:19	140206L01

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloroethene	780	10	10	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	89	80-120	
Dibromofluoromethane	111	78-126	
1,2-Dichloroethane-d4	124	75-135	
Toluene-d8	103	80-120	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

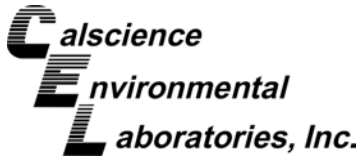
Project: Raytheon Main / 532.30

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-33	14-02-0269-3-A	02/05/14 16:25	Aqueous	GC/MS XX	02/06/14	02/06/14 15:57	140206L01

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	9.1	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

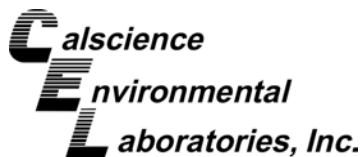
Project: Raytheon Main / 532.30

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	91	80-120	
Dibromofluoromethane	111	78-126	
1,2-Dichloroethane-d4	124	75-135	
Toluene-d8	103	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

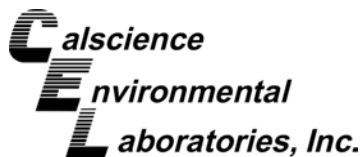
Project: Raytheon Main / 532.30

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-001-13134	N/A	Aqueous	GC/MS XX	02/06/14	02/06/14 11:41	140206L01

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

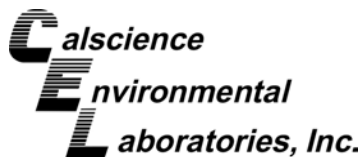
Project: Raytheon Main / 532.30

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	90	80-120	
Dibromofluoromethane	109	78-126	
1,2-Dichloroethane-d4	121	75-135	
Toluene-d8	102	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 3510C
Method: EPA 8270C (M) Isotope Dilution

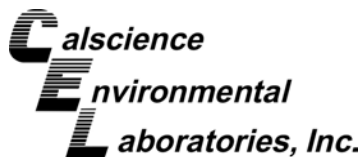
Project: Raytheon Main / 532.30

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Quality Control Sample ID	Type		Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number			
MW-16	Sample		Aqueous	GC/MS DDD	02/06/14	02/06/14 20:41	140206S06			
MW-16	Matrix Spike		Aqueous	GC/MS DDD	02/06/14	02/06/14 21:12	140206S06			
MW-16	Matrix Spike Duplicate		Aqueous	GC/MS DDD	02/06/14	02/06/14 21:28	140206S06			
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	44.92	20.00	63.65	94	61.16	81	50-130	4	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 5030C
Method: EPA 8260B

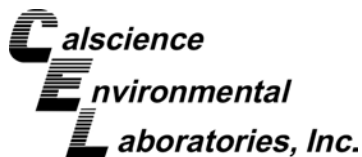
Project: Raytheon Main / 532.30

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
MW-16	Sample	Aqueous	GC/MS XX	02/06/14	02/06/14 18:19	140206S01				
MW-16	Matrix Spike	Aqueous	GC/MS XX	02/06/14	02/06/14 14:02	140206S01				
MW-16	Matrix Spike Duplicate	Aqueous	GC/MS XX	02/06/14	02/06/14 14:31	140206S01				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	48.70	97	46.42	93	74-122	5	0-21	
Carbon Tetrachloride	ND	50.00	46.96	94	44.97	90	60-144	4	0-21	
Chlorobenzene	ND	50.00	43.91	88	41.60	83	73-120	5	0-22	
1,2-Dibromoethane	ND	50.00	48.51	97	46.14	92	80-122	5	0-20	
1,2-Dichlorobenzene	ND	50.00	45.38	91	43.60	87	70-120	4	0-26	
1,2-Dichloroethane	ND	50.00	53.68	107	51.22	102	64-142	5	0-20	
1,1-Dichloroethene	775.3	50.00	894.5	239	858.6	167	52-136	4	0-21	3
Ethylbenzene	ND	50.00	48.29	97	46.25	92	77-125	4	0-24	
Toluene	ND	50.00	49.02	98	46.01	92	72-126	6	0-23	
Trichloroethene	5.819	50.00	52.29	93	50.24	89	74-128	4	0-22	
Vinyl Chloride	ND	50.00	52.78	106	47.73	95	67-133	10	0-20	
p/m-Xylene	ND	100.0	94.97	95	89.59	90	63-129	6	0-25	
o-Xylene	ND	50.00	45.71	91	43.81	88	62-128	4	0-24	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	47.99	96	46.30	93	68-134	4	0-21	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

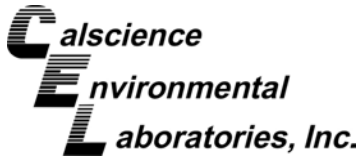
Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 3510C
Method: EPA 8270C (M) Isotope Dilution

Project: Raytheon Main / 532.30

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-216-31	LCS	Aqueous	GC/MS DDD	02/06/14	02/06/14 20:25	140206L06
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane		20.00	20.18	101	50-130	

Return to Contents



Quality Control - LCS

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/05/14
Work Order: 14-02-0269
Preparation: EPA 5030C
Method: EPA 8260B

Project: Raytheon Main / 532.30

Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-001-13134	LCS	Aqueous	GC/MS XX	02/06/14	02/06/14 10:36	140206L01

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	50.00	48.53	97	80-120	73-127	
Carbon Tetrachloride	50.00	45.61	91	67-139	55-151	
Chlorobenzene	50.00	43.36	87	78-120	71-127	
1,2-Dibromoethane	50.00	47.17	94	80-120	73-127	
1,2-Dichlorobenzene	50.00	46.00	92	63-129	52-140	
1,2-Dichloroethane	50.00	51.63	103	70-130	60-140	
1,1-Dichloroethene	50.00	49.33	99	66-126	56-136	
Ethylbenzene	50.00	47.86	96	80-123	73-130	
Toluene	50.00	48.42	97	80-120	73-127	
Trichloroethene	50.00	46.95	94	80-122	73-129	
Vinyl Chloride	50.00	51.02	102	70-130	60-140	
p/m-Xylene	100.0	94.21	94	75-123	67-131	
o-Xylene	50.00	45.49	91	74-122	66-130	
Methyl-t-Butyl Ether (MTBE)	50.00	46.68	93	69-129	59-139	

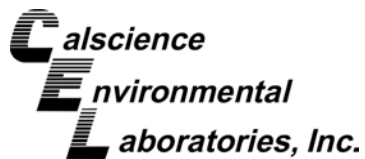
Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

Return to Contents



Sample Analysis Summary Report

Work Order: 14-02-0269Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8260B	EPA 5030C	909	GC/MS XX	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	897	GC/MS DDD	1


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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-02-0269

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	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 suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
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.
BV	Sample received 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.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
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.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



DATE 2/5/14 PAGE 1 OF 1

[illegible]

WORK ORDER #: **14-02-0269**

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: H/ARGLs

DATE: 02/5/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

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

Checked by: 678

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____

☐ No (Not Intact)

☒ Not Present

☐ N/A

Checked by: 678

☐ Sample ☐ _____

☐ No (Not Intact)

☒ Not Present

Checked by: 778

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.....	☒	☐	☐

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen.....	☐	☐	☒

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® ☐ _____

Aqueous: ☐ VOA ☒ VOA³h ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☒ 1AGB ☐ 1AGBna₂ ☐ 1AGBs

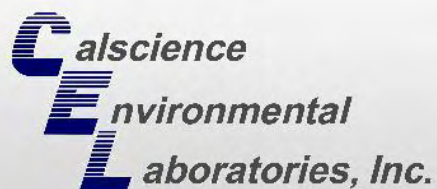
☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB

☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBz₂na ☐ 100PJ ☐ 100PJna₂ ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: N/A Labeled/Checked by: 778

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 739

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure z₂na: ZnAc₂+NaOH f: Filtered Scanned by: 739



CALSCIENCE

WORK ORDER NUMBER: 14-02-0365

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Hargis + Associates, Inc.

Client Project Name: Raytheon Main / 532.30

Attention: Steve Netto
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Approved for release on 02/14/2014 by:
Virendra 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.



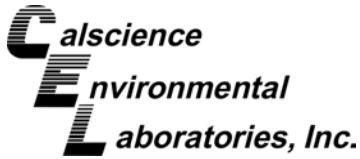
7440 Lincoln Way, Garden Grove, CA 92841-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501 • www.calscience.com

NELAP ID: 03220CA | DoD-ELAP ID: L10-41 | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

Contents

Client Project Name: Raytheon Main / 532.30
Work Order Number: 14-02-0365

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Work Order Narrative

Work Order: 14-02-0365

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Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 02/06/14. They were assigned to Work Order 14-02-0365.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the CalScience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

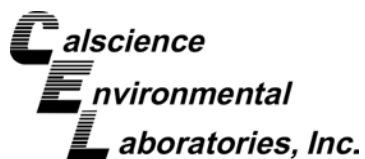
Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

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

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



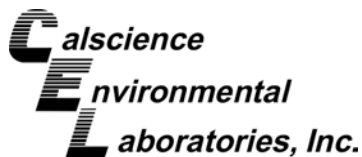
Sample Summary

Client:	Hargis + Associates, Inc.	Work Order:	14-02-0365
	9171 Towne Centre Drive, Suite 375	Project Name:	Raytheon Main / 532.30
	San Diego, CA 92122-6215	PO Number:	
		Date/Time Received:	02/06/14 17:12
		Number of Containers:	10

Attn: Steve Netto

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
TB-020614B	14-02-0365-1	02/06/14 07:45	2	Aqueous
MW-34B	14-02-0365-2	02/06/14 11:30	4	Aqueous
MW-36	14-02-0365-3	02/06/14 14:40	4	Aqueous


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Detections Summary

Client: Hargis + Associates, Inc.
 9171 Towne Centre Drive, Suite 375
 San Diego, CA 92122-6215

Work Order: 14-02-0365
 Project Name: Raytheon Main / 532.30
 Received: 02/06/14

Attn: Steve Netto

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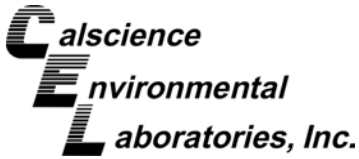
Client SampleID

<u>Analyte</u>	<u>Result</u>	<u>Qualifiers</u>	<u>RL</u>	<u>Units</u>	<u>Method</u>	<u>Extraction</u>
MW-34B (14-02-0365-2)						
1,1-Dichloroethane	2.8		2.0	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	240		2.0	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	120		10	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C
MW-36 (14-02-0365-3)						
1,1-Dichloroethane	1.3		1.0	ug/L	EPA 8260B	EPA 5030C
1,1-Dichloroethene	110		1.0	ug/L	EPA 8260B	EPA 5030C
1,4-Dioxane	8.3		1.0	ug/L	EPA 8270C (M) Isotope Dilution	EPA 3510C

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

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* MDL is shown



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/06/14
Work Order: 14-02-0365
Preparation: EPA 3510C
Method: EPA 8270C (M) Isotope Dilution
Units: ug/L

Project: Raytheon Main / 532.30

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-34B	14-02-0365-2-D	02/06/14 11:30	Aqueous	GC/MS DDD	02/07/14	02/10/14 17:16	140207L24

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	120	10	10	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	121	56-123	
1,4-Dioxane-d8(IDS-IS)	49	30-120	

MW-36	14-02-0365-3-D	02/06/14 14:40	Aqueous	GC/MS DDD	02/07/14	02/07/14 21:39	140207L24

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	8.3	1.0	1	

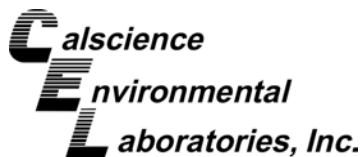
<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	120	56-123	
1,4-Dioxane-d8(IDS-IS)	47	30-120	

Method Blank	099-16-216-32	N/A	Aqueous	GC/MS DDD	02/07/14	02/07/14 20:20	140207L24

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,4-Dioxane	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
Nitrobenzene-d5	119	56-123	
1,4-Dioxane-d8(IDS-IS)	52	30-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/06/14
Work Order: 14-02-0365
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

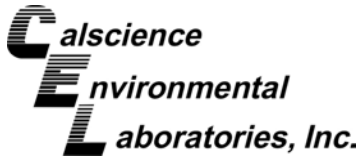
Project: Raytheon Main / 532.30

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
TB-020614B	14-02-0365-1-B	02/06/14 07:45	Aqueous	GC/MS QQ	02/11/14	02/11/14 16:42	140211L02

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/06/14
Work Order: 14-02-0365
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

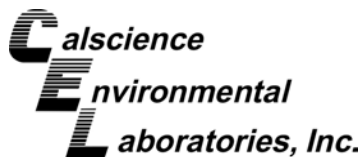
Project: Raytheon Main / 532.30

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	90	80-120	
Dibromofluoromethane	108	78-126	
1,2-Dichloroethane-d4	106	75-135	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/06/14
Work Order: 14-02-0365
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

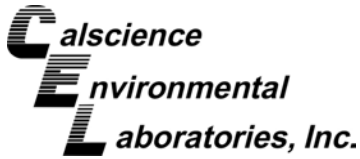
Project: Raytheon Main / 532.30

Page 3 of 8

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-34B	14-02-0365-2-C	02/06/14 11:30	Aqueous	GC/MS QQ	02/11/14	02/11/14 17:09	140211L02

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Acetone	ND	40	2	
Benzene	ND	1.0	2	
Bromobenzene	ND	2.0	2	
Bromochloromethane	ND	2.0	2	
Bromodichloromethane	ND	2.0	2	
Bromoform	ND	2.0	2	
Bromomethane	ND	20	2	
2-Butanone	ND	20	2	
n-Butylbenzene	ND	2.0	2	
sec-Butylbenzene	ND	2.0	2	
tert-Butylbenzene	ND	2.0	2	
Carbon Disulfide	ND	20	2	
Carbon Tetrachloride	ND	1.0	2	
Chlorobenzene	ND	2.0	2	
Chloroethane	ND	10	2	
Chloroform	ND	2.0	2	
Chloromethane	ND	20	2	
2-Chlorotoluene	ND	2.0	2	
4-Chlorotoluene	ND	2.0	2	
Dibromochloromethane	ND	2.0	2	
1,2-Dibromo-3-Chloropropane	ND	10	2	
1,2-Dibromoethane	ND	2.0	2	
Dibromomethane	ND	2.0	2	
1,2-Dichlorobenzene	ND	2.0	2	
1,3-Dichlorobenzene	ND	2.0	2	
1,4-Dichlorobenzene	ND	2.0	2	
Dichlorodifluoromethane	ND	2.0	2	
1,1-Dichloroethane	2.8	2.0	2	
1,2-Dichloroethane	ND	1.0	2	
1,1-Dichloroethene	240	2.0	2	
c-1,2-Dichloroethene	ND	2.0	2	
t-1,2-Dichloroethene	ND	2.0	2	
1,2-Dichloropropane	ND	2.0	2	
1,3-Dichloropropane	ND	2.0	2	
2,2-Dichloropropane	ND	2.0	2	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/06/14
Work Order: 14-02-0365
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

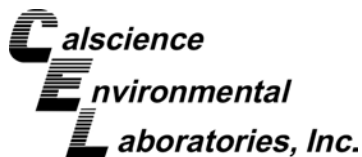
Project: Raytheon Main / 532.30

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	2.0	2	
c-1,3-Dichloropropene	ND	1.0	2	
t-1,3-Dichloropropene	ND	1.0	2	
Ethylbenzene	ND	2.0	2	
2-Hexanone	ND	20	2	
Isopropylbenzene	ND	2.0	2	
p-Isopropyltoluene	ND	2.0	2	
Methylene Chloride	ND	20	2	
4-Methyl-2-Pentanone	ND	20	2	
Naphthalene	ND	20	2	
n-Propylbenzene	ND	2.0	2	
Styrene	ND	2.0	2	
1,1,1,2-Tetrachloroethane	ND	2.0	2	
1,1,2,2-Tetrachloroethane	ND	2.0	2	
Tetrachloroethene	ND	2.0	2	
Toluene	ND	2.0	2	
1,2,3-Trichlorobenzene	ND	2.0	2	
1,2,4-Trichlorobenzene	ND	2.0	2	
1,1,1-Trichloroethane	ND	2.0	2	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	20	2	
1,1,2-Trichloroethane	ND	2.0	2	
Trichloroethene	ND	2.0	2	
Trichlorofluoromethane	ND	20	2	
1,2,3-Trichloropropane	ND	10	2	
1,2,4-Trimethylbenzene	ND	2.0	2	
1,3,5-Trimethylbenzene	ND	2.0	2	
Vinyl Acetate	ND	20	2	
Vinyl Chloride	ND	1.0	2	
p/m-Xylene	ND	2.0	2	
o-Xylene	ND	2.0	2	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	90	80-120	
Dibromofluoromethane	109	78-126	
1,2-Dichloroethane-d4	108	75-135	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/06/14
Work Order: 14-02-0365
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

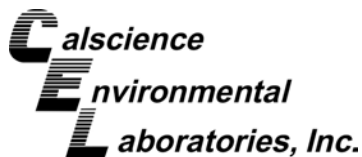
Project: Raytheon Main / 532.30

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-36	14-02-0365-3-C	02/06/14 14:40	Aqueous	GC/MS QQ	02/11/14	02/11/14 13:04	140211L02

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	1.3	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	110	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/06/14
Work Order: 14-02-0365
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

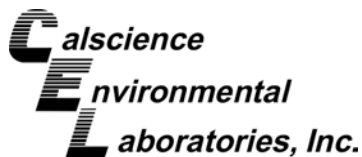
Project: Raytheon Main / 532.30

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	93	80-120	
Dibromofluoromethane	107	78-126	
1,2-Dichloroethane-d4	106	75-135	
Toluene-d8	100	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/06/14
Work Order: 14-02-0365
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

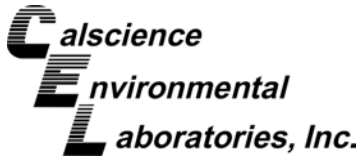
Project: Raytheon Main / 532.30

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-14-001-13178	N/A	Aqueous	GC/MS QQ	02/11/14	02/11/14 11:39	140211L02

Parameter	Result	RL	DF	Qualifiers
Acetone	ND	20	1	
Benzene	ND	0.50	1	
Bromobenzene	ND	1.0	1	
Bromochloromethane	ND	1.0	1	
Bromodichloromethane	ND	1.0	1	
Bromoform	ND	1.0	1	
Bromomethane	ND	10	1	
2-Butanone	ND	10	1	
n-Butylbenzene	ND	1.0	1	
sec-Butylbenzene	ND	1.0	1	
tert-Butylbenzene	ND	1.0	1	
Carbon Disulfide	ND	10	1	
Carbon Tetrachloride	ND	0.50	1	
Chlorobenzene	ND	1.0	1	
Chloroethane	ND	5.0	1	
Chloroform	ND	1.0	1	
Chloromethane	ND	10	1	
2-Chlorotoluene	ND	1.0	1	
4-Chlorotoluene	ND	1.0	1	
Dibromochloromethane	ND	1.0	1	
1,2-Dibromo-3-Chloropropane	ND	5.0	1	
1,2-Dibromoethane	ND	1.0	1	
Dibromomethane	ND	1.0	1	
1,2-Dichlorobenzene	ND	1.0	1	
1,3-Dichlorobenzene	ND	1.0	1	
1,4-Dichlorobenzene	ND	1.0	1	
Dichlorodifluoromethane	ND	1.0	1	
1,1-Dichloroethane	ND	1.0	1	
1,2-Dichloroethane	ND	0.50	1	
1,1-Dichloroethene	ND	1.0	1	
c-1,2-Dichloroethene	ND	1.0	1	
t-1,2-Dichloroethene	ND	1.0	1	
1,2-Dichloropropane	ND	1.0	1	
1,3-Dichloropropane	ND	1.0	1	
2,2-Dichloropropane	ND	1.0	1	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/06/14
Work Order: 14-02-0365
Preparation: EPA 5030C
Method: EPA 8260B
Units: ug/L

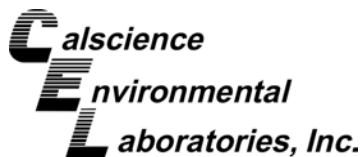
Project: Raytheon Main / 532.30

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<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
1,1-Dichloropropene	ND	1.0	1	
c-1,3-Dichloropropene	ND	0.50	1	
t-1,3-Dichloropropene	ND	0.50	1	
Ethylbenzene	ND	1.0	1	
2-Hexanone	ND	10	1	
Isopropylbenzene	ND	1.0	1	
p-Isopropyltoluene	ND	1.0	1	
Methylene Chloride	ND	10	1	
4-Methyl-2-Pentanone	ND	10	1	
Naphthalene	ND	10	1	
n-Propylbenzene	ND	1.0	1	
Styrene	ND	1.0	1	
1,1,1,2-Tetrachloroethane	ND	1.0	1	
1,1,2,2-Tetrachloroethane	ND	1.0	1	
Tetrachloroethene	ND	1.0	1	
Toluene	ND	1.0	1	
1,2,3-Trichlorobenzene	ND	1.0	1	
1,2,4-Trichlorobenzene	ND	1.0	1	
1,1,1-Trichloroethane	ND	1.0	1	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	10	1	
1,1,2-Trichloroethane	ND	1.0	1	
Trichloroethene	ND	1.0	1	
Trichlorofluoromethane	ND	10	1	
1,2,3-Trichloropropane	ND	5.0	1	
1,2,4-Trimethylbenzene	ND	1.0	1	
1,3,5-Trimethylbenzene	ND	1.0	1	
Vinyl Acetate	ND	10	1	
Vinyl Chloride	ND	0.50	1	
p/m-Xylene	ND	1.0	1	
o-Xylene	ND	1.0	1	

<u>Surrogate</u>	<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>
1,4-Bromofluorobenzene	91	80-120	
Dibromofluoromethane	104	78-126	
1,2-Dichloroethane-d4	101	75-135	
Toluene-d8	98	80-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/06/14
Work Order: 14-02-0365
Preparation: EPA 3510C
Method: EPA 8270C (M) Isotope Dilution

Project: Raytheon Main / 532.30

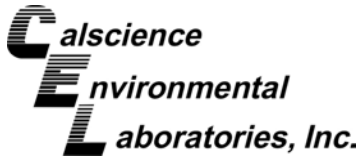
Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-34B	Sample	Aqueous	GC/MS DDD	02/07/14	02/10/14 17:16	140207S24
MW-34B	Matrix Spike	Aqueous	GC/MS DDD	02/07/14	02/10/14 17:59	140207S24
MW-34B	Matrix Spike Duplicate	Aqueous	GC/MS DDD	02/07/14	02/10/14 18:14	140207S24

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
1,4-Dioxane	116.1	20.00	146.3	151	134.9	94	50-130	8	0-20	3

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/06/14
Work Order: 14-02-0365
Preparation: EPA 5030C
Method: EPA 8260B

Project: Raytheon Main / 532.30

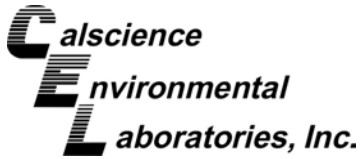
Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-36	Sample	Aqueous	GC/MS QQ	02/11/14	02/11/14 13:04	140211S02
MW-36	Matrix Spike	Aqueous	GC/MS QQ	02/11/14	02/11/14 13:32	140211S02
MW-36	Matrix Spike Duplicate	Aqueous	GC/MS QQ	02/11/14	02/11/14 13:59	140211S02

<u>Parameter</u>	<u>Sample Conc.</u>	<u>Spike Added</u>	<u>MS Conc.</u>	<u>MS %Rec.</u>	<u>MSD Conc.</u>	<u>MSD %Rec.</u>	<u>%Rec. CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Benzene	ND	50.00	47.01	94	48.39	97	74-122	3	0-21	
Carbon Tetrachloride	ND	50.00	49.24	98	49.71	99	60-144	1	0-21	
Chlorobenzene	ND	50.00	51.00	102	51.33	103	73-120	1	0-22	
1,2-Dibromoethane	ND	50.00	47.80	96	48.29	97	80-122	1	0-20	
1,2-Dichlorobenzene	ND	50.00	49.46	99	50.89	102	70-120	3	0-26	
1,2-Dichloroethane	ND	50.00	42.69	85	43.44	87	64-142	2	0-20	
1,1-Dichloroethene	105.0	50.00	137.3	65	137.2	64	52-136	0	0-21	
Ethylbenzene	ND	50.00	51.50	103	51.22	102	77-125	1	0-24	
Toluene	ND	50.00	49.25	99	50.29	101	72-126	2	0-23	
Trichloroethene	ND	50.00	47.26	95	46.54	93	74-128	2	0-22	
Vinyl Chloride	ND	50.00	47.80	96	52.72	105	67-133	10	0-20	
p/m-Xylene	ND	100.0	106.3	106	106.1	106	63-129	0	0-25	
o-Xylene	ND	50.00	53.21	106	52.69	105	62-128	1	0-24	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	44.71	89	46.95	94	68-134	5	0-21	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

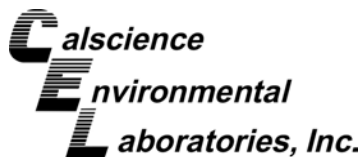
Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/06/14
Work Order: 14-02-0365
Preparation: EPA 3510C
Method: EPA 8270C (M) Isotope Dilution

Project: Raytheon Main / 532.30

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-216-32	LCS	Aqueous	GC/MS DDD	02/07/14	02/07/14 20:35	140207L24
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
1,4-Dioxane		20.00	20.41	102	50-130	



Quality Control - LCS

Hargis + Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122-6215

Date Received: 02/06/14
Work Order: 14-02-0365
Preparation: EPA 5030C
Method: EPA 8260B

Project: Raytheon Main / 532.30

Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-001-13178	LCS	Aqueous	GC/MS QQ	02/11/14	02/11/14 10:37	140211L02
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Benzene	50.00	46.87	94	80-120	73-127	
Carbon Tetrachloride	50.00	47.66	95	67-139	55-151	
Chlorobenzene	50.00	46.33	93	78-120	71-127	
1,2-Dibromoethane	50.00	47.57	95	80-120	73-127	
1,2-Dichlorobenzene	50.00	47.06	94	63-129	52-140	
1,2-Dichloroethane	50.00	43.02	86	70-130	60-140	
1,1-Dichloroethene	50.00	44.76	90	66-126	56-136	
Ethylbenzene	50.00	49.26	99	80-123	73-130	
Toluene	50.00	48.03	96	80-120	73-127	
Trichloroethene	50.00	47.01	94	80-122	73-129	
Vinyl Chloride	50.00	49.32	99	70-130	60-140	
p/m-Xylene	100.0	99.94	100	75-123	67-131	
o-Xylene	50.00	48.92	98	74-122	66-130	
Methyl-t-Butyl Ether (MTBE)	50.00	45.61	91	69-129	59-139	

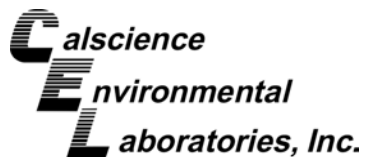
Total number of LCS compounds: 14

Total number of ME compounds: 0

Total number of ME compounds allowed: 1

LCS ME CL validation result: Pass

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Sample Analysis Summary Report

Work Order: 14-02-0365Page 1 of 1

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 8260B	EPA 5030C	510	GC/MS QQ	2
EPA 8270C (M) Isotope Dilution	EPA 3510C	897	GC/MS DDD	1


Return to Contents

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-02-0365

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	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 suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
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.
BV	Sample received 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.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
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.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



DATE 2/6/14 PAGE 1 OF

[illegible]

WORK ORDER #: **14-02-0365**

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: HARGIS

DATE: 02/6/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

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

Checked by: 678

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____

☐ No (Not Intact)

☒ Not Present

☐ N/A

Checked by: 678

☐ Sample ☐ _____

☐ No (Not Intact)

☒ Not Present

Checked by: 609

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..... ☒ ☐ ☐

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐ ☐ ☒

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® ☐ _____

Aqueous: ☐ VOA ☒ VOAh ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☒ 1AGB ☐ 1AGBna₂ ☐ 1AGBs

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB

☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBznn ☐ 100PJ ☐ 100PJna₂ ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: N/A Labeled/Checked by: 609

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 778

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znn: ZnAc₂+NaOH f: Filtered Scanned by: 778

GROUNDWATER EXTRACTION AND TREATMENT SYSTEM RESULTS

December 27, 2013

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax: (858) 455-6533


ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No.: T104704502

Re: ATL Work Order Number : 1303925
Client Reference : Raytheon Main: Fullerton Monthly, 532.15

Enclosed are the results for sample(s) received on December 11, 2013 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 12/27/2013

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-121113	1303925-01	Lab H2O	12/11/13 8:00	12/11/13 10:20
EW-02	1303925-02	Groundwater	12/11/13 9:10	12/11/13 10:20
PF	1303925-03	Groundwater	12/11/13 8:16	12/11/13 10:20
POX	1303925-04	Groundwater	12/11/13 8:20	12/11/13 10:20
CBT	1303925-05	Groundwater	12/11/13 8:35	12/11/13 10:20
CEFF	1303925-06	Groundwater	12/11/13 8:40	12/11/13 10:20

CASE NARRATIVE

The samples for EPA 317 (Bromate) analysis were subcontracted to Exova, Inc. with ELAP Cert.# 2652.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 12/27/2013

Client Sample ID TB-121113

Lab ID: 1303925-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,1,1-Trichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,1,2-Trichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,1-Dichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,1-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,1-Dichloropropene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,2,3-Trichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,2-Dibromoethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,2-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,2-Dichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,2-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,3-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,3-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,4-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
2,2-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
2-Chlorotoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
4-Chlorotoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
4-Isopropyltoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Benzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Bromobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Bromodichloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Bromoform	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Bromomethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Carbon tetrachloride	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Chlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Chloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Chloroform	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Chloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Dibromochloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 12/27/2013

Client Sample ID TB-121113

Lab ID: 1303925-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Dichlorodifluoromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Ethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Hexachlorobutadiene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Isopropylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
m,p-Xylene	ND	1.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Methylene chloride	ND	1.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
n-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
n-Propylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Naphthalene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
o-Xylene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
sec-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Styrene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
tert-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Tetrachloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Toluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Trichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Trichlorofluoromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Vinyl chloride	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Surrogate: 1,2-Dichloroethane-d4	125 %		70 - 130		B3L0322	12/16/2013	12/16/13 18:00	
Surrogate: 4-Bromofluorobenzene	83.8 %		70 - 130		B3L0322	12/16/2013	12/16/13 18:00	
Surrogate: Dibromofluoromethane	115 %		70 - 130		B3L0322	12/16/2013	12/16/13 18:00	
Surrogate: Toluene-d8	79.5 %		70 - 130		B3L0322	12/16/2013	12/16/13 18:00	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 12/27/2013

Client Sample ID EW-02

Lab ID: 1303925-02

Bromide by Ion Chromatography EPA 300

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.22	0.05	NA	1	B3L0223	12/11/2013	12/11/13 14:26	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	620	10	NA	1	B3L0315	12/13/2013	12/13/13 15:02	

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Suspended	ND	3.8	NA	1	B3L0316	12/16/2013	12/16/13 09:30	

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,1,1-Trichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,1,2-Trichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,1-Dichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,1-Dichloroethene	49	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,1-Dichloropropene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,2,3-Trichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,2-Dibromoethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,2-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,2-Dichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,2-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,3-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
1,3-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 12/27/2013

Client Sample ID EW-02

Lab ID: 1303925-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
2,2-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
2-Chlorotoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
4-Chlorotoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
4-Isopropyltoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Benzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Bromobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Bromodichloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Bromoform	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Bromomethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Carbon tetrachloride	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Chlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Chloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Chloroform	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Chloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Dibromochloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Dibromomethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Dichlorodifluoromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Ethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Hexachlorobutadiene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Isopropylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
m,p-Xylene	ND	1.0	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Methylene chloride	ND	1.0	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
n-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
n-Propylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Naphthalene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
o-Xylene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
sec-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Styrene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
tert-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Tetrachloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Toluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Trichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Trichlorofluoromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 12/27/2013

Client Sample ID EW-02

Lab ID: 1303925-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl chloride	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:54	
Surrogate: 1,2-Dichloroethane-d4	127 %		70 - 130		B3L0322	12/16/2013	12/16/13 20:54	
Surrogate: 4-Bromofluorobenzene	82.9 %		70 - 130		B3L0322	12/16/2013	12/16/13 20:54	
Surrogate: Dibromofluoromethane	113 %		70 - 130		B3L0322	12/16/2013	12/16/13 20:54	
Surrogate: Toluene-d8	79.6 %		70 - 130		B3L0322	12/16/2013	12/16/13 20:54	

1,4-Dioxane by EPA 8270: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	22	2.0	NA	1	B3L0291	12/13/2013	12/14/13 11:49	
Surrogate: 1,2-Dichlorobenzene-d4	70.7 %		37 - 93		B3L0291	12/13/2013	12/14/13 11:49	
Surrogate: 2-Fluorobiphenyl	75.3 %		51 - 100		B3L0291	12/13/2013	12/14/13 11:49	
Surrogate: 4-Terphenyl-d14	90.6 %		58 - 113		B3L0291	12/13/2013	12/14/13 11:49	
Surrogate: Nitrobenzene-d5	73.0 %		39 - 95		B3L0291	12/13/2013	12/14/13 11:49	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 12/27/2013

Client Sample ID PF

Lab ID: 1303925-03

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Suspended	ND	3.9	NA	1	B3L0316	12/16/2013	12/16/13 09:30	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 12/27/2013

Client Sample ID POX

Lab ID: 1303925-04

Bromide by Ion Chromatography EPA 300

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.21	0.05	NA	1	B3L0223	12/11/2013	12/11/13 14:37	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	620	10	NA	1	B3L0315	12/13/2013	12/13/13 15:04	

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,1,1-Trichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,1,2-Trichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,1-Dichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,1-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,1-Dichloropropene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,2,3-Trichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,2-Dibromoethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,2-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,2-Dichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,2-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,3-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,3-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
1,4-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
2,2-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
2-Chlorotoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
4-Chlorotoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
4-Isopropyltoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Benzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 12/27/2013

Client Sample ID POX

Lab ID: 1303925-04

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Bromodichloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Bromoform	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Bromomethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Carbon tetrachloride	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Chlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Chloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Chloroform	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Chloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Dibromochloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Dibromomethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Dichlorodifluoromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Ethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Hexachlorobutadiene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Isopropylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
m,p-Xylene	ND	1.0	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Methylene chloride	ND	1.0	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
n-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
n-Propylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Naphthalene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
o-Xylene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
sec-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Styrene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
tert-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Tetrachloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Toluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Trichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Trichlorofluoromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	
Vinyl chloride	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:13	

Surrogate: 1,2-Dichloroethane-d4	122 %	70 - 130	B3L0322	12/16/2013	12/16/13 19:13
Surrogate: 4-Bromofluorobenzene	75.2 %	70 - 130	B3L0322	12/16/2013	12/16/13 19:13
Surrogate: Dibromofluoromethane	113 %	70 - 130	B3L0322	12/16/2013	12/16/13 19:13
Surrogate: Toluene-d8	75.6 %	70 - 130	B3L0322	12/16/2013	12/16/13 19:13



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 12/27/2013

Client Sample ID POX

Lab ID: 1303925-04

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	0.47	0.20	NA	1	B3L0349	12/17/2013	12/17/13 13:35	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>64.5 %</i>		<i>47 - 117</i>		B3L0349	12/17/2013	<i>12/17/13 13:35</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>76.1 %</i>		<i>48 - 121</i>		B3L0349	12/17/2013	<i>12/17/13 13:35</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>69.3 %</i>		<i>58 - 142</i>		B3L0349	12/17/2013	<i>12/17/13 13:35</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>51.7 %</i>		<i>27 - 151</i>		B3L0349	12/17/2013	<i>12/17/13 13:35</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 12/27/2013

Client Sample ID CBT

Lab ID: 1303925-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,1,1-Trichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,1,2-Trichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,1-Dichloroethane	0.58	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,1-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,1-Dichloropropene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,2,3-Trichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,2-Dibromoethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,2-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,2-Dichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,2-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,3-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,3-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
1,4-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
2,2-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
2-Chlorotoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
4-Chlorotoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
4-Isopropyltoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Benzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Bromobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Bromodichloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Bromoform	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Bromomethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Carbon tetrachloride	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Chlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Chloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Chloroform	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Chloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Dibromochloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 12/27/2013

Client Sample ID CBT

Lab ID: 1303925-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Dichlorodifluoromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Ethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Hexachlorobutadiene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Isopropylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
m,p-Xylene	ND	1.0	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Methylene chloride	ND	1.0	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
n-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
n-Propylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Naphthalene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
o-Xylene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
sec-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Styrene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
tert-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Tetrachloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Toluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Trichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Trichlorofluoromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Vinyl chloride	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 19:40	
Surrogate: 1,2-Dichloroethane-d4	121 %		70 - 130		B3L0322	12/16/2013	12/16/13 19:40	
Surrogate: 4-Bromofluorobenzene	77.2 %		70 - 130		B3L0322	12/16/2013	12/16/13 19:40	
Surrogate: Dibromofluoromethane	110 %		70 - 130		B3L0322	12/16/2013	12/16/13 19:40	
Surrogate: Toluene-d8	78.5 %		70 - 130		B3L0322	12/16/2013	12/16/13 19:40	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 12/27/2013

Client Sample ID CEFF

Lab ID: 1303925-06

Bromide by Ion Chromatography EPA 300

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.20	0.05	NA	1	B3L0223	12/11/2013	12/11/13 14:49	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	620	10	NA	1	B3L0315	12/13/2013	12/13/13 15:06	

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,1,1-Trichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,1,2-Trichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,1-Dichloroethane	0.58	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,1-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,1-Dichloropropene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,2,3-Trichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,2-Dibromoethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,2-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,2-Dichloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,2-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,3-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,3-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
1,4-Dichlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
2,2-Dichloropropane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
2-Chlorotoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
4-Chlorotoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
4-Isopropyltoluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Benzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 12/27/2013

Client Sample ID CEFF

Lab ID: 1303925-06

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Bromodichloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Bromoform	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Bromomethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Carbon tetrachloride	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Chlorobenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Chloroethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Chloroform	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Chloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Dibromochloromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Dibromomethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Dichlorodifluoromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Ethylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Hexachlorobutadiene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Isopropylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
m,p-Xylene	ND	1.0	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Methylene chloride	ND	1.0	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
n-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
n-Propylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Naphthalene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
o-Xylene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
sec-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Styrene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
tert-Butylbenzene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Tetrachloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Toluene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Trichloroethene	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Trichlorofluoromethane	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	
Vinyl chloride	ND	0.50	NA	1	B3L0322	12/16/2013	12/16/13 20:06	

Surrogate: 1,2-Dichloroethane-d4	122 %	70 - 130	B3L0322	12/16/2013	12/16/13 20:06
Surrogate: 4-Bromofluorobenzene	82.2 %	70 - 130	B3L0322	12/16/2013	12/16/13 20:06
Surrogate: Dibromofluoromethane	110 %	70 - 130	B3L0322	12/16/2013	12/16/13 20:06
Surrogate: Toluene-d8	76.5 %	70 - 130	B3L0322	12/16/2013	12/16/13 20:06



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QUALITY CONTROL SECTION

Bromide by Ion Chromatography EPA 300 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0223 - No_Prep_IC_1

Blank (B3L0223-BLK1)

Prepared: 12/11/2013 Analyzed: 12/11/2013

Bromide ND 0.05 NR

LCS (B3L0223-BS1)

Prepared: 12/11/2013 Analyzed: 12/11/2013

Bromide 1.08730 0.05 1.00000 109 90 - 110

Duplicate (B3L0223-DUP1)

Source: 1303913-01RE1

Prepared: 12/11/2013 Analyzed: 12/11/2013

Bromide ND 1.0 ND NR 20

Duplicate (B3L0223-DUP2)

Source: 1303901-01

Prepared: 12/11/2013 Analyzed: 12/11/2013

Bromide ND 0.05 ND NR 20

Matrix Spike (B3L0223-MS1)

Source: 1303913-01RE1

Prepared: 12/11/2013 Analyzed: 12/11/2013

Bromide 3.14800 1.0 2.50000 ND 126 80 - 120 M3

Matrix Spike Dup (B3L0223-MSD1)

Source: 1303913-01RE1

Prepared: 12/11/2013 Analyzed: 12/11/2013

Bromide 3.76400 1.0 2.50000 ND 151 80 - 120 17.8 20 M3



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Total Dissolved Solids (Residue, Filterable) by SM 2540C - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0315 - No_Prep_WC_1

Blank (B3L0315-BLK1)

Prepared: 12/13/2013 Analyzed: 12/13/2013

Residue, Dissolved

ND

10

NR

LCS (B3L0315-BS1)

Prepared: 12/13/2013 Analyzed: 12/13/2013

Residue, Dissolved

981.000

10

970.000

101

80 - 120

Duplicate (B3L0315-DUP1)

Source: 1303945-06

Prepared: 12/13/2013 Analyzed: 12/13/2013

Residue, Dissolved

566.000

10

571.000

NR

0.880

10



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Project Number : Raytheon Main: Fullerton Monthly, 532.1.

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Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0316 - No_Prep_WC_1

Blank (B3L0316-BLK1)

Prepared: 12/16/2013 Analyzed: 12/16/2013

Residue, Suspended

ND

10

NR

LCS (B3L0316-BS1)

Prepared: 12/16/2013 Analyzed: 12/16/2013

Residue, Suspended

101.000

10

96.6000

105

80 - 120

Duplicate (B3L0316-DUP1)

Source: 1303951-01

Prepared: 12/16/2013 Analyzed: 12/16/2013

Residue, Suspended

90.0000

10

92.0000

NR

2.20

10



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Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes

Batch B3L0322 - MSVOAW_LL

Blank (B3L0322-BLK1)

Prepared: 12/16/2013 Analyzed: 12/16/2013

1,1,1,2-Tetrachloroethane	ND	0.50			NR
1,1,1-Trichloroethane	ND	0.50			NR
1,1,2,2-Tetrachloroethane	ND	0.50			NR
1,1,2-Trichloroethane	ND	0.50			NR
1,1-Dichloroethane	ND	0.50			NR
1,1-Dichloroethene	ND	0.50			NR
1,1-Dichloropropene	ND	0.50			NR
1,2,3-Trichloropropane	ND	0.50			NR
1,2,3-Trichlorobenzene	ND	0.50			NR
1,2,4-Trichlorobenzene	ND	0.50			NR
1,2,4-Trimethylbenzene	ND	0.50			NR
1,2-Dibromo-3-chloropropane	ND	0.50			NR
1,2-Dibromoethane	ND	0.50			NR
1,2-Dichlorobenzene	ND	0.50			NR
1,2-Dichloroethane	ND	0.50			NR
1,2-Dichloropropane	ND	0.50			NR
1,3,5-Trimethylbenzene	ND	0.50			NR
1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR
Dichlorodifluoromethane	ND	0.50			NR
Ethylbenzene	ND	0.50			NR
Hexachlorobutadiene	ND	0.50			NR



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Reported : 12/27/2013

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0322 - MSVOAW_LL (continued)

Blank (B3L0322-BLK1) - Continued

Prepared: 12/16/2013 Analyzed: 12/16/2013

Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				

Surrogate: 1,2-Dichloroethane-d4	30.71	25.0000	123	70 - 130
Surrogate: 4-Bromofluorobenzene	20.18	25.0000	80.7	70 - 130
Surrogate: Dibromofluoromethane	27.64	25.0000	111	70 - 130
Surrogate: Toluene-d8	19.63	25.0000	78.5	70 - 130

LCS (B3L0322-BS1)

Prepared: 12/16/2013 Analyzed: 12/16/2013

1,1-Dichloroethene	14.2200	20.0000	71.1	70 - 130
Benzene	17.7300	20.0000	88.6	70 - 130
Chlorobenzene	15.5100	20.0000	77.6	70 - 130
MTBE	17.2200	20.0000	86.1	70 - 130
Toluene	14.3200	20.0000	71.6	70 - 130
Trichloroethene	16.0000	20.0000	80.0	70 - 130

Surrogate: 1,2-Dichloroethane-d4	28.40	25.0000	114	70 - 130
Surrogate: 4-Bromofluorobenzene	17.97	25.0000	71.9	70 - 130
Surrogate: Dibromofluoromethane	24.72	25.0000	98.9	70 - 130
Surrogate: Toluene-d8	18.76	25.0000	75.0	70 - 130

LCS Dup (B3L0322-BS1)

Prepared: 12/16/2013 Analyzed: 12/16/2013

1,1-Dichloroethene	15.3800	20.0000	76.9	70 - 130	7.84	20
Benzene	18.2900	20.0000	91.4	70 - 130	3.11	20
Chlorobenzene	16.2000	20.0000	81.0	70 - 130	4.35	20
MTBE	17.8000	20.0000	89.0	70 - 130	3.31	20
Toluene	15.1400	20.0000	75.7	70 - 130	5.57	20
Trichloroethene	16.9500	20.0000	84.8	70 - 130	5.77	20

Surrogate: 1,2-Dichloroethane-d4	28.42	25.0000	114	70 - 130



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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 12/27/2013

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0322 - MSVOAW_LL (continued)

LCS Dup (B3L0322-BSD1) - Continued

Prepared: 12/16/2013 Analyzed: 12/16/2013

Surrogate: 4-Bromofluorobenzene	18.97	25.0000	75.9	70 - 130
Surrogate: Dibromofluoromethane	25.06	25.0000	100	70 - 130
Surrogate: Toluene-d8	19.14	25.0000	76.6	70 - 130



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Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 12/27/2013

1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0291 - MSSEMI_ISOTOPEDILN

Blank (B3L0291-BLK1)

Prepared: 12/13/2013 Analyzed: 12/14/2013

1,4-Dioxane	ND	2.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	71.68		100.000		71.7	37 - 93			
Surrogate: 2-Fluorobiphenyl	77.52		100.000		77.5	51 - 100			
Surrogate: 4-Terphenyl-d14	95.31		100.000		95.3	58 - 113			
Surrogate: Nitrobenzene-d5	71.86		100.000		71.9	39 - 95			

LCS (B3L0291-BS1)

Prepared: 12/13/2013 Analyzed: 12/14/2013

1,4-Dioxane	104.290	2.0	100.000		104	70 - 130			
Surrogate: 1,2-Dichlorobenzene-d4	65.51		100.000		65.5	37 - 93			
Surrogate: 2-Fluorobiphenyl	82.67		100.000		82.7	51 - 100			
Surrogate: 4-Terphenyl-d14	97.77		100.000		97.8	58 - 113			
Surrogate: Nitrobenzene-d5	75.45		100.000		75.4	39 - 95			

LCS Dup (B3L0291-BS1)

Prepared: 12/13/2013 Analyzed: 12/14/2013

1,4-Dioxane	108.400	2.0	100.000		108	70 - 130	3.86	20	
Surrogate: 1,2-Dichlorobenzene-d4	65.39		100.000		65.4	37 - 93			
Surrogate: 2-Fluorobiphenyl	81.80		100.000		81.8	51 - 100			
Surrogate: 4-Terphenyl-d14	96.90		100.000		96.9	58 - 113			
Surrogate: Nitrobenzene-d5	76.09		100.000		76.1	39 - 95			



Certificate of Analysis

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Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 12/27/2013

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0349 - MSSEMI_ISOTOPEDILN

Blank (B3L0349-BLK1)

Prepared: 12/17/2013 Analyzed: 12/17/2013

1,4-Dioxane	ND	0.20			NR				
Surrogate: 1,2-Dichlorobenzene-d4	0.6364		1.00000		63.6	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.7551		1.00000		75.5	48 - 121			
Surrogate: 4-Terphenyl-d14	0.7248		1.00000		72.5	58 - 142			
Surrogate: Nitrobenzene-d5	0.4595		1.00000		45.9	27 - 151			

LCS (B3L0349-BS1)

Prepared: 12/17/2013 Analyzed: 12/17/2013

1,4-Dioxane	1.00005	0.20	1.00000		100	58 - 151			
Surrogate: 1,2-Dichlorobenzene-d4	0.6499		1.00000		65.0	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.7618		1.00000		76.2	48 - 121			
Surrogate: 4-Terphenyl-d14	0.7548		1.00000		75.5	58 - 142			
Surrogate: Nitrobenzene-d5	0.4961		1.00000		49.6	27 - 151			

LCS Dup (B3L0349-BSD1)

Prepared: 12/17/2013 Analyzed: 12/17/2013

1,4-Dioxane	1.09518	0.20	1.00000		110	58 - 151	9.08	20	
Surrogate: 1,2-Dichlorobenzene-d4	0.6374		1.00000		63.7	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.7921		1.00000		79.2	48 - 121			
Surrogate: 4-Terphenyl-d14	0.7092		1.00000		70.9	58 - 142			
Surrogate: Nitrobenzene-d5	0.5181		1.00000		51.8	27 - 151			



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Notes and Definitions

M3	Matrix spike recovery outside of acceptance limit due to disproportionate concentration of the analyte to spike level. The analytical batch was validated by the laboratory control sample.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

- Notes:
- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
 - (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.

Bromate by EPA 317.0
Ion Chromatography/Post Column Reaction-Visible Absorption Spectroscopy

Column: Dionex AS9-HC 4 x 250 mm, AG9-HC Guard 4 x 50 mm
Eluent: 10 mM Na₂CO₃
Flow: 1.20 mL/min
Injection: 250 µL
Detection: Visible, 450 nm

Sample preparation: The undiluted samples were treated with a 2.5 mL Dionex OnGuard II H cartridge to remove excess basic cations. One sample required dilution with water by 1:4 for analysis. The detection limit is adjusted for the dilution.

Parts Per Billion (µg/L)

<u>Sample ID</u>	<u>Result</u>	<u>Detection Limit</u>
ATL Lab#: 1303925-02 / EW-02	0.4	0.3
ATL Lab#: 1303925-04 / POX	8	1
ATL Lab#: 1303925-06 / CEFF	6.5	0.3
ATL Lab#: 1303925-06 / CEFF Duplicate	6.7	0.3
Method Blank	ND	0.3

Date Analyzed: 12-26-13

Quality Control Summary

Sample ID: ATL Lab#: 1303925-06 / CEFF

<u>Analyte</u>	<u>Sample Result</u>	<u>Duplicate Result</u>	<u>Sample RPD</u>	<u>Spike Conc</u>	<u>Spike Result</u>	<u>Spike % Rec</u>
Bromate	6.5	6.7	3	20.0	26.7	101
QC Guidelines			NMT 10			75-125

**ADVANCED TECHNOLOGY
LABORATORIES**

SUBCONTRACT ORDER

Work Order: 1303925

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Exova Inc.
9240 Santa Fe Springs Road
Santa Fe Springs, CA 90670
Phone: (562) 948-2225
Fax: (562) 948-5850
PO#: SC08343- STANDARD TAT (RA)

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1303925-02 / EW-02 317.0 [Bromate]	12/26/13 17:00	12/12/13 09:10	Groundwater 12/11/13 09:10	
1-Poly Unpres - 125mL				
ATL Lab#: 1303925-04 / POX 317.0 [Bromate]	12/26/13 17:00	12/12/13 08:20	Groundwater 12/11/13 08:20	
1-Poly Unpres - 125mL				
ATL Lab#: 1303925-06 / CEFF 317.0 [Bromate]	12/26/13 17:00	12/12/13 08:40	Groundwater 12/11/13 08:40	
1-Poly Unpres - 125mL				

Released By <u>ABN/ATL</u>	Date <u>12/12/13</u>	Received By <u>ATL</u>	Date <u>12-12-13 9:10</u>
Released By <u>ATL</u>	Date <u>12-12-13 14:33</u>	Received By <u>EXOVA</u>	Date <u>12-12-13 P2:33</u>

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST FORM

DATE 12/11/13 PAGE 1 OF 1

PROJECT NAME Raytheon Main: Fullerton Monthly				PROJECT No./TASK No. 532.15				SAMPLE CONTAINERS				ANALYSIS REQUESTED				ESTIMATED CONCENTRATION RANGE (ppb) FOR VOA'S		SPECIAL HANDLING		LABORATORY INFORMATION									
PROJECT MANAGER Chris Ross				Phone No. 858-455-6500				40 ml VOA 125 ml Poly 250 ml Poly 1 L Amber				VOCs by EPA 8260B 1,4-Dioxane by EPA 8270S1A 1,4-Dioxane by EPA 8270M0D Bromate by EPA 317 Bromide by EPA 300 TDS by EPA SM2540C TSS by EPA SM2540D				0-10 10-100 100-1,000 >1,000				Advanced Technology Laboratories 3275 Walnut Ave Signal Hill CA 90755 Attn: Rachelle Arada									
QA MANAGER Steve Netto				Fax No. 858-455-6533																									
SAMPLER (SIGNATURE)				SAMPLER (PRINTED) MARCOS RODRIGUEZ																									
LAB ID	SAMPLE ID	SAMPLE COLLECTION		MATRIX			PRESERVATION			40 ml VOA	125 ml Poly	250 ml Poly	1 L Amber	VOCs by EPA 8260B	1,4-Dioxane by EPA 8270S1A	1,4-Dioxane by EPA 8270M0D	Bromate by EPA 317	Bromide by EPA 300	TDS by EPA SM2540C	TSS by EPA SM2540D	0-10	10-100	100-1,000	>1,000			REMARKS		
		Date	Time	Soil	Ground-water	Surface water	Lab H2O	HCl	HNO3																			NaOH	H2SO4
1303928 - 1	TB-121113	12/11/13	08:00				X	X					X	X							X							Please include	
- 2	EH-02		07:10	X			X						3	2	2	1	X	X	X	X	X							mrodriguez@hargis.com	
- 3	PF		08:16	X																X							in lab report		
- 4	POX		08:20	X			X						3	2	1	1	X	X	X	X	X							distribution list	
- 5	CBT		08:35	X			X						3				X				X								
- 6	CEFF		08:40	X			X						3	2	1		X		X	X	X	X						Set 1,4-dioxane	
																												MDL to 1.0 ppm	
Total number of Containers per analysis:										4652										Total No. of Containers: 27									
Relinquished by:		Date		Received by:		Date		INSTRUCTIONS 1. Fill out form completely except for shaded areas (lab use only); sign only after verified for completeness. 2. Complete in ballpoint pen. Draw one line through errors, initial and date correction. 3. Indicate number of sample containers in analysis request space; indicate choice with ✓ or x. 4. Note applicable preservatives, special instructions, and deviations from typical environmental samples. 5. Consult project QA documents for specific instructions. Sample Receipt: ☐ No. of containers correct ☒ received good condition/cold ☐ custody seals secure ☐ conforms to COC document																					
		12/11/13				12/11/13																							
Company		Time		Company		Time		Shipment Method: <u>DELIVER</u> Send Results to: <u>Steve Netto</u> ☒ 9171 TOWNE CENTRE DRIVE, SUITE 375 SAN DIEGO, CA 92122 (858) 455-6500 ☐ 1640 SOUTH STAPLEY DRIVE, SUITE 209 MESA, AZ 85204 (480) 345-0888 ☐ 1820 EAST RIVER ROAD, SUITE 220 TUCSON, AZ 85718 (520) 881-7300 Send invoice to San Diego, CA Attn: Accounts Payable																					
Relinquished by:		Date		Received by:		Date																							
Company		Time		Company		Time																							



December 18, 2013

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax: (858) 455-6533



Re: ATL Work Order Number : 1303927

Client Reference : Raytheon Main: Fullerton Quarterly, 532.15

Enclosed are the results for sample(s) received on December 11, 2013 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

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

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Quarterly, 532.1

Report To : Steve Netto

Reported : 12/18/2013

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EW-02	1303927-01	Groundwater	12/11/13 9:10	12/11/13 10:20
POX	1303927-02	Groundwater	12/11/13 8:20	12/11/13 10:20

CASE NARRATIVE

The sample for SM 2320B (Alkalinity) analysis was subcontracted to AETL with DOHS Cert.#1541.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Quarterly, 532.1

Report To : Steve Netto

Reported : 12/18/2013

Client Sample ID EW-02

Lab ID: 1303927-01

Anions Scan by Ion Chromatography EPA 300.0

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloride	94	5.0	NA	10	B3L0223	12/11/2013	12/11/13 15:00	
Nitrate as N	4.4	0.10	NA	1	B3L0223	12/11/2013	12/11/13 14:03	
Nitrite, as N	ND	0.10	NA	1	B3L0223	12/11/2013	12/11/13 14:03	
ortho-Phosphate (As P)	ND	0.05	NA	1	B3L0223	12/11/2013	12/11/13 14:03	
Sulfate	130	10	NA	10	B3L0223	12/11/2013	12/11/13 15:00	

Total Organic Carbon by SM 5310B

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	NA	1	B3L0292	12/13/2013	12/13/13 10:02	

Chemical Oxygen Demand by EPA 410.4

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chemical Oxygen Demand	ND	5.0	NA	1	B3L0345	12/17/2013	12/17/13 13:44	

Total Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Selenium	ND	0.010	NA	1	B3L0286	12/13/2013	12/13/13 17:35	

Dissolved Metals by ICP-AES EPA 6010B

Analyst: AG

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Calcium	88	0.50	NA	1	B3L0285	12/13/2013	12/13/13 17:15	
Iron	ND	0.50	NA	1	B3L0285	12/13/2013	12/13/13 17:15	
Magnesium	27	0.10	NA	1	B3L0285	12/13/2013	12/13/13 17:15	
Manganese	ND	0.50	NA	1	B3L0285	12/13/2013	12/13/13 17:16	
Selenium	ND	0.010	NA	1	B3L0285	12/13/2013	12/13/13 17:16	
Sodium	80	1.0	NA	1	B3L0285	12/13/2013	12/16/13 10:22	



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Project Number : Raytheon Main: Fullerton Quarterly, 532.1

Report To : Steve Netto

Reported : 12/18/2013

Client Sample ID POX

Lab ID: 1303927-02

Anions Scan by Ion Chromatography EPA 300.0

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chloride	94	5.0	NA	10	B3L0223	12/11/2013	12/11/13 15:11	
Nitrate as N	4.4	0.10	NA	1	B3L0223	12/11/2013	12/11/13 14:14	
Nitrite, as N	ND	0.10	NA	1	B3L0223	12/11/2013	12/11/13 14:14	
ortho-Phosphate (As P)	ND	0.05	NA	1	B3L0223	12/11/2013	12/11/13 14:14	
Sulfate	140	10	NA	10	B3L0223	12/11/2013	12/11/13 15:11	

Total Organic Carbon by SM 5310B

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Organic Carbon, Total	ND	3.0	NA	1	B3L0292	12/13/2013	12/13/13 10:15	

Chemical Oxygen Demand by EPA 410.4

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Chemical Oxygen Demand	ND	5.0	NA	1	B3L0345	12/17/2013	12/17/13 13:44	



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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Quarterly, 532.1

Report To : Steve Netto

Reported : 12/18/2013

QUALITY CONTROL SECTION

Anions Scan by Ion Chromatography EPA 300.0 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0223 - No_Prep_IC_1

Blank (B3L0223-BLK1)

Prepared: 12/11/2013 Analyzed: 12/11/2013

Chloride	ND	0.50			NR				
Nitrate as N	ND	0.10			NR				
Nitrite, as N	ND	0.10			NR				
ortho-Phosphate (As P)	ND	0.05			NR				
Sulfate	ND	1.0			NR				

LCS (B3L0223-BS1)

Prepared: 12/11/2013 Analyzed: 12/11/2013

Chloride	1.01700	0.50	1.00000		102	90 - 110			
Nitrate as N	1.03730	0.10	1.00000		104	90 - 110			
Nitrite, as N	0.995300	0.10	1.00000		99.5	90 - 110			
ortho-Phosphate (As P)	0.994600	0.05	1.00000		99.5	90 - 110			
Sulfate	1.97550	1.0	2.00000		98.8	90 - 110			

Duplicate (B3L0223-DUP1)

Source: 1303913-01RE1

Prepared: 12/11/2013 Analyzed: 12/11/2013

Chloride	117.902	10		118.124	NR		0.188	20	
Nitrate as N	2.57000	2.0		2.80000	NR		8.57	20	
Nitrite, as N	ND	2.0		ND	NR			20	
ortho-Phosphate (As P)	ND	1.0		ND	NR			20	
Sulfate	161.588	20		161.080	NR		0.315	20	

Duplicate (B3L0223-DUP2)

Source: 1303901-01

Prepared: 12/11/2013 Analyzed: 12/11/2013

Chloride	23.0533	0.50		23.0513	NR		0.00868	20	
Nitrate as N	8.77090	0.10		8.78980	NR		0.215	20	
Nitrite, as N	ND	0.10		ND	NR			20	
ortho-Phosphate (As P)	ND	0.05		ND	NR			20	
Sulfate	175.082	1.0		175.094	NR		0.00709	20	

Matrix Spike (B3L0223-MS1)

Source: 1303913-01RE1

Prepared: 12/11/2013 Analyzed: 12/11/2013

Chloride	119.228	10	2.50000	118.124	44.2	80 - 120			M3
Nitrate as N	5.08800	2.0	2.50000	2.80000	91.5	80 - 120			
Nitrite, as N	3.91600	2.0	2.50000	ND	157	80 - 120			M3
ortho-Phosphate (As P)	3.35600	1.0	2.50000	ND	134	80 - 120			M3
Sulfate	165.912	20	5.00000	161.080	96.6	80 - 120			

Matrix Spike Dup (B3L0223-MSD1)

Source: 1303913-01RE1

Prepared: 12/11/2013 Analyzed: 12/11/2013

Chloride	119.526	10	2.50000	118.124	56.1	80 - 120	0.250	20	M3
Nitrate as N	5.29600	2.0	2.50000	2.80000	99.8	80 - 120	4.01	20	
Nitrite, as N	3.98400	2.0	2.50000	ND	159	80 - 120	1.72	20	M3
ortho-Phosphate (As P)	3.39600	1.0	2.50000	ND	136	80 - 120	1.18	20	M3
Sulfate	166.112	20	5.00000	161.080	101	80 - 120	0.120	20	



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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Quarterly, 532.1

Report To : Steve Netto

Reported : 12/18/2013

Total Organic Carbon by SM 5310B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0292 - No_Prep_II_W

Blank (B3L0292-BLK1)

Prepared: 12/13/2013 Analyzed: 12/13/2013

Organic Carbon, Total

ND

3.0

NR

LCS (B3L0292-BS1)

Prepared: 12/13/2013 Analyzed: 12/13/2013

Organic Carbon, Total

20.9300

3.0

20.0000

105

80 - 120

LCS Dup (B3L0292-BSD1)

Prepared: 12/13/2013 Analyzed: 12/13/2013

Organic Carbon, Total

21.1100

3.0

20.0000

106

80 - 120

0.856

20



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Hargis & Associates, Inc.

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Project Number : Raytheon Main: Fullerton Quarterly, 532.1

Report To : Steve Netto

Reported : 12/18/2013

Chemical Oxygen Demand by EPA 410.4 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0345 - Prep_WC_1_W

Blank (B3L0345-BLK1)

Prepared: 12/17/2013 Analyzed: 12/17/2013

Chemical Oxygen Demand

ND

5.0

NR

LCS (B3L0345-BS1)

Prepared: 12/17/2013 Analyzed: 12/17/2013

Chemical Oxygen Demand

494.426

5.0

501.500

98.6

80 - 120

Matrix Spike (B3L0345-MS1)

Source: 1303944-01

Prepared: 12/17/2013 Analyzed: 12/17/2013

Chemical Oxygen Demand

494.026

5.0

500.000

ND

98.8

80 - 120

Matrix Spike Dup (B3L0345-MSD1)

Source: 1303944-01

Prepared: 12/17/2013 Analyzed: 12/17/2013

Chemical Oxygen Demand

553.012

5.0

500.000

ND

111

80 - 120

11.3

20



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Hargis & Associates, Inc.

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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Quarterly, 532.1

Report To : Steve Netto

Reported : 12/18/2013

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0286 - EPA 3010A

Blank (B3L0286-BLK1)

Prepared: 12/13/2013 Analyzed: 12/13/2013

Selenium ND 0.010 NR

LCS (B3L0286-BS1)

Prepared: 12/13/2013 Analyzed: 12/13/2013

Selenium 0.922328 0.010 1.00000 92.2 80 - 120

Matrix Spike (B3L0286-MS1)

Source: 1303927-01

Prepared: 12/13/2013 Analyzed: 12/13/2013

Selenium 2.28024 0.010 2.50000 ND 91.2 67 - 125

Matrix Spike Dup (B3L0286-MSD1)

Source: 1303927-01

Prepared: 12/13/2013 Analyzed: 12/13/2013

Selenium 2.32370 0.010 2.50000 ND 92.9 67 - 125 1.89 20



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Hargis & Associates, Inc.

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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Quarterly, 532.1

Report To : Steve Netto

Reported : 12/18/2013

Dissolved Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0285 - EPA 3010A

Blank (B3L0285-BLK1)

Prepared: 12/13/2013 Analyzed: 12/13/2013

Calcium	ND	0.50			NR				
Iron	ND	0.50			NR				
Magnesium	ND	0.10			NR				
Manganese	ND	0.50			NR				
Selenium	ND	0.010			NR				
Sodium	ND	1.0			NR				

Blank (B3L0285-BLK2)

Prepared: 12/13/2013 Analyzed: 12/16/2013

Calcium	ND	0.50			NR				
Iron	ND	0.50			NR				
Magnesium	ND	0.10			NR				
Manganese	ND	0.50			NR				
Selenium	ND	0.010			NR				
Sodium	ND	1.0			NR				

LCS (B3L0285-BS1)

Prepared: 12/13/2013 Analyzed: 12/13/2013

Calcium	20.0067	0.50	20.0000		100	80 - 120			
Iron	20.1325	0.50	20.0000		101	80 - 120			
Magnesium	20.6896	0.10	20.0000		103	80 - 120			
Manganese	9.72137	0.50	10.0000		97.2	80 - 120			
Selenium	0.949129	0.010	1.00000		94.9	80 - 120			
Sodium	18.9661	1.0	20.0000		94.8	80 - 120			

LCS (B3L0285-BS2)

Prepared: 12/13/2013 Analyzed: 12/16/2013

Calcium	20.1312	0.50	20.0000		101	80 - 120			
Iron	19.9770	0.50	20.0000		99.9	80 - 120			
Magnesium	20.2973	0.10	20.0000		101	80 - 120			
Manganese	9.29604	0.50	10.0000		93.0	80 - 120			
Selenium	0.923360	0.010	1.00000		92.3	80 - 120			
Sodium	20.2421	1.0	20.0000		101	80 - 120			

Matrix Spike (B3L0285-MS1)

Source: 1303905-01

Prepared: 12/13/2013 Analyzed: 12/13/2013

Calcium	107.381	0.50	20.0000	87.5985	98.9	44 - 151			
Iron	19.6289	0.50	20.0000	0.304975	96.6	72 - 118			
Magnesium	41.1181	0.10	20.0000	21.0274	100	51 - 137			
Manganese	9.26210	0.50	10.0000	ND	92.6	76 - 106			
Selenium	2.29964	0.010	2.50000	ND	92.0	67 - 125			
Sodium	111.060	1.0	20.0000	83.4997	138	31 - 176			

E

Matrix Spike (B3L0285-MS2)

Source: 1303905-01RE1

Prepared: 12/13/2013 Analyzed: 12/16/2013

Calcium	111.397	0.50	20.0000	86.7864	123	44 - 151			
Iron	19.7002	0.50	20.0000	0.357278	96.7	72 - 118			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Quarterly, 532.1

Report To : Steve Netto

Reported : 12/18/2013

Dissolved Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0285 - EPA 3010A (continued)

Matrix Spike (B3L0285-MS2) - Continued

Source: 1303905-01RE1

Prepared: 12/13/2013 Analyzed: 12/16/2013

Magnesium	42.2290	0.10	20.0000	22.3227	99.5	51 - 137			
Manganese	9.07063	0.50	10.0000	0.027121	90.4	76 - 106			
Selenium	2.31738	0.010	2.50000	ND	92.7	67 - 125			
Sodium	114.124	1.0	20.0000	90.4333	118	31 - 176			

Matrix Spike Dup (B3L0285-MSD1)

Source: 1303905-01

Prepared: 12/13/2013 Analyzed: 12/13/2013

Calcium	107.980	0.50	20.0000	87.5985	102	44 - 151	0.556	20	
Iron	19.2362	0.50	20.0000	0.304975	94.7	72 - 118	2.02	20	
Magnesium	40.7340	0.10	20.0000	21.0274	98.5	51 - 137	0.938	20	
Manganese	9.09130	0.50	10.0000	ND	90.9	76 - 106	1.86	20	
Selenium	2.26986	0.010	2.50000	ND	90.8	67 - 125	1.30	20	
Sodium	111.630	1.0	20.0000	83.4997	141	31 - 176	0.512	20	E

Matrix Spike Dup (B3L0285-MSD2)

Source: 1303905-01RE1

Prepared: 12/13/2013 Analyzed: 12/16/2013

Calcium	109.782	0.50	20.0000	86.7864	115	44 - 151	1.46	20	
Iron	19.8803	0.50	20.0000	0.357278	97.6	72 - 118	0.910	20	
Magnesium	41.7696	0.10	20.0000	22.3227	97.2	51 - 137	1.09	20	
Manganese	9.09533	0.50	10.0000	0.027121	90.7	76 - 106	0.272	20	
Selenium	2.34003	0.010	2.50000	ND	93.6	67 - 125	0.973	20	
Sodium	114.510	1.0	20.0000	90.4333	120	31 - 176	0.337	20	



Certificate of Analysis

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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Quarterly, 532.1

Report To : Steve Netto

Reported : 12/18/2013

Notes and Definitions

M3	Matrix spike recovery outside of acceptance limit due to disproportionate concentration of the analyte to spike level. The analytical batch was validated by the laboratory control sample.
E	Result value above quantitation range.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

- Notes:
- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
 - (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.



American Environmental Testing Laboratory Inc.

2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181
Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Number of Pages 2
Date Received 12/11/2013
Date Reported 12/18/2013

Telephone: (562)989-4045
Attention: Rachelle Arada

Job Number	Order Date	Client
71604	12/11/2013	ATL

Project ID: 1303927
Project Name: PO# SC08345

Enclosed please find results of analyses of 1 water sample which was analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: _____

Approved By: _____

Cyrus Razmara, Ph.D.
Laboratory Director



American Environmental Testing Laboratory Inc.

2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181

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Page: 1 A

Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Project ID: 1303927

Date Received 12/11/2013

Date Reported 12/18/2013

Telephone: (562)989-4045
Attention: Rachelle Arada

Job Number	Order Date	Client
71604	12/11/2013	ATL

CERTIFICATE OF ANALYSIS CASE NARRATIVE

AETL received 1 samples with the following specification on 12/11/2013.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers	
71604.01	1303927-01	12/11/2013	Aqueous	1	
	Method ^ Submethod	Req Date	Priority	TAT	Units
	SM-2320B	12/18/2013	2	Normal	mg/L

The samples were analyzed as specified on the enclosed chain of custody.
No analytical non-conformances were encountered.

Checked By: _____

Approved By: _____

Cyrus Razmara, Ph.D.
Laboratory Director



American Environmental Testing Laboratory Inc.

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ANALYTICAL RESULTS

Ordered By

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755-5225

Telephone: (562)989-4045

Attn: Rachelle Arada

Page: 2

Project ID: 1303927

Project Name: PO# SC08345

AETL Job Number	Submitted	Client
71604	12/11/2013	ATL

Method: SM-2320B, Alkalinity, titration method (Std. methods 19th ed.)

QC Batch No: 121213-1

Our Lab I.D.		Method Blank	71604.01			
Client Sample I.D.			1303927-01			
Date Sampled			12/11/2013			
Date Prepared		12/12/2013	12/12/2013			
Preparation Method		SM2320B	SM2320B			
Date Analyzed		12/12/2013	12/12/2013			
Matrix		Aqueous	Aqueous			
Units		mg/L	mg/L			
Dilution Factor		1	1			
Analytes	MDL	PQL	Results	Results		
Bicarbonate (as CaCO ₃)	5.0	5.0	ND	210		
Carbonate (as CaCO ₃)	1.0	5.0	ND	ND		
Hydroxide (as CaCO ₃)	1.0	5.0	ND	ND		
Total Alkalinity (as CaCO ₃)	1.0	5.0	ND	210		

QUALITY CONTROL REPORT

QC Batch No: 121213-1; Dup or Spiked Sample: 71578.01; LCS: Clean Water; QC Prepared: 12/12/2013; QC Analyzed: 12/12/2013;
Units: mg/L

Analytes	Sample Result	MS Concen	MS Recov	MS % REC	MS DUP Concen	MS DUP Recov	MS DUP % REC	RPD %	MS/MSD % Limit	MS RPD % Limit
Bicarbonate (as CaCO ₃)	330	20.0	350	100	20.0	350	100	<1	80-120	<15
Total Alkalinity (as CaCO ₃)	330	20.0	350	100	20.0	350	100	<1	80-120	<15

QC Batch No: 121213-1; Dup or Spiked Sample: 71578.01; LCS: Clean Water; QC Prepared: 12/12/2013; QC Analyzed: 12/12/2013;
Units: mg/L

Analytes	SM Result	SM DUP Result	RPD %	SM RPD % Limit	LCS Concen	LCS Recov	LCS % REC	LCS/LCSD % Limit		
Bicarbonate (as CaCO ₃)	330	320	3.1	<15	20.0	20.0	100	80-120		
Total Alkalinity (as CaCO ₃)	330	320	3.1	<15	20.0	20.0	100	80-120		



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Data Qualifiers and Descriptors

Data Qualifier:

#:	Recovery is not within acceptable control limits.
*:	In the QC section, sample results have been taken directly from the ICP reading. No preparation factor has been applied.
B:	Analyte was present in the Method Blank.
D:	Result is from a diluted analysis.
E:	Result is beyond calibration limits and is estimated.
H:	Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory control.
J:	Analyte was detected . However, the analyte concentration is an estimated value, which is between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
M:	Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery was acceptable.
MCL:	Maximum Contaminant Level
NS:	No Standard Available
S6:	Surrogate recovery is outside control limits due to matrix interference.
S8:	The analysis of the sample required a dilution such that the surrogate concentration was diluted below the method acceptance criteria.
X:	Results represent LCS and LCSD data.

Definition:

%Limi:	Percent acceptable limits.
%REC:	Percent recovery.
Con.L:	Acceptable Control Limits
Conce:	Added concentration to the sample.
LCS:	Laboratory Control Sample
MDL:	Method Detection Limit is a statistically derived number which is specific for each instrument, each method, and each compound. It indicates a distinctively detectable quantity with 99% probability.



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Data Qualifiers and Descriptors

MS:	Matrix Spike
MS DU:	Matrix Spike Duplicate
ND:	Analyte was not detected in the sample at or above MDL.
PQL:	Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical instrumentation and practice.
Recov:	Recovered concentration in the sample.
RPD:	Relative Percent Difference

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1303927

71604

SENDING LABORATORY:

Advanced Technology Laboratories

3275 Walnut Avenue

Signal Hill, CA 90755

Phone: 562.989.4045

Fax: 562.989.6348

Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

AETL

2834 North Naomi Street

Burbank, CA 91504

Phone: (818) 845-8200

Fax: (818) 845-8840

PO#: SC08345- STANDARD TAT

RA

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires		Sampled
ATL Lab#: 1303927-01 / EW-02			71604.01	
310.1_2320B_Total_SUB	12/18/13 17:00	12/25/13 09:10	Groundwater	12/11/13 09:10
[Alkalinity, Total]				

1-Poly Unpres - 250mL

Comments: Speciated (hydroxide,bicarbonate,carbonate and total)

Released By	Date	Received By	Date
FPOUN	12/17/13 1709	9211	12/11/13 1709
9211	12/11/13 1925	Jean Claude	12/11/13 1925



DATE 12/11/13 PAGE 1 OF 1

[illegible]



December 18, 2013

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax: (858) 455-6533



Re: ATL Work Order Number : 1303928
Client Reference : Raytheon Main: Fullerton OCSD, 532.15

Enclosed are the results for sample(s) received on December 11, 2013 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Rodriguez', is shown over a light gray rectangular background.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton OCSD, 532.15

Report To : Steve Netto

Reported : 12/18/2013

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-121113	1303928-01	Lab H2O	12/11/13 8:00	12/11/13 10:20
CEFF	1303928-02	Groundwater	12/11/13 8:40	12/11/13 10:20



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton OCSD, 532.15

Report To : Steve Netto

Reported : 12/18/2013

Client Sample ID TB-121113

Lab ID: 1303928-01

Volatile Organic Compounds by EPA 624

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1-Trichloroethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,1,2-Trichloroethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,1-Dichloroethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,1-Dichloroethene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,2-Dichlorobenzene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,2-Dichloroethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,2-Dichloropropane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,3-Dichlorobenzene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
1,4-Dichlorobenzene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
2-Chloroethyl vinyl ether	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Acrolein	ND	50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Acrylonitrile	ND	50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Benzene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Bromodichloromethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Bromoform	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Bromomethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Carbon tetrachloride	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Chlorobenzene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Chloroethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Chloroform	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Chloromethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
cis-1,3-Dichloropropene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Dibromochloromethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Ethylbenzene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
m,p-Xylene	ND	10	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Methylene chloride	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
o-Xylene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Tetrachloroethene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Toluene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
trans-1,3-Dichloropropene	ND	50	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Trichloroethene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Trichlorofluoromethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	
Vinyl chloride	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 18:00	

Surrogate: 1,2-Dichloroethane-d4

125 %

70 - 130

B3L0322

12/16/2013

12/16/13 18:00

Surrogate: 4-Bromofluorobenzene

83.8 %

70 - 130

B3L0322

12/16/2013

12/16/13 18:00



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton OCSD, 532.15

Report To : Steve Netto

Reported : 12/18/2013

Client Sample ID TB-121113

Lab ID: 1303928-01

Volatile Organic Compounds by EPA 624

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
<i>Surrogate: Dibromofluoromethane</i>	<i>115 %</i>	<i>70 - 130</i>			B3L0322	12/16/2013	<i>12/16/13 18:00</i>	
<i>Surrogate: Toluene-d8</i>	<i>79.5 %</i>	<i>70 - 130</i>			B3L0322	12/16/2013	<i>12/16/13 18:00</i>	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton OCSD, 532.15

Report To : Steve Netto

Reported : 12/18/2013

Client Sample ID CEFF

Lab ID: 1303928-02

Volatile Organic Compounds by EPA 624

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1-Trichloroethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
1,1,2-Trichloroethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
1,1-Dichloroethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
1,1-Dichloroethene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
1,2-Dichlorobenzene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
1,2-Dichloroethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
1,2-Dichloropropane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
1,3-Dichlorobenzene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
1,4-Dichlorobenzene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
2-Chloroethyl vinyl ether	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Acrolein	ND	50	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Acrylonitrile	ND	50	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Benzene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Bromodichloromethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Bromoform	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Bromomethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Carbon tetrachloride	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Chlorobenzene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Chloroethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Chloroform	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Chloromethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
cis-1,3-Dichloropropene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Dibromochloromethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Ethylbenzene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
m,p-Xylene	ND	10	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Methylene chloride	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
o-Xylene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Tetrachloroethene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Toluene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
trans-1,3-Dichloropropene	ND	50	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Trichloroethene	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Trichlorofluoromethane	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	
Vinyl chloride	ND	5.0	NA	1	B3L0322	12/16/2013	12/16/13 20:30	

Surrogate: 1,2-Dichloroethane-d4

124 %

70 - 130

B3L0322

12/16/2013

12/16/13 20:30

Surrogate: 4-Bromofluorobenzene

78.7 %

70 - 130

B3L0322

12/16/2013

12/16/13 20:30



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton OCSD, 532.15

Report To : Steve Netto

Reported : 12/18/2013

Client Sample ID CEFF

Lab ID: 1303928-02

Volatile Organic Compounds by EPA 624

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
<i>Surrogate: Dibromofluoromethane</i>	114 %		70 - 130		B3L0322	12/16/2013	12/16/13 20:30	
<i>Surrogate: Toluene-d8</i>	80.6 %		70 - 130		B3L0322	12/16/2013	12/16/13 20:30	

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	0.61	0.20	NA	1	B3L0349	12/17/2013	12/17/13 14:02	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	66.3 %		47 - 117		B3L0349	12/17/2013	12/17/13 14:02	
<i>Surrogate: 2-Fluorobiphenyl</i>	79.0 %		48 - 121		B3L0349	12/17/2013	12/17/13 14:02	
<i>Surrogate: 4-Terphenyl-d14</i>	71.6 %		58 - 142		B3L0349	12/17/2013	12/17/13 14:02	
<i>Surrogate: Nitrobenzene-d5</i>	52.4 %		27 - 151		B3L0349	12/17/2013	12/17/13 14:02	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton OCSD, 532.15

Report To : Steve Netto

Reported : 12/18/2013

QUALITY CONTROL SECTION

Volatile Organic Compounds by EPA 624 - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0322 - MSVOAW_LL

Blank (B3L0322-BLK1)

Prepared: 12/16/2013 Analyzed: 12/16/2013

1,1,1-Trichloroethane	ND	5.0				NR			
1,1,2,2-Tetrachloroethane	ND	5.0				NR			
1,1,2-Trichloroethane	ND	5.0				NR			
1,1-Dichloroethane	ND	5.0				NR			
1,1-Dichloroethene	ND	5.0				NR			
1,2-Dichlorobenzene	ND	5.0				NR			
1,2-Dichloroethane	ND	5.0				NR			
1,2-Dichloropropane	ND	5.0				NR			
1,3-Dichlorobenzene	ND	5.0				NR			
1,4-Dichlorobenzene	ND	5.0				NR			
2-Chloroethyl vinyl ether	ND	5.0				NR			
Acrolein	ND	50				NR			
Acrylonitrile	ND	50				NR			
Benzene	ND	5.0				NR			
Bromodichloromethane	ND	5.0				NR			
Bromoform	ND	5.0				NR			
Bromomethane	ND	5.0				NR			
Carbon tetrachloride	ND	5.0				NR			
Chlorobenzene	ND	5.0				NR			
Chloroethane	ND	5.0				NR			
Chloroform	ND	5.0				NR			
Chloromethane	ND	5.0				NR			
cis-1,3-Dichloropropene	ND	5.0				NR			
Dibromochloromethane	ND	5.0				NR			
Ethylbenzene	ND	5.0				NR			
m,p-Xylene	ND	10				NR			
Methylene chloride	ND	5.0				NR			
o-Xylene	ND	5.0				NR			
Tetrachloroethene	ND	5.0				NR			
Toluene	ND	5.0				NR			
trans-1,2-Dichloroethene	ND	5.0				NR			
trans-1,3-Dichloropropene	ND	50				NR			
Trichloroethene	ND	5.0				NR			
Trichlorofluoromethane	ND	5.0				NR			
Vinyl chloride	ND	5.0				NR			

Surrogate: 1,2-Dichloroethane-d4	30.71	25.0000	123	70 - 130
Surrogate: 4-Bromofluorobenzene	20.18	25.0000	80.7	70 - 130
Surrogate: Dibromofluoromethane	27.64	25.0000	111	70 - 130
Surrogate: Toluene-d8	19.63	25.0000	78.5	70 - 130



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton OCSD, 532.15

Report To : Steve Netto

Reported : 12/18/2013

Volatile Organic Compounds by EPA 624 - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B3L0322 - MSVOAW_LL (continued)

LCS (B3L0322-BS1)

Prepared: 12/16/2013 Analyzed: 12/16/2013

1,1-Dichloroethene	14.2200		20.0000		71.1	70 - 130			
Benzene	17.7300		20.0000		88.6	70 - 130			
Chlorobenzene	15.5100		20.0000		77.6	70 - 130			
Toluene	14.3200		20.0000		71.6	70 - 130			
Trichloroethene	16.0000		20.0000		80.0	70 - 130			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>28.40</i>		<i>25.0000</i>		<i>114</i>	<i>70 - 130</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>17.97</i>		<i>25.0000</i>		<i>71.9</i>	<i>70 - 130</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>24.72</i>		<i>25.0000</i>		<i>98.9</i>	<i>70 - 130</i>			
<i>Surrogate: Toluene-d8</i>	<i>18.76</i>		<i>25.0000</i>		<i>75.0</i>	<i>70 - 130</i>			

LCS Dup (B3L0322-BS1)

Prepared: 12/16/2013 Analyzed: 12/16/2013

1,1-Dichloroethene	15.3800		20.0000		76.9	70 - 130	7.84	20	
Benzene	18.2900		20.0000		91.4	70 - 130	3.11	20	
Chlorobenzene	16.2000		20.0000		81.0	70 - 130	4.35	20	
Toluene	15.1400		20.0000		75.7	70 - 130	5.57	20	
Trichloroethene	16.9500		20.0000		84.8	70 - 130	5.77	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>28.42</i>		<i>25.0000</i>		<i>114</i>	<i>70 - 130</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>18.97</i>		<i>25.0000</i>		<i>75.9</i>	<i>70 - 130</i>			
<i>Surrogate: Dibromofluoromethane</i>	<i>25.06</i>		<i>25.0000</i>		<i>100</i>	<i>70 - 130</i>			
<i>Surrogate: Toluene-d8</i>	<i>19.14</i>		<i>25.0000</i>		<i>76.6</i>	<i>70 - 130</i>			



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Project Number : Raytheon Main: Fullerton OCSD, 532.15

Report To : Steve Netto

Reported : 12/18/2013

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes

Batch B3L0349 - MSSEMI_ISOTOPEDILN

Blank (B3L0349-BLK1)

Prepared: 12/17/2013 Analyzed: 12/17/2013

1,4-Dioxane	ND	0.20		NR					
Surrogate: 1,2-Dichlorobenzene-d4	0.6364		1.00000		63.6	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.7551		1.00000		75.5	48 - 121			
Surrogate: 4-Terphenyl-d14	0.7248		1.00000		72.5	58 - 142			
Surrogate: Nitrobenzene-d5	0.4595		1.00000		45.9	27 - 151			

LCS (B3L0349-BS1)

Prepared: 12/17/2013 Analyzed: 12/17/2013

1,4-Dioxane	1.00005	0.20	1.00000		100	58 - 151			
Surrogate: 1,2-Dichlorobenzene-d4	0.6499		1.00000		65.0	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.7618		1.00000		76.2	48 - 121			
Surrogate: 4-Terphenyl-d14	0.7548		1.00000		75.5	58 - 142			
Surrogate: Nitrobenzene-d5	0.4961		1.00000		49.6	27 - 151			

LCS Dup (B3L0349-BSD1)

Prepared: 12/17/2013 Analyzed: 12/17/2013

1,4-Dioxane	1.09518	0.20	1.00000		110	58 - 151	9.08	20	
Surrogate: 1,2-Dichlorobenzene-d4	0.6374		1.00000		63.7	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.7921		1.00000		79.2	48 - 121			
Surrogate: 4-Terphenyl-d14	0.7092		1.00000		70.9	58 - 142			
Surrogate: Nitrobenzene-d5	0.5181		1.00000		51.8	27 - 151			



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Report To : Steve Netto

Reported : 12/18/2013

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

(1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.

(2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.



DATE 12/11/13 PAGE 1 OF 1

[illegible]

February 03, 2014

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax: (858) 455-6533


ELAP No.: 1838
NELAP No.: 02107CA
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No.: T104704502

Re: ATL Work Order Number : 1400145
Client Reference : Raytheon Main: Fullerton Monthly, 532.15

Enclosed are the results for sample(s) received on January 17, 2014 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,



Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/03/2014

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-011714	1400145-01	Lab H2O	1/17/14 6:55	1/17/14 8:58
EW_02	1400145-02	Groundwater	1/17/14 8:00	1/17/14 8:58
PF	1400145-03	Groundwater	1/17/14 7:10	1/17/14 8:58
POX	1400145-04	Groundwater	1/17/14 7:20	1/17/14 8:58
CBT	1400145-05	Groundwater	1/17/14 7:25	1/17/14 8:58
CEFF	1400145-06	Groundwater	1/17/14 7:35	1/17/14 8:58

CASE NARRATIVE

The samples for EPA 317 (Bromate) analysis were subcontracted to Exova, Inc. with ELAP Cert.# 2652.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1

Report To : Steve Netto

Reported : 02/03/2014

Client Sample ID TB-011714

Lab ID: 1400145-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,1-Dichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,1-Dichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,1-Dichloropropene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,2-Dibromoethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,2-Dichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,2-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,3-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
2,2-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
2-Chlorotoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
4-Chlorotoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
4-Isopropyltoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Benzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Bromobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Bromodichloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Bromoform	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Bromomethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Carbon tetrachloride	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Chlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Chloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Chloroform	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Chloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Dibromochloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	



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Project Number : Raytheon Main: Fullerton Monthly, 532.1

Report To : Steve Netto

Reported : 02/03/2014

Client Sample ID TB-011714

Lab ID: 1400145-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Dichlorodifluoromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Ethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Hexachlorobutadiene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Isopropylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
m,p-Xylene	ND	1.0	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Methylene chloride	ND	1.0	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
n-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
n-Propylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Naphthalene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
o-Xylene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
sec-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Styrene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
tert-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Tetrachloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Toluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Trichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Trichlorofluoromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Vinyl chloride	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 13:36	
Surrogate: 1,2-Dichloroethane-d4	133 %		70 - 130		B4A0311	01/23/2014	01/23/14 13:36	S1
Surrogate: 4-Bromofluorobenzene	107 %		70 - 130		B4A0311	01/23/2014	01/23/14 13:36	
Surrogate: Dibromofluoromethane	109 %		70 - 130		B4A0311	01/23/2014	01/23/14 13:36	
Surrogate: Toluene-d8	82.5 %		70 - 130		B4A0311	01/23/2014	01/23/14 13:36	



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Project Number : Raytheon Main: Fullerton Monthly, 532.1

Report To : Steve Netto

Reported : 02/03/2014

Client Sample ID EW_02

Lab ID: 1400145-02

Bromide by Ion Chromatography EPA 300

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.21	0.05	NA	1	B4A0330	01/21/2014	01/21/14 09:14	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	610	10	NA	1	B4A0329	01/21/2014	01/22/14 09:00	

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Suspended	ND	3.7	NA	1	B4A0312	01/21/2014	01/21/14 09:30	

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,1-Dichloroethane	0.55	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,1-Dichloroethene	34	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,1-Dichloropropene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,2-Dibromoethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,2-Dichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,2-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
1,3-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	



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Project Number : Raytheon Main: Fullerton Monthly, 532.1

Report To : Steve Netto

Reported : 02/03/2014

Client Sample ID EW_02

Lab ID: 1400145-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
2,2-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
2-Chlorotoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
4-Chlorotoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
4-Isopropyltoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Benzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Bromobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Bromodichloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Bromoform	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Bromomethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Carbon tetrachloride	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Chlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Chloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Chloroform	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Chloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Dibromochloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Dibromomethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Dichlorodifluoromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Ethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Hexachlorobutadiene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Isopropylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
m,p-Xylene	ND	1.0	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Methylene chloride	ND	1.0	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
n-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
n-Propylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Naphthalene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
o-Xylene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
sec-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Styrene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
tert-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Tetrachloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Toluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Trichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Trichlorofluoromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1

Report To : Steve Netto

Reported : 02/03/2014

Client Sample ID EW_02

Lab ID: 1400145-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl chloride	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 15:14	
Surrogate: 1,2-Dichloroethane-d4	124 %		70 - 130		B4A0311	01/23/2014	01/23/14 15:14	
Surrogate: 4-Bromofluorobenzene	95.0 %		70 - 130		B4A0311	01/23/2014	01/23/14 15:14	
Surrogate: Dibromofluoromethane	100 %		70 - 130		B4A0311	01/23/2014	01/23/14 15:14	
Surrogate: Toluene-d8	81.2 %		70 - 130		B4A0311	01/23/2014	01/23/14 15:14	

1,4-Dioxane by EPA 8270: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	21	2.0	NA	1	B4A0337	01/23/2014	01/23/14 11:00	
Surrogate: 1,2-Dichlorobenzene-d4	60.6 %		37 - 93		B4A0337	01/23/2014	01/23/14 11:00	
Surrogate: 2-Fluorobiphenyl	78.1 %		51 - 100		B4A0337	01/23/2014	01/23/14 11:00	
Surrogate: 4-Terphenyl-d14	100 %		58 - 113		B4A0337	01/23/2014	01/23/14 11:00	
Surrogate: Nitrobenzene-d5	92.1 %		39 - 95		B4A0337	01/23/2014	01/23/14 11:00	



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Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/03/2014

Client Sample ID PF

Lab ID: 1400145-03

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Suspended	ND	3.7	NA	1	B4A0312	01/21/2014	01/21/14 09:30	



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Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/03/2014

Client Sample ID POX

Lab ID: 1400145-04

Bromide by Ion Chromatography EPA 300

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.21	0.05	NA	1	B4A0330	01/21/2014	01/21/14 09:25	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	620	10	NA	1	B4A0329	01/21/2014	01/22/14 09:00	

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,1-Dichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,1-Dichloroethene	1.3	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,1-Dichloropropene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,2-Dibromoethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,2-Dichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,2-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,3-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
2,2-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
2-Chlorotoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
4-Chlorotoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
4-Isopropyltoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Benzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1

Report To : Steve Netto

Reported : 02/03/2014

Client Sample ID POX

Lab ID: 1400145-04

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Bromodichloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Bromoform	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Bromomethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Carbon tetrachloride	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Chlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Chloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Chloroform	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Chloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Dibromochloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Dibromomethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Dichlorodifluoromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Ethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Hexachlorobutadiene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Isopropylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
m,p-Xylene	ND	1.0	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Methylene chloride	ND	1.0	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
n-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
n-Propylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Naphthalene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
o-Xylene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
sec-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Styrene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
tert-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Tetrachloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Toluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Trichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Trichlorofluoromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Vinyl chloride	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:01	
Surrogate: 1,2-Dichloroethane-d4	133 %	70 - 130			B4A0311	01/23/2014	01/23/14 14:01	S5
Surrogate: 4-Bromofluorobenzene	102 %	70 - 130			B4A0311	01/23/2014	01/23/14 14:01	
Surrogate: Dibromofluoromethane	104 %	70 - 130			B4A0311	01/23/2014	01/23/14 14:01	
Surrogate: Toluene-d8	81.8 %	70 - 130			B4A0311	01/23/2014	01/23/14 14:01	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/03/2014

Client Sample ID POX

Lab ID: 1400145-04

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	4.6	0.20	NA	1	B4A0340	01/23/2014	01/23/14 12:51	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>64.6 %</i>		<i>47 - 117</i>		B4A0340	01/23/2014	<i>01/23/14 12:51</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>65.6 %</i>		<i>48 - 121</i>		B4A0340	01/23/2014	<i>01/23/14 12:51</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>94.2 %</i>		<i>58 - 142</i>		B4A0340	01/23/2014	<i>01/23/14 12:51</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>94.5 %</i>		<i>27 - 151</i>		B4A0340	01/23/2014	<i>01/23/14 12:51</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1

Report To : Steve Netto

Reported : 02/03/2014

Client Sample ID CBT

Lab ID: 1400145-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,1-Dichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,1-Dichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,1-Dichloropropene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,2-Dibromoethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,2-Dichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,2-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,3-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
2,2-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
2-Chlorotoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
4-Chlorotoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
4-Isopropyltoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Benzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Bromobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Bromodichloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Bromoform	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Bromomethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Carbon tetrachloride	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Chlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Chloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Chloroform	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Chloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Dibromochloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	



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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1

Report To : Steve Netto

Reported : 02/03/2014

Client Sample ID CBT

Lab ID: 1400145-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Dichlorodifluoromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Ethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Hexachlorobutadiene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Isopropylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
m,p-Xylene	ND	1.0	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Methylene chloride	ND	1.0	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
n-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
n-Propylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Naphthalene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
o-Xylene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
sec-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Styrene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
tert-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Tetrachloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Toluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Trichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Trichlorofluoromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Vinyl chloride	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:25	
Surrogate: 1,2-Dichloroethane-d4	125 %		70 - 130		B4A0311	01/23/2014	01/23/14 14:25	
Surrogate: 4-Bromofluorobenzene	105 %		70 - 130		B4A0311	01/23/2014	01/23/14 14:25	
Surrogate: Dibromofluoromethane	102 %		70 - 130		B4A0311	01/23/2014	01/23/14 14:25	
Surrogate: Toluene-d8	76.5 %		70 - 130		B4A0311	01/23/2014	01/23/14 14:25	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1

Report To : Steve Netto

Reported : 02/03/2014

Client Sample ID CEFF

Lab ID: 1400145-06

Bromide by Ion Chromatography EPA 300

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.21	0.05	NA	1	B4A0330	01/21/2014	01/21/14 09:36	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	620	10	NA	1	B4A0329	01/21/2014	01/22/14 09:00	

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,1-Dichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,1-Dichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,1-Dichloropropene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,2-Dibromoethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,2-Dichloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,2-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,3-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
2,2-Dichloropropane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
2-Chlorotoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
4-Chlorotoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
4-Isopropyltoluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Benzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1

Report To : Steve Netto

Reported : 02/03/2014

Client Sample ID CEFF

Lab ID: 1400145-06

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Bromodichloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Bromoform	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Bromomethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Carbon tetrachloride	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Chlorobenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Chloroethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Chloroform	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Chloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Dibromochloromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Dibromomethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Dichlorodifluoromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Ethylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Hexachlorobutadiene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Isopropylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
m,p-Xylene	ND	1.0	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Methylene chloride	ND	1.0	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
n-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
n-Propylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Naphthalene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
o-Xylene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
sec-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Styrene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
tert-Butylbenzene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Tetrachloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Toluene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Trichloroethene	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Trichlorofluoromethane	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Vinyl chloride	ND	0.50	NA	1	B4A0311	01/23/2014	01/23/14 14:50	
Surrogate: 1,2-Dichloroethane-d4	135 %	70 - 130			B4A0311	01/23/2014	01/23/14 14:50	S1
Surrogate: 4-Bromofluorobenzene	92.2 %	70 - 130			B4A0311	01/23/2014	01/23/14 14:50	
Surrogate: Dibromofluoromethane	103 %	70 - 130			B4A0311	01/23/2014	01/23/14 14:50	
Surrogate: Toluene-d8	78.0 %	70 - 130			B4A0311	01/23/2014	01/23/14 14:50	



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QUALITY CONTROL SECTION

Bromide by Ion Chromatography EPA 300 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4A0330 - No_Prep_IC_1

Blank (B4A0330-BLK1)

Prepared: 1/21/2014 Analyzed: 1/21/2014

Bromide ND 0.05 NR

LCS (B4A0330-BS1)

Prepared: 1/21/2014 Analyzed: 1/21/2014

Bromide 1.01050 0.05 1.00000 101 90 - 110

Duplicate (B4A0330-DUP1)

Source: 1400157-01

Prepared: 1/21/2014 Analyzed: 1/21/2014

Bromide ND 0.05 ND NR 20

Matrix Spike (B4A0330-MS1)

Source: 1400157-01

Prepared: 1/21/2014 Analyzed: 1/21/2014

Bromide 2.60870 0.05 2.50000 ND 104 80 - 120

Matrix Spike Dup (B4A0330-MSD1)

Source: 1400157-01

Prepared: 1/21/2014 Analyzed: 1/21/2014

Bromide 2.62690 0.05 2.50000 ND 105 80 - 120 0.695 20



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Total Dissolved Solids (Residue, Filterable) by SM 2540C - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4A0329 - No_Prep_WC_1

Blank (B4A0329-BLK1)

Prepared: 1/21/2014 Analyzed: 1/22/2014

Residue, Dissolved

ND

10

NR

LCS (B4A0329-BS1)

Prepared: 1/21/2014 Analyzed: 1/22/2014

Residue, Dissolved

989.000

10

970.000

102

80 - 120

Duplicate (B4A0329-DUP1)

Source: 1400145-02

Prepared: 1/21/2014 Analyzed: 1/22/2014

Residue, Dissolved

613.000

10

608.000

NR

0.819

10



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Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4A0312 - No_Prep_WC_1

Blank (B4A0312-BLK1)

Prepared: 1/21/2014 Analyzed: 1/21/2014

Residue, Suspended

ND

10

NR

LCS (B4A0312-BS1)

Prepared: 1/21/2014 Analyzed: 1/21/2014

Residue, Suspended

99.0000

10

96.6000

102

80 - 120

Duplicate (B4A0312-DUP1)

Source: 1400148-01

Prepared: 1/21/2014 Analyzed: 1/21/2014

Residue, Suspended

170.000

5.0

169.000

NR

0.590

10



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Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4A0311 - MSVOAW_LL

Blank (B4A0311-BLK1)

Prepared: 1/23/2014 Analyzed: 1/23/2014

1,1,1,2-Tetrachloroethane	ND	0.50			NR
1,1,1-Trichloroethane	ND	0.50			NR
1,1,2,2-Tetrachloroethane	ND	0.50			NR
1,1,2-Trichloroethane	ND	0.50			NR
1,1-Dichloroethane	ND	0.50			NR
1,1-Dichloroethene	ND	0.50			NR
1,1-Dichloropropene	ND	0.50			NR
1,2,3-Trichloropropane	ND	0.50			NR
1,2,3-Trichlorobenzene	ND	0.50			NR
1,2,4-Trichlorobenzene	ND	0.50			NR
1,2,4-Trimethylbenzene	ND	0.50			NR
1,2-Dibromo-3-chloropropane	ND	0.50			NR
1,2-Dibromoethane	ND	0.50			NR
1,2-Dichlorobenzene	ND	0.50			NR
1,2-Dichloroethane	ND	0.50			NR
1,2-Dichloropropane	ND	0.50			NR
1,3,5-Trimethylbenzene	ND	0.50			NR
1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR
Dichlorodifluoromethane	ND	0.50			NR
Ethylbenzene	ND	0.50			NR
Hexachlorobutadiene	ND	0.50			NR



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4A0311 - MSVOAW_LL (continued)

Blank (B4A0311-BLK1) - Continued

Prepared: 1/23/2014 Analyzed: 1/23/2014

Isopropylbenzene	ND	0.50				NR			
m,p-Xylene	ND	1.0				NR			
Methylene chloride	ND	1.0				NR			
n-Butylbenzene	ND	0.50				NR			
n-Propylbenzene	ND	0.50				NR			
Naphthalene	ND	0.50				NR			
o-Xylene	ND	0.50				NR			
sec-Butylbenzene	ND	0.50				NR			
Styrene	ND	0.50				NR			
tert-Butylbenzene	ND	0.50				NR			
Tetrachloroethene	ND	0.50				NR			
Toluene	ND	0.50				NR			
trans-1,2-Dichloroethene	ND	0.50				NR			
Trichloroethene	ND	0.50				NR			
Trichlorofluoromethane	ND	0.50				NR			
Vinyl chloride	ND	0.50				NR			

Surrogate: 1,2-Dichloroethane-d4	29.16		25.0000		117	70 - 130			
Surrogate: 4-Bromofluorobenzene	23.27		25.0000		93.1	70 - 130			
Surrogate: Dibromofluoromethane	23.24		25.0000		93.0	70 - 130			
Surrogate: Toluene-d8	18.09		25.0000		72.4	70 - 130			

LCS (B4A0311-BS1)

Prepared: 1/23/2014 Analyzed: 1/23/2014

1,1,1,2-Tetrachloroethane	29.0700		20.0000		145	70 - 130			
1,1,1-Trichloroethane	22.9500		20.0000		115	70 - 130			
1,1,2,2-Tetrachloroethane	21.4100		20.0000		107	70 - 130			
1,1,2-Trichloroethane	16.7700		20.0000		83.8	70 - 130			
1,1-Dichloroethane	23.6100		20.0000		118	70 - 130			
1,1-Dichloroethene	16.6200		20.0000		83.1	70 - 130			
1,1-Dichloropropene	24.1800		20.0000		121	70 - 130			
1,2,3-Trichloropropane	22.1500		20.0000		111	70 - 130			
1,2,3-Trichlorobenzene	40.6800		20.0000		203	70 - 130			
1,2,4-Trichlorobenzene	34.8600		20.0000		174	70 - 130			
1,2,4-Trimethylbenzene	21.8700		20.0000		109	70 - 130			
1,2-Dibromo-3-chloropropane	37.6200		20.0000		188	70 - 130			
1,2-Dibromoethane	17.6100		20.0000		88.0	70 - 130			
1,2-Dichlorobenzene	24.7000		20.0000		124	70 - 130			
1,2-Dichloroethane	29.8700		20.0000		149	70 - 130			
1,2-Dichloropropane	21.8200		20.0000		109	70 - 130			
1,3,5-Trimethylbenzene	22.8000		20.0000		114	70 - 130			
1,3-Dichlorobenzene	20.0000		20.0000		100	70 - 130			
1,3-Dichloropropane	18.6700		20.0000		93.4	70 - 130			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4A0311 - MSVOAW_LL (continued)

LCS (B4A0311-BS1) - Continued

Prepared: 1/23/2014 Analyzed: 1/23/2014

1,4-Dichlorobenzene	19.6000		20.0000		98.0	70 - 130			
2,2-Dichloropropane	20.8500		20.0000		104	70 - 130			
2-Chlorotoluene	21.1900		20.0000		106	70 - 130			
4-Chlorotoluene	18.9000		20.0000		94.5	70 - 130			
4-Isopropyltoluene	21.3200		20.0000		107	70 - 130			
Benzene	23.4000		20.0000		117	70 - 130			
Bromobenzene	20.0500		20.0000		100	70 - 130			
Bromodichloromethane	26.7100		20.0000		134	70 - 130			
Bromoform	33.7300		20.0000		169	70 - 130			
Bromomethane	14.0800		20.0000		70.4	70 - 130			
Carbon tetrachloride	29.6300		20.0000		148	70 - 130			
Chlorobenzene	20.6100		20.0000		103	70 - 130			
Chloroethane	20.0400		20.0000		100	70 - 130			
Chloroform	23.5300		20.0000		118	70 - 130			
Chloromethane	28.7700		20.0000		144	70 - 130			
cis-1,2-Dichloroethene	18.7000		20.0000		93.5	70 - 130			
cis-1,3-Dichloropropene	18.3500		20.0000		91.8	70 - 130			
Dibromochloromethane	26.5800		20.0000		133	70 - 130			
Dibromomethane	23.0400		20.0000		115	70 - 130			
Dichlorodifluoromethane	18.6300		20.0000		93.2	70 - 130			
Ethylbenzene	20.8500		20.0000		104	70 - 130			
Hexachlorobutadiene	40.8300		20.0000		204	70 - 130			
Isopropylbenzene	22.4500		20.0000		112	70 - 130			
m,p-Xylene	43.2800		40.0000		108	70 - 130			
Methylene chloride	18.3800		20.0000		91.9	70 - 130			
MTBE	20.4200		20.0000		102	70 - 130			
n-Butylbenzene	21.3300		20.0000		107	70 - 130			
n-Propylbenzene	19.3700		20.0000		96.8	70 - 130			
Naphthalene	30.1700		20.0000		151	70 - 130			
o-Xylene	23.8800		20.0000		119	70 - 130			
sec-Butylbenzene	23.8900		20.0000		119	70 - 130			
Styrene	18.0200		20.0000		90.1	70 - 130			
tert-Butylbenzene	22.6000		20.0000		113	70 - 130			
Tetrachloroethene	27.0900		20.0000		135	70 - 130			
Toluene	19.6800		20.0000		98.4	70 - 130			
trans-1,2-Dichloroethene	18.8300		20.0000		94.2	70 - 130			
Trichloroethene	23.9400		20.0000		120	70 - 130			
Trichlorofluoromethane	27.2900		20.0000		136	70 - 130			
Vinyl chloride	23.1800		20.0000		116	70 - 130			

Surrogate: 1,2-Dichloroethane-d4 27.50 25.0000 110 70 - 130

Surrogate: 4-Bromofluorobenzene 21.24 25.0000 85.0 70 - 130



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4A0311 - MSVOAW_LL (continued)

LCS (B4A0311-BS1) - Continued

Prepared: 1/23/2014 Analyzed: 1/23/2014

Surrogate: Dibromofluoromethane

21.65

25.0000

86.6

70 - 130

Surrogate: Toluene-d8

19.38

25.0000

77.5

70 - 130

LCS Dup (B4A0311-BS1)

Prepared: 1/23/2014 Analyzed: 1/23/2014

1,1,1,2-Tetrachloroethane	30.5000	20.0000	152	70 - 130	4.80	20
1,1,1-Trichloroethane	24.1000	20.0000	120	70 - 130	4.89	20
1,1,2,2-Tetrachloroethane	21.3900	20.0000	107	70 - 130	0.0935	20
1,1,2-Trichloroethane	17.2100	20.0000	86.0	70 - 130	2.59	20
1,1-Dichloroethane	24.6600	20.0000	123	70 - 130	4.35	20
1,1-Dichloroethene	18.4600	20.0000	92.3	70 - 130	10.5	20
1,1-Dichloropropene	23.7300	20.0000	119	70 - 130	1.88	20
1,2,3-Trichloropropane	22.4400	20.0000	112	70 - 130	1.30	20
1,2,3-Trichlorobenzene	39.5500	20.0000	198	70 - 130	2.82	20
1,2,4-Trichlorobenzene	33.2200	20.0000	166	70 - 130	4.82	20
1,2,4-Trimethylbenzene	21.1200	20.0000	106	70 - 130	3.49	20
1,2-Dibromo-3-chloropropane	39.5800	20.0000	198	70 - 130	5.08	20
1,2-Dibromoethane	17.2600	20.0000	86.3	70 - 130	2.01	20
1,2-Dichlorobenzene	24.3300	20.0000	122	70 - 130	1.51	20
1,2-Dichloroethane	30.5100	20.0000	153	70 - 130	2.12	20
1,2-Dichloropropane	21.5900	20.0000	108	70 - 130	1.06	20
1,3,5-Trimethylbenzene	21.7400	20.0000	109	70 - 130	4.76	20
1,3-Dichlorobenzene	19.1900	20.0000	96.0	70 - 130	4.13	20
1,3-Dichloropropane	18.9900	20.0000	95.0	70 - 130	1.70	20
1,4-Dichlorobenzene	19.6900	20.0000	98.4	70 - 130	0.458	20
2,2-Dichloropropane	21.4100	20.0000	107	70 - 130	2.65	20
2-Chlorotoluene	19.9300	20.0000	99.6	70 - 130	6.13	20
4-Chlorotoluene	18.0600	20.0000	90.3	70 - 130	4.55	20
4-Isopropyltoluene	20.4400	20.0000	102	70 - 130	4.21	20
Benzene	23.0400	20.0000	115	70 - 130	1.55	20
Bromobenzene	19.8100	20.0000	99.0	70 - 130	1.20	20
Bromodichloromethane	25.5300	20.0000	128	70 - 130	4.52	20
Bromoform	36.0700	20.0000	180	70 - 130	6.70	20
Bromomethane	13.9600	20.0000	69.8	70 - 130	0.856	20
Carbon tetrachloride	30.6800	20.0000	153	70 - 130	3.48	20
Chlorobenzene	21.2200	20.0000	106	70 - 130	2.92	20
Chloroethane	21.1500	20.0000	106	70 - 130	5.39	20
Chloroform	24.2300	20.0000	121	70 - 130	2.93	20
Chloromethane	30.2300	20.0000	151	70 - 130	4.95	20
cis-1,2-Dichloroethene	19.6800	20.0000	98.4	70 - 130	5.11	20
cis-1,3-Dichloropropene	17.9700	20.0000	89.8	70 - 130	2.09	20
Dibromochloromethane	28.1200	20.0000	141	70 - 130	5.63	20
Dibromomethane	22.6300	20.0000	113	70 - 130	1.80	20



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/03/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4A0311 - MSVOAW_LL (continued)

LCS Dup (B4A0311-BSD1) - Continued

Prepared: 1/23/2014 Analyzed: 1/23/2014

Dichlorodifluoromethane	18.5900		20.0000		93.0	70 - 130	0.215	20	
Ethylbenzene	20.8800		20.0000		104	70 - 130	0.144	20	
Hexachlorobutadiene	39.6800		20.0000		198	70 - 130	2.86	20	
Isopropylbenzene	21.2800		20.0000		106	70 - 130	5.35	20	
m,p-Xylene	43.2900		40.0000		108	70 - 130	0.0231	20	
Methylene chloride	19.2600		20.0000		96.3	70 - 130	4.68	20	
MTBE	22.4600		20.0000		112	70 - 130	9.51	20	
n-Butylbenzene	20.6400		20.0000		103	70 - 130	3.29	20	
n-Propylbenzene	18.4900		20.0000		92.4	70 - 130	4.65	20	
Naphthalene	29.2700		20.0000		146	70 - 130	3.03	20	
o-Xylene	24.2600		20.0000		121	70 - 130	1.58	20	
sec-Butylbenzene	23.2700		20.0000		116	70 - 130	2.63	20	
Styrene	18.3700		20.0000		91.8	70 - 130	1.92	20	
tert-Butylbenzene	21.2900		20.0000		106	70 - 130	5.97	20	
Tetrachloroethene	27.1000		20.0000		136	70 - 130	0.0369	20	
Toluene	19.3000		20.0000		96.5	70 - 130	1.95	20	
trans-1,2-Dichloroethene	19.3600		20.0000		96.8	70 - 130	2.78	20	
Trichloroethene	23.6500		20.0000		118	70 - 130	1.22	20	
Trichlorofluoromethane	27.8000		20.0000		139	70 - 130	1.85	20	
Vinyl chloride	23.7200		20.0000		119	70 - 130	2.30	20	
Surrogate: 1,2-Dichloroethane-d4	29.24		25.0000		117	70 - 130			
Surrogate: 4-Bromofluorobenzene	21.83		25.0000		87.3	70 - 130			
Surrogate: Dibromofluoromethane	23.45		25.0000		93.8	70 - 130			
Surrogate: Toluene-d8	19.21		25.0000		76.8	70 - 130			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/03/2014

1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4A0337 - MSSEMI

Blank (B4A0337-BLK1)

Prepared: 1/23/2014 Analyzed: 1/23/2014

1,4-Dioxane	ND	2.0			NR				
Surrogate: 1,2-Dichlorobenzene-d4	64.32		100.000		64.3	37 - 93			
Surrogate: 2-Fluorobiphenyl	79.19		100.000		79.2	51 - 100			
Surrogate: 4-Terphenyl-d14	102.4		100.000		102	58 - 113			
Surrogate: Nitrobenzene-d5	91.21		100.000		91.2	39 - 95			

LCS (B4A0337-BS1)

Prepared: 1/23/2014 Analyzed: 1/23/2014

1,4-Dioxane	93.0000	2.0	100.000		93.0	70 - 130			
Surrogate: 1,2-Dichlorobenzene-d4	62.85		100.000		62.8	37 - 93			
Surrogate: 2-Fluorobiphenyl	91.49		100.000		91.5	51 - 100			
Surrogate: 4-Terphenyl-d14	86.27		100.000		86.3	58 - 113			
Surrogate: Nitrobenzene-d5	92.22		100.000		92.2	39 - 95			

LCS Dup (B4A0337-BSD1)

Prepared: 1/23/2014 Analyzed: 1/23/2014

1,4-Dioxane	90.1000	2.0	100.000		90.1	70 - 130	3.17	20	
Surrogate: 1,2-Dichlorobenzene-d4	65.09		100.000		65.1	37 - 93			
Surrogate: 2-Fluorobiphenyl	87.64		100.000		87.6	51 - 100			
Surrogate: 4-Terphenyl-d14	82.39		100.000		82.4	58 - 113			
Surrogate: Nitrobenzene-d5	93.34		100.000		93.3	39 - 95			



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/03/2014

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4A0340 - MSSEMI

Blank (B4A0340-BLK1)

Prepared: 1/23/2014 Analyzed: 1/23/2014

1,4-Dioxane	ND	0.20			NR				
Surrogate: 1,2-Dichlorobenzene-d4	0.7560		1.00000		75.6	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.8128		1.00000		81.3	48 - 121			
Surrogate: 4-Terphenyl-d14	1.087		1.00000		109	58 - 142			
Surrogate: Nitrobenzene-d5	1.073		1.00000		107	27 - 151			

LCS (B4A0340-BS1)

Prepared: 1/23/2014 Analyzed: 1/23/2014

1,4-Dioxane	1.21479	0.20	1.00000		121	58 - 151			
Surrogate: 1,2-Dichlorobenzene-d4	0.8357		1.00000		83.6	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.9219		1.00000		92.2	48 - 121			
Surrogate: 4-Terphenyl-d14	1.050		1.00000		105	58 - 142			
Surrogate: Nitrobenzene-d5	1.143		1.00000		114	27 - 151			

LCS Dup (B4A0340-BSD1)

Prepared: 1/23/2014 Analyzed: 1/23/2014

1,4-Dioxane	1.30569	0.20	1.00000		131	58 - 151	7.21	20	
Surrogate: 1,2-Dichlorobenzene-d4	0.8217		1.00000		82.2	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.8121		1.00000		81.2	48 - 121			
Surrogate: 4-Terphenyl-d14	0.9450		1.00000		94.5	58 - 142			
Surrogate: Nitrobenzene-d5	1.092		1.00000		109	27 - 151			



Certificate of Analysis

Hargis & Associates, Inc.

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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/03/2014

Notes and Definitions

S5	Surrogate recovery was above laboratory acceptance limit. Sample reanalysis showed the same high recovery.
S1	Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

- Notes:
- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
 - (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
 - (3) Results are wet unless otherwise specified.

Bromate by EPA 317.0
Ion Chromatography/Post Column Reaction-Visible Absorption Spectroscopy

Column: Dionex AS9-HC 4 x 250 mm, AG9-HC Guard 4 x 50 mm
Eluent: 10 mM Na₂CO₃
Flow: 1.20 mL/min
Injection: 250 µL
Detection: Visible, 450 nm

Sample preparation: The undiluted samples were treated with a 2.5 mL Dionex OnGuard II H cartridge to remove excess basic cations. One sample required dilution with water by 1:4 for analysis. The detection limit is adjusted for the dilution.

Parts Per Billion (µg/L)

<u>Sample ID</u>	<u>Result</u>	<u>Detection Limit</u>
ATL Lab#: 1400145-02 / EW_02	0.3	0.3
ATL Lab#: 1400145-04 / POX	5	1
ATL Lab#: 1400145-06 / CEFF	5.0	0.3
Method Blank	ND	0.3

Date Analyzed: 01-29-14

Quality Control Summary

Sample ID: ATL Lab#: 1400145-02 / EW_02

<u>Analyte</u>	<u>Sample Result</u>	<u>Spike Conc</u>	<u>Spike Result</u>	<u>Spike % Rec</u>	<u>Spike Duplicate Result</u>	<u>Spike Duplicate % Rec</u>	<u>RPD</u>
Bromate	0.3	20.0	17.5	86	17.7	87	1
QC Guidelines				75-125		75-125	NMT 10

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1400145

SENDING LABORATORY:

Advanced Technology Laboratories

3275 Walnut Avenue

Signal Hill, CA 90755

Phone: 562.989.4045

Fax: 562.989.6348

Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Exova Inc.

9240 Santa Fe Springs Road

Santa Fe Springs, CA 90670

Phone: (562) 948-2225

Fax: (562) 948-5850

PO#: SC08399- STANDARD TAT *e*

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1400145-02 / EW_02 317.0 [Bromate] 1-Poly Unpres - 125mL	01/31/14 17:00	Groundwater 01/18/14 08:00	01/17/14 08:00	
ATL Lab#: 1400145-04 / POX 317.0 [Bromate] 1-Poly Unpres - 125mL	01/31/14 17:00	Groundwater 01/18/14 07:20	01/17/14 07:20	
ATL Lab#: 1400145-06 / CEFF 317.0 [Bromate] 1-Poly Unpres - 125mL	01/31/14 17:00	Groundwater 01/18/14 07:35	01/17/14 07:35	

u 1/17/14 14:01
Released By *EM D. [Signature]* ATL 1-17-14 14:01
Received By *[Signature]* EXOVA 01-17-14 15:51



DATE 1/17/14 PAGE 1 OF 1

[illegible]



February 26, 2014

Steve Netto
Hargis & Associates, Inc.
9171 Towne Centre Drive, Suite 375
San Diego, CA 92122
Tel: (619) 249-3166
Fax: (858) 455-6533



Re: ATL Work Order Number : 1400419
Client Reference : Raytheon Main: Fullerton Monthly, 532.15

Enclosed are the results for sample(s) received on February 11, 2014 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'E Rodriguez'.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/26/2014

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-021114	1400419-01	Lab H2O	2/11/14 9:45	2/11/14 12:30
EW-02	1400419-02	Groundwater	2/11/14 11:10	2/11/14 12:30
PF	1400419-03	Groundwater	2/11/14 10:20	2/11/14 12:30
POX	1400419-04	Groundwater	2/11/14 10:15	2/11/14 12:30
CBT	1400419-05	Groundwater	2/11/14 10:10	2/11/14 12:30
CEFF	1400419-06	Groundwater	2/11/14 10:00	2/11/14 12:30

CASE NARRATIVE

The samples for EPA 317 (Bromate) analysis were subcontracted to Exova, Inc. with ELAP Cert.# 2652.



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 02/26/2014

Client Sample ID TB-021114

Lab ID: 1400419-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
2-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
4-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Benzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Bromobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Bromodichloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Bromoform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Bromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Carbon tetrachloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Chlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Chloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Chloroform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Chloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Dibromochloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 02/26/2014

Client Sample ID TB-021114

Lab ID: 1400419-01

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Ethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Isopropylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
m,p-Xylene	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Methylene chloride	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
n-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
n-Propylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Naphthalene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
o-Xylene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
sec-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Styrene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
tert-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Tetrachloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Toluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Trichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Vinyl chloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 18:49	
Surrogate: 1,2-Dichloroethane-d4	149 %		64 - 146		B4B0218	02/17/2014	02/17/14 18:49	S5
Surrogate: 4-Bromofluorobenzene	89.7 %		60 - 128		B4B0218	02/17/2014	02/17/14 18:49	
Surrogate: Dibromofluoromethane	123 %		72 - 141		B4B0218	02/17/2014	02/17/14 18:49	
Surrogate: Toluene-d8	97.6 %		61 - 124		B4B0218	02/17/2014	02/17/14 18:49	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 02/26/2014

Client Sample ID EW-02

Lab ID: 1400419-02

Bromide by Ion Chromatography EPA 300

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.24	0.05	NA	1	B4B0197	02/13/2014	02/13/14 09:31	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	590	10	NA	1	B4B0200	02/13/2014	02/14/14 09:30	

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Suspended	ND	3.7	NA	1	B4B0174	02/12/2014	02/12/14 12:30	

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,1-Dichloroethane	0.63	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,1-Dichloroethene	49	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/26/2014

Client Sample ID EW-02

Lab ID: 1400419-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
2-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
4-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Benzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Bromobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Bromodichloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Bromoform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Bromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Carbon tetrachloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Chlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Chloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Chloroform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Chloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Dibromochloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Dibromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Ethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Isopropylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
m,p-Xylene	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Methylene chloride	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
n-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
n-Propylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Naphthalene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
o-Xylene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
sec-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Styrene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
tert-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Tetrachloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Toluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Trichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/26/2014

Client Sample ID EW-02

Lab ID: 1400419-02

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Vinyl chloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 19:13	
Surrogate: 1,2-Dichloroethane-d4	157 %		64 - 146		B4B0218	02/17/2014	02/17/14 19:13	S5
Surrogate: 4-Bromofluorobenzene	79.1 %		60 - 128		B4B0218	02/17/2014	02/17/14 19:13	
Surrogate: Dibromofluoromethane	124 %		72 - 141		B4B0218	02/17/2014	02/17/14 19:13	
Surrogate: Toluene-d8	101 %		61 - 124		B4B0218	02/17/2014	02/17/14 19:13	

1,4-Dioxane by EPA 8270: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	26	2.0	NA	1	B4B0246	02/17/2014	02/17/14 13:19	
Surrogate: 1,2-Dichlorobenzene-d4	76.4 %		37 - 93		B4B0246	02/17/2014	02/17/14 13:19	
Surrogate: 2-Fluorobiphenyl	107 %		51 - 100		B4B0246	02/17/2014	02/17/14 13:19	S3, S5
Surrogate: 4-Terphenyl-d14	127 %		58 - 113		B4B0246	02/17/2014	02/17/14 13:19	S3, S5
Surrogate: Nitrobenzene-d5	75.9 %		39 - 95		B4B0246	02/17/2014	02/17/14 13:19	



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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

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Reported : 02/26/2014

Client Sample ID PF

Lab ID: 1400419-03

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Suspended	ND	3.7	NA	1	B4B0174	02/12/2014	02/12/14 12:30	



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Hargis & Associates, Inc.

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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 02/26/2014

Client Sample ID POX

Lab ID: 1400419-04

Bromide by Ion Chromatography EPA 300

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.22	0.05	NA	1	B4B0197	02/13/2014	02/13/14 09:43	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	590	10	NA	1	B4B0200	02/13/2014	02/14/14 09:30	

Volatile Organic Compounds by EPA 8260B

Analyst: BD/

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
2-Chlorotoluene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
4-Chlorotoluene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Benzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/26/2014

Client Sample ID POX

Lab ID: 1400419-04

Volatile Organic Compounds by EPA 8260B

Analyst: BD/

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromobenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Bromodichloromethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Bromoform	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Bromomethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Carbon tetrachloride	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Chlorobenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Chloroethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Chloroform	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Chloromethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Dibromochloromethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Dibromomethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Ethylbenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Isopropylbenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
m,p-Xylene	ND	1.0	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Methylene chloride	ND	1.0	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
n-Butylbenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
n-Propylbenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Naphthalene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
o-Xylene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
sec-Butylbenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Styrene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
tert-Butylbenzene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Tetrachloroethene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Toluene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Trichloroethene	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	
Vinyl chloride	ND	0.50	NA	1	B4B0293	02/19/2014	02/19/14 12:11	

Surrogate: 1,2-Dichloroethane-d4	128 %	64 - 146	B4B0293	02/19/2014	02/19/14 12:11
Surrogate: 4-Bromofluorobenzene	119 %	60 - 128	B4B0293	02/19/2014	02/19/14 12:11
Surrogate: Dibromofluoromethane	112 %	72 - 141	B4B0293	02/19/2014	02/19/14 12:11
Surrogate: Toluene-d8	104 %	61 - 124	B4B0293	02/19/2014	02/19/14 12:11



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/26/2014

Client Sample ID POX

Lab ID: 1400419-04

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,4-Dioxane	0.99	0.20	NA	1	B4B0136	02/11/2014	02/14/14 10:43	
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	<i>70.6 %</i>		<i>47 - 117</i>		B4B0136	02/11/2014	<i>02/14/14 10:43</i>	
<i>Surrogate: 2-Fluorobiphenyl</i>	<i>84.2 %</i>		<i>48 - 121</i>		B4B0136	02/11/2014	<i>02/14/14 10:43</i>	
<i>Surrogate: 4-Terphenyl-d14</i>	<i>121 %</i>		<i>58 - 142</i>		B4B0136	02/11/2014	<i>02/14/14 10:43</i>	
<i>Surrogate: Nitrobenzene-d5</i>	<i>89.1 %</i>		<i>27 - 151</i>		B4B0136	02/11/2014	<i>02/14/14 10:43</i>	



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Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 02/26/2014

Client Sample ID CBT

Lab ID: 1400419-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,1-Dichloroethane	0.50	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
2-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
4-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Benzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Bromobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Bromodichloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Bromoform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Bromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Carbon tetrachloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Chlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Chloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Chloroform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Chloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Dibromochloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 02/26/2014

Client Sample ID CBT

Lab ID: 1400419-05

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Dibromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Ethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Isopropylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
m,p-Xylene	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Methylene chloride	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
n-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
n-Propylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Naphthalene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
o-Xylene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
sec-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Styrene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
tert-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Tetrachloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Toluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Trichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Vinyl chloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:02	
Surrogate: 1,2-Dichloroethane-d4	162 %		64 - 146		B4B0218	02/17/2014	02/17/14 20:02	S5
Surrogate: 4-Bromofluorobenzene	82.5 %		60 - 128		B4B0218	02/17/2014	02/17/14 20:02	
Surrogate: Dibromofluoromethane	126 %		72 - 141		B4B0218	02/17/2014	02/17/14 20:02	
Surrogate: Toluene-d8	101 %		61 - 124		B4B0218	02/17/2014	02/17/14 20:02	



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9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 02/26/2014

Client Sample ID CEFF

Lab ID: 1400419-06

Bromide by Ion Chromatography EPA 300

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromide	0.20	0.05	NA	1	B4B0197	02/13/2014	02/13/14 09:54	

Total Dissolved Solids (Residue, Filterable) by SM 2540C

Analyst: PT

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Residue, Dissolved	590	10	NA	1	B4B0200	02/13/2014	02/14/14 09:30	

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,1,1-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,1,2,2-Tetrachloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,1,2-Trichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,1-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,1-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,1-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,2,3-Trichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,2,3-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,2,4-Trichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,2,4-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,2-Dibromo-3-chloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,2-Dibromoethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,2-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,2-Dichloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,3,5-Trimethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,3-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,3-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
1,4-Dichlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
2,2-Dichloropropane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
2-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
4-Chlorotoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
4-Isopropyltoluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Benzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1:

Report To : Steve Netto

Reported : 02/26/2014

Client Sample ID CEFF

Lab ID: 1400419-06

Volatile Organic Compounds by EPA 8260B

Analyst: DP

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Bromobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Bromodichloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Bromoform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Bromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Carbon tetrachloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Chlorobenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Chloroethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Chloroform	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Chloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
cis-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
cis-1,3-Dichloropropene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Dibromochloromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Dibromomethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Dichlorodifluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Ethylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Hexachlorobutadiene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Isopropylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
m,p-Xylene	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Methylene chloride	ND	1.0	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
n-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
n-Propylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Naphthalene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
o-Xylene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
sec-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Styrene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
tert-Butylbenzene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Tetrachloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Toluene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
trans-1,2-Dichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Trichloroethene	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Trichlorofluoromethane	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Vinyl chloride	ND	0.50	NA	1	B4B0218	02/17/2014	02/17/14 20:26	
Surrogate: 1,2-Dichloroethane-d4	163 %		64 - 146		B4B0218	02/17/2014	02/17/14 20:26	S1
Surrogate: 4-Bromofluorobenzene	85.6 %		60 - 128		B4B0218	02/17/2014	02/17/14 20:26	
Surrogate: Dibromofluoromethane	136 %		72 - 141		B4B0218	02/17/2014	02/17/14 20:26	
Surrogate: Toluene-d8	104 %		61 - 124		B4B0218	02/17/2014	02/17/14 20:26	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/26/2014

QUALITY CONTROL SECTION

Bromide by Ion Chromatography EPA 300 - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0197 - No_Prep_IC_1

Blank (B4B0197-BLK1)

Prepared: 2/13/2014 Analyzed: 2/13/2014

Bromide ND 0.05 NR

LCS (B4B0197-BS1)

Prepared: 2/13/2014 Analyzed: 2/13/2014

Bromide 1.00960 0.05 1.00000 101 90 - 110

Duplicate (B4B0197-DUP1)

Source: 1400423-01

Prepared: 2/13/2014 Analyzed: 2/13/2014

Bromide ND 1.0 ND NR 20

Matrix Spike (B4B0197-MS1)

Source: 1400423-01

Prepared: 2/13/2014 Analyzed: 2/13/2014

Bromide 3.04800 1.0 2.50000 ND 122 80 - 120 M3

Matrix Spike Dup (B4B0197-MSD1)

Source: 1400423-01

Prepared: 2/13/2014 Analyzed: 2/13/2014

Bromide 3.01400 1.0 2.50000 ND 121 80 - 120 1.12 20 M3



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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

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Total Dissolved Solids (Residue, Filterable) by SM 2540C - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0200 - No_Prep_WC_1

Blank (B4B0200-BLK1)

Prepared: 2/13/2014 Analyzed: 2/14/2014

Residue, Dissolved

ND

10

NR

LCS (B4B0200-BS1)

Prepared: 2/13/2014 Analyzed: 2/14/2014

Residue, Dissolved

984.000

10

970.000

101

80 - 120

Duplicate (B4B0200-DUP1)

Source: 1400419-02

Prepared: 2/13/2014 Analyzed: 2/14/2014

Residue, Dissolved

599.000

10

591.000

NR

1.34

10



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Hargis & Associates, Inc.

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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/26/2014

Total Suspended Solids (Residue, Non-Filtrable) by SM 2540D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0174 - No_Prep_WC_1

Blank (B4B0174-BLK1)

Prepared: 2/12/2014 Analyzed: 2/12/2014

Residue, Suspended

ND

10

NR

LCS (B4B0174-BS1)

Prepared: 2/12/2014 Analyzed: 2/12/2014

Residue, Suspended

94.0000

10

96.6000

97.3

80 - 120

Duplicate (B4B0174-DUP1)

Source: 1400430-01

Prepared: 2/12/2014 Analyzed: 2/12/2014

Residue, Suspended

11.5000

5.0

11.5000

NR

0.00

10



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Hargis & Associates, Inc.

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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

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Reported : 02/26/2014

Volatile Organic Compounds by EPA 8260B - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL

Blank (B4B0218-BLK1)

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,1,1,2-Tetrachloroethane	ND	0.50			NR
1,1,1-Trichloroethane	ND	0.50			NR
1,1,2,2-Tetrachloroethane	ND	0.50			NR
1,1,2-Trichloroethane	ND	0.50			NR
1,1-Dichloroethane	ND	0.50			NR
1,1-Dichloroethene	ND	0.50			NR
1,1-Dichloropropene	ND	0.50			NR
1,2,3-Trichloropropane	ND	0.50			NR
1,2,3-Trichlorobenzene	ND	0.50			NR
1,2,4-Trichlorobenzene	ND	0.50			NR
1,2,4-Trimethylbenzene	ND	0.50			NR
1,2-Dibromo-3-chloropropane	ND	0.50			NR
1,2-Dibromoethane	ND	0.50			NR
1,2-Dichlorobenzene	ND	0.50			NR
1,2-Dichloroethane	ND	0.50			NR
1,2-Dichloropropane	ND	0.50			NR
1,3,5-Trimethylbenzene	ND	0.50			NR
1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR
Dichlorodifluoromethane	ND	0.50			NR
Ethylbenzene	ND	0.50			NR
Hexachlorobutadiene	ND	0.50			NR



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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

Blank (B4B0218-BLK1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

Isopropylbenzene	ND	0.50			NR				
m,p-Xylene	ND	1.0			NR				
Methylene chloride	ND	1.0			NR				
n-Butylbenzene	ND	0.50			NR				
n-Propylbenzene	ND	0.50			NR				
Naphthalene	ND	0.50			NR				
o-Xylene	ND	0.50			NR				
sec-Butylbenzene	ND	0.50			NR				
Styrene	ND	0.50			NR				
tert-Butylbenzene	ND	0.50			NR				
Tetrachloroethene	ND	0.50			NR				
Toluene	ND	0.50			NR				
trans-1,2-Dichloroethene	ND	0.50			NR				
Trichloroethene	ND	0.50			NR				
Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				

Surrogate: 1,2-Dichloroethane-d4	17.92	25.0000	71.7	64 - 146
Surrogate: 4-Bromofluorobenzene	20.87	25.0000	83.5	60 - 128
Surrogate: Dibromofluoromethane	30.52	25.0000	122	72 - 141
Surrogate: Toluene-d8	25.04	25.0000	100	61 - 124

LCS (B4B0218-BS1)

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,1,1,2-Tetrachloroethane	30.3600	20.0000	152	74 - 148	L5
1,1,1-Trichloroethane	22.8100	20.0000	114	74 - 136	
1,1,2,2-Tetrachloroethane	21.0500	20.0000	105	44 - 147	
1,1,2-Trichloroethane	17.5700	20.0000	87.8	46 - 135	
1,1-Dichloroethane	22.5000	20.0000	112	71 - 154	
1,1-Dichloroethene	18.9700	20.0000	94.8	56 - 131	
1,1-Dichloropropene	24.5300	20.0000	123	64 - 157	
1,2,3-Trichloropropane	22.6400	20.0000	113	45 - 147	
1,2,3-Trichlorobenzene	47.3500	20.0000	237	22 - 212	L5
1,2,4-Trichlorobenzene	36.6000	20.0000	183	34 - 198	
1,2,4-Trimethylbenzene	19.8800	20.0000	99.4	75 - 131	
1,2-Dibromo-3-chloropropane	37.5500	20.0000	188	9 - 217	
1,2-Dibromoethane	18.1200	20.0000	90.6	45 - 136	
1,2-Dichlorobenzene	24.7000	20.0000	124	75 - 142	
1,2-Dichloroethane	27.7700	20.0000	139	73 - 139	
1,2-Dichloropropane	19.7700	20.0000	98.8	61 - 145	
1,3,5-Trimethylbenzene	21.0800	20.0000	105	76 - 132	
1,3-Dichlorobenzene	18.9700	20.0000	94.8	56 - 149	
1,3-Dichloropropane	17.4900	20.0000	87.4	49 - 146	



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Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/26/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

LCS (B4B0218-BS1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,4-Dichlorobenzene	18.9400		20.0000		94.7	70 - 127			
2,2-Dichloropropane	22.6500		20.0000		113	32 - 153			
2-Chlorotoluene	19.3000		20.0000		96.5	67 - 135			
4-Chlorotoluene	16.9700		20.0000		84.8	61 - 138			
4-Isopropyltoluene	19.2800		20.0000		96.4	66 - 137			
Benzene	23.5100		20.0000		118	69 - 139			
Bromobenzene	20.3300		20.0000		102	60 - 138			
Bromodichloromethane	24.8700		20.0000		124	74 - 135			
Bromoform	44.4200		20.0000		222	41 - 200			L5
Bromomethane	12.7900		20.0000		64.0	1 - 125			
Carbon tetrachloride	33.9400		20.0000		170	74 - 153			L5
Chlorobenzene	19.3600		20.0000		96.8	73 - 127			
Chloroethane	20.9800		20.0000		105	40 - 150			
Chloroform	21.9300		20.0000		110	69 - 142			
Chloromethane	22.1800		20.0000		111	7 - 150			
cis-1,2-Dichloroethene	19.7100		20.0000		98.6	69 - 127			
cis-1,3-Dichloropropene	16.5500		20.0000		82.8	52 - 128			
Dibromochloromethane	27.0900		20.0000		135	72 - 142			
Dibromomethane	22.3400		20.0000		112	72 - 125			
Dichlorodifluoromethane	16.8300		20.0000		84.2	0 - 135			
Ethylbenzene	20.9500		20.0000		105	69 - 139			
Hexachlorobutadiene	49.2900		20.0000		246	46 - 206			L5
Isopropylbenzene	20.8600		20.0000		104	73 - 136			
m,p-Xylene	43.7200		40.0000		109	73 - 140			
Methylene chloride	20.2100		20.0000		101	71 - 137			
MTBE	20.9700		20.0000		105	68 - 133			
n-Butylbenzene	18.1900		20.0000		91.0	75 - 132			
n-Propylbenzene	17.8500		20.0000		89.2	64 - 140			
Naphthalene	31.7400		20.0000		159	18 - 202			
o-Xylene	24.2000		20.0000		121	78 - 138			
sec-Butylbenzene	22.3200		20.0000		112	80 - 138			
Styrene	18.6800		20.0000		93.4	65 - 130			
tert-Butylbenzene	20.4200		20.0000		102	69 - 136			
Tetrachloroethene	27.8300		20.0000		139	68 - 151			
Toluene	19.8500		20.0000		99.2	62 - 133			
trans-1,2-Dichloroethene	19.8900		20.0000		99.4	67 - 130			
Trichloroethene	23.2600		20.0000		116	72 - 139			
Trichlorofluoromethane	29.2900		20.0000		146	67 - 157			
Vinyl chloride	23.1700		20.0000		116	37 - 144			
Surrogate: 1,2-Dichloroethane-d4	32.37		25.0000		129	64 - 146			
Surrogate: 4-Bromofluorobenzene	22.78		25.0000		91.1	60 - 128			



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Reported : 02/26/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

LCS (B4B0218-BS1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

Surrogate: Dibromofluoromethane

27.15

25.0000

109

72 - 141

Surrogate: Toluene-d8

26.38

25.0000

106

61 - 124

LCS Dup (B4B0218-BS1)

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,1,1,2-Tetrachloroethane	32.3400	20.0000	162	74 - 148	6.32	20	L5
1,1,1-Trichloroethane	23.9500	20.0000	120	74 - 136	4.88	20	
1,1,2,2-Tetrachloroethane	19.9000	20.0000	99.5	44 - 147	5.62	20	
1,1,2-Trichloroethane	15.7800	20.0000	78.9	46 - 135	10.7	20	
1,1-Dichloroethane	23.0200	20.0000	115	71 - 154	2.28	20	
1,1-Dichloroethene	19.5500	20.0000	97.8	56 - 131	3.01	20	
1,1-Dichloropropene	25.8900	20.0000	129	64 - 157	5.39	20	
1,2,3-Trichloropropane	21.1300	20.0000	106	45 - 147	6.90	20	
1,2,3-Trichlorobenzene	49.3200	20.0000	247	22 - 212	4.08	20	L5
1,2,4-Trichlorobenzene	36.3600	20.0000	182	34 - 198	0.658	20	
1,2,4-Trimethylbenzene	19.3900	20.0000	97.0	75 - 131	2.50	20	
1,2-Dibromo-3-chloropropane	42.8300	20.0000	214	9 - 217	13.1	20	
1,2-Dibromoethane	16.2200	20.0000	81.1	45 - 136	11.1	20	
1,2-Dichlorobenzene	23.6100	20.0000	118	75 - 142	4.51	20	
1,2-Dichloroethane	27.4900	20.0000	137	73 - 139	1.01	20	
1,2-Dichloropropane	18.5500	20.0000	92.8	61 - 145	6.37	20	
1,3,5-Trimethylbenzene	20.6900	20.0000	103	76 - 132	1.87	20	
1,3-Dichlorobenzene	17.5500	20.0000	87.8	56 - 149	7.78	20	
1,3-Dichloropropane	15.6100	20.0000	78.0	49 - 146	11.4	20	
1,4-Dichlorobenzene	17.8100	20.0000	89.0	70 - 127	6.15	20	
2,2-Dichloropropane	22.9800	20.0000	115	32 - 153	1.45	20	
2-Chlorotoluene	17.9700	20.0000	89.8	67 - 135	7.14	20	
4-Chlorotoluene	15.4600	20.0000	77.3	61 - 138	9.31	20	
4-Isopropyltoluene	19.0600	20.0000	95.3	66 - 137	1.15	20	
Benzene	23.5300	20.0000	118	69 - 139	0.0850	20	
Bromobenzene	17.4200	20.0000	87.1	60 - 138	15.4	20	
Bromodichloromethane	24.1700	20.0000	121	74 - 135	2.85	20	
Bromoform	41.3400	20.0000	207	41 - 200	7.18	20	L5
Bromomethane	12.8700	20.0000	64.4	1 - 125	0.624	20	
Carbon tetrachloride	35.9900	20.0000	180	74 - 153	5.86	20	L5
Chlorobenzene	18.0800	20.0000	90.4	73 - 127	6.84	20	
Chloroethane	23.0700	20.0000	115	40 - 150	9.49	20	
Chloroform	21.9300	20.0000	110	69 - 142	0.00	20	
Chloromethane	21.8100	20.0000	109	7 - 150	1.68	20	
cis-1,2-Dichloroethene	20.5300	20.0000	103	69 - 127	4.08	20	
cis-1,3-Dichloropropene	14.8600	20.0000	74.3	52 - 128	10.8	20	
Dibromochloromethane	24.4600	20.0000	122	72 - 142	10.2	20	
Dibromomethane	21.8800	20.0000	109	72 - 125	2.08	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0218 - MSVOAW_LL (continued)

LCS Dup (B4B0218-BSD1) - Continued

Prepared: 2/17/2014 Analyzed: 2/17/2014

Dichlorodifluoromethane	15.0200		20.0000		75.1	0 - 135	11.4	20	
Ethylbenzene	19.9500		20.0000		99.8	69 - 139	4.89	20	
Hexachlorobutadiene	50.5100		20.0000		253	46 - 206	2.44	20	L5
Isopropylbenzene	20.4900		20.0000		102	73 - 136	1.79	20	
m,p-Xylene	41.7000		40.0000		104	73 - 140	4.73	20	
Methylene chloride	21.0300		20.0000		105	71 - 137	3.98	20	
MTBE	20.7600		20.0000		104	68 - 133	1.01	20	
n-Butylbenzene	17.8500		20.0000		89.2	75 - 132	1.89	20	
n-Propylbenzene	16.2500		20.0000		81.2	64 - 140	9.38	20	
Naphthalene	32.7500		20.0000		164	18 - 202	3.13	20	
o-Xylene	24.2500		20.0000		121	78 - 138	0.206	20	
sec-Butylbenzene	22.7700		20.0000		114	80 - 138	2.00	20	
Styrene	17.1100		20.0000		85.6	65 - 130	8.77	20	
tert-Butylbenzene	20.6900		20.0000		103	69 - 136	1.31	20	
Tetrachloroethene	26.5300		20.0000		133	68 - 151	4.78	20	
Toluene	18.2700		20.0000		91.4	62 - 133	8.29	20	
trans-1,2-Dichloroethene	21.3600		20.0000		107	67 - 130	7.13	20	
Trichloroethene	22.8400		20.0000		114	72 - 139	1.82	20	
Trichlorofluoromethane	28.0500		20.0000		140	67 - 157	4.33	20	
Vinyl chloride	23.0800		20.0000		115	37 - 144	0.389	20	
Surrogate: 1,2-Dichloroethane-d4	31.64		25.0000		127	64 - 146			
Surrogate: 4-Bromofluorobenzene	21.31		25.0000		85.2	60 - 128			
Surrogate: Dibromofluoromethane	27.04		25.0000		108	72 - 141			
Surrogate: Toluene-d8	24.37		25.0000		97.5	61 - 124			

Batch B4B0293 - MSVOAW_LL

Blank (B4B0293-BLK1)

Prepared: 2/19/2014 Analyzed: 2/19/2014

1,1,1,2-Tetrachloroethane	ND	0.50		NR
1,1,1-Trichloroethane	ND	0.50		NR
1,1,2,2-Tetrachloroethane	ND	0.50		NR
1,1,2-Trichloroethane	ND	0.50		NR
1,1-Dichloroethane	ND	0.50		NR
1,1-Dichloroethene	ND	0.50		NR
1,1-Dichloropropene	ND	0.50		NR
1,2,3-Trichloropropane	ND	0.50		NR
1,2,3-Trichlorobenzene	ND	0.50		NR
1,2,4-Trichlorobenzene	ND	0.50		NR
1,2,4-Trimethylbenzene	ND	0.50		NR
1,2-Dibromo-3-chloropropane	ND	0.50		NR
1,2-Dibromoethane	ND	0.50		NR



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0293 - MSVOAW_LL (continued)

Blank (B4B0293-BLK1) - Continued

Prepared: 2/19/2014 Analyzed: 2/19/2014

1,2-Dichlorobenzene	ND	0.50			NR
1,2-Dichloroethane	ND	0.50			NR
1,2-Dichloropropane	ND	0.50			NR
1,3,5-Trimethylbenzene	ND	0.50			NR
1,3-Dichlorobenzene	ND	0.50			NR
1,3-Dichloropropane	ND	0.50			NR
1,4-Dichlorobenzene	ND	0.50			NR
2,2-Dichloropropane	ND	0.50			NR
2-Chlorotoluene	ND	0.50			NR
4-Chlorotoluene	ND	0.50			NR
4-Isopropyltoluene	ND	0.50			NR
Benzene	ND	0.50			NR
Bromobenzene	ND	0.50			NR
Bromodichloromethane	ND	0.50			NR
Bromoform	ND	0.50			NR
Bromomethane	ND	0.50			NR
Carbon tetrachloride	ND	0.50			NR
Chlorobenzene	ND	0.50			NR
Chloroethane	ND	0.50			NR
Chloroform	ND	0.50			NR
Chloromethane	ND	0.50			NR
cis-1,2-Dichloroethene	ND	0.50			NR
cis-1,3-Dichloropropene	ND	0.50			NR
Dibromochloromethane	ND	0.50			NR
Dibromomethane	ND	0.50			NR
Dichlorodifluoromethane	ND	0.50			NR
Ethylbenzene	ND	0.50			NR
Hexachlorobutadiene	ND	0.50			NR
Isopropylbenzene	ND	0.50			NR
m,p-Xylene	ND	1.0			NR
Methylene chloride	ND	1.0			NR
n-Butylbenzene	ND	0.50			NR
n-Propylbenzene	ND	0.50			NR
Naphthalene	ND	0.50			NR
o-Xylene	ND	0.50			NR
sec-Butylbenzene	ND	0.50			NR
Styrene	ND	0.50			NR
tert-Butylbenzene	ND	0.50			NR
Tetrachloroethene	ND	0.50			NR
Toluene	ND	0.50			NR
trans-1,2-Dichloroethene	ND	0.50			NR
Trichloroethene	ND	0.50			NR



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0293 - MSVOAW_LL (continued)

Blank (B4B0293-BLK1) - Continued

Prepared: 2/19/2014 Analyzed: 2/19/2014

Trichlorofluoromethane	ND	0.50			NR				
Vinyl chloride	ND	0.50			NR				
Surrogate: 1,2-Dichloroethane-d4	27.00		25.0000		108	64 - 146			
Surrogate: 4-Bromofluorobenzene	25.09		25.0000		100	60 - 128			
Surrogate: Dibromofluoromethane	23.51		25.0000		94.0	72 - 141			
Surrogate: Toluene-d8	21.43		25.0000		85.7	61 - 124			

LCS (B4B0293-BS1)

Prepared: 2/19/2014 Analyzed: 2/19/2014

1,1,1,2-Tetrachloroethane	14.7200		20.0000		73.6	74 - 148			L4
1,1,1-Trichloroethane	21.1500		20.0000		106	74 - 136			
1,1,2,2-Tetrachloroethane	18.4200		20.0000		92.1	44 - 147			
1,1,2-Trichloroethane	17.2300		20.0000		86.2	46 - 135			
1,1-Dichloroethane	16.9800		20.0000		84.9	71 - 154			
1,1-Dichloroethene	17.7200		20.0000		88.6	56 - 131			
1,1-Dichloropropene	18.5100		20.0000		92.6	64 - 157			
1,2,3-Trichloropropane	18.7000		20.0000		93.5	45 - 147			
1,2,3-Trichlorobenzene	19.1200		20.0000		95.6	22 - 212			
1,2,4-Trichlorobenzene	19.3200		20.0000		96.6	34 - 198			
1,2,4-Trimethylbenzene	21.7900		20.0000		109	75 - 131			
1,2-Dibromo-3-chloropropane	17.2700		20.0000		86.4	9 - 217			
1,2-Dibromoethane	18.4200		20.0000		92.1	45 - 136			
1,2-Dichlorobenzene	19.5100		20.0000		97.6	75 - 142			
1,2-Dichloroethane	22.0400		20.0000		110	73 - 139			
1,2-Dichloropropane	17.6300		20.0000		88.2	61 - 145			
1,3,5-Trimethylbenzene	21.8400		20.0000		109	76 - 132			
1,3-Dichlorobenzene	19.8300		20.0000		99.2	56 - 149			
1,3-Dichloropropane	19.1200		20.0000		95.6	49 - 146			
1,4-Dichlorobenzene	20.2300		20.0000		101	70 - 127			
2,2-Dichloropropane	19.5200		20.0000		97.6	32 - 153			
2-Chlorotoluene	20.9800		20.0000		105	67 - 135			
4-Chlorotoluene	21.2100		20.0000		106	61 - 138			
4-Isopropyltoluene	22.2000		20.0000		111	66 - 137			
Benzene	18.4500		20.0000		92.2	69 - 139			
Bromobenzene	19.7400		20.0000		98.7	60 - 138			
Bromodichloromethane	20.5200		20.0000		103	74 - 135			
Bromoform	11.7000		20.0000		58.5	41 - 200			
Bromomethane	20.6200		20.0000		103	1 - 125			
Carbon tetrachloride	18.4000		20.0000		92.0	74 - 153			
Chlorobenzene	19.0100		20.0000		95.0	73 - 127			
Chloroethane	19.9800		20.0000		99.9	40 - 150			
Chloroform	18.5000		20.0000		92.5	69 - 142			



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0293 - MSVOAW_LL (continued)

LCS (B4B0293-BS1) - Continued

Prepared: 2/19/2014 Analyzed: 2/19/2014

Chloromethane	19.7800	20.0000	98.9	7 - 150
cis-1,2-Dichloroethene	18.1800	20.0000	90.9	69 - 127
cis-1,3-Dichloropropene	17.1300	20.0000	85.6	52 - 128
Dibromochloromethane	14.5800	20.0000	72.9	72 - 142
Dibromomethane	21.6500	20.0000	108	72 - 125
Dichlorodifluoromethane	20.2600	20.0000	101	0 - 135
Ethylbenzene	21.4400	20.0000	107	69 - 139
Hexachlorobutadiene	19.0300	20.0000	95.2	46 - 206
Isopropylbenzene	21.8000	20.0000	109	73 - 136
m,p-Xylene	47.0200	40.0000	118	73 - 140
Methylene chloride	18.1400	20.0000	90.7	71 - 137
MTBE	20.0400	20.0000	100	68 - 133
n-Butylbenzene	22.5800	20.0000	113	75 - 132
n-Propylbenzene	23.1400	20.0000	116	64 - 140
Naphthalene	20.8700	20.0000	104	18 - 202
o-Xylene	21.2400	20.0000	106	78 - 138
sec-Butylbenzene	22.4400	20.0000	112	80 - 138
Styrene	20.0500	20.0000	100	65 - 130
tert-Butylbenzene	20.8900	20.0000	104	69 - 136
Tetrachloroethene	21.7100	20.0000	109	68 - 151
Toluene	16.5700	20.0000	82.8	62 - 133
trans-1,2-Dichloroethene	18.1500	20.0000	90.8	67 - 130
Trichloroethene	18.1600	20.0000	90.8	72 - 139
Trichlorofluoromethane	22.6600	20.0000	113	67 - 157
Vinyl chloride	20.0600	20.0000	100	37 - 144
Surrogate: 1,2-Dichloroethane-d4	25.73	25.0000	103	64 - 146
Surrogate: 4-Bromofluorobenzene	23.40	25.0000	93.6	60 - 128
Surrogate: Dibromofluoromethane	22.68	25.0000	90.7	72 - 141
Surrogate: Toluene-d8	20.02	25.0000	80.1	61 - 124

LCS Dup (B4B0293-BSD1)

Prepared: 2/19/2014 Analyzed: 2/19/2014

1,1,1,2-Tetrachloroethane	14.2500	20.0000	71.2	74 - 148	3.24	20	L4
1,1,1-Trichloroethane	19.6700	20.0000	98.4	74 - 136	7.25	20	
1,1,2,2-Tetrachloroethane	18.0900	20.0000	90.4	44 - 147	1.81	20	
1,1,2-Trichloroethane	16.8200	20.0000	84.1	46 - 135	2.41	20	
1,1-Dichloroethane	15.6900	20.0000	78.4	71 - 154	7.90	20	
1,1-Dichloroethene	16.1600	20.0000	80.8	56 - 131	9.21	20	
1,1-Dichloropropene	16.9200	20.0000	84.6	64 - 157	8.98	20	
1,2,3-Trichloropropane	18.1100	20.0000	90.6	45 - 147	3.21	20	
1,2,3-Trichlorobenzene	17.6000	20.0000	88.0	22 - 212	8.28	20	
1,2,4-Trichlorobenzene	18.0500	20.0000	90.2	34 - 198	6.80	20	



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Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0293 - MSVOAW_LL (continued)

LCS Dup (B4B0293-BS01) - Continued

Prepared: 2/19/2014 Analyzed: 2/19/2014

1,2,4-Trimethylbenzene	20.3000		20.0000		102	75 - 131	7.08	20	
1,2-Dibromo-3-chloropropane	17.3400		20.0000		86.7	9 - 217	0.405	20	
1,2-Dibromoethane	17.9100		20.0000		89.6	45 - 136	2.81	20	
1,2-Dichlorobenzene	18.5000		20.0000		92.5	75 - 142	5.31	20	
1,2-Dichloroethane	21.0800		20.0000		105	73 - 139	4.45	20	
1,2-Dichloropropane	16.3300		20.0000		81.6	61 - 145	7.66	20	
1,3,5-Trimethylbenzene	20.1700		20.0000		101	76 - 132	7.95	20	
1,3-Dichlorobenzene	18.6300		20.0000		93.2	56 - 149	6.24	20	
1,3-Dichloropropane	18.4300		20.0000		92.2	49 - 146	3.68	20	
1,4-Dichlorobenzene	18.9500		20.0000		94.8	70 - 127	6.53	20	
2,2-Dichloropropane	18.1000		20.0000		90.5	32 - 153	7.55	20	
2-Chlorotoluene	19.4700		20.0000		97.4	67 - 135	7.47	20	
4-Chlorotoluene	19.7800		20.0000		98.9	61 - 138	6.98	20	
4-Isopropyltoluene	20.4200		20.0000		102	66 - 137	8.35	20	
Benzene	17.2800		20.0000		86.4	69 - 139	6.55	20	
Bromobenzene	17.5800		20.0000		87.9	60 - 138	11.6	20	
Bromodichloromethane	19.9800		20.0000		99.9	74 - 135	2.67	20	
Bromoform	12.2100		20.0000		61.0	41 - 200	4.27	20	
Bromomethane	20.2100		20.0000		101	1 - 125	2.01	20	
Carbon tetrachloride	17.8100		20.0000		89.0	74 - 153	3.26	20	
Chlorobenzene	17.8900		20.0000		89.4	73 - 127	6.07	20	
Chloroethane	18.7900		20.0000		94.0	40 - 150	6.14	20	
Chloroform	17.3400		20.0000		86.7	69 - 142	6.47	20	
Chloromethane	17.6300		20.0000		88.2	7 - 150	11.5	20	
cis-1,2-Dichloroethene	17.1000		20.0000		85.5	69 - 127	6.12	20	
cis-1,3-Dichloropropene	16.4700		20.0000		82.4	52 - 128	3.93	20	
Dibromochloromethane	14.7800		20.0000		73.9	72 - 142	1.36	20	
Dibromomethane	20.7200		20.0000		104	72 - 125	4.39	20	
Dichlorodifluoromethane	18.4900		20.0000		92.4	0 - 135	9.14	20	
Ethylbenzene	20.1400		20.0000		101	69 - 139	6.25	20	
Hexachlorobutadiene	17.0200		20.0000		85.1	46 - 206	11.2	20	
Isopropylbenzene	20.3100		20.0000		102	73 - 136	7.08	20	
m,p-Xylene	44.7300		40.0000		112	73 - 140	4.99	20	
Methylene chloride	16.9000		20.0000		84.5	71 - 137	7.08	20	
MTBE	19.1400		20.0000		95.7	68 - 133	4.59	20	
n-Butylbenzene	20.6900		20.0000		103	75 - 132	8.74	20	
n-Propylbenzene	21.3400		20.0000		107	64 - 140	8.09	20	
Naphthalene	20.0000		20.0000		100	18 - 202	4.26	20	
o-Xylene	19.7800		20.0000		98.9	78 - 138	7.12	20	
sec-Butylbenzene	20.6300		20.0000		103	80 - 138	8.40	20	
Styrene	19.0400		20.0000		95.2	65 - 130	5.17	20	
tert-Butylbenzene	19.2200		20.0000		96.1	69 - 136	8.33	20	



Certificate of Analysis

Hargis & Associates, Inc.

9171 Towne Centre Drive, Suite 375

San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/26/2014

Volatile Organic Compounds by EPA 8260B - Quality Control (cont'd)

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0293 - MSVOAW_LL (continued)

LCS Dup (B4B0293-BSD1) - Continued

Prepared: 2/19/2014 Analyzed: 2/19/2014

Tetrachloroethene	19.3500		20.0000		96.8	68 - 151	11.5	20	
Toluene	15.4700		20.0000		77.4	62 - 133	6.87	20	
trans-1,2-Dichloroethene	16.5900		20.0000		83.0	67 - 130	8.98	20	
Trichloroethene	17.1300		20.0000		85.6	72 - 139	5.84	20	
Trichlorofluoromethane	20.9800		20.0000		105	67 - 157	7.70	20	
Vinyl chloride	18.0700		20.0000		90.4	37 - 144	10.4	20	

Surrogate: 1,2-Dichloroethane-d4 24.47 25.0000 97.9 64 - 146

Surrogate: 4-Bromofluorobenzene 21.91 25.0000 87.6 60 - 128

Surrogate: Dibromofluoromethane 21.40 25.0000 85.6 72 - 141

Surrogate: Toluene-d8 18.55 25.0000 74.2 61 - 124



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Report To : Steve Netto

Reported : 02/26/2014

1,4-Dioxane by EPA 8270: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0246 - MSSEMI_ISOTOPEDILN

Blank (B4B0246-BLK1)

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,4-Dioxane	ND	2.0		NR					
Surrogate: 1,2-Dichlorobenzene-d4	79.47		100.000	79.5	37 - 93				
Surrogate: 2-Fluorobiphenyl	108.9		100.000	109	51 - 100				S3, S5
Surrogate: 4-Terphenyl-d14	127.1		100.000	127	58 - 113				S3, S5
Surrogate: Nitrobenzene-d5	79.30		100.000	79.3	39 - 95				

LCS (B4B0246-BS1)

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,4-Dioxane	97.4900	2.0	100.000	97.5	70 - 130				
Surrogate: 1,2-Dichlorobenzene-d4	85.24		100.000	85.2	37 - 93				
Surrogate: 2-Fluorobiphenyl	120.1		100.000	120	51 - 100				S5, S3
Surrogate: 4-Terphenyl-d14	108.9		100.000	109	58 - 113				
Surrogate: Nitrobenzene-d5	89.00		100.000	89.0	39 - 95				

LCS Dup (B4B0246-BSD1)

Prepared: 2/17/2014 Analyzed: 2/17/2014

1,4-Dioxane	97.0100	2.0	100.000	97.0	70 - 130	0.494	20		
Surrogate: 1,2-Dichlorobenzene-d4	87.87		100.000	87.9	37 - 93				
Surrogate: 2-Fluorobiphenyl	125.9		100.000	126	51 - 100				S3, S5
Surrogate: 4-Terphenyl-d14	117.7		100.000	118	58 - 113				S3, S5
Surrogate: Nitrobenzene-d5	91.87		100.000	91.9	39 - 95				



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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/26/2014

1,4-Dioxane by EPA 8270/SIM: Isotope Dilution Technique - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes

Batch B4B0136 - MSSEMI_ISOTOPEDILN

Blank (B4B0136-BLK1)

Prepared: 2/11/2014 Analyzed: 2/12/2014

1,4-Dioxane	ND	0.20		NR					
Surrogate: 1,2-Dichlorobenzene-d4	0.8581		1.00000		85.8	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.9794		1.00000		97.9	48 - 121			
Surrogate: 4-Terphenyl-d14	1.271		1.00000		127	58 - 142			
Surrogate: Nitrobenzene-d5	1.267		1.00000		127	27 - 151			

LCS (B4B0136-BS1)

Prepared: 2/11/2014 Analyzed: 2/12/2014

1,4-Dioxane	1.20195	0.20	1.00000		120	58 - 151			
Surrogate: 1,2-Dichlorobenzene-d4	0.8951		1.00000		89.5	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.9869		1.00000		98.7	48 - 121			
Surrogate: 4-Terphenyl-d14	1.252		1.00000		125	58 - 142			
Surrogate: Nitrobenzene-d5	1.336		1.00000		134	27 - 151			

Matrix Spike (B4B0136-MS1)

Source: 1400383-08

Prepared: 2/11/2014 Analyzed: 2/12/2014

1,4-Dioxane	1.40111	0.20	1.00000	ND	140	58 - 151			
Surrogate: 1,2-Dichlorobenzene-d4	0.7273		1.00000		72.7	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.8035		1.00000		80.3	48 - 121			
Surrogate: 4-Terphenyl-d14	1.024		1.00000		102	58 - 142			
Surrogate: Nitrobenzene-d5	1.107		1.00000		111	27 - 151			

Matrix Spike Dup (B4B0136-MSD1)

Source: 1400383-08

Prepared: 2/11/2014 Analyzed: 2/12/2014

1,4-Dioxane	1.34714	0.20	1.00000	ND	135	58 - 151	3.93	20	
Surrogate: 1,2-Dichlorobenzene-d4	0.8534		1.00000		85.3	47 - 117			
Surrogate: 2-Fluorobiphenyl	0.9499		1.00000		95.0	48 - 121			
Surrogate: 4-Terphenyl-d14	1.168		1.00000		117	58 - 142			
Surrogate: Nitrobenzene-d5	1.272		1.00000		127	27 - 151			



Certificate of Analysis

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San Diego , CA 92122

Project Number : Raytheon Main: Fullerton Monthly, 532.1.

Report To : Steve Netto

Reported : 02/26/2014

Notes and Definitions

S5	Surrogate recovery was above laboratory acceptance limit. Sample reanalysis showed the same high recovery.
S3	Surrogate recovery outside of laboratory acceptance limit. Unable to confirm matrix effects.
S1	Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
M3	Matrix spike recovery outside of acceptance limit due to disproportionate concentration of the analyte to spike level. The analytical batch was validated by the laboratory control sample.
L5	Laboratory Control Sample high biased. Sample result/s was non-detect (ND) for the target analyte; therefore reanalysis was not necessary.
L4	Laboratory Control Sample outside of control limit but within Marginal Exceedance (ME) limit.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA1	CA-NELAP (CDPH)
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

- Notes:
- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
 - (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
 - (3) Results are wet unless otherwise specified.

Bromate by EPA 317.0
Ion Chromatography/Post Column Reaction-Visible Absorption Spectroscopy

Column: Dionex AS9-HC 4 x 250 mm, AG9-HC Guard 4 x 50 mm
Eluent: 10 mM Na₂CO₃
Flow: 1.20 mL/min
Injection: 250 µL
Detection: Visible, 450 nm

Sample preparation: The undiluted samples were treated with a 2.5 mL Dionex OnGuard II H cartridge to remove excess basic cations. One sample required dilution with water by 1:4 for analysis. The detection limit is adjusted for the dilution.

Parts Per Billion (µg/L)

<u>Sample ID</u>	<u>Result</u>	<u>Detection Limit</u>
ATL Lab#: 1400419-02 / EW-02	0.3	0.3
ATL Lab#: 1400419-04 / POX	6	1
ATL Lab#: 1400419-06 / CEFF	5.7	0.3
Method Blank	ND	0.3

Date Analyzed: 02-21-14

Quality Control Summary

Sample ID:	Batch QC						
<u>Analyte</u>	<u>Sample Result</u>	<u>Spike Conc</u>	<u>Spike Result</u>	<u>Spike % Rec</u>	<u>Spike Duplicate Result</u>	<u>Spike Duplicate % Rec</u>	<u>RPD</u>
Bromate	0.5	20.0	18.5	90	18.8	92	2
QC Guidelines				75-125		75-125	NMT 10

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1400419

SENDING LABORATORY:

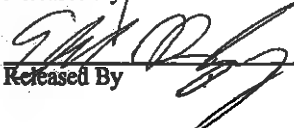
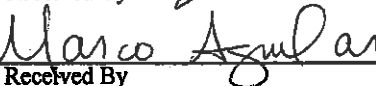
Advanced Technology Laboratories
 3275 Walnut Avenue
 Signal Hill, CA 90755
 Phone: 562.989.4045
 Fax: 562.989.6348
 Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Exova Inc.
 9240 Santa Fe Springs Road
 Santa Fe Springs, CA 90670
 Phone : (562) 948-2225
 Fax: (562) 948-5850
 PO#: SC08421- STANDARD TAT 24

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1400419-02 / EW-02		Groundwater	02/11/14 11:10	
317.0	02/25/14 17:00	02/12/14 11:10		
[Bromate]				
ATL Lab#: 1400419-04 / POX		Groundwater	02/11/14 10:15	
317.0	02/25/14 17:00	02/12/14 10:15		
[Bromate]				
1-Poly Unpres - 125mL				
ATL Lab#: 1400419-06 / CEFF		Groundwater	02/11/14 10:00	
317.0	02/25/14 17:00	02/12/14 10:00		
[Bromate]				
1-Poly Unpres - 125mL				

Released By  Date 2/12/14 12:41	Received By  ATL Date 2-12-14 12:41	Released By  Date 2-12-14 14:38	Received By  Marco Aguilar Date 02-12-14 2:38 P



DATE 02/11/14 PAGE 1 OF 1

Page 34 of 34

APPENDIX B

GROUNDWATER SAMPLING FIELD FORMS

GROUNDWATER SAMPLING INFORMATION

DATE: 2/03/2014

WELL ID: EW-01

TASK: 532.30

Time <u>1242</u> Static DTW (ft below reference point)	<u>139.43</u>	Casing Volume (CV) (gallons) <u>36.7</u> 3 CV (gallons) <u>110</u>	Weather Conditions	Initials <u>EJH/MPR</u>
Casing Total Depth (ft below reference point)	<u>195</u>	Purging Device <u>ded. pump</u> Sampling Device <u>ded. sample port</u>	Time <u>1318</u> Temp. <u>65</u>	Begin Purge <u>1404</u> End Purge <u>1424</u>
Water Column (feet) <u>55.57</u>	<u>0.66</u>	Pump: Depth (ft brp) <u>NA</u> Type <u>_____</u> Voltage <u>_____</u> HP <u>_____</u>	Skies <u>Sunny w/ clouds</u>	Gallons Purged <u>170</u> CVs Purged <u>23</u>
Casing Capacity (Diameter <u>4</u> ") (gallons per foot)	<u>0.66</u>	Monitor Well Recharge Rate: Slow <u>_____</u> Fast <u>X</u>	Wind (mph) <u>5</u> From <u>NW</u>	DTW (ft brp) <u>1426</u> Time <u>137.62</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	FIELD PARAMETERS....						Pump Frequency Hz	COMMENTS
				Temp. (C)	pH	EC (uS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
<u>1405</u>											
<u>1345</u>	<u>139.43</u>	<u>Ø</u>	<u>Ø</u>	<u>—</u>	<u>—</u>	<u>Pump</u>	<u>on</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>TOT: 276,387</u>
<u>1410</u>	<u>139.70</u>	<u>~50</u>	<u>1.4</u>	<u>21.6</u>	<u>7.36</u>	<u>1.38</u>	<u>113.3</u>	<u>6.65</u>	<u>3.09</u>		<u>Q = 14.50 ? UTM</u>
<u>1416</u>	<u>NM</u>	<u>~75</u>	<u>2.0</u>	<u>21.5</u>	<u>7.35</u>	<u>1.37</u>	<u>116.0</u>	<u>7.16</u>	<u>0.51</u>		<u>Q & TOT UTM</u>
<u>1420</u>	<u>NM</u>	<u>~110</u>	<u>3.0</u>	<u>21.5</u>	<u>7.36</u>	<u>1.37</u>	<u>126.1</u>	<u>7.16</u>	<u>0.58</u>		
<u>1424</u>	<u>139.62</u>	<u>170</u>	<u>4.6</u>	<u>—</u>	<u>Pump</u>	<u>off</u>	<u>—</u>	<u>—</u>	<u>—</u>		

SAMPLE COLLECTION SAMPLE TIME <u>1420</u>			AIR MONITORING PID/FID ppm: <u>VAULT</u> <u>BKGD</u> <u>BREATHING ZONE</u> <u>DISCHARGE WATER</u>	
ANALYSIS	QUANTITY	TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)	
<u>VOCs</u>	<u>9</u>	<u>40 mL VOA 4/HC1</u>	<u>Target TOT: 276,387</u>	
<u>1,4-diox MOP</u>	<u>3</u>	<u>16 Amber</u>		
DUPLICATES / SPLITS / BLANKS? <u>(Y)</u> N			<u>MS/MSD</u>	
If yes, complete appropriate forms.			<u>14:04 : 84256245</u> <u>14:24 : 84256415</u> <u>170 gal</u>	

GROUNDWATER SAMPLING INFORMATION

DATE: 2/4/2014WELL ID: MW-06TASK: 532.30

Time <u>1307</u> Static DTW (ft below reference point) <u>174.54</u>	Casing Volume (CV) (gallons) <u>2.5</u> 3 CV (gallons) <u>7.5</u>	Weather Conditions	Initials <u>EJA/SLK</u>
Casing Total Depth (ft below reference point) <u>188.92</u>	Purging Device <u>groundpos</u> Sampling Device <u>ded. pump</u>	Time <u>1318</u> Temp. <u>60</u>	Begin Purge <u>1320</u> End Purge <u>1338</u>
Water Column (feet) <u>14.38</u>	Pump: Depth (ft brp) <u>186</u> Type <u></u> Voltage <u>110</u> HP <u>0.5</u>	Skies <u>overcast</u>	Gallons Purged <u>9.0</u> CVs Purged <u>35</u>
Casing Capacity (Diameter <u>2"</u>) (gallons per foot) <u>0.17</u>	Monitor Well Recharge Rate: Slow <u></u> Fast <u>X</u>	Wind (mph) <u>2</u> From <u>NW</u>	DTW (ft brp) <u>180.30</u> Time <u>1551</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
1320	174.54	0	0	—	Pump on				—	315	Q = 1.5gpm
1322	UTM	2.0	0.8	21.3	7.81	1.04	186.8	2.87	66.7	310	Q = 1gpm
1324	UTM	4.0	1.6	21.9	7.83	1.04	188.7	2.39	52.4	323	Q = 0.75gpm
1325	—	—	Pump off	—	—	—	—	—	—	—	let well recharge
1332	—	—	Pump on	—	—	—	—	—	—	—	
1334	UTM	6.0	2.4	23.1	7.70	1.16	190.1	2.30	73.0	323	Q = 1.5gpm
1336	UTM	8.0	3.2	23.4	7.66	1.16	184.5	2.29	86.0	315	Q = 0.75gpm
1338	UTM	9.0	3.6	23.4	7.66	1.16	180.5	2.34	80.0	315	

SAMPLE COLLECTION SAMPLE TIME <u>1540</u>		
ANALYSIS	QUANTITY	TYPE
<u>VOCS</u>	<u>3</u>	<u>40 ml VOA</u>
<u>TH-TOX (EPA)</u>	<u>1</u>	<u>1 L Amber</u>
		<u>no 1,4-Diox</u>
DUPLICATES / SPLITS / BLANKS? <u>Y</u> <u>(N)</u>		
If yes, complete appropriate forms.		

AIR MONITORING PID/HID ppm VAULT BKGD BREATHING ZONE DISCHARGE WATER

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2/6/14

WELL ID: MW-08

TASK: 532.30

Time <u>1257</u> Static DTW (ft below reference point)	<u>140.95</u>	Casing Volume (CV) (gallons) <u>4</u> 3 CV (gallons) <u>12</u>	Weather Conditions	Initials <u>EJA/SUE</u>
Casing Total Depth (ft below reference point)	<u>163.79</u>	Purging Device <u>Rediflo</u> Sampling Device <u>ded tubing</u>	Time <u>1300</u> Temp. <u>55</u>	Begin Purge <u>1304</u> End Purge <u>1316</u>
Water Column (feet)	<u>23.02</u>	Pump: Depth (ft brp) <u>160</u> Type <u>gumples</u> Voltage <u>115</u> HP <u>0.5</u>	Skies <u>overcast</u>	Gallons Purged <u>3.0</u> CVs Purged <u>12</u>
Casing Capacity (Diameter <u>2"</u>) (gallons per foot)	<u>0.17</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>0</u> From <u>0</u>	DTW (ft brp) <u>N/A</u> Time <u>N/A</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
1305	140.95	0	0	—	—	Pump on	—	—	—	285	
1306	UTM	3.0	0.75	21.4	7.58	1.66 0.66	115.7	0.66	22.5	285	Q = 1.5 gpm
1308	UTM	4.0	1.00	21.4	7.55	1.96 0.72	98.2	0.62	29.8	290	Q = 1 gpm
1310	UTM	6.0	1.5	23.2	7.52	1.98	86.3	0.47	20.5	290	Q = 1 gpm
1312	UTM	8.0	2.0	23.1	7.51	1.97	73.3	0.38	9.30	290	Q = 1 gpm
1314	UTM	10	2.5	22.8	7.54	1.84	70.2	0.46	9.79	290	Q = 1 gpm
1316	UTM	12	3.0	22.8	7.53	1.85	64.8	0.42	9.61	290	Q = 1 gpm
				—	—	Pump off	—	—	—		

SAMPLE COLLECTION SAMPLE TIME <u>1316</u>			AIR MONITORING PID/PID ppm: <u>VAULT</u> <u>BKGD</u> <u>BREATHING ZONE</u> <u>DISCHARGE WATER</u>		
ANALYSIS	QUANTITY	TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)		
VOCs	3	40 ml vial w/ HCl	<u>ded. tubing in well</u>		
1,4-Diox (SIM)	1	1 L Amber			
DUPLICATES / SPLITS / BLANKS? <u>Y</u> <u>(N)</u> If yes, complete appropriate forms.					

GROUNDWATER SAMPLING INFORMATION
DATE: 02/05/14
WELL ID: MU-09
TASK: 532.30

Time <u>1021</u> Static DTW (ft below reference point)	<u>171.71</u>	Casing Volume (CV) (gallons) <u>3.28</u> ~~3.64~~ ^{SUR 9.84}	Weather Conditions	Initials <u>DM/SLK</u>
Casing Total Depth (ft below reference point)	<u>191</u>	Purging Device <u>Quick-E Bailer</u> Sampling Device <u>Ded Bailer</u>	Time <u>1058</u> Temp. <u>65°</u>	Begin Purge <u>1028</u> End Purge <u>1056</u>
Water Column (feet)	<u>19.29</u>	Pump: Depth (ft brp) <u>N/A</u> Type <u>N/A</u> Voltage <u>N/A</u> HP <u>N/A</u>	Skies <u>Cloudy</u>	Gallons Purged <u>3.5</u> CVs Purged <u>3</u>
Casing Capacity (Diameter <u>2"</u>) (gallons per foot)	<u>0.17</u>	Monitor Well Recharge Rate: Slow <u>X</u> Fast	Wind (mph) <u>0-5</u> From <u>W</u>	DTW (ft brp) <u>171.66</u> Time <u>1300</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
<u>1028</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>Begin</u>	<u>Purge</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	
<u>1030</u>	<u>NM</u>	<u>0.25</u>	<u>0.08</u>	<u>21.1</u>	<u>6.99</u>	<u>2.77</u>	<u>188.7</u>	<u>3.22</u>	<u>5.44</u>	<u>N/A</u>	
<u>1034</u>	<u>NM</u>	<u>0.75</u>	<u>0.23</u>	<u>21.8</u>	<u>7.02</u>	<u>2.82</u>	<u>185.4</u>	<u>3.15</u>	<u>17.0</u>	<u>N/A</u>	
<u>1039</u>	<u>NM</u>	<u>1.25</u>	<u>0.38</u>	<u>21.7</u>	<u>7.02</u>	<u>2.79</u>	<u>178.7</u>	<u>3.14</u>	<u>30</u>	<u>N/A</u>	
<u>1043</u>	<u>NM</u>	<u>1.75</u>	<u>0.53</u>	<u>20.4</u>	<u>7.00</u>	<u>2.84</u>	<u>172.6</u>	<u>3.14</u>	<u>41.8</u>	<u>N/A</u>	
<u>1048</u>	<u>NM</u>	<u>2.25</u>	<u>0.69</u>	<u>21.9</u>	<u>7.01</u>	<u>2.78</u>	<u>173.8</u>	<u>3.17</u>	<u>58.9</u>	<u>N/A</u>	
<u>1050</u>	<u>NM</u>	<u>2.75</u>	<u>0.84</u>	<u>21.1</u>	<u>7.03</u>	<u>2.82</u>	<u>174.5</u>	<u>3.72</u>	<u>65.1</u>	<u>N/A</u>	
<u>1056</u>	<u>NM</u>	<u>3.5</u>	<u>1.07</u>	<u>21.7</u>	<u>7.01</u>	<u>2.80</u>	<u>177.1</u>	<u>3.18</u>	<u>95.5</u>	<u>N/A</u>	<u>DTW 171.80' @ 8571057</u>
<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>END</u>	<u>Purge</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	
<u>1300</u>	<u>171.66</u>	<u>N/A</u>	<u>N/A</u>	<u>21.7</u>	<u>7.16</u>	<u>2.75</u>	<u>200.1</u>	<u>3.78</u>	<u>64.0</u>	<u>N/A</u>	<u>Samples / Parameters Collected.</u>

SAMPLE COLLECTION SAMPLE TIME <u>1300</u>		
ANALYSIS	QUANTITY	TYPE
<u>VOCs 8&B&B</u>	<u>3</u>	<u>VIA - 4ml w/ HCL</u>
<u>1,4-Dio (Sim)</u>	<u>1</u>	<u>1 L Amber</u>
DUPLICATES / SPLITS / BLANKS? <u>Y</u> <u>IN</u> If yes, complete appropriate forms.		

AIR MONITORING PID/FID ppm: VAULT BKGD BREATHING ZONE DISCHARGE WATER

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

Only 0.1 Casing Volume Collected / Purged Before Sampling

GROUNDWATER SAMPLING INFORMATION

DATE: 2/6/14

WELL ID: MW-13

TASK: 532.30

Time <u>1506</u> Static DTW (ft below reference point)	<u>132.94</u>	Casing Volume (CV) (gallons) <u>45</u> 3 CV (gallons) <u>13.6</u>	Weather Conditions
Casing Total Depth (ft below reference point)	<u>159.67</u>	Purging Device <u>grindpos</u> Sampling Device <u>ded. tubing</u>	Time <u>1515</u> Temp. <u>55</u>
Water Column (feet)	<u>26.73</u>	Pump: Depth (ft brp) <u>45.6</u> Type <u>grindpos</u> Voltage <u>110</u> HP <u>0.5</u>	Skies <u>overcast</u>
Casing Capacity (Diameter <u>2</u> ") (gallons per foot)	<u>0.17</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>2</u> From <u>NW</u>
			Initials <u>EJA/SLK</u>
			Begin Purge <u>1513</u> End Purge <u>1529</u>
			Gallons Purged <u>16</u> CVs Purged <u>25</u>
			DTW (ft brp) <u>146.26</u> Time <u>1537</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
1513	132.94	0	0			Pump on				275	
1515	NM	3.0	0.75	21.1	7.47	0.98	62.8	1.02	34.4	275	Q = 1.25 gpm
1517	NM	4.5	1.00	21.7	7.45	0.99	54.9	3.72	28.7	275	Q = 1.25 gpm
1519	NM	6.5	1.45	22.4	7.49	0.99	52.3	3.47	24.0	275	Q = 1.0 gpm
1521	NM	8.0	1.75	22.7	7.48	0.99	49.4	2.81	19.4	275	Q = 1.0 gpm
1524	NM	10.0	2.25	23.0	7.52	1.00	50.5	2.67	5.91	283	Q = 0.75 gpm
1527	NM	14.0	3.10	23.1	7.50	1.00	45.2	2.76	10.5	283	Q = 0.75 gpm
1529	NM	16.0	3.55			Pump off					

SAMPLE COLLECTION SAMPLE TIME <u>1527</u>		
ANALYSIS	QUANTITY	TYPE
VOCs	<u>3</u>	<u>40 ml WBA w/ HCl</u>
1,4-Diox(SIM)	<u>1</u>	<u>16 amber</u>
DUPLICATES / SPLITS / BLANKS? <u>Y</u> <u>(N)</u> If yes, complete appropriate forms.		

AIR MONITORING PID/FID ppm: VAULT -BKGD -BREATHING ZONE DISCHARGE WATER
 NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

ded. tubing in well



GROUNDWATER SAMPLING INFORMATION

TASK: 532.30

Time <u>1330</u> Static DTW (ft below reference point)	<u>140.95</u>	Casing Volume (CV) (gallons) <u>4.4</u> 3 CV (gallons) <u>13.2</u>	<u>Weather Conditions</u>		Initials <u>EJH/SLK</u>
Casing Total Depth (ft below reference point)	<u>166.80</u>	Purging Device <u>grundfos pump</u> Sampling Device <u>del tubing</u>	Time <u>1335</u> Temp. <u>55</u>		Begin Purge <u>1340</u> End Purge <u>1402</u>
Water Column (feet)	<u>25.85</u>	Pump: Depth (ft brp) _____ Type <u>grundfos</u> Voltage <u>115</u> HP _____	Skies <u>overcast w/light rain</u>		Gallons Purged <u>816</u> CVs Purged <u>3.6</u>
Casing Capacity (Diameter <u>2"</u>) (gallons per foot)	<u>0.17</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>0</u> From <u>0</u>		DTW (ft brp) <u>141.8</u> Time <u>1407</u>

[illegible]

SAMPLE COLLECTION		SAMPLE TIME
ANALYSIS	QUANTITY	TYPE
VOCs	3	40 ml vial with
DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms.		Y N

AIR MONITORING PID/FID-ppm: VAULT ~~BKGD~~ ~~BREATHING ZONE~~ ~~DISCHARGE WATER~~

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

ded. tubing in storage

dicer pulled @ 1330

dicer placed @ 1408

GROUNDWATER SAMPLING INFORMATION
DATE: 2/5/2014
WELL ID: MW-16
TASK: 532.30

Time <u>0840</u> Static DTW (ft below reference point) <u>141.03</u>	Casing Volume (CV) (gallons) <u>24.73</u> 3 CV (gallons) <u>74.19</u>	Weather Conditions Time <u>843</u> Temp. <u>70°</u>	Initials <u>DM/SLK</u>
Casing Total Depth (ft below reference point) <u>178.5</u>	Purging Device <u>GEAULDS Pump</u> Sampling Device <u>Deel. Tubing</u>	Skies <u>ONLY CLOUDY</u>	Begin Purge <u>0850</u> End Purge <u>0935</u>
Water Column (feet) <u>37.47</u>	Pump: Depth (ft brp) <u>176</u> Type <u>MPI</u> Voltage <u>115</u> HP <u>0.5</u>	Wind (mph) <u>0-5</u> From <u>W</u>	Gallons Purged <u>79</u> CVs Purged <u>3.20</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot) <u>0.66</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	DTW (ft brp) <u>141.22</u> Time <u>0955</u>	

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	FIELD PARAMETERS....						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
0850	NM	0	0	—	—	—	—	—	—	305	Q = 1.5
0858	146.33	12	0.49	22.6	7.42	1.17	132.6	4.22	4.91	305	Q = 1.5
0906	146.61	24	0.97	23.0	7.48	1.18	141.5	3.77	3.54	313	Q = 2.0
0912	147.75	36	1.46	22.9	7.49	1.17	145.8	3.71	4.14	313	Q = 2.0
0918	148.04	48	1.94	22.9	7.49	1.17	151.8	3.58	4.73	313	Q = 2.0
0924	148.20	60	2.43	23.0	7.49	1.17	155.7	3.46	3.24	313	Q = 2.0
0932	148.38	76	3.07	23.0	7.49	1.17	159.4	3.40		313	
0933	—	—	—	—	—	—	—	—	—	275 300	Q = ~0.75
0935	—	~79	~3.20	—	—	—	—	—	—	—	

SAMPLE COLLECTION SAMPLE TIME <u>0933</u>		
ANALYSIS	QUANTITY	TYPE
VOCs	9	40 ml VOA w/ HCL
1-4 DIO (M&D)	3	1L Amber
DUPLICATES / SPLITS / BLANKS? <u>(Y)</u> N If yes, complete appropriate forms.		

AIR MONITORING PID/FID ppm: VAULT	BKGD	BREATHING ZONE	DISCHARGE WATER
NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.) <u>744, DUCER OUT</u> <u>DUP: MW-1600 @ 0935</u> <u>SPT: MW-16 @ 0933</u> <u>RB: RB-020514 @ 1000</u>			

GROUNDWATER SAMPLING INFORMATION

DATE: 02/04/2014

WELL ID: MW-18

TASK: 532.30

Time <u>0934</u> Static DTW (ft below reference point)	<u>133.05</u>	Casing Volume (CV) (gallons) <u>36.6</u> 3 CV (gallons) <u>110</u>	Weather Conditions	Initials <u>EJA / SLK</u>
Casing Total Depth (ft below reference point)	<u>194</u>	Purging Device <u>grndftr pump</u> Sampling Device <u>ded tubing</u>	Time <u>0930</u> Temp. <u>58</u>	Begin Purge <u>1014</u> End Purge <u>1115</u>
Water Column (feet)	<u>60.95</u>	Pump: Depth (ft brp) <u>210</u> Type <u>HP</u> Voltage <u>115</u> HP <u>0.5</u>	Skies <u>sunny</u>	Gallons Purged <u>114</u> CVs Purged <u>31</u>
Casing Capacity (Diameter <u>4</u> ") (gallons per foot)	<u>0.6</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>0</u> From <u>0</u>	DTW (ft brp) <u>140.2</u> Time <u>1122</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	FIELD PARAMETERS....						Pump Frequency Hz	COMMENTS
				Temp. (C)	pH	EC (uS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
1014	133.05	0	0	—	—	Pump	on	—	—		
1017	NM	6	0.2	22.3	7.21	156	215.6	5.45	14.7	310	Q = 2gpm
1026	NM	24	0.65	22.6	7.27	1.31	197.9	2.98	4.43	310	Q = 2gpm
1035	NM	42	1.15	22.7	7.27	1.35	204.0	3.18	2.10	310	Q = 2gpm
1044	NM	60	1.65	22.7	7.23	1.41	203.1	3.56	4.56	310	Q = 2gpm
1053	NM	78	2.10	22.5	7.19	1.50	205.3	3.93	0.30	310	Q = 2gpm
1102	NM	96	2.60	22.7	7.19	1.47	204.1	4.11	0.25	310	Q = 2gpm
1111	NM	114	3.1	22.7	7.19	1.48	204.1	4.20	0.11	310	Q = 2gpm
1115	NM	122	3.2	—	—	Pump	off	—	—		

SAMPLE COLLECTION SAMPLE TIME <u>1112</u>		
ANALYSIS	QUANTITY	TYPE
VOCs	3	40 ml vial with 1 L Amber
1,4-dioxin	1	
DUPLICATES / SPLITS / BLANKS? <u>Y</u> <u>(N)</u> If yes, complete appropriate forms.		

AIR MONITORING PID/EID ppm: <u>VAULT</u>	<u>BRGD</u>	<u>BREATHING ZONE</u>	<u>DISCHARGE WATER</u>
NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.) <u>ded tubing in storage</u>			

GROUNDWATER SAMPLING INFORMATION

DATE: 2/7/2014

TASK: 532.30

WELL ID: MW-19

Time <u>0930</u> Static DTW (ft below reference point)	<u>133.08</u>	Casing Volume (CV) (gallons) <u>43.5</u> 3 CV (gallons) <u>130.5</u>	Weather Conditions	Initials: <u>EH+SLC</u>
Casing Total Depth (ft below reference point)	<u>205.5</u>	Purging Device <u>del. pump</u> Sampling Device <u>no pipet stand</u>	Time <u>0937</u> Temp. <u>55</u>	Begin Purge <u>0938</u> End Purge <u>0956</u>
Water Column (feet)	<u>72.42</u>	Pump: Depth (ft brp) _____ Type <u>GRIND</u> Voltage <u>240</u> HP _____	Skies <u>overcast</u>	Gallons Purged <u>147</u> CVs Purged <u>3.4</u>
Casing Capacity (Diameter <u>4</u> ") (gallons per foot)	<u>0.60</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>0</u> From <u>0</u>	DTW (ft brp) <u>133.21</u> Time <u>0959</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
0938	133.08	0	0	Pump on							
0941	135.40	24	0.5	21.4	7.59	1.72	-132.7	4.89	23.1		Q = 8gpm
0944	135.43	48	1.1	21.4	7.45	1.83	-47.6	5.99	9.64		Q = 8gpm
0947	135.36	72	1.65	21.4	7.42	1.84	0.2	6.35	31.9		Q = 8gpm
0950	135.35	96	2.2	21.4	7.40	1.85	286	6.44	44.5		Q = 8gpm
0954	135.38	131	3.0	21.5	7.38	1.84	31.4	6.54	47.5		Q = 8gpm
0956	NM	147	3.4	Pump off							

SAMPLE COLLECTION SAMPLE TIME 0955

ANALYSIS QUANTITY TYPE

8260B VOCs 3 40 ml VOA

8270 SIM 1,4 dioxane 1 1 L Amber

8270 MOD 1,4 dioxane 1 1 L Amber

DUPLICATES / SPLITS / BLANKS? Y (N)

If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm VAULT NA BKOD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2/4/14

WELL ID: MW-20

TASK: 532.30

Time <u>1319</u> Static DTW (ft below reference point) <u>168.88</u>	Casing Volume (CV) (gallons) <u>16.4</u> 3 CV (gallons) <u>50</u>	Weather Conditions	Initials <u>EJH/SJK</u>
Casing Total Depth (ft below reference point) <u>194</u>	Purging Device <u>Grundfos</u> Sampling Device <u>ded. tubing</u>	Time <u>1356</u> Temp. <u>59</u>	Begin Purge <u>1356</u> End Purge <u>1428</u>
Water Column (feet) <u>25.12</u>	Pump: Depth (ft brp) <u>192</u> Type <u>MPI</u> Voltage <u>115</u> HP <u>0.5</u>	Skies <u>overcast</u>	Gallons Purged <u>53</u> CVs Purged <u>3.1</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot) <u>0.66</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>2</u> From <u>NW</u>	DTW (ft brp) <u>169.69</u> Time <u>1437</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
1356	168.88	0	0	—	—	Begin Pumping	—	—	—	315	
1358	(UTM) NM	4	0.25	22.3	7.52	1.23	232.4	4.45	2.1	315	Q = 2 gpm
1402	(UTM) NM	12	0.75	22.7	7.25	1.23	204.6	4.38	2.9	315	Q = 2 gpm
1406	(UTM) NM	20	1.20	23.3	7.55	1.22	197.2	4.20	10.5	315	Q = 2 gpm
1412	UTM	29	1.75	23.4	7.54	1.23	179.1	4.31	9.18	315	Q = 1.5 gpm
1418	UTM	38	2.30	23.4	7.53	1.24	176.5	4.22	4.15	315	Q = 1.5 gpm
1424	UTM	47	2.80	23.4	7.54	1.24	170.5	4.38	5.92	315	Q = 1.5 gpm
1426	UTM	50	3.00	23.5	7.56	1.24	169.2	4.28	4.32	315	Q = 1.5 gpm
1428	UTM	53	3.10	—	—	Pump off	—	—	—	—	

SAMPLE COLLECTION SAMPLE TIME <u>1427</u>			AIR MONITORING PID/FID ppm: <u>VAULT</u> <u>BLKED</u> BREATHING ZONE <u>DISCHARGE WATER</u>		
ANALYSIS	QUANTITY	TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)		
VOCs	3	40 ml VOA w/HC			
1,4-Diox (SIM)	1	1 L Amber			
DUPLICATES / SPLITS / BLANKS? <u>(Y)</u> N If yes, complete appropriate forms.			RB - 020414 @1320		



DATE: 2/3/14

WELL ID: MW-21

TASK: 532.30

Time <u>1238</u> Static DTW (ft below reference point)	<u>132.53</u>	Casing Volume (CV) (gallons) <u>69.6</u> 3 CV (gallons) <u>208.8</u>	Weather Conditions		Initials <u>EJH / MRP</u>
Casing Total Depth (ft below reference point)	<u>238</u>	Purging Device <u>ded pump</u> Sampling Device <u>ded sample port</u>	Time <u>1318</u> Temp. <u>65</u>		Begin Purge <u>1346</u> End Purge <u>1402</u>
Water Column (feet)	<u>105.47</u>	Pump: Depth (ft brp) <u>NA</u> Type _____ Voltage _____ HP <u>3</u>	Skies <u>Sunny w/ clouds</u>		Gallons Purged <u>227</u> CVs Purged <u>232</u>
Casing Capacity (Diameter <u>4</u> ") (gallons per foot)	<u>0.66</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>5</u> From <u>NW</u>		DTW (ft brp) <u>133.01</u> Time <u>1404</u>

[illegible]

SAMPLE COLLECTION		SAMPLE TIME	1400	AIR MONITORING PID/FID ppm: VAULT		BKGD	BREATHING ZONE	DISCHARGE WATER
ANALYSIS		QUANTITY	TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)				
VOCs		3	40 ml w/ HPL	Target TOT: 557,217				
1,4-diox (HOD)		1	1L amber					
DUPLICATES / SPLITS / BLANKS?			Y	(N)				
If yes, complete appropriate forms.								

GROUNDWATER SAMPLING INFORMATION

DATE: 2/6/2014

WELL ID: MW-22

TASK: 532.30

Time <u>1032</u> Static DTW (ft below reference point)	<u>128.92</u>	Casing Volume (CV) (gallons) <u>68</u>	3 CV (gallons) <u>204</u>	Weather Conditions	Initials <u>EJA/SUK</u>
Casing Total Depth (ft below reference point)	<u>232</u>	Purging Device <u>dep. pm</u>	Sampling Device <u>NO pipe stand</u>	Time <u>1034</u> Temp. <u>55</u>	Begin Purge <u>1046</u> End Purge <u>1114</u>
Water Column (feet)	<u>103.08</u>	Pump: Depth (ft brp) _____ Type <u>grinder</u> Voltage <u>240</u> HP		Skies <u>overcast</u>	Gallons Purged <u>211</u> CVs Purged <u>31</u>
Casing Capacity (Diameter <u>4</u> ") (gallons per foot)	<u>0.64</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>		Wind (mph) <u>0</u> From <u>0</u>	DTW (ft brp) <u>129.10</u> Time <u>1115</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (C)	pH	EC (uS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
1046	128.92	0	0	—	—	Pump	on	—	—	—	
1048	128.88	15	0.22	21.6	7.58	1.42	-144.8	2.77	138	N/A	Q ~ 8 gpm
1052	128.88	42.0	0.62	21.4	7.54	1.66	-41.9	5.24	37.1		
1056	128.88	77	1.13	21.4	7.42	1.67	-1.1	5.09	8.81		
1100	128.91	108	1.59	21.4	7.40	1.67	15.2	5.07	9.48		
1104	129.90	140	2.06	21.4	7.38	1.67	28.6	4.91	3.98		
1108	129.89	174	2.56	21.4	7.37	1.67	39.8	4.69	4.06		
1112	129.89	205	3.00	21.4	7.30	1.67	40.2	4.65	4.86		
1114	NM	211	3.10	—	—	Pump	off	—	—		

SAMPLE COLLECTION SAMPLE TIME <u>1112</u>		
ANALYSIS	QUANTITY	TYPE
VOL 82608	3	40m Voff w/ HCL
1-9 Div (Sim)	1	1L Voff w/ HCL
DUPLICATES / SPLITS / BLANKS? <u>Y</u> <u>(N)</u> If yes, complete appropriate forms.		

AIR MONITORING PID/HID ppm: <u>VAULT</u>	<u>BKGD</u>	<u>BREATHING ZONE</u>	<u>DISCHARGE WATER</u>
NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)			

GROUNDWATER SAMPLING INFORMATION

DATE: 2/5/2014

WELL ID: MW-23

TASK: 532.30

Time <u>1443</u> Static DTW (ft below reference point) <u>128.30</u>	Casing Volume (CV) (gallons) <u>68.44</u> 3 CV (gallons) <u>205.33</u>	Weather Conditions	Initials <u>DM/SLK</u>
Casing Total Depth (ft below reference point) <u>232</u>	Purging Device <u>DED Pump</u> Sampling Device <u>DED PPE STAND</u>	Time <u>1500</u> Temp. <u>68</u>	Begin Purge <u>1451</u> End Purge <u>1520</u>
Water Column (feet) <u>103.7</u>	Pump: Depth (ft brp) _____ Type <u>Grundfos</u> Voltage <u>240</u> HP _____	Skies <u>Clear</u>	Gallons Purged <u>220</u> CVs Purged <u>3.21</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot) <u>.66</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>2-5</u> From <u>W</u>	DTW (ft brp) <u>128.22</u> Time <u>1523</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
<u>1451</u>	<u>—</u>	<u>START PURGE</u>								<u>N/A</u>	<u>~ 76 ppm</u>
<u>1455</u>	<u>130.01</u>	<u>34</u>	<u>.5</u>	<u>21.6</u>	<u>7.80</u>	<u>1.50</u>	<u>122.0</u>	<u>3.10</u>	<u>17.5</u>		
<u>1500</u>	<u>130.18</u>	<u>68</u>	<u>1</u>	<u>21.6</u>	<u>7.54</u>	<u>1.52</u>	<u>144.2</u>	<u>3.63</u>	<u>22.3</u>		
<u>1505</u>	<u>130.18</u>	<u>102</u>	<u>1.5</u>	<u>21.6</u>	<u>7.47</u>	<u>1.51</u>	<u>158.5</u>	<u>3.79</u>	<u>29.5</u>		
<u>1509</u>	<u>130.20</u>	<u>136</u>	<u>2.0</u>	<u>21.6</u>	<u>7.45</u>	<u>1.52</u>	<u>152.9</u>	<u>3.84</u>	<u>7.81</u>		
<u>1513</u>	<u>130.17</u>	<u>170</u>	<u>2.5</u>	<u>21.6</u>	<u>7.42</u>	<u>1.52</u>	<u>154.6</u>	<u>3.97</u>	<u>3.06</u>		
<u>1518</u>	<u>130.18</u>	<u>206</u>	<u>3.0</u>	<u>21.6</u>	<u>7.42</u>	<u>1.53</u>	<u>156.3</u>	<u>3.96</u>	<u>3.45</u>		
<u>1519</u>	<u>—</u>	<u>—</u>	<u>Samples</u>		<u>Taken</u>						<u>Throttled Back</u>
<u>1520</u>	<u>—</u>	<u>~ 220</u>	<u>3.21</u>		<u>Pump</u>	<u>OFF</u>					

SAMPLE COLLECTION SAMPLE TIME 1519

ANALYSIS Vol's 82603 QUANTITY 3 TYPE 40ml VOA w/HCL

DUPLICATES / SPLITS / BLANKS? Y (N)

If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT BKGD BREATHING ZONE DISCHARGE WATER

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

Replace well couplings.

GROUNDWATER SAMPLING INFORMATION

DATE: 21 6 2014TASK: 532.30WELL ID: MW-24

Time <u>1549</u> Static DTW (ft below reference point) <u>134.60</u>	Casing Volume (CV) (gallons) <u>128.9</u> 3 CV (gallons) <u>386.9</u>	Weather Conditions	Initials: <u>EJH + SLK</u>
Casing Total Depth (ft below reference point) <u>330</u>	Purging Device <u>groundPos pump</u> Sampling Device <u>NO Pipestare</u>	Time <u>1600</u> Temp. <u>58</u>	Begin Purge <u>1558</u> End Purge <u>1641</u>
Water Column (feet) <u>195.4</u>	Pump: Depth (ft brp) _____ Type <u>groundPos</u> Voltage <u>240</u> HP _____	Skies <u>Cloudy w/ rain</u>	Gallons Purged <u>417</u> CVs Purged <u>3.20</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot) <u>0.66</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>5-5</u> From <u>W</u>	DTW (ft brp) <u>138.92</u> Time <u>1642</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	... FIELD PARAMETERS ...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (US/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
1558	134.60	Ø	Ø	—	—	Begin	Pumping	—	—		
1600	139.28	15	0.38	21.5	10.14	0.464	-70.9	0.06	15.8	N/A	Q=10gpm
1606	140.02	72	0.55	21.8	8.30	0.650	-190.3	0.09	10.86		
1613	140.22	138	1.06	21.9	8.02	0.660	-185.5	—	2.26		
1619	140.31	202	1.55	21.9	7.96	0.670	-179.9	—	1.67		
1626	140.40	264	2.05	21.9	7.93	0.66	-175.6	—	1.88		
1632	140.45	330	2.55	21.9	7.91	0.66	-173.0	—	1.75		
1638	140.51	390	3.05	21.9	7.90	0.66	-171.8	—	0.70		
1641	—	417	3.20	—	—	Pump off	—	—	—		

SAMPLE COLLECTION SAMPLE TIME <u>1640</u>			AIR MONITORING PID/FID ppm: <u>VAULT NA</u> <u>BKGD NA</u> <u>BREATHING ZONE NA</u> <u>DISCHARGE WATER NA</u>		
ANALYSIS	QUANTITY	TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)		
8260B VOCs	<u>9</u>	40 ml VOA	<u>Control box in storage</u> <u>MS/MSD collected</u> <u>Do sensor not working</u>		
8270 SIM 1,4 dioxane	<u>3</u>	1 L Amber			
8270 MOD 1,4 dioxane		1 L Amber			
DUPLICATES / SPLITS / BLANKS? <u>(Y)</u> <u>N</u> If yes, complete appropriate forms.					

GROUNDWATER SAMPLING INFORMATION

DATE: 2/04/2014

WELL ID: MW-26C

TASK: 532.30

Time 1145 Static DTW (ft below reference point)	137.02	Casing Volume (CV) (gallons) 61.5 3 CV (gallons) 184	Weather Conditions	Initials EJA/SUR
Casing Total Depth (ft below reference point)	499	Purging Device ded pump Sampling Device ded sample	Time 1149 Temp 62	Begin Purge 1150 End Purge 1300
Water Column (feet)	361.98	Pump: Depth (ft brp) quality type Voltage 115 HP 0.5	Skies overcast	Gallons Purged 190 CVs Purged 3.1
Casing Capacity (Diameter 2") (gallons per foot)	0.17	Monitor Well Recharge Rate: Slow Fast X	Wind (mph) 2 From NW	DTW (ft brp) 136.55 Time 1308

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (C)	pH	EC (uS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
1150	137.02	0	0	—	—	Begin Purging			—	320	
1152	137.71	5	0.1	22.0	8.79	0.74	-51.4	3.78	0.79	320	Q = 2.5gpm
1204	137.80	35	0.60	22.3	7.94	0.100	-123.1	0.48	0.81	320	Q = 2.5gpm
1216	137.81	65	1.05	22.5	7.70	1.12	-37.0	1.22	1.05	320	Q = 2.5gpm
1228	137.81	95	1.54	22.4	7.66	1.12	-39.8	1.25	0.25	320	
1240 123	137.38	125	2.03	22.4	7.64	1.13	-43.0	1.34	1.24	320	
1252	137.69	155	2.52	22.4	7.63	1.13	-37.0	1.39	0.09	320	
1304	137.78	185	3.00	22.5	7.62	1.12	-36.9	1.36	0.16	320	
1306	NM	190	3.05	Pump off							

SAMPLE COLLECTION SAMPLE TIME 1305
ANALYSIS QUANTITY TYPE

VOCs 3
1,4-diox (SM) 1

DUPLICATES / SPLITS / BLANKS?
If yes, complete appropriate forms.

Y

N

AIR MONITORING PID/FID ppm VAULT BKGD BREATHING ZONE DISCHARGE WATER

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

light sulfur odor

GROUNDWATER SAMPLING INFORMATION

DATE: 02/06/14

WELL ID: MW-27

TASK: 532.30

Time <u>1430</u> Static DTW (ft below reference point) <u>136.45</u>	Screen Casing Volume (CV) (gallons) <u>29.7</u> 3 CV (gallons) <u>89.1</u>	Weather Conditions Time <u>1432</u> Temp. <u>55</u> Skies <u>raining & clouds</u> Wind (mph) <u>0</u> From <u>0</u>	Initials <u>EJH/SUK</u> Begin Purge <u>1434</u> End Purge <u>1453</u> Gallons Purged <u>103</u> CVs Purged <u>3.43</u> DTW (ft brp) <u>139.12</u> Time <u>1453</u>
Casing Total Depth (ft below reference point) <u>515</u>	Purging Device <u>ded pump</u> Sampling Device <u>ND Pipestem</u>		
Water Column (feet) <u>45</u>	Pump: Depth (ft brp) <u>470</u> Type <u>granPOS</u> Voltage <u>240</u> HP		
Casing Capacity (Diameter <u>4</u> ") (gallons per foot) <u>0.66</u>	Monitor Well Recharge Rate: Slow Fast <u>X</u>		

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (uS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
1434	136.45	0	0			Pump on				N/A	logpm
1436	141.41	13	0.43	21.1	7.82	0.93	-56.2	0.36	5.25	N/A	
1439	141.48	26	0.87	21.2	7.61	0.97	-29.1	0.79	5.03		
1442	141.54	46	1.5	21.5	7.58	0.98	-48.4	1.13	4.05		
1445	141.59	62	2.07	21.5	7.57	0.98	-38.7	1.08	5.42		Q = 5.33
1448	141.59	80	2.67	21.6	7.57	0.98	-27.7	1.07	0.00		
1451	141.60	96	3.20	21.6	7.56	0.98	-14.4	1.08 ~~0.00~~ SUK			
1452						Samples Collected					
1453		103	3.43			END PURGE					

SAMPLE COLLECTION SAMPLE TIME 1452

ANALYSIS	QUANTITY	TYPE
<u>VOCS B260B</u>	<u>3</u>	<u>40 ml VOA w/ HCL</u>
<u>1-4 BioCSims</u>	<u>1</u>	<u>1 L Amber</u>

DUPLICATES / SPLITS / BLANKS? Y (N)

If yes, complete appropriate forms.

AIR MONITORING PID/EID ppm: VAULT BROB BREATHING ZONE DISCHARGE WATER

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2/4/14

WELL ID: MW-28

TASK: 532.30

Time 1400 Static DTW (ft below reference point)	140.85	Screen Casing Volume (gallons) 27	30 (gallons) 81	Weather Conditions		Initials EJA/SLK
Casing Total Depth (ft below reference point)	375	Purging Device ded. pump	Sampling Device 0-10 ft. stand	Time 1612	Temp 58	Begin Purge 1615 End Purge 1630
Water Column (feet)	45	Pump: Depth (ft brp) 330	Type grinder Voltage 240 HP	Skies overcast		Gallons Purged 85 CVs Purged 31
Casing Capacity (Diameter 4") (gallons per foot)	0.66	Monitor Well Recharge Rate: Slow Fast X		Wind (mph) 2	From NW	DTW (ft brp) 1423 Time 1634

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (C.)	pH	EC (uS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
1615	140.85	0	0	Pump on							
1617	146.40	14	0.5	21.8	7.47	1.44	173.3	5.60	7.14	240	Q = 7gpm
1619	147.00	28	1.0	21.6	7.48	1.27	185.5	5.14	9.55	240	
1621	147.23	36	1.33	21.7	7.46	1.26	194.5	3.34	3.66	240	
1623	147.28	50	1.85	21.7	7.47	1.26	197.4	3.27	4.38	240	Q = 7gpm
1625	147.32	64	2.33	21.7	7.48	1.26	197.2	3.26	1.80	240	
1628	147.40	85	3.1	21.7	7.47	1.26	198.8	3.25	2.37	240	
1630				Pump off							

SAMPLE COLLECTION SAMPLE TIME 1630			AIR MONITORING PID/PID ppm VAULT BKGD BREATHING ZONE DISCHARGE WATER			
ANALYSIS	QUANTITY	TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)			
VOCs	3	40 mL WA w/ HCl				
1,4-Diox (SIM)	1	1 L Amber				
DUPLICATES / SPLITS / BLANKS? Y (N)						

GROUNDWATER SAMPLING INFORMATION

DATE: 21 7 2014

TASK: 532.30

WELL ID: MW-29

Time <u>0853</u> Static DTW (ft below reference point)	<u>143.41</u>	Screen <u>5</u> Casing Volume (CV) (gallons) <u>30</u> 3 CV (gallons) <u>90</u>	Weather Conditions	Initials: <u>EJH+SLK</u>
Casing Total Depth (ft below reference point)	<u>240</u>	Purging Device <u>ded. pump</u> Sampling Device <u>7100 pipetand</u>	Time <u>0855</u> Temp. <u>55</u>	Begin Purge <u>0858</u> End Purge <u>0923</u>
Pump to screen Water Column (feet)	<u>50</u>	Pump: Depth (ft brp) <u>190</u> Type <u>grndfs</u> Voltage <u>240</u> HP	Skies <u>overcast</u>	Gallons Purged <u>96</u> CVs Purged <u>3.2</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot)	<u>0.60</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>0</u> From <u>0</u>	DTW (ft brp) <u>147.82</u> Time <u>0923</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
0858	143.41	0	0			Pump on					Q = ~ 4.0gpm
0859	149.97	5	0.17	21.1	7.40	1.96	32.9	4.00	7.26		
0903	150.22	20	0.67	21.5	7.39	1.98	80.8	5.46	13.2		
0907	150.20	35	1.17	21.6	7.38	2.00	129	5.96	9.15		
0910	150.21	47	1.57	21.6	7.37	2.00	107.3	6.02	10.56		
0914	150.21	62	2.07	21.7	7.37	2.00	113.8	6.20	5.64		
0918	150.22	77	2.57	21.7	7.37	2.01	117.7	6.41	11.3		
0921	150.22	90	3.00	21.7	7.38	2.02	114.6	6.30	9.2		
0923	147.82	96	3.20			Pump off					

SAMPLE COLLECTION SAMPLE TIME <u>0923</u>			AIR MONITORING PID/FID ppm: VAULT <u>NA</u> SKED <u>NA</u> BREATHING ZONE <u>NA</u> DISCHARGE WATER <u>NA</u>		
ANALYSIS	QUANTITY	TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)		
8260B VOCs	<u>9</u>	40 ml VOA	MS/MSD collected		
8270-SIM 1,4 dioxane		1 L Amber			
8270 MOD 1,4 dioxane	<u>3</u>	1 L Amber			
DUPLICATES / SPLITS / BLANKS? <u>(Y)</u> N					

GROUNDWATER SAMPLING INFORMATION

DATE: 2 / 7 / 14

TASK: 532.30

WELL ID: MW-30A

Time 9:15 Static DTW (ft below reference point)	129.69	Casing Volume ^{SV} (gallons) 17.6	^{SV} 52.8	Weather Conditions	Initials: ASE/CAP
Casing Total Depth (ft below reference point)	504	Purging Device ded. pump	Sampling Device 0-10 ded. pipe stand	Time 9:25 Temp. 55°F	Begin Purge 9:23 End Purge 9:36
Water Column (feet)	44	Pump: Depth (ft brp) 520 Type Grundfos	Voltage 240 HP	Skies cloudy	Gallons Purged 67 CVs Purged 3.81
Casing Capacity (Diameter 3" (gallons per foot)	0.40	Monitor Well Recharge Rate: Slow	Fast X	Wind (mph) 0-5 From W	DTW (ft brp) 130.80 Time 9:37

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
9:23	129.69	0	0	BEGIN PUMPING						ASE	
9:24	131.40	7.5	0.42	21.02	7.91	0.862	-277	3.02	NM		Q ≈ 5 gpm
9:26	131.42	16	0.908	20.98	8.53	0.910	-287	0.45	NM		Q ≈ 5 gpm
9:27	131.47	21	1.17	21.07	7.92	0.901	-283	0.40	NM		Q ≈ 5 gpm
9:29	131.47	32	1.78	21.27	7.72	0.900	-284	0.40	NM		Q ≈ 5 gpm
9:31	131.48	43	2.34	21.37	7.66	0.898	-285	0.47	NM		Q ≈ 5 gpm
9:33	131.49	53	3.00	21.37	7.65	0.895	-286	0.48	NM		Q ≈ 5 gpm
9:36	NM	67	3.81	END PUMPING							

SAMPLE COLLECTION SAMPLE TIME 9:35

ANALYSIS	QUANTITY	TYPE
8260B VOCs	3	40 ml VOA
8270 SIM 1,4 dioxane	1	1 L Amber
8270 MOD 1,4 dioxane	1	1 L Amber

DUPLICATES / SPLITS / BLANKS? Y (N)

If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

turbidity meter malfunctioning. No turbidity readings.

GROUNDWATER SAMPLING INFORMATION

DATE: 2 / 7 / 14

TASK: 532.30

WELL ID: MW-30B

Time 9:41 Static DTW (ft below reference point) 120.40	Casing Volume (CV) (gallons) 40 3 CV (gallons) 120	Weather Conditions	Initials: ASH/CAD
Casing Total Depth (ft below reference point) 1019	Purging Device ded pump Sampling Device 10-100 dept. pipe stand	Time 9:40 Temp. 55°F	Begin Purge 9:48 End Purge 10:10
Water Column (feet) 99	Pump: Depth (ft brp) 520 Type Grundfos Voltage 240 HP	Skies partly cloudy	Gallons Purged 130 CVs Purged 325
Casing Capacity (Diameter 3" (gallons per foot) 0.40	Monitor Well Recharge Rate: Slow Fast X	Wind (mph) 0-5 From W	DTW (ft brp) 137.10 Time 8:10:17

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	FIELD PARAMETERS....						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
9:48	120.40	0	0	BEGIN PUMPING							
9:49	130.00	3.6	0.09	20.93	7.06	0.972	-280	1.43	NM		Q ≈ 5 gpm
9:53	143.85	20.8	0.67	21.22	8.53	1.470	-291.7	0.69	NM		Q ≈ 5 gpm
9:58	145.20	45	1.13	21.37	7.48	1.806	-251	2.80	NM		Q ≈ 5 gpm
10:02	146.20	68	1.70	21.46	7.49	1.519	-253	2.36	NM		Q ≈ 5 gpm
10:06	146.75	83	2.08	21.48	7.50	1.403	-256	2.09	NM		Q ≈ 5 gpm
10:13	147.72	120	3.00	21.62	7.48	1.465	-256	1.99	NM		Q ≈ 5 gpm
10:16	NM	130	3.25	END PUMPING							

SAMPLE COLLECTION SAMPLE TIME 10:15	AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA
ANALYSIS QUANTITY TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)
8260B VOCs 3 40 ml VOA	turbidity meter malfunctioning. no turbidity readings.
8270 SIM 1,4 dioxane 1 1 L Amber	
8270 MOD 1,4 dioxane 1 1 L Amber	
DUPLICATES / SPLITS / BLANKS? Y N	
If yes, complete appropriate forms.	

GROUNDWATER SAMPLING INFORMATION

DATE: 2/27/2014

TASK: 532.30

WELL ID: MW-31

Time <u>0802</u> Static DTW (ft below reference point)	<u>118.36</u>	Casing Volume (CV) (gallons) <u>81</u> 3 CV (gallons) <u>243</u>	Weather Conditions	Initials <u>AMB & DM</u> <u>SLK & JH</u>
Casing Total Depth (ft below reference point)	<u>996</u>	Purging Device <u>ded. pump</u> Sampling Device <u>ded. pipe</u>	Time <u>0810</u> Temp. <u>65</u>	Begin Purge <u>0814</u> End Purge <u>0838</u>
Screen to Pump Water Column (feet)	<u>54</u>	Pump: Depth (ft brp) <u>992</u> Type <u>Grundfos</u> Voltage <u>240</u> HP	Skies <u>overcast</u>	Gallons Purged <u>255</u> CVs Purged <u>3.15</u>
Casing Capacity (Diameter <u>6</u> ") (gallons per foot)	<u>1.5</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>0</u> From <u>0</u>	DTW (ft brp) <u>119.11</u> Time <u>0839</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
0814	118.36	0	0			Pump ON					
0816	120.45	25	0.30	20.8	7.84	1.32	107.1	1.38	8.19		Q=12.5 gpm
0819	120.50	67	0.80	20.9	12.11	2.11	-61.0	0.40	34.5		Q=13 gpm
0822	120.58	90	1.10	21.2	7.88	1.58	45.7	0.78	37.9		
0826	120.60	130	1.60	21.3	7.74	1.58	36.8	0.71	50.9		Q=10 gpm
0830	120.63	174	2.15	21.4	7.75	1.58	13.7	0.68	44.6		
0834	120.63	213	2.60	21.4	7.75	1.57	14.2	0.65	42.5		
0837	120.62	246	3.00	21.4	7.72	1.57	16.9	0.65	44.2		
0838	NM	255	3.15			Pump OFF					

SAMPLE COLLECTION SAMPLE TIME <u>0837</u>			AIR MONITORING PID/FID ppm: <u>VAULT NA</u> <u>BKGD NA</u> <u>BREATHING ZONE NA</u> <u>DISCHARGE WATER NA</u>			
ANALYSIS	QUANTITY	TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)			
8260B VOCs	<u>3</u>	40 ml VOA	<u>Converter box in storage</u>			
8270 SIM 1,4 dioxane	<u>1</u>	1 L Amber				
8270 MOD 1,4 dioxane		1 L Amber				
DUPLICATES / SPLITS / BLANKS? <u>Y</u> <u>(N)</u> If yes, complete appropriate forms.						

GROUNDWATER SAMPLING INFORMATION

DATE: 2/5/14

WELL ID: MW-32A

TASK: 532.30

Time <u>8:40</u>	Static DTW (ft below reference point) <u>92.53</u>	Screen <u>SV</u>	Casing Volume (CV) (gallons) <u>207</u>	3 CV (gallons) <u>621</u>	Weather Conditions	Initials <u>ASE/EST</u>
<u>SCREEN</u>	Casing Total Depth (ft below reference point) <u>905</u>	Purging Device <u>ded pump</u>	Sampling Device <u>ND ded. pipe stand</u>	Time <u>8:55</u>	Temp. <u>57°F</u>	Begin Purge <u>8:55</u> End Purge <u>9:58</u>
<u>SCREEN</u>	Water Column (feet) <u>345</u>	Pump: Depth (ft brp) <u>500</u>	Type <u>quintafus</u>	Voltage <u>240</u>	HP	Gallons Purged <u>648</u> CVs Purged <u>3.13</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot) <u>0.00</u>	Monitor Well Recharge Rate: Slow	Fast <u>X</u>	Wind (mph) <u>0</u>	From <u>✓</u>	DTW (ft brp) <u>92.90</u>	Time <u>9:58</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
8:55	92.53	0	0	BEGIN PUMPING							
8:57	93.07	24	0.12	20.44	7.42	0.937	-52.6	1.82	28.8		Q ≈ 12 GPM
8:59	93.75	125	0.60	20.88	7.19	0.937	-104.6	0.21	NM		Q ≈ 10 GPM
9:19	93.82	248	1.20	21.03	7.23	0.953	-90.1	1.17	21.5		Q ≈ 10 GPM
9:31	93.82	374	1.81	21.05	7.24	0.949	-114.5	1.53	5.27		Q ≈ 10 GPM
9:43	93.85	494	2.39	21.09	7.24	0.949	-122.8	1.58	10.37		Q ≈ 10 GPM
9:55	93.84	621	3.00	21.12	7.25	0.948	-123.3	1.61	0.23		Q ≈ 10 GPM
9:58	92.90	648	3.13	END PUMPING							

SAMPLE COLLECTION SAMPLE TIME 9:58

ANALYSIS	QUANTITY	TYPE
<u>8200B NDCS</u>	<u>39</u>	<u>40 mL WAS</u>
<u>1 ADDITIONAL</u>	<u>✓</u>	<u>1 L AMBUC</u>

DUPLICATES / SPLITS / BLANKS? Y N

If yes, complete appropriate forms. NG/MSD

AIR MONITORING PID/FID ppm: VAULT ✓ BKGD ✓ BREATHING ZONE ✓ DISCHARGE WATER ✓

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

TOOK NG/MSD



HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 2/5/14

WELL ID: MW-32B

TASK: 532-30

Time 12:55 Static DTW (ft below reference point) 92.25	Casing Volume ^{SV} (gallons) 263.5	3 ^{SV} (gallons) 790.2	Weather Conditions	Initials ASF/EJH
~~screen~~ Casing Total Depth (ft below reference point) 999	Purging Device ~~ded. pump~~	Sampling Device ~~>100 ded. pipe stand~~	Time 13:53 Temp. 64°F	Begin Purge 13:02 End Purge 14:25
~~screen~~ Water Column (feet) 439	Pump: Depth (ft brp) 500 Type ~~ground~~	Voltage 240 HP	Skies ~~partly cloudy~~	Gallons Purged 802 CVs Purged 3.05
Casing Capacity (Diameter 4") (gallons per foot) 0.60	Monitor Well Recharge Rate: Slow	Fast X	Wind (mph) 0-5 From W	DTW (ft brp) 100.60 Time 14:25

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
13:02	92.25	0	0	PUMP TURNED ON							
13:05	100.38	43	0.16	20.88	7.65	1.094	-231.4	0.31	24.2		Q ≈ 10.75 GPM
13:19	100.98	164	0.62	21.13	7.66	0.976	-231.4	0.08	24.9		Q ≈ 8.6 GPM
13:36	107.49	331	1.26	21.37	7.69	0.894	-212.7	0.04	14.2		Q ≈ 9.8 GPM
13:52	107.67	490	1.86	21.41	7.67	0.926	-214.8	0.03	9.64		Q ≈ 9.9 GPM
14:08	107.79	649	2.47	21.40	7.65	0.941	-215.9	0.02	12.4		Q ≈ 9.9 GPM
14:22	107.88	790	3.00	21.40	7.65	0.948	-216.3	0.02	6.48		Q ≈ 10 GPM
14:25	100.60	802	3.05	PUMP TURNED OFF							

SAMPLE COLLECTION SAMPLE TIME 14:25		
ANALYSIS	QUANTITY	TYPE
8200B VOLS	3	40 mL VOLS
1A120AMP SIM	1	1L Amber
DUPLICATES / SPLITS / BLANKS? Y <u>N</u>		

AIR MONITORING PID/FID ppm: VAULT ☒ BKGD ☒ BREATHING ZONE ☒ DISCHARGE WATER ☒
NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)
ducer pulled @ 13:00

GROUNDWATER SAMPLING INFORMATION

DATE: 2/5/14

WELL ID: MW-32C

TASK: 532.30

Time <u>10:21</u> Static DTW (ft below reference point)	<u>88.00</u>	<u>screen</u> <u>SV</u> Casing Volume (CV) (gallons) <u>318</u> <u>SV</u> (gallons) <u>954</u>	Weather Conditions	Initials <u>ASF/EJH</u>
<u>GREEN</u> Casing Total Depth (ft below reference point)	<u>1090</u>	Purging Device <u>ded. pump</u> Sampling Device <u>ded. pipe stand</u>	Time <u>11:15</u> Temp. <u>59°F</u>	Begin Purge <u>10:25</u> End Purge <u>12:48</u>
<u>GREEN</u> Water Column (feet)	<u>530</u>	Pump: Depth (ft brp) <u>560</u> Type <u>groundfos</u> Voltage <u>240</u> HP	Skies <u>mostly sunny</u>	Gallons Purged <u>1042</u> CVs Purged <u>3.28</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot)	<u>0.00</u>	Monitor Well Recharge Rate: Slow Fast <u>X</u>	Wind (mph) <u>0</u> From <u>✓</u>	DTW (ft brp) <u>190.4</u> Time <u>12:48</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
10:25	88.00	0	0	BEGIN PUMPING							
10:28	123.62	31	0.10	22.07	7.72	0.005	-150.7	9.21	1.01		Q ≈ 10.3 GPM
10:49	183.92	225	0.71	21.09	8.00	0.550	-235.6	2.09	0.00		Q ≈ 8.0 GPM
11:14	192.85	388	1.22	21.89	8.17	0.001	-191.1	8.08	0.00		Q ≈ 7.4 GPM
11:42	197.34	584	1.84	21.62	8.11	0.305	-193.4	10.02	2.85		Q ≈ 8.9 GPM
11:52	198.70	740	2.33	21.80	8.19	0.553	-189.0	3.06	1.61		Q ≈ 6 GPM
12:27	200.07	904	2.84	24.02	8.13	0.001	-193.1	2.00	0.83		Q ≈ 7.13 GPM
12:44	200.82	987	3.10	21.66	8.17	0.544	-204.1	0.04	0.02		Q ≈ 7.5 GPM
12:42	200.92	1000	3.14	21.68	8.11	0.544	-207.1	0.03	1.47		Q ≈ 7 GPM
12:45	201.09	NM	NM	21.67	8.10	0.544	-209.6	0.04	0.00		Q ≈ 7 GPM
12:48	190.4	1042	3.28	END PUMPING							

SAMPLE COLLECTION SAMPLE TIME <u>12:45</u>	AIR MONITORING PID/FID ppm: VAULT <u>✓</u> BKGD <u>✓</u> BREATHING ZONE <u>✓</u> DISCHARGE WATER <u>✓</u>
ANALYSIS QUANTITY TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)
8260B VOCs <u>3</u> 40 mL VOCs	<u>pulled transducer @ 10:23</u> <u>surface odor</u>
1,4 Dioxane <u>1</u> 1 L Amber	<u>replaced transducer @ 12:52</u>
DUPLICATES / SPLITS / BLANKS? Y <u>(N)</u>	<u>pumped > 3 SV's to account for drawdown</u>

GROUNDWATER SAMPLING INFORMATION
DATE: 2 / 6 / 14
TASK: 532.30
WELL ID: MW-34A

Time <u>10:08</u> Static DTW (ft below reference point) <u>140.50</u>	Casing Volume (CV) (gallons) <u>40</u> 3 CV (gallons) <u>137</u>	Weather Conditions Time <u>10:10</u> Temp <u>55°F</u>	Initials: <u>ASF/ESH/CAD</u>
Casing Total Depth (ft below reference point) <u>280</u>	Purging Device <u>ded. pump</u> Sampling Device <u>no ded. pip stand</u>	Skies <u>overcast / sprinkling</u>	Begin Purge <u>10:12</u> End Purge <u>10:35</u>
Water Column (feet) <u>80</u>	Pump: Depth (ft brp) <u>200</u> Type <u>Grundfos</u> Voltage <u>240</u> HP <u></u>	Wind (mph) <u>0-5</u> From <u>W</u>	Gallons Purged <u>258</u> CVs Purged <u>25.61</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot) <u>0.60</u>	Monitor Well Recharge Rate: Slow <u></u> Fast <u>X</u>	DTW (ft brp) <u>140.55</u> Time <u>10:39</u>	

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
10:12	140.50	0	0	BEGIN PUMPING							
10:14	148.50	25	0.54	21.30	7.13	1.377	-205	2.50	131		Q ≈ 12.5 GPM
10:16	148.50	51	1.11	21.42	7.00	1.420	-201	4.97	62		Q ≈ 13 GPM
10:18	148.50	77	1.67	21.45	7.05	1.412	-203	5.27	36		Q ≈ 13 GPM
10:20	148.45	104	2.20	21.40	7.04	1.409	-205	5.33	146		Q ≈ 13 GPM
10:22	148.48	130	2.83	21.40	7.04	1.409	-207	5.44	344		Q ≈ 13 GPM
10:24	148.45	150	3.39	21.47	7.03	1.408	-208	5.50	280		Q ≈ 13 GPM
10:26	148.48	182	3.96	21.47	7.03	1.408	-209	5.65	54		Q ≈ 13 GPM
10:28	148.50	209	4.54	21.47	7.03	1.409	-243	5.68	71		Q ≈ 13 GPM
10:30	148.40	235	5.11	21.48	7.03	1.408	-264	5.76	179		Q ≈ 13 GPM
10:35	NM	258	5.01	END PUMPING							

SAMPLE COLLECTION SAMPLE TIME <u>10:35</u>			AIR MONITORING PID/FID ppm: VAULT NA BKGD NA		BREATHING ZONE NA		DISCHARGE WATER NA	
ANALYSIS	QUANTITY	TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.) <u>pumped > 3 SL to account for unstable turbidity readings. Error in turbidity values due to sampling technique.</u>					
8260B VOCs	<u>3</u>	40 ml VOA						
8270 SIM 1,4 dioxane	<u>1</u>	1 L Amber						
8270 MOD 1,4 dioxane	<u></u>	1 L Amber						
DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms.			Y <u></u> N <u>(X)</u>					



HARGIS + ASSOCIATES, INC.

GROUNDWATER SAMPLING INFORMATION

DATE: 2 / 0 / 14

TASK: 532.30

WELL ID: MW-34B

Time 11:04 Static DTW (ft below reference point)	153.27	Casing Volume ^{SV} (CV) (gallons) 40 ^{SV} 3 CV (gallons) 137	Weather Conditions	Initials: ASF
Casing Total Depth (ft below reference point)	534	Purging Device <u>ded. pump</u> Sampling Device <u>>100' ded. pipe stand</u>	Time 11:05 Temp. 55°F	Begin Purge 11:07 End Purge 11:30
Water Column (feet)	74	Pump: Depth (ft brp) 400 Type <u>Grundfos</u> Voltage 240 HP	Skies <u>springing</u>	Gallons Purged 209 CVs Purged 5.85
Casing Capacity (Diameter 4" (gallons per foot))	0.60	Monitor Well Recharge Rate: Slow Fast <u>X</u>	Wind (mph) 0-5 From W	DTW (ft brp) 153.55 Time 11:30

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
11:07	153.27	0	0	BEGIN PUMPING							
11:09	24	0.52	0.52	21.20	7.31	1.132	-280	3.01	105.5		
11:11	53	1.15	1.15	21.70	7.26	1.132	-282.5	3.55	232		Q ≈ 14 GPM
11:13	155.17	72	1.57	21.80	7.25	1.132	-283.9	3.52	273		Q ≈ 10 GPM
11:15	155.13	91	1.98	21.82	7.25	1.132	-286.3	3.49	184		Q ≈ 9.5 GPM
11:17	155.13	124	2.70	21.82	7.25	1.133	-287.7	3.39	52		Q ≈ 14 GPM
11:19	155.18	149	3.24	21.81	7.25	1.131	-290.4	3.31	52	ASF	Q ≈ 14 GPM
11:21	155.18	169	3.67	21.83	7.25	1.129	-291.6	3.37	57.2		Q ≈ 10 GPM
11:23	155.20	193	4.19	21.84	7.26	1.127	-293.45	3.38	12.8		Q ≈ 12 GPM
11:25	155.25	215	4.67	21.84	7.27	1.129	-295.0	3.45	12.4		Q ≈ 11 GPM
11:30	NM	209	5.85	END PUMPING							

SAMPLE COLLECTION SAMPLE TIME 11:30			AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA		
ANALYSIS	QUANTITY	TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)		
8260B VOCs	9	40 ml VOA	Duplicate @ 12:00 [MW-3400B] Split @ 11:30 pumped >3.0 SV to allow turbidity to stabilize.		
8270 SIM 1,4 dioxane	2	1 L Amber			
8270 MOD 1,4 dioxane	1	1 L Amber			
DUPLICATES (SPLITS) BLANKS? If yes, complete appropriate forms.					

GROUNDWATER SAMPLING INFORMATION

DATE: 2 / 7 / 14

TASK: 532.30

WELL ID: MW-34C

Time 8:10 Static DTW (ft below reference point)	151.95	Casing Volume (gallons) 57.7	3 CV (gallons) 17.3	Weather Conditions	Initials: ASF/CAD
Casing Total Depth (ft below reference point)	576	Purging Device ded. pump	Sampling Device ND ded. pipe stand	Time 8:10 Temp. 52°F	Begin Purge 8:30 End Purge 8:53
Water Column (feet)	96	Pump: Depth (ft brp) 480	Type groundwater Voltage 240 HP	Skies cloudy	Gallons Purged 196 CVs Purged 3.38
Casing Capacity (Diameter 4") (gallons per foot)	0.00	Monitor Well Recharge Rate: Slow	Fast X	Wind (mph) 0.5 From W	DTW (ft brp) 154.45 Time 8:57

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	FIELD PARAMETERS						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
8:30	151.95	0	0	BEGIN PUMPING						1	
8:37	166.10	12	0.21	20.70	8.22	0.035	-285	1.32	644		Q ≈ 12 GPM
8:39	168.20	38	0.66	21.43	8.00	0.019	-306	0.17	644		Q ≈ 13 GPM
8:42	169.15	69	1.19	21.83	8.21	0.590	-290	0.09	NM		Q ≈ 12 GPM 11 GPM
8:45	169.70	101	1.75	21.95	8.28	0.591	-290	0.09	NM		Q ≈ 12 GPM
8:48	170.15	140	2.41	21.96	8.28	0.590	-294	0.07	NM		Q ≈ 13 GPM
8:51	170.50	177	3.07	21.97	8.28	0.593	-297	0.07	NM		Q ≈ 12 GPM
8:53	NM	196	3.38	END PUMPING						1	

SAMPLE COLLECTION SAMPLE TIME 8:53			AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA			
ANALYSIS	QUANTITY	TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)			
8260B VOCs	3	40 ml VOA	Ducer removed @ 8:18 error w/ turbidity meter. Ducer replaced @ 9:03			
8270 SIM 1,4 dioxane	1	1 L Amber				
8270 MOD 1,4 dioxane	1	1 L Amber				
DUPLICATES / SPLITS / BLANKS? Y ☒ N ☐						

GROUNDWATER SAMPLING INFORMATION

DATE: 2/5/14

WELL ID: MW-33

TASK: 1532.30

Time <u>14:51</u> Static DTW (ft below reference point) <u>83.17</u>	Casing Volume <u>291</u> (gallons) <u>SV</u> <u>873</u> (gallons) <u>SV</u>	Weather Conditions	Initials <u>ASF/FAH</u>
Casing Total Depth (ft below reference point) <u>1020</u>	Purging Device <u>ded. pump</u> Sampling Device <u>0-10 ded. pipestand</u>	Time <u>15:15</u> Temp. <u>60°F</u>	Begin Purge <u>15:02</u> End Purge <u>16:25</u>
Water Column (feet) <u>485</u>	Pump: Depth (ft brp) <u>535</u> Type <u>Grundfos</u> Voltage <u>240</u> HP	Skies <u>CLEAR</u>	Gallons Purged <u>907</u> CVs Purged <u>3.17</u>
Casing Capacity (Diameter <u>4</u> ") (gallons per foot) <u>0.6</u>	Monitor Well Recharge Rate: Slow Fast <u>X</u>	Wind (mph) <u>0-5</u> From <u>W</u>	DTW (ft brp) <u>83.02</u> Time <u>16:25</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
15:02	83.17	Ø	Ø	TURN PUMP ON						1	
15:04	84.23	19	0.07	19.72	7.77	0.739	-128.1	1.65	1.71		Q ≈ 9.5 GPM
15:17	84.52	155	0.53	20.62	7.65	0.744	-172.2	0.19	9.98		Q ≈ 10.5 GPM
15:34	84.46	351	1.21	20.91	7.58	0.736	-193.6	0.58	0.00		Q ≈ 11.5 GPM
15:50	84.46	528	1.81	20.94	7.55	0.738	-196.1	0.67	0.00		Q ≈ 10.5 GPM
16:07	84.48	717	2.40	20.95	7.54	0.738	-196.9	0.67	0.00		Q ≈ 11.1 GPM
16:21	84.48	878	3.02	20.97	7.53	0.738	-193.7	0.67	0.00		Q ≈ 11.5 GPM
16:25	83.02	907	3.17	TURN PUMP OFF							

SAMPLE COLLECTION SAMPLE TIME <u>16:25</u>	AIR MONITORING PID/FID ppm: VAULT <u> </u> BKGD <u> </u> BREATHING ZONE <u> </u> DISCHARGE WATER <u> </u>
ANALYSIS QUANTITY TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)
<u>VOLIS</u> <u>9</u> <u>40 ML VDAS</u>	<u>Duplicate = MW-3300 @</u>
<u>14-DIOXANE</u> <u>3</u> <u>1 L Amber</u>	<u>Split = MW-33 @</u>
DUPLICATES SPLITS/BLANKS? <u>Y</u> <u>N</u>	

GROUNDWATER SAMPLING INFORMATION

DATE: 2/4/14

WELL ID: MW-35A

TASK: 532.30

Time 13:41 Static DTW (ft below reference point)	79.00	Casing Volume (CV) (gallons) 42	3 CV (gallons) 120	Weather Conditions	Initials ASE/CAP
screen 2 ASD Casing Total Depth (ft below reference point)	470	Purging Device Dead pump	Sampling Device 0-10 dead pipe stand	Time 14:00 Temp. 60°F	Begin Purge 1344 End Purge 1405
screen Water Column (feet)	70	Pump: Depth (ft brp) 400 Type Groundfis	Voltage 240 HP	Skies partly cloudy	Gallons Purged 196 CVs Purged 4.08
Casing Capacity (Diameter ") (gallons per foot)	0.00	Monitor Well Recharge Rate: Slow	Fast X	Wind (mph) 0-5 From NE	DTW (ft brp) 115.4 Time 14:07

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	FIELD PARAMETERS....						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
13:44	79.00	0	0	BEGIN PUMPING						1	
13:45	NM	14	0.33	20.90	8.40	1.071	23.3	1.98	9.59		FLOW RATE ≈ 14 GPM
13:47	NM	42.5	1.01	20.02	8.76	1.050	-259.3	1.12	5.74		Q ≈ 14 GPM
13:49	NM	69	1.04	20.08	8.80	1.052	-250.4	1.80	8.53		Q ≈ 13 GPM
13:51	147.00	78	1.86	20.10	8.78	1.057	-249.4	1.94	3.78		Q ≈ 5 GPM
13:53	153.80	90	2.14	20.10	8.72	1.125	-240.2	1.08	15.4		Q ≈ 6 GPM
13:55	150.90	115	2.74	20.19	8.08	1.137	-231.7	1.00	0.55		Q ≈ 12.5 GPM
13:58	160.00	136	3.24	20.20	8.00	1.140	-224.7	1.01	0.22		Q ≈ 7 GPM
13:59	163.99	175	4.17	20.23	8.57	1.142	-216.4	1.01	2.14		Q ≈ 10 GPM
14:05	NM	190.4	4.08	END PUMPING							

SAMPLE COLLECTION SAMPLE TIME 14:05

ANALYSIS QUANTITY TYPE

8200 B VOCS 3 40 mL VOAS

14 DOXURSIN 1 1 L Amber

DUPLICATES / SPLITS / BLANKS?

Y

N

If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT

BKGD

BREATHING ZONE

DISCHARGE WATER

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

Purged over 3 screen volumes to account for drawdown loss.

GROUNDWATER SAMPLING INFORMATION

DATE: 2/4/14

WELL ID: MW-35B

TASK: 532.30

Time <u>9:25</u> Static DTW (ft below reference point) <u>80.57</u>	Casing Volume (CV) (gallons) <u>207</u> 3 CV (gallons) <u>621</u>	Weather Conditions	Initials <u>ASF/CAP</u>
Casing Total Depth (ft below reference point) <u>805</u>	Purging Device <u>ded pump</u> Sampling Device <u>ND ded pump</u>	Time <u>9:30</u> Temp. <u>55°F</u>	Begin Purge <u>9:40</u> End Purge <u>10:35</u>
<u>pump - screen</u> Water Column (feet) <u>345</u>	Pump: Depth (ft brp) <u>400</u> Type <u>groundfos</u> Voltage <u>240</u> HP	Skies <u>partly cloudy</u>	Gallons Purged <u>721</u> CVs Purged <u>348</u>
Casing Capacity (Diameter <u>4</u> ") (gallons per foot) <u>0.60</u>	Monitor Well Recharge Rate: Slow Fast <u>X</u>	Wind (mph) <u>0-5</u> From <u>N/E</u>	DTW (ft brp) <u>80.81</u> Time <u>10:48</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	FIELD PARAMETERS....						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
9:40	80.57	1	BEGIN PUMPING								
9:48	90.30	27	0.13	20.19	8.79	0.970	-200.0	5.97	12.2		FLOWRATE $\approx$ 14 GPM
9:57	90.50	57	0.70	20.40	8.64	0.923	-254	1.01	7.55		FLOWRATE $\approx$ 14 GPM
10:06	90.63	295	1.43	20.40	8.40	1.199	-158.9	1.83	99.2		FLOWRATE $\approx$ 14 GPM
10:15	90.68	418	2.02	20.40	8.34	1.198	-107.1	1.93	82.0		FLOWRATE $\approx$ 14 GPM
10:24	90.73	557	2.69	20.47	8.32	1.197	-87.5	1.93	25.2		FLOWRATE $\approx$ 15 GPM
10:33	90.73	695	3.30	20.47	8.29	1.196	-50.5	1.93			FLOWRATE $\approx$ 15 GPM
10:35	8 NM	721	3.48	PUMP OFF							

SAMPLE COLLECTION SAMPLE TIME 10:35

ANALYSIS	QUANTITY	TYPE
VOCs 826013	3	45° 40 mL VOCs
4-Dioxane SIM	1	1 L Amber

DUPLICATES / SPLITS / BLANKS? Y N

If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT BKGD BREATHING ZONE DISCHARGE WATER

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

water has odor. H₂ rotten egg odor.

GROUNDWATER SAMPLING INFORMATION

DATE: 2/4/14

WELL ID: MW-35C

TASK: 532-30

Time <u>10:52</u> Static DTW (ft below reference point) <u>93.38</u>	Casing Volume (CV) (gallons) <u>348</u> 3 CV (gallons) <u>1044</u>	Weather Conditions	Initials <u>AKF/CAP</u>
Casing Total Depth (ft below reference point) <u>990</u>	Purging Device <u>ded. pump</u> Sampling Device <u>ded. pip stand</u>	Time <u>12:21</u> Temp. <u>60°F</u>	Begin Purge <u>12:07</u> End Purge <u>13:20</u>
Water Column (feet) <u>580</u>	Pump: Depth (ft brp) <u>410</u> Type <u>Grundfos</u> Voltage <u>240</u> HP	Skies <u>partly cloudy</u>	Gallons Purged <u>1076</u> CVs Purged <u>303</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot) <u>0.60</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>0-5</u> From <u>N/E</u>	DTW (ft brp) <u>93.38</u> Time <u>13:20</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
12:07	93.35	0	0	BEGIN PUMPING							
12:20	95.90	173	0.50	20.40	8.57	1.109	77.0	1.40	25.4		FLOWRATE $\approx$ 14 GPM
12:33	95.90	309	1.06	20.53	8.72	0.875	35.4	2.79	4.12		FLOWRATE $\approx$ 15 GPM
12:44	95.91	528	1.52	20.58	8.65	0.869	34.7	3.18	43.4		FLOWRATE $\approx$ 14.5 GPM
12:55	95.94	693	1.99	20.57	8.59	0.867	30.3	3.22	12.0		FLOWRATE $\approx$ 15 GPM
13:06	95.95	854	2.45	20.56	8.59	0.866	33.7	3.24	11.3		FLOWRATE $\approx$ 14.6 GPM
13:17	95.98	1045	3.00	20.57	8.58	0.865	13.5	3.24	7.09		FLOWRATE $\approx$ 15 GPM
13:20	93.38	1076	3.03	END PUMPING							

SAMPLE COLLECTION SAMPLE TIME <u>13:20</u>	AIR MONITORING PID/FID ppm: VAULT _____ BKGD _____ BREATHING ZONE _____ DISCHARGE WATER _____
ANALYSIS QUANTITY TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)
<u>8200 VOLUS</u> <u>9</u> <u>40 mL VOAS</u>	<u>MS/MSD collected</u>
<u>1,4-DIOXANE SIM</u> <u>3</u> <u>1 L AMBER</u>	
DUPLICATES / SPLITS / BLANKS? <u>MS/MSD</u> <u>Y</u> N	
If yes, complete appropriate forms.	

GROUNDWATER SAMPLING INFORMATION

DATE: 2 / 10 / 14

TASK: 532.30

WELL ID: MW-36

Time <u>13:10</u> Static DTW (ft below reference point) <u>80.45</u>	Casing Volume (CV) (gallons) <u>320.4</u> 3 CV (gallons) <u>961.2</u>	Weather Conditions	Initials: <u>ASF/CAP</u>
Casing Total Depth (ft below reference point) <u>994.3</u>	Purging Device <u>ded. pump</u> Sampling Device <u>10-100 ded. piston</u>	Time <u>13:15</u> Temp. <u>59°F</u>	Begin Purge <u>13:12</u> End Purge <u>14:41</u>
Water Column (feet) <u>535</u>	Pump: Depth (ft brp) <u>400</u> Type <u>circulator</u> Voltage <u>240</u> HP	Skies <u>Cloudy</u>	Gallons Purged <u>981</u> CVs Purged <u>307</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot) <u>0.60</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>0-5</u> From <u>W</u>	DTW (ft brp) <u>80.60</u> Time <u>14:45</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
13:12	80.45	0	0	BEGIN PUMPING							
13:14	88.50	14	0.04	20.43	7.69	0.720	-286.9	1.27	4.19		Q ≈ 11 GPM
13:31	88.87	200	0.625	21.23	7.69	0.724	-305.5	0.13	4.39		Q ≈ 11 GPM
3:41 ~~13:48~~	88.92	380	1.19	21.74	7.70	0.738	-315.7	0.11 ~~0.00~~	0.00		Q ≈ 11 GPM
14:04	88.97	560	1.75	21.77	7.69	0.744	-442	0.10	2.03		Q ≈ 11 GPM
14:21	88.98	760	2.38	21.79	7.71	0.740	-305	0.10	2.94		Q ≈ 11 GPM
14:38	89.02	962	3.00	21.79	7.72	0.746	-339	0.07	0.00		Q ≈ 12 GPM
14:41	NM	981	3.07	END PUMPING							

SAMPLE COLLECTION SAMPLE TIME <u>14:40</u>	AIR MONITORING PID/FID ppm: VAULT NA BKGD NA BREATHING ZONE NA DISCHARGE WATER NA
ANALYSIS QUANTITY TYPE	NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)
8260B VOCs <u>9</u> 40 ml VOA	<u>Duplicate [MW-36] @ 15:40</u>
8270 SIM 1,4 dioxane <u>2</u> 1 L Amber	<u>Split @ 14:40 [MW-36]</u>
8270 MOD 1,4 dioxane <u>1</u> 1 L Amber	
DUPLICATES SPLITS BLANKS? <u>Y</u> N	
If yes, complete appropriate forms.	

GROUNDWATER SAMPLING INFORMATION

DATE: 2/6/14

WELL ID: MW-37

TASK: 532.5⁸ 532.30

Time <u>8:37</u> Static DTW (ft below reference point) <u>153.15</u>	Casing Volume (CV) (gallons) <u>500</u> <u>SV</u>	Weather Conditions	Initials <u>ASF/CAP</u>
Casing Total Depth (ft below reference point) <u>820</u>	Purging Device <u>ded. pump</u> Sampling Device <u>ND ded. pipe stand</u>	Time <u>8:40</u> Temp <u>55°F</u>	Begin Purge <u>8:44</u> End Purge <u>9:27</u>
Water Column (feet) <u>300</u>	Pump: Depth (ft brp) <u>520</u> Type <u>grundfos</u> Voltage <u>240</u> HP	Skies <u>CLOUDY</u>	Gallons Purged <u>560</u> CVs Purged <u>3.11</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot) <u>0.60</u>	Monitor Well Recharge Rate: Slow Fast <u>X</u>	Wind (mph) <u>0-5</u> From <u>W</u>	DTW (ft brp) <u>153.42</u> Time <u>9:27</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
8:44	153.15	0	0	→ BEGIN PUMPING							
8:45	150.28	17	0.10	21.53	7.64	0.485	-255.7	0.91	5.38		Q ≈ 15 GPM
8:52	150.52	100	0.56	22.55	7.73	0.532	-217.5	0.08	2.88		Q ≈ 12 GPM
8:59	150.60	201	1.12	22.82	7.83	0.624	-218.6	0.05	1.00		Q ≈ 12.6 GPM
9:09	150.65	320	1.78	22.90	7.78	0.736	-213.7	0.16	34.5		Q ≈ 13 GPM
9:18	150.67	441	2.45	22.91	7.78	0.736	-219.2	0.17	30.5		Q ≈ 13 GPM
9:26	150.69	540	3.00	22.92	7.78	0.733	-300.1	0.18	27.3		Q ≈ 12 GPM
9:27	153.42	560	3.11	→ PUMP TURNED OFF							

SAMPLE COLLECTION SAMPLE TIME <u>9:26</u> ANALYSIS <u>8260B VAS</u> QUANTITY <u>3</u> TYPE <u>40 mL VAS</u> <u>14 DROMA (SIM)</u> <u>1</u> <u>11 AMBER</u> DUPLICATES / SPLITS / BLANKS? Y <u>(N)</u> If yes, complete appropriate forms.	AIR MONITORING PID/FID ppm: VAULT <u>/</u> BKGD <u>/</u> BREATHING ZONE <u>/</u> DISCHARGE WATER <u>/</u> NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2/6/14

WELL ID: MW-38

TASK: 532.30

Time <u>9:50</u> Static DTW (ft below reference point) <u>150.55</u>	Casing Volume (CV) (gallons) <u>25.8</u> 3 CV (gallons) <u>77.5</u>	Weather Conditions	Initials <u>ASF/CAP</u>
Casing Total Depth (ft below reference point) <u>200</u>	Purging Device <u>Ded. Pump</u> Sampling Device <u>ND ded. pipestand</u>	Time <u>9:50</u> Temp. <u>55°F</u>	Begin Purge <u>9:54</u> End Purge <u>10:20</u>
Water Column (feet) <u>39.45</u>	Pump: Depth (ft brp) <u>190</u> Type <u>Grundfos</u> Voltage <u>240</u> HP	Skies <u>cloudy</u>	Gallons Purged <u>88</u> CVs Purged <u>3.41</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot) <u>0.6</u>	Monitor Well Recharge Rate: Slow Fast <u>X</u>	Wind (mph) <u>0-5</u> From <u>W</u>	DTW (ft brp) <u>150.70</u> Time <u>10:20</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
9:54	150.55	0	0	← BEGIN PUMPING →							Totalizer issue. turned pump off + back on again
9:56	150.55	0	0	← BEGIN PUMPING →							
9:57	150.90	4	0.10	21.53	6.87	1.580	-280.0	0.21	14.8		Q ≈ 4 GPM
10:01	150.93	18	0.72	21.81	6.84	1.603	-272.5	0.40	9.92		Q ≈ 3.5 GPM
10:05	150.97	33	1.32	21.86	6.83	1.617	-269.6	0.15	1.68		Q ≈ 3.75 GPM
10:09	150.98	52	2.08	21.87	6.82	1.620	-268.2	0.03	0.28		Q ≈ 4.75 GPM
10:12	150.99	59	2.36	21.85	6.81	1.620	-267.7	5.95	0.00		Q ≈ 3 GPM
10:17	151.00	78	3.00	21.84	6.80	1.625	-266.3	5.84	0.00		Q ≈ 2 GPM
10:20	150.70	88	3.41	← END PUMPING →							

SAMPLE COLLECTION SAMPLE TIME 10:20

ANALYSIS	QUANTITY	TYPE
8200B VQS	3	40 ML VQAS
1450000	1	1 L AMBER

DUPLICATES / SPLITS / BLANKS? Y N

If yes, complete appropriate forms.

AIR MONITORING PID/FID ppm: VAULT BKGD BREATHING ZONE DISCHARGE WATER

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2/4/14WELL ID: MW-39TASK: 532.30

Time <u>15:05</u> Static DTW (ft below reference point) <u>84.57</u>	Casing Volume <u>SV</u> (gallons) <u>271.2</u> <u>SV</u> (gallons) <u>813.6</u>	Weather Conditions	Initials <u>AGF/CAD</u>
<u>screen</u> Casing Total Depth (ft below reference point) <u>10.80</u>	Purging Device <u>ded. pump</u> Sampling Device <u>ded. ND</u>	Time <u>15:15</u> Temp. <u>55°F</u>	Begin Purge <u>15:10</u> End Purge <u>16:11</u>
<u>screen</u> Water Column (feet) <u>(AS) 4520</u>	Pump: Depth (ft brp) <u>5100</u> Type <u>Grundfos</u> Voltage <u>240</u> HP <u></u>	Skies <u>cloudy</u>	Gallons Purged <u>906</u> CVs Purged <u>3.43</u>
Casing Capacity (Diameter <u>4"</u>) (gallons per foot) <u>0.066</u>	Monitor Well Recharge Rate: Slow <u></u> Fast <u>X</u>	Wind (mph) <u>0-5</u> From <u>N</u>	DTW (ft brp) <u>86.02</u> Time <u>16:11</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
15:10	84.57	0	0	BEGIN PUMPING							
15:12	94.70	34	0.13	20.44	13.11	0.735	-270.3	1.52	3.85		Q ≈ 14 GPM
15:23	95.10	186	0.69	21.73	12.50	0.609	-284.0	0.51	0.00		Q ≈ 13.8 GPM
15:34	95.32	353	1.30	22.41	12.34	0.495	-237.7	0.28	0.00		Q ≈ 15 GPM
15:44	95.40	498	1.84	22.44	11.52	0.474	-228.7	0.46	0.00		Q ≈ 14.5 GPM
15:55	95.48	661	2.44	22.44	11.21	0.468	-234	0.43	0.00		Q ≈ 14.8 GPM
16:05	95.45	813	3.00	22.46	11.04	0.467	-224.0	0.17	0.00		Q ≈ 15.2 GPM
16:10	95.52	881	3.25	22.47	10.80	0.467	-210.2	0.22	0.00		Q ≈ 13.6 GPM
16:11	86.02	906	3.34	END PUMPING							

SAMPLE COLLECTION	SAMPLE TIME	<u>16:10</u>
ANALYSIS	QUANTITY	TYPE
<u>1,4-Dioxane-SIM</u>	<u>1</u>	<u>0.2 Amber</u>
<u>100% 8200 R</u>	<u>3</u>	<u>340 mL VAS</u>
DUPLICATES / SPLITS / BLANKS?	Y	<u>(N)</u>

AIR MONITORING PID/FID ppm: VAULT <u>/</u> BKGD <u>/</u> BREATHING ZONE <u>/</u> DISCHARGE WATER <u>/</u>
NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)

GROUNDWATER SAMPLING INFORMATION

DATE: 2/06/14

WELL ID: MW-40

TASK: 532.80

Time <u>0842</u> Static DTW (ft below reference point)	<u>120.85</u>	Casing Volume (CV) (gallons) <u>75</u> 3 CV (gallons) <u>225</u>	Weather Conditions	Initials <u>EJA/SCE</u>
Casing Total Depth (ft below reference point)	<u>970</u>	Purging Device <u>ded pump</u> Sampling Device <u>ND Pipestand</u>	Time <u>0842</u> Temp. <u>55</u>	Begin Purge <u>0913</u> End Purge <u>1012</u>
<u>Pump to Screen to Volume</u> Water Column (feet)	<u>50</u>	Pump: Depth (ft brp) <u>920</u> Type <u>Grundfos</u> Voltage <u>240</u> HP	Skies <u>overcast</u>	Gallons Purged <u>238</u> CVs Purged <u>3.0</u>
Casing Capacity (Diameter <u>6"</u>) (gallons per foot)	<u>1.5</u>	Monitor Well Recharge Rate: Slow Fast <u>X</u>	Wind (mph) <u>0</u> From <u>0</u>	DTW (ft brp) <u>120.85</u> Time <u>1015</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	...FIELD PARAMETERS...						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (µS/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
0913	120.85	0	0	Pump on							
0916	121.30	12	0.16	20.6	7.85	0.86	156.3	0.03	0.97		Q = 4 gpm
0925	121.18	57	0.76	21.0	7.85	0.86	1		0.56		Q = 5 gpm
0934	121.19	84	1.12	21.4	7.82	0.94			0.36		Q = 3 gpm
0943	121.22	120	1.6	21.5	7.73	0.96	DO 002 ORP -118.0		0.91		Q = 4 gpm
0952	121.23	155	2.07	21.5	7.70	0.96	DO 007 ORP -117.5		0.64		Q = 4 gpm
1001	121.23	191	2.55	21.5	7.68	0.96	-120.0	0.10	0.64		
1010	121.25	230	3.0	21.5	7.67	0.96	-120.8	0.10	1.02		
1012	NM	238				Pump off					

SAMPLE COLLECTION SAMPLE TIME <u>1010</u>		
ANALYSIS	QUANTITY	TYPE
VOCs	3	40ml VOA w/HCl
1,4-Diox (SM)	1	1 L Amber
DUPLICATES / SPLITS / BLANKS? <u>Y</u> (N)		
If yes, complete appropriate forms.		

AIR MONITORING PID/FID ppm: <u>VAULT</u> <u>800</u> <u>BREATHING ZONE</u> <u>DISCHARGE WATER</u>
NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)
<u>Control box in storage</u>

GROUNDWATER SAMPLING INFORMATION

DATE: 2/5/2014

WELL ID: P-07

TASK: 532.30

Time <u>1115</u> Static DTW (ft below reference point) <u>112.30</u>	Casing Volume (CV) (gallons) <u>.69</u> 3 CV (gallons) <u>2.08</u>	Weather Conditions	Initials <u>DM/SLK</u>
Casing Total Depth (ft below reference point) <u>116.38</u>	Purging Device <u>Quick-E</u> Sampling Device <u>Deed Bailer</u>	Time <u>1116</u> Temp. <u>69</u>	Begin Purge <u>1119</u> End Purge <u>1155</u>
Water Column (feet) <u>4.08</u>	Pump: Depth (ft brp) <u>N/A</u> Type <u>N/A</u> Voltage <u>N/A</u> HP <u>N/A</u>	Skies <u>Cloudy</u>	Gallons Purged <u>2.25</u> CVs Purged <u>3.26</u>
Casing Capacity (Diameter <u>2"</u>) (gallons per foot) <u>.17</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>0-5</u> From <u>W</u>	DTW (ft brp) <u>116.75</u> Time <u>1158</u>

Time	Depth to Water	Volume Purged (Gallons)	Casing Volumes Purged	FIELD PARAMETERS....						Pump Frequency Hz	COMMENTS
				Temp. (°C)	pH	EC (S/cm)	O.R.P. (mV)	D.O. (mg/L)	Turbidity (NTU)		
1119	NM	.25	0.36	20.9	7.21	2.61	192.9	7.26	3.2	N/A	
1122	NM	.15	0.72	21.6	7.15	2.57	193.2	7.09	55		
1124	NM	.75	1.09	21.6	7.15	2.63	188.2	7.27	1185		
1125	NM	1	1.45	21.6	7.14	2.65	176.6	7.14	1591		
1127	NM	1.25	1.81	21.6	7.14	2.65	171.6	6.89	1269		
1131	NM	1.75	2.54	21.5	7.15	2.68	153.4	5.89	1172		
1150	NM	2.25	3.26	NM						N/A	Parameters not measured due to slow
1155	NM										Recharge of well

SAMPLE COLLECTION SAMPLE TIME <u>1155</u>		
ANALYSIS	QUANTITY	TYPE
<u>NOCS 8260B</u>	<u>3</u>	<u>40ml VOA w/ HCL</u>
<u>1-4 Dio (HOP)</u>	<u>1</u>	<u>1L Amber</u>
DUPLICATES / SPLITS / BLANKS? <u>Y</u> <u>(N)</u> If yes, complete appropriate forms.		

AIR MONITORING PID/FID ppm: VAULT _____ BKGD _____ BREATHING ZONE _____ DISCHARGE WATER _____

NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)



GROUNDWATER SAMPLING INFORMATION

DATE: 02/05/14

WELL ID: P-09

TASK: 532.30

Time <u>1342</u> Static DTW (ft below reference point)	<u>120.75</u>	Casing Volume (CV) (gallons) <u>6.1</u> 3 CV (gallons) <u>18.3</u>	Weather Conditions		Initials <u>DM/ER</u>
Casing Total Depth (ft below reference point)	<u>130</u>	Purging Device <u>Quick-e</u> Sampling Device <u>red trailer</u>	Time <u>1350</u> Temp. <u>70°</u>		Begin Purge <u>1345</u> End Purge <u>1416</u>
Water Column (feet)	<u>9.25</u>	Pump: Depth (ft brp) <u>N/A</u> Type <u>N/A</u> Voltage <u>N/A</u> HP <u>N/A</u>	Skies <u>CLOUDY</u>		Gallons Purged <u>18.5</u> CVs Purged <u>3.03</u>
Casing Capacity (Diameter <u>4</u> ") (gallons per foot)	<u>0.66</u>	Monitor Well Recharge Rate: Slow _____ Fast <u>X</u>	Wind (mph) <u>0-5</u> From <u>SW</u>		DTW (ft brp) <u>122.80</u> Time <u>1430</u>

[illegible]

SAMPLE COLLECTION		SAMPLE TIME	AIR MONITORING			
ANALYSIS	QUANTITY	TYPE	PID/FID ppm: VAULT	BKGD	BREATHING ZONE	DISCHARGE WATER
VOC 8260B	3	40ml VOA HCL				
1,4 DIOXANE SIM	1	1L amber				
DUPLICATES / SPLITS / BLANKS? If yes, complete appropriate forms.			NOTES (Color, odor, sand and silt content, factors possibly affecting samples, condition of vault, wellhead, sampling apparatus, etc.)			
Y ☒ N						



HARGIS + ASSOCIATES, INC.

APPENDIX C

CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER

UNIT B

HYDROGRAPHS

APPENDIX C
CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER
UNIT B
HYDROGRAPHS

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FIGURE C-1: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, EW-01

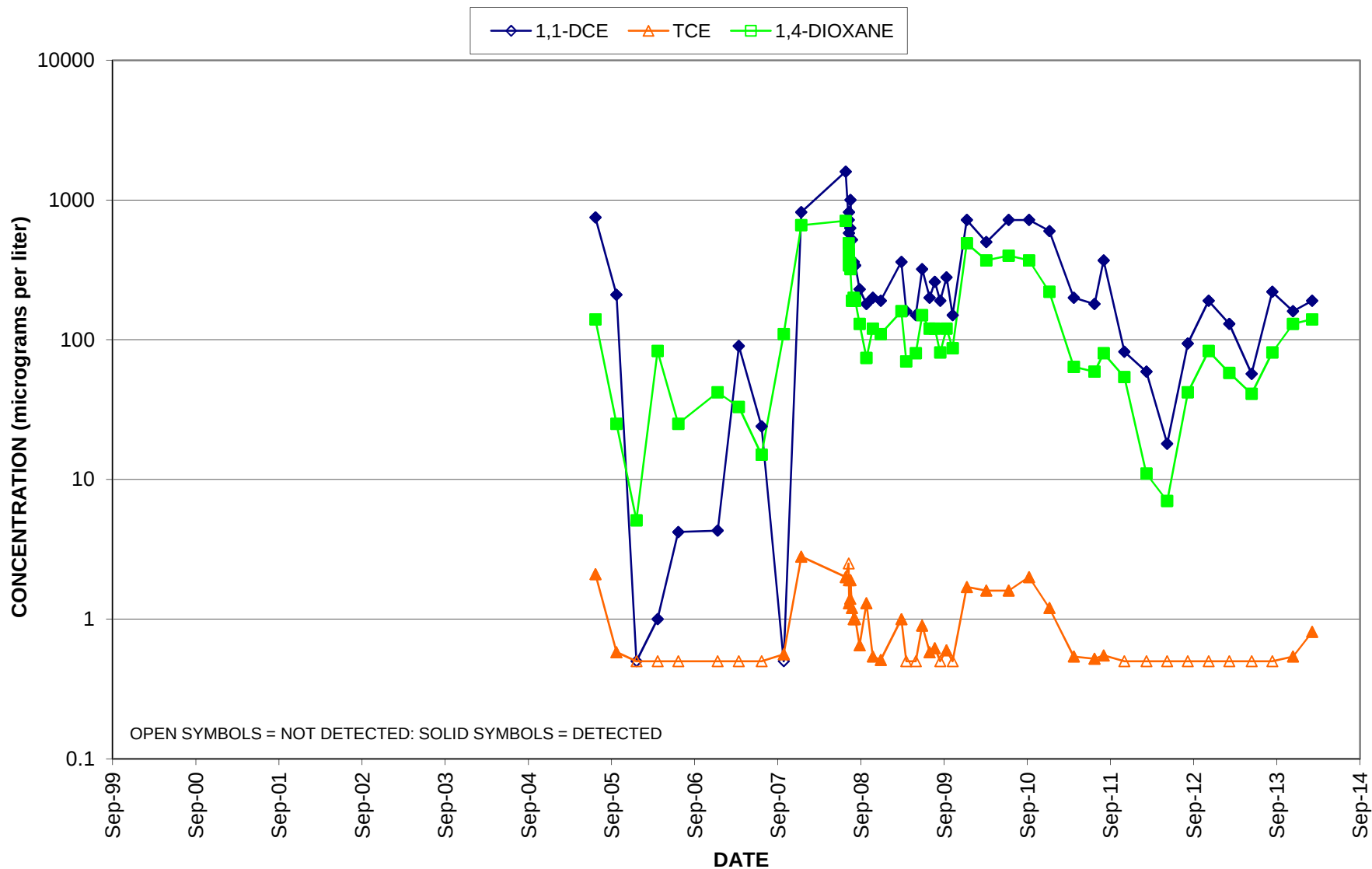




FIGURE C-2: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, EW-02

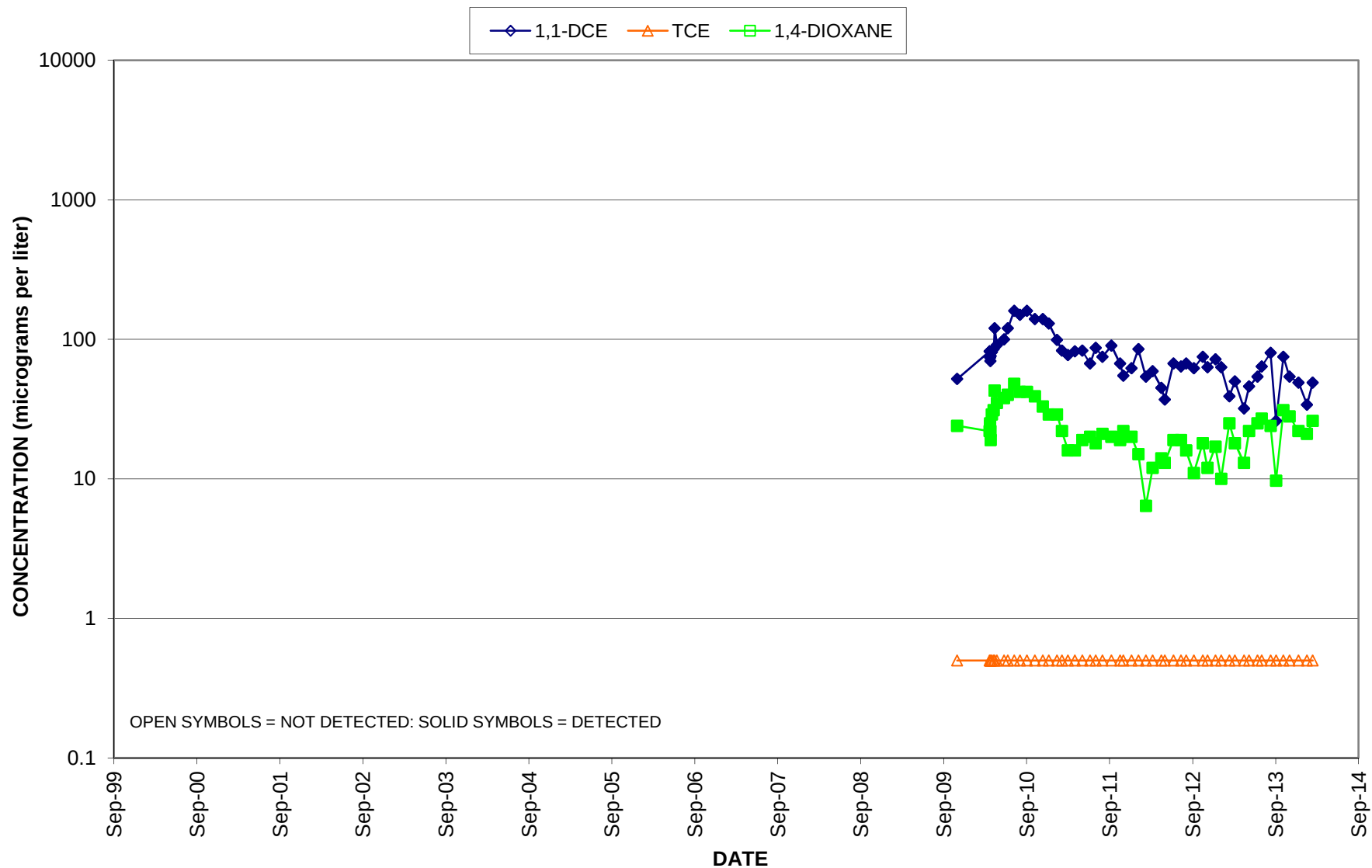




FIGURE C-3: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-16

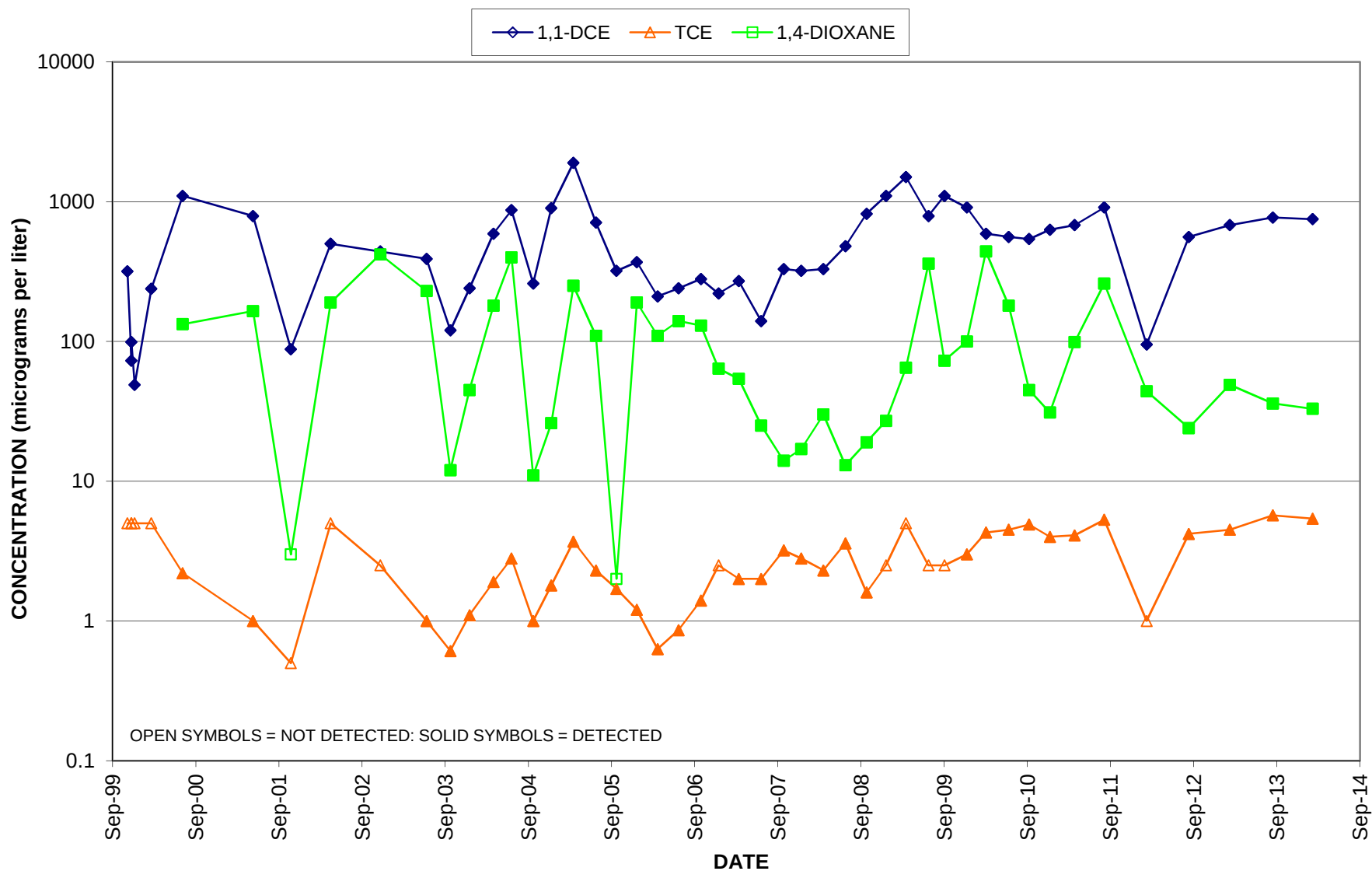




FIGURE C-4: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER,
UNIT B, MW-26C

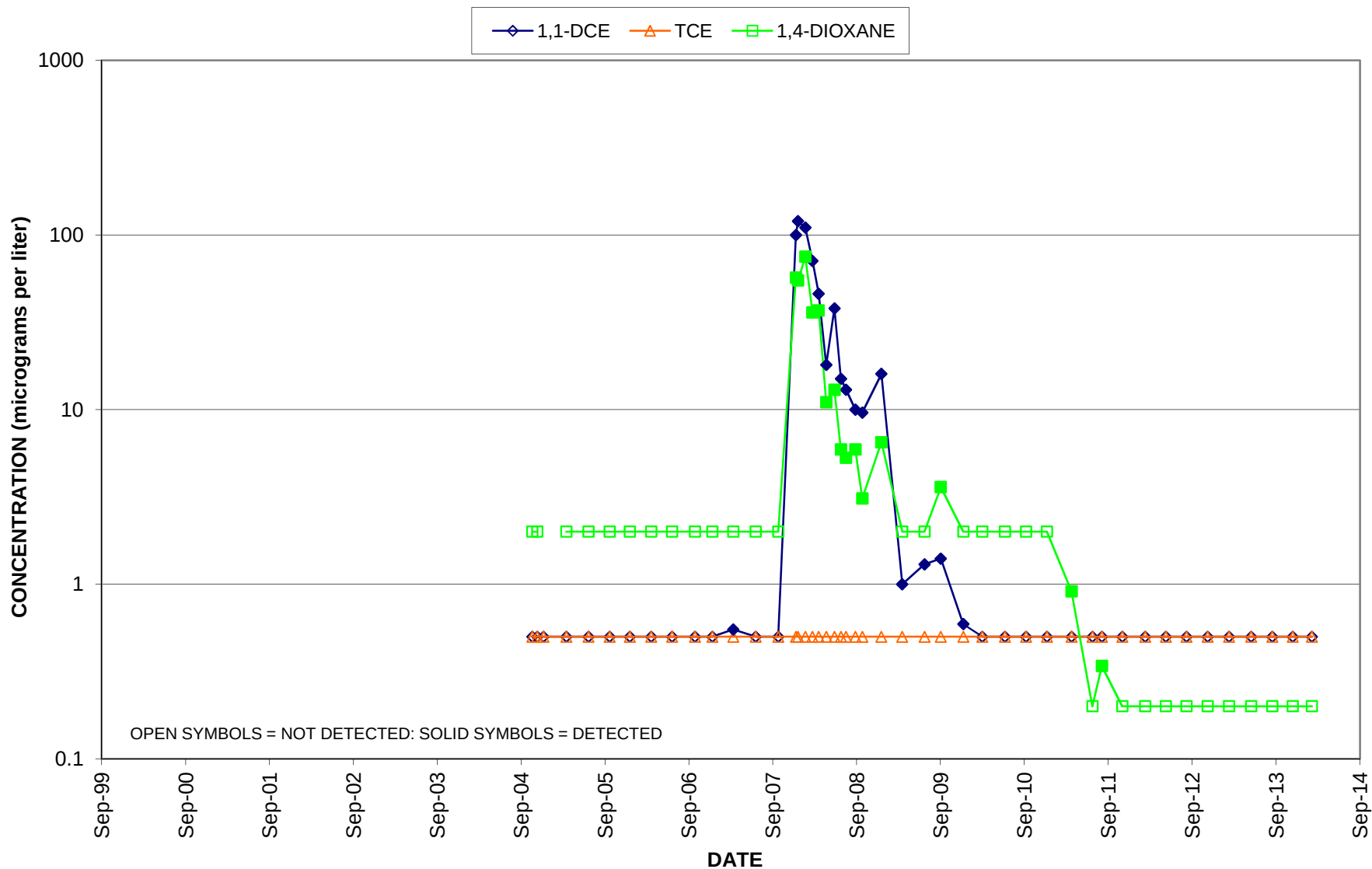




FIGURE C-5: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-27

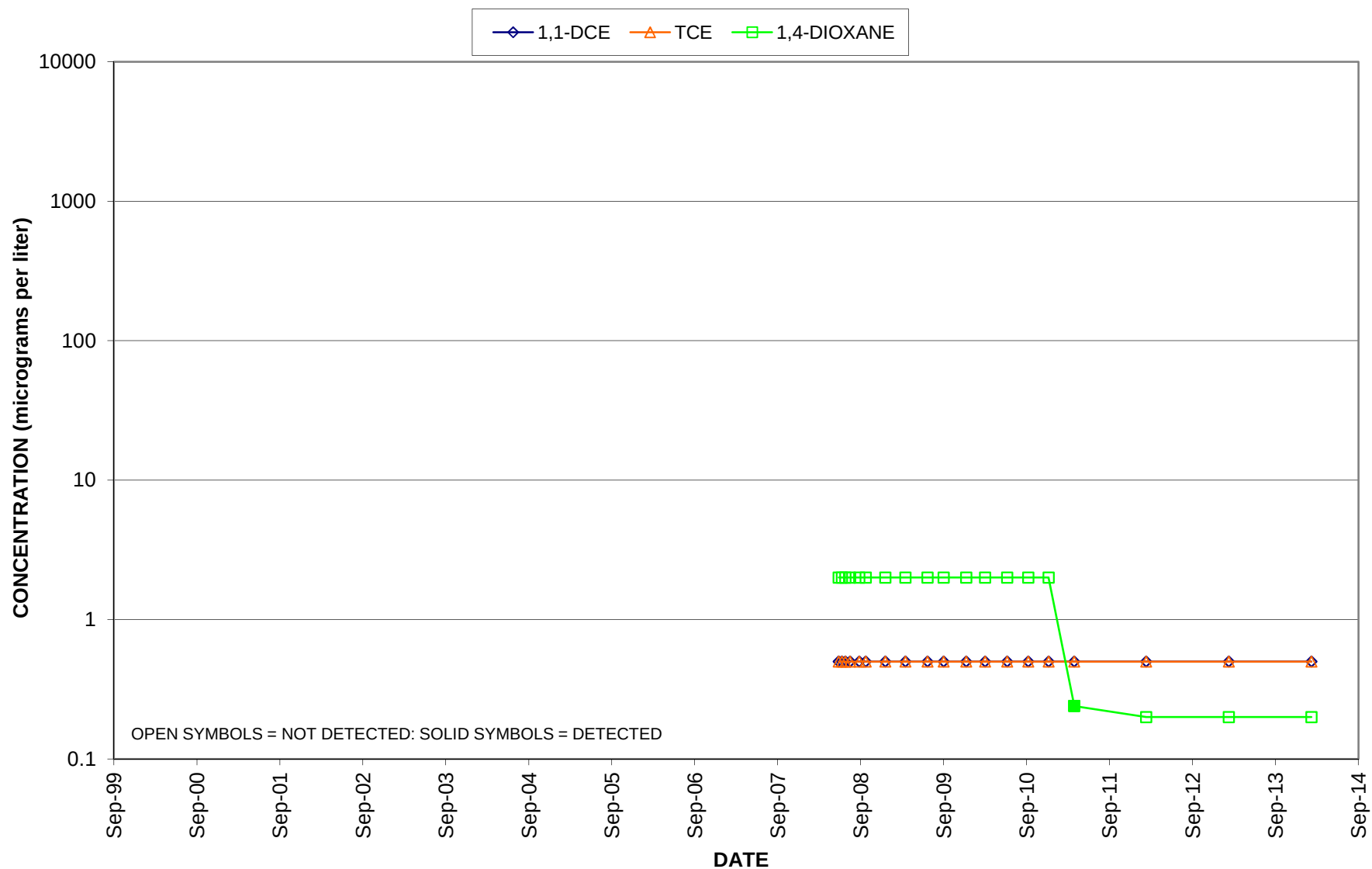




FIGURE C-6: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-28

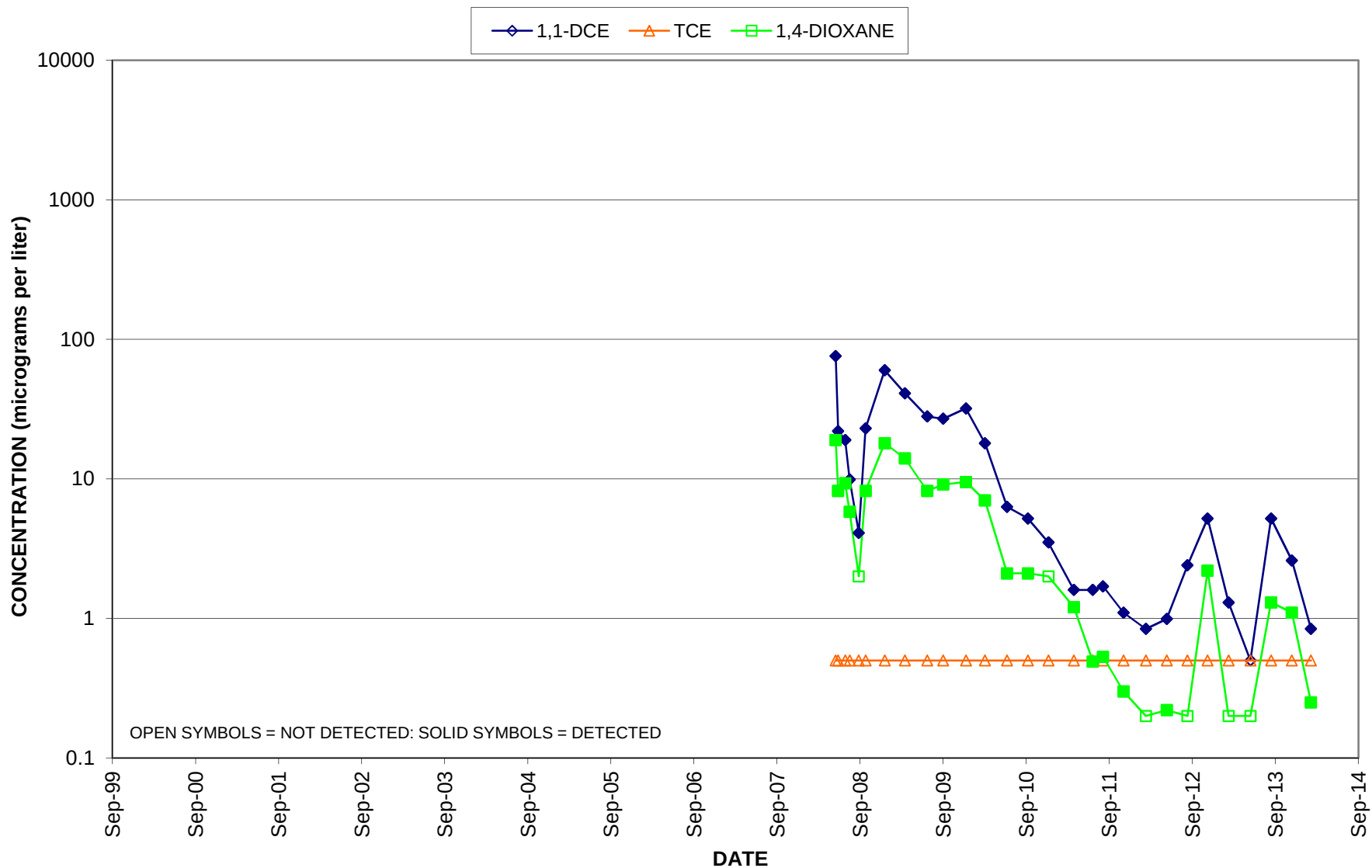




FIGURE C-7: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-29

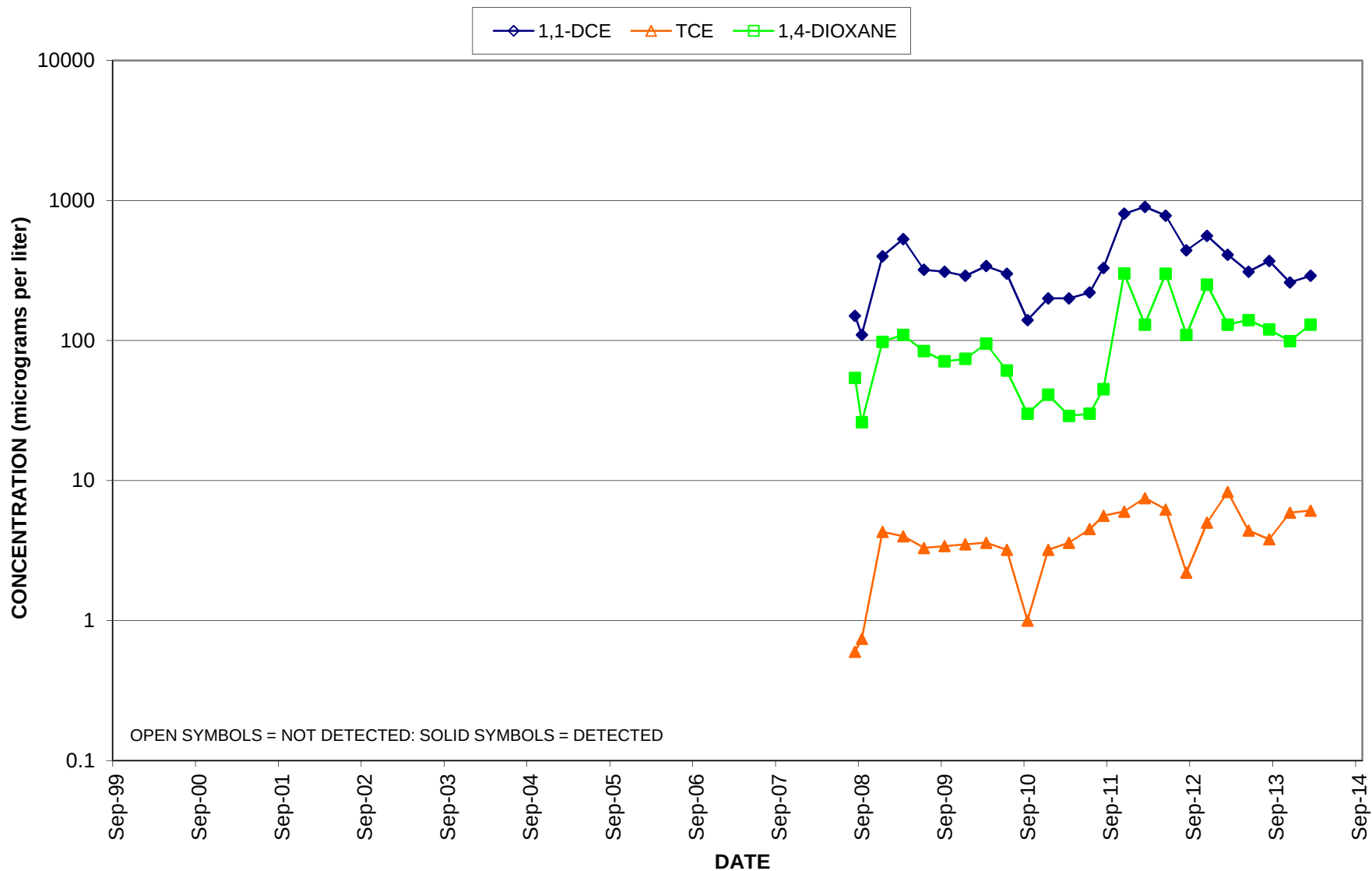




FIGURE C-8: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER,
UNIT B, MW-30A

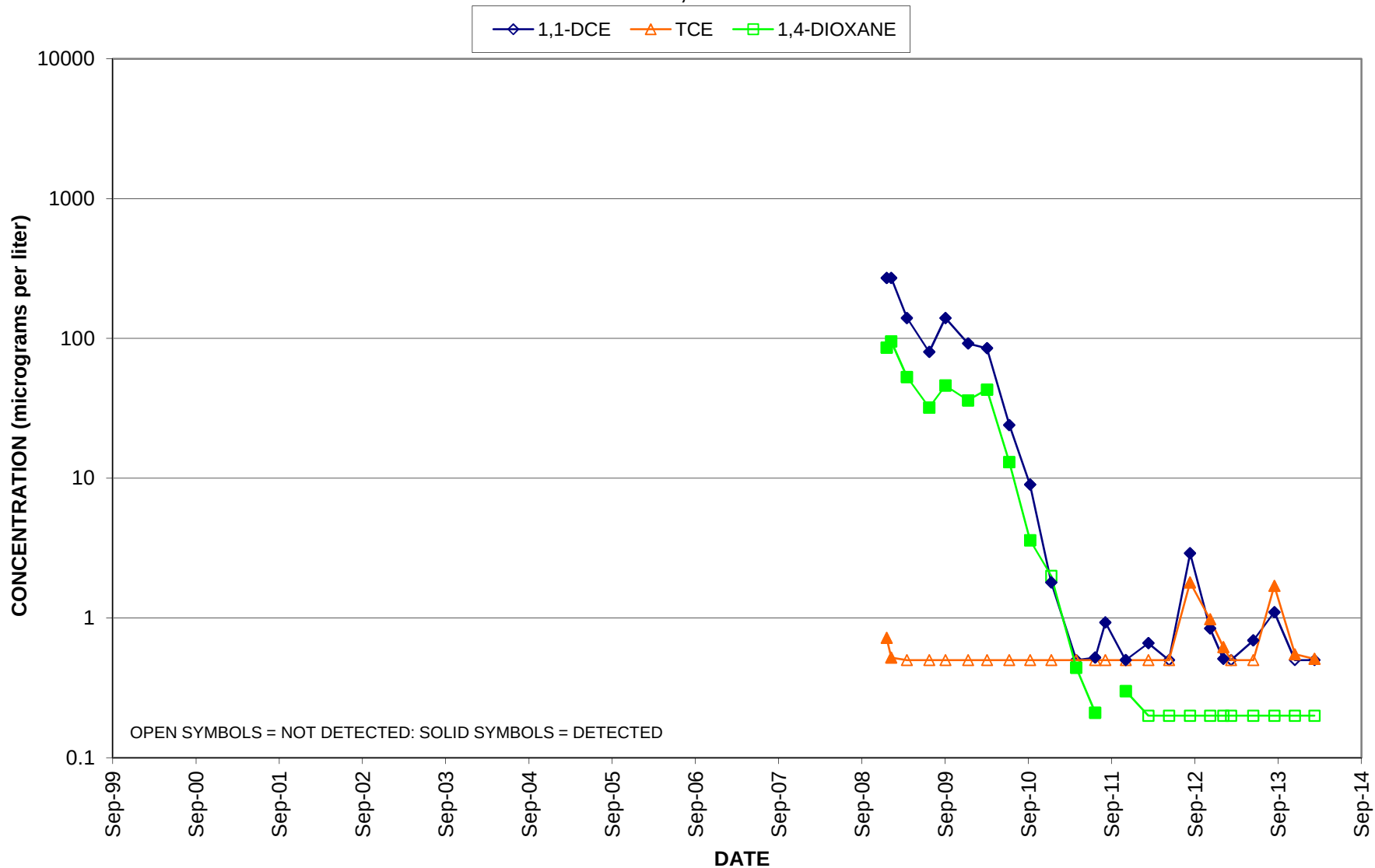




FIGURE C-9: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-31

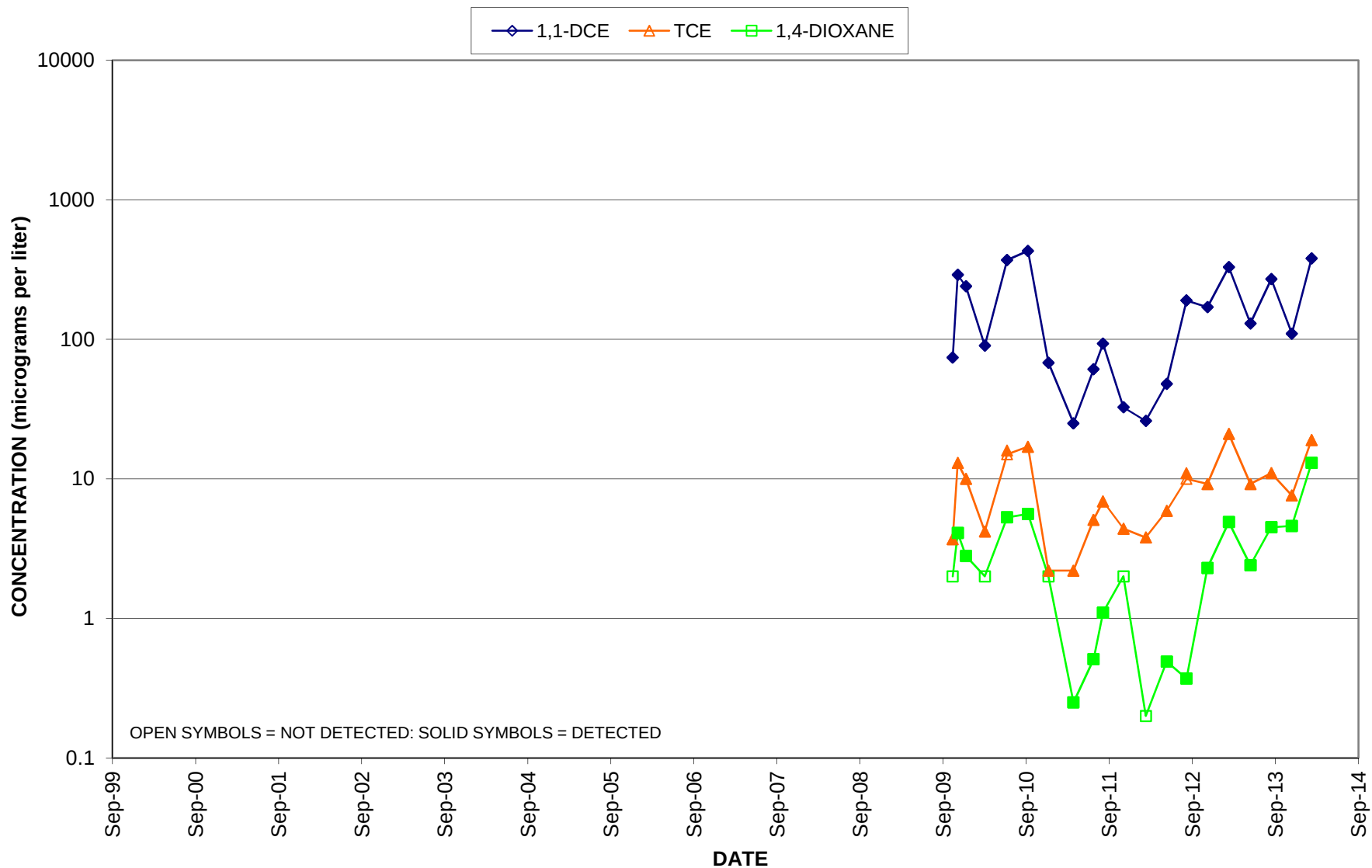




FIGURE C-10: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-32B

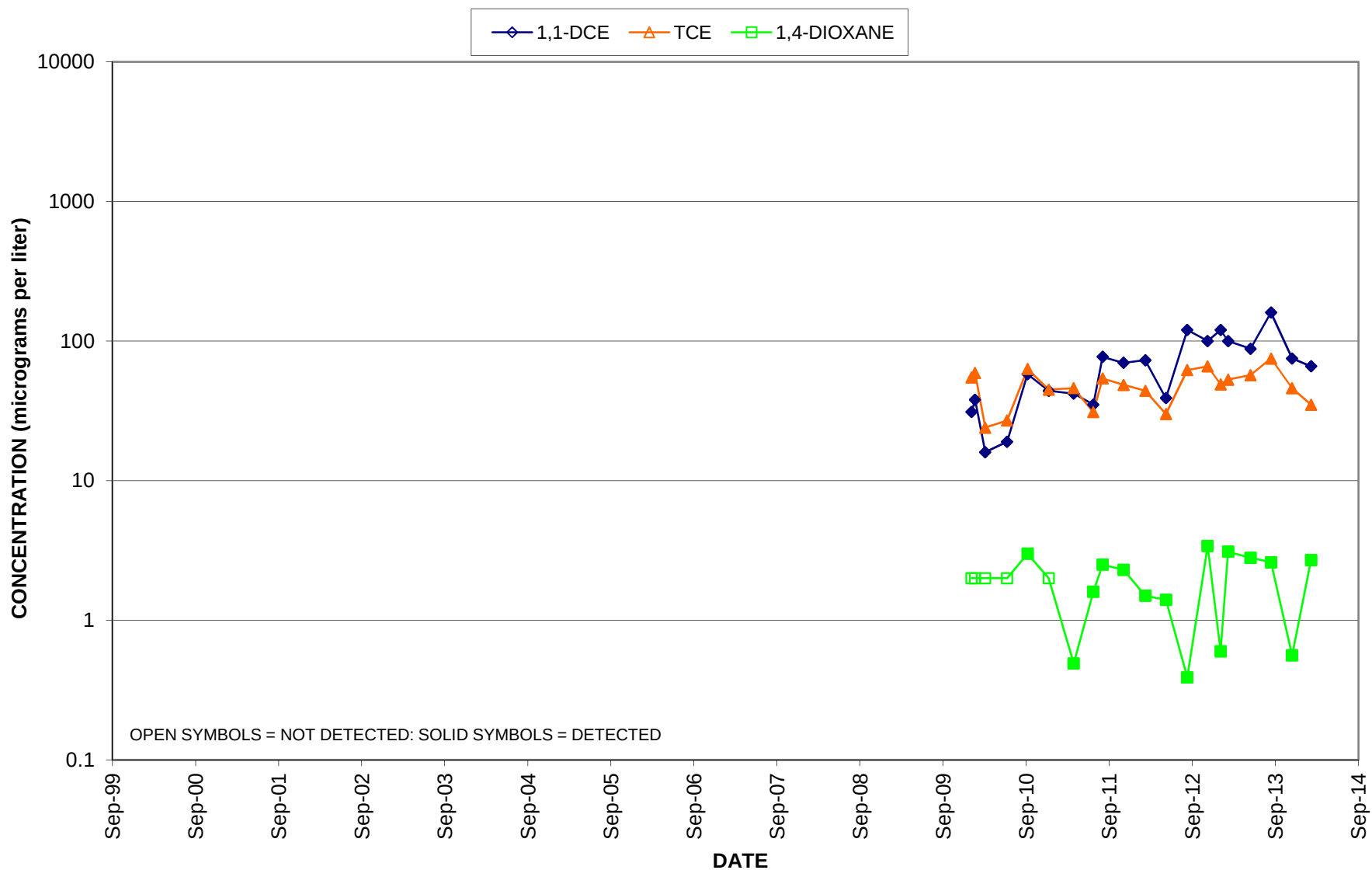




FIGURE C-11: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-33

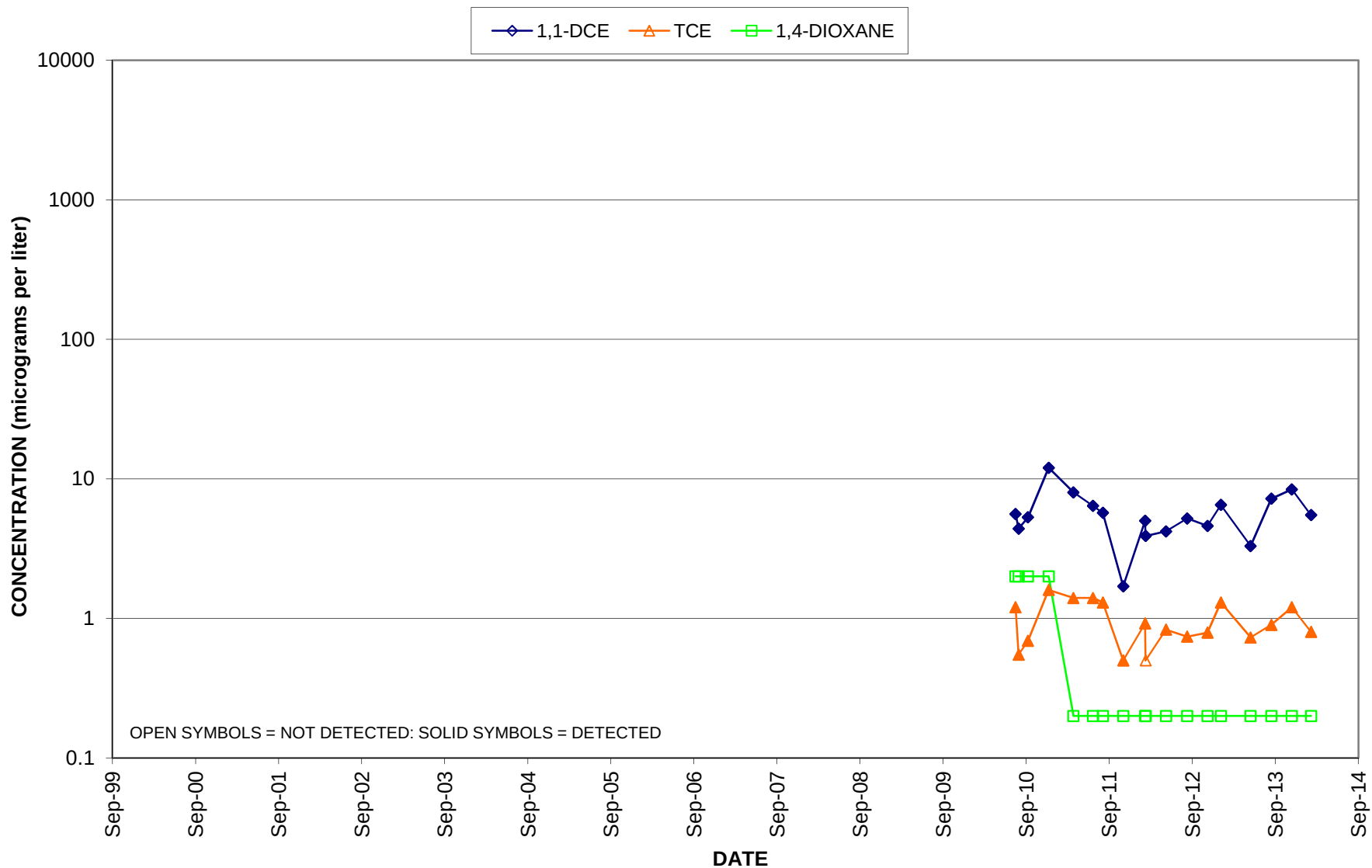




FIGURE C-12: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-34B

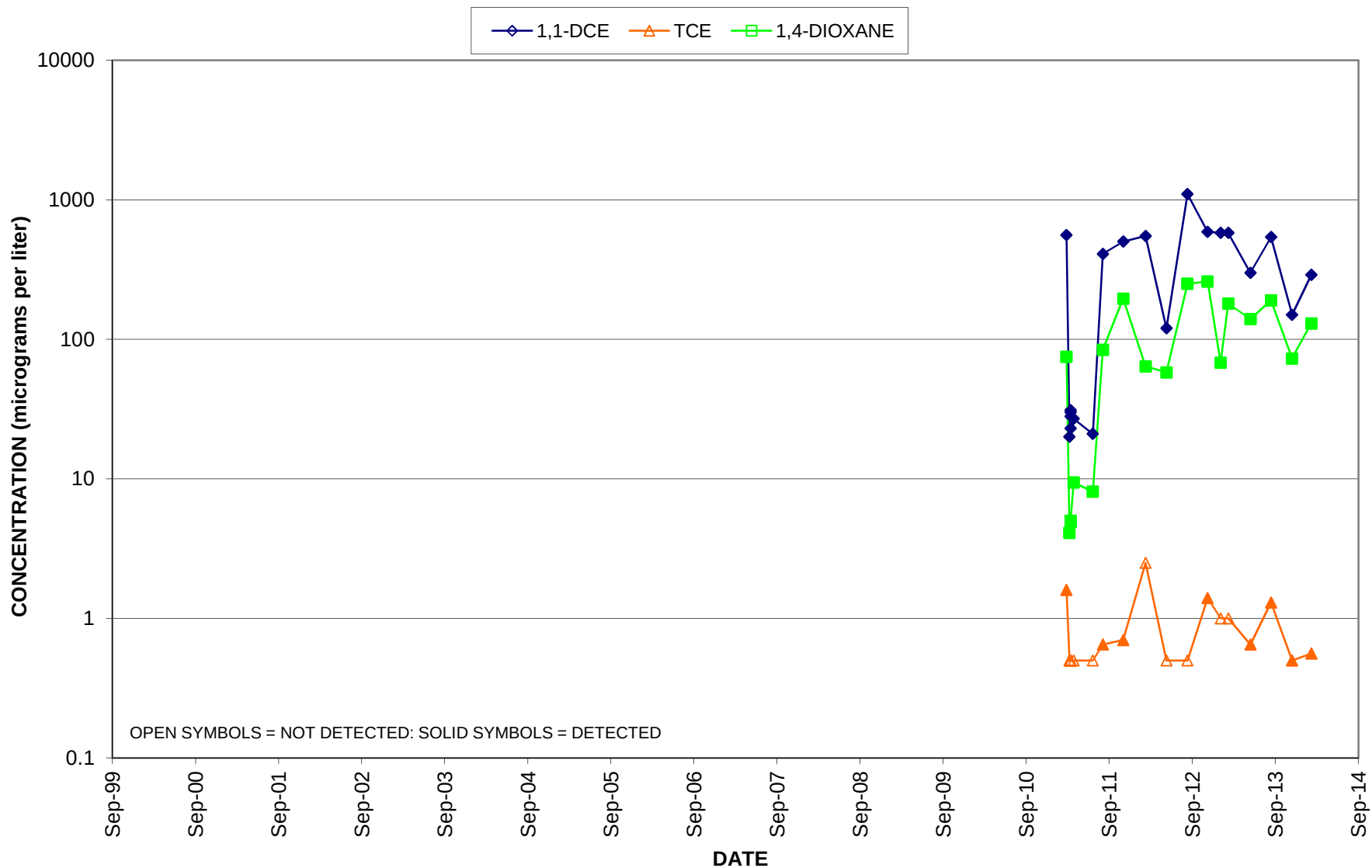




FIGURE C-13: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-35C

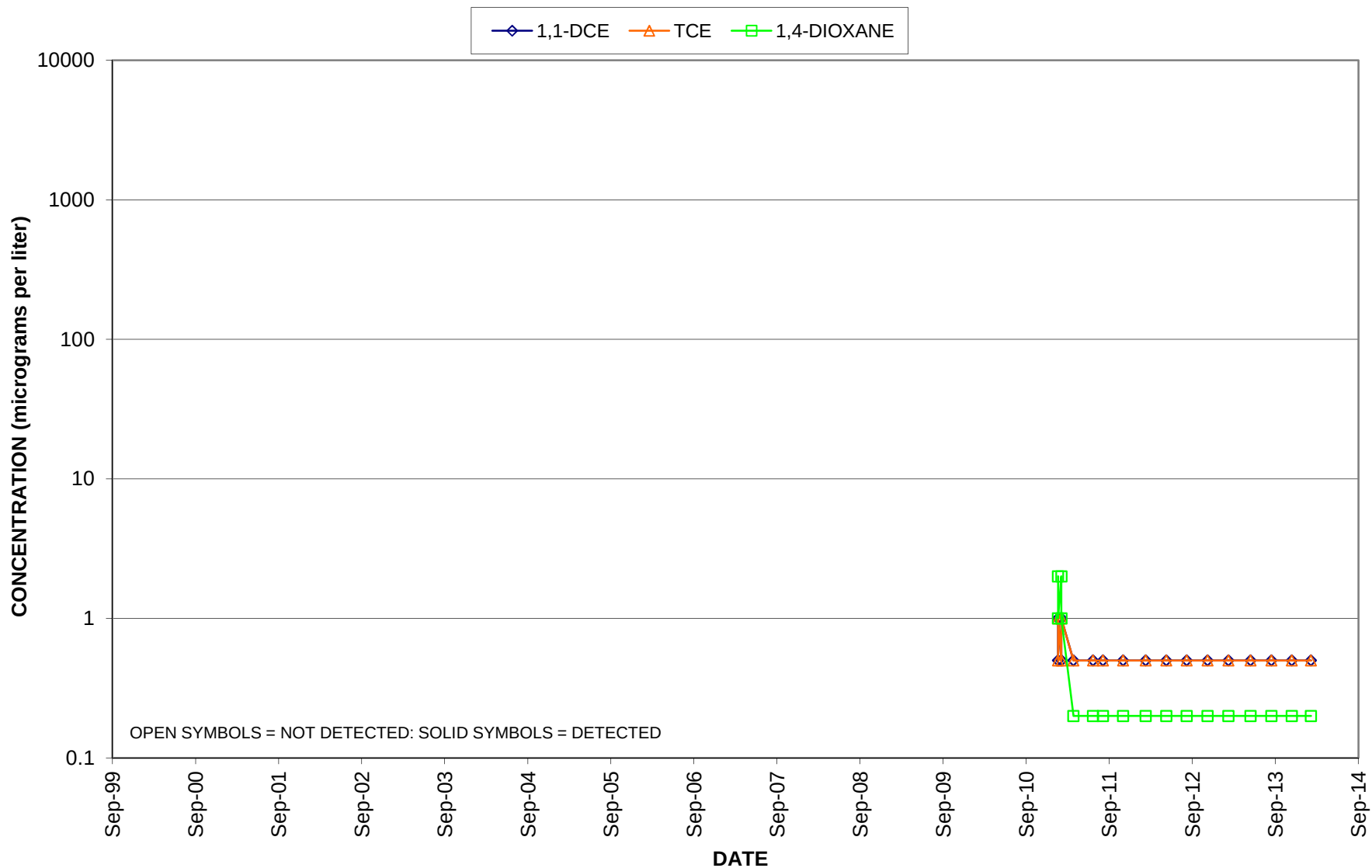




FIGURE C-14: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-36

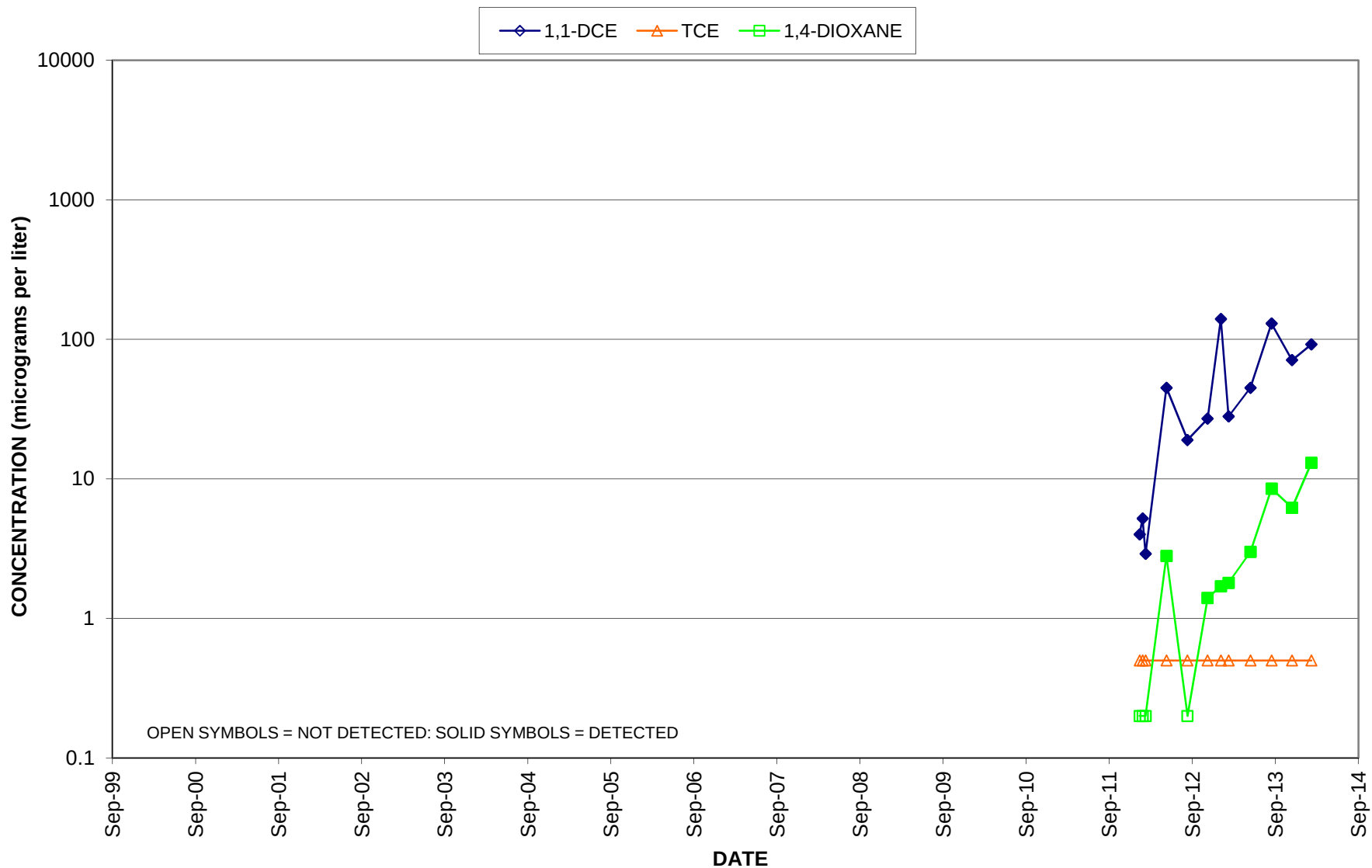




FIGURE C-15: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-37

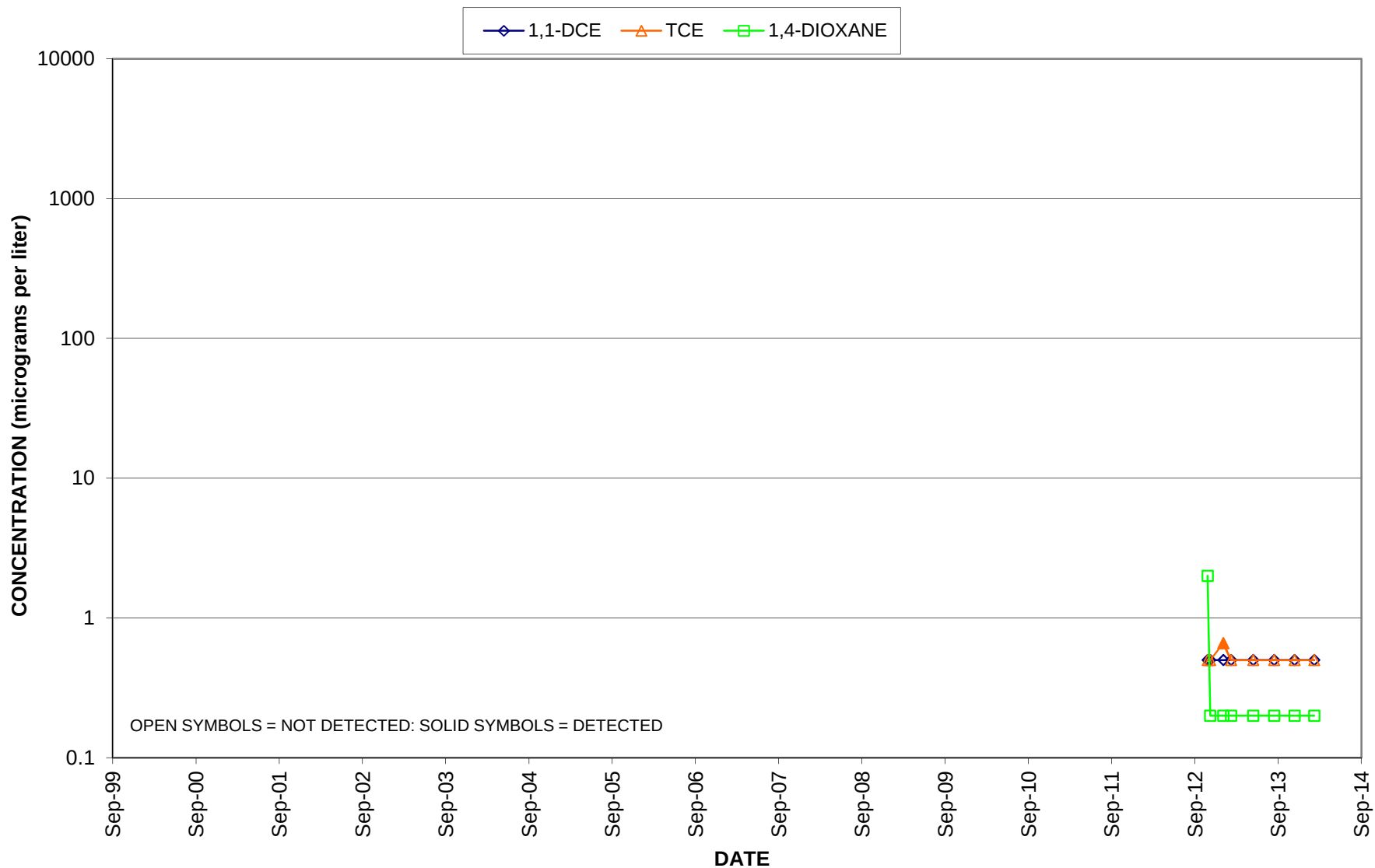




FIGURE C-16: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-39

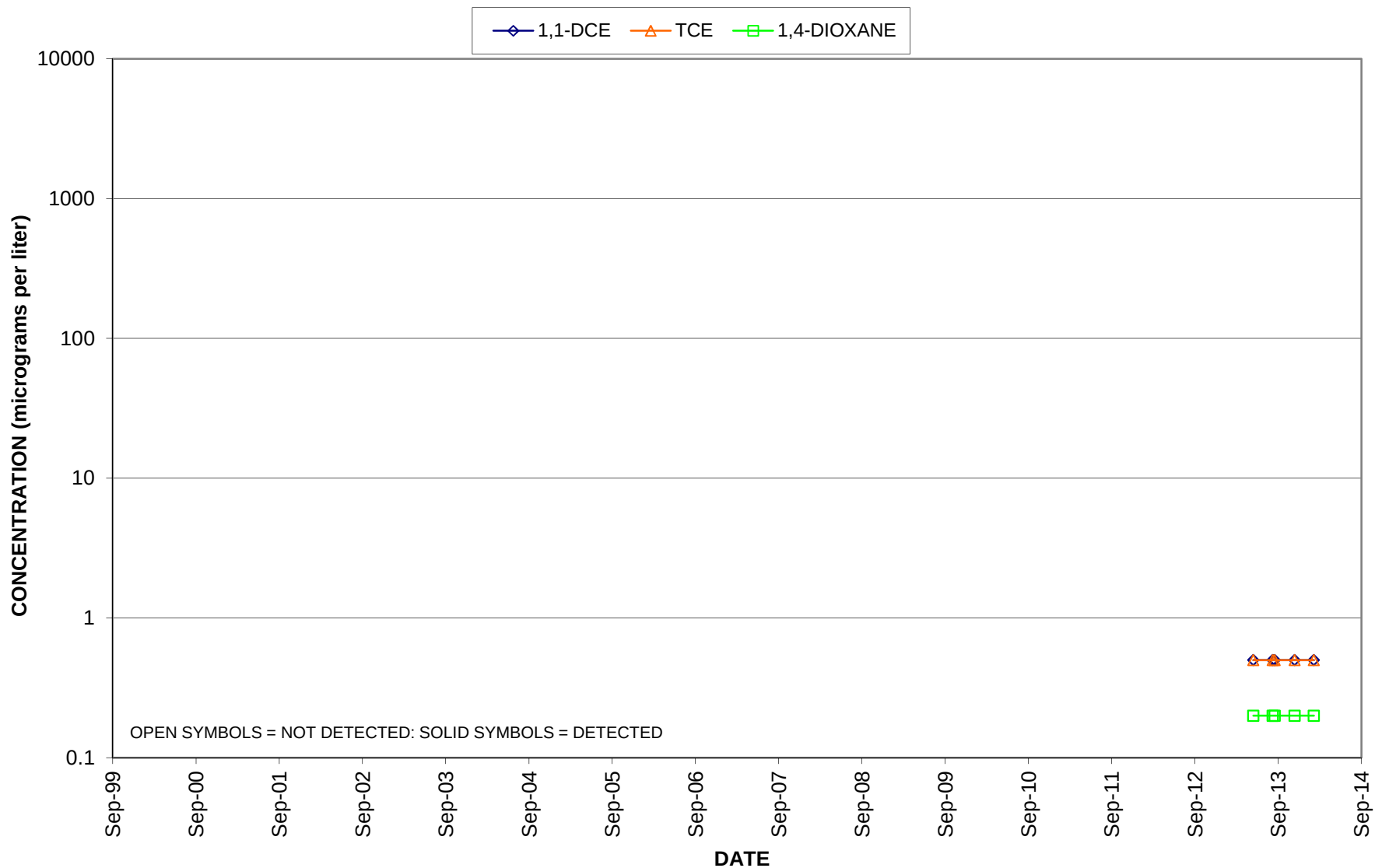




FIGURE C-17: CONCENTRATIONS OF SELECT COMPOUNDS OF CONCERN IN GROUNDWATER, UNIT B, MW-40

